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## REPORT

OF THE

## COMVISSIONER OF EDUCATION

VOLUME 2.<br>CONTAAINING PARTS II AND III.

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\text { ? WASHINCTON: } \\
\text { GUTERNMEN: FRINTING OFलIC:. } \\
1899 .
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## CHAPTER XXV.

## CHILD STUDY IN THE UNITED STATES. ${ }^{1}$

Child study has a special advantage from the standpoint of utility as well as from that of science; it not only requires rigid investigation, but whatever defect or abuormality may be found in a child is much more easily eliminated or modified than in the case of the adult.

It is often difficult to trace the origin of any morement. Although the initiatory impulse to child study was from the Continent of Europe, yet more perhaps has been done in America in the study of children than in all the rest of the world. It is therefore true that child study owes its development to our own country. Many movements are inauguratel which afterwards languish, either on account of prematureness or from want of insight into their relation to the environment at the time; those who develop and make them useful to civilization receive from society the credit.

There were few scientific observations of child life in America previous to 1880 . At about this time Dr. G. Stanley Hall began investigations on this line, and continned his inquiries up to the present time. It is due to him that child study in this country has developed and become of general interest.

In the case of teachers, Dr. Hall's purpose has been gradually to concentrate all psychology, philosophy, and ethics about child study. This is in accordance with the tendencies of evolution in all fields of investigation, and its purpose is to aid in placing educational methods: on a more scientific basis. In the words of Dr. Hall himself, the childstudy movement is slowly doing a work "for studies of the mind not unlike that which Darwin did for the methods of nature study, or that embryology has done for anatomy, viz, cross sectioning the old methods of analysis and classification of the powers and activities of the adult consciousness by bringing in a genetic method, based not upon abstraction, like Spencer's, but on a copious collection of carefully made and critically sifted objective data."

No endeavor is here made to mention the large number of those who, under the inspiration of Dr. Hall, have contributed to this movement.

We have endeavored to give some of the results of the investigations in brief, others as illustrations of work and method and others in detail, and often in the words of the report. We have selected rather
those reports which gave data or tables of facts upon which the conclusions were based. It would be premature to judge or make conclusions as to the value of many investigations in the domain of child study, for the subject is in its initiatory stages. It would be a wise person who conld tell in advance, in new lines of work, what may be valuable and what may not.

In giving the results of the reports we have followed the chronological order.

## Contents of Children's Minds on Entering School.

Under the direction of Dr. G. Stanley Hall, ${ }^{1}$ four experienced kindergarten teachers questioned three children at a time in the dressing room of the school. No constraint was used, and, as several hours were needed to finish each set, changes and rests were often required. About sixty teachers besides the four kindergarten teachers made returns from three or more children each.

The tables which follow show the general results for a number of those questions admitting of categorical answers, only negative results being recorded. Subsequently, J. M. Greenwood, school superintendent of Kansas City, Mo., tested 678 childzen of the lowest primary class, 47 of whom were colored children. The percentages are printed in the last two columns of the tables.

The first (Boston) table is based mpon about equal numbers of boys and girls. Children of Irish and American parents greatly predominate. Fourteen per cent of all examined did not know their ages; 6 per cent were four years old, 37 per cent were five, $2 \check{o}$ per cent were six, 12 per cent were seven, and 2 per cent were eight years old.

In the second table only columns 2 and 3 are based upon larger numbers. In $3 t$ representative questions out of 49 the boys surpass the girls. The girls excel in answering questions relating to the parts of the body, to home and family life, thunder, rainbow; in knowledge of the square, circle, and triangle, bat not in that of the enbe, sphere, and pyramid.

Boys seem to le more ignorant than girls of common things right about them, where knowledge is wont to be assumed.

Column 6 shows the advantage of kindergarten children over all others in respect to this kind of knowiedge.

From the tables it may be inferred-
I. That there is very little of pedagogic value the knowledge of which it is safe to assume at the beginning of school life.
II. The best preparation parents can give their children for good school training is to make them acquainted with natural objects, especially with sights and sounds of the comntry, and send them to hygienic rather than to fashionable kindergartens.
III. Any teacher on starting with a new class in a new place should explore the children's minds carefully, to make sure that his efforts are not wholly lost.
IV. The most common concepts are the earliest to be acquired. The natural order in teaching would be, for example, apples first and wheat last. (See first table.)

For 86 per cent of the questions the average intelligence of 36 country children ranks higher than that of the city children. As methods of teaching grow natural, city life seems unnatural. The city child knows a little of many more things, and so is liable to supericiality and has a wider field of error, yet the city child knows more of human nature.

Abont three-fourths of all the children questioned thought the world a plane, and many described it as ronnd like a dollar.

Wrong things were specified much moze readily and by more children than right things, and also in much greater variety. Boys say it is wrong to steal, fight, lick, break windows, get drunk, etc., while girls are more liable to say it is wrong not to comb the hair, to get butter on tho dress, climb trees, unfold the hands, ctc.
${ }^{1}$ Ped. Seminary, v. 1, 1891, p. 139.

Table 1.

Name of tho object of conception.
Beehive
Crow:-.

Bluebird
Ant
Squirrel
Snail.
Robin.
Sheep -
Sheep
Frog
Pig.
Chicken
Butterfly
Hen
Cow
Growing wheat
Elm tree
Poplar tree
Willow.
Growing oats.
Oak tree
Pine.
Maple
Growing moss
Growing strawberrics
Growing clover
Growing beans.
Growing blueberrics
Growing blackberries
Growing corn
Chestnut tree
Peaches on a tree.
Growing potatoes
Growing buttercups
Growing rose..
Growing dandelion
Growing eherrics
Growing pears.
Where are the child's ribs
Where are the chill's lungs
Where is the child's heart.
Where is the child's wrist.
Where are ankles
Where is waist..
Where are hips.
Where are knuekles.
Where are clbows .
Knows right and Ieft hand
Knows cheek.
Knows forehcad
Knows throat.
Knows knee
Knows stomach.
Dew.
What season it is.
Seen hail
Seen rainbow
Seen sunrise
Seen simset
Seen stars.
Scen moon
Conception of an island
Conception of a beach
Conception of woods
Conception of river
Conception of pond
Conception of hill.
Conception of brook.

| Per cent of childrenignorant of it.a |  |  |
| :---: | :---: | :---: |
| In Bos. ton. | In Kansas City. |  |
|  | White. | Colored. |
| 80 77 | 59.4 | 66 |
| 72.5 | 47.3 | 59 |
|  | 21.5 | 13.1 |
| $\begin{aligned} & 63 \\ & 62 \end{aligned}$ | 15 | 4.2 |
| 60.5 | 30.6 | 10.6 |
| 67. 54 54 |  |  |
| 54525 | 3.5 |  |
|  | 7.27 | 4.2 |
| 52 50 | 2.7 |  |
| 47.5 | 1. 7 |  |
|  | . 5 |  |
| ${ }_{22}^{33.5}$ | . 5 |  |
|  | . 5 |  |
| ${ }_{19}^{20.5}$ | . 1 |  |
| ${ }^{18.5} 5$ | 5.2 |  |
|  | 23.4 | 66 |
| 91.5 | 52.4 | 89.8 |
| 89 |  |  |
| ${ }^{89}$ 87.5 |  |  |
| 8787 | 62.2 | 58.6 |
|  | 65.6 | 87.2 |
| 87 83 | 31.2 | 80.8 |
| 81.578.5 | 30.7 | 42.5 |
|  | 74 .................... |  |  |
|  |  |  |  |
| $\begin{aligned} & 71.5 \\ & \hline 1.5 \end{aligned}$ |  |  |
| $6{ }_{6} 5$ |  |  |
| ${ }^{65} 5.5$ |  |  |
| 64 |  |  |
| 6361 |  |  |
|  |  |  |  |  |  |
| 55.5 |  |  |
|  |  |  |  |  |  |
| 53 |  |  |
| 52 |  |  |
| 46 |  |  |
|  |  |  |  |  |  |
|  |  |  |
| 90.5 | 13.6 | 6.4 |
| 81 | 26. | 44.6 |
| 80 | 18. 5 | 18.1 |
| 70.5 | 3 |  |
| 65.552.5 | 14.1 |  |
|  | 14 | 4.2 |
| 45 |  | 4.2 |
| ${ }_{36}$ | 2.8 | 8.5 |
| 25 | 1.5 |  |
| 21.5 | 1 | 10.2 |
| 18 | . 5 |  |
|  | . 5 |  |
| 13.5 | 1.1 |  |
| ${ }_{6}^{7}$ | 1.6 |  |
|  | 27.2 | 45.9 |
| 78 | 39.1 | 70.2 |
| 75.5 | 31.8 | 56.1 |
| 73 | 13.6 | 18.1 |
| 65 | 10.3 | 2.1 |
| 56.5 | 16.6 |  |
| 53.5 | 19.5 |  |
| 35 | 7.3 |  |
| 14 | 3 |  |
| 7. | 26 | 53 |
| 55.5 |  |  |
| 53.5 |  |  |
| 48 |  |  |
|  |  |  |
| 15 |  |  |

a The Boston children wero mainly from 4 to 8 years of age; in Kansas City they were of the lowest primary class.

Table 1-Continued.

| Name of the object of conccption. | Per cent of children ignorant of it. |  |  |
| :---: | :---: | :---: | :---: |
|  | In Boston. | In Kansas City. |  |
|  |  | White. | Colored. |
| Conception of triangle | 92 |  |  |
| Conception of square.. | 56 |  |  |
| Conception of circle... | ${ }_{38}^{35}$ |  |  |
| The number five... | ${ }_{17}^{28.5}$ |  |  |
| The number three. | 8 |  |  |
| Seen watchmaker at work | 68 | 30.1 | 49.7 |
| Seen file. | 65 | 20.8 | 36.1 |
| Seen plow | 64.5 | 13.9 | 8.5 |
| Seen spade | 62 | 7.3 |  |
| Seen hoe -. | 61 | 5 | 10.6 |
| Seen bricklayer at work. | 44.5 | 10.1 | 2.1 |
| Seen shoemaker at work | 25 | 8.7 |  |
| Seen ax ..... | 12 |  |  |
| Knows green by name | 15 |  |  |
| Knows blue by name. | 14 |  |  |
| Knows yellow by name | ${ }_{9}^{13.5}$ |  |  |
| That leathern things como fiom animals | 93.4 | 50.8 | 72.3 |
| Maxim or proverb...... | 91.5 |  |  |
| Origin of cotton things | 90 | 35.7 |  |
| What flour is made of. | 89 | 34.7 | 57.4 |
| Ability to knit .... | ${ }_{88}^{81.1}$ | 33.1 | 53 |
| Shape of the world. | 70.3 | 46 | 47 |
| Origin of wonlen things. | 69 | 55 | 4 |
| Never attended kindergarten | 67.5 |  |  |
| Never been in bathing..... | 64.5 | 13.4 |  |
| Caia tell no rudiment of a story | 58 | 23.6 | 12.7 |
| Not know wooden things are from trees | 55. | 19.3 | 6.4 |
| Origin of butter. | 50.5 | 6.7 |  |
| Origin of meat (from animals) Can not sew.................. | 48. | 8.3 | 12.7 |
| Can not strike a giren musical ton | 40 | 23.4 |  |
| Can not beat tim9 regularly . | 39 |  |  |
| Have never saved cents at home | 36 | 8.2 | 12.7 |
| Have never been in the coantry | 35.5 | 13.1 |  |
| Can repeat no verse | 28 | 20 | 42.5 |
| Source of milk | 20.5 | 4 |  |

Talsek 2.-(Boston children).

| Name of the object of conception. | Per cent of ignoranco in 150 girls. | Per cent of ignorance in 150 boys. | Per cent of ignorance in 50 Irish children. | Per cent of ignorance in 50 American children. | Per cent of ignorance in 64 kindergarteu children. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Beehive....... | 81 | 75 | 86 | 70 | 61 |
| Ant... | 59 | 60 | 74 | 38 | 26 |
| Squirrel........ | 69 | 50 | 66 | 42 | 43 |
| Snail ........... | 69 | 73 | 92 | 72 | 62 |
| Robin .......... | 69 | 44 | 61 | 36 | 29 |
| Sheep | 67 | 47 | 62 | 40 | 40 |
| Bee... | 46 | 32 | 52 | 32 | 26 |
| Frog .... | 53 | 38 | 54 | 35 | 35 |
| Pig.... | 45 | 27 | 38 | 26 | 22 |
| Chicken | 35 | 21 | 32 | 16 | 22 |
| Worm | 21 | 17 | 26 | 16 |  |
| Buttertly | 14 | 16 | 26 | 8 | 14 |
|  | 15 | 14 | 18 | 2 | 14 |
|  | 18 | 12 | 20 | 6 | 10 |
| Growing clover... | 59 | 63 | 81 | 42 | 29 |
| Growing corn...... | 58 | 50 | 60 | 68 | 32 |
| Growing potatoes.. | 55 | 54 | 62 | 44 | 34 |
| Growing buttercup | 50 | 51 | 66 | 40 | 31 |
| Growing rose ....... | 48 | 48 | 60 | 42 | 33 |
| Growing dandelion.. | 16 | 42 | 82 | 34 12 | 31 |
| Ribs......... | 88 | 92 | 98 | 82 | 68 |
| Ankles | 58 | 52 | 62 | 40 | 38 |

Table 2.-( Toston children)-Continned.

| Name of the object of conception. | Per cent of ignorance in 150 girls. | Per cent of ignorance in 150 boys. | Per cent of ignorance in 50 Irish children. | Percent of ignorance in 50 Amorican children. | Per cent of ignorance in 64 kindergarten children. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Waist...... | 53 | 52 | 64 | 32 | 36 |
| Hips .......... | 50 | 47 | 72 | 31 | 21 |
| Knuckles .. | 27 | 27 | 34 | 12 | 23 |
| Elbow. | 19 | 32 | 30 | 16 | 12 |
| Right from left hand.. | 20 | 8 | 14 | 20 | 4 |
| Wrist .............. | 21 | 34 | 44 | 9 | 19 |
| Cheek. | 10 | 12 | 14 | 14 | 4 |
| Forehead. | 10 | 11 | 12 | 10 | 7 |
| Throat. | 10 | 18 | 14 | 16 | 14 |
| Knee.. | 4 | 5 | 2 | 10 | 2 |
| Dew... | 64 | 63 | 92 | 52 | 57 |
| What season it is . | 59 | 50 | 68 | 48 | 41 |
| Hail......... | 75 | 61 | 84 | 52 | 53 |
| Rainbow. | 59 | 61 | 70 | 38 | 38 |
| Sunrise.. | 71 | 53 | 70 | 36 | 53 |
| Sunset. | 47 | 49 | 52 | 32 | 29 |
| Star.... | 15 | 10 | 12 | 4 | 7 |
| Island.. | 74 | 78 | $8 \stackrel{1}{2}$ | 64 | 55 |
| Beach. | 82 | 49 | 60 | 34 | 32 |
| Woods | 46 | 36 | 46 | 32 | 27 |
| River.. | 38 | 44 | 62 | 12 | 13 |
| Pond.. | 31 | 34 | 42 | 24 | 28 |
| Hill... | 23 | 22 | 30 | 12 | 19 |
| The number 5 | 26 | 16 | 22 | 24 | 12 |
| The number 4 | 15 | 10 | 16 | 14 | 7 |
| The number 3 | 7 | 6 | 12 | 8 | 0 |

Children's Drawings.
Professor Barnes, of Leland Stanford Junior University, believes that through a child's drawings ' we can learn something of the way the child thinks and feels.

In order that the drawings should have some common element for comparison, a little poem was selected from Der Struwel-Peter, and was called "Hans Guck-in-die-Luft." The following is the English translation:

## STORY OF JOHNNY LOOK-IN-THE-AIR。

As he trudged along to school
It was always Johnny's rulo
To be looking at the sky
And the clouds that floated by;
But what just before him lay,
In his way,
Johnny never thought about;
So that everyone cried out,
"Look at little Johnny there,
Little Johmny Look-in-the-Air."
Running just iu Johnny's way, Came a little dog one day;
Johnny's eyes were still astray
Up on high, in the sky,
And he never heard them ers,
"Johnny, mind, the dog is nigh!"
What happens now?
Bump!
Dump!
Down they fell, with such a thump
Dog and Johnny in a lump!
They almost broke their bones,
So hard they tumbled on the stones.

```
Once with head as high as cver, Johnny walked beside the river; Johnny watehed the swallows trying Whieh was eleverest at flying. Oh! What fun! Johnny watched the bright, round sun Going in and coming out; This was all he thought about. So he strode on, only think! To the river's very brink, Where the bank was high and steep, And the water very deep; And the fishes in a row Stared to see him coming so.
One step more! Oh, sad to tell! Headiong in poor Johnny fell. The three little fishes in dismay Wagg'd their heads and swam away There lay Johnny on his face, With his nice red writing ease; But, as they were passing by, Two strong men had heard him ery; And with sticks these two strong men Hook poor Johnny out again. Oh! You should have seen him shiver When they pulled him from the river. He was in a sorry plight, Dripping wet, and sueh a fright! Wet all over, everjwhere, Clothes and arms and faee and hair; Johnny never will forget What it is to be so wet. And the fishes, one, two, three, Are eoming lack again, you see; Up they came the moment after, To enjoy the fun and laughter. Each popped ont his little head, And to tease poor Johnny, said,
"Silly little Johnny, look, Tou have lost your writing book!" Look at them laughing, and do you see His writing book drifting far to sea?
```

The children were given paper and pencils, and after writing their names and ages, the teacher read this poem to them. Then they were told to draw one or more pictures from the story, and it was read to them once more. There was no conversation and no other directions were given. The drawing occupied from fifteen minutes to an hour. Results were sent in from 6,393 children. Different ages from 6 to 10 were about equally represented. As many papers came from the city as from the country. Distinct pictures were drawn to the number of 15,218 .

Three important scenes stood out above all the rest. They were: Approaching the dog, approaching the river, and the rescuo scene. The most frequent picture drawn was Johnny meeting the dog.

Table 3 illustrates these points：
Table 3．－Showing how many childwen out of 1，000 of cach age drew the different scenes．

| Scene and sex． |  |  |  |  | $\begin{aligned} & \dot{8} \\ & \text { 淢 } \\ & \stackrel{0}{6} \end{aligned}$ | $\begin{aligned} & \dot{8} \\ & \text { 䔍 } \\ & = \\ & = \\ & = \end{aligned}$ |  | cosmen |  | 宽 | － |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Going to school： |  |  |  |  |  |  |  |  |  |  |  |  |
| Boys．．． | 84 | 118 | 92 | 82 | 172 | 110 | 165 | 165 | 151 | 116 | 172 | 145 |
|  | 152 | 174 | 156 | 218 | 172 | $17 \pm$ | 170 | 208 | 185 | 196 | 109 | 132 |
| Meeting dog： |  |  |  |  |  |  |  |  |  |  |  |  |
| Girls | 384 | 51.4 | 425 | 697 |  | 577 | 588 | 325 | 672 | 693 | 588 | 553 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Boys．． | 104 79 | 151 100 | 172 | 170 232 | 230 176 | 345 244 | 361 268 | 406 | 417 329 | 489 413 | 496 414 | 391 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 214 | 242 | 262 | 272 | 315 | 326 | 350 | 372 | 451 | 394 | 453 | 580 |
| Failing into river： |  |  |  |  |  |  |  |  |  |  |  |  |
| Boys．．． | 97 | 39 | 92 | 137 | 125 | 145 | 204 | 218 | 150 | 175 | 248 | 188 |
| Girls | 24 | 55 | 54 | 109 | 130 | 156 | 141 | 189 | 143 | 291 | 87 | 147 |
| Floating in river： |  |  |  |  |  |  |  |  |  |  |  |  |
| Boys．． | 227 | 220 | 224 | 190 | 215 | 229 | 203 | 187 | 301 | 255 | 270 | 130 |
| Girts ．．．．．． | 176 | 244 | 179 | 294 | 117 | 197 | 163 | 221 | 269 | 280 | 381 | 235 |
| Being rescued： |  |  |  |  |  |  |  |  |  |  |  |  |
| Girls | 225 | 365 | 304 | 383 | 302 | 330 | 388 | 400 | 363 | 413 | 392 | 338 |
| Dripping on bank： 45 66 115 200 177 189 274 204 275 328 313 145 |  |  |  |  |  |  |  |  |  |  |  |  |
| Girls． | 134 | 144 | 19 | 196 | 131 | 169 | $19 \pm$ | ${ }_{267}^{296}$ | 182 | 328 270 | ${ }_{338}^{313}$ | ${ }_{823}^{145}$ |
| Going lome： |  |  |  |  |  |  |  |  |  |  |  |  |
| Boys．．． | 7 | 13 | ${ }_{6}^{6}$ | 10 | 25 | 10 | 14 9 | 5 | 8 | $\frac{7}{5}$ | $\stackrel{21}{9}$ | 14 |
| Added scenes： |  |  |  |  |  |  |  |  |  |  |  |  |
| Bors． | 143 | 83 | 44 | 60 | 57 | 56 | 36 | 11 | 8 | 7 | 43 | 87 |
| Girls | 164 | 111 | 150 | 42 | 95 | 78 | 48 | 20 | 31 | 42 | 21 | 64 |

The following conclusions，according to Professor Barnes，would seem to be borme out by the study on these pictures：

1．Drawing is for the joung child a language，a means of expressing ideas．
2．Children naturally adopt symbols and conventional forms to express what they want to say．

3．The courage to express ideas through drawing increases in California children until they are 13 or 14 years old and then steadily decreases．

4．The child thinks in small units；his intellectual processes are fragmentary and broken．

5．Children like to draw large，distinct figures，expressed tith fow lines．
6．Children draw full faces until they are 9 years old，and after that profles．
7．In drawing figures children are most interested in the head；hence they draw singlo figures facing their left．

8．A child uses color naturally for decorative effect；for the drawings he prefers strong black or white．

9．Children select the dramatic points in a story well，and their pictures are natu－ rally full of movement．

10．In a story a child is most attracted by the scene just preceding the catastrophe．
11．The humane instinct in children is far stronger than the destructive instinct．
12．There is very little differenco between the drawings made by the boys and those made by the girls．

## Tine Mearing of Childrent

In Table 4 Oscar Chrisman，${ }^{1}$ of Clark University，shows the results of rarious investigations as to the hearing of shool children．In Yon Gossler＇s line， 8 ，in this table，under＂defective hearing，＂the 2.15 per centrefers to the ligher schools

[^0]and the 1.8 per cent to the lower schools. Zhermunski gives results for both whispering obtained in the ordinary way and results from the use of Politzer's acoumeter. W. stands for whispering and P. for Politzer's acoumeter. It is difficult to tell how to classify defective hearing. Schmiegelow makes three classes; he gives (I) for those hearing the ticking of a watch at a distance less than 2 meters, and (II) for those hearing between 2 and 4 meters. The parentheses around the watch distances indicate that though the watch was used the results were given in whispering.

The normal reach of hearing is the distance at which all children are counted as having defective hearing.

Table 4.


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## Childrex＇s Rights as Seen by Thengelyes．

In order to obtain without prejudice the ideas of children as to their own rights， Margaret E．Schallenberger，${ }^{1}$ of Leland Stanford Junior University，sent out a sylla－ bus to some hundreds of teachers in California．The teachers wrote stories upon the blackboard and the children answered any questions involved，finished incomplete stories，etc．They wrote their opinions as language exercises，having no idea of the use to be made of them．Three thousand papers were sent in．The following is the story：
＂Jennie had a beautiful new box of paints；and in the afternoon，while her mother was gone，she painted all the chairs in the parlor，so as to make them look nice for her mother．When her mother camo home，Jennio ran to meet her，and said，＇Oh， Mamma，come and see how pretty I have made the parlor；＇but her mamma took her paints away and sent her to bed．If you had been her mother，what would you have done or said to Jennie？＂
The results from the answers（given below the double rule in the table）were reduced to the number per 1,000 for the whole number examined in each case．

Table 5.
［Raised to standard of 1,000 ．］

|  | 定 | \％ | 㵄 | $\stackrel{\dot{n}}{0}$ | 突 | ＋ | 宊 | ¢ | 守 | 安 | 㵄 | 家 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | 6 years． |  | 7 years． |  | 8 years． |  | 9 years． |  | 10 Jears． |  | 11 years． |  |
| amined． | 43 | 32 | 61 | 56 | 112 | 117 | 172 | 151 | 221 | 159 | 515 | 167 |
| Ignorant | 23 | 0 | 43 | 0 | 74 | 77 | 110 | 52 | 142 | 90 | 161 | 76 |
| Explainer | 0 | 0 | 0 | 18 | 16 | 17 | 23 | 40 | 77 | 65 | 129 | 53 |
| Don＇t do it again | 23 | 91. | 82 | 89 | 49 | 34 | 41 | 53 | 65 | 70 | 81 | 41 |
| Made to promise | 0 | 0 | 0 | 18 | 8 | 0 | 6 | 7 | 9 | 0 | 37 | 0 |
| Threatened．． | 0 | 0 | 0 | 0 | 25 | 17 | 0 | 20 | 26 | 35 | 37 | 35 |
| Scolded． | 46 | 45 | 115 | 53 | 100 | 119 | 226 | 73 | 168 | 75 | 161 | 148 |
| Clean chair | 23 | 45 | 16 | 125 | 41 | 68 | 29 | 46 | 95 | 115 | 110 | 112 |
| Confined． | 93 | 0 | 98 | 107 | 180 | 94 | 139 | 79 | 108 | 75 | 115 | 89 |
| Lose meal． | 70 | 0 | 82 | 71 | 90 | 94 | 128 | 145 | 129 | 140 | 97 | 118 |
| Lose paints | 232 | 136 | 147 | 125 | 189 | 238 | 203 | 251 | 191 | 290 | 313 | 307 |
| Sent to bed | 488 | 273 | 391 | 427 | 418 | 383 | 377 | 429 | 400 | 455 | 340 | 372 |
| Whipped | 512 | 590 | 452 | 409 | 385 | 451 | 452 | 541 | 323 | 480 | 285 | 478 |
| Punished | 0 | 0 | 16 | 18 | 41 | 17 | 23 | 33 | 9 | 20 | 46 | 18 |
| Peculiar punishments ．．． | 23 | 91 | 49 | 53 | 16 | 34 | 35 | 40 | 9 | 20 | 64 | 30 |

${ }^{1}$ Ped．Seminary，October， 1894.

Table 5－Continued．

|  | 艺 | － | 守 | $\stackrel{\dot{n}}{\stackrel{\text { ¢ }}{+}}$ | 安空 | 㧫 | $\stackrel{\square}{\text { ¢ }}$ | \％ | \％ | 家 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | 12 years． |  | 13 years． |  | 14 years． |  | 15 years． |  | 16 years． |  |
| Whole number ex－ amined | 204 | 180 | 210 | 16） | 178 | 1 C 7 | 154 | 109 | 153 | 135 |
| Ignorant | 230 | 92 | 287 | 161 | 210 | 236 | 38. | 270 | 358 | 393 |
| Explained | 142 | 39 | 263 | 118 | 286 | 153 | 403 | 270 | 494 | 326 |
| Don＇t do it again | 103 | 28 | 75 | 50 | 81 | 130 | 64 | 81 | 78 | 96 |
| Made to promise． | 15 | 0 | 28 | 0 | 17 | 24 | 26 | 9 | 26 | 30 |
| Threateried．．．． | 25 | 14 | 42 | 50 | 22 | 65 | 58 | 27 | 46 | 67 |
| Scolded．．． | 152 | 69 | 85 | 143 | 106 | 146 | 122 | 90 | 111 | 59 |
| Clean chairs | 137 | 70 | 108 | 167 | 134 | 130 | 109 | 153 | 130 | 96 |
| Confined． | 98 | 46 | 94 | 56 | 90 | 47 | 64 | 27 | 46 | 7 |
| Lose meal | 103 | 49 | 71 | 124 | 62 | 71 | 45 | 108 | 83 | 30 |
| Lose paints | 358 | 238 | 376 | 403 | 246 | 266 | 282 | 261 | 247 | 165 |
| Sent to bed | 338 | 210 | 249 | $3 \pm 7$ | 263 | 189 | 154 | 207 | 267 | 148 |
| Whipped | 279 | 214 | 235 | 372 | 129 | 212 | 70 | 135 | 52 | 133 |
| Punished | 25 | 11 | 5 | 19 | 6 | － 12 | 19 | 45 | 33 | 15 |
| Peculiar punishments ．．． | 44 | 45 | 61 | 62 | 08 | 53 | 38 | 72 | 33 | 30 |

Some of the most striking results are the reasons given for punishing Jennie；one is for the sake of revenge，another is to prevent a repetition of the act，and a third is for the purpose of reforming Jennic．

Of 2,000 children six years of age some would explain to Jennie why it was wrong to paint the parlor chairs．The young children think of the results of an action；if it is bad，punishment should follow．But the older children consider the motive that led to the action．The boys show much less merey than the girls．Out of 1,000 girls six years of age 512 would whip Jennie；oat of the same number of beys， 590 would whip her．At sixteen 52 girls and 133 boys would whip her．

Threats and forced promises made very little impression．Absix jears of age out of 2,000 none woulk throaten；at twelve years， 39 ；at fifteen years， 85 ．Threats probably appeal to children so little on account of their indefiniteness as to time．

## Motor Ability．

The following proliminary stady of motor ability was mado by J．A．Hancock，${ }^{\text {a }}$ of Clart University．The purpose of this study was to find（1）what movements chil－ dren can make best；（2）to learn something more definite of the relative ability of children and adnlts，and of the relation botween development and decline of motor ability，and（3）to find simple tests for incipient nervous iliseases．

In order to carry this study out，the following series of suggestions and questions were used as tosts．Two or three papils were taken at a time．

> FIRST SERIES.

1．Ask the child to stand with feet close together and hands at sides．Is there any swaying of the body？Try same with eyes closed．What difference？

2．Have him walk across the room hackward with eyes closed．（Keep near him to prevent falling．）Is there any dragging of either foot，walking with feet wide apart， or tuming to right or left？

3．Have him try to sit still a half minute exactly．Note all the movements he makes in the effort．Does he hold his breath？

4．Ask him to close his eyes and hold his hands out horizontally with the fingers spread．Is there tremor or twitching of tho fingers？Which ones and in what direc－ tions？Is it slight or distinct？
5. Hold your hands above your head out of sight and with palms front. Ask him to do the same. Does he raise them to the same height? Hold them symmetrically? Are the fingers or thumbs spread apart on either hand? Which? Which hand sinks first on a half minnte's trial? Hold up your own hands but a moment.
6. Place him 10 feet away. Toss back and forth ten times a ball as large as a tennis ball. How and where does he throw it? How many times does he catch it?
7. Ask the boys to lie down on their backs, if they are willing. How do they get up? Have they diffienlty?
8. Ask for the pronunciation of these letters and words and note errors: $r, l, s, t$, $\mathrm{k}, \mathrm{d}, \mathrm{f}, \mathrm{n}, \mathrm{v}, \mathrm{y}$, go, which, thin, the, long, show.
9. What signs of mental fatigue have you noticed in him in school work? Has he made any involuntary morements during these tests?
10. Please add any comments or suggestions that may oceur to you.

## SECOND SERIES.

1. Does the child dress himself? Button his elothing, and fasten hooks and eyes?
2. Can he tie the ends of a string together? In what kind of a knot?
3. Can he thread a needle? How small a one! In which hand does he hold it?
4. Can he interlace slats? Interlace four and six before him. See patterns 1 and 2. Does be even copy the pattern?
5. Can he wind thread on a spool? How does he do it?
6. Can he spin a top made of half a spool or of a button mold? Can he snap a marble?
7. Can he hop on each foot? Stand on tiptoes or heels? Tonch his knees or shoes while standing?
8. Place before him pattern number three; give him squares of paper or square blocks; ask him to imitate it. Then show him number four. Does he shift the outer blocks of number three to make the other figure, or does he build anew from the beginning? The patterns may be shown him drawn full size on paper or made of the bloeks. If he fails, divide each pattern vertically in the middle; try him and note results.
9. Count and beat time, double, treble, and quadruple. Can he do it? Rapidly?
10. Does he swing his arms or sway his body when walking? Can he march, keeping step as you count time or play for him? Can he run and keep time? Does he, when marching, move the head, eyes, mouth, or tongue?
11. Pat the top of your head and at the same time move the other hand in a cirele on the breast. Can he imitate you?
12. Rest your forearms on the table, the hands in an easy position, with the fingers curved and the lower parts of the palms and the tips of the fingers touching the surface of the table. Begin tapping, letting the movements proceed rapidly from the little fingers to the thumbs. Ask him to imitate you. Notice the movements he actually makes. Are they with the hand and arm moving together from the ellow; the whole hand moving from the wrists; all of the fingers moving in unison from the knuckles; or with index fingers alternating with the other three? Reverse the tapping, beginning with the thumbs. Can he imitate you any better? Just what does he do?
13. C'an he drive a nail, or hit it squarely after several trials when started for him?
14. Can he roll a hoop? Skate? Turn a somersault, or walk on his hands? (The boy, of conrse).
15. What movement seems to you the most difficult for children to learn?

The ages of the children tested were five, six, and seven; all were in the first year of school work. An apparatus known as an ataxeograph was employed to study the ability of children to keep quiet.

As the position of the body requires a coordination of a large number of the largest museles, a test would show something of the control of these muscles. The child stood with feet close together and hands at sides. The child was asked to keep his attention on a distant object, and try to stand still for a minute. The amount of movement was measurel; then the child rested for half a minute, and the test was repeatol with ejes closed, and the amount of movement or swaying measured. The amount of movement is much greater for children than for men. The rectangles that would just contain the tracings of the instrument in the anteriorposterior and lateral directions were measured and are given in the following tables:

Table 6.

|  |  |  | waying or | movemen |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of persons. | Age in | Eyes | open. | Eyes | closed. |
|  |  | Anteriorposterior. | Lateral direction. | Anterior posterior | Lateral direction. |
| 35 boys | 5 | $\begin{aligned} & \mathrm{Cm} . \\ & 5.8000 \end{aligned}$ | $\begin{aligned} & C m . \\ & 5.2228 \end{aligned}$ | Cm. <br> 6. 6810 | $\begin{aligned} & C m ., \\ & 5.7675 \end{aligned}$ |
| 22 girls. | 5 | 5. 7773 | 4.9500 | 5. 5400 | 5. 0954 |
| 47 boys. |  | 5. 1148 | 4. 2660 | 5. 6957 | 5. 1637 |
| 18 girls. | 6 | 5. 0611 | 3. 7277 | 5. 6000 | 4. 3333 |
| 23 boys. | 7 | 4. 9608 | 4. 2434 | 6. 0086 | 5. 4521 |
| 13 girls. | 7 | 3.9538 | 3.2769 | 4.8230 | 3. 7615 |

In stadying the movements, we see from Table 6 above that 110 were steadier with the eyes open than with them shut; 48 with eyes closed. As the child was shorter he would sway less than the man.

With eyes open, there was an increase of control in each year. The girls were steadier than the boys.

In order to study the steadiness of shoulder and finger, Jastrow's antomatograph ${ }^{2}$ was employed.

The arerages for both men and children were as follows:
Table 7.

|  |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| Number of persons. |

The seventh table shows the relative difference of control in child and man to be greater.

Table 8.


Table 8 above gives the results in testing the control of the entire arm by the tremograph. This instrument multiplies the movement four times; the results are reduced accordingly, and show the same general relations as in the other table.

[^3]If reckoning is made in terns of the nearest centimeter, the anterior-posterior swayings of men and children are as follows:

Table 9.

|  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 150 \text { men ..... } \\ & \text { Children . } \end{aligned}$ | 1 | 20 16 | 37 1 | 48 11 | 25 31 | 11 45 | 35 | 6 13 | ${ }_{13}^{2}$ | 1 | 2 |

The following table will show the ranges in lateral control for the shoulder:
Table 10.

|  |  |  |  |  |  |  | $\begin{aligned} & \dot{0} \\ & \text { 0 } \\ & \text { B } \\ & \vdots \\ & \vdots \\ & 0 \\ & 0 \end{aligned}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25 men $\qquad$ <br> 345 -yearold boys | 0 1 | $\begin{aligned} & 2 \\ & 0 \end{aligned}$ | 3 0 | ${ }_{1}^{2}$ | 3 0 | $\stackrel{2}{6}$ | $\stackrel{2}{0}$ | $\stackrel{2}{0}$ | $\stackrel{2}{0}$ | 3 0 | 4 3 | 0 3 |
|  |  |  |  |  |  | $\begin{aligned} & \dot{2} \\ & \stackrel{y}{4} \\ & \# \\ & \# \\ & \# \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { in } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  |  |  |  |
| ${ }^{25}$ men ............ | 0 |  | 0 4 | $\begin{aligned} & 0 \\ & 1 \end{aligned}$ | 0 6 | 0 1 | 0 1 | 0 2 | 0 1 | 0 1 | 0 1 | 0 1 |

The Boyhood of Great Men.
By a careful study of the early years of great men Mr. A. H. Yoder ${ }^{1}$ thinks that a service might be dene teachers by increasing the chances of recognizing ability in the schoolroom and in gaining some idea how to treat it. Such a study might be of more value than the study of defectives, because genius and talent can be helped easier than inferiority.

As there should be a careful study of the modes of training dullards, idiots, and defectives, so there should be knowledge as to teaching the best pupils and those of great talent.

The great men studied are modern; they were all born in the last or present centuries, except Newton, Swift, and Voltaire.

## PHYSICAL CIIARACTERISTICS OF PARENTS.

From a study of the following table Mr. Yoder finds the average age of the parents at the time of birth of the great-man child for thirty-nine fathers and twenty-five mothers is 37.78 years for the former and 29.8 years for the latter. The child born of parents in the prime of physical life probably has the better chance of greatness.

The beauty of the mothers is often spoken about. It would seem that there is an hereditary physical basis for talent at least, and perhaps for genius.

Explanation of Table 11.
The names are arranged according to the order of birth. The date of the first edition of the biograply and the date when written in case of antobiography are given. Under "family data" are given, in column 1, first the time exact (Ex.) or approximate (Ap.) of the time between the birth of the great man and the previous child or marriage, and second, the average time between the birth of the children of the same family. Column 2 shows the number for which there are data, and upon which the second set of figures in column 1 is hased. Column 3 shows first the number of living children, or those who aro old enough to have any infuence upon the great man, and second, the number born to the parents of the great man, but does not include half-brothers or half-sisters; these are indicated by $X$. Y. means "young;" O. S. means "only son;"Y.S. "Youngest son." Column 4 shows the age of the father and of the mother at the time of birth of the great man. Under "Education," "Ifome" refers to education by father, mother, or some one of the family; "Private" to instruction by a private teacher at home or in the houso of the instructor.
Table 11.

|  |  |  |  |  |  |  | Family | data. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dates | Name. |  |  |  | 1 | 2 | 3 | 4 |  |
|  |  |  |  |  |  | Yrs. Mos. |  |  | Years. |  |
| 1 | 1642-1727 | Newton. | Scient | Dan Brewster | 1833 |  |  | I-1. | 36 | Day school, academy, Cambridge. |
| 2 | 1667-1745 | Swift | Author | \{Autobiography \{John Forster. | $\begin{aligned} & 1727 \\ & 1876 \end{aligned}$ | $\begin{array}{lll} \text { Ap. } & 1 & 0 \\ \text { Ap. } & 1 & 0 \end{array}$ |  | $\underset{2-2}{\mathrm{O} . \mathrm{S}}$ |  | Kilkenny School, University of Dubliu. |
| 3 | 1694-1778 |  | Auth | John Morley | 1872 | $\begin{array}{lll}\text { Ap. } & 1 & 0 \\ \text { Ap. } & \\ 0\end{array}$ | 4 | 4-4 | 45-33 | Home by abbés, Louis le Grand. |
|  | 1694-178 | Voltaire .-.-...... |  | Jas. Parton. | $\begin{aligned} & 1881 \\ & 1889 \end{aligned}$ | Ex. 210 |  |  |  | Home by ablés, Louis le Grand. |
| 4 | 1703-1758 | Edwards | Philosopher | $\left\{\begin{array}{l}\text { Alex. V. G. All } \\ \text { Jared Sparks }\end{array}\right.$ | $\begin{aligned} & 1889 \\ & 1837 \end{aligned}$ | Ex. 19.1 | 5 | O.S. | 34-31 | Home, private, Yale. |
| 5 | 1706-1790 | Franklin | f Statesman and scientist. | \}Autobiography | 1771 | $\left\{\begin{array}{lll} \mathbf{E x .} & 2 & 1 \\ \mathbf{E x} . & 2 & 2.4 \end{array}\right.$ | 10 | $\underset{8-10}{\text { Y. S. }}$ | \} 48-38.5 | (Grammar school, 1 year; writing ( school, 1 year; self-educated. |
| 6 | 1709-1784 | Johnson | Author | $\left\{\begin{array}{l}\text { Lieut.Col. Gran } \\ \text { Boswell........... }\end{array}\right.$ | $\begin{aligned} & 1887 \\ & 1791 \end{aligned}$ | Ex. 3 2 <br> Ex. 3 0 | $2$ | $\begin{aligned} & 1-1 \\ & 1-2 \end{aligned}$ | 53-40 | $\left\{\begin{array}{l}\text { Private, two grammar schools, } \\ \text { Oxford. }\end{array}\right.$ |
| 7 | 1732-1799 | Washington | Statesman and general. | f W. Irving. <br> Jared Spar | $\begin{aligned} & 1,91 \\ & 1855 \\ & 1855 \end{aligned}$ | $\begin{array}{lll} \text { EX. } & 6 & 0 \\ \text { Ex. } & 11 \\ \text { Ex. } & 1 & 6.5 \end{array}$ | 6 | $\frac{1-2}{1-6}$ | 38-25 | Country school, Mr. Williams's School, self-educated. |
| 8 | 1736-1819 | Watt | Invento | Mairhead. | 1859 1859 |  |  | 1-2 | 37-33 | Sclf-educated, common schools. |
| 9 | 1737-1794 | Gibbon | Historian | Autob | 1782 |  | 6 | 1-1 | 30-27 | Private, Westminster, Oxford. |
| 10 | 1743-1826 | Jefierson | Statesman | \{ Autobiograph \{Jas. Parton.. | $\begin{aligned} & 1820 \\ & 1884 \end{aligned}$ | $\begin{array}{ccc} \text { Ex. } & 1 & 6 \\ \text { Ex. } & 2 \end{array}{ }^{2}$ | 8 | O. S. $3-8$ $3-10$ | 35-23 | $\left\{\begin{array}{c}\text { Day school, private, Mr. Maury's } \\ \text { William and Mary. }\end{array}\right.$ |
| 11 | 1749-1803 | Alfieri | Dramatist | Autobiography | 1790 |  |  | $\begin{array}{r}\text { O. } \\ \text { S. } \\ \substack{\text { 2-2 } \\ 2-3 \\ 2-3} \\ \\ \hline\end{array}$ | 60 Y. | Priests, academy. |
| 12 | 1749-1832 | Goethe | Poet | $\left\{\begin{array}{l}\text { Düntzer ...... } \\ \text { Autobiograph }\end{array}\right.$ | 1811 | $\begin{array}{lll} \text { Ex. } & 1 & 1 \\ \text { Ex. } & 1 & 9 \end{array}$ | 5 | $\begin{aligned} & 6-0 \\ & 1-2 \\ & 1-6 \end{aligned}$ | 39-19 | $\left\{\begin{array}{l}\text { Home, private, Leipsic, Stras- } \\ \text { bourg. }\end{array}\right.$ |
| 13 | 1757-1828 | Blako, William. | Poet and paint | Ellis and Ye | 1893 |  |  | 2-5 |  | $\left\{\begin{array}{c}\text { Home, drawing school, self-edu- } \\ \text { cated. }\end{array}\right.$ |
| 14 | 1757-1804 | Hamilton, Alex. | Statesman | John C. Hamilton | 1834 |  |  | Y. S. |  | $\left\{\begin{array}{c}\text { Private, grammar school, Colum- } \\ \text { bia. }\end{array}\right.$ |
| 15 | 1759-1805 | Schiller. | Poet. | Düntzer | 1883 | $\left\{\begin{array}{lll} \operatorname{Ap} . & 2 & 0 \\ \text { Ex. } & 3 & 0.3 \end{array}\right.$ | 3 | $\underset{2-6}{\mathrm{O} . \mathrm{S}}$ | 36-27 | $\left\{\begin{array}{c}\text { Home, private, Duke's School, } \\ \text { Stuttgart. }\end{array}\right.$ |
| 16 | 1763 | Richter | Auth | Autobiography | 1818 | $\begin{cases}\text { Ex. } & 0 \\ \hline & 10 \\ \\ \hline\end{cases}$ | 6 | 1-4 | 36 |  |
| 17 | 1769-1852 | Wellington, Duke. | General | G. A. Wright. | 1841 |  |  | 4-9 |  | Private, Eton, Angers. |
| 18 | 1769-1832 | Cuvier............ | Naturalist | Memoirs by Mrs. | 1833 | $\left\{\begin{array}{lll} \text { Ap. } & 1 & 4 \end{array}\right.$ |  | $\begin{cases}1-2 \\ 2-3\end{cases}$ | $54-\mathrm{Y}$. | $\left\{\begin{array}{l} \text { Home, elcmentary Latin, gymna- } \\ \text { siam, Académie Caroline, Stutt- } \\ \text { gart. } \end{array}\right.$ |
| 19 | 1709-1821 | Napoleon | General. | \{Arthur Léry <br> Henri Taine. | \} 1894 | $\left\{\begin{array}{lll} \ldots \ldots . . . . . . . . . . ~ \end{array}\right.$ | 13 | \{ 2-13 | 231-19 | fCollege of Antem, Bricnne, Paris / Military School. |

$\left\{\begin{array}{l}\text { Home, Dame, grammar school, } \\ \text { Edinburgh }\end{array}\right.$ Edinburgh.
Self-educated.
(Country school, Phillips Exeter, 'Girls' school, private, Jena. Girls' school, private, Jena.
(Day school, private, grammar school,
f Home, grammar school, Edinburgh I University, Oxford. $\left\{\begin{array}{c}\text { Private school, Academy, Eton, } \\ \text { Oxford. }\end{array}\right.$ Elementary Elementary school, Rugby. Home, Winchester, Oxford.
Home, private, apprentice. Home, private, apprentice.
Grammar school, Latin $\left\{\begin{array}{l}\text { Grammar school, Latin school, } \\ \text { Harvard. } \\ \text { Home, by father. }\end{array}\right.$ Home, by father.
Private, self-educ $\left\{\begin{array}{c}\text { Public school, private academy, } \\ \text { Bowdoin. }\end{array}\right.$ $\left\{\begin{array}{l}\text { Country school, } 1 \text { year; self-edu- } \\ \text { cited. }\end{array}\right.$ Public grammar school, private, (Dome, Cambridge. Private school, England; prepar-
 P Pennsylvania.

Country school and printing office. Home, Giles Academy, private.
 hurst College. $\left\{\begin{array}{c}\text { Boarding school, gymnasium, Gout- } \\ \text { tingen University, Berlin Uni- }\end{array}\right.$ Girls' school, home, Miss Latham's



 $\%$ ${ }^{5}$

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 ED 95——S2
Table 11-Continued.


## AVERAGE NUMBER OF CIILDREN.

The average number of children in the family is $6+$. This includes all the children born to the parents of the great man, but no half brothers or sisters. The time between the birth of the previous child of the marriage and the great man child is 22.87 months for 26 cases, while the average time between children of the family is 25.36 months for 33 cases. These latter facts seem to illnstrato the biological law of judicious use of a function.

## POSITION IN THE FAMILY.

By birth, 11 are " only sons" and 16 are youngest sons. The position by birth can be shown by a line, A being the first child, $B$ the middle child, $C$ the youngest child, E the older half, and F the younger half, of the family, as follows:

$$
\begin{array}{lllll}
9 & 15 & 4 & 5 & 8 \\
\hline \mathrm{~A} & \mathrm{E} & \mathrm{~B} & \mathrm{~F} & \mathrm{C}
\end{array} .
$$

Practically the 50 lived in this position:

$$
\begin{array}{ccccc}
19 & 13 & 2 & 5 & 11 \\
\hline \mathrm{~A} & \mathrm{E} & \mathrm{~B} & \mathrm{~F} & \mathrm{C}
\end{array}
$$

From these results it will be seen that by birth the chances of greatness are as 24 is to 13 and practically as 32 to 16 -that is, as 2 to 1 in favor of a child of the older half of the family. This confirms Galton's opinion.

## PIIYSICAL HEALTI.

Some biographers seem to have a tendency to contrast mental greatness with physical weakness. This may be due to the persistent idea that the body is inversely as the mind. But ill health is not a condition of greatness.

GENERAL STATEMENTS.
In regard to place of living in childhood, a large number resided in the comntry. The influence of porerty on great men is well known.
Great men have strong memories in the lines of their interests, although they may be very absent-minded gencrally speaking.

A careful study would probably show that in boyhood great men had more imagination than the arerage child. The popular itea that the great man owes his success to his mother's influence upon his education has at least many exceptions. The men given in the table above did owe much of their education to some one person, but often the mother's place was supplied by that of an aunt or other relative.

It is well known how unreliable are the estimates of the early childhood of great men, but at present there is a more scientific spirit in biographical writing, which, it is hoped, will counteract the usual tendency to exaggeration.

## Barxard Club School of Child Study.

The following syliabus for observations of children by the Barnard Club School of Child Study, of Providence, R. I., is given.

The syllabus contains "suggestions for the study of children from the second to the sisth year of school."

## SYLLABUS 2.

## Introduction.

This simple outline for child study has been prepared with the hope that it mar aid primary teachers in coming into closer personal relation with their pupils, and that by the systematic study of a few children they may come to a better knowledge of child life and child nature.

Great delicaey and tact are required, however, in attempting this work, for the child studied must not suspect that he is the object of observation, and whenever direct questions are asked he should feel that they are pronpted by friendly interest and not lyy curiosity.

It is recommended that only a few typical children in each class be studied in detail, but many points may easily be learned with regard to all the children. Walks through the school district will reveal much about their environment. Calls at the homes of the children under special study will bring out still more, while many points may be gained through oral or written exercises, which may be so planned as to come legitimately in the time devoted to language or natural science.

This work should not be taken up simply as an intcresting psychological study, but rather approached reverently, remembering that the object sought is a deeper insight into the life and thought of the little child who has been "set in our midst."

Bessie M. Scholfield.

Rhoda A. Esten.
Febrlary, 1896.
Name of observer.
Oliservation. Begun. Ended.
Name of chilel.
Date of birth.
I. Character of environment.

1. Parents.

Nationality.
Occupation.
Culture.
2. Home.

Location.
Hygienic conditions.
Esthetic influcnces.
Religious or moral influences.
3. Companions.

Brothers.
Sisters.
Playmates.
4. Playground.

Street.
Yard.
Garden.
Woods.
Fields.
5. Possessions.

Pets.
Playthings. Which most prized? Why?
Books. Which most prized? Why? Collections.
6. Ocenpation out of school.

Has the child any regular work to perform?
What form of play is most enjoyed?
II. Physical characteristics.

1. Physique: Slight or sturdy, feeble or strong.
2. Color: Of hair; of eyes; of skin (pale or rosy, sallow or clear).
3. Health: Excellent, good, poor, fluctuating.
4. Bodily defects: Defurmed or maimed.
5. Sense defects.
a. Sight.
b. Hearing.
6. Motor ability. Control of body.
a. Voluntary movements. Direct or aimless, graceful or awkward, quiet or noisy, quick or slow.
b. Antomatic. Unconscious acts accompanying study or recreation.
III. Charac eristics of temperament and disposition.

Excitable or calm.
Energetic or sluggish.
Confiding or reticent.
Sensitive or indifferent.
Hopeful or sad.
Yielding or stubborn.
Timid or courageous.
Gencrous or selfish.

```
IV. Mental characteristics.
    1. Perception.
    Color.
    Form.
    Number.
    Pitch.
    Rythm.
    Location.
2. Mernory.
    Events.
        Distinct or indlistinct.
        Accurate or modified by imagination.
    Verbal. Accurate or inaccurate.
3. Imagination.
    Feeble or active.
    Creative or imitative, as shown in play, picture making to storics.
    4. Feelings.
    Alfections. For people; for animals.
    Fears.
5. Will.
    Power of attention.
    Self-control.
    Impulsive or thoughtful, reflcctive.
    Power of choice. Prompt or vacillating.
    Obstinate, resolnte, or changeable in purpose.
6. Power of oloservation.
    Accurate or inaccurate.
7. Expressiou.
    Does the child express his whole thought or only a fragment of it?
    Vocabulary. Large or small.
    Rich or scanty in imagery.
    Is the child predominantly thoughtful, imaginative, emotional, active, or
    are all three characteristics well balauced?
8. Manners and morals.
    Obedient or disobedient.
    Tidy or untidy.
    Careful or careless.
    Persistent or easily discouraged.
    Polita or rude.
    'Truthful or untruthful.
    Humane or cruel.
```

    The Iowa Society for Child Study.
    Henrs Sabin, ${ }^{1}$ late State superintendent of public instruction of the State of Iowa, says in a paper to the teachers of that State:

The supreme object of the child's education is the child himself. Books, teachers, courses of study, methods, are but means to an end, and that end is to put the child in complete possession of all his powers, to fit him for the work of life. The new study of practical psychology is inteuded to acquaint the teacher with the aature of the child. The science is yet in its infancy, but many of the greatest educational minds in the conntry are working along the lines indicated in this circular.
The first topic investigated by this society was on "eye-mindedness" and "earmindcdness." It was disired to learn the impressions made upon the ear and eye. Those who remember chiefly through the impressions upon the sense of hearing are called "ear-minded;" of sight, "eye-minded."

## EYE-MINDEDNESS AND EAR-MINDEDNISS.

The following is the plan of investigation :
In this line of investigation the comparative value of recollection throngh impressions made upon the ear and eye is sought. Persons who recall chiefly through impressions made upon the sense of hearing are called ear-minded; those who recall chiefly through impressions made upon the sense of sight are called eye-minded; for example, in spelling, some recall the letters in a word by their sounds, others flash the letters before them in the "mind's eye," and read them as from the printed page. It is thonght that the latter, the eye-minded, are the best spellers, and if these investigations point to the same conclusion, steps may be taken to develop eyemindedness in the poor spellers.

Three sets of tests are to be made: Auditory, visual, and audo-visual. For each test prepare ten series of letters, each series containing ten letters, arranged disconnectedly, after the following manner:

$$
\begin{aligned}
& \text { 1. l, } 1, n, r, v, g, b, h, s, m \\
& \text { 2. } g, x, k, p, t, a, o, q, j, z, \text { etc. }
\end{aligned}
$$

Provide prpils with pencil and paper. Hare pupils place at head of sheet name of city, grade, name of pupil, age, nationality.
I. Luditory íest.-Pronounce slowly, abont one letter a second, and distinctly the first series, fon letters, and then give command to write. Pupils must not be permitted to begin to write until the command is given, and they must write without hesitation all the letters they can, and then stop. Then pronounce the next series in the same way, and so on till the pupils have written the ten series.
II. Visual test. - Take the second set and write the first series on the blackboard as promptly as possible and in full view of each pupil; then erase quickly and give the command to write. Pupils writo minder same limitations as in anditory test. Procoed in same manner with the remaining nine series.
III. Audo-risual test.-Take the third set and write on the blackboard, as in the visual test; then have pupils pronounce first serios in concert. Erase, and then give command to write. Pupils write under same limitations as in visual test. Proceed in same manner with the remaining nine series.

Write these three tests on the same sheet, using both sides of sheet, if necessary. If there be objections to giving pupils' names, numbers may be used, but designate the sex of the pupils. Place the average standing, or teacher's estimate, in spelling of each prpil, at the top of his paper after these tests have been made. Mark it: "Spelling, - per cent."

The Illinois Society for Child Study.
The following is a plan for the study of child's motives, suggested ly the Illinois Society for child study:

Preconceptions and theories of the observer should not be permitted to manifest themselres to the observed, and thus influence and modify the observations recorded.

## PLAN FOR THE STUDY OF CHILD'S' MOTIVES

Name of the child. Age in jears and months.
Nativity of father. Nativity of mother.
Occupation of father. Of mother.
Occupation of other members of family.
In what does the child take most interest at the present time?
(a) In what stories or books?
(b) In what games or entertainments?
(c) In what occupations?

What is the child's idea of an adult occupation for himself when grown? Reason for choice?

What experience has thus far afforded the child his greatest pleasure or joy in life?

What life experience has occasioned the greatest pain to the child?
Is the child a member of any school at present? Grade? If left wholly to his own choice would the child attend school? What seems to be the child's true motive for his choice?

Do the mere possibilities of extended social life, comradeship, furnish a leading interest in the child's school attendance?

Is there any portion of his school dutios which he performs from a sense of the intrinsic charm in the thing done?

What study interests the child most? What is the real motive prompting this interest?

Name in order of relative interest other subjects of tho course? (a), (b), (c). What seems the child's real motive why he pursues these subjects?

What portion of his school duties seem least attractive to the child, and why?
Is the child in good general health? What serious sickness, if any, has the child experienced?

Does the child's physical development appear to be normal? State any apparent defects. Are these the result of (a) Heredity? (b) Out of school environment? (c) Faulty school provisions? Does the child's mental development appear to be normal? State any apparent defects. Are these the results of (d) Heredity? (e) Faulty out of school ellviromment? ( $f$ ) Injurious school methods, etc.?

Observer.
Address.
Date.

## Childirf's Interest.

In investigations on children's interests Professor Barnes concludes (i) that children are impressed to a very small extent by the visible aspect of things; (2) that their chief interest is in the use of things; (3) that their ideas possess only light abstract characteristics. Edward R. Shaw,' of the school of pedagogy, New York University, eonsiders these conclusions as significant since they are at variance with the general praetice of teachers in schoohroon work; for to appeal to primary children, in order to get them interestcd, we must start with the use of objects and gradually lead out from what things can do and what they are made of, to their structure, form, color, etc. In the present investigation by Dr. Shaw the data were gathered from ehildren of a large eity. The list of words used was given to children in classes from the sccond to the sixth school year, inclusive, and was placed before them in the following manner: Each child was directed to write his name, age, and grade at the top of the paper. As each word of the list was spoken and immediatcly written on the blackboard, the child was to write down as rapidly as possible whatever came into his mind. The work upon one word was completed before the next word was given out. No eomenents, questions, or suggestions were allowed, so that the pupil might be as unbiased as possiblc. The object was to see what associations arose in children's minds when the names of the objects in the list were presented.
The list of heads given in the table consists of ten used by Professor Barnes and eight additional ones.
Dr. Shaw eollated 59,223 attributes (sce Table 12) from 600 pupils, 50 girls and 50 boys of each year of age from 8 sears to 13 , inclusive. The idea of "use" in Barncs's returns stands 50 per cent as compared to 12 per eent in Shaw's returns. Shaw makes of special importance the difference found in the younger child's interest as compared with the more advanced pupil. The younger child's interest is self-centered-that is, for particular and individual action, as opposed to the older child's recognition of general or universal use. The terms "use," "used," "useful," "good for," "valuable," etc., are frequent with advanced pupils but rare with the jounger ones. Barnes's results are almost the exaet opposite ; yet both investigations point to the conclusion that children's interests lie largely in what an object is good for, or what it can do.

Table 12. -Showing proportion of different attributes by returns from 50 boys and 50 girls of each age from $\&$ to 13, inclusive.
[The numbers denote the number of attributes.]

| Rank. | 8 years. | 9 years. | 10 years. | 11 jears. | 12 years. | 13 y ears. | Totals. | $\begin{aligned} & \text { Grand } \\ & \text { total. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Action: |  |  |  |  |  |  |  | 12, 865 |
| Boys. | 931 | 1,001 | 1,292 | 1,619 | 1,403 | 1,285 | 7, 531 |  |
|  | 672 | $6 \pm 6$ | 868 | 971 | 1,060 | 1,117 | 5,334 |  |
| 2. Quality: |  |  |  |  |  |  |  |  |
| Boys.. | 354 | 392 | 488 | 8.38 | 958 | 902 | 3, 952 |  |
| Girls | 306 | 322 | 652 | 879 | 1,102 | 1,272 | 4,533 |  |
| 3. Use: |  |  |  |  |  |  |  | 8,485 |
| Boys.- | 272 | 271 | 611 | 686 | 738 | 1,052 |  |  |
| Girls . | 195 | 251 | 347 | 733 | 787 | 1,022 | 3, 335 |  |
| 4. Structure: |  |  |  |  |  |  |  | 6,965 |
| Boys.. | 415 | 270 | 611 | 472 | 499 | 577 689 | 2, 544 |  |
| Girls . | 480 | 312 | 307 | 450 | 474 | 682 | 2, 705 |  |
| 5. Substance: |  |  |  |  |  |  |  | 5,249 |
| Boys.. | 127 190 | 145 270 | 332 282 | 446 424 | 516 686 | 677 767 | 2,243 2,619 |  |
|  |  |  |  |  |  |  |  | 4, 862 |

Table 12.-Showing proporiton of different attributes by returas from 50 boys and 50 girls of each age froms to 13, inclusive-Continued.


Total number of attributes, boys
Total number of attributes, girls

## Memory in School Children.

Experiments ${ }^{1}$ were made by John C. Shaw, of Clark University, to test the memory of children at different periods of school life and to determine what appeals to their senses and sympathies at different ages. To make the test, the story below, written by Dr. Hall, was used. The results are shown in Table 13.
This table gives the number of times each term of the story was remembered in the different grades. The first six columns give the grades, and the numbers are based upon 100 papers, 50 from boys and 50 from girls. The story contains 324 words and is divided into 152 parts. It was sought to have as many terms as there were distinct facts or ideas. The story was read to the pupils; they were told it would take three minutes to read it; that it was a memory test, and that they should write all they conld remember of the story after it had been read.

Table 13 shows the memory for the terms of this story as a function of the age and grade of pupil.
${ }^{1}$ The Pedagogical Seminary, October, 1896.

Tabee 13.

| The story. |  |  |  |  |  |  |  |  |  | $\begin{gathered} \text { smumpoo xis } \\ \text { 7sig dof } \partial \text { हैं } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| James | 85 | 76 | 90 | 91 | 93 | 93 | 92 | 75 | 93 | 88 |
| Mack, | 27 | 56 | 80 | 81 | 93 | 8. | 92 | 85 | 93 | 71 |
| ten years old, | 20 | 20 | 28 | 58 | 68 | 69 | 50 | 50 | 57 | 43 |
| a farmer's son, | 17 | 28 | 40 | 54 | 55 | 55 | 70 | 60 | 52 | 41 |
| dreamed | 70 | 85 | 89 | 87 | 84 | $8 \pm$ | 87 | 65 | 100 | 83 |
| that lis father | 79 | 90 | 92 | 85 | 94 | 78 | 92 | 85 | 93 | 86 |
| and mother | 89 | 97 | 95 | 95 | 93 | 91 | 94 | 9 , | 100 | 93 |
| died | 92 | 97 | 93 | 96 | 9.5 | 93 | 93 | 95 | 100 | 95 |
| very poor, | 19 | 22 | 25 | 30 | 23 | 41 | 40 | 30 | 47 | 27 |
| and left him nothing | 76 | 96 | 93 | 98 | 87 | 88 | 88 | 80 | 100 | 90 |
| but 37 cents, | 35 | 78 | 93 | 89 | 8. | 85 | 76 | 75 | 87 | 78 |
| a loait of bread, | 73 | 93 | 96 | 95 | 99 | 97 | 96 | 90 | 100 | 89 |
| aud a Bible. | 64 | 78 | 94 | 94 | 95 | 93 | 96 | 90 | 109 | 83 |
| The day after the funeral | 29 | 36 | 50 | 57 | 50 | 48 | 58 | 45 | 43 | 45 |
| he had | 13 | 37 | 38 | 23 | 31 | 30 | 46 | 25 | 47 | 28 |
| to tate these, | 6 | 15 | 21 | 29 | 28 | 27 | 14 | 25 | 20 | 21 |
| leave | 21 | 34 | 40 | 36 | 35 | 30 | 62 | 45 | 27 | 32 |
| his home | 18 | 24 | 32 | 29 | 26 | 24 | 54 | 53 | 23 | 27 |
| and his school, | 13 | 15 | 16 | 15 | 17 | 20 | 38 | 15 | 10 | 16 |
| and go out alone | 21 | 43 | 48 | 42 | 63 | 48 | 36 | 35 | 53 | 46 |
| into the wide world. | 26 | 55 | 57 | 62 | 68 | 60 | 46 | 45 | 67 | 52 |
| It was Sunday, | 10 | 10 | 23 | 33 | 32 | 32 | 16 | 20 | 30 | 23 |
| and a lame, | 10 | 15 | 12 | 21 | 29 | 24 | 10 | 15 | 33 | 18 |
| crooked, | 10 | 10 | 23 | 29 | 31 | 39 | 20 | 35 | 47 | 23 |
| little | 3 | 3 | 5 | 9 | 13 | 15 | 12 | 35 | 37 | 7 |
| old | 41 | 66 | 84 | 74 | 85 | 59 | $7 \pm$ | 80 | 90 | 67 |
| woman, | 58 | 81 | 90 | 91 | 95 | 92 | 94 | 90 | 93 | 81 |
| with a red | 20 | 20 | 24 | 40 | 37 | 43 | 34 | 40 | 63 | 30 |
| shawl | 23 | $\because 1$ | 24 | 45 | 35 | 46 | 34 | 30 | 57 | 32 |
| on her head, said, | 14 | 18 | 19 | 34 | 21 | 29 | 18 | 15 | 37 | 22 |
| "Please give me your Bible." | 44 | 73 | 87 | 81 | 85 | 79 | 83 | 65 | 71 | 77 |
| He did. | 41 | 70 | 90 | 88 | 90 | 8. | 84 | 70 | 80 | 76 |
| Soon he met | 21 | 39 | 56 | 44 | 62 | 89 | 48 | 45 | 50 | 43 |
| three | 21 | $3!$ | 39 | 38 | 42 | 20 | 30 | 30 | 37 | 34 |
| boys | 33 | 72 | 78 | 73 | 66 | 59 | 78 | 35 | 70 | 63 |
| who looked | 22 | 52 | 58 | 61 | 59 | 46 | 72 | 7 | 70 | 49 |
| so hungrily | 22 | 54 | 68 | 83 | 77 | 66 | 72 | 50 | 77 | 61 |
| at his bread | 9 | 35 | 33 | 30 | $5: 3$ | 30 | 40 | 25 | 50 | 31 |
| (so) that | 1 | 16 | 18 | 20 | 27 | 24 | 23 | 25 | 33 | 15 |
| he gave it. | 49 | 78 | 89 | 93 | 90 | 89 | 82 | 80 | 100 | $7 \pm$ |
| Then came | 0 | 3 | 1 | 1 | 3 | 0 | 0 | 0 | 7 |  |
| a ragged | 10 | 5 | 18 | 27 | 23 | 18 | 6 | 10 | 23 | 16 |
| black | 8 | 12 | 12 | 26 | 22 | 24 | 14 | 15 | 17 | 17 |
| beggar, | 20 | 42 | 44 | 50 | 57 | 67 | 44 | 60 | 57 | 48 |
| withastub | 1 | 3 | 3 | 18 | 14 | 14 | 10 | 10 | 17 | 8 |
| pipe, | 5 | 4 | 7 | 21 | 21 | 15 | 10 | 25 | 20 | 12 |
| 0118 | 6 | 20 | 34 | 29 | 39 | 27 | 18 | 15 | 20 | 27 |
| leg, | 7 | 24 | 38 | 34 | 43 | 33 | 22 | 40 | 37 | 31 |
| and a crutch, | 10 | 18 | 32 | 30 | 20 | 31 | 20 | 25 | 23 | 23 |
| and into his hat | 23 | 40 | 37 | 36 | 36 | 34 | 32 | 30 | 70 | 34 |
| James | 4 | 5 | 16 | 15 | 5 | 9 | 0 | 15 | 30 | 9 |
| dropped | 10 | 27 | 28 | 21 | 29 | 21 | 28 | 15 | 50 | 20 |
| all | 8 | 19 | 17 | 27 | 32 | 27 | 14 | 10 | 43 | 21 |
| his money. | 45 | 80 | 92 | 86 | 90 | 83 | 82 | 70 | 90 | 90 |
| To a blind | 10 | 24 | 34 | 33 | $\bigcirc 7$ | 26 | 16 | 20 | 43 | 25 |
| schoolmate, | 11 | 21 | 26 | 36 | 43 | 33 | 18 | 40 | 53 | 28 |
| with no cap, | 19 | 31 | 43 | 44 | 46 | 37 | 58 | 35 | 50 | 36 |
| James | 1 | 4 | 8 | 10 | 7 | 4 | 0 | 5 | 7 | 5 |
| gave his. | 13 | 44 | 62 | 70 | 70 | 66 | 65 | 65 | 80 | 55 |
| To a half- | 8 | 26 | 37 | 27 | 18 | 18 | 14 | 10 | 47 | 22 |
| naked, | 10 | 28 | 36 | 27 | 23 | $2)$ | 16 | 10 | 53 | 23 |
| sickly | 0 | 0 | 5 | 3 | 5 | 2 | - 12 | 0 | 7 | ${ }_{19}$ |
| fiddler | 3 | 17 | 25 | 28 | 27 | 17 | - 48 | 15 | 23 | 19 |
| boy, | 17 | 41 | 48 | 37 | 36 | 30 | 46 | 30 | 50 | 35 |
| with a lean | 2 | 10 | 17 | 26 | 24 | 18 | 20 | 15 | 37 | 15 |
| monkey, | 5 | 19 | 29 | 38 | 29 | 23 | 40 | 20 | 50 | 24 |
| he gave | 21 | 50 | 79 | 76 | 77 | 78 | 64 | 80 | 97 | 62 |
| his coat | 23 | 48 | 76 | 75 | 75 | 79 | 58 | 75 | 87 | 62 |
| and pants. | 19 | 60 | 73 | 71 | 74 | 75 | 54 | 70 | 80 | 62 |
| At right, | 7 | 21 | 33 | 28 | 29 | 32 | 28 | 25 | 23 | 26 |
| in a wood, | 44 | 80 | 89 | 96 | 95 | 91 | 86 | 100 | 93 | 82 |
| he found | 29 | 48 | 62 | 78 | 80 | 82 | 58 | 75 | 73 | 63 |
| a lost | 6 | 18 | 10 | 11 | 8 | 7 | 8 | 5 | 13 | 10 |
| baby, | 57 | 88 | 100 | 99 | 9. | 96 | 86 | 95 | 100 | 90 |
| naked, | 18 | 50 | 64 | 64 | 68 | 57 | 48 | 70 | 77 | 53 |
| crying; | 15 | 23 | 25 | 26 | 23 | 18 | 30 | 30 | 13 | 21 |
| and as it was dark | 4 | 8 | 13 | 2. | 25 | 30 | 10 | 15 | 37 | 17 |
| took off |  | 49 | 68 | 58 | 63 | 57 |  | 65 | 90 | 55 |

Table 13-Continued.

| The story. |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| his last | 27 | 57 | 78 | 75 | 81 | 71 | 62 | 80 | 80 | 64 |
| garment | 30 | 74 | 83 | 77 | 93 | 73 | 64 | 80 | 87 | 70 |
| to wrap around it. | 40 | 62 | 81 | 83 | 79 | 77 | 60 | 75 | 93 | 79 |
| Marle a | 28 | 58 | 72 | 77 | 65 | 64 | 58 | 50 | 71 | 60 |
| big | 1 | 2 | 3 | 11 | 4 | 16 | 3 | 5 | 13 | 5 |
| bed | 30 | 60 | 73 | 77 | 68 | 65 | 58 | 55 | 80 | 62 |
| of oak | 11 | 37 | 37 | 59 | 40 | 45 | 30 | 15 | 50 | 37 |
| leares, | 33 | 62 | 79 | 84 | 76 | 76 | 68 | 70 | 90 | 68 |
| crept in | 26 | 51 | 67 | 72 | 76 | 64 | 40 | 75 | 90 | 59 |
| with the baby | 22 | 42 | 45 | 49 | 48 | 40 | 20 | 40 | 57 | 41 |
| and hugged it | 18 | 35 | 53 | 69 | 78 | 63 | 32 | 65 | 87 | 51 |
| to keep it warm. | 14 | 41 | 63 | 75 | 81 | 65 | 32 | 60 | 80 | 54 |
| Then, as he lay | 1 | 3 | 4 | 11 | 11 | 9 | 2 | 5 | 17 | 6 |
| luoking up | 9 | 22 | 31 | 33 | 44 | 34 | 20 | 40 | 60 | 30 |
| into the sky, | 7 | 17 | 26 | 24 | 44 | 26 | 18 | 30 | 59 | 24 |
| he said, | 4 | 25 | 43 | 35 | 36 | 23 | 18 | 35 | 53 | 28 |
| " Jear | 3 | 16 | 18 | 22 | 35 | 30 | 16 | 35 | 50 | 22 |
| God. | 13 | 30 | 51 | 46 | 56 | 43 | 32 | 45 | 70 | 37 |
| what can I do | 12 | 27 | 52 | 53 | 49 | 46 | 32 | 50 | 70 | 41 |
| more?' | 4 | 22 | 50 | 45 | 58 | 43 | 20 | 50 | 70 | 38 |
| It was just the perfect | 0 | 0 | 0 | (3) | 11 | 2 | 0 | 0 | 13 | 2 |
| hush | 0 | 0 | 9 | 16 | 25 | 22 | 0 | 25 | 20 | 11 |
| of miduight, | 0 | 3 | 18 | 16 | 30 | 25 | 4 | 35 | 23 | 15 |
| save | 0 | 0 | 10 | 12 | 20 | 16 | 0 | 25 | 23 | 9 |
| the hoot of an owl | 4 | 3 | 12 | 15 | 21 | 15 | 6 | 35 | 17 | 6 |
| and the distant | 1 | 2 | 5 | 5 | 7 | 5 | 0 | 5 | 10 | 4 |
| bark of a dog. | 7 | 3 | 8 | 7 | 12 | 8 | 4 | 15 | 20 | 7 |
| Just then | 0 | 6 | 4 | 14 | 11 | 8 | 0 | 10 | 13 | 7 |
| the moon | 12 | 22 | 22 | 38 | 43 | 42 | 24 | 60 | 43 | 31 |
| peeped out | 11 | 20 | 21 | 31 | 31 | 33 | 18 | 55 | 43 | 26 |
| behind | 2 | 11 | 13 | 27 | 22 | 25 | 8 | 25 | 27 | 17 |
| a pinkish | 3 | 15 | 13 | 22 | 29 | 31 | 10 | 0 | 57 | 18 |
| cloud | 10 | 25 | 29 | 40 | 47 | 47 | 22 | 50 | 67 | 33 |
| and right under it | 0 | 3 | 3 | 12 | 14 | 12 | 4 | 55 | 30 | 7 |
| appeared | 1 | 3 | 7 | 15 | 41 | 31 | 4 | 15 | 30 | 17 |
| an angel | 12 | 44 | 54 | 62 | 58 | 56 | 46 | 60 | 60 | 51 |
| child | 0 | 3 | 1 | 2 | 13 | 13 | 0 | 30 | 17 | 5 |
| which he thought | 17 | 38 | 41 | 49 | 51 | 56 | 52 | 60 | 70 | 41 |
| was his dead | 4 | 20 | 28 | 29 | 36 | 51 | 26 | 55 | 67 | 25 |
| sister | 16 | 43 | 55 | 53 | 70 | 73 | 54 | 65 | 80 | 52 |
| Mabel's | 7 | 25 | 33 | 34 | 56 | 53 | 28 | 25 | 53 | 34 |
| face | 5 | 15 | 26 | 31 | 35 | 43 | 24 | 30 | 33 | 26 |
| smiling. | 2 | 6 | 3 | 5 | 9 | 8 | 10 | 0 | 17 | 5 |
| There seemed | 0 | 1 | 0 | 1 | 4 | 2 | 0 | 0 | 3 | 1 |
| a sweet | 0 | 1 | 0 | 5 | 3 | 6 | - 0 | 0 | 10 | 2 |
| perfume, | 0 | 3 | 2 | 9 | 9 | 6 | 0 | 5 | 20 | 4 |
| an hand | 2 | 13 | 15 | 20 | 21 | 14 | 8 | 25 | 27 | 14 |
| touched | 8 | 18 | 19 | 27 | 28 | 24 | 20 | 25 | 37 | 21 |
| his head | 7 | 15 | 12 | 18 | 20 | 20 | 18 | 20 | 27 | 21 |
| and a yentle | 0 | 1 | 0 | 5 | 1 | 3 | 0 | 0 | 0 | 1 |
| voice | 4 | 9 | 10 | 27 | 25 | 33 | 10 | 35 | 40 | 18 |
| from the cloud said | 1 | 2 | 3 | 4 | 9 | 9 | 4 | 5 | 10 | 4 |
| "This is the Christ | 12 | 28 | 42 | 59 | 57 | 76 | 36 | 85 | 77 | 45 |
| child." | 11 | 20 | 39 | 51 | 48 | 72 | 30 | 85 | 77 | 40 |
| $J$ ames | 0 | 4 | 15 | 20 | 21 | 26 | 4 | 35 | 23 | 14 |
| awoke. | 19 | 62 | 77 | 84 | 88 | 90 | 56 | 90 | 67 | 70 |
| It was Christmas | 31 | 56 | 62 | 69 | 74 | 74 | 72 | 60 | 80 | 61 |
| morning, | 19 | 37 | 57 | 6. | 51 | 77 | 48 | 60 | 90 | 50 |
| and by his bed | 2 | 29 | 32 | 51 | 63 | 70 | 22 | 60 | 80 | 40 |
| Santa Claus | 33 | 36 | 52 | 57 | 40 | 48 | 50 | 50 | 67 | 44 |
| had put | 21 | 25 | 34 | 46 | 35 | 39 | 38 | 40 | 57 | 33 |
| a silver dollar, | 22 | 56 | 72 | 76 | 76 | 74 | 52 | 60 | 83 | 63 |
| a box of candy, | 29 | 31 | 55 | 46 | 42 | 40 | 48 | 20 | 43 | 40 |
| a bottle | 10 | 18 | 21 | 19 | 26 | 32 | 28 | 25 | 30 | 21 |
| of colosne, | 8 | 9 | 13 | 16 | 26 | 31 | 26 | 20 | 27 | 19 |
| a music bos, | 7 | 27 | 21 | 24 | 34 | 21 | 16 | 20 | 30 | 22 |
| a loaf | 9 | 14 | 13 | 13 | 30 | 25 | 16 | 20 | 20 | 25 |
| of frosted cake, | 19 | 42 | 50 | 57 | 66 | $5 \frac{1}{4}$ | 36 | 45 | 77 | 47 |
| a fur | 1 | 8 | 20 | 33 | 35 | 33 | 2 | 20 | 43 | 23 |
| tippet | 4 | 14 | 31 | 40 | 42 | 38 | 12 | 35 | 50 | 28 |
| and a gilt Dible | 26 | 51 | 68 | 62 | 67 | 67 | 52 | 55 | 93 | 55 |
| fill | 0 | 3 | 6 | 12 | 16 | 21 | 0 | 0 | 37 | 10 |
| of eolored | 7 | 6 | 17 | 20 | 26 | 24 | 10 | 10 | 43 | 16 |
| pictures. | 8 | 12 | 20 | 22 | 26 | 28 | 14 | 10 | 47 | 18 |
| Total for whole story | , 655 | , 693 | , 005 | , 408 | 6,871 | 6,493 | 5,122 | 6,048 | 7,812 | 5,526 |

One of the facts brought out was the early age at which children reach their maximum memory power．The boys in the second year of the high school remem－ bered 43 per cent，which was the highest for boys．
To study the strength of memory as a function of the place of the words in the story it was divided into three equal parts，and the total number of words remem－ bered in each part by the different grades calculated；the results are shown in the first three lines of Table 14，below．The story was again divided into eight equal parts and the total number of terms remenbered in each of these parts by the dif－ ferent grades calculated．The results are given in the lower part of Table 14；the last vertical column of figures gives the average per cent of terms remembered in each part of the story by all grades．The line of figures at the bottom of the table shows the per cent of the whole story remembered by the grades under which the nambers are written．A considerable number remembered the first part of the story quite well，but very little in the latter part，showing the influence of fatigne．The high per cents for Miss Aiken＇s school may be due to special training．

Table 14.

| Part． | Third grade． |  | Fifth grade． |  | Serenth grade． |  | Ninth． grado． |  | Second year，high sehool． |  | Fourth year，high school． |  | ```Seventh grade (self-read- ing).``` |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 家 | $\stackrel{\text { in }}{\substack{\text { in }}}$ | 安 | $\stackrel{8}{8}$ | $\stackrel{\dot{x}}{\underset{\sim}{z}}$ | ＋ $\begin{gathered}\dot{\infty} \\ \stackrel{\sim}{\circ} \\ \stackrel{\sim}{2}\end{gathered}$ | $\stackrel{\dot{n}}{\stackrel{n}{\Xi}}$ |  | 家 | $\dot{\sim}$ | $\stackrel{\dot{\infty}}{\underset{\sim}{z}}$ | $\dot{\infty}$ | $\stackrel{\dot{\infty}}{\underset{\sim}{\Xi}}$ | $\begin{gathered} \dot{\infty} \\ \stackrel{\circ}{\circ} \\ \hline \end{gathered}$ |  |  |  |
| I． | 731 | 7081 | 1， 042 | 1，014 | 1， 2931 | 1，208 | 282 | 1．328 | 1，4121 | 1，296 | 1，851 | 1，187 | 1， 202 | 1，166 | 1，425 | 1，134 | 46 |
| II | 407 | 375 | 855 | 824 | 1，197 | 1， 050 | 1.1491 | 1，195 | 1， 242 | 1， 194 | 1． 194 | － 973 | － 814 | 898 | 1，461 | 1， 035 | 38 |
| III | 258 | 186 | 510 | 418 | 730 | 527 | 861 | 693 | 939 | 788 | 1，048 | 740 | － 598 |  | 1， 1,02 | 855 | 27 |
| I | 432 | 414 | 511 | 526 | 625 | 599 | 625 | 617 | 665 | 595 | 643 | 589 | 614 | 656 | 642 | 562 | 61 |
| II | 236 | 213 | 394 | 355 | 503 | 425 | 495 | 473 | 516 | 502 | － 517 | 404 | 534 | 380 | 556 | 397 | 45 |
| III | 118 | 130 | 241 | 232 | 304 | 295 | 303 | 364 | 343 | 324 | 309 | 311 | － 256 | 218 | 391 | 273 | 29 |
| IV | 173 | 131 | 332 | 343 | 455 | 423 | 428 | 463 | 443 | 428 | 428 | 383 | 356 | 426 | 505 | 397 | 40 |
| V | 168 | 178 | 376 | 344 | 500 | 439 | 501 | 515 | 520 | 519 | ． 518 | 405 | 334 | 292 | $6 \pm 7$ | 448 | 44 |
| VI | 52 | 50 | 135 | 104 | 229 | 152 | 267 | 212 | 324 | 270 | 324 | 187 | 130 | 134 | － 318 | 283 | 21 |
| VII | 63 | 33 | 169 | 96 | 214 | 131 | 256 | 199 | 272 | 255 | － 348 | 240 | 202 | 136 | 344 | 292 | 21 |
| VIII ．．．．．． | 155 | 120 | 279 | 257 | 400 | 321 | 437 | 374 | 480 | 385 | 506 | 380 | 288 | 240 | 538 | 350 | 36 |
| Percentre－ membered by grades． | 18 | 17 | 32 | 30 | 43 | ${ }^{\text {H／4}} 37$ | 44 | 42 | 47 | 43 | 47 | 38 | 30 | 33 | 52 | 391 | 37 |

The following table shows what appeals most and what least to memory．It gives the number of pupils who remember the terms mentioned：

Table 15.


Table 15-Continued.

| - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\stackrel{\dot{x}}{\dot{E}}$ |  |  | ¢ | $\stackrel{\dot{x}}{\underset{E}{E}}$ | $\dot{\dot{\Delta}} \underset{\dot{\circ}}{\dot{\theta}}$ | $\underset{B}{E}$ | $\stackrel{\dot{\infty}}{\stackrel{\rightharpoonup}{0}}$ | $\dot{\vec{y}}$ | $\stackrel{\dot{\infty}}{\stackrel{\leftrightarrow}{\circ}}$ |  | $\begin{gathered} \dot{n} \\ \stackrel{\rightharpoonup}{\circ} \\ \stackrel{\theta}{\theta} \end{gathered}$ | $\dot{\dot{\sim}} \underset{\mathscr{J}}{ }$ | $\begin{aligned} & \dot{\hat{\circ}} \\ & \stackrel{y}{\circ} \\ & \stackrel{\theta}{\sim} \end{aligned}$ |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Perct | Per ct |
| and a Bible. | 35 | 29 | 423 | 36 | 49 | 45 | 48 | 46 | 50 | 45 | 46 | 47 | 50 | 46 | 90 | 100 |
| woman | 31 | 27 | 453 | 36 | 48 | 42 | 47 | 44 | 49 | 46 | 47 | 45 | 48 | 46 | 90 | 93 |
| "Please give meyour Bible." | 26 | 18 | ?9 3 | 34 | 47 | 40 | 42 | 39 | 44 | 41 | 41 | 38 | 48 | 49 | 65 | 71 |
| He diol. | 22 | 19 | 373 | 33 | 47 | 43 | 46 | 42 | 49 | 41 | 43 | 46 | 44 | 40 | 70 | 80 |
| he gave it. (biead.) | 23 | 26 | 384 | 40 | 47 | 42 | 45 | 48 | 46 | 44 | 44 | 45 | 44 | 38 | 80 | 100 |
| his money. | 24 | 21 | $40+$ | 40 | 47 | 45 | 43 | 41 | 45 | 45 | 45 | 44 | 38 | 44 | 70 | 90 |
| - baby | 31 | 26 | 43 | 45 | 50 | 50 | 49 | 50 | 50 | 49 | 50 | 46 | 42 | 44 | 95 | 100 |
|  | 9 | 10 | 16 | 6 | 15 | 10 | 15 | 15 | 17 | 11 | 24 | 16 | 22 | 18 | 30 | 47 |
| crying | 9 | 6 | 111 | 12 | 13 | 12 | 15 | 11 | 14 | 12 | 12 | 6 | 10 | 20 | 30 | 13 |
| It was Christmas | 18 | 13 | $32 \quad 2$ | 24 | 33 | 29 | 35 | 34 | 38 | 36 | 36 | 38 | 36 | 36 | 60 | 80 |
| Santa Claus | 18 | 15 | 14 | 22 | 23 | 29 | 34 | 23 | 21 | 19 | 25 | 23 | 36 | 14 | 50 | 67 |
| box of candy | 16 | 13 | 171 | 14 | 26 | 29 | 21 | 25 | 24 | 18 | 24 | 16 | 32 | 16 | 20 | 43 |
| James (dropped) | 2 | 2 |  | 3 | 9 | 7 | 6 | 9 | 3 | 2 | 6 | 3 |  |  | 15 | 30 |
| lost | 3 | 3 | 81 | 10 | 2 | 8 | 4 | 7 | 6 | 2 | 3 | 4 | 6 | 2 | - 5 | 13 |
| the hoot of an owl | 3 | 1 | 2 | 1 | 8 | 4 | 8 | 7 | 14 | 7 | 11 | 4 | 6 |  | 5 | 10 |
| bark of a dog, | 2 | 5 |  | 1 | 6 | 2 | 4 | 3 | 8 | 4 | 5 | 3 | 4 |  | 15 | 20 |
| smiling. | 2 |  | 3 | 3 | 3 | .. | 1 | 4 | 4 | 5 | 5 | 3 | 4 | 6 |  | 17 |
|  |  |  |  | 1 |  | 1 |  | 1 | 3 |  |  |  |  |  |  | 7 |
| James (gave his cap). | 1 |  | 3 | 1 | 5 | 3 | 2 | 8 | 4 | 3 |  | 4 |  |  | 5 | 7 |
| sickly |  |  |  |  | 3 | 2 |  | 3 | 1 | 4 | 2 |  | 4 | 8 |  | 7 |
| Then as he lay | . . | 1 | 2 | 1 | 3 | 1 | 6 | 5 | 6 | 5 | 4 | - 5 |  | 2 | 5 | 17 |
| It was just the perfect |  |  |  |  |  | $\cdots$ | 2 | 1 | 9 | 2 | 1 | 1 |  |  |  | 13 |
| and the distant |  | 1 | 2 |  | 3 | 2 | 3 | 2 | 4 | 3 | 5 |  |  |  | 5 | 10 |
| There seemed |  |  | 1 |  |  |  |  | 1 | 3 | 1 |  | 2 |  |  |  | 3 |
| a sweet |  |  | . | 1 |  |  | 3 | 2 | 1 | 2 | 4 | 2 |  |  |  | 10 |
| perfume |  |  | 2 | 1 | 1 | 1 | 6 | 3 | 4 | 5 | 4 | 2 |  |  | 5 | 20 |
| and a gentle |  |  | 1 |  |  |  | 5 |  |  | 1 | 2 | 1 |  |  |  |  |
| from the cloud | 1 |  | 1 | 1 | 1 | 2 | 3 | 1 | 2 | 7 | 5 | 4 | 2 | 2 | 5 | 10 |
| 37 cents $\{$ | 16 |  | 384 | 40 | 46 | 47 | 43 | 46 | 45 | 44 | 42 | 43 | 38 | 37 | 75 | 87 |
|  | 24 |  | 10 | 8 | 4 | 3 | 5 | 4 | 4 | 3 | 4 | 3 | 10 | 6 | 15 | 13 |
| dropped $\{$ | 7 |  |  | 13 | 15 | 13 | 15 | 6 | 11 | 18 | 9 | 12 | 14 | 14 | 15 | 50 |
| dropped | 17 | 18 | 262 | 26 | 31 | 29 | 30 | 35 | 33 | 28 | 32 | 30 | 16 | 16 | 45 | 20 |

Among other things it is interesting to notice that the four terms, "mother," " died," "and left him," and "baby," were the only terms remembered by 90 per cent. Table 15 is on basis of 50 , but last two columus have 100 for basis. "Christmas," "Santa Claus," and "box of candy," though near end of story, are remembered very well. "37 cents" and "dropped" have each two rows of figures; one gives number who remembered, the other the number who substituted synonym.

## CONCLCSIONS.

For a story like the one emplored, and under the conditions described above, the maximum memory power is reached at a relatively early age. 'The boys in the third grade remembered only 17 per cent of the story. In the ninth grade they remembered 42 per cent, and in the high school about 40 per cent. From this it seems that menory power for the boys culminates about the beginning of the high-school period. The girls made a rapid increase from 18 per cent in the third grade to 43 per cent in the seventh grade and 47 per cent in the high school.

The office of a term in the sentence, and the number of like terms employed determined how well a given term was remembered. It may be said that sentences as wholes were remembered inversely in proportion to their length and the number of nonessentials contained. Of the sixteen terms remembered by 75 per cent, eleven are in the first three sentenees, and not one in the last half of the story, Table 13. About two-thirds of the forty-one terms remembered by 50 per cent are in the first half of the story. The decline of memory for the successive parts of the story is shown by the per cents for the three-part division of the story, Table 14. They are, successively, 46,38 , and 27. A four-part division would give 52, 34,32 , and 28 . Much of the falling oft is doubtless due to fatigue, but some of it is due to changes in subject-matter, as can be seen in Table 13, where sudden variations are found in the amount remembered. A decline in memory from the first to the last of the story was found in all grades, but the rate of decline was not the same in all.

The growth of memory is more rapid in the case of girls than boys, and here the figures suggest a coincidence with the general law, that the rapid development incident to puberty occurs carlicr in girls than in boys. No other appreciable difference betwcen the memory of boys and that of girls is apparent, except that the girls remembered 4 per cent more of the story than the boys, and the girls in higher grades showed a better retaining power for the latter part of the story.

It is surprising how few remembered some terms in a sentence, while other terms in the same sentence were remembered by a large number. There seemed to be marked similarity of apperception in all the different grades; for any term remembered by a large or small number in one grade was remembered by approximately the same number in every other grade. No part of the story nor any term other than those else where mentioned made a noticeable appeal to any grade which did not in like manner appeal to all the other grades.

## Drawings by First-Grade Pupils.

Frank S. Bogardusi remarks that drawings by first-grade pupils may be made the index of the childrens' mental characteristics.

He uscd drawing as a test of perceptive imagination and memory in a class of 18 pupils, from five to seven years of age, in the primary department of a normal training school. The class had been in school seven months. The method of testing was as follows:

1. In perception.-The object was placed before the child, and after making any kind of examination of it he wished he drew it, the object remaining before him.
2. In memory. - The object was placed before the children as a class. The examiner called their attention to certain characteristics, so as to be sure that they all had the same material to remember, and then removed the object and had it drawn as remembered.
3. In imagination.-The child was told to make up a story about a boy and a dog or any familiar animal, and then to make a picture of it.
In no instance did two children draw at the same table.
The grading was done in the following manner:
4. In perception.-The examiner counted up the number of different elements fomd in each set of drawings, and, taking that as the standard, compared each individual drawing with it, making the number of different elements or the amount of detail the decisive factor.
5. In memory.-The metbod of grading was essentially the same as in perception, except that the number of elements pointed out by the examiner was taken as the standard.
6. In imagination.-The greatest number of different clements found in any one drawing was used as the standard.
In this way statistics more or less trnly indicative of the comparative powers of the children in perception, memory, and imagination were secured.

From the study of these statistics the following facts were noticed:

1. In thirteen of the eighteen cases there seemed to be a distinct relationship between the grades in perception, memory, and imagination, the greatest variation in any one case being a difference of 12 per cent between perception and imagination.
2. The highest average made by any one pupil was 82 per cent, the lowest 38 per cent.
The average of the whole class on perception was $59 \frac{2}{3}$ per cent; on memory, $59 \frac{1}{9}$ per cent, and in imagination 60 per cent.
3. The various averages of the individuals afforded a means by which they were ranked. The opinions of the teachers of these children agreed with the order in which they were ranked in all but three or four cases out of the eighteen.

Now comes the question of the application of these statistics to the needs of the individual child. Suppose that the drawing examiner finds that James has an average in perception of 15 per cent. He apprises the science teacher of that fact, and she immediately understands the cause of his poor work and sets about correcting it; or the examiner finds that Mary has a low average in memory. He notilies Mary's arithmetic and reading teachers, and they see that what Mary needs is drill in grasping and holding ideas. If John's imaginative powers are found to be less than the average of his class, his reading teacher must pay particular attention to securing an instantaneous response with a mental picture to an external suggestion.

In short, the system serves to establish the standard of the mental powers of the class, to detect the exact place of each child's development that is exaggerated or minimized, and in that way suggests a particular way in which each child must be treated according to his individuality.

Table 16.-Showing the results of the term's work in studying the children through the drawings they made.

|  | Perception. | Memory. | $\underset{\substack{\text { Imagina. } \\ \text { tion. }}}{ }$ | Arerage. | Rank. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Claire | 80 | 83 | 84 | 82 | 1 |
| Clyde | 52 | 41 | 41 | 44 | 16 |
| Edith | 57 | 85 | 59 | 67 | 7 |
| Elmer | 56 | 59 | 68 | 54 | 11 |
| Henrietta | 55 | 51 | 92 | 66 | 8 |
| Leverett. | 75 | 85 | 84 | 81 | 2 |
| Mary .- | 77 | 69 | 74 | 73 | 4 |
| Raymond. | 71 | 70 | 63 | 68 | 6 |
| Stephen .. | 80 | 68 | 76 | 72 | 5 |
| Thurman. | 77 | 69 | 76 | 74 | 3 |
| Claude... | 61 | 39 | 62 | 54 | 11 |
| Earl. | 60 | 55 | 41 | 52 | 12 |
| Effie. | 43 | 38 | 35 | 38 | 17 |
| Fred | 61 | 34 | 40 | 45 | 15 |
| Ralph ... | 50 | 49 | 51 | 50 | 13 |
| Thornton | 59 | 66 | 38 | 55 | 10 |
| Walter. | 65 | 53 | 55 | 58 | 9 |
| Mildred | 58 | 50 | 32 | 47 | 14 |
| Aver | 593 | $59^{1}$ | 60 |  |  |

## The Suggestibility of Children.

Suggestibility may be regarded as a normal condition of mind. In the following study of suggestibility of children Maurice M. Smali' ${ }^{1}$, fellow in Clark University,
${ }^{1}$ Ped. Seminary, December, 1896.
aims to show some of the results of psychic activity, intentionally induced by indirect methods, and also to indicate in the records of imitative acts, which are simply the motor expression of a mental state of which suggestion is the cause. In one section of the inquiry is given a record of experimental sork; in a second section a classification of 4,335 cases of personal experience furnished by educators, pupils, and parents, and in a third section some inferences from the data.

## ILLUSIONS OF IERFUMES.

In testing for illusion of perfume, the means used were a Newman spray tube, some distilled water, and faintly perfumed cards, ono of which was placed in the hands of the teacher, while another was given to the pupil, who was asked to come to the desk and see whether the card was perfumed or not; but he was charged not to give judgment until asked.
After a moment the pupils were asked about walks in search of flowers last spring; why children liked flowers, etc. Then they were asked whether they thought they could tell if the odor of any flower were in the room. Labeled bottles of perfumery were next placed on the teacher's table, and the experimenter took the atomizer and told the pupils lie was about to make a spray in the room, that if anyone was sure that he could smell perfume, he should raise his hand at once. A generous spray was then made in two or three places in the room. The pupils wrote the name of the spray that was suggested to them.
Table 17, which follows, shows the result in 540 cases. The letters S, F, N. S, O, and GC, at the head of the columns stand, respectively, for "strong," "faint," "not sure," "no perfume," and "given card."

Table 17.

| Grade. | Perfume. |  |  |  |  |  | No perfume. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | S. | S. | F. | F. | N. S. | N.S. | O. | O. | G.C. |
|  |  | Perct. |  | Per ct. |  | Perct. |  | Perct. |  |
| İ | 93 69 | 98 |  |  |  |  | ${ }_{3}^{2}$ | $\stackrel{2}{5}$ | 1 |
| III | 55 | 83 |  |  |  |  | 11 | 17 | 1 |
| 1 V | 55 | 63 | 11 | 13 |  |  | 19 | 23 | 4 |
| V | 20 | 50 | 8 | 20 |  |  | 12 | 30 | 2 |
| VI | 19 | 27 | 7 | 9 | 10 | 14 | 35 | 50 | 3 |
| VIIII. |  | 13 |  |  |  |  | 27 | 87 | 1 |
| Hist |  |  | 25 | 47 | 23 | 67 | 11 28 | $\begin{array}{r}33 \\ 53 \\ \hline\end{array}$ | 4 |
| Total. | 308 | 51 |  | 33 |  |  | 148 |  | 19 |
|  |  |  |  |  |  |  |  |  | 19 |

Arerage per cent of illitsion, 73 .
The results given show higher percentages of ilhusion in older pupils in the case of indivitual tests.

ILLUSIONS OF TAETE.
In the tests for illusions of taste, salt, sugar, and quinine wero used. The results are given in Table 18.

Table 18.

| Grade. | Number of pupils. | $\begin{gathered} \text { Very } \\ \text { sweet. } \end{gathered}$ | Little sweet. | Total sweet. | Did not taste sweet. | Error. | Total <br> did not taste sweet. | Did not try. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Per cent. |  |  | Per cent. |  |
| I | 94 | 76 | 16 | 98 |  |  |  | 2 |
| II | 70 | 47 | 16 | 90 | 4 |  | 6 | 3 |
| III | 64 | 24 | 33 | 89 | 7 |  | 11 |  |
| IV. | 87 | 18 | 47 | 74 | 3 | 17 | 23 | 2 |
| Total. | 315 | 165 | 112 | 88 | .- | 31 | 10 | 7 |

Individual tests were made for illusions of taste, motion, heat, and cold touch. In Table 19, below, letter R means that an illusion was produced in the description of the five preceding divisions; O, indicates "no illusion;" RR, very marked illusion; J, jerked hand from table; S, scratched hand: "soda," tastes like soda; Il. O. S., illusion withont stimulation; T, illusion after stimulation; W, illusion of heat waves. In the results under "Motion," the leaders mark cases in which the camel" was brought to move parallel with the line of vision as well as at right angles to that line.

Table 19.

| Subject. | Sex. | Sweet. | Salt. | Bitter. | Motion. | Ileat. | Cold. | II. O. S. | II. T. | Wares. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| W-n | M. | R. | 0. | R. | R. | RR. | R. | 0. | 0. | 0. |
| S-n | F. | R. | $\bigcirc$ | R . | R. | R . | R. | 0. | RR. | $\bigcirc$ |
| $\mathrm{L}-\mathrm{r}$ | M. | $\bigcirc$ | R . | R. | R . | R . | R. | O. | $\bigcirc$ | R. |
| A-s | F. | R. | R. | R. | R. | R. | R. | 0. | R . | R. |
| C-n | F. | R . | R. | R . | R. | RR. | R. | 0. | R. | R. |
| T-e | M. | R. | R. | R. | 0. | R. | O. | 0. | R. | R. |
| $\mathrm{S}-\mathrm{n}$ | M. | R. | R. | R. | 0. | R . | 12. | 0. | 12. | 12. |
| S-r | M. | R. | R. | R. | 00. | R. | R. | R. | R. | R . |
| F-x | M. | R. | R. | R. | R. | R. | R. | R. | R. | R. |
| S-e | M. | R. | R. | R . | 12. | 0. | R. | 0. | R. | R . |
| $\mathrm{O}-\mathrm{d}$ | M. | O. | 12. | R. | OO. | R.J. | R. | R. | R. | R . |
| G-n. | F. | R. | O. | R. | R. | O. | R. | 0. | RR. | 12. |
| F-o | F. | R. | R. | 0. | R. | R. | 12. | RS. | R. |  |
| I. | 1 M . | 0. | R. | R. |  | RR. | RR. | R. | R . | R. |
|  | F . | O. | 1 p. | O. |  | RR. | RR. | R. | O. | IR. |
| III | M . | 12. | R . | 0. |  | R. | R. | 0. | R . | R. |
| IV | F. | R. | R. | Sorla. |  | R. | R. | 0. | R. | R. |
| $\checkmark$ | M. | R. | 0. | R. |  | R. | R. | O. | R. | R. |
| VI. | F . | R. | R. | R. |  | R. | R. | 0. | 1i'. | 1. |
| VII. | F. | R . | R. | 1. |  | 1. | R. | $\stackrel{0}{0}$ | RS. |  |
| VIII | Mi. | $R$. | R. | 12. |  | RR. | IRR. | R. | RR. |  |

${ }^{1}$ Mentioned in the experiment.

## INFERENCES AND APPLICATIONS.

The aim of this study, as a whole, has been to present data bearing on the suggestibility of normal children. A careful study of the records seems to indicate, according to Dr. Small, that in healthy children suggestibility is-

1. A universal condition.
2. High in degree.
3. Largely within the control of any one who knows the working of the child mind.

No thoughtful educator can fail to make from the same records a multitude of inferences related to every department of instruction. Among these inferences, some of the more important are:

1. The necessity of removing from the public schools stutterers, emotional prodigals, and nervons defectives.
2. The need of care that the teaching force is large cnough to prevent teachers from breaking down because of overwork.
3. The prominence of the motor element in learning and the importance of calling it into play in teaching.
4. Ground for urging a fuller and higher use of the dramatic instinct in the class room.

If it should seem at first that giving play to the impulse for dramatic action is likely to make pupils stagy and artificial. it will be remembered that the danger lies in too little freedom for dramatic expression. The amatenr only is stagy; the actor who knows the stage reflects from the footlights nothing but perfect human naturalness.

Of course it is necessary to guard against the dangerous element in plass of the circus gronp; this is easily done by learning the actual sonrce of the danger and diverting the attention to something safe that will cause the same flow of spirits and awaken a sense of power and superiority. One of the best ways for securing this result would be to induce boys and girls to invent new games calling for suppleness, strength, skill, and competition, to supplement those now in use and the courses in manual and inclustrial training.
5. A possible use of the social instinct as it crops out in school fads to awaken interest in studics like history, literature, and science.
6. The danger in leaving children too much alone, and the necessity of closer companionship with children on the part of parents and teachers.
7. In suggestion as children use it, a hint at the natural method of child discipline.
8. The strong influence of the attitude of the teacher upon the tastes and ideals of the papil.
9. That althongh a bright teacher mas interest pupils in a study, large sympathies, personal interest in the pupil, and ability to appreciate the good in him, are neccssary to awaken purpose and develop strong character.

## A Study of Dolls.

It may be asked, What is the real sonrce of the many instincts that are expressed in doll play, its form among savage races, whether it is related to idolatry, and, if so, how? The study of dolls by A. C. Ellis and G. Stanley Hall calls attcution to the importance of a neglected but rich field of investigation.

The following questionaire was circulated loy Miss S. E. Wiltse anong some 800 teachers and parents:

The data desired are juvenile feelings, acts, or thoughts toward any object which represents a baby or a child.

1. Describe your dolls and get children to do the same-whether of wax, rags, paper, pasteboard, rubber china, wood, stone, etc.-and give instances where clothespins, nails, bottles, vegetables, sticks, flowers, keys, button hooks, etc., liave been regarded as dolls in any respect or in any degree.
2. Feeding: What foods, liquid or solid, and how are they given? Describe imaginary foods, dishes, spoons, and other utensils. Is there any regularity or system in feeding, and are hunger, starvation, food preferences, or grow th imagined?
3. Medicines, diseases: What diseases, pains, symptoms, are imagined? How is sympathy shown? What drugs are given? How, and with what conceptions? Imaginary doll doctors, their visits and functions. Surgical operations, etc.
4. What constitutes the death of a doll? Funeral services, and burial of dolls. When lost or crushed do children assume a future life for the doll, and does this assuage their grief?
5. Give details of psychic acts and qualities ascribed to dolls, and show how real, how treated, etc., are their fcelings of cold, fatigue, anger, pain, jcalousy, love,
hato, goodness and badness, modesty, tidiness, etc. Is any iudividuality or moral or other characters consistently and persistently ascribed to dolls?
6. Dolls' names: Are they of real persons; and if so, is there any resemblance, real or fancied?
7. Accessories and furnishings, toilet articles, clothes, beds, tables, and dishes, trunks, fashion and its changes, tors for the doll, etc: How far in fact are these carried, and how far shonld they be? What dangers, if any, here?
8. Doll families, and the relationship of the members ; doll schools, doll parties, balls, entertaimments, weddings.
9. Doll discipline, hygiene, and regimen: What toilet and what rewards and punishments are usual, and what moral qualities are aimed at?
10. Dolls' sleep: How are they put to sleep? What are the favorite lullabies, and does the doll's sleep keep the children good and quiet?
11. Dress: What is the influence of dolls upon the children? Cas taste in dress, tidiness, thoroughness in making their clothes, or other moral qualities be caltivated? How does the material of which the doll is made and the degree of litelike perfection react on the child? Is there regularity and persistency in the care of dolls? Is imagination best stimulated by rude dolls, which can be more freely and roughly used? Are children better morally, reiigiously, socially, or leetter prepared for parenthood and domestic life by them? How can the educational value of dolls be better brought out?

The above points are intended to be merely suggestive, and are, of course, far more comprehensive than any returns are expected to be.
Read this syllabus and write down with accuracy any facts which memory or observation may suggest, carefully specifying age, sex, and nationality.
Or, if practical, question children, or, if in a normal school, let teachers take this syllabus as a lesson on the blackboard in the psychology of childhood, and each. record memory or observation.
Returns addressed as below will be carefully edited, credited, printed.
G. Stanley Hall.

## Clark University, <br> Worcester, Mass., Norember, 1894.

The returns from the above questionaire were of varions degrees of merit. Ninetyfour boys are reported on; the rest are girls. The majority of all were written by young girls and women, between 14 and 24.
Mr. A. C. Ellis issued the following supplementary syllabus:
"Will each person receiving this kindly answer, briefly, on this paper and return it to the address below? State age and sex."

1. Did you ever play with dolls? 2. Did you especially enjoy it? 3. About what age did you begin and stop? (Age in figures.) 4. Did you ever play with paper dolls? 5. At what age did you begiu and stop? 6. Did paper dolls dull yonr interest for other dolls? 7. Did fou ever play with any thing else as a doll, such as a cat, pillow, vegetable, stick, clothespin, etc., either dressed or without dress? 8. Did yon enjoy this as much as your real dolls? 9. Had you plenty of child companions? 10. Did you prefer playing with dolls alone or with other children? 11. Did yous prefer old and well-used or new dolls? 12. Between the ages of 1 and 6 did you prefer large or small dolls? 13. From 1 to 5 did yon prefer your doll to be, and be dressed, as a baby, child, or adult? 14. Between 5 and 10 did you prefer baby, child, or adult? 15. Between 10 and 15 did yon prefer bahy, child, or adnit? 16. Did your love of dolls grow out of love for a real baby? 17. When yous stopped playing dolls was it because your love was transferred to a real baby? 18. Why did you stop playing dolls? 19. Describe your tavorite doll, or any other, if you had no favorite. 20. How did you chiefly panish dolls when you were under 6? 21. How when older? 22. At what age did you first play that dolls died \% 23. Did you ever try to feed dolls? 24. Did yon ever think your dolls were hangry? 25. Did you ever think four dolls were sick? 26. Did you ever think your dolls were cold, tired, hnngre, good, bad, jealous, loving you, hating anyone? 27. Which of the following ways of playing with dolls were your favorites: (i) Dressing and washing or sewing for dolls; (2) feeding; (3) nursing; (4) finnerals or burials; (5) doll parties, weddings, or schools; (6) punishing; (7) putting to sleep; (8) making imaginary companions of your dolls to talk with and tell your secrets, or to build air castles with? 28. Do you know a mother now very fond of her children who was not fond of dolls as a girl? 29. Do you know of a woman who was very fond of dolls, but is not now very fond of children?
A. Cashell Ellis.

Clark University,
Horcester, Mass., June 1, 1896.

Tho results of the first syllabus show that of 845 children with 980 preferences, between the ages of 3 and 12, 191 preferred wax dolls, 163 paper dolls, 153 china dolls, 144 rag dolls, 116 bisque dolls, 83 china and eloth dolls, 69 rubber dolls, etc.

Doll substitutes illustrate animistic fancy. In answer to the first syllabus, pillows were treated as dolls by 39 children, sticks by 29 , bottles by 24 , dogs by 18 , etc.

In reply to the supplementary questions, out of 579 children 57 had used a cat as a doll, 41 clothespins, 23 sticks, ete. Only 26 of all these were boys.
The following psychic qualities are ascribed to dolls in the order of frequency of their recurrence, the figures indicating the number of cases: Good, 97; colf, 54; jealuns, 46; bad, 45; angry, 38; nanghty, 36, etc.

Out of 579 answers to the supplementary syllabus, question 26 shows the following results: 230 children thought their dolls good, 202 thought they felt cold, 85 that they could love, etc.

We must refer the reader to the original article for returns as to: Dolls' food and feeding; sleep; sickness; death, funeral, and burial of dolls; dolls' names; discipline; hygiene and toilet; dolls' families, schools, parties, weddings, etc.

The educational value of dolls is very great; the doll habits of each child should be studied, if we are to understand the child.

In the table which foilows, the figures of the upper horizontal line indicate the questions as they are numbered in the syllabus of Mr. Ellis. Under each special series the upper figure designates the affirmative answers; the lower, the negative answers. For example, of the 12 kindergarten boys below 6 years of age, 11 had played with dolls and 1 had not.

Table 21.


Under three is averaged the age of beginning and stopping doll play, placing the former over the latter; thus for 44 Worcester boys below six years, the average age of beginning doll play was two years and eight months, and the average age of ceasing
was four years and five months. The same method is followed in column 5. For question 7 the upper number designates whether children played with anything else as if it were a doll. For question 10 the upper figure designates alone, the lower with others. For question 11 also the order of words in the syllabus is followed, the upper figure designating old, the lower new, and in question 12 tho upper figure designates the preference for large and the lower small dolls. In 22 the minus sign means never playcd that dolls died, while the other figures designate the average age in years and months when death was played. In question 23 the upper figure designates the number of those who ascribed any one or more of the psychic qualities named in the question to doll, and the lower number designates the number of those who assigned none, leaving it to the supplementary table to show the relative frequency of each of the qualities.
From above table it appears that of arerage city-school children below six years, 82 per cent of boys and 98 per cent of girls have played dolls; between six and twelve years, 76 per cent of boys and 99 per cont of girls; of high-school girls, 100 per cent.
Those confessing that they ever spacially enjoyed doll play are: Bclow six jears, 77 per cent of boys, 95 per cent of girls; between six and twelvo years, 78 per cent of boys, 97 per cent of girls; of high-school girls, 82 per cent.
Those erer having used substitutes are: Below six years, 15 per cent of boys, 48 per cent of girls; betwcen six and twelve years, 35 per cent of boys, 68 per cent of girls; of high-school girls, 58 per cent. Thus girls appear to lead the boys in crery gradc. Nearly 50 per cent of the girls, and a little less of the boys, answering in all grades, said they loved the substitutes as much as real dolls.
Paper dolls had been used by 73 per cent of those below six years, by 80 per cent between six and twelve jears, by 92 per cent of high-school girls. Interest in other dolls was thought dulled by paper dolls by 34 per cent of boys and 26 per cent of girls below six, 35 per cent of boys, and 15 per cent of girls between six and twelve, 44 per cent of high-school girls.
Of all kinds of children-blind, dcaf, foreign, etc.-only 17 per cent speak of lack of child companionship, and 72 per cent prefer playing dolls in company; 38 per cent say that love of dolls grew out of love of real baby, and 13 per cent transferred their doll love to babies; 79 per cent had tried to feed dolls; 66 per cent have thought dolls hangry; 68 per cent have ascribed to dolls some of the psychic qualities meutioned; 67 per cent have thought them sick.

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Buch der Kindheit. Goltz.
Les jouets d'enfants. H. Rigault, 1858. (He says: "La Prusse est décidément la première puissance militaire pour les soldats de plomb!")

## Memory Tests on White and Colored Children.

Mr. George R. Stetson made a study upon 500 black and 500 white children in the Washington public schools. He recited to some 20 to 40 children at a time one of four simple verses, written for children by Eugene Field. After explaining the difficult words, the children were required to recite the same verse in concert, twice repeating. Each child was afterwards asked in private to repeat the verse. The degree of proficiency in memory was noted. The verses used were the following:

## I.

"Give me my bow," said Robin Hood,
"An arrow give to me,
And where 'tis shot, mark thou that spot,
For there my grave shall be."
"I once knew all the birds that came
And nested in our orchard trees;
For every flower I had a name, My friends were woodchucks, toads, and bees."
"One night a tiny dewdrop fell Into the bosom of a rose; ' Dear littie one, I love thee well, Be ever here thy sweet repose.'"
"'My shepherd is the Lord my God. There is no want I know; His flock He leads in verdant meads Where tranquil waters flow.'"

The 1,000 examined were of the fourth and fifth grades. The average age of the whites was 11 years; of the blacks, 12.57 years. The blacks excelled the whites in their power of memory retention, exceeding them by 18 per cent. A general correspondence was found between their memory averages and their scholarships as recorded by the teachers; yet the memory rank of the blacks exceeded their rank in studies more than did that of the whites exceed their study rank; yet the blacks appeared to be inferior in intellect. In both cases there was a better knowledge of signs and symbols used than of the things signified.

## Childrex's Attitude toward Giosts.

As a basis for the following study of Louise Maitland ${ }^{1}$, reminiscent papers of 171 university students were used.
The memories of ghosts are generally rague and difficult of analysis. The purpose of this inquiry is to find how far children believe in ghosts and whether this fear plays a conspicuons part in their lives, and to see what remedy may be suggested, if one is needed.

Table 22, which follows, shows the results:
Table 22.
Number of papers...................................................................................... . . . 171
Number of statements collated .................................................................... . . . . 795
I.-Attitude of writer, 164.

1. Formal statements concerning belief, 122.
Disbelieved 41 Believed, but questioned ..... 9
Believed 35 Disbelieved, but questioned ..... 9
Believed something else 21 Disbelieved, but feared ..... 7
2. Formal statements concerning remembrance, 25.
No remembrance 17 | Vague remembrance ..... 8
3. Formal statements concerning importance, 17.
15 Important in childhood2
II.-Personal reaction aroused, 95.
Was afraid 42 Was not afraid ..... 5
Fascinated 17 Was afraid to tell ..... 3
Feared something else 13 Enjoyed ..... 2
Fear lingered 11 Wanted to run away ..... 2
III.-Sources of information, 110 .
4. Social, 77. 2. Solitary, 33.
Children ..... 26
Stories read ..... 22
Stories told Pictures ..... 9
Servants Imagination ..... 2
School ..... 4
Games ..... 3
Parents ..... 2
IV.-Educational influences exerted, 43.
5. Disbelief taught, 41. 2. Belief taught, 2.
Parents ..... 21
Parents ..... 2
Miscellaneous ..... 18
Teacher ..... 2
V.-Age, 44 .
6. Definite statements 18 | 2. Indefinite statements ..... 26
VI.-Conception of ghosts, ..... 339.
7. Appearance of, 158 .
Clothed in white50
Like human tigure ..... 19
Shadowy ..... 17
Like dead persons ..... 14
With long arms or hands ..... 11
Like skeletons ..... 8
Vague ..... 7
With sepulchral voice ..... 6
Without substance ..... 5
Luminous ..... 5
Black ..... 4
Like animals ..... 4
Like fairies or spirits ..... 4
With lurid, hollow eyes ..... 4
8. Power of ghosts, 82 .
Catch, chase262. Power of ghosts, 82-Continued.
Cause fright ..... 20
Glide swiftly ..... 15
Appear and disappear ..... 9
Do all sorts of mysterious things ..... 5
Foretell death ..... 4
Injure ..... 3
9. Time of appearance, 55.
In the dark and when alone ..... 36
Night ..... 14
Twilight ..... 5
10. Places where they may be expected, 44.
Graveyards ..... 19
Lonely places ..... 9
Bedrooms and attics. ..... 8
Haunted house ..... 8

According to Louisc Maitland, it is difficult to attach any real importance to the formal statements of the writers as to their belief or disbclief as children in ghosts.
The more or less vivid descriptions of fear in ninety-three cases are the most important features of the stady.
In reply to the question, "Is there a stage in the development of children when they are prone to belicve in and be frightened by debasing superstitions?" Miss Maitland finds:
First, that such a stage is clearly suggested; for while 58 did not believe or remember, 56 believed in ghosts or something similar, and 33 are doubtful as to what they did believe.
Of the 171 writers, 34 per cent presumably had no fear, since they either disbelieved in ghosts or had no fear of them. Of the 66 per cent remaining, 60 per cent mention fear, showing that fear almost miversally accompanies the belief in ghosts.
One remedy is distinctly pointed out by the 41 writers who say that disbelief was taught to them. A study of the sources of information affords as another hint. Since we can not altogether prevent our children from hearing these superstitions from people who more or less believe in them, it would be a wise precantion to let them hear the trath at the same time. But more important perhaps than this is the suggestion contained in that part of these papers concerning a belief in other spirits, viz: That we may substitute harmless or even ennobling fancies in place of the baser sort.

Peculiar and Exceptional Children.
Dr. Bohannon, of Clark University, gives the results of reports from 1,045 peculiar or exceptional childred-613 girls and 432 boys. These reports come from answers to the following syllabus: ${ }^{1}$
If you desire to receive the syllabi of this school year, to cooperate in collecting data, and to receive the final reports of the work, you are hereby respectfully invited:
First. To think over your own childhood and consider if you were a striking illustration of any of the following types; and if so, describe your case.
Second. Consider if you have any friends who would come into any of the classes below, and ask them to describe their own case.
Third. If you have children of your own, or if you are a teacher, if any of your pupils, past or present, are strikingly exceptional, describe them.
Fourth. If yon are a college or normal instructor, explain very fully what is wanted, and ask cach pupil to describe one or more such cases in a composition, essay, or a theme in psychology.
Fifth. State the salient points concerning any exceptional children you ever read of, whether fact or fiction, referring to the source if you can.
The following are types suggested to select from, butany others will be welcome:

1. Physical.-Exceptional beauty or ugliness; largeness or smallness; any bodily deformity; conspicuous scars or traumatic lesions; defects of sense or limb, as dimness of vision or slightly under normal hearing, weakness of spine, legs, or arms, etc.; caceptional strength, agility, clumsiness or deftncss, or gifts of sense; any other marked physical peculiarity.
2. Psychical.-A child of exceptional courage or timidity; cleanliness or dirtiness; order or disorder; obedience or disobedience; truth telling or lying; cruelty or sympatlyy; selfishness or generosity; loquacity or silence; frankness or secretiveness; buoyancy or despondency; daintiness or gluttony; a blasé or otherwise spoilcd child; adoubter, investigator, or critic; a buffoon; a restless, fickle scatter-brain or a tenacious child; an ugly and ill-tempercd child; a careless, easy-going or a fastidions child; an inquisitive, imaginative, or poetic child; a teaser or hector; a nervous child; a querulent, whining child; a dignified and self-poised child, or one who acts habitually with abandon.

It is not a description of one or more of the above traits that is wanted, but an account of one or more individual cases where one trait or group of traits is so marked as to color the entire character of the child, to be kuown to all who see much of it, to therefore bear on the child's future career.
Note in each case, if you can, whether the trait is hereditary; in which parent, how far back can it be traced, and how marked was it in the ancestry? To this point the greatest importance is attached, and it should receive special attention.
Give, briefly, specific acts or instances of the manifestation of the trait.

State how each case has been treated at home and in school，and how you think it should be．
Always describe each case with the greatest conciseness and with the greatest fidelity to fact．

Always state age，sex，nationality，complexion，and temperament．
Always write on but one side of your paper．
Begin every new case on a new page．
Write at the head of the first page of each case one or more words designating the type，as a dirty child，a precocious child，otc．
There are 43 types of individuals of various ages represented in the answers，but nearly all are below the period of early manhood or womanhood．
In giving a statistical analysis of the results，the types were divided into three groups based on the worth to the individual of the varions peculiarities－（1）the advantageous，（2）the neutral，and（3）the disadrantageous peculiarities．
In the advantageous peculiarities are found the tall，heavy，stort，strong，agile， deft，beautiful，clean，generous，sympathetic，buoyant，orderly，obedient，conrageons， and those having licen sense powers．
In the neutral peculiaritios are found the buffoons，frank，lofuacions，imaginative， inquisitive，dignified，teasers，silent，and the dainty．

To the disadvantageous peculiarities belong the dirty，ill－tempered，small，timid， whining，disorderly，disobedient，cruel，glattonous，selfish，those with sense defects， bodily weakness，ugly，nervous，deformed，spoiled，lirth－marked，liars，clumsy．
From Table 23 it will be seen that the advantageous peculiarities are iuherited more than twice as much（0．629）as the disarlvantageous（0．281）．

Table 23.

|  | Inherited． |  |  | From father． |  |  | From mother． |  |  | From both parents． |  |  | Not inherited． |  |  | No infor－ mation． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ¢ | \％ | $\begin{aligned} & \dot{H}+0 \\ & \stackrel{0}{\circ} \end{aligned}$ | $\begin{gathered} \dot{\infty} \\ \stackrel{0}{\circ} \\ \hat{\sim} \end{gathered}$ | 息 | $\begin{gathered} \text { дं } \\ \text { 品 } \end{gathered}$ | $\begin{gathered} \dot{\infty} \\ \stackrel{\sim}{6} \\ \dot{\theta} \end{gathered}$ |  |  | $\dot{2}$ $\stackrel{\rightharpoonup}{\circ}$ $\stackrel{\circ}{0}$ |  | $\begin{gathered} \stackrel{\rightharpoonup}{0} \\ \text { H } \\ \text { a } \end{gathered}$ | $\begin{gathered} \dot{\infty} \\ \stackrel{\circ}{\circ} \\ \stackrel{1}{\circ} \end{gathered}$ | $\frac{\dot{\omega}}{\tilde{\sim}}$ | $\begin{gathered} \text { ت } \\ \stackrel{\rightharpoonup}{\circ} \\ \oplus \end{gathered}$ | $\begin{gathered} \dot{\infty} \\ \stackrel{\alpha}{\circ} \\ \dot{\theta} \end{gathered}$ | $\begin{aligned} & \dot{\text { A }} \\ & \text { 怘 } \end{aligned}$ |  |  |
| Tall． | 7 | 12 | 19 | 1 | 2 | 3 | 3 | 1 | 4 | 2 | 5 | 7 |  |  |  |  | 1 | 1 | 20 |
| Heary | 13 | 37 | 50 | 5 | 10 | 15 | 6 | 17 | 23 | 2 | 7 | 9 |  | 4 | 4 | 6 | 18 | 24 | 78 |
| Stont．． | 3 | 4 | 7 | 1 | 2 | 3 |  | 2 | 2 | 2 |  | 2 |  | 1 | 1 | 2 |  | 2 | 10 |
| Strong | 6 | 4 | 10 | 2 | 3 | 5 |  | 1 | 1 | 3 |  | 3 |  | 2 | 2 | 5 | 3 | 8 | 20 |
| A gile | 10 | 5 | 15 | 2 | 3 | 5 | － | 2 | 2 | 4 |  | 4 | 1 |  | 1 | 5 | 2 | 7 | 23 |
| Deit． | 4 | 1 | 5 | 2 |  | 2 | 1 | 1 | 2 |  |  |  | 2 | 2 | 4 | 1 | 2 | 3 | 12 |
| Keen senses and mental precocity． | 5 | 5 | 10 | 2 | 2 | 4 | 4 | ．．． | 4 | －－ |  | － | 1 | 3 | 4 | 4 | 4 | 8 | 22 |
| Beauty | 10 | 42 | 52 | 5 | 8 | 13 | 3 | 18 | 21 | 1 | 7 | 8 |  | 10 | 10 | 9 | 4 | 13 | 75 |
| Clean． | 10 | 30 | 40 | ＇ | 7 | 9 | 4 | 14 | 18 | 4 | 8 | 12 |  | 3 | 3 | 3 | 10 | 13 | 58 |
| Generous | 5 | 6 | 11 | 1 | 2 | 3 | 1 | 1 | 2 | 3 | 3 | 6 | 2 | 3 | 5 | 2 | 2 | 4 | 20 |
| Sympathetic | 8 | 12 | 20 | $\cdots$ | 3 | 3 | 5 | 6 | 11 | 3 | 3 | 6 |  |  |  | 4 | 9 | 13 | 33 |
| Buoyant．．． | 2 | 3 | 5 | $\stackrel{2}{2}$ | 2 | 4 |  |  |  | 1 | 1 | 1 | 2 | 1 | 3 | 1 | 1 | 2 | 10 |
| Courageous | 4 | 2 | 6 | 2 |  | 2 | 1 | 1 | 2 | 1 |  | 1 | 2 | 3 | 5 | 3 | 4 | 7 | 18 |
| Orderly． | 4 | 12 | 16 | 1 | 2 | 3 | 1 | 6 | 7 | 2 | 5 | 7 | 1 | 2 | 3 | 3 | 1 | 4 | 23 |
| Obediert |  | 4 | 4 |  | 1 | 1 |  | 1 | 1 |  | 2 | 2 |  |  |  | 1 | 2 | 3 | 7 |
| Total | 91 | 179 | 270 | 28 | 47 | 75 | 29 | 71 | 100 | 27 | 41 | 68 | 11 | 34 | 45 | 49 | 63 | 112 | 427 |
| Buffonns | 4 | 1 | 5 | 3 |  | 3 | 1 |  | 1 |  |  |  |  | 1 | 1 | 5 |  | 5 | 11 |
| Frank． | 2 | 4 | 6 |  |  |  | 2 |  | 2 | 2 |  | 2 |  |  |  | 2 | $i$ | 3 | 9 |
| Loqnacrous | 6 | 7 | 13 | 2 | 5 | 7 | 5 |  | 5 |  |  |  |  |  |  | 4 | 6 | 10 | 23 |
| Inquisitire． | 4 | 5 | 9 | 1 | 1 | 2 | ．． | 4 | 4 | 2 |  | 2 | 1 | 4 | 5 | 4 | 3 | 7 | 21 |
| Dignified． | 2 | 4 | 6 | 1 | 2 | 3 |  |  |  | 1 | 1 | 2 | 1 | 2 | 3 | 1 | 3 | 4 | 13 |
| Sileut． | 2 | 9 | 11 | 1 | 7 | 8 |  | 2 | 2 | 1 |  | 1 | 1 | 4 | 5 | 2 | 5 | 7 | 23 |
| Imagimativ | 1 |  | 1 |  | 1 | 1 |  |  |  |  |  |  | 2 | 5 | 7 | 2 | 1 | 3 | 11 |
| Dainty ．．． | 5 | 1 | 6 | 1 | 1 | 2 | 2 |  | 2 | 2 |  | 2 | 1 | 1 | 2 |  | 7 | 7 | 15 |
| Total | 26 | 31 | 57 | 9 | 17 | 26 | 10 | 6 | 16 | 8 | 1 | 9 | 6 | 17 | 23 | 20 | 26 | 46 | 126 |
| Small | 9 | 15 | 24 | 4 | 1 | 5 | 4 | 7 | 11 |  | 3 | 3 | 7 | 34 | 41 |  | 1 | 15 | 66 |
| Deformed | 4 | 4 | 8 | 1 |  | 1 | 1 | 2 | 3 | ．－ |  |  | 22 | 17 | 39 | 11 | 4 | 15 | 62 |
| Ugly． | 5 | 10 | 15 | 2 | 1 | 3 | － | 7 | 7 |  | 3 | 3 |  | 2 | 2 |  |  |  | 17 |
| Nerrous | 2 | 4 | 6 | 1 | $\cdots$ | 1 | 1 | 4 | 5 | ．． |  |  | 2 | 6 | 8 | 3 | 11 | 14 | 28 |
| Birthwarks | 1 | 2 | 3 | 1 | 1 | 2 |  | 1 | 1 |  |  |  | 9 | 17 | 26 | 7 | 10 | 17 | 46 |
| Clumsy | 3 | 3 | 6 |  | 1 | 2 | 1 | 2 | 3 | 1 |  | 1 | 2 | 2 | 4 | 2 | 1 | 3 | 13 |
| Bodily weakness | 1 |  | 1 |  | 1 | 1 |  |  |  |  |  |  |  |  |  | 5 |  | 5 | 6 |
| Mental．senge，and speech lefect．．．．．． | 4 | 4 | 8 | 2 | 1 | 3 | 1 | 2 | 3 |  |  |  | 11 | 8 | 19 | 2 | 5 | 7 | 34 |

Table 23-Continued.


[^4]
## YOUTHFUL DEGENERACY.

According to Professor Lancaster, degeneration is "a gradnal change of the structure in which the organism becomes adapted to less varied and less complex conditions of life." In applying this term to man, Morel considers degeneration as a "morbid deviation from an original type."

In the following investigation of degeneracy, G. E. Dawson, Fellow in Clark University, gives the results of an examination of 60 juvenile delinquents. There were two groups, comprising 26 boys with an average age of 16 years. They were selected by the authorities of the institation as specimens of the following classes of offenders: Thieves, iucendiaries, assaulters, sexnal offenders, and general incorrigibles.

In the following tables, $24,25,26,27$, and 28 , are given the resalts of Dawson's investigation.

Table 24.-Showing the vitality of 52 jurenile delinquents, comparerl with normal averages at same age.

|  | Groups. |  |
| :---: | :---: | :---: |
|  | Boys. | Girls. |
| Number of cases | 26 | 26 |
| A verage age. | 15 | 16 |
| Height: |  |  |
| Arerage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .centimeters.- | 150 | 150.6 |
| Normal arerage (same age) $\alpha$.................................................. do. | 159.9 | 156.7 |
| Inferior to normal average by from 1 to 28 centimeters...............per cent. | 9 ? | 86 |
| Same as normal average...................................................... do. | 00 | 00 |
| Superior to normal average by from 1 to 9 centimeters ................. do | 8 | 14 |
| Weight: |  |  |
| Average ................................................................kilograms.. | 44.33 | 51.79 |
|  | 50.26 | 51. 24 |
| Inferior to normal average by 1 to 22 kilograms.......................per cent. - | 84 | 37 |
| Same as normal arerage....................................................... do... | 4 | 4 |
| Superior to normal average by 1 to 13 kilograms ......................... do. | 12 | 59 |
| Mean chest girth: |  |  |
| Average chest girth ....................................................centimeters . | 74.8 | 73 |
| Normal average (same age) $b$.................................................. ${ }_{\text {do. }}$ | 76. 56 | 78.85 |
| Inferior to normal average by 1 to 15 centimetors ....................per per cent.. | 70 | 73 |
|  | 4 | 16 |
| Superior to normal average by 1 to 15 centimeters........................ ${ }^{\text {do. }}$ do. | 26 | 11 |
| Mean strength of grip: |  |  |
| Average mean strength of grip.......................................................................... | 25.05 | 19.95 |
| Normal average (same age).................................................... ${ }^{\text {d }}$ do.. | 25.32 | 20.82 |
| Inferior to normal average by 1.32 to 11.82 kilograms ................. per cent.. | 56 | 56 |
| Same as normal arerage ...... ................................................ do. | 4 | 00 |
| Superior to normal average by 1.18 to 15.18 kilograms................... do. | 40 | 44 |
| Mean reaction to pain: |  |  |
| Average . kilograms.. | 5. 89 | $4.94$ |
| Normal average (same age) | $9.62$ | $6.58$ |
| Less sensitive than normal average per cent | $4$ | $12$ |
|  | 4 | $8$ |
| More sensitive than normal average............................................. ${ }_{\text {do }}$. | 92 | 80 |

a Bowditch's Tables of Boston children: Twenty-second Annuak Report, State Board of Health, Massachusetts.
$\zeta$ Porter's Tables of St. Louis children: Transactions of the Academy of Science of St. Louis, Vol. VI, No. 12.
${ }^{1}$ Ped. Seminary, December, 1896.

Table 25.-Shoring circumference of head and cephalic and facial indices, compared with normal standards.

|  | Groups. |  |
| :---: | :---: | :---: |
|  | 3 Bys . | Girls. |
| Number of cases. | 26 | 20 |
| Average age.... | 15 | 16 |
| Circunference: |  |  |
| A verage horizontal circumference...............................centimeters.. | 53.2 | 51.9 |
| Normal average (same age) $a$............................................ do.... | 54.7 | 52.5 |
| Smaller than normal average by 1.7 to 5.2 centimeters..............per cent.. | 64 | 40 |
| Same as normal average............................ | $\stackrel{27}{9}$ | 48 |
| Larger than normal average by 1.3 to 4.3 centimeters................... do | 9 | 12 |
| Cephalic index: |  |  |
| Arerage index. | 80.01 |  |
| Normal average (same age) $b$ | 80.01 | 79.72 |
| Lower than normal average .............................................per cent.. | 50 |  |
| Same as normal average................................................. do.... | 23 | 8 |
| Higher than normal average | 27 | 65 |
| Dolichocephalic ........... | 8 | 00 |
| Mesocephalic.. | 42 | 32 |
| Brachycephatic. | 50 | 68 |
| Facial index: |  |  |
| Average index. ............. | 76.35 | 76. 98 |
| Normal average (same age) $b$.................................................. | 73. 62 | 73.44 |
| Lower than normal average by 1.17 to 11.27 per cent..................per cent.. Same as normal average................................................ | 24 |  |
| Same as normal average. <br> Hicher than normal average by 1.10 to 9.18 per cent | 88 68 | $\begin{array}{r} 8 \\ 84 \end{array}$ |
| Higher than normal average by 1.10 to 9.18 per Exceptionally narrow face (below 66) | 68 8 | 84 4 |
| Exceptionally broad face (above 77). | 40 | 44 |

a Quetelst's Anthropometric Tables.
b Computed from Porter's 'Tables of Measurements of St. Louis children.
Table 26.-Showing stigmata according to types of delinquency; also in comparison with normal standards. a

a Lombroso: L'Homme Criminel, 2d French ed., p. 170.
$b$ Clouston: Neuroses of Development.

Table 27.-Showing sensory and mental reactions, as compared with normal standaids.

|  |  |
| :--- | :--- |
|  |  |

$a \mathrm{Dr}$. G. M. West's tests of Woreester school children.-Am. Journal of Psyehologr, Vol. IV. Ninth grade pupils are taken as the standard.
$b$ Reichard. Summarized by Oscar Chrisman, Pedagogical Seminary, Vol. If.
cMarro, Lombroso, and others.
d From tests of Worcester schonl children, made by Dawson.
$e \operatorname{In}$ each case the average of normal childreu is taken as 100 , and the delinquent average is reckoned upou that basis.

TABLE 28.-Showing parentage, surroundings, etc.

|  | Boys. | Girls. |  | Bojs. | Ginls. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PARENTAGE. |  |  | PARENTAGE-continued. |  |  |
| Nationalits: |  |  | Intemperate: |  |  |
| Irish ..... | 14 | 1 | Father ...................... | 15 | 10 |
| French Canadian. | 4 | 6 | Moth .- | $\stackrel{6}{5}$ | 2 |
| Negro ........ |  | 5 |  |  |  |
| Swedes |  | 2 | SURROUNDINGS. |  |  |
| Jews | 1 | 1 |  |  |  |
| English | 1 |  | Poor home | 15 | 12 |
| Scotch | 1. |  | No home | 6 | 8 |
| Russian.. |  | 1 | Belong to families in which thero are |  |  |
| Unknown | 2 | 1 | delinquents .......................... | 6 | 5 |
| Ocempatiou: |  |  | Poor edacational adrantages........ | 18 | 22 |
| Laborers | 16 | 12 | Bad associates .......................... | 26 | 25 |
| Peduliers | 2 |  |  |  |  |
| Clork.. | 1 | 1 | Habits, ETC. |  |  |
| Merchant |  | 1 | Habris, Eic. |  |  |
| None. | 3 | 6 | No occupation (idle) ................. | 23 | 20 |
| Unknown | 4 | 6 | Drink intoxicants of various kinds.. | 4 | 3 |
| Roligion: |  |  | Use tobacco, especially cigarettes... | 23 |  |
| Catholic. | 19 | 9 | Frequent houses of prostitutiou... |  | 4 |
| Protestant | 4 | 9 | Night walkers .....-.-.............. |  | 9 |
| Hebrew.. | 1 | 1 | Been under arrest before present |  |  |
| None.... |  | 3 | confinement | 17 | 6 |
| Unknown | 2 | 4 |  |  |  |

## INTERPRETATION OF DEGENERACY.

Dawson believes that the foregoing study of delinquent children has demonstrated a general deviation from the physieally and intellectually normal type. A deviation from the morally nozmal type has, of course, under the circumstances, been assumed. The salient points of inferiority may be finally summarized as follows:

1. There was a tedency to shorter statures, lighter weight, diminished strength in the muscles of the hands, and greater sensitiveness to pain.
2. There was a tendency toward smaller heads, broader heads, and broader faces, the type being, in general, that of lower raees or of the infantile period of our own race.
3. There were more physieal anomalies than are found among normal persons, mainly in the direction of asymmetrical heads and faces, and deformed palates.
4. There were more defeets in sight and hearing, and a greater dullness in the sense of touch, than are found among normal persons.
5. The intellectual reactions were, in general, inferior to the normal. More specifically this was the case 11 attention, memory, and association.

## CONCLUSION.

In coneluding, Dawson thinks that the degeneracy found in these delinquent children must be interpreted mainly as the result of two forces: (1) a degenerative process at work in the drunken stock from which the ehildren are descended; and (2) bad surronndings which have developed the process already inherited. Dawson says: "Their parents have undergone modification in the direction of a less perfect physical structure and less highly developed physical powers. They have deviated, morbidly, from the type of their race and civilization."

## The First Five Hundred Days of a Child's Life. ${ }^{1}$

The child whose history is here recorded was born of American parents while residing in Zurich, Switzerland. The father's ancestry is purely American, while the mother's is purely English. On the paternal side the families were agricultural, on the maternal mechanical. The grandparents were of good health. The parents are plysically strong and of sanguine temperament; both had miversity edncation, and were teachers before and after marriage.

Tho child at birth was physically strong. His mother was his only nurse and constant companion. During the first sixteen months she was not absent from him more than half a dozen times during his waking hours. All the observations were made by his mother, Mrs. Winfield S. Hall. All the measurements were taken by his father, Dr. Winfield S. Hall.

Tahle 29 gives a list of twenty-five measurements. The observations were made at the end of each month during the first year.

Table 29.

| Measurements. | Age in months. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. | 12. | 15. | 18. |
| Weight.......kilogr.tins.. | 3.95 | 4.52 | 5. 0 | 5.40 | 5. 90 | 6.48 | 7.5 | 8.30 | 9.15 | 10.0 | 10.4 | 10.5 | 11.1 | 11.2 |
| Height......centimeters. | 51.5 | 56.0 | 60.5 | 64.3 | ¢5. 3 | 67.1 | 69.3 | 70.0 | 72.0 | 72.7 | 73.5 | 74.5 | 77.5 | 83.0 |
| Sitting . . . . . . . do | 360 | 37.0 | 40.0 | ${ }_{10.5}^{40}$ | 40.5 | 12. 0 | 44.2 | 45.0 | 45. 0 | 45.0 | 45. 6 | 46.0 | 46.0 | 48. 0 |
| Knee............ do | 14.0 | 15.0 | 15.0 | 15.5 | 16. 0 | 16.7 | 17.0 | 17.5 | 19.5 | 19.5 | 19.5 | 19.7 | 21.0 | 22.0 |
| Girth: <br> Head do. | 38.5 | 39.9 | 40.4 | 41.5 | 42.7 | 43.3 | 14.1 | 45.0 | 45.5 | 46.4 | 47.3 |  |  | 49.0 |
| Neck............ ${ }^{\text {do. }}$ | 19.7 | 20.5 | 20.5 | 21.6 | 22.1 | 22. 4 | 23.0 | 23.0 | 23.0 | 23.5 | 24.0 | 24.0 | 24.2 | ${ }_{24}{ }^{4} 5$ |
| Chest .......... do... | 35.7 | 36.6 | 37.8 | 39.5 | 43.0 | 43.0 | 45.0 | 47.0 | 47.0 | 47.5 | 48.0 | 49.3 | 49.3 | 51.3 |
| Chest at ninth rib, | 35.2 | 37.2 | 38.0 | 40.0 | 12.4 | 43.5 | 45.2 | 47.0 | 47.0 | 47.8 | 48.5 | 49.5 | 49.5 | 52.0 |
| Abdomen ......do.. | 36.0 | 37.7 | 38.6 | 39.0 | 40. 6 | 44.5 | 46.0 | 47.5 | 48.0 | 49.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| Hips ...........do. ${ }^{\text {do }}$ | 29.5 | 32.5 | 32.6 | 36.4 | 37.4 | 38.7 | 39.0 | +2.0 | 43. 0 | 45. 0 | 46.0 | 46.0 | 47.0 | 48.8 |
| Upper arm ..... do. | 10.3 | 10.7 | 11.8 | 12.0 | 13.0 | 13.0 | 13.6 | 14.5 | 15.5 | 15.6 | 15.7 | 15.8 | 16. 7 | 16.3 |
| Ellbow..........do... | 10.0 | 10.9 | 11.0 | 11.0 | 11.6 | 12.7 | $\mid 13.0$ | 13.2 | 14.0 | 14.0 | 14.0 | 14.3 | 15.0 | 14.5 |

${ }^{1}$ The Child Study Monthly, November, 1896.

Table 29-Continued.

| Measurements. | Age in mouths. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. | 12. | 15. | 18. |
| Girth-Continued. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Forearm.centimeters. | 10.3 7.5 | 10.8 7.9 | 10.8 7.9 | 11.9 8.3 | 12.0 | 12.7 9.5 | 13.3 9.7 | 13.5 9.7 | 14.0 9.8 | 14.0 9.9 | 1 1.0 0 | 14.7 10.8 | 15.7 | 15.5 |
| Thigh...........do | 16.0 | 18.9 | 20.6 | 20.7 | 21.8 | 22.0 | 23.2 | 25.0 | 26.0 | 26.3 | 26.5 | 27.5 | 28.3 | 27.5 |
| Knee............do | 13.0 | 13.2 | 14.6 | 14.6 | 15.9 | 16.5 | 18.3 | 18.5 | 19.0 | 19.0 | 19.2 | 20.5 | 20.5 | 20.5 |
| Calf.............do | 12.2 | 12.4 | 13.8 | 14.0 | 15.1 | 15.7 | 16.9 | 18.0 | 18.0 | 18.2 | 18.5 | 19.3 | 20.2 | 19.8 |
| Ankle | 9.0 | 9.4 | 9.8 | 10.0 | 11.2 | 11.4 | 12.1 | 12.3 | 12.5 | 12.8 | 13.2 | 13.3 | 13.7 | 13.9 |
| Length: <br> Head do. | 13.0 | 13.5 | 13.7 | 13.9 | 15.2 | 16.0 | 16.0 | 16.0 | 16. 2 | 16.2 | 16.3 | 16.5 | 17.0 | 17.2 |
| Shoulder to elbow |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| .......centimeters.. | 10.6 | 11. 0 | 11.4 | 12. 0 | 12.1 | 13. 0 | 13.5 | 13.7 | 13.7 | 14.4 | 15.0 | 15.5 | 15.8 | 16.5 |
| Elbow to tip....do. | 14. 0 | 15. 3 | 15.4 | 16.0 | 17.0 | 17.3 | 17.5 | 17.8 | 19.0 | 19.0 | 19.0 | 19.3 | 21.0 | 21.4 |
| Foot ...........do. | 8.1 | 8.6 | 8.6 | 9.0 | 9.1 | 9.5 | 10.2 | 10.3 | 10.4 | 10.4 | 10.5 | 11.2 | 11.7 | 12.6 |
| Breadth: <br> Head do | 10.0 | 11.0 | 11.3 | 11.5 | 11.7 | 12. 5 | 12.5 | 13.0 | 13.3 | 13.3 | 13.3 | 13.3 | 13.3 | 13.3 |
| Sheulders ...... do | 12.5 | 13.5 | 14.5 | 15.0 | 17.2 | 17.7 | 19.0 | 19.5 | 19.5 | 20.0 | 20.4 | 20.4 | 20.5 | 20.7 |
| Hips ............do. | 10.5 | 11.5 | 11.5 | 12.5 | 13.0 | 13.5 | 14.0 | 15.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 |

Table 30.-Data to use in a preliminary investigation of the question of changes in proportions of the body during infancy and early childhood.
[Measurements in centimeters.]


## LAWS OF GROWTH.

1. The wave theory of growth, already demonstrated for children and youths of school age, is well illustrated in the course of any curve on the plate. The curve for muscle girths, for examplo, presents crests, at $3,5,8$, and 15 months, and indicates periods of accelerated growth from the first to third munth, fourth to fifth month, sixth to eighth month, and eleventh to fifteenth month; and periods of retarded growth, from third to fourth month, fifth to sixth month, eighth to eleventh month, and fifteenth to eighteenth month, or four periods of accelerated growth, followed by a like number of periods of retarded growth.

Showing course of inerease in lengths, girths, and weights.

| $\begin{aligned} & \text { Per } \\ & \text { Cent } \end{aligned}$ | Age in Months. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 7 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 17 | 12 | 13 | 74 | 15 | 16 | 17 | 18 |
| 270 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 280 |  |  |  |  |  |  |  |  |  |  | $\sim$ |  |  |  |  |  |  |  |
| 250 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2401 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 230 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 220 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 210 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2001 |  |  |  |  |  |  | $-e^{2}$ |  |  |  |  |  |  |  |  |  |  |  |
| 190 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 180 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 170 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 160 |  |  |  |  |  |  |  |  |  |  |  | M | uscle | GII |  |  |  | \% |
| 150 |  |  |  |  |  |  |  |  |  |  | $-\theta^{-}$ |  |  | - | -0- |  | hs. | $\rightarrow$ |
| 140 |  |  |  |  |  |  |  |  |  | eight |  | 交8 |  |  |  | eng | ot | - |
| 130 |  |  |  | $1$ |  |  |  |  |  |  |  |  |  |  |  | Wer | hits. | - |
| 120 |  |  |  |  |  | $\mathrm{GII}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 110 |  |  |  |  | 2l |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

All the other curves show waves, though in a less marked degree than in tho eno just cited.
2. To test the relations of vertical to lateral dimensions-as cited above, under "a law of proportion of the human body"-is the principal purpose of this investigation.

Of the six curves traced, two represent vertical dimensions, heights and lengths, and heights standing; two represent lateral dimensions-body girths and muscle girths, while two represent mass-weight and cube root of weight. If the theory of the reciprocal relation of vertical and lateral dimensions is tenable, then wo shouk expect: (1) That related curves will be parallel. (2) That in two reciprocal curves the periods of acceleration in one curve correspond with the periods of retardation in the other.

Now, the curves representing height staading and heights and lengths are related curves, because both represent vertical dimensions. If one follows their course from the first to the eighteenth month, one will find that they are remarkably parallel, i. e., that a periol of acceleration in one corresponds to a poriod of acceleration in the other.

Let us inspect the other pair of related curves which represent lateral dimensions, i. e., the curves of muscle girths and of body girths.

Attention has already been called to the fact that the crests of the muscle girth curves occur in the third, fifth, eighth, and fifteenth months. Inspection of the body girths curre shows that its crests occur in the second, fifth, eighth, and fifteenth months. The slight discrepancy is of less moment than the lack of parallelism between the curves between fifteenth and eighteenth months. One curve shows a marked retardation of the rate of increase of the muscle girths, while the other shows only a slight retardation of the rate of increase of boly girths. But this difference is easily accounted for. Between the fifteenth and eighteenth months the child suffered from a moderately severe attack of whooping cough. There was no increase in weight during these three months, but there was consiterable increase in height and lengths. This combination must be accompanied by a decrease in girths. Now, a decrease in girth of arm or leg would signify a consumption of reserve fat, while a decrease of chest and abdomen measurements might signify a decrease in the rate of growth, or even of the nutrition and effieiency of the vital organs lodged in the body cavities. One would expect that if the girths must decrease, the muscle girths would be first to suffer. The chart shows that such is the case, and the loss of weight through cousumption of fat from arms and legs, was compensated by the increase in the length of arms and legs. We are more than justified in affirming the conclusion that related curves are parallel, or we may formulate the following laws of growth:
(a) The vertebral column and all of the long bones of the body are sabjected to simultaneous accelerations and retardations of growth.
(b) The girths of the boty and of the arms and logs are subjected to simultaneous acceleration and retardation of growth.
(c) The accelcration and retardation of growth are more sharply accentuated in the musele girtlis than in the body girths.

Let us now examine the tenableness of the second a priori proposition, that "in two reciprocal curves the periods of acceleration in one curve correspond with the periods of retardation in the other." Any curve representing vertical dimensions is reciprocal to any curve representing lateral dimensions. One may make four conbinations of reciprocal curves: (1) Muscle girth is reciprocal to height standing, and (2) to heights and lengths; (3) body girths is reciprocal to height standing, avd (4) to heights and lengths. The proportion may be most conciscly and effectually testel by tabulating the position of the crests of the waves of growth:

Location of crests of reciprocal carves.


The scarcely noticable crest at the twelfth month in height standing and in related curve, heighths and lengths, may be omitted from the table, though its presence is rather confirmatory. This table, according to Hall, demonstrates beyond a reasonable donbt that in any pair of reciprocal curves the crests of one alternate in time with the crests of the other; or that the periods of accelerated growth in one
dimension of the body alternate with periods of accelerated growth in the other dimensions. To the laws of growth formulated above we may add the following:
(d) When the vertebral column and all of the long bones of the body are undergoing an acceleration of their rate of growth, the body girths and muscle girths are undergoing a retardation of their rate of growth.
(e) Conversely, when the lateral dimensions of the body are undergoing an acceleration, the vertical dimension undergoes a retardation of its rate of growth.

But what is the relation of weight (rather the cube root of weight) to these linear dimensions? It is evident that the weight can not vary with the vertical dimension of a body when the lateral dimensions are varying at a rate different from that of the vertical dimension, though in the same direction. The weight of a body of varging dimensions varies as the product of the dimensions. In a graphic representation the curve of the cube root of the weight would be parallel to a curve representing the mean between reciprocal curves. If, for example, one traces a curve which is mean between muscle girths and height standing, this curve will represent the product of the lateral by the vertical dimensions. This curve presents a remarkable parallelism to the curve representing the cube root of the weight.

To the laws of growth formulated above we may add:
$(f)$ The weight varies as the product of the vertical and lateral dimensions.
(g) The curve representing weight presents less marked waves than do the curves representing vertical or lateral dimensions.

SENSES.
The perception of light is the first step in the development of the sense of sight.
The perception of the light reflected from bright-colored objects is the second step in the development of sight.

The gradual development of the power of directing the eyes upon objects (fixation) indicates the course of the development of the visual perception of objects, because fixation of the eyes is, in all animals capable of binocular vision, accomplished by an associated coordination of the voluntary muscles which direct the eyes and of the involuntary ciliary muscles which canse the focussing of the rays of lightupon the retina. The coordination just cited is inherent; there is therefore no reasonable doubt that the formation of a clear image of an object upon the retina is coincident with the convergence of the eyes upon the object. The physical perception of objects can not precede the formation of their image upon the retina-i. e. can not precede fixation of the eyes upon objects

The time when visual perception becomes relatively clear precedes the following of moving objects by the eyes, because this act is a voluntary one, and the child can not will to follow the motions of an object which it does not perceive.
Having established these two propositions, visual perception can not precede fixation; visual perception must precede the following of moving oljects by the eyes, it remains only to establish the dates when these two things were observed, and we shall have the limits between which visual perceptions of objects developed.

Fixation is definitely observed first on the twenty-eighth day.
Volmatarily following a moving object was first noted on the thirty-second day.
Therefore, in this child, a clear visual perception of objects was established in the fifth week.

The differentiation and recognition of form begins earlier and develops much more rapidly than the differentiation and recognition of color.

Sensitiveness to vibrations of the air was manifested on the first day.
Differentiation of the character of sounds, whether agreeable or otherwise, precedes the recognition of sounds.

The attention is held much more closely when two senses are affected than when only one is affected.

## EMOTIONS.

Fear and anger, the animal emotions, were very early oxhibited.
Affection and sympathy, the higher emotions, were much later developed.
Compassion, one of the highest emotions, did not appear until near the close of the five hundred days.

Fear being in every case allayed or dispelled, came to be seldom exhibited.
Outbursts of anger, being in no case allo wed to avail any thing, were very infrequent.
Sympathy and affection, being always encouraged, grew rapidly and bccame habitual.

There is a striking correspondence, in order of events and coincidence of time, between observations in Preyer's child and this child, given in the following table:

Table 31.

| Observations. | Baby Preyer. |  | Baby Hall. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Week. | Day. | Week. | Day. |
| The child sees his own image in the mirror | 17 | 113 | 17 | 112 |
| The child langhs at his image in the mirror | 17 | 116 | 17 | 113 |
| The child looks at an image and then turus to find the real object... | $2 t$ |  | 24 | 167 |
| The child grasps at his image in the mirror .......................... | 35 |  | 34 | 235 |
| The child looks at his image, then turns the mirror to find the child.. | 57 |  | 49 | 343 |
| The child licks his image ........... | 61 |  | 61 | 420 |
| The child makes grimaces as he looks in to the mirror | 67 |  | 62 | 428 |

## INTELLECT.

In Baby Hall the powers of the intellect appeared in the following order: Attention (32), memory (34), volition (52), somatic conscionsness (63), persisteuce (119), imitation (220), representative imitation (283), egoism proper (254), reason (287), active imagination (427).

Attention, memory, volition, and somatic consciousness, the powers which are shared by the lower animals, were first developed.

Persistence, imitation, egoism proper, and representative imagination, which are shared by the higher animals, were not developed.

Active imagination and reason, the essentially human powers, were last developed.
In the child's relations with the mirror he first simply looked at his reflection, as birds do. He next showed fear of it, as do many of the higher animals. He then grasped at it with his hands, as cats strike at reflections with the paw. Later he looked behind the glass to find the object, as cats aud monkeys have been known to do. But on the four hundred and twentieth day he deliberately turned the glass at differeut angles to obtain required reflections, an intelligence not possessed by any animal other than man.

A definite idea of number, as far as two, had been developed by the sixty-ninth week.

The first language of the child was the primitive language of the species and consisted of sounds and signs. This language expressed elementary physical needs, and the lower order of psychical states-emotions. Every expression of this language would be perfectiy understood by every adult member of the species.

The second language of the child-that of the first three months of articulate speech (two hundred and twenty-third day to three hundred and fourteenth day)was an interjectional, onomatopoctic race-language. Of the vocabulary of this language, 83 per cent consisted of words having duplicated syllables, 33 per cent consisted of interjections, and 33 per cent of onomatopoetic words. With the exception of the word "kitty," acquired on the last day of the period, the whole vocabulary would probably be intelligible, when used by a child, to any adult member of the teutonic branch of the race.

The third language of the child was the vernacular language of the mother. The
 oi, ow, $\overline{\mathrm{u}}$. The consonant sounds were introduced in the following order: $\mathrm{b}, \mathrm{p}, \mathrm{t}, \mathrm{k}$, sh, $\mathrm{g}, \mathrm{d}, \mathrm{m}, \mathrm{s}, \mathrm{z}, \mathrm{n}, \mathrm{y}, \mathrm{r}, \mathrm{f}, \mathrm{ch}, \mathrm{l}, \mathrm{ng}, \mathrm{w}, \mathrm{j}$. The consonant sounds not used were: v , th, (asp.), th (voc.), wh, and zh.

During the eighth, ninth, tenth, and eleventh months there were more vowels than consonants in use. During the twelfth and thirteenth months there were as many consonants as vowels in use. During the remaining time the consonants were more numerous than the vowels.
As to frequency of use in now syllables the vowels take the following order: é, 1 ,

As to frequency of use in new syllables the consonants take the following order: b, n, t, k, p, m, w, d, v, f, s, sh, h, g, ng, z, r, l, ch, j.

As to frequency of use as initial sounds the letters take the following order: $b, k$,


Elementary sounds were acquired rapidly during the eighth to fourteenth months and slowly during the remaining part of the period.
Words were acquired slowly during the eighth to fourteenth months and rapidly in the fifteenth, sixtecnth, and seventeenth months. The rate of development of this child's language has undergone alternating accelerations and retardations. The accelerations are graphically expressed in the wave crests in the curve of acquisition. (See chart.)

Chart showing the acquisition of words and their grammatical distribution.


From the beginning of the eleventh month to the five hundredth day there are neally seren (6i) lunar months. During this period there were seven crests in the curve of acquisition of words. The seven periods of acceleration are so distributed as to fall one within each lunar month.

Table 32.-Showing the acquisition of words and their grammatical distribution.


Chimdrex's Purposes.
In order to learn something of children's interests in phants, Katherine A. Chandler, ${ }^{\text {t }}$ of Leland Stanford, jr., University, Califormia, sent out the following test to several public schools: "John's father gave him a piece of ground for a garden, and said he might plant three plants. Gness what he planted. Why?"
The answers retamed show clearly the children's motives in planting, and are considered from that standpoint. There were received from the boys 232 papers, and from the girls 260 papers, the anthors all ranging in ages from 8 to 15 years. The papers came from both city and farming districts.
The papers were collected under two inain heads, "materialistic" aud "esthetic" according to the children's purposes in planting. Materialistic included all food products; testhetic included plaats estemed for their flowers. The term garden may have increased the "materialists" among the conntry children, suggesting spring preparation for vegetables.
The boys show a strongly increasing idea of the value of material things, 50 per cent at 8 sears becoming 75 per cent at 15 .
The girls show less interest in material thiugs, 46 per cent at 8 years roaching 56 per cent at 15 , due perhaps to the fact that hoys are given to understand that they must earn their living, making them more on the lookout for the value of things.
Asthetic purposes are just the reverse of materialistic. While 50 per cent of the boys at 8 plant for the sake of flowers, only 25 per cent at 15 express a desire for the beautiful. At all ages, the girls are stronger in admiring the asthetic; 54 per cent at 8 years decreasing ouly to 44 per cent at 15 .

Table 33.-Materialistic.
[The numbers indicate per cent; blanks indicate no per cent.]


Under the six groupings in the above table the boys show more interest in food products; more of them than the girls give reasons for choosing certain vegetables.

Table 34.-Esthetical.
[Numbers indicate per cent; blanks indicate no per cent.]

|  | 8 years. | 9 years. | 10 years. | 11 years. | 12 years. | 13 years. | 14 years. | 15 years. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Liked flowers: |  |  |  |  |  |  |  |  |
| Boys. | 40 | 27 | 17 | 11 | 4 | 2 | 4 |  |
| Girls. | 20 | 27 | 17 | 15 | 22 | 5 | 6 | 18 |
| Beauty: |  |  |  |  |  |  |  |  |
| Boys. | ... | 33 | 17 | 21 | 18 | 17 | 12 | 23 |
| Girls. |  | 32 | 28 | 30 | 18 | 17 | 21 | 24 |
| Fragrance: |  |  |  |  |  |  |  |  |
| Poys | 20 | 7 | 7 | 11 | 14 | 4 | 4 | 8 |
| Girls. |  | 23 | 7 | 10 | 8 | 10 | 9 | 12 |
| Others liked the |  |  |  |  |  |  |  |  |
| Boys..... |  |  | 3 |  |  | 4 | 4 |  |
| Girls... |  | 14 | 9 | 4 | 12 | 2 | 3 | 18 |
| Give away: |  |  |  |  |  |  |  |  |
| Boys... |  |  |  | 6 | 6 | 6 | 8 |  |
| Girls... |  | 14 | 4 | 7 | 2 | 12 | 24 | 6 |
| Miscellaneous: |  |  |  |  |  |  |  |  |
| Boys.. |  |  | 3 |  | 14 | 11 | 4 | 23 |
| Girls.. | 20 | 18 | 17 | 17 | 12 | 15 | 15 | 18 |

Under the six groupings of esthetical purpose in Table 34, "beauty" has the greatest number of admirers. Color is the only element of beanty mentioned.

Table 35.-Altruistic.
[Numbers indicate per cent; blanks indicate no per cent.]

|  | 8 years. | 9 years. | 10 years. | 11 years. | 12 years. | 13 years. | 14 years. | 15 years. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Massing of altruistic elements: |  |  |  |  |  |  |  |  |
| Boys. | 20 |  | 10 | 13 | 14 | 36 | 20 | 10 |
| Girls |  | 36 | 33 | 28 | 28 | 24 | 68 | 53 |

Combining the "food for animals," "help parents," and "give away" of the æsthetic group, we have Table 35, above, giving the altrnistic purpose. This is much stronger in the girls than the boys.

## Imitation in Children.

By working over the results of E. H. Russell's book on imitation, Caroline Frear ${ }^{1}$ gives resnlts showing the trends and age tendencies in imitation by children. The following chart shows whom the child imitates:


There is a small per cent of imitation of things, as an engine. As will be seen, imitation of adults is much in excess of imitation of other children or animals. The imitation of adults increases with years. In another chart Miss Frear shows three kinds of imitative activity: Direct, playing, and imitation with an anxions purpose. Direct imitating is more immediate, is impulsive. Playing imitation is dramatic, like playing horse; it increases with age, while direct imitation decreases.

In another chart is shown with whom the ehild plays. The tendency to play with the adult is noteworthy during the first year, after which for two or three years he is satisfied to play with himself. Then this decreases, and play with other children increases rapidly as the social instinct develops. In other charts it is shown what children imitate, as action, speech, or sound. The preponderance of imitation of action over that of speech is shown in early years. Speech develops in connection with action.

## Blushing.

The following data as to blushing are given by G. E. Partridge, ${ }^{1}$ of Clark University. A syllabus sent out by Dr. Hall hat, among other questions, these:

How do you know you are going to blush? Where is it first felt? Do you feel it in hands, arms, limbs, neck, chest?

Are there attendant tweaks, tingles, twinges, or other sensations elsewhere, or any reactions of pallor or chill?

Describe spontaneons flashes in any pare of the body as when alone.
Teasing to make others blush.
Describe your own blushing habits and those of your friends.
The results upon which the study is based came from the State Normal Srhool at Tienton, N. J.

Blushing is distinguished from flushing; blushing is use for the phenomenon as observer in others. There are 120 cases ( 36 males, 84 females) of blushing. The age is given in 60 cases: 2, six years; 2, nine; 4, ten; 5, eleven; 8, twelve; 2, thirteen; 2 , fourtern; 11 , fifteen ; 8 , sixteen ; 7 , seventeen ; 8 , eighteen; 3 , ninetsen.

There appears to be no uniformity in manner of blushing; in some it appears in a small spot and spreads in all directions, or spreads upward only; in some downward, appearing on the neek last.

The causes of blushing were teasing (asually about the other sex), 32 ; told to blush, or not to, or told that they are blushing, 18; reciting, 13 ; spoken to, 8 ; looked at, 6 ; a certain name mentioned, 5 ; talking, 4; mistake, 4 , ete.
The frequency in which the mention of a blush produces it is to be noted. The fear of being seen blushing increases it, hence one does not blush so readily in the dark.
Flushing was felt in 134 cases, all but four or five of which are of females ranging in age from 17 to 22 years.

The most important warnings and preliminary symptoms of a flush are: Tremors, a "feeling" near the waist; weak in the limbs; tremor which passes from the feet to the head; a feeling, swelling, pressure, trembling, warmth, a weight, beating in the chest, warm wave from feet upward; heart seems to stop, then beats more rapidly; quivering of the heart; blood rushes upward; hot glow all over; nervous flash or feeling; cold all over, then very warm; feel meomfortable; dizzy; "quickening" of blood all over the body; tingling in toes and fingers; something rises in the throat; eyes smart; ringing in the ears; face prickles; pressure inside the head.

Symptoms most plysical were self-conscionsness; "feeling as if being looked at;" "feel foolish;" "confused;" "feel as if I were going to blush."

There is more in a blush than a mere hyperemia of the surface; there is a disturbance of the vaso-motor functions and emotions.

In flushing, the feelings, flashes, and tremors pass upward, but in blushing the actual redncss has no definite course of spreading. Paget, a distinguished gynecologist, in making notes for Darwin in regard to the extent of blushing, showed that actual reduess is confined to face and neck, occasionally appearing in the hands.

As to diffused waves and flashes, an increased flow of blood to the brain is accompanied by arterial contraction in other parts of the body; then, as the blush subsides, there is a redistribution of blood in the surface of other parts of the body, with tingling, prickling, and often sweating.

In regard to reactions, chill is mentioned 27 times; prespiration, 8; weakness, 8; pallor, 7; headache, 3, etc.

Campell thinks that nine-tenths of all blushes are from a feeling of shyness, and that they are umatural and morbid. But an infant does not blush; he may turn red from anger or other causes. It is not until the age of 3 or 4 that children begin to blush; still, children much younger than 3 exhibit shyness. Mosu evidenee seems to show that fear underlies most of blushing; the presence of the feeling of dread, the palpitation of the heart, the impulse to escape or to hide, and the shock tend to confirm this riew.

Blushing increases at puberty; it is much more common among girls than boys; with women than men, and remains to a greater age in women, as Darwin has shown. Blashing seems to be a relic of ancestral sex fear.

## A Stuiy of Fears.

This stuly of fears, by President $G$. Stanley Hall, ${ }^{1}$ is based upon the returns in answer to the following syllabus:

## SYLLABUS.

1. Fears of celestial phenomena, as, e. g., of winds, storms, thuuder and ligitning, heavenly bodies meteors, sky falling, cloud, mist, for, and cloud forms; end of the world and attendant phenomena; night and darkuess, eclipse; moon breaking; that the san may not rise; peculiar sky colors, northern lights, exeessive heat and eold, loss of orientation and points of compass.
2. Special inanmate objects, as fire and conflagration; water, drowning, and washing or being washed; punishment and its instruments, and things and places assoeiated with it; faling and of high places; uncanny places, as caves, ravines, gorges,

[^5]forest gloom, high hills and solitudo generally, and getting lost or shut up; gans and weapons; points, sharp edres, very narrow or wide open spaces; dirt on garments or skin, and contact generally; vehicles and riding.
3. Living things, self-moving things generally; big eyes, mouth, teeth; dog, eat, snakes, pigs, rats and mice, spiders, bugs and beatles, toads, etc.; sight of blood, robbers and burglars, strancers, society and bashfulness; fear of being laughed at, talked of, or boing ridicnlons; shyness of opposite sex; foar of fighting; cowardice, poltroonery, suspiciousuess.
4. Disease, dying, death; loss of frionds, position, fortune, beanty, or of health generally; heart disease, cancers, fits, consumption, starvation, fear of prevalent diseases, or of those read of.
5. Fears of the supernatural, c.g., ghosts, spirits, witches, fairies, dragons, or mythological monsters; dream fears, conscience fears, as of having committed unpardonable sins; punishments specially incurred or sent from heaven, loss of soul and nextworld fears generally, fears of sin or impurity.
6. Describe any sudden experience you have felt or observed, and whether involving only distinct surprise or being intenso enongh to cause real shock, start, or astonishment, with dotails of cause, effects, and their permanence; terrors, without danger or cause other than an hereditary or a trammatic disposition to timidity.
7. In each case state order and age of fears, how long they lasted, how intense they were, what acts they prompted, and edueational good or bad effects; was sleep affected? Stato specific symptoms, starting, paleness or sweat, urinations, rigidity, cramps, horripilations and "creepy, crawling" feelings, nausea, weakness, fainting, flight; canses, treatment, aud cures.

This syllabus is drawn up by the undersigned, and is sent to yon with the request that you will read it carefully item by item, and (1) jot down at once in the easiest form of notes whatever each paragraph or phrase recalls of your own childish fears; (2) that if son are a parent you will add to this any observations this paper may suggest or recall on your own children (it may aid you if you keep a "life book" or memoranda in any form about them); (3) that if you are a teacher, you will read this paper to your class, write it on the loard, or give it to individual pupils (of upper grammar or high school grades) and ask them to write as an exercise in composition (setting apart an hour, or asking for out-of-school work) an account of their own early or present fears; (4) if you are a nomal-school principal or teacher of psychology, you may connect it with the class work in the study of feclings or emotions; (5) if you are a principal or superintendent, you can assign the work to some teacher or advanced pupil to collect the data. All returns may be anonymous if preferred, but age, sex, and nationality must be stated in every case.

Returns may be sent direct to the undersigned, or, if preferred, may be studied by you, and will make the best of material for a lesson in psychology, for a discussion in a meeting of teachers or mothers, or an address, or an article for the press. When you are entirely done with the material thus gathered and used, send it to the undersignod.
G. Stanley Hald.

The data for the first tabulation consisted of the records of the chief fears of 1,701 people, mostly under 23 years of age, gathered in different places, and 386 supplementary reports.

The 1,701 persons described 6,456 fears, which are grouped as follows, according to the objects feared:

Table 36.

| Celestial phenomena. |  | Darkness. | 432 |
| :---: | :---: | :---: | :---: |
| Thunder and lightning. | 603 | Ghosts | 203 |
| High wind | 143 | Dream fears | 109 |
| Cyclones | 67 | Solitude. | 55 |
| Clouds and their forms | 44 | Total | 799 |
| Meteors | 34 | Animals: |  |
| Northern lights. | 25 | Animals: <br> Reptiles | 483 |
| Comets. | 18 | Reptiles | 483 |
| Fog. | 16 | Domestic anim <br> Wild animols | 268 |
| Storms | 14 | Wild animals | 206 |
| Eclipses... | 14 | Insects. | 203 |
| Extrome hot weather. | 10 | Rats and mice | 196 |
| Extreme cold weather | 8 | Cats and dogs | 79 |
| Total | 996 | Total | 1,486 |

Table 36-Continued.


It appears from Table 36 that thunderstorms are feared the most; then reptiles follow; then strangers and darkness very close ; then fire, death, and domestic animals, etc.

Selecting from the returns the 1,106 well-described fears of 500 boys and the 1,765 fears of 500 girls on the 28 topics, we have Table 37 , which follows, showing the effect of sex:

Table 37.

|  | Males. | Fe. males. |  | Males. | $\begin{aligned} & \mathrm{Fe} . \\ & \text { males. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Thander and lightning. | 155 | 230 | Blood | 14 | 44 |
| Persons | 129 | 190 | Heights.... | 43 | 40 |
| Reptiles.. | 123 | 180 | Self consciousness | 28 | 40 |
| Darkuess | 130 | 171 | Noises | 10 | 36 |
| Death. | 74 | 102 | Buried alive. | 5 | 32 |
| Domestic animals | 57 | 96 | Imaginary things | 23 | 24 |
| Rats and mice | 13 | 75 | Drowning | 19 | 20 |
| Insects.. | 52 | 74 | Clouds ... | 4 | 15 |
| Ghosts. | 44 | 72 | Solitude | 4 | 15 |
| Wind | 35 | 61 | Places. | 2 | 14 |
| End of world | 11 | 53 | Meteors | 6 | 12 |
| Water.. | 62 | 53 | Shyness. | 9 | 8 |
| Robbers... | 32 | 48 | Fairies.. |  | 7 |
| Mechanism | 31 | 47 | Ridicule | 1 | 6 |

It will be seen from the above table that out of 500 girls 230 report fear of thunder and lightning, while the same number of boys report this fear but 150 tines. In fear of the end of the world, rats and mice, blood, and being buried alive girls lead boys; but boys excel girls only in fears of water, height, and shyness. Each of the boys has 2.21 fears; each of the girls has 3.55 fears.

From all the returns 516 boys, with 1,521 fears, and 671 girls, with 3,101 fears, were selected according to age as follows:

Table 38.

|  | Age. | Number of males. | Average. | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { females. } \end{aligned}$ | Average. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0-4. |  | 36 | 1.76 | 74 | 4.89 |
| 4-7. |  | 144 | 1.54 | 176 | 2.44 |
| 7-11. |  | 104 | 3.56 | 227 | 4.34 |
| 11-15. |  | 140 | 3. 69 | 127 | 6.22 |
| 15-18. |  | 72 | 2. 40 | 38 | 10.67 |
| 18-26. |  | 50 | 2.55 | 29 | 4.31 |
|  |  | 524 | $\begin{array}{r} (2.94) \\ 2.58 \end{array}$ | 671 | $\begin{array}{r} (4.62) \\ 5.46 \end{array}$ |

There are 36 boys in Table 38, 4 years of age, who report 1.76 fears each, while 74 girls of the same age average 4.89 fears each. All the boys record 2.94 and all the girls 4.62 fears each.

The fears of the boys increase from 7 to 15 , and then decline, while those of the girls increase more steadily from 4 to 18.

The following fears show decline with advancing maturity in both sexes: Metcors, clouds, blood, end of world, being kidnaped, fairies, loss of orientation, sbyness of strangers; but the following fears seem to increase: Thunder and lightning, reptiles, robbers, self-consciousness, machinery.

While many special fears decline and others increase with age, many infantile fears remain through life.

## Class Punishment.

As a test of children's ideas of class punishment, the following story was given under direction of Caroline Frear ${ }^{1}$ to 1,914 children: "One day the teacher left the room and while she was gone several children in the room began to make a noise. The teacher heard the noise as she was coming back, but did not know which children were out of order, and none of the class would tell her. So she kept the whole class after school. Was the punishment just or unjust, and why ?" There were 968 boys and 946 girls ranging in age from 7 to 16 years. Each age for each sex was collected separately. The papers were collected under the headings "just" and "unjust", aud subheadings for the reasons why just or unjust.

Eighty-two per cent of all the children considered the punishment just, 17 per cent unjust, and 1 per cent gave qualified answers.

The per cent of thase regarding the punishment just decreases very slightly with age, as the following chart shows. The per cent of those regarding it unjust increases very slightly, but throngi all ages the proportion of those regarding it just exceeds the others very mach.

The following figures show the age tendency in groupings:


This may show tendencics, decreasing with age, on the part of children to accept as just their accustomed experience.

The per cents for the reasons under "just" are made ont on the number of "just" papers, not on the whole number of papers, and the same is true for the reasons under "unjust."

Forty-seven of those who considered the punishment just gave as the reason that the class would not tell or ought to tell who the guilty were. The statement "ought to tell" increases with years.

The table which follows shows the relative appealing power, with the reasons given, for the justice of the punishment powers at different years. Age tendencies are noticeable.

Table 39.-Reasons for justice of punishment.

|  |
| :--- | :--- | ---: | ---: | ---: |

${ }^{1}$ Studies in Education, IX, March, 1897.
Upper lines, just.
Under lines, unjust.


Following are the conclusions:
(a) Children accept in early years arbitrary punishment enforced by antherity. They sabmit to sueh punishment less readily as age inereases.
(b) Chiltren have an increasing sense of their yalne as intividuals, and increasingly demand the protection of their individnal rights.
(c) At the same time they have an increasing sense of social responsibility in the honest exposure of guilit.
The above eonclusions seem to justify the following pedagogical application: Class punishment should ?e used less with older than with yonnger children. Its use, even with younger children, is questionable, since a considerablo number of theso react strongly against it.
The following additional conclnsions bear on tho geacral subject of punishment, and confirm what other studies have already asserted:

In early years the sense of justice is based on feeling and on faith in authority. As age increases it is based on reason and understanding.

Young children regard pmishment as a means of balancing accounts with the offense. Its purpose as a social protective measure-a preventive of further trotibleis understood better as age increases.

## Moral Education.

In order to study moral education from the side of introspection, a syllabus of twelve sections was sent out by President G. Stanley Hall. The returns from this syllabus have bcen worked out and presented by J. R. Strcet, ${ }^{1}$ fellow in Clark University. The replies to the first five sections were of such a nature that only general results are given.

QUESTIONS.

1. What punishments or rewards have you ever had that did you good or harm? State the case and its results.

Of the 183 persons reporting 104 give instances of punishment, 65 speak of being benefited and 38 as being injured by the punishment.

## Conscience cases.

SEC. III. State a fer conscience cases in yoursolf or others, describing the circumstances that helped or confusel them.

The following eases were presented:
Stulying on Sunday, 7; dancing, 4; working on Sunday, 3; reading fiction on Sunday, 3 ; card playing, 2 ; theater going, 2 ; Sunday exensions, 2 ; waltzing with yomg men, 2; plagiarism, 2; Christian activity, 1; Sunday traveling, 1; betting, 1; confession of misdeeds, 1 ; boating on Sunday, 1; party going, 1; alcoholic drinking, 1 ; attending social entertainments, 1.

There was nothing to show that eonscience plays any great fartor in lifo before the age of 9 , and very little mention was made of it before 13. The cases, however, are altogether too few to make any generalized conchnsion concerning the age at which eonscience becomes a potent element in tho individual, yet it may be promised that it does notreveal its existence at as carly an age as many would believe. The writer knows a child in whom it was abnomally developed at the age of 3 . Impulse governs most of the activities of early childhood.

## Divect moral elueation.

SEC. IV. What has been the effect on rourselfor others of direct moral inenleation, whether at home in the form of a plain talk, a good dressing down, or advice not songht, or preaching in and out of the pulpit, and school or college instruction in morals? What book, system, or idea in each have heen morally helpful?

The returns are filled with such statements as "Preaching or advice nusought has never done me good; suggcstion has."

The boys were ahnost unanimous in commending the effeets of a good plain talk, and none had a word to say against a good dressing down. Many spoko very gratefully for having had puishment in due season. It does seem that there comes a period in the existence of many a youth when he eonceives the idea that he is lord of creation and his future usefulness as a member of society depends upon the thorough eradication of this disease of his system by the faithful and energetie administration of birch tonic.

## Direct religious inculcation．

SEC．V．What has been the effect of direct religious inculcation and what changes of religious views have affected your moral conduct，your conscience，and sense of right？Have liberalizing theological opinions made you better or worse，and how？ Sixty－eight returns were receivel to this section．

Of those reporting， 50 say they were benefited by direct religions inculcation， 5 that they were injured，while 3 say they were affected in no way； 10 mentioned example with some precept．

Proper books seem to play an important function in religious education．
Very few mentioned liberalizing theological opinions（ 8 ），and they put an inter－ pretation on these words that is not usual．The returns clearly point to the impor－ tant duty of parents and friends to give proper religious instruction at a very early age．

## Influence of teacher．

SEC．VI．Reflect which teacher or teachers from kindergarten to college，or pro－ fessional school，or in Sunday school you have liked best and been influenced most by，and then try to state wherein the influence was felt．What qualities impressed you most，and how？i．e．，account，if you can，for the exceptional influence of that particular teacher．Was it generally felt，or peculiar to you and your set？Was it comected with dress，manner，voice，good looks，religious activity or piety，bear－ ing，learning，etc．，and how did each salient quality affect you？

This question was answered by 23 boys and 160 girls．As few gave the exact time of the influence，no table can be prepared which might go to show the age at which the young are most susceptible to impressions from the teacher．

An endeavor has also been made to discover whether male teachers exert a greater inflnence over boys than do female teachers，and vice versa for the girls，hat with the exception of the general impression one gets from the returns the attempt has not been fruitful．

From the showing of the table and the testimony of the writers it is safe to con－ clude that there is an unconscions educative force emanating from the teacher＇s per－ sonality，and so operating upon the pupil as to become a powerful formative agent in the development of his character．
Second．This force，being unconscious in its origin and in its attracting and trans－ forming effect upon the plastic nature of the young，has its origin in what the teacher is rather than in what he says．

Third．It is a significant fact that 149 ont of a possible 183 mention the manner of the teacher as exerting such an influence over their natures．It has been said of more than one man－as of the Earl of Chatham－that＂．everybody felt there was something finer in the man than anything he ever said．＂It is this very something in the teacher that will go down deeper than his words and either purify or befoul the springs of action in his pupils．

Table 40.

| Point of influence（by 160 girls）． | Sex of teacher． |  | $\begin{aligned} & \text { ت゙ } \\ & \text { O. } \end{aligned}$ | Point of influence（by 23 boys）． | Sex of teacher． |  | 皆 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\stackrel{\dot{5}}{\stackrel{y}{\mid c}}$ | $\stackrel{\text { ¢ }}{\text { ¢ }}$ |  |  | $\stackrel{\text { gín }}{\text { ت゙ }}$ | 管 |  |
| Mauner．． | 14 | 114 | 128 | Manner．．．．．．．．．．．．．．．．．．．．．．．． | 7 | 14 | 21 |
| Religion | 5 | 55 | 60 | Personal interest ．．．．．．．．．．．．．．． | 5 | 4 |  |
| Precepts． | 16 | 33 | 49 | Religious ．．．．． |  | 8 |  |
| Learning | 12 | 41 | 53 | Good looks | 1 | 6 |  |
| Voice． | 5 | 47 | 51 | Learning ．． | 2 | 4 | 6 |
| Life．． | 9 | 35 | 44 | Voice | 0 | 6 | 6 |
| Persomal interest | 3 | 39 | 42 | Precepts． | 5 | 0 | 5 |
| Good looks． | 5 | 33 | 38 | Life．．．．． | 1 | 3 | 4 |
| Dress． | ， | 34 | 37 | Love for truth．．．．．．． | 3 | 0 | 3 |
| Love for study． | 4 | 17 | 21 | Interest in teaching | 1 | 2 | 3 |
| Bearing． | 3 | 22 | 25 | Patience and justice．．．．．．．．．．． | 1 | 2 | 3 |
| Interest in teaching | 2 | 14 | 16 | Language．－．－．．．．．．．．． | ， | 0 | 2 |
| Language．． | 4 | 10 | 14 | Self－control | 1 | 0 | 1 |
| Patience and justic | 4 | 10 | 14 | Bearing．．． | 0 | 1 | 1 |
| Self－control．．． | 2 | 9 | 11 | Dress．．． | 0 | 0 | 0 |
| Love for trath | 0 | 3 | 3 | Love for study．．．． |  |  |  |
| Praise | ， | 3 | 4 | Praise ．．．．．．．．．．．．． |  |  |  |
| Conscientionsuess | 0 | 3 | 3 | Conscientiousness |  |  |  |
| Musical ability ． | 0 | 2 | 2 | Music ．．．．．．． |  | ．．． | ．．．．． |

Fourth. It is worthy of note that what attracts the pupil is the externals. Voice, dress, good looks, manners, religious activity far overtop the deeper moral elements; but these would be of but little avail did not a teacher possess a personality wherehy love, obedience, and respect may be inspired. Teacher's life and actions must harmonize. Example and precept are yokefellows, and children are intensely keen in observing any disparity between them. The teacher's personality determines his worth and moral influence. He who would rulu the little child and mold him into pure, noble, useful manhood must himself be a model of virtue. How pertinent is the question, Is not a teacher born rather than made?
Fith. The difference in the general character of the replies given by the boys from those of the girls suggests one of two things: Either the boys do not possess the power of introspection to the same degree as do girls, or else they seriously suffer by passing the period of early youth wholly under the influence of female teachers. As boys detest effeminate qualities in boys, there can not be in the female teacher as in the male the same inspiration and incitement to develop the manly virtues.

Sixth. Far more powerful than ethical handbooks is moral life.

## Influence of companions.

Sec. VII. What playmates, intimate cronies, or friendships have yon had that affected your moral nature for good or for bad? Describe concisely each such person physically and psychically. What temperament and what were the qualities that especially intluenced you, and how? What is your own temperament?

Nearly 200 replies were given to this part of the questionnaire. They furnish some interesting material concerning the manner in which social environment operates.

The good results produced by companionship are: Kindness and sympathy, girls, 32 -boys, 6 ; manners, $30-6$; self-control, $20-5$; Christian virtues, $20-4$; religious influence, $22-1$; disposition improved, $15-8$; consideration of others, $19-4$; sense of truth, $14-3$; æsthetic tastes, $15-2$; studiousness, $12-2$; ambition, 10 - 2 ; judicionsness, $9-3$; determiwation to overcome obstacles, $5-4$; truer views of life, $6-1$; greater love for parents, 3-0.

The evil effects were shown in: General conduct, $15-14$; general morals, 20-6; untruthfulness, $15-4$; evil thoughts, $12-5$; boisterous and rough, $10-4$; selfishness, $10-2$; disobedient, $5-3$; swearing, 4-4; neglectful of duty, 5-2; irroligious, 5-1; slang, 3-3; smoking, 0-4; temper, 2-1; neglectiful of home, 2-0; love of dress, $2-0$; sarcastic, $1-0$; stealing, 1-0.

An interesting table was obtained which went to show that the age at which these external influences are most felt is from 10 to 15 years. The curve reaches its highest point at puberty. The potency of companionship for good or evil is further shown by the fact that only 10 returns refused to acknowledge themselves in any way indebted to their associates for good or evil. It is safe to conclude that social milieu is a moral factor second only to that of the home.

Only 6 girls were influenced by boy companions, 5 for good and 1 for evil. Three boys were affected by girls, 1 for good and 2 for evil. Two girls speak of being influenced for good by making some lads their companions and trying to reform them.

This practice can not be too severely condemned. The wail of many a hrokenhearted wife and of social castaways is: "I thought I could reform him." Parents should never be so indiscreet as to permit their sons and daughters to undertake such doubtful tasks. The intense subtility and efficiency of suggestion has been fully shown by Mr. M. H. Small. (See Ped. Sem., Vol. IV, No. 2.)

An effort was made to discover the part played by temperament in these associations, but here the answers were too confused to admit of any satisfactory interpretation; 46 were attracted by persons of the opposite disposition, 43 by similar, 50 gave no clue, and 50 confused the matter.

## Ethical relations with parents.

SEC. VIII. What were your etbical relations with your parents? What kind of personal influence emanated from your father and from your inother? What in their example and in their precepts affected you? Give incidents and details.

The ethical relations with parents, with two exceptions, were always described as of a pleasant and helpful nature. The intimacy existing between mother and child seemed to be more marked, even among the boys, than that botween father and son, or daughter. This, however, is due chiefly to the external business relation of the father, which occupied his time and attention. The following tables show the manner and relation of the parental infuence:

Fathers: Christian consistency, 31-0; hatred of falsehood, 22-4; generosity, 19—1; honesty, $15-4$; kindness, $12-2$; justice, $10-0$; forgiving spirit, $9-0$; hatred
of gossip, $9-0$; unselfishness, $7-0$; Sabbath observance, $3-3$; hatred of swearing, $2-3$; perseverance, $4-0$; patience, $4-0$; abstinence from tobacco, 1-2; mental tastes, $3-0$; self-respect, $3-0$; decision of character, $3-0$; tomperance, $0-3$; control of temper, $2-0$; gratitude, $2-0$; reading habit, 2-0; reverence and respect, $1-1$; obedience, $0-2$; skeptical ideas, $1-0$; firugality, $0-1$.

Mothers: Christian virtues, 70-6; unselfishness, $24-2$; morals, 17-3; manners, 18-2; sympathy, 18-0; the golden rule, 18-0; obedience, 12-4; liberality, 14-1; affection, 12-1; hatred of falseliood, 9-4; good disposition, 11-1; little confidences, $10-1$; resthetic tastes, 11-0; patience, $10-0$; kindness, 8-1; honesty, $1-3$; reveren:o and respect, $2-0$; perseverance, $2-0$; sobriety, $0-2$; hatred of swearing, 0-2; love for animals, $1-0$; good temper, $1-0$; purity, $0-1$; industry, $0-1$; Bible reading, 0-1; Sabbath observance, $0-1$.

From these tables it is safe to conclude that there does not exist that difference in moral inthunce of the parents due to sex that so many are inclined to believe. Nearly all the fusdamental constituents of noble character aro found in each, and there is no just reason to doubt that tho inflnence of the father would be equally as potent as that of the mother did he enjoy the same protracted home relations as does the mother.

Second. Morat training is not the establishment of mere moral habits, as the ethical people adrocate, but is the mufolding and widening of the deeperinstincts, particnlarly the emotions, and has its roots in the religious sentiments that so early pervade child life. Wordsworth truly says: "Heavenlies about usin our infancy." The parent stands in such relation to the child as to enable him to seizo upon the deed germ and so nurture it that it will produce tho beautiful plant of a pure, noble character.

Third. Possessing as thoy do the ear, the heart, and the sympathy of the child, parents have it within their power to develop the child into almost whatever they may wish. Hence if they would but get back to the Hebrew conception of the family, and would devote themselves as diligently to the nurture of their children as they do now to the ways of fashionable and business life, or, better still, with all the soilcitousness that they exercise in the rearing of their horses and dogs, the problem of the moval regeneration of the race would be most thoronghly solved.

## Adult influence.

SEC. IX. Mave other persons than the abore infnenced your life much, or have yon had special attractions or repulsions to individuals, either older or younger, of the same or opposite sex, or to whom you were inclined to go for connsel and conference in confidential matters? Describe the influence of such association.

The number who answered the question is exceedingly limited-55 in all.
Four boys were attracted by males older than themselves, and 7 were drawn to eldorly females. The reasons given for this friendship were in the case of the males, intellectual endowments and practical expericnce; in the case of the females, kindness, manners, Christian virtues, opposition to evil.

Twrive females were attracted by males older than themselves, and 32 by females. The reasons given for forming tho friendship with the males are: Goodness of character, 4 ; sympathy, 3 ; gifts, 2 ; ministerial attraction, 2 ; interest in my studies, 1. With the females: Christian character, 16 ; blood relations (grandma and auntie), 9 ; mannors, 4 ; kindness, 3 ; cheerfulness, 2 ; learning, 2.

Eleren girls speak of making younger boys their companions, and 2 report the same of rounger girls.

No very definite results concerning the effect of these associations were obtained, but the following wero clearly mentioned: Intellectual stimulus, 4 ; mamer of life changed, 3 ; kindlier nature, 3 ; sumnier disposition, 2 ; better manners, 2 ; religious viows strengthened, 2 ; acquired a contempt for religion, 2 ; became a totalabstainer, 1; truer conceptions of womanhood, 1; learned to follow the lead of elders, 1; developed my temper, 1 ; ciearer sense of right and wrong, 1 ; greater care in choosing companions, 1 ; learned to swear, 1 ; to smoke, 1.

Twenty-one cases of repulsion are mentioned, with its reasons assigned. The repulsion in almost every case began with sight and was persistent. The causes given are: Self-assertion, 4 ; manners, 3 ; style of dress, 3 ; actions, 3 ; personal appearance, 1 ; physical deformity, 1 ; awe, 1 ; lack of regard for others, 1 ; too nowsy, 1.

The most striking point brought out in this section is the greatinfuence character has in bringing into association the youth and the aged. Men of giant intellect are passed by, while tho kind, generous, pious colored washerwoman wins the heart of the lad, and with her sympathy and interest binds him to hor and leads him into paths of rectitude.

Second. The evidence is very clear that wherever such friendship was formed it has been beneficial, only two instances being given to the contrary. From this we
may conclude that if parents have neither the time nor the disposition to become the companions and guides of their offspring, they can do the child no better service than to encourage lim to form a close friendship with some pure soul who is interested in the elevation of humanity.

It is interesting to compare the infnence of the preceding four classes. Tho teasher seems to stimulate the accessories of eharacter, such as manners, sense of social and civil relationships, ambition, tastes, etc. The parent devolops the fundamentals, such as sympathy, reverence, love, sense of truth, justice, mercy, kindness, meekness, patience, etc.

Companions develop the social qualities, and afford practical application of the teachings of the home and school, and prepare the boy or girl for the further duties of citizenship by cultivating the sense of independence, individuality, altruism, cte.

The influence exerted by the fourth is rather of an advisory nature. Many of them, however, become ideals to the young, and thus stimulate healthy growth.

In the present constitution of social life these four factors will operato in either a beneficial or injurious manner upon the growing boy and girl. It becomes the parents' therefore, to see, first, that their own life and home are right, then to guard their child from undue contamination from a corrupted milien. This can be accomplished, not by building a wall around the child, but by erecting a wall within him, which must be razed before the enemy can take possession. In other words, get the child interested in the useful and the beautiful, so that the obscene and degrading will have no attraction for him.
Children have certain inalienable rights which fatherhood and motherhood must recognize. They lave a right to stand first in the affections, the interest, and the endeavors of the parent; they have a right to all that is good and noble and encouraging in the parent lifo; they have a right to find their home the most pleasant spot on earth; they hare a right to all the means of refinement that lie within the limits of the parents' purse; they lave a right to proper food and clothing for the body, but equally as great a right to mental and moral nourishment, that neither body nor sonl may be atrophied; they have a right to have the laws of their development, both physiological and psychical, well understood and held sacred by those in authority over them; they have a right to have their better nature so strengthened that when the seeds of exil speech and evil action fall upon their life they will take no deep and abiding root, because the soil is already occupied by flowers and the fruits of letter hopes.

## Games.

Sec. X. What games have you preferred and what has been their influence in developing manliness or womanliness, sonse of justice and fair play, honesty, perseverance, hardihood, physical strength, and what recreations do you prefer, and why? What is their effect?

The following list shows the games played by the girls:
Hide and seek, 56 ; croquet, 43 ; tag, 41 ; tennis, 36 ; checkers, 23; parchesi, 22; authors, 10 ; dolls, 18; honse, 17; cards 16; baseball, 15; blind man's buff, 15; pigs in clover, 12 ; prisoner's base, 12 ; jackstones, 11 ; jumping rope, 9 ; halma, 9 ; dominces, 9 ; I spy, 6 ; chess, 5 ; duck on the rock, 5 ; fox aud geese, 5 ; hopscotch, tiddledy winks, 5 ; school, 5 ; messenger boy, 4 ; old maid, 4 ; euchre, 4 ; pussy wanta a corver, 4; hoop rolling, 3; drop the handkerchief, puzzles, whist, marbles, solitaire, kick the wicket, football, 3 each; anagrams, Antony over, colors, shuttlecock, battledore, basketball, pull a way, horse, jarkstraws, casino, seesaw, mumblety peg, bluebird, ambassadors, robbers, lotto, black bear. 2 each; beanbag, fish pond, tirenty guestions, hearts, color of the lird, come to supper, hog on wood, crack the whip, charades, sense steps, hide the thimble, puzzle fifteen, kick the can, red soldier cap, cribbage, bowling, London bridge is falling down, Jacob and Rachel, hare and hounds, my ship's arrived, bright idea, spider and the fly, Lonisa, will horse, golden pavement, consequences, snap, hunt the slipper, kick the stick, geography cards, dice, Peter Coddle's dinner party, putting together our country, princess and captain, ten pins, gymnasinm, cars, cross and wood, can can, old witch, running on cans, walking on stilts, backgammon, crisscross, here we go round the mulberry tree, tollgate, giants, Copenhagen, needle's eye. Word making, catch, jack-a-bow, innocence abroad, go bang, mother goose, catch fish, circus, church, babmintor, Indians, and guessing games.

Games by the boys are: Baseball, 14; football, 9; checkers, 8; cards, 7 ; tennis, 6 ; marbles, 4 ; tag, 4 ; croquet, 4 ; bowling, 3 ; hide aud seek, : ; deminoes, 2 ; pool, 2 ; tiger, 1; blind man's buff, jumping rope, little old man, mossy, shinny, hide the thimble, forfeits, parehesi, chess, tit-tat-toe, quoits, billiards.

In regard to the moral import of games, the following classification shows the way they are viewed by the boys and girls:

TVomanliness.-Dolls, 17; house, 12; school, 3.

Manliness.-Ball, 12 (football 6, baseball 6); tennis, 1; cricket, 1.
Mental power.-Authors, 5 ; checkers, 3 ; music, 2; chess, 1 ; cards, 1; parchesi, 1 ; charades, 1 ; ball, 1 ; my ship's come home, 1 ; anagrams, 1 ; putting our country together, 1.

P'ersererance.-Pigs in clover, 9 ; parchesi, 9 ; tennis, 9 ; checkers, 8 ; ball, 8 ; croquet, 5 ; halma, 5 ; cards, 5 ; puzzles, 5 ; hide and seek, 5 ; I spy, 2 ; anthors, 2 ; tag, 2 ; chess, 2 ; tiddledy winks, 2 ; black bear, 1 ; robber, puss in corner, backgammon, crisscross, anagrams, solitaire, duck on rock, the spider and the fly, messenger force, jacks, 1 each.

Justice and fair play.-Croquet, 22; hide and seek, 18; cards, 14; checkers, 12 ; ball, 12 ; authors, 7 ; tag, 6 ; parchesi, 6 ; tennis, 6 ; halma, 4 ; blind man's buff, $4 ; 1$ spy, 3 ; jacks, 3 ; prisoner's base, 2 ; liunt the slipper, black bear, puss in corner, backgammon, crisscross, tollgate, puzzles, bowling, dominoes, hopscotch, ambassodor, bright idea, Indians, tenpins, lotto, chess, innocence abroad, messenger force, quoits, 1 each.

Honcsty.-Croquet, 19 ; hide and seek, 18; cards, 12; checkers, 11; parchesi, 7; ball, 7 ; authors, 6 ; blind man's buff, 5 ; jacks, 5 ; tennis, 4 ; I spy, 3 ; tag, 2 ; halma, 2 ; prisoner's base, 2 ; hunt the slipper, black bear, puss in corner, tollgate, fish pond, seven steps, colurs, hopscotch, chess, tiddledy winks, innocence abroad, go bang, 1 each.

Cheating.-Cards, 4 ; checkers, 1 ; croquet, 1 ; dominoes, 1.
The recreations mentioned by the girls are: Walking, 35 ; rowing, 35 ; reading, 33 ; skating, 32 ; dancing, 31; driving, 25; bicycling, 20; riding, 14; music, 14; swim$\operatorname{ming}, 4$; coasting, 3 ; sailing, 3 ; talking, 3 ; rambling in the woods, 3 ; theater, 2 ; fancywork, 2 ; springboard, 1 ; billiards, 1 ; tenuis, 1 ; Indian clubs, 1 ; day dreaming, 1 .

By the boys: Bicycling, 7; swimming, 7; skating, 4; riding, 3; gymnastics, 3; fishing, 2; strolling in the woods, 2 ; walking, 2; reading, 2 ; rowing, 2 ; hunting, 1 ; sailing, 1 ; driving, 1 ; music, 1 ; bowling, 1 ; dancing, 1 .

The reason assigned for the choice of a certain recreation was, in almost every instance, "for physical development."
A number of other reasons, however, were assigned, such as-
Dancing.-Mere pleasure, develops the rhythmic sense, makes one graceful, enlivens the spirits, gives pleasant associations.

Theater going.-Pleasure, mental improvement, develops the sympathetic side.
Music.-Brings rest and makes one more cheerful, stirs one's deeper nature, prodnces a feeling of sublimity, develops the asthetic side.

Fishing.-Develons patience and perseverance.
Bowling.-Produces physical strength and control of muscnlar power.
Bicyciing.-For physical development, gives a sense of freedom and of independence, a great brightener of spirits. The motion is fascinating, pleasure, power to travel. Rowing.-Physical strength, restful.
Skating.-Plysical development, sense of freedom, hardihood, produces a better mood.

Bathing.-Pleasure.
Reading.-Takes my attention from my studies, develops sympathy, improves the mind, corrects one's views of life, pleasure; one said: "makes me unsociable and selish."

Riding.-Physical health, restful, brings one into contact with nature, revives drooping spirits.

Walliing.-Health, communion with nature, spiritual uplift, produces a better mood, pleasure.

It will at once be seen that the great incentive to recreation is the necessity of ontdoor exercise for health. The choice, however, is chiefly determined by the pleasure produced. The majority of returns state that they saw no particnlar moral worth in their pastimes. There is no doubt, however, that even these may be made the means of strengthening the moral sense, and the writers are of the opinion that unconscionsly, from those arocations, there has accrued to all those reporting some moral wealth.

The returns give clear evidence in regard to the edncative valne of plars. By them there is developed justice, moderation, self-control, truthfulness, loyalty, brotherly love, conrage, perseverance, resolution, perception, prudence, forbearance, sympathy, a training of hand, ese, limb, and of the faculties of judgment. Provision should be made for a child to express and develop his own inner life through this spontineous and pleasurable means. All writers on education have recognized the value of play. An article by Mr. Johnson, on "Education by plays and games," is found in the Pedagogical Seminary, Vol. III, No. 1, while President Hall's Story of a Sand Pile is a classic.

Reading, etc.
Scc. XI. What stmdies, subjects, or lines of reading, or intellectual interest have affected yon for good or for bad, aud how? Did mathematics deeply impress yon with universal law, astronomy with sublimity and reverence, chemistry with the order of the infinitesimal, botany and zoology with the miraculons wature and persistence of life? Have you experienced special interest in any line of study; and if so, ean yon tell what it is abont it that attracts you, and how it has affected you for good? Can you describe or account for any aversion gou have felt for any special study?

The following table shows the subjects which scemed to have exerted a good infuence upon the student: Psyehology, 23; literatare, 18; history, 17; geography 5 ; mathematics, 3; botany, 2; zoology, 2; grammar, 1; drawing, 1; manual training, 2 ; mechanical drawing, 1; physiology, 1.

The subjects that have had an evil effect are: Mannal training, 4; physiology, 2; psychology, 1 ; literature, 1 . Novel reading is also mentioned by 1.

In reply to the question, Did mathematies impress you with natural law? $2 \pm$ girls and 2 boys answered yes, and 49 girls and 4 boys no.

Did astronomy with sublimity and reverence? Yes, 44 girls, 2 boys; no, 2 girls.
Did chemistry with the order of the infinitesimal? Yes, 17 girls, 1 boy; no, $\mathscr{b}$, wirls.
Did botany and zoology with the miraculous nature and persiscence of life? Yes, 70 girls, 5 boys; no, 5 girls.

The subjects in which special interest was taken are: Mathematics, 28; literature, 23 ; history, 23 ; psychology, 20; botany, 16 ; zoology, 11; geography, 10 ; drawing, 5 ; grammar, 3 ; mnsic, 3 ; physics, 3 ; poetry, 2 ; manual training, 2 ; physiology. 1 .

Special aversion was felt for the following snbjects, and the reasons assigned were (1) they were poorly tanght, (2) the learner had no gift along that line: Manal training, 16; mathematics, 12 ; grammar, 11; history, 10 ; geography, 5 ; latiu, 5; algebra, 4; rhetoric, 3; geometry, 1; spelling, 1; physiology, 1; drawiug, 1; arithmetic, 1.

## GENERAI CONCLUSIONS.

It wonld be the height of pedantry to biild any elaborato system of moral pedagogy on such a limited suppiy of data. Neither would it be wise to indnlge in any metaphysical speculations, as the material is at best one sided. Before any satisfactory conelusions can be drawn a study must be made of persons whose conduct might be designated as moral laxity, a study similar to the one presented by Mr. Geo. Dawson in the Fedagogieal Seminary for Decenber, 18:6. ${ }^{2}$

Five important facts or principles are clearly suggested by the above material.
First. Moral action in early period of life, and even in early manhood and womanhood, is a matter of imitation and snggestion rather than of intellect. The gretit rôle played by suggestion has been shown by Mr. M. H. Small.'
Sccond. Though childien are born with the sense of the oughtness ont of which the moral nature grows, yet this would avail nothing did not parents furnish the growing boy or girl with elear conceptions of the moral content of life, i. e., instruct him or her thoronghly in all the principles that teach duty to God andiman.

Third. It is very evident that moh of the moral excellence of the character of many of those reporting is due in large measnre to the hereditary inflnence that gatheredround them at their birth. Bloondoes connt for something with a venseance.

The work of Mr. Dawson, above referred to, goes to show that of the 52 moral delinquents personally studied by him the most of them "had parents that were intemperate, improvident, or criminal." Wheu bad environment harl joined hauds with this bad heredity nothing short of a miracle could stay the influences that were driving these same boys and girls to the reformatories.

The point is (a) "The heredity of the child should be as carefully sturlied as the strain of the eattle with which the farmer would stock his acres, and any physical weakness or teudency to evil in his ancestry shonld be made known to him in order that he may be on his guard lest the enemy thatlurks in ambuscade in his very reins may attack him unawares; (b) The forces of environment should be so controlled as to destroy as far as possible any hereditary taint and at the same time streng then and develop any predispositions to moral rectitude and maniness of life."

Fourth. The supreme aim of the parent and the teacher should be to estalish definite, strong, correct habits. True morality consists as much in doing as in being. Habits are the indueed states of mind or body by means of which the latent power is transformed into an effective process, and becomes active rather than passive.

1'6The suggestibility of children." Pedagogical Scminary, Vol. IV, No. 2. See
p. 1310 . p. 1310.
${ }^{2}$ See p. 1321.
ED 98- 85

Their importance is recognized in the mechanical world. The intellectual and moral spheres have indced been slow to acknowledge their worth. Manual habits enable the mechanic to produce the finished article; moral habits the boy or girl to maintain a blameless character under every circumstance of life. Sound knowledge of moral truth is good, but sound habits of moral action are better.

It is perhaps universally true that parents have devoted themselves assiduonsly to the instructiou of their sons and danghters rather than to the establishment of habits. The natural and most effective means has thus been neglected.

Fifth. The last stage is the parification of the child's taste. All children are born with impulses and desires which are capable of unlimited education. In the early years of youth they are the controlling factors of the child. Intelligence and conscience assert their sway later. Not only are there natural tastes, but there are acquired ones. The latter are much more numerons, and are the direct production of environment. According as one's tastes are pure and noble so will be the life. Much can be done to surround the growing soul with such influences as will make for strong, vigorous, noble manhood or womanhood.

Sixth. For the evolution of the ethical consciousness nothing is perhaps better than the arousing of the religions sentiments.
Seventh. He who would lead must walk in the way himself.
Eighth. Love and faith are worth more than knowledge or specific forms of government.

## Eye Defects in Students and Children.

Professor Swift, ${ }^{1}$ of State Normal School of Stevens Point, Wis., gives the condition of eyes in young people engaged in study. The tests were made by Dr. Alcorn. They were (1) the ordinary tests of cach eye for vision; (2) the card test for astigmatism ; (3) the Maddox multiple rod test for muscle trouble; and (4) the diagnosing errors of refraction by means of the ophthalmoscope. The one undergoing examination was 20 feet from the test chart. The type nsed was Hermann Snellen's. The type which a normal eyo should read at a distance of 20 feet was 9 millimeters square. This represents normal vision and is designated by twenty-twentieths. Over 300 of different ages were examined.

Table 41 slows that the percentage of pupils with nermal vision in both eyes is much greater in the grammar grades than in the normal department. There seems to be a steady decrease in the acuteness of vision of pupils from the lower grades to the higher. About 50 per cent of the pupils have at least one eye whose vision is not normal.

TAble 41.

| Vision. | Normal de partment. | Grammar department. | Intermediate and primary de partment. |
| :---: | :---: | :---: | :---: |
|  | Per cent. | Per cent. | Per cent. |
|  | 51.75 | 54.76 | 19.04 |
| Twenty-fortieths or better, but not so good as twenty-thirtieths. | 12. 06 | 9.52 | 14.28 |
| Twenty-sixtieths or better, but not so good as twonty-fortiethis.. | 7.78 | 9. 52 | 2.38 |
| Twenty-eightieths or better, but not so good as twenty-sixtieths. | 2.72 | 2.38 | 0. 00 |
| Twenty one-handred-and-twentieths or better, but not so good as twenty-eightieths | 2.72 | 2.38 | 4.76 |
| Twenty two-hundredths or better, but not so good as twenty one-hindred-and-twentieths | 4.28 | 0.00 | 2.38 |
| Below twenty two-hundredths | 4.28 | 0.00 | 0.00 |

As a normal eye reads a letter 9 millimeters square at a distance of 20 feet, the twenty-thirticths type is 13 millimeters square, the twenty-fortisths 18 millimeters, twenty-sixtieths 26 millimeters, twenty-sixtieths 26 millimeters, twenty-cightieths 35 millimeters, tweuty one-hundred-and-twentieths 52 millimeters, and twenty twohundredths 87 millimeters square.
${ }^{1}$ Pedagogical Seminary, Yol. V, No. 2, October, 1897.

## Practical Aspects of Chldrex's Interests.

In order to gain some criterion of the value of edncational work by ascertaining the attitade of children toward tho different subjects of the curriculum. Dr. Joseph S. Taylor, ${ }^{1}$ principal of a public school of New York, had the following four questions submitted to the pupils:
"1. What subject on sulbjects did yon particulany like in your last class?
"2. Why did you take them?
" 3 . What subject or subjects did you particularly dislike?
"4. Why?"
If it be admitted that a suitable subject properly tanghtshould interest a child, it would seem that where interst is wanting the fault must be cither in the course of study or in the teaching, or in both. Such was the pont of view of Dr. Taylor in making this investigation.
The number of pupils examined was about 1,000 , but only 759 papers were available. The results were tabulated by ages, grades, subjects, and classes. In Tables 42 and 43 are given the results by age and grade.

Two more investigations were undertaken, aggregating with the former stndy returns from 2,137 pupils. In Tables 44 to 47 are fond the results of these studies. No children below the thirl grade wero examined. Table 42 shows an increased interest of the pupils as they advance in age and grade; this is in a boys' school of New lork. But in Table 44, representing a mixed school, there is a noted decline of interest, beginning at age 13 , for both boys and girls. This seems to be due to the teaching in the fifth grade. In preceding grade 60 per cent of the girls liked arithmetic, here onls 20 per cont.

In the following tables the fignres at the top represent the ages of the pupils and the grades from which they had been promoted ten weeks before. The next row of figures shows the number of pupils examined in cach age and grade. All other figures are percentages, showing what proportion of pupils like or dislike the several subjects of study.

Table 42.-Likes and distikes-Nen Fork boys' school.
LIKES.

|  | Age. |  |  |  |  |  |  |  |  |  | Grate. |  |  |  |  |  | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 3 | 4 | 5 | 6 | 7 | 8 |  |
| Numberexamined.. | 2 | 16 | 72 | 140 | 175 | 179 | 114 | 45 | 9 | 4 | 75 | 320 | 198 | 94 | 32 | 37 | 756 |
| Music. | 0 | 0 | 1 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 6 | 7 | 0 | 1 |
| Writing | 0 | 19 | 5 | 6 | 9 | 13 | 10 | 42 | 33 | 3 | 22 | 6 | 10 | 24 | 50 | 14 | 12 |
| Arithmeti | 0 | 32 | 27 | 29 | 28 | 36 | 54 | 44 | 56 | 00 | 4 | 29 | 29 | 55 | 78 | 49 | 36 |
| Drawing | 0 | 6 | 40 | 19 | 18 | 29 | 37 | 41. | 22 | 100 | 8 | 24 | 24 | 23 | 59 | 48 | 25 |
| Naturestudy | 0 | 0 | 3 | 6 | 5 | 11 | 11 | 10 | 56 | 0 | 0 | 0 | 13 | 19 | 75 | 72 | 9 |
| Reading.... | 0 | 50 | 27 | 21 | 31 | 23 | 31 | 31 | 33 | 0 | 47 | 29 | 25 | 24 | 22 | 30 | 28 |
| Speiling...-.-........... | 0 | 19 | 42 | 22 | 27 | 34 | 46 | 40 | 44 | 0 | 27 | 30 | 35 | 31 | 69 | 68 | 31 |
| Grammar or langnages. | 0 | 3 | 2 | 4 | 7 | 10 | 16 | 31 | 28 | 0 | 0 | 5 | 18 | 51 | 56 | 46 | 10 |
| Geograply - ............ | - 0 | 50 | 26 | 33 | 26 | 29 | 28 | 40 | 33 | 3 | 32 | 19 | 23 | 35 | 9 | 59 | 27 |
| History. | 50 | 19 | 42 | 45 | 38 | 37 | 53 | 58 | 67 | 0 | 0 | 44 | 41 | 50 | 65 | 68 | 43 |
| Arerage ......... | 5 | 20 | 21 | 19 | 19 | 22 | 29 | 34 | 37 | 10 | 18 | 19 | 22 | 32 | 42 | 45 | 22 |

${ }^{1}$ Pedagogical Seminary, April, 1898, p. 497.

Table 43.
DISLIKES.

|  | Age. |  |  |  |  |  |  |  |  |  | Grade. |  |  |  |  |  | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 10 | 17 | 3 | 4 | 5 | 6 | 7 | 8 |  |
| Number examined. | 2 | 16 | 72 | 140 | 175 | 179 | 114 | 45 | 9 | 4 | 75 | 320 | 198 | 94 | 32 | 37 | 756 |
| Musie | 0 | 0 | 5 | 0 | 0 | 10 | 0 | 2 | 0 | 0 | 0 | 7 | 3 | 23 | 3 | 0 | 6 |
| Writing | 0 | 6 | 9 | 5 | 6 | 9 | 0 | 0 | 0 | 0 | 12 | 10 | 2 | 4 | 0 | 6 | 7 |
| Arithmeti | 0 | 87 | 36 | 23 | 14 | 21 | 0 | 4 | 0 | 0 | 25 | 22 | 15 | 6 | 6 | 0 | 18 |
| Drawing | 0 | 12 | 11 | 12 | 9 | 6 | 0 | 9 | 11 | 0 | 14 | 8 | 7 | 8 |  | 16 | 9 |
| Naturestudy | 0 | 0 | 4 | 2 | 0 | 3 | 4 | 2 | 0 | 0 | 0 | 2 | 2 | 7 | 9 | 0 | 2 |
| Tualing.... | 0 | 25 | 5 | 4 | 4 | 0 | 0 | 2 | 0 | 0 | 2 | 6 | 4 | 0 | 0 | 4 | 4 |
| Spelling. | 100 | 31 | 15 | 5 | 9 | 0 | 0 | 11 | 0 | 0 | 24 | 10 | 4 | 3 | 0 | 8 | 8 |
| Grammar or languages. | 0 | 13 | 3 | 0 | 7 | 6 | 5 | 12 | 16 | 0 | 2 | 10 | 15 | 10 | 14 | 26 | 7 |
| Geography-............ | 0 | 12 | 12 | 12 | $1!$ | 21 | 14 | 11 | 0 | 50 | 12 | 20 | 10 | 6 | 9 | 8 | 10 |
| History ... | 0 | 0 | 3 | 0 | 2 | 0 | 4 | 9 | 11 | 25 | 3 | 0 | 2 | 12 | 12 | 10 | 3 |
| Average | 5 | 19 | 10 | 6 | 7 | 8 | 3 | 6 | 4 | 7 | 9 | 9 | 6 | 8 | 6 | 8 | 7 |

Table 44.-Likes.-New York mixed schools.
GIRLS.

|  | Age. |  |  |  |  |  |  |  |  |  | Grade. |  |  |  |  |  | Total girls. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 3 | 4 | 5 | 6 | 7 | 8 |  |
| Number examined | 1 | 10 | 29 | 58 | 74 | 107 | 100 | 49 | $\underline{-7}$ | 4 | 58 | 12.5 | 104 | 109 | 63 | 0 | 459 |
| Music. | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| $W$ riting $a$. Arithmetic | 100 | 40 | 48 | 43 | 61 | 39 | 56 | 35 | 37 | 0 | 52 | 60 | 20 | 55 | 44 | 0 | 43 |
| Drawing | 100 | 30 | 10 | 3 | 11 | 8 | 9 | 25 | 4 | 25 | 21 | 10 | 3 | 6 | 3 | 0 | 10 |
| Nature study | 0 | 0 | 3 | 5 | 4 | 6 | 8 | 4 | 7 | 0 | 0 | 4 | 6 | 7 | 10 | 0 | 5 |
| Reading... | 100 | 30 | 14 | 10 | 5 | 7 | 5 | 10 | 4 | 0 | 12 | 9 | 11 | 5 | 2 | 0 | 8 |
| Spelling. | 100 | 20 | 24 | 43 | 23 | 26 | 23 | 24 | 18 | 0 | 34 | 42 | 18 | 15 | 17 | 0 | 26 |
| Grammar or languages. | 0 | 10 | 0 | 3 | 12 | 13 | 9 | 37 | 19 | 100 | 2 | 6 | 7 | 28 | 41 | 0 | 16 |
| Geosraphy .-........... | 0 | 0 | 17 | 26 | 42 | 25 | 15 | 10 | 18 | 0 | 12 | 40 | 21 | 19 | 5 | 0 | 23 |
| History. | 0 | 20 | 20 | 41 | 46 | 26 | 26 | 22 | 4 | 25 | 0 | 44 | 23 | 25 | 16 | 0 | 26 |
| Average | 44 | 15 | 15 | 19 | 23 | 16 | 14 | 19 | 12 | 17 | 15 | 24 | 12 | 18 | 15 | 0 | 17 |

- Table 45.

BOFs.

|  | Age. |  |  |  |  |  |  |  |  |  | Grade. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |
| Number examined. | 2 | 9 | 28 | 61 | 79 | 90 | 70 | 46 | 8 | 2 | 52 | 103 | 108 | 98 | 34 | 0 | 395 | 854 |
| Music | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| Writinga.. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Arithmetic | 0 | 11 | 36 | 48 | 44 | 50 | 43 | 41 | 62 | 50 | 29 | 38 | 23 | 47 | 68 | 0 | 45 | 45 |
| Drawing. | 0 | 0 | 18 | 12 | 12 | 7 | 3 | 2 | 25 | - 0 | 13 | 8 | 10 | 4 | 10 | 0 | 8 | 9 |
| Nature study......... | 0 | 0 | 4 | 2 | 1 | 2 | 4 | 9 | 25 | 0 | 0 | 2 | 4 | 3 | 15 | 0 | 4 | 5 |
| Reading | 0 | 0 | 18 | 18 | 9 | 4 | 4 | 0 | 0 | 0 | 21 | 11 | 5 | 3 | 0 | 0 | 8 | 8 |
| Spelling ............... | 100 | 33 | 36 | 23 | 20 | 16 | 14 | 11 | 0 | 0 | 33 | 22 | 34 | 4 | 15 | 0 | 19 | 23 |
| Grammar or languages | 0 | 0 | 0 | 3 | 4 | 20 | 15 | 25 | 13 | 0 | 2 | 8 | 7 | 31 | 76 | 0 | 18 | 17 |
| Geography ........... | 50 | 22 | 43 | 43 | 41 | 13 | 35 | 9 | 13 | 0 | 38 | 41 | 29 | 10 | 32 | 0 | 29 | 20 |
| History. | 0 | 41 | 48 | 46 | 71 | 38 | 51 | 37 | 62 | 0 | 46 | 64 | 55 | 39 | 18 | 0 | 49 | 38 |
| Average........ | 17 | 12 | 23 | 22 | 23 | 17 | 19 | 15 | 21 | 6 | 18 | 22 | 17 | 17 | 26 | 0 | 20 | 19 |

Table 46.-Dislikes.-New York mived sehools.
GIRLS.

|  | A ge. |  |  |  |  |  |  |  |  |  | Grade. |  |  |  |  |  | Total girls. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 3 | 4 | 5 | 6 | 7 | 8 |  |
| Number examined.. | 1 | 10 | 29 | 58 | 74 | 107 | 100 | 49 | 27 | 4 | 58 | 125 | 104 | 109 | 63 | 0 | 459 |
| Music | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| Arithmetic | 0 | 40 | 10 | 26 | 13 | 7 | 6 | 8 | 15 | 0 | 21 | 9 | 13 | 6 | 14 | 0 | 12 |
| Drawing | 0 | 10 | 7 | 7 | 2 | 4 | 2 | 2 | 0 | 0 | 7 | 5 | 4 | 1 | 0 | 0 | 3 |
| Nature study | 0 | 0 | 17 | 22 | 19 | 38 | 26 | 20 | 15 | 0 | 9 | 20 | 46 | 28 | 6 | 0 | 25 |
| Reading.... | () | 30 | 10 | 8 | 4 | 3 | 1 | 2 | 0 | 0 | 12 | 7 | 2 | 0 | 2 | 0 | 4 |
| Spelling................. | 0 | 0 | 10 | 8 | -9 | 3 | 4 | 8 | 0 | 0 | 9 | 9 | 7 | 0 | 5 | 0 | 6 |
| Grammar or languages. | 0 | 0 | 14 | 14 | 9 | 15 | 13 | 20 | 4 | 50 | 7 | 13 | 13 | 13 | 21 | 0 | 13 |
| Geography ...-....... | 100 | 20 | 28 | 29 | 22 | 27 | 10 | 26 | 22 | 25 | 33 | 27 | 14 | 15 | 21 | 0 | 21 |
| History .. | 100 | 10 | 17 | 12 | 5 | 9 | 18 | 12 | 11 | 25 | 11 | 13 | 13 | 9 | 14 | 0 | 12 |
| A verage.......... | 22 | 12 | 13 | 14 | 9 | 12 | 9 | 11 | 6 | 11 | 12 | 12 | 13 | 8 | 10 | 0 | 11 |

Table 47.
Boys.

|  | Age. |  |  |  |  |  |  |  |  |  | Grade. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |
| Number examined . | 2 | 9 | 28 | 61 | 79 | $\bigcirc 0$ | 70 | 46 | 8 | 2 | 52 | 103 | 108 | 98 | 34 | 0 | 395 | 854 |
| Music | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arithmetic | 100 | 33 | 39 | 21 | 25 | 9 | 18 | 11 | 25 | 0 | 33 | 22 | 16 | 6 | 12 | 0 | 13 | 15 |
| Drawing. | 0 | 0 | 11 | 10 | 3 | 7 | 3 | 0 | 0 | 0 | 12 | 3 | 6 | 0 | 9 | 0 | 5 | 4 |
| Nature study | 0 | 0 | 18 | 13 | 19 | 13 | 20 | 13 | 13 | 59 | 4 | 20 | 10 | 16 | 15 | 0 | 15 | 20 |
| lieading. | 0 | 11 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 6 | 1. | 0 | 0 | 0 | 0 | 1 | 3 |
| Spelling | 0 | 11 | 4 | 5 | 9 | 7 | 0 | 0 | 0 | 0 | 10 | 8 | 5 | 0 | 0 | 0 | 5 | 5 |
| Grammar or languages | 50 | 0 | 18 | 21 | 32 | 27 | 33 | 30 | 50 | 0 | 6 | 19 | 40 | 35 | \%3 | 0 | 27 | 20 |
| Grography ........... | 50 | 11 | 7 | 3 | 11 | 8 | 7 | 4 | 0 | 0 | ${ }_{6}$ | 12 | 8 | 15 | 0 | 0 | 7 | 15 |
| History ... | 0 | 0 | 4 | 18 | 8 | 11 | 6 | 15 | 13 | 0 | 15 | 9 | 6 | 14 | 6 | 0 | 10 | 11 |
| Average | 22 | 7 | 12 | 10 | 12 | 9 | 10 | 8 | 11 | 6 | 9 | 11 | 5 | 7 | 8 | 0 | 10 | 10 |

$a$ Not reported.

## Only Children. ${ }^{1}$

Out of the 1,001 individuals described, 46 were named as "only chillren," though none of the questions in the syllabns asked about such children. This suggested further questions, and Dr. Bohannon ${ }^{2}$ gives the results of a special study of 481 children, based upon answers to the questions in the following syllabus:

Give age, sex, nationality, and describe the temperament, complexion, and general health of the child briefly. Has he brothers and sisters dead? If so, how many? Is he the first born? How long did the others live? Does the child go to schocl? Regularly? Commenced, at what age? Get along well with other children and in work? How much time does he spend in play? The favorito games? What plays at home? What are the child's best traits? Worst traits? Is he precocions or dull? Has he any mental or physical defects? Name them. What snbjects best in? What poorestin? What has been the home and school treatment? What treatment do sou recommend?
Ago of parents at birth of child. How long had they been married at the birth of child? Are the parents still living? Health, babits, ocenpetions, temperaments,
${ }^{1}$ This refers to instances whoro there is only one child in earn family.
${ }^{2}$ Ped. Seminary, v. 5, No.4, Ar.ril, 1898.
and position in life. How many brothers and sisters had they? Do they (brothers and sisters) have good health? In so far as above questions apply, describe twins, the only boy, the only girl, and the youngest child in families.

State anything else you may think to bo due to tho faot that they are the only child, only boy, only girl, the youngest child, or twins.
(Clark University, Worcester, Mass., March 30, 1896.)
Of the children, 381 are only ${ }^{1}$ children, $5 t$ are only boys or only girls, 82 are the soungest children, and 12 are twins.

The average age of 134 girls is 1210 years, of 86 boys it is 118 years, and for the 292 of both sexes it is 12.2 years.

Out of 240, 150 were said to be American, 8 German, 5 English, 2 Jewish, 2 Seoteh, ete. There were 50 of non-American parentage, 17 of whom are the results of marriages between persons of different nationalities or races.

Those with good health number 162, with fair health 98 , and bad health 96.
The temperaments of parents are described as "nerrous" in 131 out of 25 " cases.
SUMMARY OF POINTS.
These only childen are ummistakably below the average in health and vitality.
Mental and physical defects of a grave character are much more common among them than among children generally.
The arerage length of time between marriages of the parents and births of the children is so great as io suggest a pronounced degree of relative sterility in tho stock. This is mach more strongly shown in the mothers than in the fathers.

The average age of the parents at the birth of girls is considerably greater than it is at birth of boys.

A greater proportion of the giris than of the boys have only-child mothers, while on the other haud a greater proportion of the boys than of the girls have only-child fathers.

Nerrous disorders seem to be unasually common in the families.
These children appear to enter school later than other children, and to be less regular in their attendance.
Their success in school work is below the average.
Not so large a proportion as of other children enter the public school.
They do not join in games so rapidy or often as do other children of corresponding ages. They prefer quieter foms of amusement.

Many of them have imaginary companions.
Very many manifest a decided preferenco for older associates, while not a few select younger companions, and often from the other sex.

A large number of them do not have as good command of themselves socially as does the average chid. Their social relations are therefore more frequently characterized by friction.

Peculiaritios in these children seem to be more pronounced than in othess.
Precocity appears to be the most prominent trait.
Selfishness is the most frequently named of the worst traits, while affection is most of ten named among the best traits.

As a rule the home treatment had been that of unthinking indulgence, which generally develops in a child the habit of expecting concessions on all sides, and corresponding unwillingness on his own part to mako them to others. Ariglit appreciation of the conditions with which the child must be concerned outside the family life requires that he be given ample opportunity for companiouship with children of corresponding ages.

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## CHAPTER XXVI.

REPORT OF THE COMMITTEE OF TWELVE OF TIIE MODERN LANGUAGE ASSOCIATION OF AMERICA. ${ }^{1}$

The committee appointed two years ago to make recommendations upon the subject of preparatory requirements in Freach and German has the honor to submit the following report:

## Section I.-Preliminary.

Î will be remembered that the appointment of the committee grew out of a request of the National Educational Association, which has for some time been endeavoring to bring about a better regulation of secondary instruction in the subjects usually required for admission to American colleges. In pursuing this landable undertaking the National Educational Association very properly saw fit to ask for the advice of varions professional bodies, our own among the number. In particular, it was desired that we draw up model preparatory courses in French and German and make recommendations concerning the practical management of these courses. The matter was brought to the attention of both branches of this association at the sessions of 1896, and we were asked to take appropriate action. As the business appeared to be of very great importance, it was thought best to turn it over to a large committee having a somewhat general mandate to investigate and report. The resolution under which the committee was appointed reads as follows:

That a committee of twelve be appointed: (a) To consider the position of the modern languages in secondary education: (b) to examine into and make recommendations upon methods of instraction, the training of teachers, and such other questions connected with the teaching of the modern languages in the secondary schools and the colleges as in the judgment of the committee may require consideration.

That this committee shall consist of the present president of the association, Prof. Calvin Thomas, as chairman, and eleven other members of the association, to be named by him.

That the association hereby refers to this committee the request of a committee of the Nat:onal Educational Association for coëperation in the consideration of the subject of college entrance examinations in French and German.

In pursuance of this resolution the committee was made up early in the year 1897, and began its work by preparing a circular, which was sent out to sorne 2,500 teachers. The object of the circular was to obtain information with regard to the present status of secondary instruction in French and German in the country at large, and also to elicit opinions with respect to a number of more or less debatable questions which, as was thought, would be likely to arise in the course of the committee's deliberations. Several hundred replies were received and collated, and the information thens obtained was laid before the committee at a session held in Philadelphia one year ago. We have not thought it wise to cumber this report,

[^7]which will be long enough at the best, with a detailed recital of these statistics. Suffice it to say that, taken as a whole, they give us a picture of somewhat chaotic and bewildering conditions. Under various names our secondary schools have a large number of courses in which French and German figure as prominent or as subordinate subjects of instruction; courses of one, two, three, and four or more years; courses providing for two, three, four, or five recitations a week, and for recitation periods ranging from twenty-five to sixty minutes. And when we come to the colleges and higher scientific schools the requirements for admission are hardly less multifarious. Various bachelors' degrees are conferred, and for admission to the courses leading to these degrees French and German figure variously, according as the modern language is offered in addition to the Latin and Greek of the classical preparatory course, or in place of Greek, or as the main lin. guistic study. Some of the colleges have also an elementary and an advanced requirement, with options variously managed.

Upon surveying the intricate problem thus presented, the members of the committee perceived at once that any report which they might make, if it was to be really useful, must be adapted, so far as practicable, to the conditions as they are. It was not for us to recommend radical changes in the American system, or lack of system, which has grown up in a natural way and must work out its own destiny. It was not for us to attempt to decide which of the various competing courses is the best course, or to antagonize any particular study. Nor could we assume to dictate to the colleges just how much knowiedge of French or German, or both, they shall demand for admission to this, that, or the other undergraduate course. The colleges would certainly not consent to any surrender of their liberty to regulate their requirements in their own way. Most important of all, it was not for us to propose any arrangements which could be taken to imply that secondary instruction in French and German exists only for the sake of preparation for college. The great majority of those studying the modern languages in school do not go to college at all. Our secondary education must be recognized as having its own function, its own aims and ideals. In the great mass of the schools those who are preparing for college receive instruction in the same classes with those who are not preparing for college. And this must always be so. These considerations seemed to indicate that the proper line for the committee to pursue was as follows:

To describe a certain number of grades of preparatory instruction, corresponding to courses of different length; to define these grades as clearly as possible in terms of time and work and aim, and to make a few practical recommendations with regard to the management of the instruction--recommendations having as their sole object the educational benefit of the pupil. The members of the committee are naturally of the opinion that the study of a modern language in school has a distinct educational value of its own. The teacher's problem is to realize this value from the study. Whether the learner is going to college or not makes no difference, save as this consideration affects the amount of time he can devote to the modern language while preparing himself in the other necessary subjects. If such courses could be wisely drawn up, and if then they were to be recommended to the country upon the combined authority of the Modern Language Association and the National Educational Association, it would seem reasonable to expect them soon to become the national norm of secondary instruction in the modern languages. It also seems reasonable to expect that the colleges will be not only willing but glad to adopt the practice of stating their requirements in terms of the national grades. Such a mutual understanding between the colleges and the secondary schools should do much to bring a definitely understood order out of our existing chaos.

Having come a year ago to this general conclusion as to what could and should be done, the committee saw that it would be impossible to submit a satisfactory
final report at the Philadelphia meeting. There were various matters that required further study. First, there was the question as to how many grades were really needed-w̌hether two, or three, or more. Then there was the question of French and German in the lower school grades. This subject, it is true, had not been expressly committed to us; but it was known that many private schools, and not a few of our best public schools, already provide instruction in French or German in grades below the high school. It was also known that many good teachers strongly advocate this idea. But if it is wise to begin a modern language some time before the high school is reacherl, and if this practice is to be extended and to become more and more a part of our national system, it is evident that the modern-language work of the secondary schools must be more or less affected. Again, there was the perplexing question of method.

In view of the sharp differences of opinion and of practice known to exist amongteachers, the committee thought it best, before undertaking to advise teachers how to teach, to reëxamine the whole matter carefully in the light of experience and in the light of recent contributions to the subject, to the end that their final recommendations might be as free as possible from any vagaries of personal prejudice. Finally, there was the large task of drawing up the proposed courses and formulating the recommendations. Seeing all this work ahead, the committee decided, at the Philadelphia session, to report progress, ask for additional time and money, and, if this request should be granted, to appoint a number of subcommittees, whose task it should be to inquire into and report upon the various questions just enumerated. The request was granted and the committee adjourned after passing unanimously a single resolution, the import of which will be apparent from what was said a little while ago. The resolution was to the effect that secondary instruction in French and German should not be differentiated, according as the pupil is, or is not, preparing for college.

During the first half of the year 1898 the subcommittees worked at their sevesal tasks by means of circulars and correspondence. Early in November a three-day session of the general committee was held in New York City. The meeting was attended by 10 of the 12 nembers, 2 being unavoidably absent. The reports of the various subcommittees were received and discussed, together with other matters germane to the committee's general task. As a result of the three days' discussion, the substance of the following report was agreed upon. Since the November meeting the report, as below drawn up, has been submitted to the members of the committee, and, after some further interchange of views by mail, has been agreed to by them unanimously.

## Section II.-Value of the Modern Languages in Secondary Education.

Aside from the general disciplinary value common to all linguistic and literary studies, the study of French and German in the secondary schools is profitable in three ways: First, as an introduction to the life and literature of France and Germany; secondly, as a preparation for intellectual pursuits that require the ability to read French and German for information; thirdly, as the foundation of ant accomplishment that may become useful in business and travel. Under each of these heads a great deal might be said; but an exhaustive discussion of the several topics would swell the volume of this report beyond the limits within which it is likely to be most useful. A fev words must therefore suffice.

What we have called the general disciplinary value of linguistic and literary study is well understood the world over, and has long been recognized in the educational arrangements of every civilized nation. The study of a language other than the mother tongue requires the learner to compare and discriminate, thus training the analytic and reflective faculties. The effort to express himself in theunfamiliar idiom, to translate from it into his own, makes him attentive to the
meaning of words, gives a new insight into the possible resources of expression, and cultivates precision of thought and statement. Incidentally the memory is strengthened and the power of steady application developed. In time such study opens the gate to a new literature, thus liberalizing the mind and giving an ampler outlook upon life. Through literature the student is made a partaker in the intellectual life of other times and other peoples. He becomes familiar with their manners and customs, their ideals and institutions, their mistakes and failures, and with the artistic forms in which the national genius has expressed itself. When he leaves school, such knowledge not only enriches his personal life, but makes him a more useful because a more intelligent member of society. It exerts a steadying, sanative influence, for it furnishes him with standards based upon the best performance of the race everywhere. For us Americans, with our large confidence in our own ways and destiny, there is special need of the wisdom that comes from familiarity with the life, literature, and history of the great makers of European civilization.

What has been said up to this point relates to the profit of linguistic and literary study in general, a matter about which there is no serious difference of opinion among intelligent people. When, however, we come to consider the relative value of the ancient and the modern languages, we raise a moot question over which there has been endless discussion. Here, again, we refrain from lengthy argument. Let it be remarked, however, that the question is a very large one, to be decided ouly in the light of long and wide experience. To reach a sane view of the matter it is necessary to make some allowance on both sides for the partisanship of the professional teacher, who is generally more or less prone to overstate the importance of his specialty. Nor should we allow too great weight to the views of publicists, men of letters, and so forth, who treat the question from a purely personal point of view. The man in middle life, who has the adrantage of knowing just what knowledge is most useful to him in his own work, can usually look back upon his early education and tell a tale of neglected opportunities and misapplied energy. Educational arrangements must be made for the many, and human tastes, needs, and aptitudes are various. For the boy or girl who must select a course of study long before he or she can know just what special attainment will ke the most useful in after life, it is enough to be assured that the discipline and culture derived from the study of a foreign language, whether ancient or modern, will certainly prove valuable.
The committee is of the opinion that the best course of study for the secondary school will always provide instruction in at least one ancient and one modern language. Beyond this we do not undertake to pass judgment upon the comparative merits of competing courses. It has always been the policy of the Modern Language Association not to antagonize the study of Latin and Greek. We ask for the modern languages in school and college nothing more than a fair chance to show what they are worth. We believe that they are worth, when properly taught, no less than the ancient languages. ${ }^{1}$ It is, of course, conceded that the Latin and Greek are the more "difficult" in the initial stages. But difficulty can not be the highest test of educational utility, else Latin and Greek should themselves give way to Sanskrit and Chinese. Evidently it is the goodness of the kernel and nct the thickness and hardness of the shell that we are mainly to think of. The kernel is the introduction to the life and literature of a great civilized. people, whom it is, for some reason, very important for us to know about. And here it may properly be urged on behalf of the modern languages that, just in proportion as they are easier to acquire, the essential benefit of the acquisition is

[^8]the sooner realized. They give a quicker return upon the investment. This is a consideration that is of special importance for the secondary school. It is quite possible in an ordinary school course to learn to read French and German easily. The high-school graduate who has acquired this ability can at once turn it to account, even if lie does not go to college. If he allows his ability to slip from him through lack of practice, it is at least his own fault. In the case of the ancient languages, on the other hand, it is a well-understood and oft-lamented fact that the great majority, even of college graduates, never learn to read Latin and Greek with ease. Up to the last the effort is more or less painful. After leaving college they usually drop their Latin and Greek, and in a short time they can not read at all. The profit of the study thus reduces, for the many, to its purely gymnastic value. That value, we are prepared to admit, is very great; but we would urge that the purely gymnastic value of the modern languages is, potentially, also very great. The argument of "difficulty" is often misused. There may be as much valuable exercise in walking five miles up a gentle slope as in climbing a mile up a sharp acclivity.
The first and greatest value of the study of the modern languages must be looked for, then, in the introduction of the learner to the life and literature of the two great peoples who, next to the English stock, have made the most important contributions to European civilization. That these literatures are as important, as worthy of study, as full of instruction for the modern man and woman as are those earlier literatures that once formed the great staple of education, is a proposition that we do not think necessary to argue, though it is sometimes denied in toto by zealous advocates of classical study. For the peculiar intellectual myopia that can see nothing new and nothing good in modern literature the only remedy is the classical hellebore.

We attach greatest importance, then, to linguistic discipline and literary culture. But the ability to read French and German has also another value not directly connected with the study of belles-lettres. In nearly all branches of knowledge at the present time a large part of the best that has been written is to be found in the German and French languages. One who wishes to study any thing thoroughly, no matter what, finds it highly convenient, if not absolutely necessary, to be able to read these languages in the pursuit of information. The high-school graduate who brings this ability with him to college has a great advantage in that he can at once begin to use it as a tool in prosecuting his studies. Of those who do not go to college it is fair to presume that a considerable portion will continue some line of private study, if not as a vocation, then as an avocation. For all such the ability to read French and German will be of great service.

It is next in order to remark briefly upon what is popularly called the "practical" value of Freach and German-that is, their utility as a means of intercourse. The practical command of a foreign language has a potential value that is at once perceived by everyone. It is felt to be desirable by multitudes who would probably care but little for the considerations presented in the preceding paragraphs of this section. The committee hold, however, that in our general scheme of secondary education the ability to converse in French or German should be regarded as of subordinate importance. We by no means say that it should be ignored, or that colloquial practice may safely be neglected in teaching. With this point the report will deal further on. Here we merely express the opinion that the ability to converse should not be regarded as a thing of primary importance for its own sake, but as auxiliary to the higher ends of linguistic scholarship and literary culture. The grounds of this opinion are briefly as follows:

The practical command of a living language, such as will be really useful for the ordinary purposes of life, presupposes a large amount of practice in speaking. The requisite amount of practice can not possibly be given in an ordinary school course, even in a course of four years in length, in which the pupils come together
four or five times a week, perhaps in classes of considerable size, remain with the teacher for three-quarters of an hour, and the rest of the time speak English. With the most skillful teachers, working with the best methods that can be devised, and concentrating their effort upon the one aim of teaching the pupil to talk, the results of such a course, unless the work of the school is supplemented by practice at home, is only an imperfect command of the language, which is of little use outside the class room. Meanwhile the concentration of effort upon this one object necessarily involves the neglect of other things that are of more importance in the end. For it must be remembered that the process of learning to speak a foreign language has no educational value except as it is connected with. and grows out of, the improvement of the mind.
In the second place it is to be remarked that while in certain European countries, by reason of their geographical position, or the character of the population, it is of very great practical importance that the rising generation learn to speak two or three languages with facility, the conditions in the United States are different. If it were possible in the secondary school to impart a good practical command of French, it is evident that all but a minute proportion of those leaving school with this accomplishment would soon lose it for lack of occasion to use it. We have, it is true, a number of communities in which the ability to speak German is highly convenient, and may even have a local market value. But nowhere in the United States is this ability indispensable. The English language is the vernacular of the country and the medium of our civilization, and we wish it to become more so, rather than less so, with the lapse of time. So far as purely practical considerations go, it is for those who come to us to learn our language, not for us to learn theirs. If we teach a foreign language in our schools it should be for the sake of its general educational value. At the same time, its potential value as a means of intercourse may very properly be kept in view. One who has received the best training that the secondary school can give may not be able to speak his modern language with facility for the practical purposes of life, but he will have been started in the right way; will have obtained a good general knowledge of the language, and will have had some practice in speaking. If then, after leaving school, he needs to be able to speak the language, he has an excellent foundation on which to build. Proficiency will come rapidly with practice.

Section III.-A Critical Review of Methods of Teaching.
THE GRAMMAR METHOD.
When the modern languages first became a regular subject for serious study in secondary schools it was natural that teachers, having no other model to imitate, should adopt the time-honored plan followed in the department of Greek and Latin. According to this method the pupil is first put through a volume of paradigms, rules, exceptions, and examples which he learns by heart. Only when he has thoronghly mastered this book is he allowed to read; and even then his reading is usually regarded as a means of illustrating and emphasizing grammatical principles, rather than as a source of inspiration or of literary education. The amount of foreign literature studied by the class is, moreover, extremely small; bué it is all carefully analyzed and translated, every lesson being, in general, repeated several times. Composition is used as an instrument for increasing still more the student's familiarity with inflections and rules. The foreign language is never spoken, and pronunciation is considered unimportant.

This method has fallen into discredit; and while it is not yet entirely banished from classical instruction, it can scarcely be found, in its original purity, among the modern language courses of any civilizod region. It has, however, certain undeniable advantages. In the first place it trains the mnemonic faculty; in the
reaction against the hard, unattractive schooling of our fathers, modern pedagogical fashion has gone so far that the power of conscious acquisition and retention is hardly exercised at all; children go to college or out into life with an embryonic memory, and the teacher's task rivals the labor of the Danaides. Secondly, the careful study of grammatical rules and their nice application in translation and composition form one of the best possible exercises in close reasoning. It may be urged that logical processes are not natural to the child; neither are they natural to the uninstructed adult; but to be a successful student or an intelligent citizen, a boy or man must be able to arrive at rational conclusions. Hence it is one of the chief duties of education to afford practice in clear and orderly thinking. The principal value of arithmetic and algebra as secondary school studies lies in the fact that in them right and wrong reasoning are immediately and unmistakably distinguished by their results. In most subjects the white and black are not so clearly defined; between them lies a broad gray zone, the region of "not quite correct" and "not altogether bad," and it is toward this nentral belt that neariy all the pupil's efforts tend. The children "don't see why" their answer is not as good as any other, and the sloth and slovenliness native to the untrained human mind remain undisturbed. Now, grammatical analysis and synthesis, while less mechanical and more varied in their operation than elementary mathematics, are nearly or quite equal to it as a means of inculcating the habit of accurate ratiocination.

On the other hand, the grammar method is open to criticism on the ground that it neglects two of the most important objects of foreign-language study: the broadening of the mind through contact with the life, the ideas, and the forms of thought and expression of different times and countries; and the cultivation of the artistic sense by the appreciative study of literary masterpieces. A still more potent objection is the contention that pure grammar is not calculated to inspire interest in pupils of the high-school age. This objection seems to be well founded, and, if so, it is a fatal one; for modern pedagogy, if it has accomplished nothing else, has established the fact that interest is absolutely essential to the performance of the best work in any field. It appears, then, that the day of the pure grammar method is past; but while devising a system more in accordance with the principles and the possibilities of our time, let us not forget that the old-fashioned way had its good features.

## the natural method.

At the opposite pedagogical pole from the process just described, we find the conversational or "natural" method. This educational " naturalism" is a reaction against the inflexible systematism of earlier teachers; we should, therefore, expect it to be somewhat aggressive and somewhat formless, more given to pulling down than to building up. It is a principle, an impulse, rather than a plan; and its products depend, to a greater extent than those of any other school, on the personality of the instructor. Too often the results of a protracted and supposedly successful course of unalloyed conversation are a rapid, but unintelligible pronunciation, the fluent use of incorrect forms, and, worst of all, a most discouraging self-complacency. Some peculiarly gifted teachers have succeeded in combining alertness with a reasonable degree of accuracy, but it will probably be found, in ail such cases, that the instructor has resorted to devices not strictly "natural."

What is the genuine "natural method?" In its extreme form, it consists of a series of monologues by the teacher, interspersed with exchanges of question and answer between instructor and pupil-all in the foreign language; almost the only evidence of system is the arrangement, in a general way, of the easier discourses and dialogues at the beginning, and the more difficult at the end. A great deal of pantomime accompanies the talk. With the aid of this gesticulation, by
attentive listening, and by dint of much repetition the beginner comes to associate certain acts and objects with certain combinations of sound, and finally reaches the point of reproducing the foreign words or phrases. When he has arrived at this stage, the expressions already familiar are connected with new ones in such a way that the former give the clue to the latter, and the vocabulary is rapidly extended, even general and abstract ideas being ultimately brought within the student's comprehension. The mother tongue is strictly banished, not only from the pupil's lips, but, as far as possible, from his mind, Not until a considerable familiarity with the spoken idiom has been attained is the scholar permitted to see the foreign language in print; the study of grammar is reserved for a still later period. Composition consists of the written reproduction of the phrases orally acquired.

This method-if "method" is the proper term-is based on two general ideas; one true, the other false. The first is the belief that the interest so necessary to the successful prosecution of any study (and especially of language work) can most easily be aroused by the actual spoken use of the foreign tongue. The second is the theory that a boy or man can best learn a new language in the manner in which an infant first acquires its native speech. Hence comes the epithet "natural." The advocates of this view overlook, first, the fact that the child requires eight or ten years of incessant practice to gain even a tolerable command of its own tongue, and, secondly, the vast difference between the mind of the baby and that of the youth. The really natural methods of acquisition at these two stages of development are almost diametrically opposed. Let us consider, for instance, the learning of pronunciation. The newborn child, after various unsuccessful experiments, reproduces sounds correctly because it has no previous habits of speech to contend with. The boy or man, unless he is phonetically trained or exceptionally acute of hearing, does not imitate at all. He merely substitutes for the severalstrange vowels and consonants the English sounds which the foreign ones happen to suggest to him. Thatis why the pronunciation of conversational classes is generally not a whit better than that of scholars taught after the most antiquated fashion. In the attempt to inculcate the other elements of speech-inflections, syntax, and phraseology-the purely imitative process shows itself to be almost equally inadequate. We may justly urge, furthermore, against this style of teaching, that it provides little discipline for the intelligence; that it affords only the poorest kind of mnemonic training; that it favors vagueness of thought and imprecision of expression, and, finally, that it sacrifices the artistic interest of language study to a so-called "practical" one. On the other hand, it certainly does awaken enthusiasm among its disciples, and it stimulates and holds the attention.
The natural method has been rehemently attacked and just as vigorously defended. At present the violence of the conflict has abated, and we are able to judge dispassionately the results of its introduction into our educational life. Those results have been mainly good. In summer schools and other institutions that have used the imitative process exclusively most of the pupils are persons who have had or will soon get some practice in grammar and reading. For them the conversation lessons are supplementary and form a useful addition to their training. In schools and colleges that have not accepted the "naturalistic" theory the fame of the new method has obliged teachers to adopt some of its practical features, thus bringing much-needed life and variety into their instruction. It seems probable that the next generation will regard "naturalism " rather as a vivifying infinence than as an independent method. ${ }^{1}$

[^9]Out of the conviction that modern-language study should be made attractive, and out of the desire to adapt instraction to the known workings of the human mind, has come a system that seems more deserving of serious attention than the grammar method or the "natural "style of teaching. This is the system invented by Gouin and brought into general notice by Bétis. ${ }^{1}$

The psychological method rests on the principle of the association of ideas and the habit of " mental visualization." The whole current vocabulary of a language, in the form of short, idiomatic sentences, is divided up into groups, every group consisting of phrases that are intimately connected in subject. One group forms a lesson. These brief divisions are gathered together in chapters, each of which treats of one general topic, and several chapters make a "series." When a pupil has gone through all the series, with numerous reviews, he will have mastered (so we are told) the whole spoken language. Every lesson is first worked out orally and then studied by the pupil from his book. On presenting each new word to the beginner the instructor exhorts him to close his eyes and form a distinct mental picture of the thing or act represented. This image (it is affirmed) will remain indissolubly connected with the word, and the evocation of the one will always recall the other. Sometimes real objects or drawings are used, and pantomime is frequently resorted to; but in most cases reliance is placed on the child s active imagination. It is never considered a sin to put in a word or two of English, and at the outset that language is very freely employed. Although most of the talking is done by the teacher, the pupils are constantly called upon to repeat his sentences and to answer questions. After the first lessons written compositions may be prepared, made up of phrases already acquired. Grammatical instruction is begun early, concurrently with the other exercises, but the reading of consecutive texts is postponed until the bulk of the ordinary vocabulary has been learned. Many innovations have been introduced into the presentation of grammar, but most of them are more radical in appearance than in reality. Some, however, are extremely ingenious, and will doubtless be copied by instructors who do not see fit to adopt the whole system.
The Bétis method has the following obvions advantages: It trains the memory; it fascinates the student and holds his attention more closely than any other mode of teaching now in vogue; it gives the pupil, in a reasonably short time, a ready command over a large, well-arranged, and well-digested vocabulary; it affords, through some of its conversational groups, an insight into the life of a foreign country. As for the other side the system seems, as far as we can ascertain the facts, to lay itself open to these criticisms: It affords but little opportunity for the exercise of judgment; it entirely neglects, in the first years, the cultivation of the æsthetic sense, and assigns literary study to a stage which high-school pupils will scarcely ever reach. Moreover, its treatment of pronunciation is decidedly unsatisfactory; but this defect can probably be remedied without disturbing the rest of the scheme.

[^10]Pronunciation, neglected in the three modes of instruction just mentioned, is the very foundation of a system that has of late years attracted attention in all northern Europe, and has gained a considerable footing in Germany and Scandinavia. ${ }^{1}$ Its advocates, while not entirely free from the intolerance and the selfconfidence so characteristic of enthusiastic reformers, are men of sound scholarship, successful experience, and good standing in the educational world. As far as can be ascertained, they have arrived at results which go far toward justifying their seemingly extravagant claims. There have been few attempts to introduce the phonetic teaching in this country; probably the most extensive trial of it has been made at the Johns Hopkins University.

The phonetic method resembles the "natural" and the "psychological" schools in that it takes the modern spoken language as a basis and at first relies mainly on oral instruction, using as far as possible the foreign language itself as a medium of communication. Unlike most "conversation" courses, however, it is very systematically constructed and its beginning is strictly scientific. It begins with a training of the ear and the vocal organs, the pupils being thoroughly drilled in the vowels and consonants of the strange tongue. These sounds are considered both as isolated phenomena and as elements of idiomatic phrases. The phrases, in turn. are combined into dialogues, descriptions, and stories. At this stage printed texts are used, but only in phonetic notation. The ordinary spelling is carefully kept from the students during the elementary period. It is said that the transition from sound symbols to standard orthography presents no serious difficulty. Objects, pictures, and maps are constantly displayed, and every effort is made to familiarize the class with the surroundings, the institutions, the habits, the character, and the mode of thought of the people whose language they are learning. The phonetic texts gradually increase in length and difficulty, and some of the latest are representative of literature. Inflections and syntax are studied inductively. Composition consists first of the oral and written reproduction of matter already heard or read, then of combinations of familiar phrases. Systematic grammar is reserved for a late stage, and translation comes last of all.
It is evident that this sort of instruction requires a special preparation and a special apparatus. Although the pupils are not taught phonetics, it is essential that the teacher be something of a phonetician; and the present difficulty of obtaining adequate instruction in the science of speech-sounds has doubtless done much to hinder the rapid general adoption of Vietor's programme. Let us hope

[^11]that in the near future such training will be brought within the reach of all by means of courses conducted, in our universities and in our summer schools, by men who unite with the necessary scientific attainments a practical knowledge of the requirements of American pedagogy. Phonetic texts, too, though not absolutely indispensable, are of the greatest assistance. ${ }^{1}$

This method, while it lacks the logical discipline of the old grammatical instruction, is more successful than any other in forming a good pronunciation and in giving pupils a ready and accurate control of the spoken language. The training it atfords can hardly fail, moreover, to improve the quality of the student's voice and his enunciation of his mother tongue. From the standpoint of mnemonic education, too, it ranks high. In stimulating interest it is nearly equal to the "natural" and "psychological" courses, and it is second only to the latter in holding the attention. The training of the attention should, by the way, be regarded as an important part of any pedagogical scheme; for the habit of inat-tention-the utter inability of pupils to fix their minds on anything for more than a few minutes at a time-is the most serious obstacle that confronts our secondary teachers. The attempt to give scholars, by ear and eye, by description and by the use of objects and pictures, a correct and vivid idea of foreign life has been carried further by the phoneticians than by any other school; but there is no reason, save the lack of rightly prepared instructors, why this feature should not be introduced into every method; the neglect of it defeats one of the principal objects of modernlanguage study. Another means to the same end is the system of international correspondence between school children of different countries. ${ }^{2}$

What are the disadvantages of the "phonetic" plan, when we consider it from the point of view of our American high schools? In the first place, it seems, like other "oral" methods, to overlook the importance of literary education, for it postpones the reading of real books to a stage that is beyond our secondary period. In Europe, where intercourse between foreign countries is easy and frequent, and a command of several languages has a recognized commercial value, it is natural that a practical mastery of the strange tongue should seem highly desirable. With us, isolated as we are, a speaking knowledge of French and German has,

[^12]except for teachers, but little pecuniary worth; and even in the case of a student who has acquired it for pleasure alone, the opportunities for practice are so few that his hardly won accomplishment will soon slip from him. Familiarity with pronunciation and a certain ability to handle foreign constructions are, indeed, essential to a proper appreciation of the literature; but if literary study is not reached, of what avail is the preparatory training? For we must bear in mind that the vast majority of our pupils-those for whom the course should be planned-will not continue their education beyond the high school. It has been pointed out that oral work, besides exercising the organs of speech, arouses interest and fosters a certain alertness of mind, and is therefore váluable for its own sake. We may question, however, whether these benefits make up for the sacrifice of all the æsthetic culture and the intellectual broadening that come only from the reading of good books.

To this criticism the European advocates of the method would surely reply that they believe in abundant reading, after the student has mastered the spoken idiom. It appears, then, that the real fault of their programme, as applied to our conditions, is not so much that its underlying principle is entirely incompatible with our creed as that it calls for much more time than we allot to foreign language. In fact, we may well doubt whether with our three or four hours a week for three or four years our scholars would ever reach the end even of the elementary stage; they cer'ainly would not go beyond it; their acquisition would be only a fragment. If we should wish to introduce this or any other thoroughgoing method, we should be obliged to increase the importance of French and German in the school curriculum; and such increase is desirable from every point of view. Not only should the pupils who are intending to continue these studies in college receive the best possible preliminary training, but all children who begin the subjects at all should give them time enough to admit of an extended course, conducted according to the most enlightened principles. In order to gain the necessary hours, the foreign language must be taken up earlier, or some other high-school topic must be sacrificed, A few things thoroughly and intelligently done make the best secondary discipline. As long, however, as our present conditions last it is clear that we must give up something. Until we are ail willing greatly to leng then the time given to the linguistic part of our children's education, we shall have to renounce the idea of a full, well-rounded knowedge of French and German, and, selecting the portion of the subject that appears most important for the greatest number, devote ourselves to the cultivation of that restricted field. Considerations of this nature have led many thoughtful teachers to adopt a mode of instruction that we may call the "reading method."

## THE READING METHOD.

The title explains itself. The study of texts from the very beginning of the course, abundant practice in translation at sight, leading ultimately to the ability to read the foreign language with ease and without the interposition of English, are the principal features of this programme. Grammar and composition are regarded merely as a help to reading, and are reduced to the essentials; sometimes accidence and syntax are first learned inductively, but oftener a small text-book is used concurrently with translation. Great importance is attached to the use of good English in the renderings. Pronunciation receives scant attention; there is little or no oral exercise.
This method has been much used of late in our schools and colleges, especially in those that have large classes, a short course, and an American teacher. The great advantage of the process is that it quickly enables the student to read French and German literature-not with the complete appreciation that only an all-around command of the language can give, but with the same kind of intelli-
gence and enjoyment with which good classical scholars read Latin. Indirectly, it helps the pupil to form a good style, and to increase the volume and precision of his English vocabulary; it cultivates the taste by dwelling upon delicacies of expression; it exercises the inemory through the enforced retention of words and idioms; it trains the linguistic sense by calling attention to the points of resemblance and difference in various tongues; and the exact fitting of phrase to thought forms an excellent discipline for the judgment.

On the other hance, in addition to the fact that it deals with only one aspect of language, the reading method is lacking in vivacity and in stimulus to the attention; it interests only the more serious pupils. Moreover, the continued use, year after year, of an easy way of teaching-for it is comparatively easy, and requires but little special training-may prove demoralizing to the instructor, dull his appetite for self-improvement, and make him indolent and easily satisfied with his qualifications.

Section IV.-Method as Related to the Preparation of Teachers.
If all our classes were in the hands of born teachers, ideally prepared for their work, advice with respect to method would be quite superfluous. Every teacher would create for himself the method best suited to his class and to his own peculiar gifts. His personality would infuse life and efficacy into any process he would be likely to adopt. But in a profession so widely pursued we can not expect the majority of its followers to show genuine vocation. The most of our teachers are made, and we must see to it that they be as well made as possible. It can not be too strongly urged upon school authorities that if modern-language instruction is to do the good work which it is capable of doing it must be given by thoroughly competent teachers. The committee sinvestigations show, and it is a pleasure to testify to the fact, that we already have a goodly number of secondary teachers who answer to that description. Nevertheless, our general standard is still far too low. For some time to come the majority of our teachers will necessarily be guided to a large extent, in their choice of methods, by the consideration of their own competence.

But while it is easy to insist, broadly, upon the importance of adequate preparation for teachers, it is not so easy to define, in exact terms, the minimum of attainment which can be regarded as sufficient. Much will always depend upon personality, upon general alertness of mind and aptitude for teaching. The best of teachers learn with their pupils, and it will sometimes happen that one who knows too little of his subject will teach it better than another who knows more. Never theless, it remains broadly true, and should never be forgotten for a moment, that what the teacher most needs is to be a master of his subject. With the sense of all-around mastery come independence of judgment and the right kind of selfassurance. Without this sense the attempt to follow someone else's method, however good the method may be in the hands of its inventor, can never produce the best results.

To be ideally prepared for giving instruction in a modern language, even in a secondary school, one should have, aside from the ability to teach and the general personal culture necessary to secure the respect and attachment of pupils, a thorougli practical command of the language to be taught, a solid knowledge of its literature, and a first-hand acquaintance with the foreign life of which the literature is the reflection. To be decently prepared, he should, at least, have read so much in the recent literature of the language that he can read about as easily as he would read matter of the same kind in English. He should have studied the principal works of the great writers, and should have taken a course in the general history of the literature. He should know thoroughly the grammar of the language in its present form. If he has some knowledge of the historical development of
forms, such knowledge will help him in his teaching, especially in the teaching of French to pupils who have studied Latin. He should be able to pronounce the language intelligently and with reasonable accuracy, though he may not have the perfect "accent" of one who is to the manner born. He should be able to write a letter or a short essay in the language without making gross mistakes in grammar or idiom, and to carry on an orcinary conversation in the language without a sense of painful embarrassment. Even this degree of attainment will usually require residence abroad of those for whom English is the mother tongue, unless they have enjoyed exceptional opportunities in this country. In any case, the residence abroad is greatly to be desired.

In insisting that secondary teachers of a modern language should be able to speak the language with at least moderate facility and correctness, the members of the committee are well aware that they set up a standard higher than that which has very generally been deemed sufficient. But it is a standard to which we must come. Many of the best schools have already come to it. Nor need we fear that such a standard will result permanently to the advantage of the foreignborn teacher in the competition for positions. If we leave out of account cases of exceptional individual talent for teaching, the general principle holds good that the best teacher of a foreign language is a person of the same nationality as his pupils who is thoroughly at home in the language to be taught. The Americanborn teacher will thus have a substantial advantage over his foreign-born competitor, but he can not afford to be vulnerable in so vital a point as the practical command of the language in which he undertakes to give instruction.
To many of our teachers residence in Europe will probably seem out of the question. Those who, by dint of thrift and sacrifice, contrive to cross the ocean can now enjoy fine opportunities in the way of summer courses at Paris, Geneva, Jena, Marburg, Greifswald, and elsewhere. The others must content themselves for the time being with a somewhat inadequate equipment, the defects of which, however, can be to a great extent remedied by the reading of well-chosen books, by work in American summer schools, and by association with foreigners in this country. It is to be hoped that our colleges and universities will recognize, more largely than they have heretofore recognized, the need of practical courses for teachers of the modern languages.

With respect, now, to the main subject of this section, it is hardly necessary to observe that the teacher who can not himself speak his modern language should not attempt seriously to teach his pupils to speak it. He should not try to work the "natural method," or any private variation thereof; if he does, he will be almost certain to do more harm than good. He may and should provide memory exercises that exhibit natural colloquial forms, but in so doing he should be guided by some good manual, and make that the basis of the class-room work. The native German or Frenchman will naturally think that success will be easy for him in a "conversation" course, but it is for him to remember that he can accomplish nothing worth while without system; that he must have the proper books; that he can not comprehend his pupils' difficulties unless he knows English weli, and that he can never govern his class unless he has a sympathetic understanding of American character. For the "psychological," and still more for the "phonetic" programme, special study is necessary, and no one, foreigner or native, should imagine that he can cope with such a method offhand.

But if the availability and the goodness of the several methods described in the preceding section depend mainly upon the fitness of the teacher, they also depend upon the age of pupils, the probable length of the course, and the size of classes. If the study begins in childhood and the beginner is looking forward to a long and therough course of the best possible kind, it is obviously the right thing that he devote a large amount of time at first to the acquisition of a faultless pronunciation and an easy command of the colloquial language. Ho will then have the best
possible foundation for literary study. But if he begins later in life and the problem is to realize the maximum of benefit from a limited course, he should devote less time to the colloquial language and proceed more quickly to the study of literature. It is also evident that in classes of considerable size the most efficient colloquial practice can not be given; the pupils may learn to understand the language (and this is of course well worth while) but they will not learn to speak with much facility. If this report were intended to meet ideal conditions, that is, if it were addressed to teachers whose training would permit them to choose freely from the methods that have been described and to combine them with wise discretion, the committee might be disposed (although in that case, as we have already remarked, advice with regard to method would hardly be needed) to make some such recommendations as the following: Fôr very young children, say up to the age of 10 , the "natural" or imitative method of the nurse or the governess, with some help perhaps from the "psychological" method. For a course of six years, beginning, say, at the age of 12 , a combination during the first three years of the "psychological" and "phonetic" methods, accompanied by some study of grammar; after that a more thorough study of grammar, together with the reading and translation of good literature, supplemented by oral practice in the language and written composition. For a four years' course, beginning in the high school, we should recommend a similar procedure, the division between the "psychological-phonetic" and the "reading" method coming, however, somewhat earlier, say, after the first year. In combining the "psychological" and "phonetic" methods the general plan of the former would be followed, while the latter: would be imitated in its treatment of pronunciation and, so far at least as French is concerned, in its use of phonetically transcribed texts. For any shorter course we should advise the "reading" method, accompanied, however, by scientific training in pronunciation, drill in the rudiments of grammar, and a moderate amount of oral practice.

Recognizing the somewhat idealistic character of these recommendations, the committee will present further on a scheme of secondary courses, with suggestions relating thereto, which are meant to be adapted to existing conditions. First, however, it is necessary to deal briefly with another subject, or rather with two closely related subjects, which are more or less involved in any consideration of the modern languages in secondary education.

## Section V.-Modern Languages in the Primary Grades; the Extension of the High-School Course.

In a number of American cities modern-language instruction, mainly German, has already been introduced in the primary ${ }^{1}$ grades of the public schools, and the propriety and value of such instruction have been warmly debated in the newspapers and in local educational circles. On the one hand, it is urged that in any community where Germans preponderate or constitute even a large minority of the taxpayers they have a right to demand that the German language be taught in the public schools. The reply is made that the primary schools of the United States have an important function to perform in preparing children for life and citizenship in an English-speaking country, and that this mission will best be performed if the English language and no other is made the subject and the medium of instruction. To this it is rejoined that the learning of a foreign language in childhood need not prejudice the learning of English or of any other important subject, that the rudiments are quickly and easily acquired, and that the early beginning is in accordance with sound pedagogical principles. This line of assertion, in turn, is met with the reply that the primary schools have all they can do in teaching the subjects that are of obvious and undeniable use to everybody, and

[^13]that the smattering of a foreign language which they can impart serves no educational purpose and is of no practical value in life.

When the issue is thus stated one sees at once that there is a measure of soundness in all these contentions. The committee feel that it would be futile to attempt here an answer to the question whether it is or is not desirable, in the abstract, that a foreign language be taught in the primary grades of our public schools. The question in its politico-social bearings is a very large one, but it is a question which every community must and will decide for itself in view of local conditions, and the wisdom of its decision must abide the test of experience. We believe, however, that experience is already sufficient to enable us to formulate certain general principles which should always be kept in view in the practical management of the matter under consideration.

In the first place, if a foreign language is taken up in the prinary grades, it should always be as an optional study. This point seems to require no argument. The value of the study is at best so uncertain, so dependent upon circumstances of one kind or another, that the work should not be made obligatory for anyone.

In the second place, it is not worth while, as a rule, that the study of a foreign language be taken up in the primary grades unless the beginner has at least a prospect and an intention of going on through the secondary school. The reason for this opinion is that what can be acquired of a modern language in the primary grades, even with the best of teaching and under the most favorable conditions, is good for nothing except as a foundation. For while it is true that children learn quickly and easily the rudiments of "conversation" in a foreign tongue, it is also true that they forget them no less quickly and easily. The children of parents who speak German at home and expect to speak it more or less all their lives, may be taught in the primary school to use the language a little more correctly; but if they leave school at the age of 12 or 14 , they inevitably drop back into the speech habits of those with whom they associate, and their school training thus becomes, so far as the German language is concerned, a reminiscence of time wasted. The children of parents who speak English at home may get a smattering of German at school; but if they leave school at the age of 12 or 14 they soon forget all they have learned.

In the third place, if a foreign language is tanght in the primary grades, it should be by teachers who handle the language easily and idiomatically. Classes should be as small as possible and there should be at least one exercise on every school day. Infrequent lessons in large classes amount to nothing. It is important that the teacher know his pupils intimately and be able to adapt his instruction to their individual needs. The general aim should be to familiarize the learner with the vocabulary and phraseology of the spoken language and to teach him to express himself readily and correctly in easy sentences. The free use of objects and pictures is to be recommended.

In what has just been said we have had in view the usual arrangement of work, in accordance with which the secondary or high school is supposed to begin with the ninth grade (the average pupil being then about 14 years old) and to extend over a period of four years. Grades below the ninth we have classed as primary. But while this is still the typical arrangement for the country at large, schoolmen have here and there lengthened the high school by extending it downward; in other words, by making provision that some of the solid disciplinary studies of the secondary period shall begin in the seventh or eighth grade. There appears to be strong argument in favor of this plan. It is urged by thoughtful schoolmen that our American high school has become congested; that the increased requirements of the colleges and the pressing demands of new subjects for "recognition" have given to the secondary school more work than it can do thoroughly in the traditional allotment of time. When, as sometimes happens, the colleges are blamed for this state of affairs and it is suggested that they reduce their requirements for admission, they are able to reply with much force that present
requirements, even where they are highest, are none too high unless we are villing to fall far below the standard of the Old World. The average graduate of an American high school is of about the same age as the average graduate of a German gymnasium, but the latter is further along in his studies and better prepared for higher work. We have therefore to consider the problem of strengthening the preparatory course while recognizing that the ordinary four-year curriculum can bear no further burdens and should, if anything, be simplified. Of this problem the obvious solution is to begin the proper work of the high school at an earlier date. Instead of dividing our educational years into eight primary, four secondary, and seven or eight higher, we should divide them into six primary, six secondary, and six higher.
It is probable then that the six-year high-school course will meet with increasing favor, for the idea is a good one. At the same time we can not expect that the now usual organization of school work will be changed immediately or even rapidly, and for this reason the model courses to be described below have been drawn up primarily with reference to existing conditions. Our principal object in touching here upon the subject of the six-year secondary curriculum was to prepare the way for an expression of the opinion that, where such extended courses are provided, a modern language can be very advantageously begun in the seventh grade.
Whether Latin or a modern language should come first in a well-ordered course of study is a question upon which teachers differ. It is one of the queations upon which, in the existing state of psychological and pedagogical science, it is just as well not to dogmatize. In fixing the order of studies in any school course, practical considerations of one kind or another will often outweigh general argument. Probably the sanest view of the matter is that it does not make very much difference whether Latin or a modern language precedes, if only the elementary instruction in either case be rightly adapted to the learner"s age and mental condition. It is often urged that the discipline afforded by the study of Latin makes the subsequent learning of a modern language easier. This is true, but the converse is no less true. In beginning the serious study of any foreign language there are certain mental habits to be formed, certain faculties to be called into play and exercised. The pupil must learn how to study. He must become familiar with strange forms and with their equivalent in his own tongue. He must learn what idiom means and how to translate; must learn to observe, compare, and think. For the purpose of this elementary discipline one language is as good as another, if only the teaching be intelligent; and the discipline of the first linguistic study makes the second easier. In general, it is safe to assert that the average boy or girl of 12 will take more kindly to French or German than to Latin. The modern language is easier and more interesting. It seems more real and practical. Progress is more rapid. The value of the Latin has to be taken on trust, that of the modern language is more obvious to the juvenile mind. For children of 12 the Latin grammar is a very severe study. It means usually for many months little more than a loading of the memory with paradigms, a blind investment of labor for the sake of a mysterious future profit which the learner can not comprehend. The elementary reading matter is usually dull stuff, devised to illustrate grammar. Up through Cæsar's Commentaries there is almost nothing to touch the feeling, to feed the imagination, or to suggest a real connection with the pupil's own life. It is all a grind; in its time and place, to be sure, a very useful grind. We believe in it heartily. But the question is whether for children of 12 it is not best to break the force of the initial impact with Latin by using a modern language as a buffer.
It may also be remarked, finally, that one who wishes to acquire a modern language thoroughly will always do well to begin in childhood. The later period of youth is distinctly a bad time to begin. In childhood the organs of speech are still in a plastic condition. Good habits are easily formed; bad habits more easily
corrected. The mind acts more naively, and the memory is tenacious of whatever interests. Forms of expression are readily mastered as simple facts. Later in life, in proportion as the mind grows stronger, it also grows more rigid. The habit of analyzing and reasoning interferes more or less with the natural receptivity of the child. The fixation of speech habits in the mother tongue makes it increasingly difficult to acquire even a moderately good pronunciation, and perfection is usually out of the question.

## Section VI.-Proposal of Three National Grades of Preparatory Instruction in the Modern Languages.

Thus far this report has not dealt specifically with requirements for admission to college. In accordance with the idea embodied in the resolution referred to in Section I, we have approached our subject from the point of view of the secondary schools. We have endeavored to state and explain the principles which should be kept in view in order to render our school work in French and German as valuable as possible to the learner. We have recognized that the secondary school does not exist solely or even mainly for the sake of its preparatory function; and what we have'said would be in the main true, and we hope valuable, even if there were no colleges. Nevertheless the preparatory function of the secondary school is obviously of very great importance. In practice secondary courses are shaped quite largely with reference to college requirements. The school naturally looks to the college as a regulative influence. It turns to the college catalogne, learns what must be done to prepare its pupils for admission, and concludes, not unnaturally, that this is about what ought to be done from an educational point of view. In the absence of any central control of education in the United States this regulative influence of the college is the most potent agency at our command for creating and maintaining a high standard of secondary teaching. We come, then, to the subject of secondary.instruction as related to college requirements.

For the purpose of simplifying the relation between the colleges and the secondary schools and for the purpose of securing greater efficiency and greater uniformity in the work of the schools, it is hereby proposed that there be recognized, for the country at large, three grades of preparatory instruction in French and German, to be known as the elementary, the intermediate, and the advanced, and that the colleges be invited to adopt the practice of stating their requirements in terms of the national grades.

Explanatory.-The proposed three grades are designed to correspond normally to courses of two, three, and four years, respectively, the work being supposed to begin in the first year of a four-year high-school course, and to proceed at the uniforin rate of four recitations a week. The elementary course is designed to furnish the minimum of preparation required by a number of colleges in addition to the Latin and Greek of the classical preparatory course. The intermediate course is designed to furnish the preparation required by many colleges which permit the substitution of a modern language for Greek. The advanced course is designed to furnish the highest grade of preparation of which the secondary school will ordinarily be capable in a four-year course.

With respect to the time required, in years and in hours per week, for the satisfactory completion of the work to be outlined below, it should be said that the committee has no thought of imposing upon the schools an inflexible programme. Teachers will continue to make their programmes in accordance with their own judgment and convenience. The rapidity with which the proposed work can be done will, of course, vary greatly in different schools, with the age and aptitude of pupils, the size of classes, the efficiency of teaching, and according as the beginner of French or German has or has not studied Latin. It makes no small difference whether the modern language is begun in the first year or in the third year of the high-school course. In attempting to draw up model courses, however, the com-
mittee obviously had to make some definite assumption with regard to the time of beginning and the number of recitations per week. It was also necessary to provide for the case of the work beginning in the first year, since many of our best schools already have four-yaar courses in German or French, or both. It is clearly desirable that such courses be made as good as possible, and that they have a recognized place and value in our general scheme of requirements for admission to college.

With regard to the four recitations per week let it be observed that that number ${ }^{*}$ has been made the basis of our calculations, not because the committee prefer it to five, or wish to recommend it to the schoo's instead of five, but because it is believed to be the smallest number that will permit the proper completion of the work proposed, if the work begins in the first year. Where a modern language is begun in the third year of a high school, it may be possible to complete the intermediate course in two years at the rate of five recitations a week, and the elementary course in proportionally less time. Where French is taken up in the last year of the classical preparatory course, it may be possible sometimes to meet the elementary requirement in one year at the rate of five recitations $a$ week. But this will almost never be possible in the case of German, and in general the committee do not recommend one-year courses. The attempt to meet the elementary requirement in one year will result usually in a cramming process with neglect of that thorough drill upon the rudiments which is necessary for a good foundation.

In drawing up model courses the committee has had in view the needs and the: conditions of the United States at large. ${ }^{1}$ The work of the subcommittee charged with the matter was nirst submitted for criticism and suggestions to some twa hundred secondary teachers of known ability and experience. It was then carefully revised in the light of the information and opinions gathered, and finally ran the gauntlet of thorough discussion in the committee of twelve. It is believed to represent the best intelligence of the country; to set a standard which is high, but not too high, and to be throughout entirely practicable. Teachers who do. not find their own ideas perfectly expressed by the scheme will please remember that the committee had to find its way among a multitude of counselors.

## Section VII.-The Eleventary Course in German. <br> (a) THE AIM OF THE INSTRUCTION.

At the end of the elementary course in German the pupil should be able to read at sight, and to translate, if called upon, by way of proving his ability to read, a passage of very easy dialogue or narrative prose, help being given upon unusual words and constructions; to put into German short English sentences taken from the language of every-day life or based upon the text given for translation, and to answer questions upon the rudiments of the grammar as defined below.

## (b) THE WORK TO BE DONE.

During the first year the work should comprise: (1) Careful drill upon pronunciation; (2) the memorizing and frequent repetition of easy colloquial sentences:

[^14](3) drill upon the rudiments of grammar, that is, upon the inflection of the articles, of such nouns as belong to the language of every-day life, of adjectives, pronouns, weak verbs, and the more usual strong verbs, also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of̂ syntax and word order; (4) abundant easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (5) the reading of from 75 to 100 pages of graduated texts from a reader, with constant practice in translating into German casy variations upon sentences selected from the reading lesson (the teacher giving the English), and in the reproduction from memory of sentences previously read.

During the second year the work should comprise: (1) The reading of from 150 to 200 pages of literature in the form of easy stories and plays; (2) accompanying practice, as before, in the translation into German of easy variations upon the matter read, and also in the off-hand reproduction, sometimes orally and sometimes in writing, of the substance of short and easy selected passages; (3) continued drill upon the rudiments of the grammar, directed to the ends of enabling the pupil, first, to use his knowledge with facility in the formation of sentences, and, secondly, to state his knowledge correctly in the technical language of grammar.
(c) SUGGESTIONS TO THE TEACHER.

The following paragraphs are submitted in the interest of good teaching, and not in the interest of the most expeditious preparation for college. It is well known that a capable boy or girl can be crammed for a college examination in any subject in much less time than a proper training in the subject would require. Here, however, we are concerned with the proper training. The college entrance examination is admittedly an imperfect test of attainment in a modern language. Where candidates are numerous and the time limited, the examination is necessarily in writing; and then the only available test of the ability to read is the ability to transªte, while pronunciation and readiness of speech are not tested at all. It is evident, then, that a good symmetrical training in the secondary school must keep in view more things than are likely to be "required" of the candidate at his examination for admission to college. In what follows we shall take up the more important points that are involved in the teaching of beginners and make some practical suggestions-suggestions that are by no means intended to prescribe a routine, but rather to state and explain guiding principles.
(1) Pronunciation.-It is hardIy necessary to say that the first matter of importance for the beginner is the learning of a good pronunciation. Drill upon the subject should be kept up steadily and inexorably until right habits are firmly fixed; because wrong habits formed at the outset are very persistent and very difficult to correct. In attempting to imitate his teacher's utterance of the strange German somads the learner will at first neither hear nor reproduce correctly, but will utter rough approximations of his own. 'It is necessary to train both his ear and his vocal organs. In doing this most teachers rely only upon oft-repeated imitations of their own pronunciation; and this is the best reliance, always supposing that the model itself be good. What usually happens, however, is that teachers cease or slacken their drill too soon. They find it dull business. After correcting some faulty utterance a score or two of times, they conclude that the result obtained will "do," that it is the best obtainable, that practice will make perfect-in the future. But the learner, being no longer regularly brought to book for his faults, perpetuates them, and makes no further progress except to pronounce badly with greater facility. In this way is acquired the slovenly pronunciation with which too many leave school.
The opinion is sometimes expressed that it is not worth while to take great
pains in the teaching of pronunciation, since perfection is out of the question. The argument is that American youth will not learn in school, however they may be taught, to pronounce German as Germans pronounce it; and that since they will speak badly anyway, the question of more or less can not greatly matter. But this is not the right attioude. For although one who is not a German will very rarely learn after childhood to use the organs of speech precisely as Germans use them, so that his pronunciation will ring absolutely true, still any boy or girl of average apitude may by careful attention to the"subject acquire a pronunciation so gool that it will be pleasing rather than displeasing to a cultivated German ear; just as in the case of Germans learning English, that which is called the foreign "accent" may bo reduced to such minute proportions that it does not offend, though it is noticable. Now this is a result worth working for'; but it can only be obtained when the teacher is interested in pronunciation and well-informed with regard to it. And right here comes in the great value of a knowledge of phonetics. Without such knowledge the teacher's only resonarce is the imitation of himself as model; his own personal habits of utterance become the standard of the class. But his habits may not be the best. If an American, he may have received a faulty training; if a German, he may have dialectic peculiarities which should not be taught to a class. One who knows just how the German sounds are produced, and how they differ from the English sounds with which they are most apt to be confounded, has a great advantage in teaching pronunciation. If he hears a faulty utterance he will know what is the matter and can correct it in the most effective way. If he knows something of German dialects, of provincial or local peculiarities of pronunciation, of the nature and claims of the so-called standard pronunciation, he will know what "correctness" means and will be able to teach more intelligently. And, what is most important of all, for one who has a scientific interest in prontuciation, the class-room drill upon the subject will not be a dull mechanical routine, bat a highly interesting employment. He will himself learn much incidentally, and will make his teaching of pronunciation useful to his pupils, not only for German, but also for English.
It is therefore very much to be desired that teachers of German in the secondary schoo's be qualified to deal scientifically with the subject of pronunciation. For this purpose it is not at all necessary that they be accomplished phoneticians. A very rudimentary knowledge of general phonetics will suffice. Of greater importance is it to have at hand and to have carefully studied a good treatment of the special problems of German-English phonetics. ${ }^{1}$
(2) The memorizing of colloquial sentences.-If there is any point upon which progressive teachers of living languages the world over have lately been coming to an agreement, it is that in any course of study making the slightest pretension to thoroughness the proper starting point in teaching is the vocabulary and phraseology of the language as represented in its every-day forms of expression. It is of course possible to learn to read a language with some facility and still not be

[^15]able to utter a sentence in it intelligibly or to understand a sentence uttered by another; in short, without acquiring any feeling for the language in its characteristic modes of expression. Scholars and men of science who find it necessary in their work to read a number of foreign languages can very quickly, by the aid of grammar, dictionary, and translation, reach a point at which they can "make out the sense" or "get the drift" of an article or a pamphlet. But this is not learning the language any more than "picking up" a few tunes on the piano is learning music. Such reading, though better than nothing and useful for certain purposes, is unsatisfactory. In the field of belles-lettres, where so much depends upon style, upon niceties of expression, and the subtle association of ideas, it is extremely unsatisfactory. The school, in dealing with languages so important as German and French, should aim at something better. It should aim to be thorough; to begin in the best way and lay a good foundation.

For literary appreciation-that is, for reading of the most profitable kind-one needs before all things a sensitive feeling for the language. One needs the sense of being at home in it. In teaching, this principle should be recognized from the outset. The learner"s knowledge is to be made second nature. His faculties and organs must be taught to respond instantly and naturally to the foreign symbols whether they are seen or heard. Idea and form of expression must become so intimately associated that the one suggests the other without any intervening process of ratiocination. To accomplish this, there is no kind of drill so good as the memorizing and frequent repetition of easy colloquial sentences. Such sentences can be given out and learned without any attempt at grammatical analysis and quite in advance of the pupil's grammatical knowledge. To know the meaning of "es thut mir leid" and be able to handle the sentence appropriately, it is not at all necessary that one be able to parse a single one of the words. It is to be borne in mind that psychologically the unit of speech is the sentence or the phrase, and not the individual vocable. Thoughtful teachers sometimes object to this form of drill on the ground that it is mere memory work, that it does not teach the pupil to think or to reason. This, however, is not a vaiid objection. Such drill does much more than to load the memory. It develops aptitude by making psychological reactions instantaneous; in short, by creating Sprachgefühl. Its value has some analogy to that of the finger-exercises of the incipient pianist.

It is obviously important that what is given out to be learned in this way should consist of nothing but natural, oft-recurring forms of expression. The pupil is to learn how Germans actually say things, and not how they might possibly say something which no one would ever have occasion to say outside the class room. The ideal condition is, of course, that the teacher have such a command of colloquial idiom that he will be able to furnish the necessary materials from the resources of his own knowledge. It will then be best that the pupil's repetitions be elicited by questions addressed to him in German: in other words, that the drill take the form of short dialogues without use of English. But, as we have already intimated, the teacher who does not command the language should not attempt this, but follow a book or note down suitable sentences from his reading of realistic stories and plays. Such sentences may then be given out to be learned and repeated frequently, the teacher giving the thought in English. ${ }^{1}$

[^16]This is perhaps an appropriate place to say a word upon the subject of memorizing poetry, a kind of drill which is highly thought of and largely practised by many teachers. The argument in its favor generally takes some such form as this: Boys and girls are apt to memorize easily, and they must memorize something; then why not have them memorize gems of poetry and great thoughts of great writers rather than the banalities of ordinary discourse? But this argument is fallacious. The object of the drill in colloquial German is, as we have already remarked, not to load the memory with things supposed to be highly valuable in themselves, but to create an instinctive feeling for the language in its usual and natural modes of expression. Now poetry, as the language of emotion, is a more or less artificial-often a highly artificial-form of expression, and it is better that the natural become lodged in the mind first. The beginner who has learned to recite "Sah ein Knab ein Röslein stehn, Röslein auf der Heiden," is hardly in a better, but rather in a worse, position for learning how a German would ordinarily express that idea. It may further be remarked that in simply hearing recitations of poetry in the class room the teacher can be of little use except to see that his pupils have done their task, which is, to make the best of it, one of his lowest functions; to correct mistakes of pronunciation, and to give points in elocution, if his talent runs in that direction. It is an easy business for him, but it is apt to involve a great waste of valuable time for all except the reciter. Finally, it is not to be forgotten that this kind of exercise, if it is felt as an irksome task, may easily create a positive distaste instead of a liking for the gems of poetry. We must remember Lord Byron's pathetic exclamation:

Then farewell Horace, whom I hated so.
To sum up, we would not be understood as condemning altogether the exercise of memorizing poetry, but we have not thought it of sufficient importance to deserve a place in the scheme of work outlined above. At any rate, it should not be made much of in the early stages. The poems given out for committing to memory should be few and short and selected with reference to their simplicity and naturalness of expression. The teacher who omits the exercise altogether during the first year will make no great mistake. The recitation of well-chosen dialogues, with the parts assigned, is a better exercise, and we believe is usually found more interesting to learners.
(3) Grammar.-It is assumed that simple exercises in colloquial German will begin with the very first lesson and take a portion of each recitation period, even when the pupil is learning the alphabet and becoming familiar with the values of the letters. It goes without saying that the sentences learned should occasionally be written down as well as often repeated orally. Practice in writing German from dictation is helpful in learning to spell, and should be kept up for some time. It may, however, be discontinned earlier than in case of French, because German spelling is much easier to learn than French.

Whether the script letters should be learned at the same time with the print letters and regularly used in all written work is a question upon which opinions differ. On the one hand, it is urged that the script letters are not at all difficult to master, and that the use of them facilitates learning to spell. Such spelling as musz, müssen, Herz, sitzen, and others, come more easily in the German than in the Roman script. It is also urged that, as Germans use the script in their ordinary writing, those who are studying the language should learn to use it. The opposing arguments are that there is nothing educational or practically useful about learning to write the German script; that for Americans it is quite sufficient to be able to read it, in case they should some time get a letter written in it; that boys and girls of high-school age have usually formed their hand in English, and that, unless great pains be taken with them at the start-that is, unless the teacher be both able and willing to teach penmanship for its own sake-they are almost
sure to learn to write the script in an ugly un-German hand, like nothing ever met with outside the class room. From this it is clear that there is something to be said upon both sides. Upon the whole, the committee are of the opinion that the use of the German script in the schools should not be regarded as a matter of great importance and should never be required at a college examination. Teachers who write it well and are willing to take the time to teach it well may very properly insist upon it. Others will be upon safe ground if they permit the use of the Roman letters in all written work. In that case, however, they should sooner or later give their pupils some practice in reading German handwriting.

It is assumed that learners who are of high-school age will take up the study of grammar after a few preliminary lessons. But for several weeks the grammar lessons should be short and easy, so as to allow an abundance of time each day for colloquial exercises and drill upon pronunciation. As the course proceeds the study of grammar and the doing of exercises directly related to the study of grammar may properly be allowed to absorb an increasing portion of the time, but the colloquial practice should be kept up. In the teaching of grammar the most important principle to be kept in view is that the grammar is there for the sake of the language and not the language for the sake of the grammar. The recitation of paradigms, rules, and exceptions is always in danger of degenerating into a facile routine in which there is but little profit. The important thing is not that the learner should acquire facility in telling off paradigms, quoting statements, and explaining principles according to the book, but that he should acquire facility in understanding and using the language. The maxim should be: Little theory and much application. It is of small use to be able to state correctly the principle of adjective declension, so long as the pupil, in attempting to apply the principle in a simple case, is obliged to stop and think, to recall his grammar, and perhaps to guess after all. The right forms must be so bred into the blood that they come naturally from tongue and pen. This, of course, requires an endless amount of repetition, which may at times become tedious. But the time spent upon this elementary drill is well spent and tells for good throughout the course. Teachers should not be in too great haste to get to reading good literature.

The first difficulty of practical importance in teaching German grammar relates to the gender and declension of nouns. If the attempt is made to master the gender and declension of every noun that is met with, either progress will be very slow (as in case of German children learning the mother tongue), or the learner's memory soon becomes overtaxed. Trying to remember everything, he soon ceases to remember anything with absolute confidence. The best way to deal with this difficulty is to concentrate attention from the start upon those nouns that belong to the language of everyday life-the names of familiar objects, relationships, and ideas-to make sure of these and let the others go. A list of such nouns can be made out which need not contain more than, say, 300 words. The pupil who at the end of a two years' course has really learned that number of nouns, so that the right gender and the right plural come to himinstantly, has done quite enough. More should not be expected by the college examiner, so far as concerns those nouns the gender and declension of which can not be determined by inspection. It is of course assumed that the candidate will know about nouns in chen, lein, ei, heit, keit, in, schaft, ang. Whether he knows any other rules for gender is not very important.

After the inflection of the noun the other grammatical topics that require the most attention are the inflection of the adjective, the forms of the strong verbs and modal auxiliaries, the use of prepositions, and the subject of word order. In dealing with these and the minor difficulties of German grammar it is customary to rely, first, upon grammatical exercises-that is, the translation from German into English and from English into German of collections of sentences devised or se'ected for the express purpose of illustrating some grammatical point; and, sec-
ond, upon drill comnected with the German reading lesson. Both these resources are good if properly handed, and neither should be neglected. To do its proper work the grammatical exercise should not be simply worked through once and then dismissed, but reviewed and repeated until the right forms come instantly from tongue and pen. From this it follows that the sentences of the grammatical exercise, no less than those leamed in colloquisl practice, should represent natural forms of expression-things that Germans say or might say under easily suppossable conditions. It used to be thought, and perhaps some teachers and text-book makers still think, that anything grammatical will do for tewching grammar. And so, perhaps, it will; but it is possible to teach the grammar at the expense of the language, and the language is what we are after.

To ask a learner to upset into alleged German such sentences as: "The pupils" coats and shoes are in the maids" hands," or "I give warm clothes and red apples to poor little children," is, to say the least, inexpedient. Instead of a help, it is a hindrance to the acquisition of a sensitive feeling for the language. Rather than exercise his wits upon the translation of such English into such German it were much better that the learner should do no English-German translation whatever, but simply read real German and leain the grammar by observation and appropriate drill. Perceiving rightly that the translation of bad exercises is a waste of time and positively harmful, some teachers have been led to the position that all EnglishGerman translation is out of place in a beginner's course. They argue that one should not be expected to translate into a langrage until he knows something about it, until he has a certain working capital in the way of vocabulary, phraseology, and linguistic feeling; that so long as he must look up his words in the vocabulary and painfully and faultily piece them together according to his understanding of the grammar, it is better for him to occupy himself with German produced by those who know the language. This reasoning is not altogether unsound, but properly applied it does not lead to the rejection of all English-German translation in the early stages of study. On the contrary, such translation is itself highly useful in acquiring that larger working capital which is desired. All that is necessary is to avoid difficult or independent translation. Throughout the elementary course the English-German translation should consist of little else than easy rariations upon a German text already studied. The German text should furnish or suggest sabstantially all that the learner needs to know, previous acquirements being of course taken into consideration. Here the maxim should be: A great deal of the easy rather than a little of the difficult.

We come now to the subject of drilling upon the reading lesson. There are various kinds of questions that can be asked about a text, but three types are prominent in the practice of teachers. In the first type the questions call for the recitation of paradigms and rules and the explanation of grammatical principles. In the second type the questions call for the translation into German of English sentences based upon the text. In the third the object is to draw the pupil out and induce him to talk about what is said in the text. To illustrate, supposing the text in hand to be Der See macht eine Bucht ins Land:
(1) Decline Der See. What is the meaning of die See? Decline die See. Give the principal parts of macht. Inflect macht in the present indicative active. Give a synopsis of its tenses in the indicative, first person singular. Why is the accusative used after in? Decline Land. What is the difference between Lande and Lünder?
(2.) How would you say in German: The lake is quiet. The sea is quiet. My home is on the lake. I see a ship on the sea. There are many lakes in Switzerland? Give the German for: I made. I have made, I shall make. What are jou making? Paper is now made of wood. Would it do to say eine Bucht im Lande? How would you say: He is coming to land. I am going into the country. I live in the country. That is the case in all lands except the Netherlands?
(3.) Was macht der See? Welcher See ist gemeint? Wo befindet sich dieser See? Von welchem Lande ist hier die Rede? Waren Sie je in der Schweiz? Was für eine Regierung hat die Schweiz?

Now, the best teaching will make some use of all these types of drill questions, but more of the second than of the first or third. The objection to an exclusive or even a predominant use of the first is that it teaches the pupil to "rattle off" paradigms and rules, but not to understand or to use the language. Instead of learning to think in German, as the phrase is, he learns to think grammar in the terms of his text-book. Every college examiner is acquainted with the youth who will write er hat gekommen and then, on demand, give correctly the rule for the use of the auxiliaries of tense. What is needed in his case is not inore practice in repeating the rule, but more practice in writing and saying er ist gekommen. The objection to an exclusive use of type 3 is that it does not specifically teach grammar at all. In types 1 and 2 the questions may, of course, be put in German instead of English. It is to be observed, however, that the German grammatical terms are rather difficult to learn and do not come under the head of "everyday forms of expression." The principal value of grammatical drill conducted in German is to teach the learner to handle the sentence. So far as the vocabulary is concerned he might better be learning something else.
(4). Reading matter.-In outlining the work of the elementary course we have recommended that, aside from the German-English exercises of the grammar, the reading matter of the first year consist of graduated texts from a reader. This is the usual practice, and it certainly has some argument in its favor. The advantage of a reader is that it offers variety, introduces the learner to different styles, and leads him gradually from that which is very easy to that which is more difficult. Some teachers, however, prefer to make no use of a reader, but to pass directly from the grammar to complete stories liaving some literary value. They urge that such reading is more interesting and profitable than the disconnected texts usually found in readers. Others, while approving the use of a reader, will prefer to drop it earlier than our scheme proposes, and to read at least one complete story during the first year. Questions of this kind are not very important; and there are no general principles on which to decide them. Teachers must decide according to the character of their classes. Fortunately there is now no lack of suitable material. We have several very good readers and a large number of Märchen, Geschichten, Erzählungen, and Novellen, published both separately and in collections, and all annotated for beginners.

In choosing from the mass of literature available for the second year the aim should be, of course, to find that which is interesting to the young, wholesome, well-written, and not too difficult. It is natural to begin with the fairy stories, or Märchen, in which Germany is so prolific, but pupils of high-school age should not be kept too long on a diet of Märchen. If, at the end of the elementary course, the pupil is to be able to read easy narrative prose at sight, it is necessary that he have practice in reading different styles. Lively, realistic narrative, with plenty of dialogue, is to be preferred. The German Märchen is apt to appear childish to American boys and girls. On the other hand, teachers often complain that the most of the tales furnished by conspiring editors and publishers are more or less mawkish love tales, and they sigh for vigorous stories of adventure with the grand passion left out or made little of. This is a demand which future editors may well keep in view. Meanwhile we must remember that the Germans are a more sentimental people than the Anericans, and that one of the objects for which we study German in school is to learn what the Germans are like.

Stories suitable for the elementary course can be selected from the following: list: ${ }^{1}$ Andersen's Märchen and Bilderbuch ohne Bilder; Arnolds Fritz anf Ferien;

[^17]Baumbach's Die Nonna and Der Schwiegersohn; Gerstäcker's Germelshausen; Heyse's L'Arrabbiata, Das Mädchen von Treppi, and Anfang und Ende; Hillern's Höher als die Kirche; Jensen's Die braune Erica; Leander's Träumereien, and Kleine Geschichten; Seidel's Märchen; Stökl's Unter dem Christbaum; Storm's Immensee and Geschichten aus der Tonne; Zschokke's Der zerbrochene Krug.

Good plays adapted to the elementary course are much harder to find than good stories. Five-act plays are too long. They require more time than it is advisable to devote to any one text. Among shorter plays the best available are perhaps Benedix’s Der Prozesz, Der Weiberfeind, and Günstige Vorzeichen; Elz’s Er ist nicht eifersüchtig; Wichert's An der Majorsecke; Wilhelmi's Einer musz heiraten. It is recommended, however, that not more than one of these plays be read. The narrative style should predominate. A good selection of reading matter for the second year would be Andersen’s Märchen, or Bilderbuch, or Leander`s Träumereien, to the extent of say forty pages. After that such a story as Das kalte Herz, or Der zerbrochene Krug; theu Höher als die Kirche, or Immensee; next a good story hy Heyse, Baumbach, or Seidel; lastly Der Prozesz.

A minor question which sometimes exercises the mind of the teacher is the question of the special vocabulary versus the dictionary. The obvious advantage of the special vocabulary is that it is very much more convenient for the learner. A well-known schoolman in writing to the committee upon this subject, sums up his views in the proposition that "dictionaries are a nuisance." Nor is it easy to find any valid pedagogical objection to the use of a properly prepared special vocabulary. The objection most often urged is that in using a special vocabulary the scholar does not learn, nor try to learn, what the word really means in and of itself, but only what it means in the context where he has found it. It is urged, therefore, that before he can become independent, and acquire scholarly habits of study, he must emancipate himself from the special vocabulary and learn to use the dictionary. There is some force in this argument, but not much; for what the learner invariably doas in using the dictionary is to pick out, from the various meanings given, the particular one that suits his occasion. To the others he pays no attention. When he comes across the word in another sense, he looks it up again. It is thus a saving of time if he have the right meaning, unincumbered by the others, given him in a special vocabulary. Really the whole question is mainly one of saving time. If, in getting his lesson, the learner could have at his elbow someone who would simply tell him the meaning of the word, that would be better still, if he would but remember what he were told. But there is undoubtedly some truth in the principle that what is acquired with difficulty, that is, with exertion and exercise of judgment, is the more likely to be remembered. Meanings that come easily in footnotes are apt to go no less easily. The whole question is one upon which no fixed rules can be laid down. There is no serious objection to the use of special vocabularies throughout the elementary course, provided the right texts are available in editions provided with vocabularies, but the choice of reading matter should not turn primarily upon this consideration. It is best to provide a good course of reading, with variety, interest, and progression, even if, toward the end, the dictionary has to be used.
(5) Translation into English; sight reading.-In the majority of schools it would appear that, after the first few months, the study of German consists principally in the translation of German literature into English. Translation is the exercise which is felt by both teacher and pupil to be the most important, and it is the one, accordingly, which is most insisted upon. It is also the exercise most easily handled. To sit and hold a book while the members of the class translate, one after the other, into class-room English, to correct their more serions blunders, and help them to "get the sense," requres no great amount of preparation, no great expenditure of energy or ingenuity. But while it has its dangers, the profitableness of translation can not be successfully attacked. Whatever may be
true of very young children, one who already knows one language will learn another most "naturally," most expeditiously, and most thoroughly by means of comparison with his mother tongue; and this comparison, as was pointed out in a preceding section, is an important instrument of discipline and culture. Moreover, translation is the most effective and the most readily available means of determining whether the sense of a passage is exactly understood. It is the best detective of mental haziness, half-knowledge, and self-deception. At the same time it should not be forgotten that the principal object of stady is not to learn to translate, but to learn to read without translating.

How to deal with translation so as to make neither too much nor too little of it, so as to get the good and escape the evil of it, is not a simple problem for the teacher. It is easy to say that good translation should always be insisted on, and that bad English should never be allowed to go uncorrected. As a counsel of perfection, this is no doubt good. The trouble is, however, that really good translation of real literature is an art requiring literary skill. There must be time for the mental balancing of alternatives, the testing of synonyms, etc. No one can do it offhand. To expect schoolboys or college students to do it in the ordinary rotitine of class work, is to expect impossibilities. On the other hand, slovenly, incorrect, and unidiomatic translation is worse than a waste of time. The young person who gets into the habit of murdering his mother tongue in cold blood, under the pretense of learning a foreign language, does himself more harm than good. What, then, is to be done? The practical answer would seem to be this: Between the extremes of atrocious English, which should not be endured, and the really good English, which is unattainable, there is a wide belt of what may be called tolerable English; English which is not excellent from a literary point of view, but is at least clear, grammatical, free from gross improprieties in respect to idiom, and reasonably faithful to the meaning of the original. Such tolerable English is all that can be expected in the ordinary routine of the class room. It is, however, desirable that the learner become aware that there is a higher ideal, and that he have some practice in trying to reach it. To this end a passage of German text should occasionally be given out for a carefully prepared written translation, with instructions to take time and make the work just as good as possible. Such translations should then be criticised by the teacher and compared with one another in the class. Attention should be called to the small points of idiom, arrangement, choice of words, turn of phrase, etc., which make up the difference between the tolerable and the excellent. In this way the pupil's literary sense will be cultivated; he will become familiar with the idea of translation as an art, and the effect will be to improve gradualiy the quality of his ordinary work.

The next question is: How long and to what extent should the routine translation of good German into to'erable English be insisted on in the class room? The answer is: So long as and wherever the teacher is uncertain whether the meaning of the original is understood. If there is complete certainty that the learner can translate his passage of German into tolerable English, it is, as a rule, not worth while to have him do it; the time can be used to better advantage. An exception may be made, of course, in the case of pupils who are for any reason unusually backward in their English, or for such as may be suspected of not preparing their lessons. But for capable pupils who have a right attitude toward their teacher and their wosk, there presently comes a time when the routine translation in class of what they have previously prepared ceases to be profitable. They learn no new German in the process, and they do not improve their command of English. For A, B, C, and D, who have prepared their lessons and know perfectly well how to translate a given passage, to sit in the class while E actually translates it means a waste of time. When that stage is reached it is time to drop the systematic translation of the entire lesson in class, to call only for the rendering
of words or passages that are liable to be misunderstood, and to use the time thus gained in some exercise more profitable than superffous translation.
One such exercise is reading at sight. Since the general aim in the elementary course is to learn to read very easy narrative prose at sight and not to learn to trans'ate any specified texts, and since the candidate for admission to college will probably be tested upon some text that he has never studied, it is evident that considerable practice should be given in sight reading. Teachers sometimes object to this exercise on the ground that it encourages guesswork and inaccuracy. But the oljection is not valid. The object of the exercise is to increase the learner's vocabulary, to make him feel that he can read German that he has not previously studied and to give him facility in such reading. There is not the slightest objection to his guessing at the meaning of a new word. All our reading is largely a process of divination, and the better we can divine from the context the better we cian read. Of course the wrong guesses must be corrected, and the teacher is there for that purpose. It is hardly necessary to say that for sight reading the very easiest texts that can be found should be chosen. Grimm's Marchen are weil adapted for tho earliest experiments, then Meissner's Aus meiner Welt or Volkmann's Kleine Geschichten.
(8) Reproductive translation into German. - It will be observed that the programme of work for the second year of the elementary course provides for practice "in the ofr-hand reproduction, sometimes orally and sometimes in writing, of the substance of short and easy selected passages." This is what the Germans call "freie Reproduktion," and is one of the most profitable exercises possible. It teaches the pupil to give heed not only to the meaning but to the form in which it is expressed, to put thoughts in German with German as a starting point. The language of the original should, of course, not be memorized verbatim; what is wanted is not an effort of the memory, but an attempt to express thought in German forms that are remembered in a general way but not remembered exactly. The objection to independent translation from English into German is that for a long time it is necessarily mechanical. The translator has no help except his dictionary and grammar. His translation is mere upsetting. In free reproduction, on the contrary, he instinctively starts from his memory of the original. His thoughts tend to shape themselves in German form. In short, he learns to think in German.

Section Vili.-Thim Interifediate Course in German.
(a) THE AM OF THE instrection.

At the end of the intermediate course the pupil should be able to read at sight German prose of ordinary difficulty, whether recent or classical; to put into German a connected passage of simple English, paraphrased from a given text in German; to answer any grammatical questions relating to usual forms and essential principles of the language, including syntax and word formation, and to translate and explain (so far as explanation may be necessary) a passage of classical literature taken from some text previously studied.
(b) The work to be done.

The work should comprise, in addition to the elementary course, the reading of about 400 pages of moderately difficult prose and poetry, with constant practice in giving, sometimes orally and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; also grammatical drill upon the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes (with special reference to the infinitive and subjunctive), and likewise upon word order and word formation.

## (c) SUGGESTIONS TO THE TEACHER.

The intermediate course is supposed to be the elementary course, plus one year's work at the rate of not less than four recitations a week. "Suitable reading matter for the third year can be selected from such works as the following: Ebner-Eschenbach's Die Freiherren von Gemperlein; Freytag's Die Journalisten and Bilder. aus der deutschen Vergangenheit, for example Karl der Grosse, Aus den Kreuzzïgen, Doktor Luther, Aus dem Staat Friedrichs des Grossen; Fouqués Undine; Gerstäcker`s Irrfahrten; Goethe's Hermann und Dorothea and Iphigenie; Heine‘s poems and Reisebilder; Hoffmann's Historische Erzählingen; Lessing:s Minna von Barnhelm; Meyer‘s Gustav Adolph's Page; Moser's Der Bibliothekar; Riehl’s Novellen, for example, Burg Neideck, Der Fluch der Schönheit, Der stumme Ratsherr, Das Spielmannskind: Rosegger's Waldheimat; Schiller's Der Neffe als Onkel, Der Geisterseher, Wilhelm Tell, Die Jungfrau von Orleans, Das Lied von der Glocke, Balladen; Scheffel's Der Trompeter von Säkkingen; Uhland's poems; Wildenbruch's Das edle Blut. A good selection would be: (1) one of Riehl's novellettes; (2) one of Freytag's "pictures;" (3) part of Undine or Der Geisterseher; (4) a short course of reading in lyrics and ballads; (5) a classical play by Schiller, Lessing, or Goethe.

The general principles of teaching set forth in the preceding section apply also to the work of the intermediate course. Translation should be insisted upon so far as necessary, but the aim should be to dispense with it more and more. Every expedient should be employed which will teach the scholar to comprehend and feel the original directly, without the intervention of English. Occasional exercises in preparing very careful written translations should be continued. Pracice should be given in reading at sight from authors of moderate difficulty, such as Riehl or Freytag. The "free reproduction" should by all means be kept up. It will be found much more valuable at this stage than independent transiation of English into German. In dealing with classical literature thorough literary studies are. of course, not to be expected, but an effort should be made to bring home to the learner the characteristic literary qualities of the text studied, and to give him a correct general idea of the author.

## Section IX.-The Advanced Course in German.

(a) THE AIM OF THE instruction.

At the end of the advanced course the student should be able to read, after brief inspection. any German literature of the last one hundred and fifty years that is free from unusual textual difficulties, to put into German a passage of simple English prose, to answer in German questions relating to the lives and works of the great writers studied, and to write in German a short, independent theme upon some assigned topic.
(b) THE WORK TO BE DONE.

The work of the advanced course (last year) should comprise the reading of about 500 pages of good literature in prose and poetry, reference reading upon the lives and works of the great writers studied, the writing in German of numerous short themes upon assigned subjects, independent translation of English into German.
(c) SUGGESTIONS TO THE TEACHER.

Suitable reading matter for the last year will be: Freytag's Soll und Haben; Fulda's Der Talisman; Goethe's dramas (except Faust) and prose writings (say extracts from Werther and Dichtung und Wahrheit); Grillparzer's Ahnfrau or Der Traum ein Leben; Hauff's Lichtenstein; Heine's more difficult prose (for example, Über Deutschland); Kleist's Prinz von Homburg; Körner's Zriny; Les-
sing's Emilia Galotti and prose writings (say extracts from the Hamburgische Dramaturgie or Laokoon); Scheffel's Ekkehard; Schiller's Wallenstein, Maria Stuart, Braut von Messina, and historical prose (say the third book of the Geschichte des dreiszigjährigen Krieges); Sudermann’s Johannes; Tieck:s Genoveva; Wildenbruch's Heinrich.

A good selection from this list would be: (1) A recent novel, such as Ekkehard or Soll und Haben, read not in its entirety, but in extracts sufficient to give a good idea of the plot, the style, and the characters; (2) Egmont or Götz; (3) a short course of reading in Goethe's prose (say the Sesenheim episode from Dicritung und Wahrheit); (4) Wallenstein's Lager and Wallenstein's Tod, with the third book of the Thirty Years' War; (5) Emilia Galotti; (6) a romantic drama, such as Genoveva or Der Prinz von Homburg. It is assumed that by the time the fourth year is reached, if the preceding instruction has been what it should be, translation in class can be largely dispensed with and the works read somewhat rapidly. Of course they can not be thoroughly studied, but thorough literary study belongs to the college or the university. It is not sound doctrine for the secondary school that one work studied with the painstaking thoroughness of the professional scholar is worth half a dozen read rapidly. In the secondary school the aim should be to learn to read easily, rapidly, and yet with intelligent, general appreciation, somewhat as an ordinary educated American reads Shakespeare. Such a person in reading. Shakespeare will find much that he does not fully understand, archaic phrases, obscure allusions, etc. If he were to work out all these things in the manner of a scholar, and go deeply into the literary, historical, and psychological questions involved in a single one of Shakespeare's great plays, it would take a very long time. Nevertheless, he can read the play intelligently in a few hours. An editor's note helps him quickly over the graver difficulties, and when he is done he has a good general idea of the work, and has been greatly profited by the reading of it.

The other lines of work suggested for the advanced course appear to require no further comment. They explain themselves, and grow naturally out of what has gone before.

## Section X.-The Elementary Course in French.

(a) THE AIM OF THE INSTRUCTION.

At the end of the elementary course the pupil should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of everyday life, or based upon a portion of the French text read, and to answer questions on the rudiments of the grammar as defined below.
(b) THE WORK TO BE DONE.

During the first year the work should comprise: (1) Careful drill in pronunciation; ( 2 ) the rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural of nouns, the inflection of adjectives, participles, and pronouns; the use of personal pronouns, common adverbs, prepositions, and conjunctions; the order of words in the sentence, and the elementary rules of syntax; (3) abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (4) the reading of trom 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English), and in reproducing from memory sentences previously read; (5) writing French from dictation.

During the second year the work should comprise: (1) The reading of from 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches; (2) constant practice, as in the previous year, in translating into French easy variations upon the texts read; (3) frequent abstracts, sometimes oral and sometimes written, of portions of the text already read; (4) writing French from dictation; (s) continued drill upon the rudiments of gram. mar, with constant application in the construction of sentences; (6) mastery of the forms and use of pronouns, pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

Suitable texts for the second year are: Abouts Le roi des montagnes, Brunos Le tour de la France, Daudet's easier short tales, De la Bédollière's La Mère Michel et son chat, Erckmann-Chatrian's stories, Foa's Contes biographiques and Le petit Robinson de Paris, Foncin's Le pays de France, Labiche and Martin's La poudre aux yeux and Le voyage de M. Perrichon, Legouvé and Labiche’s La cigale chez les fourmis, Malot's Sans famille, Mairet's La tâche du petit Pierre, Merimée's Colomba, extracts from Michelet, Sarcey's Le siège de Paris, Verne's stories.
(c) SUGGEstions to the teacher.

The suggestions already offered rupon the teaching of elementary German are, in the main, equaliy applicable to the teaching of elementary French. While each language has its own peculiar difficulties that require special attention from the teacher, the general principles that should regulate the work are the same for both. To avoid needless repetition we refer the reader. back to what is said in Section VII, $c$, and content ourselves here with adding a few further observations which may be regarded as supplementary.

The educational value of the study of French in cultivating habits of careful discrimination, of mental alertness, of clear statement, must never be lost from view, and the expediency of an exercise must often be determined by its utility in attaining these ends. The knowledge gained in the secondary school alone can rarely be of immediate commercial vaine, but it should be a most serviceable foundation for later acquirements, and the advocates of oral methods may fairly lay some stress on this consideration. The demand for more spoken French in the class room rests chiefly, however, on other grounds, which may be summarized as follows:
(1) Tongue and ear are most efficient aids to the memory, and he who depends on eye alone deprives himself of indispensable allies.
(2) Oral work gives vivacity to the class, stimulates the pupil by active participation, and encourages him by making him feel that he is gaining a practical command of the language.
(3) In reprolucing French sentences several can be spoken in the time needed to write one.
(4) The hearer is compelled to grasp the sentence as a whole, while the reader is apt to dwell on separate words, distorting and often reversing the sense, which can only be obtained by making the sentence the unit of thought and interpreting each word in the light of its relation to its fellows.
(5) The rapidity of speech also conduces to grasping thought directly from the French with no intermediate English. Many readers really read only the English into which, more or less laboriously, they change the French words. It is needless to dwell on the fact that such readers get their entire thought from a translation, usually a very bad one, and can never have any exact perception of literary excellence in French nor distinguish shades of meaning different from those to which they have been accustomed in English. It is hard to see how such a one can have any vivid conception of a lyric, an oration, or a dialogue; nor can he understand how, when translation is required, the proper order is French-thought-English, and not French-English, with the thought last or never.

On the other hand, that time may be economically used, rambling, aimless talking must not be tolerated in the class room; and a teacher who does not possess a good pronunciation and a ready command of the language generally does far more harm than good by practising on his pupils. Whatever recommendations the committee has made as to oral work apply only to those teachers who can syeak French well.
Espocially with beginers should the French spoken be accurately promounced. Faults of pronunciation once fixed are very diffcult to eradicate. In some places French has been introduced into grades below the high school, and the classes intrusted to teachers unable to pronounce vrell. Trreparable injury has thus been done. The utmost pains must be taken at the beginning, especially with the vowels; and the separate sounds, and words containing them, should be pronounced many times by the teacher and repeated by the pupil. For a long time every new word should thus be treated, and unless a phonetic text is used the pupil should always hear a new word before he tries to pronounce it.

Careful memorizing and frequent repetition of a few lines of simple prose are helpful and furnish a standard of pronunciation to which new words may be referred. Both for this and for mastering colloquial and idiomatic expressions, word order, and grammatical forms, it is advised that a small amount of French, preferably simple prose, be carefully memorized the first year. Later, selections may be made for their literary interest.

Most teachers know how they prefer to teach the rudiments of grammar in a given class. We may remark, however, that it is not for the secondary school to spend time over the many pages of exceptions, peculiarities in gender and number, idioms that one rarely sees and never thinks of using, and grammatical puzzles for which each learned grammarian has a different solution, that form so large a part of some grammars. The great universals, however (the regular and the common irregular verbs; negative and interrogative variations; the common use and meaning of moods and tenses; the personal pronouns and their position; the general principles governing the agreement of adjectives, pronowns, and participles; the partitive constructions; the possessives, demonstratives, interrogatives, and relatives; the most common adverbs, conjunctions, and prepositions), should all be thoroughly understood by the end of the second year of high-school study, and subsequent study should give considerable facility in using them.

The verb seems most formidable; but when it is perceived that most forms of all verbs may be treated as identically derived from the "primitive tences," the difficulties appear less numerous, and when the principle of stem differentiation under the influence of tonic accent, persisting in the older and more common verbs, is a lititle understood, the number of really unique forms is inconsiderable.
Translating into English should mean giving in well-chosen language the exact thought and spirit of the original. Thus mnderstood, it is extremely difficult, and should never be attempted by the pupil before the meaning of the original is clear to him. It is then rather an exercise in English than in French. Nothing should be accepted as English which is not English. The teacher who complacently listens while a pupil turns good French in to bad Englisin is, to putit mildly, not doing his duty. Translating into English is often the most rapid means of ascertaining whether the pupil has correctly understood the French read, but a few well-chosen questions asked and answered in French, or an abstract in the same language, is often equally effective as a test, and far better as training in French.

Just as English should be English, French should be French; and merely using French words and conforming to grammatical rules do not make a sentence French. At first, sentences formed by pupils should exactly follow French model sentences, being either verbatim reproductions or differing only in simple and immaterial verbal changes. Not until the pupil, by much assimilation of French
models, has become imbued with the form and spirit of the language, can he be safely left to his own invention. In choosing reading matter, the tendency is to select something too hard. The teacher adopts a book because it is worldrenowned, because it interests him personally, because it teaches a valuable lesson, moral or historical. While all pedagogical roads should lead to the Rome of a broad culture, the attempt to teach literature, æsthetics, history, or morality from a work in which linguistic difficulties dismay the pupil and engross his attention, can only end in making him detest both the book and its lessons. The beginner in French can be taught these things best in the vernacular; while searching a dictionary to discover whether fut comes from faire or from falloir, he has little leisure to think of the relative merits of literary schools. Give him at first the easiest reading attainable, remembering that simple language does not mean infantile conceptions nor vice versa. Entertain no thought of teaching literature until the pupil is quite familiar with ordinary prose and can read page after page of the text assigned with no great need of grammar or dictionary. The classics of dramatic literature may very properly be postponed until the fourth year, and we do not consider them always desirable even then; but a few have been given among texts suitable for the third year in the hope that these rather than others will be selected by teachers who, for reasons of their own, choose to read something of the kind at this stage of the course.

The reading lists are meant to be illustrative simply, not exhaustive. Other texts equally good might no doubt be mentioned under each head. The answers to the committee's circulars indicate clearly that teachers would not welcome a narrow range of prescribed reading, such as teachers of Latin have in their Cæsar, Cicero, and Virgil. A definite curriculum of that kind would no doubt have its advantages, but in the case of the modern languages it is not practicable and, upon the whole, not desirable. The disadvantages would far outweigh the advantages. The mass of availabie literature is so great, the preferences of teachers and the needs of classes so divergent, that the only safe course is to leave a large latitude of choice. This being so, it has seemed best merely to give examples of the kind of reading appropriate to each year.

Section XI.-The Intermediate Course in French.
(a) THE AIM OE THE INSTRUCTION.

At the end of the intermediate course the pupil should be able to read at sight ordinary French prose or simple poetry, to translate into French a connected passage of English based on the text read, and to answer questions involving a more thorough knowledge of syntax than is expected in the elementary course.

## (b) THE WORK TO BE DONE.

This should comprise the reading of from 400 to 600 pages of French of ordinary difficulty, a portion to be in the dramatic form; constant practice in giving French paraphrasea, abstracts, or reproductions from memory of selected portions of the matter read; the study of a grammar of moderate completeness: writing from dictation.

Suitable texts are: About's stories; Augier and Sandeau's Le Gendre de M. Poirier; Béranger's poems; Corneille’s Le Cid and Horace; Coppée's poems; Daudet's La Belle-Nivernaise; La Brète's Mon Oncle et mon curé; Madame de Sévignés letters; Hugo’s Hernani and La Chute; Labiche's plays; Loti's Pêcheur d'Is'ande; Mignet's historical writings; Molière's L'Avare and Le Bourgeois gentilhomme; Racine's Athalie, Andromaque. and Esther; George Sand's plays and stories; Sandeau's Mademoiselle de la Seigiière; Scribe's plays; Thierry's Récits
des Temps mérovingiens; Thiers's L'Expédition de Bonaparte en Egypte; Vigny's La canne de jonc; Voltaire's historical writings.

Section XII.-The Advanced Course in French.<br>(a) the aim of the instruction.

At the end of the advanced course the pupil shouid be able to read at sight, with the help of a vocabulary of special or technical expressions, dificult French not earlier than that of the seventeenth century; to write in French a short essay on some simple subject connected with the works read; to put into French a passage of easy Englisk prose, and to carry on a simple conversation in French.

## (b) THE WORK TO BE DONE.

This should comprise the reading of from 600 to 1,000 pages of standard French, classical and modern, only difficult passages being explained in the class; the writing of numerous short themes in French; the study of syntax.

Suitable reading matter will be: Beaumarchais's Barbier de Séville; Corneil'e's dramas; the elder Dumas's prose writings; the younger Dumas's La Question d'argent; Hugo's Ruy Blas, lyrics, and prose writings; La Fontaine's fables; Lamartine's Graziella; Marivaux's plays; Molière's plays; Musset's plays and poems; Pellissier`s Mouvement littéraire au XIXe siècle; Renan`s Souvenirs d'enfance et de jeunesse; Rousseau's writings; Sainte-Beuve's essays; Taine's Origines de la France contemporaine; Voltaire's writings; selections from Zola, Maupassant, and Balzac.

## Section XIII.-Specimen Examination Papers for Admission to Colldge.

The complaint is sometimes heard from teachers in the secondary schools-and investigation shows it to be not altogether groundless-that even at colleges having the same or very similar requirements for admission the entrance examinations are apt to differ not a little in respect to difficulty and in respect to the general character of the questions asked. To a certain extent this lack of uniformity is inevitable. With the best intentions examiners will differ more or less in their estimate of difficulty and in their choice of test questions. Some will prefer to set a more difficult paper and mark liberally; others to set an easier paper and mark more closely. The only obvious way to bring about uniformity in the papers set would be to intrust the preparation of them each year to a central committee or bureau (say of the Modern Language Association), which should furnish them on demand, in sealed packages and at a fixed rate, to such colleges as might wish to receive them. Such a plan would clearly have much in its favor. Under its operation there would be no room for criticism of particular colleges. The papers would presumably be prepared with very great care; they would improve in the light of criticism, would furnish teachers with a pattern to work by, and so could hardly fail to make for greater excellence and uniformity in the work of our secondary schools. The feasibility of such a plan would depend largely upon the attitude of the colleges, and whether it would work well in practice could only be determined by trial. Difficulties of one kind and another would no doubt arise, but they do not appear in advance to be insuperable. At any rate, the plan seems worthy of serious consideration.

Meanwhile, without wishing to imply an exclusive preference for a written as opposed to an oral test (the best plan, wherever practicable, is undoubtedly a combination of the two), the committee have thought it appropriate to close this report with a series of papers designed to illustrate in a general way the kind of test ED 9S-—00
which, in our opinion, the candidate for admission to college may reasonably be expected to pass upon completing any of the courses above described. The papers are by no means offered as perfect models for imitation, but as an approximate indication of what, in our judgment, the college entrance examination should be. The time required is estimated in each case at about two hours. Unless the contrary is expressly stated, the texts are not supposed to have been previously studied by the candidate.

> A.-ELEMENTARY FRENCH.
I. Translate into English:
(a) Lui, penché sur sa chaise, regardait dans la cheminée, les yeux fixes. Et tout à coup, comme on se taisait, il se tourna de mon côté et me dit d'un ton de bonne humeur:

Voici bientôt le printemps, monsieur Florence, nous ferons encore plus d'un bon tour dans la montagne; j'espère que cette année vous viendrez plus souvent, car vous avez bean dire, vous aimez ce pays autant que moi
He! je ne dis pas le contraire, Georges; mais à ton âge, dans ta position . . . Enfin laissons cela . . . Et puisque tu restes, eh bien, oui, tu as raison, nous irons plus souvent nous promener ensemble dans la montagne; je suis toujours content d'être avec toi.
À la bonne heure, dit-il en riant, voilà ce qui s'appelle parler.
Éc durant plus d'une demi-heure, la conversation roula sur les fieurs de nos montagnes, sur la belle vallée de la Sarre-Ronge, etc. On aurait cru que rien d'extraordinaire ne s'était dit.-Erckmann-Chatrian.
(b) Le temps était sombre, il tombait une petite pluie de brouillard qui épaississait encore l'obscurité, les becs de gaz brûlaient mål, et leur iumière, réfléchie par les flaques d'eau, éclairait la rue déserte d'une façon incertaine et changeante. Le jeune homme marchait rapidement, son parapluie baissé en avant pour s'abriter de la pluie qui lui frappait dans la figure. Tout à coup, sans qu'il les eût vus venir ou sortir d'une embrasure de porte, il se trouva en face de deux hommes et, surpris de cette brusque apparition, il sauta de côté par un mouvement instinctif et nerveux. Il était à ce moment à une centaine de mètres de chez lui, à l'encoignure d'une ruelle qui descend vers la rue de Charenton.-Malot.
(c) Un jeune homme plein de passions, assis sur la bouche dun volcan, et pleurant sur les mortels dont à peine il voyait à ses pieds les demeures, n'est sans doute, ô vieillards! qu'un ōjet digne de votre pitié; mais quoi que vous puissiez penser de René, ce tableau vous offre l'image de son caractère et de son existence: c'est ainsi que toute ma vie j'ai eu devant les yeux une création à la fois immense et imperceptible, et un abîme ouvert à mes côtés.-Chateaubriand.
II. (a) Write the five principal parts of the three verbs (the forms here given occur in I, b): vus, sortir, descend.
(b) Write a synopsis of the conjugation (first person singular of each tense) of se réjouir and savoir.
(c) Write the infiection of: the present indicative of boire and faire; the future of pouvoir; the present subjunctive of prendre.
(d) Write the forms of the demonstrative pronouns.
(e) In what ways may the use of the passive voice be avoided in French?
III. Translate into English:
(a) Here is the pen, shall I send it to her? No; do not send it to her; give it to me.
(b) Cats and dogs are domestic animals.
(c) You must give them some white bread and good coffee, if they have none.
(d) The old man is very well this evening, although he has worked all day.
(e) We have just searched for your gloves, but we do not find them in the room where you left them a quarter of an hour ago.
$(f)$ Why do we weep for mortals whose life and character we scarcely know? We always have them before our eyes. Whatever we may think of them, they are surely worthy of our pity. (See I, c.)
B.-INTERMEDIATE FRENCH.
I. Translate into English:
(a) Nulle part, à aucune époque de ma vie, je n'ai vécu anssi complètement seul. La maison était loin de la route, dans les terres, écartée même de la ferme dépendante dont les bruits ne m'arrivaient pas. Deux fois par jour, la femme du fermier me servait mon repas, à un bout de la vaste salle à manger dont toutes les fenêtres, moins une, tenaient leur volets clos. Cette Provençale noire, le nez écrasé comme un Cafre, ne comprenant pas quelle érrange besogne m’avait amené à la campagne en plein hiver, gardait de moi une méfiance et une terreur, posait les plats à la hâte, se sauvait sans un mot, en évitant de tourner la tette. Et c'est le seul visage que j’aie vu pendant cette existence, distraite uniquement, vers le soir, par une promenade dans une allée de hauts platanes, à la tristesse d'un soleil froid et ronge dont les grenouilles saluaient le coucher hâtif de leurs discordantes clameurs.-DAUDET.
(b) Amis, loin de la ville, Loin des palais de roi, Loin de la cour servile, Loin de la foule vile, Trouvez-moi, trouvez-moi, Aux champs où l'âme oisive Se recueille en rêvant; Sur une obscure rive Où du monde n'arrive Ni le filot, ni le vent,

> Quelque asile sauvage, Quelque abri d'autrefois, Un port sur le rivage, Un nid sous le feuillage, Un manoir dans les bois!

> Trouvez-le moi bien sombre, Bien calme, bien dormant, Couvert d'arbres sans nombre, Dans le silence et l'ombre Caché profondément!

- V. Hugo.
(c) Denise. Fernand?

Fernand. Qu'est-ce que tu veux?
Denise. Où as-tu mis le livre que tu as été chercher pour mademoiselle de Bardannes?

Fernand. Là, sur la table. Est-ce qu’elle est déjà prête?
Denise. Pas encore, mais elle achève de s’habiller. Elle prend le livre sur la table.

André, entrant, à Denise. Je n’ai pas pu vous demander tout à l'heure, devant tout ce monde, mademoiselle, si vous êtes tout à fait remise de votre indisposition d'hier qui vous a empêchée de dîner avec les amis qui me sont arrivés, dont deux sont déjà des vôtres. J'espère que ce soir j’aurai le plaisir et l'homneur de vous voir à notre table, ainsi que monsieur et madame Brissot.

Denise. Oui, monsieur, ma mère m'a déjà fait part de votre aimable invitation.
Fiernand, à André. Et moi, je vais monter un peu d’avance le cheval de ta sœur pour le bien mettre à sa main; montes-tu avec nous?

André. Non, nous avons une inspection à faire avec M. Thouvenin.
Fernand. A tantôt, alors.
II. (a) Write a synopsis, in the first person singular, including infinitive, participles, and imperative singular, of the five verbs (see I, a) : vécu, tenaient, comprenant, amené, vu.
(b) What are the general principles governing the use of the indicative, conditional, and subjunctive moods?
III. Translate into French:

Tell me, what has kept you from selling that old house, the shutters of which always remain closed? It is quite alone; at night one hears strange noises in it;
and little boys who have to pass near it run away without looking at it. I am sorry you did not sell it to M. André when you sold him your farm and your brother's. You will do well to accept what M. André has offered you for it; and I wish you to go and see him this very evening.

> C. - ADVANCED FRENCH.
I. Translate into English:
(a) Tous ces dons sont communs aux orateurs; on les retrouve avec des proportions et des degrés différents chez des hommes comme Cicéron et Tite-Live, comme Bourdaloue et Bossuet, comme Fox et Burke. Ces beaux et solides esprits forment une famille naturelle, et les uns comme les autres ont pour trait principal l'habitude et le talent de passer des idées particulières aux idées générales, avec ordre et avec suite, comme on monte un escalier en posant le pied tour à tour sur chaque degré. L'inconvénient de cet art, c’est l'emploi du lieu commun. Les hommes qui le pratiquent ne peignent pas les objets avec précision, ils tombent aisément dans la rhétorique vague. Ils ont en main des développements tout faits, sorte d'échelles portatives qui s'appliquent également bien sur les deux faces contraires de la même question et de toute question.-Taine.
(b) Les règles générales ne sont que des expédients mesquins pour suppléer ì l'absence du grand sens moral, qui suffit à lui seul pour révéler en toute occasion à l'homme ce qui est le plus beau. C'est vouloir suppléer par des instructions préparées d’avance à la spontanéité intime. La variété des cas déjoue sans cesse toutes les prévisions. Rien, rien ne remplace lâme: aucun renseignement ne saurait suppléer chez l'homme à l'inspiration de sa nature.-RENAN.
(c) Phèdre, si ton chasseur avait autant de charmes

Qu'en donne à son visage un si docte pinceau, Ta passion fut juste et mérite des larmes

Pour plaindre le malheur qui le met an tombeau.
Et si tu parus lors avec autant de grâce
Qu'en ces vers éclatants qui te rendent le jour,
Estime qui voudra son courage de glace,
Sa froideur fut un crime, et non pas ton amour.
Aussi, quoi qu'on ait dit du courroux de Thésée,
Sa mort n'est pas l'effet de son ressentiment,
Mais les Dieux l'ont puni pour t'avoir méprisée,
Et fait de son trépas un juste châtiment.
-Corneille.
(d) Du Dieu qui nous créa la clémence infinie,

Pour adoucir les maux de cette courte vie,
A placé parmi nous deux êtres bienfaisants, De la terre à jamais aimables habitants,
Soutiens dans les travaux, trésors dans l'indigence,
L'un est le doux sommeil, et l'autre est l'espérance:
Liun, quand l'homme accablé sent de son faible corps
Les organes vaincus sans force et sans ressorts,
Vient par un calme heureux secourir la nature
Et lui porter l'oubli des peines qu'elle endure;
L'autre anime nos cœurs, enflamme nos désirs,
Et même en nous trompant, donne de vrais plaisirs;
Mais aux mortels chéris à qui le ciel l'envoie
Elle n'inspire point une infidèle joie:
Elle apporte de Dieu la promesse et l'appui;
Elle est inébranlable, et pure comme lui.
II. (a) Explain the two cases of subjunctive that occur in I (c).
(b) Point out two cases of poetic inversion in I (d).
(c) Define aimable as used in classic poetry and as used in modern prose.
III. Write fifteen or twenty lines of French about the author of one of the preceding selections, or about one of the persons mentioned in I (c).
IV. Translate into French:

The following day, at three o'clock in the afternoon, they came to Surgères. The cardinal was waiting there for Louis XIIl. The minister and the King exchanged many affectionate greetings, and congratulated each other on the lucky chance that had rid France of the relentless enemy who was stirring up Europe against her. Thereupon the cardinal, having been informed by Rochefort that D'Artagnan had been arrested, and being eager to see him, took leave of the King, and returned to the house he occupied, near the briage of La Pierre. There he found D'Artagnan standing without a sword before the door, and the three guardsmen armed.

> D.-Elementary german.
I. Translate into English:
(a) Ich folgte sogleich dem Boten, und er führte mich in ein kleines Zimmer, das seiner schlechten Einrichtung ${ }^{1}$ nach zu den billigsten des Gasthauses gehören muszte. Auf einem Bette lag eine schöne, junge Frau mit geschlossenen Augən und totenbleichen, ${ }^{2}$ aber edlen und feinen Zügen. Ein Dienstmädchen war mitleidig um sie bemüht, ${ }^{3}$ und neben ihr im Bette sasz ein etwa dreijähriges, blondlockiges Bübchen, jämmerlich ${ }^{4}$ weinend und seine Mutter mit den süszesten Namen rufend und flehentlich ${ }^{5}$ bittend, sie möchte doch die Augen aufmachen und ihn wieder lieb haben. Ich hob den kleinen Burschen vom Eett herunter und setzte ihn auf den Boden nieder. Er blieb auch ruhig sitzen, seine groszen, blauen Augen ulverwandt ${ }^{6}$ auf die Mutter gerichtet. Meine Bemühangen, diese wieder zum Bewusztsein ${ }^{7}$ zu bringen, wurden bald mit Erfolg belohnt. Die Frau atmete schwer und schlug die Augen auí, aber sie war zu schwach um auf meine Fragen vernehmlich ${ }^{8}$ antworten zu können.-Adapted from Helene Stökl.

[^18](b) Waldgegend. Vorn rechts ein altertümliches ${ }^{1}$ Gebäude; vor demselben cin Tisch mit Stühlen und einer Bank, unter einem Baume; links ein Thor; im Hintergrunde cine Mauer. Vor derselben eine Anhöhe. ${ }^{2}$

> Hedwig, singt. Wenn ich ein Vöglein wär'
> Und auch zwei Flüglein hätt',

Ursula, kommt mit Frühstück, das sie auf den Tisch stellt. Du bist ja schon früh bei der Hand, mein Kind.

Hedwig. Sagst du nicht immer: Morgenstund' hat Gold im Mund?
Ursula. Das ist schon recht, dasz du mit der Lerche auffiegst, aber die Vögel, die zu früh singen, holt am Abend die Katze.

Hedwig. Soll ich eine Lerche sein, dann musz ich auch mein Lied für mich haben. Ursula. Das Lied paszt nur nicht an diesen Ort.
Hedwig. Aber es paszt zu meinem Herzen. Ja, alte Ursula, ich wünschte, dasz ich ein Vöglein wär', und auch zwei Flügel hätt':

Ursula. Und wo sollte es dann hinaus?
Hedwig. Weit, weit weg! Über die Mauer, über die Bäume, über den Wald, über das Feld-in die ferne, schöne Gotteswelt!-Königswinter.
II. (a) Give the nominative and genitive singular (with the definite article) and the nominative plural of Boten, Fiusze, Zimmer, Einrichtung, Hauses, Bette, Frau, Auge, Zügen, Mutier, Fragen, Gesialt.
(b) Decline throughout the German phrases meaning the new house, my dear friend.
(c) Give the principal parts of muszte, lag, geschlossen, rufend, bittend, möchte, aufmachen, hob herunter, blieb, sitzen, bringen, schlug auf, können.
(d) Give the third person singular, of each tense in the indicative mode, of bittend, blicb, schlug auf.
(e) What case is governed by each of the prepositions: Auf, aus, bei, durch, für, in, wit, über, um, ron, wegen, zu.
III. Translate into German:
(a) Who is that old gentleman with the white beard? Surely I have seen him somewhere. ${ }^{\text {? }}$
(b) So this is your new house. What a lovely view" from this window! But I do not see the old castle ${ }^{4}$ of which you told me in your letter.
(c) He has lived two whole years in Germany, and has just returned. He speaks German pretty well, but does not seem to have read much.
(d) I will do the best I can, but you must not expect too much. Perhaps it would be better if you should go to him yourself.
(e) Come now, Hedwig, and eat your breakfast. You are not a bird and can not fly. And, after all, ${ }^{5}$ is it not better to be a pretty girl than a stupid ${ }^{6}$ bird?

${ }^{1}$ Beard, der Bart. $\quad 2$ Somewhere, irgendwo. $\quad{ }^{3}$ View, die Aussicht. $\quad{ }^{4}$ Castle, das Schlosz. 5 After all, am Ende. ${ }^{6}$ Stupid, dumm.

## e.-Intermediate german.

## I. Translate into English:

(a) Die Wohnungen in den Bädern von L. sind entweder unten in einem Dorf, das von hohen Bergen umschlossen ist, oder sie liegen auf einem dieser Barge selbst, unfern der Hauptquelle, wo eine pittoreske Häusergruppe in das reizende Thal hinabschaut. Einige aber liegen auch einzeln zerstreut an den Bergesabhängen, und man musz inühsam hinaufkommen durch Weinreben, Myrtengesträuch, Lorbeerbüsche und andere vornehme Blumen und Pflanzen, ein wildes Paradies, Ich habe nie ein reizenderes Thal gesehen, besonders wenn man von der Terasse des oberen Bades, wo die ernstgrünen Cypressen stehen, ins Dorf hinabschant. Man sieht dort die Brücke, die über ein Flüsschen führt, welches L. heiszt, und, das Dorf in zwei Teile durchschneidend, ein Geräusch hervorbringt, als wolle es die angenehmsten Dinge sagen, und könne vor dem allseitig plaudernden Echo nicht zu Worte kommen.-Heine.
(b) Bermhard schritt durch enge Gassen nach dem Markte, er fand die Straszen voll von geschäftigen Menschen, die den Fremdling neugierig und forschend ansahen, viele unter ihnen in mangelhafter Bekleidung, mit bleichen und vergrämten Gesichtern. Auch die Häuser waren mit Einliegern ${ }^{1}$ überfüllt, noch in den Dachfenstern guckten Kinderköpfe und hing die Wäsche armer Leute. Aus den engen Höfen hörte er Gebrüll der Rinder und neben den Hunden liefen grunzende Schweine vor den Hausthüren. Denn viele Landleute waren nach der Stadt gefiüchtet und hausten mit ihrem Vieh gedrängt in jämmerlichen Wohnungen. Auch der Marktpiatz war mit Bretterbuden und Leinwandzelten ${ }^{2}$ besetzt, an welchen armselige Frauen wuschen und kochten und halbnackte Kinder auf den Steinen spielten.-Freytag.

[^19](c) ${ }^{1}$ Gessler.

Nan, Tell! weil, du den Apfel triffst vom Baume
Auf hundert Schritt, so wirst du deine Kunst
Vor mir bewähren müssen. Nimm die Armbrust-
Du hast sie gleich zur Hand-und mach dich fertig,
Einen Apfel von des Knaben Kopf zu schieszen-
Doch, will ich raten, ziele grat, dasz da
Den Apfel treffest auf den ersten Schusz!
Denn fehlst du ihn, so ist dein Kopf verloren, [Alle geben Zeichen des Schreckens.]

> TELL.

Herr, welches Ungeheure sinnet Ihr
Mir an?-Ich soll vom Haupte meines Kindes-
Nein, nein doch, lieber Herr, das kommt Euch nicht Zn Sinn. - Verhüt's der gnäd'ge Gott.-Das könnt Ihr Im Ernst von einem Vater nicht begehren!
${ }^{1}$ The candidate is here supposed to have read Schiller's Teil. If he has not, passage ( $c$ ) should be replaced by another, taken from a classic previousiy studied.
II. (a) Compare the adjectives alt, kurz, bedeutend, wild, dunkel, hoch, ober, erst, deutsch, ganz.
(b) Explain the use of sein and haben as auxiliaries of tense, and put into German: (1) The boy has fallen into the water; (2) he has traveled much, but seen little; (3) I have remained too long; (4) I have been sitting in my reom all day: (5) you have slept two hours; (6) the child has fallen asleep. ${ }^{1}$
(c) How do the modal auxiliaries differ in conjugation from ordinary weak verbs, and how from strong verbs? Put into German: (1) I will tell you something; (2) we can not go; (3) he had to stay at home; (4) I should like to know; (5) she will not be permitted to come; (6) I have not been able to see him.
(d) In passage (c) explain (1) the plural Schritt; (2) the subjunctive treffest; (3) the use of the article in des Schreckens.

$$
{ }^{1} \text { Fall asleep, einschlafen. }
$$

III. Translate into German:

There was once an old goat ${ }^{1}$ that had seven kids. ${ }^{2}$ One day she had to go out into the woods to get food ${ }^{3}$ for her young ones. So she called them all to her, and said: "I must go away now, and shall not come back till evening. You must all stay in the house and not let anyone in till I come home. If the wolf comes, you will know him by ${ }^{4}$ his ${ }^{5}$ rough voice and his black feet." Soon the wolf came and said: "Open the door and let me in. I am your mother and have brought you some cakes." But the kids knew by the rough voice that it was not their mother, and the oldest kid looked out of the window and saw the wolf standing there and toid him to go away.
${ }^{1}$ Goat, die Ziege. $\quad{ }^{2}$ Kid, Geislein. $\quad{ }^{3}$ Food, das Futter. ${ }^{4}$ By, an. ${ }^{5}$ Rough, rauh.

> F.-ADVANCED GERMAN.

## I. Translate into English:

(a) Die Kunst ist lang, das Leben kurz, das Urteil schwierig, die Gelegenheit flüchtig. Handeln ist leicht, Denken schwer, nach dem Gedachten handeln unbequem. Die Nachahmung ist uns angeboren, das Nachzuahmende wird nicht leicht erkannt. Selten wird das Treffliche gefunden, seltener geschäzt. Die Höhe reizt uns, nicht die Stufen; den Gipfel im Auge wandeln wir gerne auf der Ebene. Nur ein Teil der Kunst kann gelehrt werden, der Künstler braucht
sie ganz. Wer sie halb kennt, ist immer irre und redet viel; wer sie ganz besitzt, mag nur thun und redet selten oder spät. Jene haben keine Geheimnisse und keine Kraft; ihre Lehre ist wie gebackenes Brod, schmackhaft und sättigend fär einen Tag: aber Mehl kann man nicht säen, und die Saatfrüchte sollen nicht vermahlen werden. Die Worte sind gut, sie sind aber nicht das Beste. Das Beste wird nicht deutlich durch Worte. Dar Geist, aus dem wir handeln, ist das Höchste. Niemand weisz, was er thut, wenn er recht handelt; aber des Unrechten sind wir uns immer bewuszt. Des echten Künstlers Lehre schlieszt den Sinn auf; denn wo die Worte fehlen, spricht die That. Der echte Schüler lernt aus dem Bekannten das Unbekannte entwickeln und nähert sich dem Meister.-Goethe.
(b) Alle Morgen wird auf unseren Frühstückstisch mit der Zeitung ein Bündel der verschiedenartigsten Neuigkeiten gelegt: Weltlauf und Privatschicksale, Handel und Verkehr, Feuilleton und Theaterskandal, Börse und pikanter Roman. Unter dieser Fülle von Dingen, wie Vieles davon ist brauchbar für unser Leben und unsere Bildung? Wie Vieles nährt das heilige Feuer der Humanität? Und wie Vieles schmeichelt unseren schlimmeren Neigungen und Trieben? Man sage nicht, dasz hier nur das Angebot der Nachfrage entspreche; die Nachfrage hätte zurückgedräng't werden können, wäre das Angebot nicht so eifrig gewesen. Und wenn es dabei bliebe! Aber dabei hat es sein Bewenden nicht, der Leser erhält durch die Zeitung nicht blosz den Stoff, soñdern den Stoff in einer bestimmten Form und Fassung, begleitet von einem entschiedenen, wenngleich anonymen Urteil. . . . Unả mag sich ein eifriger Zeitungsleser noch so sehr und so lange sträuben, die Meinung des Blattes, das er hält, als die seinige aufzunehmen, es kommen erst Augenblicke, dann Tage und Wochen, in denen es ihm bequem ist, wenn das Journal für ihn denkt, und ist er so weit, dann wird ihm das Denken überhaupt zu mühsam und er überläszt es ein für allemal seinem gedruc̊ten Orakel.-Sснӧ̃ваСн.
II. (a) Without translating, paraphrase the following passage in ordinary German prose:

> Es ist der Krieg ein roh, gewaltsam Handwerk.
> Man kommt nicht aus mit sanften Mitteln, alles
> Läszt sich nicht schonen. Wollte man's erpassen,
> Bis sie zu Wien aus vier und zwanzig Übeln
> Das kleinste ausgewählt, man paszte lange!
> -Frisch mitten durchgegriffen, das ist besser!
> Reisz dann, was mag!-Die Menschen, in der Regel,
> Verstehen sich aufs Flicken und aufs Stückeln,
> Und finden sich in ein verhasztes Müssen
> Weit besser als in eine bittre Wahl.-Schiller.
(b) Explain in German (1) the use of the uninflected forms, roh gewaltsam; (2) the difference between passen and erpassen; (3) the use of durchgegriffen.
(c) Give the first five lines as they would appear in a report introduced by er sagte.
(d) Explain in German the meaning of the last two lines.
III. Write fifteen or twenty lines in German upon the plot of some play or novel that you have read.
IV. Translate into German:

One of the most beautiful traits in the character of Frederick the Great was his strict love of justice. Who does not know the story of the windmill at Potsdam, which the King wished to buy of the owner because it stood in his way in the laying out ${ }^{1}$ of the park of Sans-Souci? The miller refused steadfastly to sell his property, though the King offered him a large sum and promised to have another mill built for him. But the obstinate old fellow only answered, "My grandfather built this mill, I inherited it from my father, and my children shall inherit it from
me." The King now became impatient and said, "But you know, I suppose, that I might have your mill for nothing if I wished?" "Yes," answered the miller, "if there were no chamber of justice ${ }^{2}$ at Berlin." Pleased at the confidence wh:ch the old miller had in the Prussian courts, the King dismissed the man without further words.
${ }^{1}$ Laying out, die Anlage. $\quad{ }^{2}$ Chamber of justice, das Kammergericht.
Calvin Thomas, Chairman,
Professor of Germanic Languages, Columbia University,
E. H. Babbitt, Secretary,
Instructor in Germanic Languages, Columbia University,
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## CHAPTER XXVII.

## UNIVERSITY TYPES AND IDEAIG.

Contents.-Address of Dr. E. Levasseur in response to the toast, "American Universities."-Address of Dr. H. Moissan: "The University of Chicago."Address of Dr. Michael Foster at the Johns Hopkins University.-Notes on the University of Turin, by M. E. Haguenin.

In all countries there is noticeable at this time great activity in respect to higher education, and particularly in respect to means for promoting international relations and exchange of ideas and of instructions. This country contributes a large and ever increasing quota of students to European universities, and efforts are made to bring foreign professors of note to lecture in our universities. These movements naturally increase the desire of Americans to understand the administration and the daily routine of foreign universities, and also to know the opinions that foreign critics entertain of institutions on this side of the Atlantic.
In response to this interest there are reproduced in this chapter the addresses of three distinguished foreigners who have lately visited certain leading universities of this country. These addresses derive particular value from the fact that incidental comparisons are maintained in each case with the university which the speaker represents. In this way the foreign standpoint is made clear. The difference between the American system of degree examinations and that of France is noticed particularly by M. Levasseur. This is a difference of prime importance to the American student who seeks a degree under the favorable conditions now offered by the French universities. The address of Dr. Michael Foster makes clear the recent modifications that have been made in examinations at Cambridge, England. The notes on an Italian university (Turin), cited from an article by a French writer, M. Haguenin, emphasize again by contrast the peculiar features of the French system. It is interesting to observe that in the Italian univers:ty, whose organization bears outward resemblance to that of the French university, there is encountered substantially the same system as regards examination that prevails in the universities of this country. We note, also, that the French observer is affected by the presence of women in Italian universities in the same way as his countrymen are affected by their general admission to American universities. In France, so far as the law goes, women are freely admitted to the universities, but custom has so limited the privilege that it still has, for French women at least, the appearance of a novel innovation. They are seldom found mingling with the men students excepting in the public lectures. This does not interfere with their aspirations for degrees, since students from private courses are admitted to the state degree examinations by paying the necessary fees and giving proof of the requisite preparation.

## Response to the Toast "The American Universities," at the American University Club Dinner (Paris).

[By Dr. E. Levasseur.]

I have been in America twice. The first time I visited the country, in 1876, I was engaged especially in studying the schools without. however, neglecting to observe the economical condition of the great Republic. On the second occasion, in 1893, my attention was devoted to the working classes and the industrial condition of the country in fulfillment of the mission with which I had been charged by the Academy of Moral and Political Sciences, and to prepare myself for the publication of L'Ouvrier Américain, but I nevertheless did not neglect my studies of education. I was struck with the progress which seventeen years had made in every place I revisited, both from an economical point of view, in the iucreased size of the cities, and the growth of manufactures, and also in the increased number of schoo's, and the scope of their artistic, literary, and scientific studies. I would have been more surprised, perhaps, if I had not been previously notified of the changes I was to witness in letters from American friends. It was sufficient for me to contemplate the colonnades and domes of the "White City" at the World's Fair-an imposing ensemble, remarkable in many ways, and too little appreciated then by European critics (and, I may add, by the New York critics, too), and then to recall the "halls" of the centennial exhibition, and this comparison gave me a kind of measure of the progress in taste and the feeling for art that the United States had made from 1876 to 1893.

But, gentlemen, the president has not called upon me to speak either of industry or art, nor to speak to you of education in genéral. I discussed the system of American common schools in my work on primary instruction in civilized countries, and I deemed that system interesting and original enough to devote the longest chapter in the volume to it. I will, therefore, say nothing upon this subject, for I think it is only superior education that I am called upon to speal to you about.

In this branch, too, remarkable progress has been made in our generation which merits our attention, I may say our admiration, in certain respects. If young America comes to Europe to attend our lectures, it furnishes Europe with examples that we might well occasionally copy.

The Parisian students who attend the magnificent palace of the new Sorbonne can not imagine by comparison what an American university is, but the young Englishmen who promenade in the quadrangles and under the shade of the ancient trees of Oxford could form a better idea of it. American universities usually occupy vast spaces, except in a few large cities like New York, where Columbia College has recently quitted the too valuable ground on Forty-ninth street to build splendid edifices farther away, near the Hudson. Even in those cities which have grown up around the universities, as at Harvard or Yale, the university buildings, for the most part of Gothic or Roman architecture, are situated in a park which is often of great extent. I traveled through the park of the University of Wisconsin in a carriage; and I well remember the surprise I felt, twenty-two years ago, when I saw a river in the campus of Cornell University, with an imposing cascade and a series of hillsides from which the city and lake lying below could be seen. While I speak I am again in imagination in the president's house, surrounded with a grove of fine trees, and I remember with pleasure that I there formed a friendship with the president, Mr. Andrew White, now ambassador of the United States at Berlin, which I still cherish. One of the reasons why these university parks are so large is that land (even in the western part of New York), does not cost much, and that most of the universities received a territorial endowment at their birth.

The liberality of private individuals to the institutions of superior education is one of the characteristics of the American nation. In 1895-96-the last year of which I have accounts-the sum of these liberalities amounted to more than $41,500,000$ francs $(\$ 8,343,000)$. Although this was not an especially favorable year for this species of charity, 14 universities received more than $\$ 100,000$ each, Yale taking for her part $\$ 445,000$. Gifts of over $\$ 1,000,000$ are mentioned. I know of 18 of such in twenty years, of which the largest, made in successive payments, is that of Mr. Rockefeller to the University of Chicago, which amounted to $\$ 7,426,000$. This university, scarcely eight years old, has already covered a great part of its extensive campus with large and handsome buildings. It has 330,000 volumes in its library, and in 1897 received 2,000 students. Only a short time ago a new dormitory, Blair Hall, was completed on the campus at Princeton at a cost of $\$ 150,000$, the gift of the New Jersey philanthropist, Mr. John I. Blair.

Most of the States have effected useful legislation in the matter of education, which I commend to the attention of our own statesmen. They have declared that the gifts and legacies made to educational institutions should not be diverted to other purposes than those originally specified, and the same is true in regard to other institutions of public utility.

It is from the gifts above mentioned that the enormous wealth of these various universities is derived. Their total invested funds were estimated at $\$ 109,562,000$ in 1896, and the value of their lands and buildings at $\$ 118,106,000$, without counting the value of their scientific equipment or libraries, which would be probably over $\$ 20,000,000$ more.

The United States Government and many municipalities have endowed a certain number of universities, especially in the West. But these endowments, which were made sometimes in money and more often in lands, only constitute the smallest part of the university fortune. The Federal Government contributed to this endowment principally for the foundation of colleges of agriculture and the mechanic arts or the annexation of a department of this kind to an already existing university. The land-grant act of 1862, introduced by Senator Morrill, is the first and most important of the legislative measures taken for this object.

The income of the 484 universities and colleges, coming partly from the students' fees and partly from the interest of the investments, was nearly $\$ 20,000,000$ in 1895-96. Despite the sumptuous presents made to some of the younger universities of the middle West and the Pacific coast, it is still the Northeast that holds the first rank in this respect. Although the universities of that portion of the country are only 16 per cent of the total number, they possess more than half ( 55 per cent) of the wealth of superior instruction. If the University of Chicago has to-day an invested fund of $\$ 5,000,000$, Cornell has $\$ 6,300,000$; Harvard, $\$ 8,900,000$; Columbia, $\$ 9,400,000$; and Girard College, the name of which recalls a French philanthropist, and where instruction is of a special character, $\$ 15,000,000$. It is true that besides the rich universities there are others which are very poor. Out of the 484 which send returns to the Commissioner of Education, 158 had no endowment, and 54 had less than $\$ 35,000$.

I hope, gentlemen, you will have the indulgence to pardon a statistician for citing these figures to you. It is a somewhat indigestible food for dessert and is probably a supertluous aliment for the Americans here present, who know these figures better than I. But it is well that Frenchmen should know what progress has been made on the other side of the Atlantic. Now, statistics, although they may not give all the truth, or be absolute trath itself, do furnish, when they are prepared with sincerity and employed with discernment, a more precise measure of progress than pompous phrases of laudation.

The oldest American university, Harvard, was founded in 1636. In the South, William and Mary's College (at Williamsburg, Va.), which dates from the end of the seventeenth century, formerly enjoyed a reputation equal to that of Harvard.

Jefferson was one of its directors. President Eliot, of Harvard, and General Walker wrote three years ago that the University of Virginia was the first to introduce upon the American continent the real methods of superior education. Aboat twenty other colleges were founded before the nineteenth century. In the second half of this century new institutions have multiplied, more than 65 having been opened in each decade. In $1895-96$, as I have said, 484 universities and colleges sent their returns to Washington. The number of students has augmented stiil more rapidly. In $18 \% 2$, when the statistics of education were first collected, the number of students in the colleges (who are far from being all the university students) was 23,392 . In 1895 the number was 81,952 , au increase, the proportion of which was twice as great as that of the population. More than a fifth of the colleges and universities are unsectarian, and consequently open to students of any religious denomination. Fifty-eight are Catholic, 57 Methodist Episcopal, and 50 Baptist. The Prezbyterians and Methodist Episcopalians of the South, the Congregationalists, the Lutherans, and the Christians have from 39 to 20 for each denomination.

There are many small universities and some large ones. In 1897, 34 had over 1,000 students.

Women have for a long time had the doors of superior education opened to them. There are about 17,000 of them in 183 establishments which are attended by young men as well, and they possess 182 establishments of their own, which had 24,663 students in $1896 .{ }^{1}$

In 1896 Dr. Harris found a total of 159,372 students in the colleges and universities, but from this total $47, \mathrm{C} 00$ should be deducted, that figure representing students of preparatory courses who receive secondary instruction. The 68,629 college students themselves receive instruction on a par with that of a part of our lycées. A German professor lately questioned whether he could legally give the name of university to American institutions, because he found great differences betiveen their programmes and that of the University of Berlin. We may answer him that there is no single type of university, but each country has, and ought to have, its own originality in this respect. The new French miversities do not resemble the German, even after all the changes and improvements in our faculties in the last twenty years, and the American universities, more or less derived from the English type, are unlike both.

The college is the essential foundation of American university education. The age of admission to them is between 13 and 19 years usually, but the age of the majority of freshmen is nearer 19 than 13. Many universities have opened preparatory courses by means of which they draw to themselves part of the clientèle of the secondary schools, public or private, the high schools, academies, latin schools, etc. But it is in college only that the university courses begin, to which applicants are admitted without examination, or after one which is more or less severe, according to the importance and renown of the university. These courses last four years, and bear in succession the names of freshman, sophomore, junior, and senior years. During the first two years the studies do not ordinarily pass above the secondary grade. Dr. Harris has computed, by leaving out the freshmen and sophomores, and a portion of the special students, that 62,974 young men were following superior studies comparable to those of the students of European universities. Perhaps he would have deducted more if he had taken for comparison the lycées of Paris which have a higher degree of rhetoric. Practically there is one student for 1,111 inhabitants in the United States, while in France there is one to 1,344 . The proportion would, probably, not be sensibly different in the two countries if the students of the special superior schools in France were added

[^20]to those attendins the faculties, such schools being more numerous in France than in the United States.

America, which has a highly organized system of primary schools, although this system is susceptibie of improvement, particularly in regard to the selection of the teachers, is mach less advanced in the organization of her secondary instruction, in spite of the increased number of high schools. Both pedagogues and committees are studying this question of reorganization of secondary instruction, which is the feeblest side of the American educational system to-day. The intellectual condition of the majority of the young men who enter college indicates the insuffiency of their preparation. In the large universities, like Columbia, Yale, and Harvard, conditions of admission are required, but in many universities the examination may be cut into two parts and may be held in many places, ${ }^{1}$ and besides, each professor examines candidates separately. In others, indulgence is pushed very far, so as to attract students. In the large universities young men without diplomas are authorized to follow certain courses as special students.

The system that has prevailed for the last fifteen years is a liberal one. It is that which allows the student an option in his studies by virtue of which he makes his choice of the subjects taught, but with a fixed minimum of courses, and he is obliged to attend regularly those he has chosen. The authorized American pedagogues do not wish to impose a superficial omniscience upon their students, but they require that they should know well a certain number of obligatory or elective studies.

I take two examples of school organization, one from a college of moderate importance and the other from the first university of the United States.

Swarthmore College was founded in 1864 by the Society of Friends. The buildings, situated upon a hill, have a monumental appearance, with a gently-sloping lawn in front and a park with fine trees on the sides. The principal building contains the dormitories, the lecture rooms, and physical and other laboratories. In the park are several other buildings, including a gyinnasium and an obserratory. The site is entirely rural. The village containing the houses of the professors is at several hundred yards distance. The system is that of coeducation, and the students live on the premises. The price of board [and trition] is $\$ 450$, which does not include books and apparatus. Religious exercises are compulsorily attended by both male and female students. Smoking is prohibited. The entrance examination includes mathematics, grammar, English composition, andaccording to the branch the student intends to follow-Greek, Latin, French, or German for the classical course; and for the literary course Latin, French, and German, and the same for the engineering and scentific courses, with some variations. The years are divided into freshman, sophomore, junior, and senior, as is customary. In the arts department besides classical antiquity the studies consist of ancient languages, literature, history, modern languages, the sciences, and applied political economy. The degree is bachelor of arts. The literary department covers nearly the same matters excepting the dead languages, Latin being elective. The degree is bachelor of letters. The scientific department gives some space to the modern languages and a much larger to mathematics, physical and natural sciences and laboratory work. The degree is bachelor of science. The course in civilengineering leads to the degree of bachelor of science (engineering). The course is both liberal and technical. The courses last two scholastic semesters, and some are elective. After the degree of bachelor the students may prepare themselves for the degree of master and civil engineer.

[^21]Harvard University is the most complete type of the American university. The faculty of arts and sciences, comprising the college, the scientific school, and the graduate school constitute the principal body of instructors. During the four years of college the studies consist of the dead and living languages, history and social science, the exact and natural sciences, and the student advances by degrees (elementary and advanced studies) and by a series of examinations held in February and June to a final examination by which he obtains the diploma of A. B., or bachelor of arts. Some of the students stop on the way, but the great majority strive to reach the end, even if it is necessary to make several attempts.

From what I learned in America I place the diploma of the three or four principal universities, judging, if not by the subjects, at least by the degree of intellectual development acquired by the students, somewhere between our baccalauréat ès-lettres and our licence. The comparison, however, between the American and French systems has no common ground, because of the difference of the programmes and in the methods of granting degrees. In the United States the examination for bachelor, like the entrance examination, is conducted by each teacher separately for the subjects he teaches, without publicity and without control. Now there have been instances in certain universities where the professors have shown favoritism toward students to whom they have given private lessons, or whose patronage they desired. It has happened, too, that professors owe their positions to political influence more than to attainments. ${ }^{1}$

The Lawrence Scientific School at Harvard and the Sheffield Scientific School at Yale, while being part of the university faculty, yet have their own deans and administration, and they give less latitude to their students. They give the degree of bachelor of science (B. S.) after a course of four years, in which, naturally, science and modern languages predominate.

At the end of the four years' course the seniors celebrate, with comic ceremonies, their "class day," which marks their exit from the university. This is a traditional occasion in nearly all the universities, which precedes the official solemnities of commencement, when the degrees are conferred. The college and scientific school are called the undergraduate departments. The graduate department, which has its own administration, is open to the students who have the degree of bachelor, although special students are admitted without diplomas. They can not, however, obtain degrees, as a rule. The students of the graduate department should be classed in the grade of real superior education. They draw up themselves, with the approval of the corps of professors, the programme of studies they wish to pursue. After a year they can take the degree of master of arts (M. A.), and after two years that of doctor of philosophy (Ph. D.) or of science (S. D.), if they have presented theses of sufficient originality and have successfully undergone the oral examination. The doctorate is the highest degree granted for liberal studies and is the badge of the well-educated man, in the world and public life as well as in the professions.

The other university departments have a professional character. The Harvard Divinity School is "unsectarian;" that is, it is not attached to any one of the Protestant churches. Admission is granted to bachelors of arts or to those who give proof of having received an equivalent education. The course is three years and leads to the degree of bachelor of divinity (D. B.).

The law school, to which admission is gained by the bachelors diploma or by examination, leads, after three years, to the degree of bachelor of laws (LL. B.). The medical school, situated in Boston, to be near the hospitals, gives a four years' course of theoretical studies and practical exercises. Entrance is gained

[^22]by diploma, either from a college or scientific school, or special examination, and the degree is doctor of medicine (M. D.).

The dental school, which is also situated in Boston, admission to which is obtained on the same conditions as the medical school, has a three years' course and gives the degree of doctor of dental medicine.

To complete the view of this varied education we must still add the school of veterinary medicine and the school of agriculture and horticulture called the "Bussey Institute," the summer courses, created principally for the benefit of the professors during vacations, and the woman's annex, all of which receive separately, but by the same teachers, the college instruction. An astronomical observatory, richly endowed, is attached to Harvard.

In nearly all the establishments the students in the colleges are the most numerous. Dr. Harris calculates for the year 1895 that 31 per cent of the student population was in the preparatory schools, 42 per cent in the colleges, 3 per cent in the graduate departments, 16 per cent in the professional schools, and 8 per cent in other branches. Thus the degrees of bachelor of arts were the most numerous. Out of 9,972 degrees granted in 1594-95, 4,891 were bachelors of arts, including bachelors of philosophy.
There are, however, universities where this proportion does not hold. I will cite one which is, assuredly, one of the most remarkable types of higher instruction to be found in America; I mean the Johns Hopkins University, which was founded in 1876, at Baltimore, and has been ever since its origin under the direction of Mr. Daniel C. Gilman, and which has been almost entirely devoted to " postgraduate studies;" that is, to a higher grade of studies that young men wish to pursue who have already received at least the degree of bachelor of arts. At Johns Hopkins the examinations are made by a special jury which is paid for performing that duty. During the first seventeen years of its existence this institution had only literary and scientific departments, which, moreover, were not divided into the asual four years' course and whose special object was to develop original research. The medical school has been in existence only five years, but the reputation of the institution is already well established after even the few years of its activity, and already many university professors have graduated from the Johns Hopkins University. I can speak personally only of the department of social science, which is in charge of Mr. Herbert B. Adams, and which might be held up as a model.
Some universities have a special department of fine arts; many have an engineering department, a speciality for which the industries and railroads of the United States offer large opportunities. Harvard has no school of this kind because there is a well organized institution of the kind in Boston, the Massachusetts Institute of Technology, of which the lamented Gen. Francis A. Walker, whose friendship I had the honor to have, was director, and whose flourishing condition was largely due to his energy. This school had an attendance of 1,300 in 1896, when there were 48 special technological schools in the United States with a total of 12,810 students. These schools were mostly State institutions.
The large universities publish reviews and journals, which are sometimes conducted wholly by the students, or are reviews to which the professors contribute. Some of them enjoy a merited reputation, and I may mention those with which I am familiar, The Quarterly Review of Economics, at Harvard; The Yale Review; Johns Hopkins University Studies in Historical and Political Science; and The Journal of Economics, of the University of Chicago.

University life seems to be on the average more expensive in America than in France, but the American student, like the American workman, has a kind of elasticity of needs and desires, which enables him to content himself with a little when his resources are limited. In many universities one must have $\$ 100$ or $\$ 200$ Ed 98-91
for living expenses, besides the university expenses proper, which may be put at $\$ 50$, besides different accessory expenses. The total will amount to $\$ 225$ on an average. The secretary of Harvard said in 1893 that a student could get along, with strict economy, on $\$ 400$ a year, but that one-fourth of the students spent $\$ 600$, another fourth $\$ 000$ to $\$ 300$. "Every dollar," he added, "over $\$ 1,200$ is a dangerous dollar." Poor students can get assistance from various fellowships which are open to competition, or are given for other reasons, which have been estabished in many universities, or by giving lessons as "tutors" to fellow students more fortunate financially than themselves, or by devoting themselves to some lucrative occupation in their leisure hours. It is not unusual to see students earning money during vacation as hotel waiters at the summer resorts with which to pay their way the next year. When I was a guest at the University of Chicago we were waited on at table by students who were paid for their services. Americans have the good nature not to be surprised at such things. Often, indeed, they approve of them as evidences of energy.

Most of the universities have domitories installed in the university building itself, as at Swarthnore, or more usually in separate buildings, as at Harvard, Yale, and Cornell, and divided into rooms, some being provided with two beds for poor students, and others with one, and more or less luxuriously furnished, according to the fancy of the occupant. These rooms are finished in a superior manner, and in the larger universities they must be engaged in advance. In the uriversities organized for coeducation the young women ordinarily have a separate dormitory, but not always. The student's room is his home, and he is subjected to very easy discipline. As in England, he enjoys great freedom, and he is looked upon as a man who is responsible for his conduct. There are aiso "commons," or dining halls, but many stadents find it more agreeable or economical to live outside of the campus, and generally there are professors or families not connected with the university who take boarders.

The students have clubs and associations, more or less secret in their character, which they nearly all endeavor to enter as soon as they become members of the university. There are football clubs, baseball clubs, croquet and lawn-tennis clubs, Doating clubs, and masic and athletic clubs. It is in these associations more than in the regular course of stuadies that the bonds of comradeship are formed. Many of them are quite celobrated in America, and there is a pride in being members of them, so that mature men boast of having belonged to them and recur to them with pleasure.

I am entirely incompetent to judge of the ensemble of the university programmes in the United States, which deal with nearly every branch of human knowledge. I have only wished to indicate the general character of higher education there, which is original and liberal. I will confine myself to adding a few words on the department of historical and social sciences, which I know a little better than the others, and which, usually, combine history, geography, politics, political economy, and sometimes statistics. This class of studies is given to the college students and those of the graduate departments. I may mention particularly in this connection the Johns Hopkins University, the University of Pennsylvania with its Wharton School, Harvard University, Columbia University, the Chicago University, etc. The courses are numerous and varied. They bear, in nearly all the large establishments, upon speciai or practical subjects rather than upon general or dogmatic expositions. Often one semester is sufficient to treat these subjects, the professor seeming to devote himself especially to gaiding the students in the direction of personal studies, whether in simple elementary studies of the manual or in research or composition.

In the majority of colleges political economy is not carried so far. Thus at Swarthmore, in the arts department, it is only studied during one semester in the junior year, during which the professor treats of socialism and money. In the
depariment of letfers it is studied during two senesters, but the scientific theory of the subject is made to yield to details, pauperism, crime, charities, intemperance, the Salvation Army-all questions of a social rather than an economical order.

What I saw in $18 i 6$ and in 1893, and what I have learned in the interval and since my return, has convinced me that in this department, as probably in others, manifest progress has been made in the last quarter of a century. The pablished works of the protessors testify to this, and the greater impetus of the young men toward a university education confirms this view. Among Americans, as among all other peoples, there are diverse aptitudes, but, generally speaking, younc Americans are unwilling to lose either their time or money, and the majority of them obtain results which, if they are not brilliant, are at least proporional to the outlay which they have made with a view to opening a career. My knowledge enabies me to augur that in another twenty-five years the great American universities will nearly keep step with the great Europoan universities by importing into the business of letters and the sciences the originality of their own character. Thus they will more and more fill the part that I pointed out in my work on the French population in discussing the European emigration, and I beg your permission to cite the passage I refer to here:

The groups of Europeans which have formed themselves at difierent places on the globe are interesting, not only from the commercial point of view. but also from the general standpoint of civilization. They constitute so many new foci of intellectual activity; nature, life, and society are rezarded from points of view which are absolutely different from those in which Europeans are placed. Human thonght takes on a certain originality, and colonists may repay to civilization by their intellectual works some portion of their debt to it. Withont doubt these growing societies are, and will be for a long time to come, especially preoccupied with their material interests. But they are cultivating letters and sciences-especially the latter. North America has already shown that she can contribute largely to their progress:

I was not really qualified to speak on behalf of American universities, but as I have the honor to have the title of doctor from one of them, as I have lectured in two of them, and have been the grest of still another, I have responded with pleasure to the invitation which was extended to me, and I end this summary account by sending to my colleagues in America the good wishes of cordial fellowship of a French university man, I respond to the toast: "To the continuation of the progress of American universities."

## The University of Chicago.

[By Dr. Henky Moissan.]
The council of the University of Paris did me the honor last year to select me as its representative at the sesquicentemnial celebration of the University of Princeton. On that occasion I visited the principal centers of instruction of the United States. Having had the pleasure some time before to offer the hospitality of my laboratory to Professor Lengfeld, of Chicago, I looked forward with interest to studying that university in process of formation, and I will now state briefly how that great institution was created.

There was once at Yale University a professor of the Hebrew language named Harper. He had traveled extensively and knew thoroughly the educational institutions of his country, and he had the idea of founding the greatest university in the United States. Unceasingly he followed that idea, devoting himself and his best intelligence to it. It became a fixed idea with him and he reasoned it out completely. He maintained that a university worthy of the name should have certain distinctive qualities. He wished, for example, to separate saperior instruction from secondary, which is not often done in the United States. All his professors were to advance science by their original investigations. He laid down
the principle that a man can not be a professor of superior instruction unless he has made some successful explorations in the remoter fields of scientific investigation. He believed that young men would liave more confidence in those who have personally ventured upon such explorations than in others who are content to describe horizons they have never seen. He maintained that a professor of superior education has not performed his full duty when he has given a certain number of lectures and conducted examinations, and that if he has not contributed to the progress of the science he teaches he is incapable of inspiring the love of it in his students.
Professor Harper had still another idea. He believed that knowledge should be made active, and should be made to emerge from the selfish and impregnable position in which certain minds have wished to retain it. Knowledge, he argued, becomes useful by its applications and the increase of light which it can produce. He wished that his university should not only attract students from everywhere, but should extend itself in every direction. He expected to modify and direct the movement of ideas by lectures, by scientific journals, and by books.

After he had studied the question thoroughly and from every point of view, he determined to pass from theory to practice, and, like a true Yankee, he did not lose a minute, but betook himself to Chicago, where he met a " good fairy," named Rockefeller, to whom he unfolded his ideas and plans. After having all the details explained to him, this man entered into the ideas of the professor of Hebrew, and at the first toach of the ring gave him $\$ 600,000$ with which to lay the foundation of his university. This benefactor, like all others of the kind in America, was essentially practical, and attached to this first present tivo conditions-the first was that Professor Harper should be president of the new university, and the second was that the citizens of Chicago should furnish the sum of $\$ 400,000$ with which to build laboratories.
Good examples are contagious, as everyone knows (and usually tries, accordingly, to avoid them). The spirit of imitation is very well developed in Chicago. In that essentially American community, that is to say, a very practical community and one absorbed in business, the importance and interest of high intellectual culture was at once perceived. Mr. Marshall Field offered a tract of land valued at $\$ 125,000$ for the building site, and Mr. Kent undertook the construction of the chemical laboratory at his own expense. Others followed, and in less than thirty days the required sum was raised. This happened in May, 1889.

The good fairy Rockefeller was so well pleased that when the ring was rubbed again le placed this time a million at the disposal of Professor Harper, on the trifling condition that the citizens of Chicago should double that sum, or nearly so. All the great capitalists of Chicago, wishing to see the university a success, furnished the sum demanded. This second installment was made in September, 1890, and this little play consinued in the same way in February, 1892, December, 1892, and so on, until Mr. Rockefeller had promised, by the end of 1895, the bagatelle of $\$ 7,700,000$, and the citizens of Chicago $\$ 5,000,000$.
The professor of Hebrew rubbed his hands, because he saw his dreams becom:ng realized.

You possibly imagine that he waited until the architects had finished their work before summoning the professors and students. That is not the way they do in Chicago, however. President Harper, who had had much experience in many universities, and was skilled in matters of education, knew that you must strike the iron while it is hot, and he deemed it best not to allow even American enthusiasin to cool. As soon, therefore, as the first contribut:on of $\$ 1,000,000$ was secured, he proceeded to summon professors from different parts of the United States. He took a physicist here, a professor of history there, and brought a chemist and a theologian from afar. And if a professor hesitated about going to Chicago, he had an original way of convincing him of the expediency of so doing,
viz, by doubling or tripling his salary. The professor was persuaded by such good arguments and came to Chicago, and then he built his laboratory and began his lectures.

As there were no buiidings at first, professors and students had to find room as best they could, for the students reached the ground as soon as the professors. Houses were rented; a fioor of a hotel was used as a chemical laboratory. J. should think that the laboratory odors, which are always more or less evil, would have aroused some objection on the part of the proprietor. But what of that! The university was founded, the students were arriving, the courses of lectures and practical work were being organized, and during this time gifts continued to flow in and the buildings were going up all around a vast campas covered with trees. Everything moved rapidly, and yet with order. President Harper, who combined the functions of director, rector, dean, and professor, was in his office from as early an hour as 4 o'clock in the morning. Instruction in modern languages, Latin, Greek, Hebrew, theology, and literature was organized at once. At its start the university did not include law, medicine, and fine arts in its programme, but will do so eventually. Then came mathematics, physics, and chemistry. Finally, as the laboratories became ready, a beginning was made in anatomy, zoology, botany, geology, and paleontology. An astronomical observatory was established 80 miles from Chicago, which was inaugurated last month. To each chair adjunct professors and assistants were attached. A gymnasium was also built and libraries were established.
Meanwhile, since much attention is paid in the United States to the material welfare of the students, cheerful, healthy, well ventilated and lighted houses were built for them, thanks to new donations which kept coming in.
The university also attached to itself, at their request, a number of institutions of secondary instruction, whose programmes and course of instruction it superintends, which is an excellent way of preparing good students for the future. Add to this outside lectures and evening classes by the professors, the expenses of which are paid by the university, which have a total of 25,000 auditors, and further consider the learned and literary societies, the regular journals and publications of the university, to the number of a dozen or more, and you will see that to superintend all this President Harper well deserves his salary of $\$ 10,000$.
In 1895 the university expended $\$ 660,000$. It had about 2,000 students, of whom 500 were in the faculties of letters and sciences.
This university is open the year around. President Harper thinks that four months' vacation is too great a loss of time. In America no one is afraid of overdriving. The school year begins July 1 and is divided into four parts, each of twelve weeks, with one week's vacation between each period. It is a curious fact that the first trimester, that of July, August, and September, is attended by a great number of teachers, male and female, of secondary instruction, who wish to complete their education or gain some degree.

In most American universities there are poor students who perform some kind of manual work outside of their study hours in order to earn money with which to pay their tuition fees, which amount at Chicago to some $\$ 35$ a trimester. Thus one will take the position of gas-lamp lighter, another will be a hotel waiter, another will pay his way by being steward or cook for his comrades, another will save up from a moderate salary in order to come to the university and get a degree.

When I had the pleasure of visiting Chicago last year, President Harper said to me as we were walking around in the university, "We already have physical, chemical, and botanical laboratories, lecture rooms for the humanities and theology. We shall erect a building over there for zoology and one yonder for physiology. We have much yet to do, but the movement has begun and the University of Chicago will be grand, active, and independent." And he added,
"Why do you not modity your doctorate? We would send you our best students with pleasure. But you know that our young men have a practical turn of mind and they will not go to Paris unless they can get the doctor's degree, and they can not pass your baccalaureate and license at once."
I said to myself, "President Harper hardly knows what he is asking. Modify our doctorate indeed! Great Heavens! an enormous undertaking that!', I was as much astonished at this request as I was on another occasion when I was walking through the fine technological collection of Columbia College and the professor who accompanied me said, seeing my admiration of a specimen in one of the cases, "That specimen seems to please you; allow me to present it to you." He opened the cabinet and handed me a fine specimen of silicified wood. I instinctively looked arom to see that no watchman had observed us. What was more remarkable was that the specimen had neither mark nor number, and was not catalogued. It is only in America that one sees such things.
To return to Chicago. The grand example of initiative energy shown by President Harper, Mr. Rockefeller, and the generous givers of Chicago is not a rare spectacle in the United States. Most of the universities were founded without State aid, but result from private munificence.

At New York Columbia College needed a library. Its president tendered it $\$ 1,000,000$. At Princeton the minersity is theological and literary, and it wished to become scientific. It could find a Mr. Green to give it laboratories. At Princeton, too, Mr. Marquand rebuilt the library at his own expense. Johns Hopkins left $\$ 3,500,000$ to found the university at Baltimore. Some other benefactor will leare $\$ 100$.

Examples of this kind are abundant, but perhaps the most curious is that of Mr. and Mrs. Le'and Stanford, of California. Mir. Leland Stanford had made a great fortune in business. He had the misfortune to lose his only son some years ago. Together with his wife he planned to employ the greater part of his fortune in the creation of a university for the benefit of happier families, whose children remain to them. They desired that this university "should furnish all the resources for original research for graduates and specialists." They desired "that the instruction in letters and sciences should be carried as high as possible, believing that in education there can be nothing superfluons." In pious remembrance of their son they gave his name to this university, and in 1834 they offered the legislature of Caiifornia the sum of $\$ 30,000,000$ to establish it.
This private initiative, this self-confidence and clear and downright will, are what most strike the foreigner on his arrival in the United States.
We must not think, however, that everything at Chicago was better than in other countries. I am not one of those travelers who can not see anything abroad without falling into ecstasies over it and calling it a miracle. I do not like too ready admiration, nor systematic disparagement either. I know very well that with penty of money you can build palaces; but I also know that a palace does not constitute a university.

The citizens of the United States have their difficulties as we have ours. They have their secession experiments; weakening of the race by excessive will power; a questionable distribution of wealth; difficulties in domestic and political life. But they have a clear perception of obstacles to overcome.

They wished to create centers of intellectual culture and patriotic initiative, and they have succeeded admirably. I admire that effort.

How much talk of decentralization there has been in France in the last thirty years. I have heard many an orator repeatearnestly the discourse on this subject which we all know by heart, and when, the next day, this man of strong convictions was asked for a subscription for some useful work he would perhaps give a few cents with an ill grace, and grumble, "Why not apply to the Government for
assistance? It would be much simpler." If we really want decentralization we must give our money, our time, and our hearts to independent works.

It seems to me that the moment has come for us, too, to show our initiative. It seems to me, from certain precursory symptoms, that the new generation will be more active than ours. I mean it will have a more efficacious if less deliberate activity.
Our universities are being rejuvenated and reformed by a new law. They can own and manage their property in full liberty and augment or form new instruction. They can make new degrees. They receive the larger part of the students' fees. They choose their professors, for if the State has preserved the right of nomination, the minister, most of the time, merely confirms the choice of the universities.
This new law reanites and groups together all the diferent branches of instruction of our faculties. The creation of free courses allows anyone to be a professor. The liberty of lecturing has rejuvenated education. The students' societies which have been formed about our schools give an esprit de corps to our pupils. Finally, we now have the indispensable condition for augmenting and enlarging scientific research, viz, laboratories and liberty.
Now let private initiative come to the aid of our universities, and rich as they are in the traditions of a long past, and rich in the habits of work, their social importance will also increase.
Now that the apparatus of our universities has increased, we must increase our scientific productivity.
To give young minds a taste for research is to increase their curiosity and develop their initiative. It shows them how to overcome or avoid difficuities and teaches them what the imagination can expect from the experimental method. At the same time it opens up new horizons for them. When one is once possessed by the love of a science there is no greater pleasure than in advancing it.
For twenty years we have been giving too many degrees and have done too littlo original research.
The reform of our education answers the question that the president of the University of Chicago put to me. Henceforth our laboratories shall be open to foreigners as in the past. But to-day our universities can give the degree of doctor to all these whom the love of science draws to us and who come for advice and direction in undertaking new discoveries.
These are important results. If at the same time we can preserve the literary form, which is the charm of our education and one of its forces, if we can preserve that limpidity and clearness which is a French characteristic and will always be our best portion, our universities will become glowing centers of intellectual light, and we shall no longer need to envy even the University of Chicago.

## University Edecation. ${ }^{1}$

[Address delivered at the Johns Hopkins University, Baltimore, October 11, 189\%, by Dr. Mirmade Foster, Sec. R. S.].

The Johns Hopkins University, which has done me the honor to ask me to say a few words on this occasion, is, although already distinguished, a new and young university. I can remember well its beginning, and as Dr. Gilman has hinted, I may claim to have taken some small part in its birth. When I moved in $18 i 0$ from London to Cambridge, I took with me a bright lad of whose ability and industry I had already taken notice. At Cambridge he became my right-hand man, and I had some hopes that I should long have his help; but President Gilman appeared upon the scene, and his influence was so strong that I felt that my own
${ }^{1}$ Reprinted from the Bulletin of the Johns Hopkins Hospital, April, 1898.
interests were not to be considered, and that I ought to send that favorite across the waters to occupy the first chair of biology in this new university. Although the memories of him whom I need scarcely name, Henry Newell Martin, are tinged with melancholy, still I feel that this university must always look back with pride and affection on the work which he has done in this country, and in this affection and pride I claim a small share for myself.
Your university is a new one. I come from a very old one; one which was founded six hundred years ago, which has lived through all those centuries, and which, though it has some of the charms, has also some of the evils of antiquity. The traditions of the past weigh heavy upon us. When we attempt to stretch our limbs to meet the new needs of new times we find some old written law, some well-established prejudice, some vested interest preventing our full development. You are a new university; and although I have purposely refrained from refreshing my mind as to the exact status of your regulations, and as to how far you may have already entangled yourselves in the toils of enactments, still I will take it for granted that you differ from us in the freedom with which you can move forward toward the needs of the coming times; and I think perhaps I could not do better at the present moment than to use the opportunity offered me to take my old university as a text, and to draw from it and its history some few plain reflections which 1 hove may be practical and useful with regard to the conduct of universities. Although I understand that I have been especially invited by the medical faculty, I will take leave to treat only of general things, since the welfare of the medical faculty is bound up in that of the whole university.
The morphologists tell us we can learn much by studying the embryo, and something perhaps may be learned by looking back at this old University of Cambridge in the days of long ago-in the days when it, too, was a relatively young university. Things were very different then from what they are now. The dimly lighted streets or alleys in which the students lived were an emblem of the whole university. There was little outward show of glory then; there were no beautiful buildings, few books, and each students duty was, in part, to listen to the lecture, to the reading of something which was written, but which he could not see with his own eyes. In spite of all these dificulties there were certain features of the university of that time which I trust I may say have been, with some little wavering here and there, maintained since, and which I can not help thinking have contributed in very large measure to make it what J may venture to call it, a famous and great university.
One of the most striking features of the attitude of both students and teachers at that early time was that they recognized in the training of the university a preparation for practical life. There were at that time three main occupations in which learning was of practical use; and in correspondence to those three occupations there were established the three great faculties of the university-the faculty of theology, the faculty of law, and the faculty of medicine. And, if one reads what those men of old wrote concerning what they thought ought to be done in the university, one is very much impressed by the conviction which they had that the teaching should be an earnest preparation for practical life. If it soon became necessary to establish a fourth faculty, the faculty of arts, that was simply as a faculty preparatory to the others, as one supplying the first steps for and leading up toward the knowledge which should be of use in practical life; and it is worth noting that although they called that faculty the faculty of arts, and although the acquisition of the Latin language was one of the chief studies of that faculty, necessarily so because all the instruction which could be given was given in that tongue, among what they called the arts were the beginnings of the kind of knowledge which we now call science.

Another feature of the university life of those early times was the very strong feeling that the work of the university consisted not in the mere acquisition of
knowledge, but in the training of the mind. The amount of knowledge which they had for distribution was very limited; but they used that small stock of knowledge to the very best of their ability, as the means of awakening the minds of the stadents and training them for thinking and arriving at conclusions. This is seen even in what they called at that time examinations, though the word then had a very different meaning from what it has now; there were then no written examinations; there was not that demand on paper so characteristic of modern times, and that great necessity of modern civilization, the waste-paper basket was unknown. The examiners went quietly to work to ascertain in the most sure way whether a student had profited by what he had listened to. Instead of having two examiners for some hundreds of students, they appointed nine to each student; and these went in with him and out with him until they satisfied themselves that he knew something, and had gathered something from what had been told him. And then as a final test they pat him on the "stool" and made him debate in public, the test being used in such a way as to bring out his stock of knowledge, and especially his power of using it and of showing that his mind had been trained at the same time that he had gathered in a certain number of facts.

There was another feature of the university which we sometimes find difficult to realizg: the spirit of inquiry was rife among them. At that time the ways of thinking were devious; but still within the limited circle in which they moved, along the only lines then open to thein, the thinkers used their minds in the spirit of free inquiry. When one reflects upon the circumstances in which they worked, one can not help realizing that their long-drawn-out discussions were at the bottom an expression of the love of inquiry, and that if they had had the advantages which we enjoy now, that which we call their subtlety would have broken out into discovery and invention.

Lastly, it was a feature of the university at that time that it was willing to take into its bosom anyone who showed that he had any promise of benefiting by the iistruction there given. It was an open home for all who wished for learning.

These are some of the features of the University of Cambridge in the olden tines; and may we not, using them as a text, attempt to draw some conclusions as to what are the proper and essential functions of a university, and what ought to ive some of its guiding principles? As I said just now, the knowledge which they possessed was extremely limited, the facts with which they had to deal were very few. What can we say of knowledge at the present time? May we not say, if theirs was too little for them, ours threatens to be too great for us; that we are entering upon an age in which the facts which have to be learned, and the various kinds of knowledge which have to be acquired are becoming too many for us? It is, or it may be perfectly true that one of the advantages of learning is that it enables the learner to learn more rapidly; but is not this true, notwithstanding, that the increment of knowledge is increasing far more r upidly than the increment of the power to learn? Is it not a serious matter for consideration that the things that the university has to teach are rapidly becoming far too numerous for the learner to learn? Is it not true that we can not do now as they did in those old times, teach the student all that was known? We are compelled to make a choice; we must teach to the student some things and omit to teach him others. That is a necessity which it seems to me is increasing as the years go on. Nevertheless, that position is a cruel one; for it may be truly said that every kind of knowledge has a value of its own; each kind of knowledge has for the learner a value which can be given by no other kind, and he who fails to gain any one kind of knowledge is thereby a loser. For building up the student into the full and complete man, the best course would be to take in all the knowledge which can be offered by a university; but, as I said just now, a choice must be made, and the consideration of the principles which should guide the decision as to what should be chosen and what should be left, demands the most serious attention. Here I think we may
venture to follow the example of the old aniversity. Adnitting that each kind of knowledge is particularly fitting for a particular calling; that for every particular calling in life there is a knowledge, or there are kinds of knowledge which are suited or fitted for that calling, and without which that calling can not be pursued with success, in the necessary choice which must be made between this study and that, is it not a wise course to take that which best serves the future calling of the student? I can not but think that in this choice of which I am speaking, the arguments for what is sometimes called technical education are unanswerable; that one of the principles of most importance in determining the choice of the studies to be taken up by the student lies in the fitness of the study for giving him power in the calling which he proposes to adopt. We must, however. remember that the knowledge which is thus to be imparted to him must be not merely a knowledge of facts, but bring with it the power of thinking. If technical education is understool in this way, not as a mere accumulation of facts, not as the mere heaping of knowledge, but as the training of the mind in some particular kind of knowledge, the dangers, I venture to say, which some fear will prove unreal. and it will be seen to be a true principle of university education.
There is another aspect in which wo may look at university duties. May we not say that the tendency of modern civilization is to smooth down individual differences, and that the whole tendency of the enviromment of man is to make each man increasingly more like his brother? There was a time when one could tell by the dress where a man came from; but this has become less and less easy, and it is not in dress alone, but in his very nature that man all over the world becomes more like his fellows. I myself during the short time I have been in this country have feit it more and more difficult to tell what are the differences between an American and an Englishman, and I trust that these differences are equally difficult to you. This may be a favorable aspect, but there is an unfavorable side to this continual influence of things about us. Mr. Francis Gaiton has shown that there is a great tendency in things to make men more and more alike in stature, and there seems a corresponding tendecy to make men all alike in the stature of their minds. We seem tending in many ways to a monotonous mediocrity of intellact. This infiuence is especially strong among young people. I see for inyself in the University of Cambridge that when one young man does one thing they all do it; they go astray like sheep, and they also go straight like sheep. Surely it ought to be a function of the university to counteract this tendency, and so to bring the infuences of learning upon the young as to develop individual differences. That, i take it, is one of the most important functions which a university can exercise, but one which is not always kept in view in university enactments. Fiere I can speak of my own university, and in doing so can lay the blame for the present condition of things on the traditions of the past. I find in my own university discouragement for the development of individual power. Every lad who comes to the University of Cambridge is compelled to pass through the same examination, to know the same things to the same extent, whatever may be the nature of his mind. He must know a little Latin, a little Greek, a little mathematics, a little history, and one or two other subjects. Each one who comes, whatever his previous history, mist pass through this one gate; the whole university has been pushed through this one common gate. Now, I know that this may be defended. It may be said, for instance, that it is a bad thing not to know Latin. I quite agree with that. I think it a very bad thing not to know Latin; but I also think it a very bad thing for a lad to be thrown into life, it may be to go through life, withnut any clear idea whatever of the fundamental laws which govern the phenomena of living things. It may be said that it is a bad thing not to know Greek. I agree with that. Not to know Greek is to my mind worse than not to know Latin, bai I think also that it is a bad thing for a lad to go through
life ignorant of the fundamental laws of chemical action. If you go along in that line of argument, you end by compelling a lad to know everything before he enters the university. If I had my way, and could wipe out the traditions of the past, I should vary that entrance examination. I should hoid on to the old tradition of the university that it was ready to receive everybody who was likely to profit by its instructions. I should make the examination look, not backward as it does now, but forward, and should only insist that the lad must give such proofs of intelligence and industry as to lead to the hope that the years of miversity life would not be spent in vain. When the lad has really entered the university (at times he does not do so until he has spent troo or even three years at the place in preparation, and sometimes goes away from the place without having really been admitted), it seems to me there should be a still wider scope for his studies. He has even now, it is true, an opportunity to take a degree in one or other of several branches of learning, but in each case he must follow out a particular scheaule which has been laid down, and which compels him to walk along a particular path and no other. If he wishes, for example, to study mathematics with philosophy, he would find that he could not do so, for in the examinations mathematicians have nothing to do with philosophy, and philosophy nothing to do with mathematics; and so in other things. I venture to think that this is not a satisfactory condition of things, and that throughout the whole academic course there should be a freedom of the young mind to develop in the line in which it was intended to develop. When I urge this upon my friends they all say, "It is very good, but it is impossible; the examination machinery would become so complicated as to break down." But I would ask the question, Are examinations all in all? Were the examinations made for universities, or were universities made for examinations? I myself have no doult about the answer. I trust that this new university, which can walk with freedom along netv lines, will find some way of so arranging studies and examinations that the two will not confict, and that anybody coming here will find that the particular gifts that have been given to lim, and which it was intended should be developed, will meet their fullest expansion.

Lastly, there was another feature which the old university possessed and which I may also call an essential feature of a university; that is the spirit of inquiry. No university can prosper as a university that not only does not do its best to favor special ingquiries when these are started within it, but also in the whole course of its teaching does not develop or strive to develop the spirit of inquiry. Now, here again, I fear that examinations-such, at all events, is my experience-are antagonistic to inquiry; and I would suggest that in arranging examinations one ought always to look ahead to see how far one can possibly order those examinations so as to favor the teaching which teaches in the real and true way-teaching by regarding each bit of learning as in itself an act of inquiry, and so as to favor in the highest degree actual inquiry when it is taken in hand. This of course is antagonistic to one function of examinations, namely, that of putting young men to compete against each other. You can not so judge inquiries as to put the inquirers in any class list or in any order; the most you can do is to give an inquiry the stamp of approval of the university, a testimony that the inquiry has been carried out in a satisfactory way. It is true that in this way you lose that which is sometimes thought to be of great value, emulation between the scholars; but if you take away that kind of emulation you substitute for it another one far more strong and effective, that emulation that comes of striving with nature. I take it that the good which is done to a lad in starting him upon an inquiry is infinitely greater than any which can be gained by competition with his fellow-students. Here I am glad to say a good word for my own university; for we have in a rery quiet way, and unobserved, secured the adoption of an enactment which allows a lad to enter the
university and obtain his degree and all which follows upon that without entering into a single examination. At the present moment it is possible for one-it is true, under exceptional circumstances-to come to the University of Cambridge in England, and if he convinces a competent body of judges that he is a person likely to carry on inquiry in 2 . successful manner, he can enter the univeristy as a student; and if he satisfies another body of men after a time that his inquiries have resulted in a real contribution to knowledge, he can secure his degree. He can get that without ever having touched a written examination paper, and I am proud that we are able to offer that to the world; for it has happened again and again that a man who had real genius for a particular line of inquiry stumbled over the preliminary studies of which I have spoken, knocked at the door of our university in vain and was sent away. Now such an one would be admitted, and I venture to say that in the long run the university will be the gainer.

These, then, are some few thoughts concerning universities and their methods. I say I have purposely learned nothing about your enactments; but from what I know of your short past I feel confident that this university will in the future be conspicuous for progress. May I hope that it will carry on education along some of the lines which I have indicated to-day, and perhaps some day we in the old country may mend our ways after your pattern.

## The University of Turin

## [By M. Haguenin. ${ }^{1}$ ]

The university year lasts theoretically nine months and a half, from October 15 to July 30; but this includes the examinations. The lectures do not begin until the early part of November and end June 15. They really last, then, a little more than seven months. From this must be deducted the vacations, Sundays, and holidays, twelve days for Christinas and New Years, eighteen days for the carnival and Easter, the national holiday, and the birthdays of the king, the queen, etc., so that only one hundred and fifty days are left for study. This time is also often abbreviated by parades, insurrections, and strikes of the students, who are anxious to prolong the vacations and insist on having their dignity respected.

ORGANIZATION OF INSTRUCTION.
The licenza liceale (the equivalent of our baccalaureate, with the exception that the professors do not pass upon it) confers the right of inscription at the university and of obtaining the inscription book in which is certified the payment of dues and fees and the attendance of the student at the obligatory courses. By virtue of the inscription and the observance of these conditions the students can pass the "special examinations" and apply for the academic degrees.

Special examinations are those which are restricted to a single "discipline" or study, and comprise the programme approved by the faculty at the beginning of the year, or, in short, the programme that the professor proposes to follow in his course. These examinations take place either at the end of the year or, when the matter studied is distributed over several years and forms a whole not easily divisible, at the end of the total course bearing on this subject. After the student has passed the special examinations in all the matters prescribed he obtains the certificate of license.

Besides the special examinations, and following all of them, there is an examination of "laurea," which corresponds to the doctorate as they understand it in Ger-

[^23]many. In order to be admitted to the "laurea" examination the student must have attended the courses of the faculty during the prescribed number off years (medicine and surgery, six years; jurisprudence, four years; physical, mathematical, and natural sciences, four years; philosophy and letters, four years; pharmacy, four years), and have passed the special exammations in all the obligatory matters. This examination for "laurea" consists in the discussion of a principal dissertation written by the candidate upon some thesis selected by himself and other less important theses, and in one or more practical tests. All examinations are public.

THE UNIVERSITY PERSONNEL-THE PROFESSORS.
The government of the universities belongs, under the supervision of the minister and in conformity with the laws and regulations, to the following authorities:
(1) The rector (who has charge of the clerical force and the treasury), who is elected for ten years and is taken from each faculty in succession.
(2) The academic council.
(3) The president (dean) of the faculty.
(4) Council of the fasulty.
(5) General assembly of the professors.

The official instruction of the professor takes the double form of lectures and discussions. He may devote a part of each lecture to a colloquy with the students.

There are liberi docenti, extraordinary and ordinary professors, and chargé; de cours. ${ }^{1}$

One can not become an ordinary-that is, full-professor without having been a professor extraordinary. The professorships are filled either by considering the known merit of the applicant (titres) or upon examination. Among the titless (proofs of the instruction he has given and copies of his publications) there must be at least one original printed memoir on a subject pertaining to the sc:ence in which the chair to be filled gives instruction. For the chair of Latin or Greek the memoir must be in Latin. These "titles" are submitted to a commission of five members, selected as follows: Each ordinary professor of the faculty or school to which the chair to be filled belongs proposes five names, selected from those of professors who have taught, or savants who have cultivated, the part of the science in question. The ten names which have obtained the greatest number of rotes are published in the official bulletin of the ministry, and among these ten names the minister selects the five memkers of the commission: but for "special reasons" he may increase the number by two or four, and take these supplementary commissione:s from outside the ten names given him.

The commission then proceeds to the examination of the titles, and rotes by secret ballot (yes or no) upon the eligibility of each candidate. By open voting it assigns their rank to the candidates who have been declared eligible and their points of relative merit.

If the commission judges that the titles presented do not allow of a decision as to eligibility or to classification it proceeds to an examination, which consists of (1) a discussion maintained by each competitor upon one of the printed memoirs, which must last-at least an hour for each competitor; (2) a lecture of at least forty minutes in length; (3) one or more practical experiments, if one of the experimental sciences is the subject of competition.

The results of the examinations are judged, conjointly with the titles. by a single vote. A report of the examination is sent to the superior council, which adds its own comments to it, and it is then printed in the official gazette.

[^24]A professor extraordinary can become an ordinary one either at his own request or by the proposal of the faculty. The minister submits the request or proposal to a commission appointed as above. Professors extraordinary can be promoted to ordinary, provided (1) that they have been professors extraordinary for at least three scholastic years consecutively; and (2) that they present new scientific titles and give evidence of their ability to teach.

The liberi docenti acquire the right of teaching either by titles after due notice from the faculty to the superior council and a favorable decision by the latter by a two-thirds majority, or by an examination which consists (1) of a dissertation upon a subject proposed by the examining committee and which the candidate is allowed three months to prepare; (2) of a discussion of at least one hours length upon this subject and upon the part of science which he is to teach; (3) of a lecture of at least forty minutes in length upon a subject proposed by the commission. The candidate, in order to be judged fit to teach, must cbtain at least two-thirds of the whole number of marks.

Finally, ordinary or extrao:dinary professors may be chargés de cours (but only of one course ontside of their own); so may doctors who are fellows of the facuries, the liberi docenti, etc. The minister appoints chargés de cours on the nomination of the faculty, if obligatory instruction is in question, and on advice of the faculty and superior council in case of private instruction.

The University of Turin is the second in the kingdom for the number of students. It had 2,021 on January 1, 1093, and 2,434 January 1, 1896. The increase is constant and, as it seems, proportional to that of other universities. It is therefore due to a general increase of the university population and to the desire which is more and more diffused of occupying places which are growing less and less numerous. The 2,434 students for 1890-97 were divided as follows: Medicine and surgery (six years), 741 ; law (four years), 631; physical, mathematical, and natural sciences (four years), 338; letters and philosophy (four years), 205; course of notariat and procedure (two years), 64; course of pharmacy (laurea four years besides practica one year, or diploma three years besides practica one year), 245; obstetrics for midwives (two years), 191; special hearers, 16.

I have studied the annual catalogues of the Unversity of Turin and have found material for statistics which I give below:

FACULTY OF MEDICINE AND SURGERY.


FACULTY OF JURISPRUDENCE.

| Entered for the laurea | 589 | 644 | 661 |
| :---: | :---: | :---: | :---: |
| For degree of notary and procureur | 48 | 5.2 | 52 |
| Special examinations, summer and a | 2.812 | 3,146 | 3,036 |
| Successful | 2,454 | 2,816 | 2,560 |
| With simple approval | 1,948 | 2,232 | 1,913 |
| With fuil number of legal votes. | 361 | 373 | 471 |
| With full number of absolute votes | 130 | 194 | 167 |
| With praise-...-. | ${ }_{96}^{15}$ | 17 | 9 137 |
| Candidates for laur | 96 | 126 | 137 |

FACULTY OF MATHEMATICAL, PHYSiCAL, AND NATURAL SCIENCES.


## FACULTY OF PHILOSOPHY AND LETTERS.

| Entered. | 150 | 183 | 201 |
| :---: | :---: | :---: | :---: |
| Hearers. | 14 | 13 | 1.5 |
| Entered for laurea in- |  |  |  |
| Letters | 58 | 63 | 80 |
| Philosophy | 10 | 10 | 14 |
| Special examinations | 511 | 524 | 489 |
| Successiul...... | 380 | 460 283 | ${ }^{450}$ |
| With full number of legal votes | 128 | 109 | 10.5 |
| With full number of absolute votes. | 48 | 51 | 57 |
| With praise | 11 | 17 | 17 |
| Candidates for laurea | 21 | 31 | 36 |
| Failures | 1 | 2 | 2 |
| Candidates for laurea in philosophy | 8 | ${ }_{4}^{4}$ | 14 |
| Candidates for laurea in letters. | 16 | $2 \pi$ | $2 \%$ |

These statistics show that the average of success is about 83 per cent and that of failures $1 \%$ per cent. These averages would surprise a Frenchman, and seem to indicate a good deal of indulgence on the part of the professors. It is possible, indeed, that the independence of the professors in regard to the candidates may not be perfect. They can not forget that they are their stadents. They know them too well and know that too great severity might provoke revolts, against which the higher authorities would not sustain the professors, or at least lead to unpleasant antipathy. On the other hand, the prosperity of the university might suffer from too great severity. All this is true or probable, and from this point of view the want of State examinations or of general examinations common to all universities, conducted by a jury which is free from all local infuence, makes itself felt. ${ }^{1}$ But it should be remembered that on account of the close relation bstween the examination and the course-the limited field which has been gone over by the professor determining the extent of the examination-the preparation is easy, and, so to say, too easily completed. The student has only to listen. A little attention is all that is necessary, and the memory is more called upon than the intelligence. That is why these averages prove less than one would kelieve, and are against the professors and in favor of the students. If the success is too easy, the fault lies with the organization of the instruction.

There is more than one occasion for criticism, notably in the distribution of the different courses. The great principle waich rules the university is that of liberty both for the professor and the student. This liberty does not accommodate itself to a useful system of examinations, which carries with it the requirements of regularity. The professor gives what lectures he chooses and the student follows the ones he likes, on condition that he enters his name for the year in at least three obligatory studies, each calling for three lectures a week of an hour each. Besides,

[^25]the attendance required by law is only so in appearance, few professors insisting upon it, but they sign the attendance bock when it is presented to them. They can, however, refuse to sign, and when the column of the book called attestato di diligenza (certificate of diligence) is blank the student is obliged to reenter his name. In order to help students in selecting their obligatory studies the council of the faculty draws up an order of studies, with the hours of each, which the students are not obliged to follow, but to which they usually conform to avoid troublesome combinations. The order ' for the faculty of letters and philosophy for 1897-98 classes together the students of letters and philosophy for the first two years ( $1^{\circ}$ biennio), but they are sepsrated afterwards ( $2^{\circ}$ biennio).

The atmosphere in which professors and students move is not a matter of indifference. Turin is a city which would be called quiet rather than dull, with its great patrician houses, wide squares and long, straight streets, at the ends of which arise snowy mountains or hills "with verdure clad." It is Versailles full of life. It has lost the name of capital city, but preserves the prestige and beanty of one, and the glory remains to it of possessing a great number of institutions of charity and of learning, which is its most striising feature, if we look beyond its regular and imposing physical aspect. Whether we judge it from the heart or the mind, it is one of the "strong places" of Italy, as the Italians say and believe. My province is to speak only of instruction as I saw it there. Turin has a royal academy of sciences (physical. mathematical, and natural sciences forming one class, and moral, historical, and philological sciences another class), medical societies, engineering societies, etc., a philological club, and a society for the study of foreign languages and instruction therein. It is the center of a club of the Italian League of Education. It has schools of higher instruction-the royal school of applied engineering, the royal Italian industrial museum, an agricultural school, military schools, together with laboratories and clinics, among which is the psychiatric institute of Cæsare Lombroso. In secondary instruction there are a technical institute (a kind of institution for modern education), three lycées, six gymnasiums (a grade below the lycées), five technical schools (professional), a business college, a national boarding school (internat), a woman's normal school, and even a

[^26]normal school of gymnastics for women, in which the theory and practice of gymnastics are taught, including anatomy, physiology, and hygiene, pedagogics, history, and singing. In primury instruction I counted some 20 city schools, $\mathfrak{a} 0$ suburban, $1 \frac{1}{4}$ evening school, besides an evening commercial school, erening schools for drawing, etc. There are, besides. some 30 private schools for boys and 40 for girls.

This state of things shows a culture which is widely diffused, if not profound, and manifests a lively interest in everything that concerns knowledge and cducation, and superior elueation orght to feel the stimulating effects of such surroundings and feel itself supported by them. Certainly the professors work, and work hard, and their publications are numerous. The professors, both by their number and quality, show the intellectual current of contemporary thought in Italy. This is manifested in the first place by a breadth and qu:ckness of intelligence which come from cimate and race, the desire and power to take an interest in everything, a kind of natural "general culture;" and, in the second place, by a preference for history and the historical point of view, and, finally, by a decided taste for monorraphs. These tendencies can be criticised, and it may be said that one of them indicates too great ambition and the others too much modesty; bat it can be replied that the first is always praiseworthy, and the two others are justified by success.

TEE STUDENTS.
I am everywhere told that the students are recruited from the less well-to-do classes of the bourgeoisie, and that their object is to gain as soon as possible a chair in some gymnasium or lycée. They can secure a remission of fees and obtain subsidies from the "Collège des Provinces," the Collège Caccia for the province of Novara, and from private legacies and institations, by virtue of certain certificates and examinations. The Collège des Provinces distributes $\% 0$ lire ( $\$ 14$ ) a month each to some forty students during the nine months of the scholastic year. The written examinations which the competitors for this subsidy undergo consist in a Latin and an Italian essay (one of which must be historical), one on some philosophical subject, a Greek translation, problems in arithmetic and geometry and in physics. Each of these tests requires four hours, including the dictation of the sulject, and the whole examination occupies three days; whereupon the oral examinations take place upon the suljjects of the written, or upon the programme of the licenza liceale; the competitors must have an average of 70 per cent in the written and oral examinations separately. When students cone to the university they already have the licenza liceale, the examination for which includes the three literatures, modern history, philosophy, and the physical, mathematical, and natural sciences. What do this examination and the studies at the lycee amount to?

To speak of only two points, it is certain that the philosophical knowledge of the young students is entirely insufficient, although they should have been instructed during the three years of the lycee. As to Latin, they have never written Latin compositions and have not even translated from Italian into Latin. Their written exercises have been limited to the translation of easy passages from Latin authors. They have, then, much, if not everything, to do at the university. Do they work there? You can see them promenading under the arcades of the great Piazza Castello or along the Via Po, where the university is situated. They rarely have a book or notebook in their hands. They are never in a hurry, and talk tozether without much animation, for the Piedmontese are rather quiet. In the court of the university, to which its marble busts give an imposing air, and in the gallery of the first floor they have the same appearance. The type of the " good student" does not appear. I watched them in the lecture room of Professor Graf. The room was full. There were many students-quite ED 98--92
a large number of young women, also students for the most part ${ }^{1}$-besides a dozen adult or elderly men and a few priests. The professor, whose subject this year was the general introduction to the history of the neo-Latin languages, spoke eloquently of Rome and the Barbarians. His authoritative position, for he holds a veritable chair of learning, gave effect to his words. The students listened with moderate attention, only about twenty out of the whole taking notes, and these were young women. One student was reading a newspaper under his overcoat, and a young woman was reading a book concealed by her arm; but we must not judge them by these appearances. If only a few take notes, it is because they do it for all, and afterwards publish, with the professor's consent, lithograph conies of the lectures, or summaries of them. It is true, nevertheless-and the professors say so themselves-that the students do not work hard. Their cbject in attending the university seems to be not to gain instruction, but to pass easy examinations and profit by the advantages which will accrue from them. The fault here lies in the organization of the instruction. They have never had the idea of making the students exert themselves and of affording them the means and opportunity of responding to and sharing in the instruction they receive. The professors might profitably devote some of the time of their lectures to hearing discussions among the students. Thus, Professor Pezzi, as far as classical philology is concerned, gives his students Henry's Comparative Grammar, and overy Saturday a student gives an account of what he has read of it: and Professor Stampini does the same occasionally on some point in Latin literature.

But most of the professors seem to consider it their duty to occupy their lecture hours with their own labors, and they do not believe that they can count upon the good will of the students for work that is not required by the rules.

This lacuna is, unfortunately, not filled by the establishment in each university of a scuola di magistero (school of discipline). This is an ensemble of discussions which the students can attend by entering their names for a whole year, after completing the first biennio and passing the examinations belonging to it. After two years, students who have attended the discussions and have obtained the degree of laurea, can have a degree called that of magistero, which has a professional value. For the faculty of sciences there are four groups of discussions, viz, one each of physics, chemistry, natural sciences, and mathematics. For students of the faculty of letters there is a common discussion of didactics in general, and three sections, viz, literature (Italian, Latin, and Greek), history (ancient, modern and geography), and philosophy, including pedagogics. There is a degree for each of these sections, and a student can not be entered in more than two sections at once. But too few students trouble themselves to attend these discussions. Besides. there are too few of them, and the advantage of attenaing them is not clear. Formerly they initiated the students to scientific methods, but nowadays they are entirely devoted to pedagogics. At all events, certain professors see in them a means of supplementing their lectures, and use them for making a more special course. Finally, the students do not permit anyone to demand too much application from them, and when they do it is a question how to utilize this application. They do not, as a rule, know modern languages, except in Piedmont, where French is understood. It is, therefore, difficult, particularly in the domain of philology, to get any good out of their work.
I was able to test the result of four years of university studies for students in the faculty of letters, and attended a dozen examinations for laurea. The examining committee was composed of eleven members. One of the members reports upon the thesis of the candidate, who listens, seated at a small table. After five

[^27]or ten minutes of reading, the candidate answers and discusses with the reporter. At the end of fifteen minutes at the longest the president strikes a bell and closes the discussion. Each candidate presents three theses, and in three quarters of an hour at most he is made a doctor. Here are some of the subjects: The commerce of Genoa at the time of her supremacy. Music and the other elements of the opera. Has Cicero a philosophy? Origin of the Gens Romana. Did Rome dominate over Etruria? Can Mary of France be identical with Mary of Compiègne? Family sentiment in the poems of Catullus. The casmogony of Moses and modern science.
The candidate who dealt with the last subject said: "For Moses, Goa was a spirit; for modern science, Ee is material." Another, à propos of a historical subject which he was found not to have treated thoroughly, remarked: "I dir not mention that part of the subject breause it was not treated in the books." The manuscript theses, of very diverse importance, vary between some forty pages and two or three hundred. Some are very brief; e.g., in an essay on a verse of the Miles Gloriosus, the candidate remarked: "We must here refer to authentic manuscripts." "What are they?" asked the professor. "I mean those written by the author himself," was the reply. Some candidates discuss with accuracy and good taste. Most of them speak with animation and manufacture fine phrases, place stress upon the words they employ, show little care for truth, and insist obstinately upon their own meaning, while others do not respond to the questions at all and yet get the laurea. An excess of good nature seems to prevail in these examinations. If the professor tonches upon a fiault of the candidate, he does not press it, and if the candidate does not speak, he speaks himself. He understands that the candidate is not fully responsible. The preparatory instruction before entering the university is often faulty. This defect explains certain weaknesses common to all the students, and the great reproach of all the theses, viz, that they lack skillful composition, the idea (if there is one) often not appearing until the last page, and there is no gradual preparation for it, or leading up to it.

To sum up: The students work little, at least in the faculty of letters and philesophy. I understand that they work harder in the faculty of law. There are two or three causes of the low results I have mentioned. The university organization is very imperfect; the professors have too little immediate relations with their students, and perhaps what there are would be considered too familiar. Finaliy, politics occupies and disturbs the young Italians; and it is only necessary to read the newspapers to see what an excessive importance is attached to their extrauniversity manifestations. How can energetic and noteworthy professors come from such students? Of course, there are exceptions, and the student sometimes works best when he is no longer a student. According to an Italian saying, a student is a young man who enjoys himself a good deal and never works. The saying exaggerates, or, at any rate, can only apply to a short time, for there are no oid students in Italy; twenty-four years at latest is the limit of his stay: and then begin his real studies.

TEE LABORATORY OF POLITICAL ECONONY OF THE UNIVERSITY OF TURIN.
One of the most recent and most active institutions of the University of Turin is the laboratory of political economy, which is annexed to the faculty of law and conducted by the professor of poitical economy, assisted by a "coadjutor" and two assistants, neither of these positions receiving any salary. The university students are admitted to the laboratory as scholars, while the laureati and persons who have no academic titles are entered as soci residenti. The director contributes 30 lire ( $\$ 8$ ) a year, the coadjutor 15 ( $\$ 3$ ), the assistants 10 ( $\$ 2$ ), the soci residenti 10, and the scholars 5 (\$1), which sums are exclusively for the benefit o? the laboratory, the object of which is defined to be to encourage and facilitate the scientific study of the phenomena of economics and of the questions connected therewith The soci residenti have the right to frequent the laboratory, while it
is the duty of the stadents to do so, and both can use the scientific material of the laboratory for their work.
The practical exercises of the laboratory "have for their object to give or supplement scientific education, and eventually to facilitate original researches. They consist of papers and discussions upon selected or designated subjects relating to economical questions of a scientific or practical nature, or of critical reports, oral or written, upon visits to managements or establishments. Reports of these exercises are drawn up by the assistants."

The laboratory is open the whole year, excent a short time in the autumn vacation. It can give prizes consisting of scientific works, and publish the works of its scholars and the soci when they are sufficiently meritorious.

This laboratory was founded in 1893-94 and installed in the former quarters of the laboratory of general pathology. The rooms are small and inconvenient, but the director, S. Cognetti de Miartiis, professor of political economy, hopes to have them enlarged. "Meanwhile,"he says "the want of space has its advantages, for it compels us to keep everything in order." The little rooms are crammed with documents, all kept in perfect order and catalogued by the scholars. This "scientific material" is divided into inquiries, bulletins, acts of Congresses, monographs, administrative reports, consular reports, statistics, atlases, annual reports on economical subjects, expositions, descriptive studies, legislation (special laws affecting industries), periodicals. I was sorry to see so small a number of French reviews. The spirit of the laboratory work is purely scientific. "Here," said Professor Cognetti de Martiis, "we have no tendencies, and, especially, no influence. In scientific matters," he added with a smile, "the only discipline possible is anarchy." This broad, scientific direction is placed under the guaranty and safeguard of the promoters or most illustrions representatives of economical science, without accepting their doctrines, and their portraits adorn the rooms with appropriate quotations from their works. Thus, under the bust of Aristotle is written (in Greek) "It is clear that the city is a natural growth and that man is a political animal" - i. e., a civic animal or citizen. Under the portrait of Vico is the quotation (in Italian) "The order of ideas ought to follow the order of things." Under that of Adam Smith "The division of labor occasions in every art proportionable increase of the productive powers of labor," and so on.

The first year there were 21 students and soci in the laboratory, 11 monographs were presented, read, and discussed, and several published, e. g., one by Prof. E. Masé-Dari on the agricultural condition of Russia; one by Dr. L. Albertini on the eight-hour question, etc. The next year, 1894-95, there were 23 inscribed, and six monographs were published, among them one by Professor Cognetti de Martiis on labor and nervous diseases; one by Dr. L. Costantino on types of rural contracts in Italy, and one by Dr. L. Einaudi on the agrarian crisis in England. There were many meetings for discussion upon publications. In 189.5-96 the attendance was 34 scholars and 15 soci- 49 in all, and 20 meetings.

Amorg the oral communications and publications were studies on the work of the labor council of Belgium, a similar work on the German commission of labor statistics, on the effects of the law of July 19, 1874, relating to the attempts of anarchists, on labor accidents, and on cooperative societies of labor.

In 1896-97 there were again 49 inscribed, of whom 22 were soci and 27 scholars. The meetings numbered 21, and among the papers and monographs were studies on the strikes at Carmaux and the glass works at Albi, on governmental inquiries into straw work in Italy, on Greek proverbs relating to economics, on the cotton industry and abolition of night work, and on the development of the system of railways in the United States and its variations.

The laboratory will take part in the national Italian exposition of 1898, with a great diagram showing the movement of Italian commerce since 1880, and a stereogram showing Italian emigration since 1876.

## CHAPTER XXVIII.

## STATE SUPERVISION OF DEGREE-CONFERRING INSTITTTIONS.

There are in this country a large number of institutions called universities, colleges, institutes, seminaries, etc., possessing the degree-conferring power and maintaining widely varying courses of study leading to degrees.

As the degree-conferring power is granted to institutions by the several States, an attempt has been made to ascertain how, and the conditions on which, such power is usually granted. To this end, in April, 1898, a circular letter was sent to each State in the Union asking for certain information concerning the granting of charters to institations authorizing them to confer degrees. In reply to this letter answers were received from 41 States. Of this number it was found that in 15 States charters to educational institutions are granted by special acts of the State legislatures, in 24 States the charters are granted by certain State or county officials under a general law for the organization of corporations, and in 2 States both methods are in vogue. The following tabular statement gives the resuit of the above-mentioned special inquiry:

|  | Are universities and colleges chartered under a general law or by special acts of the legislature? | Who is authorized, under the general law, to grant charters allowing institutions to confer degrees? | What conditions or requirements must be fulfilled by institutions to enable them to obtain the right to confer degrees? |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Concern ing prop erty. | $\begin{aligned} & \text { Concern- } \\ & \text { ing } \\ & \text { teachers. } \end{aligned}$ | Concerning course of study. | Concerning admission requirements. |
| North Atlantic <br> Division: <br> Maine <br> -....-..- <br> New Hampshire Vermont Massachusetts a Rhode island Connecticut $\qquad$ |  |  |  |  |  |  |
| New York ...... | General law | Regents of University of State of New York. | $\$ 500,000$ | 6 college professol's. | $\begin{gathered} 4 \text { years } \\ \text { of col- } \\ 1 \mathrm{ege} \text { e } \\ \text { grade. } \end{gathered}$ | 4 years of high school work. |
| Pennsylvania. | General law | County courts of common pleas on recommendation of college and university council. | \$500, 000 | 6 college professors. | 4 years' college course. | Subject to applo ${ }^{\circ} \mathrm{O}$ al of council. |
| South Atlantic Division: $\qquad$ Maryland. ---....Dist.Columbia. Virginia | Special acts.- Botho-......... |  |  |  |  |  |
| Virginia West Virginia North Carolina. South Carolina Georgia Florida $\qquad$ | Special acts <br> General law Special acts General law Both .............. | Secretary of state $\qquad$ <br> do <br> Superior courts <br> Circuit courts. $\qquad$ | $\begin{aligned} & \text { None... } \\ & \text { None... } \\ & \text { None... } \\ & \text { None... } \end{aligned}$ |  | None.-. None... None... None... | None. <br> None. <br> None. <br> None. |


a It must be as thorough and comprehensive as is pursued in similar institutions in the United States.

As stated above, in $1 \pi$ of the States reported on charters are granted by special acts of the legislatures. As each legislature is a law unto itself in this respect, there are no fixed requirements which institutions need meet to enable them to obtain the degree-conferring power. If the power is denied by one legislature, there is nothing to prevent the granting of such power by the following legislature.

In a large number of States the legislatures are prohibited by the State constitrations from passing special acts conferring corporate powers, but the granting of such powers is provided for by a general law for the incorporation of educational institutions. In such a general law it is usually provided that a certain number of persons, the number varying in different States, may be incorporated as a college or university by filing in a certain ofice or offices, usually with the secretary of state, and in some cases also with the county recorder of deeds, a cartificate setting forth the name of the institution, the number of trusteas, the object for which they wish to be incorporated, the location of the institution, and that it shall have power to grant such literary honors and degrees as are usually granted by colleges and universities in the United States. As a rule these are the only requirements, and on the filing of such certificate the proper officer, usually the secretary of state, issues a certificate or articles of incorporation. In but four States having a general incorporation law is there any property requirementNew York, Pennsylvania, Ohio, and Nebraska. The laws of New York and Pennsylvania differ very materially from the other general laws in force. ${ }^{1}$ Briefly, the laws of New Iork and Pennsylvania provide that no institution shall receive the power to confer degrees unless it has property to the amount of $\$ 500,000$, has six professors whose entire time is devoted to giving instruction to college classes,
has a four-years' course of college study, and whose requirements for admission, in the case of New York, cover four years of high-school work, while in the case of Pennsylvan:a the requirements are subject to the approval oi the college and university council. ${ }^{1}$
The laws of New York and Pennsylvania on this sabject have received the warmest approval of the educators thronghout the country, and their adoption, together with the abuse of the degree-conferring power by some institutions, have led to an agitation of the subject by educational conventions, with the hope that more restrictive legis:ation might be adopted by other States.
At the meeting of the National Educational Association in Milwarkee, in July, 1897, the following resolution was manimously adopted by the department of higher education:

Resolved, That the State should exercise supervision over degree-conferring institutions through some properly constituted tribunal having power to fix a minimum standard of requirements for admission to or graduation from such institutions, and with the right to deprive of the degree-conferring power such institutions not conforming to the standard so prescribed.?
In a paper ${ }^{3}$ read in support of the abore resolution, President Fenry Wade Rogers, of Northwestern University, after describing the steps necessary to incorporate a university or college under a.general incorporation law, says:

Under laws like these institutions are incorporated as colleges and universities that are without endowment, and in not a few instances are permitted to confer degrees, aithough the conditions prescribed for graduation are not higher than those prescribed for admission by institutions of high rank. Institations whose total endowment is not equal to the necessities of an academy of the first rank presume to confer the doctorate of philosophy on nonresident students, and have more candidates enrollel for that degree than they have college students in actual attendance. * * *
The cause of professional as well as of academic education suffers from the want of adequate State supervision. Professional schools have been established, generally in the large cities, which are governed by purely commercial standards. We have in this country schoo's of law, medicine, dentistry, and pharmacy that appear to be organized and conducted for the purpose of making money. They are stock corporations, the stock being generally held by members of the teaching force, the teachers being chosen, not for their fitness for any particular chair, but because of their willingness and ability to put up the money that is needed. The shorter the course of study, the cheaper the class of teachers, the less expended for books and apparatus, and the easier it is made to be admitted and graduated, the greater the number of students becomes and the larger the amount of the dividends paid. Men who make merchandise of professional education have low professional and scholastic ideals. They are inclined to receive all students who apply for admission, without much regard to their previous preparation or their moral character. They allow the students thus admitted to continue in their school without being concerned greatly as to the manner in which they apply themselves to study. They graduate them after an attendance for the allotted period without scrutinizing too closely the extent of their ignorance, and confer upon them a degree which in theory is supposed to stand for high attainments. This sort of thing, impossible in Europe, should be made impossible in America. Such a condition of affairs is demoralizing beyond question. The tendency of it is all in the direction of low standards. It destroys the value of degrees. It imposes on the public a class of educational charlatans and works injury to the students whom it falsely pretends to educate. It multiplies the difficulties in the way of those institations that are endeavoring to do their work according to the highest standards.
After referring to and stating the provisions of the laws of New York and Pennsylvania concerning the incorporation of degree-conferring institutions, President Rogers continues:
There should be established in each State a council of education, which shall be intrusted with powers similar to those vested in the regents of the University of

[^28][the State of $]$ New York, and it should be composed of the most eminent inen in the State, without any reference to political considerations. No degrea-conferring institution should be incorporated without the approval of the council of education, which should be indorsed upon or filed with the certificate of incorporation. That council should have the right to fix the minimum standard of requirements for admission and graduation, and the conditions under which degrees nay be conferred; and the dogree-conferring power should be withheld from all institutions not complying with the regulations established. Such legislation should be made applicable to all institutions thereafter incorporated, as well as to those already incorporateä, when the Sta'e has reserved the power to modify the powers conferred. It could not be made to apply to institutions already incorporated in cases where the State has not reserved power to do so.

There appears to be no good reasou for doubting the constitutionality of the proposed legislation. No constitutional provision is violated by creating a council or commission, and giving it the power to decide the questions which otherwise would be left to each institution to decide for itself. The principle that legislative power can not be delegated is not involved. On determining the question submitted to it, the council is no more engaged in acts of legislation than would be the institutions themselves or the individual incorporators. "Can not the legislature," asks the New York court of appeals, "confer upon a commission the power, upon the application of individuals, to make the same determination for the individuals which they could make for themselves?" The court answered the question in the affrmative, and so, I believe, would the courts of the country generally.

May we not hope that. in the several States legislation may be obtained which shall protect the universities of the country from the evils which exist from the failure to exercise a supervision deemed essential by European States? We Americans need to rid ourselves of the notion that a "go-as-you-p.ease" policy is good enough for us. The time has come when institutions doing only preparatory work should not be permitted to confer university degrees, and when professional schools, establisked as money-making manufactories, should be deprived of the right to sell degrees.
In the discussion which followed the reading of President Rogers"s paper, President James II. Baker, of the University of Colorado, said:

The State should exercise control over degree-conferring colleges, because (a) the country is developed beyond the period when crude expedients for higher education are necessary; (b) the majority of the States provide, at public expense, higher education of a good standard, making colleges of inferior grade unnecessary; (c) the State-should guard the people against the deceptive claims of institutions not properly equipped to maintain work according to the accepted standards of the country; (d) for practical considerations, as well as reasons of sentiment, a degree should be such as to merit the respect of genuine scholars; (e) proper control would reduce the number of unnecessary colleges; $(f)$ the kind of degrees should be subject to control, and the abuse of honorary degrees should be regulated; $(g)$ in this matter the advantage of freedom and competition are more than offset by the disadvantages. ${ }^{1}$

The section on legal education of the American Bar Association, at a meating held at Cleveland, Ohio, in August, 189\%, unanimously adopted the following reso'utions: ${ }^{\text {? }}$

Resolved, That the section on legal education recommends the American Bar Association to adopt the following resolution:

Resolved, That the American Bar Association disapproves the policy which now generally prevails in the several States and which makes it possible for persons to organize law schools and confer degrees without reference to the length of course of study or the qualifications required for admission and graduation of students, and that this association believes that the degree-conferring power should be subject to strict State supervision, to be exercised in a manner somewhat sinilar to that which is exercised by the regents of the University of [the State of] New York; and

Resolved further, That this association emphatically disapproves of the conferring by law schools of the Ph. D. degree or any other than the strictly law degree.

In April, 1896, the North Central Association of Colleges and Preparatory Schools appointed a committee, consisting of Presidents James B. Angell, of the

University of Michigan; Henry Wade Rogers, of Northwestern University; F.H. Snow, of the University of Kansas; R. H. Jesse, of the University of the State of Missouri: Joseph Swain, of Indiana University; George E. MacLean, of the University of Nebraska; A. S. Draper, of the University of Illinois; William F. Slocum, of Colorado College, and George A. Gates, of Iowa College, to consider the question of possible legislation regulating the granting of academic degrees. At the meeting of the association in April, 1898, the committee presented a report with recommendations. After detailing the resolutions adopted by the department of higher education of the National Educational Association and the section on legal education of the American Bar Association, and giving extracts from the paper of President Rogers read at the meeting of the National Educational Association in 1897, the report cortirues: ${ }^{1}$
The cominittee desires to condemn with the utmost severity a state of the laws which makes possible the existence of such an institution as the National University of Chicago, whose proceedings have been denounced in the British Parliament and in the press of the United States. In like manner the committee condemns a condition that makes it possible for a law schooi to confer the purely academic degree of Ph . D., or for an agricultural college to give the degree of D. D., things as utterly improper as it would be for a veterinary college to assume to confer the degree of bachelor of arts. The state of the law on this subject brings reproach upon our educational system and is highly discreditable. The value of our academic degrees is greatly impaired both at home and abroad by the total lack of any supervision by the State over our degree-conferring institutions, and which makes it possible for institutions doing preparatory work to confer the highest academic degrees. The time has come when this condition of affairs should be brought to an end and when an appeal should be made to our legislative bodies to reform the laws in a manner that will make impossible the longer continuance of the abuses which now exist.

The committee submitted the following recommendations: ${ }^{2}$

1. That in each state represented in the association an effort be made at the earliest opportunity to establish by law a body to be known as "The Educational Commission of —" [inserting the name of the State].
2. That the commission be composed of not less than six members nor more than nine.
3. That the members of the commission be appointed by the governor and confirmed by the senate. That no person be eligible to appointment on the commission who is a member of the faculty, or board of trustees, or other governing body, of any educational institution within the State. And that membership in the commission be forfeited ipso facto if at any time subsequent to the appointment aforesaid the person so appointed becomes connected with any educational institution in the manner above mentioned.
4. That the members of the commission hold office for a period of not less than six years. And that the term of office be so arranged that not more than onethird shall retire in any one year.
5. That institutions hereafter incorporated shall derive the degree-conferring power from the commission and not otherwise. That institutions heretofore incorporated, and which now possess the degree-conferring power, may continue to exercise the same unless deprived of the right so to do by the commission on the ground that the institution affected falls below the standard which the commission has established.
6. That the commission shall not grant the degree-conferring power to any institution incorporated as a business enterprise, or to any one in which any part of the assets or income can be divided among stockholders, or to any institution having lower requirements for admission or graduation than the minimum standard therefor established by the commission, or to any institution hereafter established as a college or university unless its productive endowment shall amount to at least $\$ 100,000$.
7. The commission shall not confer the degree-conferring power upon any institution until such institution has applied therefor in writing and accompanied the application with the sworn statement of the president and treasurer as to the amount of its productive endowment, the provision made for buildings, furniture, apparatus, and the requirements for admission and graduation.
8. The commission shall have the right, after having given reasonable notice, to withdraw the degree conferring power from any institution upon which it has conferred it whenever an institution fails to meet the conditions necessary to justify the granting of the power in the first instance.
9. The commission may require any institution to which it has granted the degree conferring power to report under oath to it, at such times as it may designate. upon such matters as it deems necessary to enable it to exercise inteligently the powers reposed in it. And the failure of an institution to report within a reasonable time and in a satisfactory manner shall justify the commission in withdrawing from an institution so offending its degree-conferring power.
10. Any institution which exercises the degree-conferring power contrary to the prov:sions hereinbefore set forth shall forfeit its right to exist as an educational institution, and it shall be the duty of the law officers of the State to wind up its affairs. And the members of a board of trustees so offending shall be individually liable to fine or imprisonment. or both, according to the discretion of the court.
In an editorial on the report submitted to the North Central Association of Colleges and Preparatory Schools, the Educational Review for June, 1893, says:

The [proposed] law is an admirable one, and ought to be adopted by every State in the Union, in order that wild-cat education may go the way of wild-cat banking. It would be well, we think, to add a provision to the proposed law to the effect that no educational institution should be allowed to bear the name of a municipality or commonwealth un'ess supported by guch municipality or commonwealth and under its control. Much uncertainty and ambiguity wonld be at once cleared up by such a provision. Private colleges would appear openly as such, and public names would be reserved for public institutions.
In the following pages are given the laws or extracts from laws concerning the incorporation of educational institutions, furnished by officials of the several States:

## COLORADO.

Any church, congregation, or society formed for religious worship, educational or benevolent purposes may become incorporated by electing or appointing, according to its usages or customs, at any meeting held for that purpose, two or more of its members as directors or trustees, wardens or vestrymen (or such other officers whose powers and duties are similar to those of trustees as shall be agreeable to the usages and customs. rules and regulations of such congregation, church, or society), and may adopt a corporate name, and upon the filing of an affidavit by the chairman or secretary of the meeting setting forth the abeve facts, it shall be and remain a body politic and corporate by the name so adopted, said affidavit to be filed in the office of the recorder of deeds in the county in which such organization is formed, or in the office of the secretary of state.
Any corporation now or hereafter existing for educational purposes, under the laws of this State, which shall maintain one or more institutions of learning of the grade of a university or college shall have authority, by its directors or board of trastees, or by such person or persons as may be designated by its constitution or by-laws, to confer such degrees and grant such diplomas and other marks of distinction as are usually conferred and granted by other universities and colleges of like grade.

## DISTRICT OF COLUMBIA.

Any five or more persons desirous of associating themselves for the purpose of establishing an institution of learning may make, sign, and acknowledge, before any officer authorized to take acknowledgment of deeds in the District, and fie in the office of the recorder of deeds, a certificate in writing, to be recorded in a book kept for that purpose, and open to public inspection, in which shall be stated:

First. The name or title by which the institution shall be known in law.
Second. The number of trustees, directors, or managers, and their names.
Third. The particular branch of literature and science, or either of them, proposed to be tanght; and
Fourth. If the institution is to be of the rank of a college or university, the number and designation of the professorships to be established.

Upon filing such certificate, the persons signing and acknowledging the same, and their successors and associates, shall be a body politic and corporate, by the
name and style stated in the certificate, and by that name and style shall have perpetual succession, with power to sue and be sued, plead and be impleaded, to acquire, hold, and convey property in all lawful ways, to have and use a common seal, and to alter and change the same at pleasure, to make and alter from time to time such by-laws, not inconsistent with the Constitution of the United States or the laws in force in the District, as they may deem necessary for the government of the institution. and to confer upon s?ch persons as may be considered worthy such academical or honorary degrees as are usually conferred by similar institutions.
(Act May 5, 18\%0.)

## GEORGIA.

A private corporation for any purpose whatever except banking, insurance, railroad, canal, navigation, express, and telegraph may be created in Georgia by complying with the following provisions of the code:

1. The persons desiring the charter shall file in the office of the clerk of tho superior court of the county in which they desire to transact business a petition or declaration specifying the objects of their association and the particular busine is they propose to carry on, together with their corperate name, and the amonnt of capital to be employed by them actually paid in, and their place of doing business, and the time, not exceeding twenty years, for which they desire to be incorporated, which petition or declaration shall be published once a week for four weeks in the nearest public gazette to the point where such business is located before said conrt shall pass an order declaring said application granted. After the granting by the court of the order of incorporation, the petition and said order shall be recorded together by said clerk in a book to be kept for that purpose, and to be known as "The Record of Superior Court Charters," and which shall be kept appropriately indexed by said clerk; but this shall not dispense with the recording of the order of incorporation apon the minutes of the court, also, as a part of the proceedings of the court.
2. If, upon hearing such petition, the court shall be satisfied that the application is legitimately within the purview and intention of this code, it shall pass an order declaring the said application granted, and the petitioners and their successors incorporated for and during a term not exceeding twenty years, with the privilege of renewal at the expiration of that time according to the provisions above set forth. A certified copy of this petition and crder, under the seal of the court, shall be evidence of such incorporation in any court in this State.
3. No corporation created under this article shall commence to exarcise the privileges conferred by the charter until 10 per cent of the capital stock is paid in, and no charter shall have any force or effect for a longer period than two years, unless the corporators, within that time, shall in good faith commence to exercise the powers granted by the act of incorporation; and in case of the failure of said corporation, the stockholders shall be bound, in their private capacity, to any creditor of said corporation for the amount of stock subscriked for by him until the said subscription is fully paid up, or until the stoctholder shall hare paid, out of his private property, debts of the said corporation to an amount equal to his unpaid subscription.
4. The clerk of the court, for his services, shall receive the usual fees allowed for similar services in other cases.
5. Corporations thus created may exercise all corporate powers necessary to the purpose of their organization, but shall make no contract or purchase, or hold any property of any kind except such as is necessary in legitimately carrying into effect such purpose, or for securing debts due to the company.

## illinois.

Societies, corporations, and associations (not for pecuniary profit) may be formed as heremafter provided. Any three or more persons, citizens of the United States, who shall desire to associate themselyes for any lawtul purpose, other than for pecuniary profit, may make, sign, and acknowledge, before any officer authorized to take acknowledgments of deeds in this State, and file in the office of the secretary of state, a certificate in writing, in which shall be stated the name or title by which such corporation, society, or association shall be known in law, the particular business and objects for which it is formed, the number of its trustees, directors, or managers and the names of the trustees, directors, or managers selected for the first year of its existence.

Upon flling a certificate as aforesaid, the secretary of state shall thereupon issue a certificate of the organization of the corporation, society, or association, making
a part thereof a copy of all papers filed in his office in and about the organization thereof, and duly authenticated under his hand and seal of State; and the same shall be recorded in a book for that purpose. in the office of the recorder of deeds of the county in which the principal place of business of such corporation. society, or association is located. Upon complying with the foregoing conditions the corporation, society, or association shall be deemed fully organized and may proceed to business: Provided. The secretary of state shall not issue a certificate of organization to any corporation, society, or association under the name of any then existing. (Act April 18, 1872.)

Trustees, directors or managers of educational institutions may prescribe the courses of study and grant such literary honors and degrees as are usually granted by like institutions, and give suitable diplomas. (Act March 2t.18i4.)

AN ACT in relation to the incorporation of educational institutions.
SECTION 1. Be it enacted by the people of the State of Illinois, represented in the senerul assembly, That whenever property, real or personal, has heretofore been or shall hereafter be devised or bequeathed by last will and testament, or granted, conreyed, or donated by deed or other instrmment, to trustees, to be applied by them to the foundation and establishment in any of the cities, villages, and towns of this State of any educational institution, it shall be lawful for the acting trustees in any such case, in order to promote the better establishment, maintenance, and management of such institution, to cause to be formed a corporation under the provisions of this act, with the rights, powers, and privileges hereinafter provided for.
\&2. Such acting trustees may make. sign, and acknowledge before any officer authorized to take acknowledginents of deeds in this State, and file in the office of the secretary of state a statement in writing in which shall be set forth the intent of such trustees to form a corporation uncer this act; a copy of the will or other instrument by which endowment of said educational institution has been provided; the name adopted by the proposed corporation (which shall not be the name of any other corporation existing): the city, village, or town in which the educational institution and the principal place of business of the cormoration will be located; the number of managers who may be denominated trustees, managers, or directors of the corporation, and the names of the trustees. managers, or directors whe art to constitute the original board of such officers and who shall hold until their successors, respectively, are elected and qualified as in this act provided.
$\$ 3$. Upon the filing in his office of such a statement as aforesaid the secretary of state shall issue to the incorporators, under his hand and seal of State, a certificate, of which the aforesaid statement shall be a part, declaring that the organization of the corporation is perfected. The incorporators shall thereupon cause such certificate to be recorded in a proper record bcok for the purpose in the office of the recorder of deeds of the county in which the said educational institution is to be located, and thereupon the corporation shall be deemed fully organized, and may proce $d$ to carry out its corporate purposes, and may receive by conveyance from the trustees under said will, deed, or other instrument of donation the property provided by will or otherwise as aforesaid for the endowment of said educational institution, and may hold the same in whatever form it may have been received or conveyed by said trustees until such form shall be changed by the action of said corporation.
4. Organizations formed under this act shall te bodies corrorate and politic, to be known under the names stated in the respective certificates or articles of incorporation, and by such corporate names they shall hare and possess the ordinary rights and incidents of corporations, and shall be capabie of taking, holding, and disposing of real and personal estate for all purposes of their organization. The provisions of any will, deed, or other instrument by which endowment is given to said educational institution and accepted by said trustees, managers, or directors shall, as to such endowment, be a part of the organic and fundamental law of such corporation. The trustees, managers, or directors of any such corporation shall compose its members, and shall not be less than three nor more than seven in number, which number may be changed within said limits from time to time by the trustees managers, or directors of any such corporation, in such manner as may be provided in their by-laws; Provider, houever, That the number of trustees, managers, or directors shall never be less than the number of trustees provided by the will ereating any such trust for the administration thereof; shall elect the officers of the corporation from their number, and shall have control and management of its affairs and property; may accept donations and in their discretion hold the same in the form in which [they] are given, for all purposes of education, science, literature, and art, germane to the object and purpose of said corporation. They may fill by election, subject to the approval
of the chief justice, for the time being, of the supreme court of Illinois, racancies occurring in their own number by death, incapacity, retirement, or otherwise, and may make lawful by-laws for the management of the corporation and of the educational institution, which by-laws shall set forth what officers there shall be of the corporation, and shall define and prescribe their respestive duties. They may appoint and employ, from time to time, such agents and employees as they may deem necessary for the efficient administration and conduct of the educational institution and other affairs of the corporation. Whenever any trustee, manager, or director shall be elected to fill any vacancy a certificate under the seal of the corporation, giving the name of the person elected, shall be recorded in the office of the recorder of deeds where the articles of incorporation are recorded. The trustees, managers, or directors of such carporation sha!!, in the month of January in each year, cause to be made a report to the governor of the State for the year ending on the thirty-first day of December preceding, of the condition of the educational institution and of the funds and other property of the corporation, showing the assets and investments of such corporation in detail.

Approved, June 21, 1895.

## KNNTUCKY.

AN ACT to provide for the organization of Eleemosynary and Educational Institutions.
Be it enactcd by the general assembly of the Commonwealth of Keniucky: \& 1. Any number of persons may associate to form a corporation, society, or asssociation, having no capital stock, for religious, charitable, educational, or any other lawful purpose, from which no private pecaniary profit is to be derived. Such persons shall sign articles of incorporation, and the same shall be filed in the office of the secretary of state and recorded in the county clerk's office of the county where the principal place of business of the incorporation is located. The articles shall set forth the name of the proposed corporation, society, or association, which shall not be the name of any existing corporation, and the object for which it is formed, and such other facts as the signers of the articles deem proper to mention.
\&2. When the articles are filed and recorded as provided, and a certificate of that fact is issued ly the secretary of state, the signers of the articles, their associates and successors, shall be a body corporate and politic, and by the name selected shall have the right to sue and be sued, contract and be contracted with, have and use a common seal, and alter the same at pleasure; and to receive and hold such property, real and personal, whether obtained by purchase, gift, or devise, as may be necessary to carry on or promote the objects of the corporation, soc:ety, or association, and may sell or dispose of such property at pleasure, unless the property has been received as a gift or devise for some special purpose, and if so received it shall be used and applied only for such purpose.
§3. Corporations, associations, or societies organized under this act may adopt such rules for their government and operation, not inconsistent with law, as the directors, trustees, or managers deem proper, but shall not be operated, managed, or used for private gain, or engage in any plan or scheme of banking or insurance.
§4. Existing corporations, associations, or societies heretofore incorporated or chartered, and not operated, managed, or used for private profit, and such as may become organized under this act, may, by the consent of two-thirds of the directors, managers, or trustees, amend any part of the charter or articles of incorporation by filing and recording the amendment in the manner herein provided for filing and recording original articles.
§5. Corporations, associations, or societies organized under this act shall not be subject to any of the laws relating to corporations having a capital stock, or organized for pecuniary profit, except that requiring an agent on whom process may be executed, but shall at all times be subject to visitation by the legislature.
$\$ 6$. In view of the fact that one or more of the existing institutions affected by this act desire to reorganize at once under its provisions, therefore an emergency exists, and this act shall take effect from its passage.
Approved, March 22, 1892.
NEBRASKA.

## EDUCATIONAL CORPORATIONS,

How incorporated.-Any number of persons, not less than five, desiring to establish a college, university, normal school, or other institution for the purpose of promoting education, religion, morality, agriculture, or the fine arts may, by complying with the provisions of this subdivision, become a body corporate and politic with perpetual succession, and may assume a corporate name by which they may sue and be sued, plead and be impleaded in all courts of law and equity;
may have a corporate seal, and the same alter and break at pleasure; may hoid all kinds of estate, real, personal, or mixed, which they may acquire by purchase, donation, devise, or otherwise, necessary to accomplish the objects of the corporation, and the same to dispose of and convey at pleasure.

Value of property.-To ascertain the property and value thereof, of any institution desirous of becoming a body corporate, under the provisions of this subdivision, it shall be the duty of the probate judge of any county of this State, on application in writing, of any number of persons not less than five, of whom not less than five shall be resident freeholders of the county where such application is made, or where such institution is or is intended to be located, setting forth the objects for which they desire to become incorporated, to select three disinterested freehoiders of the county and voters therein, as appraisers, who shall first take an oath for the faichful discharge of their duties, beîore some competent officer, and such appraisers shall then proceed to make a schedule, and upon actual view to appraise the true value, in money, of all such goods, chattels, lands, and tenements, choses in action, rights, credits, aud subscriptions as such applicants shall exhibit to such appraisers, and shall return such schedule with their appraisement and certificate of some officer authorized to administer oaths that such appraisers were first duly sworn by him to discharge their duties as such appraisers, to the probate judge of the proper county; and if the amount so fonnd shall be equal to the sum required for the commencement of any such institution as said applicants desire, such probate judge shall give such applicants a certificate of the fact, and they shall enter it in a book of records, by them provided for that purpose, which certificate, together with the corporate name and the articles of association, they shall also cause to be recorded in the county clerk's office of the county where such institution is or is intended to be located, and they shall thenceforward be a body corporate and politic, according to the provisions of this subdivision: and such probate judge, appraisers, and county clerk shall be entitled to the same fees as for like services in other cases and no more.

Trustees. - The corporators of any college or university which may be organized in accordance with the provisions of this subdivision may elect five or more trustees, of whom not less than five shall be resident freeholders of the county where such college or university is located, who shall constitute a board of directors for such institution, and they shall have power to fill vacancies that may occur in their board, and shall hold their offces until their successors are elected and qualified according to the rules and by-laws that may be adopted by the board of trustee3, but at all times at least five of such board of trustees shall be residents, freeholders of the county where such institution is located; and when any such board, in their corporate name, shall have acquired for the benefit of such institution five thonsand dollars in real and personal property, to be ascortained as herein provided, said trustees shall have power to appoint a president. professors, tutors, and teachers, and any other necessary agents and officers, and fix the compensation of each, and may enact such by-laws not inconsistent with the laws of this State or the United States, for the gevernment of the institution, and for conducting the afiairs of the corporation, as they may deem necessary, and shall have power to confer, on the recommendation of the faculty, all such degrees and honors as are conferred by colleges and universities of the United States, and such others, having reference to the course of study and the accomplishment of the student, as they may deem proper.

## UNIVERSITIES.

How incorporated.-Whenever any person or persons shall have become possessed of funds, securities, and property of the value of one hundred thousand dollars or more for the purpose of an institution of learning of the rank and grade of a college or universiiy, it shall be competent for him or them to present to the judge of the district court of the county in which such institution is, or is proposed to be situated, a petition setting forth the fact, and such circumstances as may be pertinent, praying the appointment of one or more commissioners to examine into the truth thereof; and thereupon it shall be the duty of the said judge to appoint a commissioner or commissioners for the purpose aforesaid. The person or persons so appointed shall be, by said judge, sworn to full inquiry and true report make of the matters given to him or them in charge, and the said oath, duly subscribed by the parties and certified by the said judge, shall be filed in the office of the clerk of said county. The said commissioner or commissioners shail thereupon personally examine the property, funds, and securities alleged to be set apart for the purpose aforesaid, and shall appraise the same and report the facts thus ascertained to the said judge. If, from the said report, it shall appear to the said judge that the sum of one hundred thousand dollars in property, funds,
and securities of that value have been set apart for the parpose aforesaid, so as to be irrevocably and inviolably appropriate thereto, the said judge shall indorse the said report with an order approving the same, and directing that the same be filed in the office of the said county clerk, together with the petition aforesaid, and other papers presented to him in the same matter, which petition, report, order, and papers shall be recorded by the said clerk in the book of incorporations to $k$ kept in his office.

Trustees.-Whereupon, the person or persons possessed of the said funds, securities, and properties may, under his or their hands, appoint five or more persons to be trustees of the said institution, who shall therempon become a body politic and corporate under a name and style to be named, designated, and appointed for the purpose by the aforesaid person or persons in the said writing appointing the said trustees, which paper, writing of appointment, shall be filed and recorded in the book of incorporations in the office of the said county clerk, and the said trustees, under the name and style so named, designated, and appointed, may sue and be sued, plead and be impleaded, in all courts of law and equity, have a common seal, and the same alter, break, and renew at p.easure, and hold all kinds of estate, real and personal and mized, which they may acquire by purchase, donation, devise, or otherwise, necessary to accomplish the purpose of the corporation, and the same to dispose of and convey at pleasure. And a certified copy of the said paper, writing, appointing said trustees, and naming, designating, and appointing the name and style of such corporation, shall be prima facie evidence in all courts and before all offcers, boards, commissioners, and tribunals of the due incorpora fion of such body politic and corporate.

Powers of trustees. -The said board of trustees shall have power to fill all vacancies in their number, to make rules, regulations, and by-laws for the government of their board and of the institution; to appoint a president, professors, tutors, and teachers, and any other necessary officers and agents, and fix the compensation of each; to erect within and as departments of said institution such schools and colleges of the arts and sciences and professions as to them may seem proper, and to confer such academic degrees and honors as are conferred by colleges and universities of the United States, and to borrow from time to time, for the parpose of paying indebtedness, such sum or sums of money as they may see fit, and to secure such loan or loans by mortgage or trust deed executed by their president and seiretary, upon their college or university buildings and grounds, and otherwise as they shall deem expedient; Provided, That if such institution has stockholders, the said board of trustees shall first be authorized to borrow such money and execute said mortgage or trust deeds by vote of the owners of a majority of the stock.

Foreign corporations-Diplomas, etc. -That any corporation organized under the laws of any other State or States, Territory or Territories, for the purpose of establishing, maintaining, and conducting institutions of learning of the rank or grade of a college or university, which has complied with or hereafter may comply with the provisions of section 215 of chapter 16 of the compiled statutes of the State of Nebraska, and of this act, be, and the same are hereby, perm ited, authorized, and empowerea to issue diplomas and to confer degrees and h.mors such as are conferred by colleges and universities of the United States.

Some-Status ascertained-Procedure.-Whenever any such corporation shall have become possessed of property and frunds of the value of one hundred thousand dollars or more, whether in land. buildings, funds, securities. or endowments, and shall have established aninstitution for the purposes aforesaid within this State, it shall be competent for such corporation to present to the judge of the district court of the county in which the said institution shall be located, a petition setting forth the facts and stating that the said corporation has complied with the provisions of the section aforesaid and of this act, together with such other facts as may be pertinent, and praying the appointment of three commissioners to examine into the truth thereof. And thereupon it shall be the duty of the said judge to appoint three disinterested commissioners, residents of the said county, for the purposes aforesaid. The persons so appointed shall be, by the said judge, sworn to true inquiry, and full report make of the matters given them in charge, which said oath shall be subscribed by the parties and certified by the said judge, and shall be filed in the office of the clerk of said county, as hereinafter provided. The said commissioners shall thereupon immediately proceed to the discharge of their said duties, and shall personally examine the property, funds, securities, and endowments of the said institution alleged to be set apart for the purposes aforesaid, and shallappraise the same and shall report facts thus ascertained in writing, duly signed by the said commissioners, to the said judge. If to the said judge it shall appear from the said report that the said corporation has complied with the provisions of this act, and that the said sum of one hundred thousand dollars or more, in property,
funds, securities, or endowments, has been set apart for the purposes aforesaid, to be irrevocably and inviolably appropriate thereto, the said judge shall indorse said report with an order approving the same, and shall in said order fix the compensation of the said commissioners, and shall direct that the said order, together with the petition and oaths and all other papers pertaining to the said matter, be filed in the office of the clerk of said county, and the said petition, oaths, report, order, and other papers shall be recorded by the said clerk in the book of incorporation provided by law to ba kept in his office.

Same-Powers, diplomas, etc.-That thereupon the said corporation may, by its regents, trustees, or other government ofincer or officers thereof, upon the recommendation of the faculty of said institution, issue diplomas and confer degrees and honors, as provided in section 1 of this act.

## NEW YORK.

Educational institutions are chartered by the regents of the University of the State o $\frac{n}{2}$ New York.

Pogemis. - Tho university is governed and all its corporate powers exercised by 19 elective regents, and by the governor, lieutenant-governor, secretary of state, and superintencent of public instruction, who are ex officio regents. The regents may confer by diploma under their seal such honorary degrees as they may deem proper, and may establish examinations as to attainments in learning, and may award and confer suitable certificates, diplomas. and degrees on persons who satisfactorily meet the requirements prescribed.

Charters. -The regents may, by an instrument under their seal and recorded in their office, incorporate any university, college, academy, library, musemm, or other institution or association for the promotion of science, literature, art, history, or other department of knowledge, under such name, with such number of trustees or other managers, and with such powers, privileges, and duties, and subject to such limitations and restrictions in all respects as the regents may prescribe in conformity to law.

Conditions of incorporation. -No institution shall be given power to confer degrees unless it shall have resources of at least $\$ 500.000$, and no institution for higher education shall be incorporated without suitable provision, approved by the regents, for buildings, furniture, educational equipment, and proper maintenance. No institution shall institute or have any faculty or department of higher education in any place or be given power to confer any degree not specifically authorized by its charter; and no institution of higher education shall be incorporated under the provisions of any general act authorizing the formation of a corporation without grant of a special charter on individual application, and no corporation shall, under authority of any general act, extend its business to include establishing or carrying on any such institution.

Change of name or charter.-The regents may at any time, for sufficient cause, by an instrument under their seal and recorded in their office, change the name, or alter, suspend, or revoke the charter or incorporation of any institution which they might incorporate, if subject to their visitation or chartered or incorporated by the regents or under a general law; provided, that unless on unanimous request of the trustees of the institution, no name shall be cbanged and no charter shall be altered, nor shall any rights or privileges thereunder be suspended or repealed by the regents, till they have mailed to the usual address of every trustee of the institution concerned at least thirty days' notice of a hearing when any objections to the proposed change will be considered, and till ordered by vote at a meeting of the regents for which the notices have specified that action is to be taken on the proposed change.

Among the ordinances adopted by the regents are the following:
College defined.-An institution to be ranked as a college must have at least six professors giving their entire time to college and university work, a course of four full years of cullege grade in liberal arts and sciences, and must require for admission not less than the usual four years of academic or high-school preparation or its equivalent, in addition to the preacademic or grammar-school studies.

Degree-conferring power. -No charter hereafter granted shall authorize any institution to confer any honorary degree or any degree on examination without residence, or any degree on lower requirements than those fixed by the university ordinances as the minimum for that degree.

Honorary degrees. - The bachelor's degrees in arts, philosophy, science, and literature, and the doctor's degree in philosophy shall not be conferred by the university or by any institution in this state causa honoris.

Nonresident degrees.-No degree shall be conferred in this State on examination without completion of a prescribed course, of which at least one year has been taken in regular attendance on the usual exercises of a teaching institution registered for that degree.

## PENNSYLMANTA.

AN ACT to provide for the incorporation of institutions of learning with power to confer degrees in art, pure and appiied science, philosophy, literature, medicine, law, and theology, and for the supervision and regulation of the same, and providing a method by which institutions already incorporated may obtain the power to confer degrees, and exempting from the provisions of this act colleges heretofore incorporated by the courts of common pleas with power to confer degrees in cases where such colleges have at the time of the passage of this act a specified amount of capital or resources.

Section 1. Be it enacted, \&c., That all institutions of learning hereafter to be incorporated as colleges, universities, or theological seminaries with power to confer degrees in art, pure and applied science, philosophy, literature, law, medicine, and theology, or any of them, shall be incorporated in the manner hereinafter set forth, with general power as follows:

First. To have succession by their corporate names for the period limited by their charters, and when no period is limited thereby, or by this act, perpetually, subject to the power of the general assembly, under the constitntion of this Commonwealth.
Second. To maintain and defend judicial proceedings.
Third. To make and use a common seal and aiter the same at pleasure.
Fourth. To hold, purchase, and transfer such real and personal property as the purposes of the corporation require, not exceeding the amount limited by its charter or by law.
Fifth. To appoint and remove such subordinate officers and agents as the business of the corporation requires, and to allow them suitable compensation.
Sixth. To make by-laws, not inconsistent with law, for the management of their property and the regulation of its aftairs.
Seventh. To enter into any obligation necessary to the transaction of their ordinary affairs.
Section 2. Whenever five or more persons, three of whom at least are citizens of this Commonwealth, shall voluntarily associate themselves together for the purpose of obtaining a charter of incorporation as a college, university, or theological seminary with power to confer degrees as aforesaid, they shali prepare a certificate of such intended incorporation, which shall set forth:
I. The name of the corporation.
II. The purpose for which it is formed.
III. The place or places where its business is to be transacted.
IV. The term for which it is to exist.

V . The names and residences of the subscribers.
VI. The number of its directors, trustees, or managers, and the places of residence of those who are chosen as such for the first year.
VII. The amount of assets in the possession of said subscribers which are to be devoted to the purpose of establishing and conducting said college or university.
VIII. The minimum number of persons whom it is intended to regularly employ as members of the faculty of said corporation.
IX. A brief statement of the requirements for admission and of the course of study to be pursued in said institution.

Section 3. Notice of the intention to apply for any such charter shall be inserted in two newspapers of general circulation, printed in the proper county, for three weeks, setting forth briefly the character and object of the corporation to be formed and the intention to make application therefor.
Section 4. The said certificate of incorporation shall be acknowledged by at least three of said subscribers, and before the recorder of deeds, et cetera, of the county in which the business of the corporation is to be transacted, to be their act and deed and for the purposes therein contained, and the same having been duty certified under the hand and official seal of said recorder of deeds, et cetera, shall be presented to any law judge of a court of common pleas of said county, accompanied by the proof of publication of the notice of such application, who is hereby required to peruse and examine said instruments, and, if the same be found to be in proper form and within the purposes of this act and shail appear lawfil and not injurions to the commanity, he shall endorse thereon these facts and shall thereupon direct the prothonotary or clerk of said court to transmit to the superintendent of public instruction of the Commonwealth a certified copy of said certificate of incorporation, together with the said endorsements thereon.

Section 5. No charter for such incorporation, with power to confer degrees as aforesaid, shall be granted until the merits of the application, from an educational standpoint, shall le passed upon by a board to be styled the "College and University Council," which shall consist of twelve members, namely, the governor, the attorney-general, and the superintendent of public instruction, who small be members ez officio, three persons selected from the presiding officers of undenominational colleges or universities of this Commonweath, three persons selected from the presiding officers of denominational colleges or universities of this Commonwealth, and thres persons holding official relationship to common schools of the State. Those who are not ex officio members shall be appointed by the governor, with the advice and consent of the senate, for a term of four years.
Section 6. No institution shall be chartered with the power to confer degrees, unless it has assets amounting to five hundred thousand dollars invested in buildings, apparatus, and endowments for the exclusive purpose of promoting instruction, and rnless the faculty consists of at least six regular professors who devote all their time to the instruction of its college or university classes, nor shall any baccalaureate degree in art, science, philosophy or literature be conferred upon any stadent who has not completed a college or university course covering four years. The standard of admission to these four year conrses or to advanced classes in these courses shall be subject to the approval of the said council.

Section 7. Upon receipt of said certified copy of certificate of incorporation as directed in section four. of this act, the said superintendent of public instruction shall, within sixty days thereafter, cause said"college and university council" to be convened at such time and place as he may designate, and said council shall thereupon hear and consider said application, and if the course of instruction and standard of admission to said institution and the composition of the faculty shall appear to said council to be sufficient, and the educational needs of the particular locality in which the proposed institution is to be situated and of the Commonwealth at large are likely to be met by the granting of said application, the said council shall thereupon cause to be endorsed on said application or cerificate its findings and its approval of the same, together with a recommendation to the law judge or court before whom the same was originally presented that the same be granted. If, in the judgment of the council, the said application should not be granted, it shall endorse thereon its findings, and its disapproval of the same with a recommendation that said application be refused. The said certified copy of said certificate shall, with the endorsements thereon, thereupon be returned to the said law judge or court, who, in finally passing upon the application, shall be guiled in his decree by the finding of the college and university council. In case the law judge, after giving his consideration to the findings of the said council, shall be satisfied with the propriety of the application in view of all the facts, he shall approve the same and order and decree that, upon the recording of said certificate with the recommendation of said council and a copy of said order of court in the recorders office aforesaid, the subscribersthereto and their associates and successors shall be a corporation for the purpose and upon the terms therein stated, and thenceforth the persons named therein and subscribing the same, and their associates and successors shall be a corporation by the name therein given. In case of the disapproval of said application by the council aioresaid, the proposed charter shall not be granted.

Section 8. In the transaction of business of said "college and university council" the concurrence of a majority of the members thereof shall be required.

Section 3. All institutions chartered under this act shall we subject to visitation and inspection by representatives of the council, and if any one of them shall fail to keep up the required standard the court shall, upon the recommendation of the council, revoke the power to confer degrees.
Section 10. The council shall meet regularly on the first Tuesday of October preceding the biennial session of the legislature, and shall submit to that body a biennial report upon higher education in Pennsylvania; said report to be printed in connection with the report of the superintendent of public instruction.

Saction 11. Any college, university or theological seminary, heretofore incorporated under the laws of this Commonwealth, may apply to any law judge of any court of common pleas of the county in which the business of such corporation is transacted for amendments to its charter, enabling it to confer degrees in like manner as institutions originally incorporated under this act, and in the application therefor it shall follow the requirements of this act in respect of applications for original charters of incorporation and the method of pro edure prescribed theretor. Such applications for amendments shall be acted upon by the same authorities and in the same manner as provided in this act for the original incorporation of colleges, universities, and theological seminaries. No such amendment
shall be granted, however, unless the institution applying therefor shall bring itself within the provisions of this act as fully as is required in the granting of original charters under this act.
Section 12. When a college or theological seminary has heretofore been incorporated by special act of assembly, it may obtain the power to confer degrees from the courts, as above set forth, provided it has invested funds amonnting to one hundred thousand dollars at the time of the passage of this act. This aet furthermore shall not impair the authority of colleges hexetofore incorporated by such courts of common pleas with power to confer degrees in cases where such institutions have property or capital. at the time of the passage of this act, of at least one hundred thousaad dollars, and which shall, within three months after the passage of this act, file with the superintendent of public instruction of this Commonwealth a storn statement that the assets held by them individally for the purpose of promoting eatucation in the higher branches of human learning amount to the sum of one hindred thousand dollars, nor shall this act mpair the anthonity of tmiversities similarly incorporated by the courts with the power to confer degrees in cases where such institutions possess property at the time of the passage of this act amounting to the sum of five hondred thousand dollars, and which shall, within three months from the passage of this act, file with the superintendent of pubiic instruction of this Commonwealth a sworn statement that the assets held by them individually for the purpose of promoting instraction in the higher branches of human learning amount to the sum of nive handred thousand dollars; none of the provisions of this act, however, shall be construed as applying to institutions possessing capital stock and established for the purposes of private profit or gain. Approved-The 2eth day of June, A. D. 1895.

## TEXAS.

Private corporations may be created by the voluntary association of three or more persons tor the support of any benevolent, charitable, educational, or missionary undertaking.

The charter of an intended corporation must be subscribed by three or more persons, two of whom at least must be citizens of the State, and must be acknowledged by them wefore an offcer duly authorized to take acknowledgment of deeds. Married women may be subscribers to charters.
Such charter shall be filed in tho ofice of the secretary of state, who shall record the same at length in a book to be kept for that purpose, and retain the original on file in his office. A copy of the charter, or of the record thereof certified under the great seal of the State, shall be evidence of the creation of the corporation.
The existence of the corporation shall date from the filing of the charter in the office of the secretary of state, and the certificate of the secretary of state shall bo evidence of such filing.

The president, professors, or principals shall constritute the faculty in academy, college, or university corporations, and shall have power to enforce the rules and regulations enacted by the directors or trustees for the government and discipline of the students, and to suspend and expel offenders, as may be deemed necessary.

The directors or trustees named in the charter, as required by this title, of any college, academy, university, or other corporation to promote eatucation, and their successors, may make all necessary by-laws, elect and employ officers, provide for filling vacancies, appoint and remove professors, teachers, agents, etc., and fix their compensation, confer degrees, and do and perform any and all necessary acts to carry into effect the objects of the corporation.

Such corporations may procure, to be used as a part of the course of education, shops, tools, and machinery, land for agricultural purposes, and necessary buildings for carrying on their mechanical and agricultural operations.

Any such corporation may conveit its property, except when held upon some special trust, into stock or scholarships, and file a certificate of their action, as required in the case of an increase of capital stock of a corporation. Such conversion can only taze place by the consent of a majority of the stockholders.

The directors of any such corporation, whose property is held not as stock but upon trust or by devise, donation, gift. or subscription, shall not contract debts beyond the means of the corporation. If they do contract debts to a larger amount, they shall be held individually liable for the same after the means of the corporation are exhausted.

Any such corporation may, by a vote of three-fourths of the directors, or if the same is owned in shares of stock, then by a vote of thres-fourths of the stock-
holders change the location and name of the institution and transfer the effects thereof to where removed, or may apply the property thereof to other purposes of education than those named in the original charter filed with the secretary of state.

## West virginia.

Joint stock companies may be incorporated for universities, colleges, academies, seminaries, schools, or institutes, for the purpose of teaching any branch or branches of useful information or learning or promoting religion, morality, military science, or discipline.
The charter is granted by the secretary of state on the presentation to him of an agreement signed by not less than five persons, stating the name of the corporation, its purpose, location, duration, and certain information concerning the stock. The agreement must be acknowledged before a justice, notary, or judge, and must show that a certain portion of the capital stock has been paid in good faith.

## WISCONSIN.

Three or more adult persons, residents of the State, may form a corporation for the establishment, maintenance, and use of schools, high schools, academies, seminaries, colleges, and universities, or for the cultivation and practice of music.
Any such corporation may be formed, to have a capital stock divisible into shares or without any capital stock, upon such plan as may be agreed upon.
In order to form such a corporation, the persons desiring to do so shall make, sign, and acknowledge written articles. containing:

1. A declaration that they associate for the purpose of forming a corporation under the revised statutes, and of the business or purposes thereof.
2. The name and location of such corporation.
3. The capital stock if any, the number of shares, and the amount of each share.
4. The designation of general officers and of the number of directors, which shall not be less than three.
5 . The principal duties of the several general officers respectively.
b. The method and conditions upon which members shall be accepted, discharged, or expelled.
5. Such other provisions or articles as they may deem propel to be therein inserted for the interest of such corporation or the accomplishment of the purposes thereof.
Such original articles, or a true copy thereof verified as such by the affidavits of two of the signers thereof, shall be recorded by the register of deeds of the county in which such corporation is located, and no corporation shall, until such articles be so left for record, have legal existence. A like verified copy shall, within thirty days, be filed with the secretary of state, and for a failure so to do each signer of any such articles shall forfeit $\$ 25$. The certificate of corporation is issued by the secretary of state.
Any corporation formed for the establishment and maintenance of schools, high schools, academies, seminaries, colleges, or universities, or for the cultivation and practice of music, shall have power to prescribe and regulate the courses of instruction therein, and to confer such degrees and grant such diplomas as are usually cenferred by similar institutions, or as shall be appropriate to the courses of instruction prescribed.

## CHAPTER XXIX.

## REPORT ON SCHOOL STATISTICS, ${ }^{1}$ MADE BY A COMMITTEE OF THE DEPARTMENT OF SUPERINTENDENCE OF THE NATIONAL EDUCATIONAL ASSOCIATION.

## To the Department of Superintendence:

Gentlemen: Your committee, consisting of the undersigned and Messrs. James MacAlister and George P. Brown, holding over from the last year, conclude their report ${ }^{\text {a }}$ on statistics by offering, first, a list of the items which, in their opinion, should be collected to show the workings of a school system.

They have arranged these items in three classes. The first class iucludes the essential data which should be taken every year, and from all schools. This first list contains the essential and indispensable items for every annual report.

[^29]
## ${ }^{2}$ PRELIMINARY REPOR'T MADE IN FEBRUARY, 1891.

Gentlemen: Your committee appointed at the last annual meeting for the purpose of considering and reporting on the subject of School Statistics, beg leave to offer the following preliminary report, setting forth the results of their studies on the subject, and postponing for another meeting, or for the work of another committee, if it be your pleasure, the completion of the details of a scheme of statistics which will afford the data required for a comparative study of domestic and foreign educational systems.

Your committee would first call attention to the object and purpose of collection of statistics, which they conceive to be the following:
Statistics reveal the nature and efficiency of the powers and forces involved in a process. Forces and powers are revealed in their results. Their results are of little moment, if dead results, except as they indicate what the living power has been and still is. In matters of education we inquire into the aims and purposes of the educative process, and learn this by a quantitative study of the means employed and the results obtained. It is evident, therefore, at the outset, that the quantities given by our statistical tables can have no significance except in connection with the qualitative elements involved. We pass over at once from the how many to the what kind. We seek, again, new quantitative data that may indicate the quality, but we never reach quantitative data that are significant in and for themselves.
Your committee would suggest as the four principal heads under which school statistics may be grouped:

First. Attendance of pupils.
Second. Course of study.
Third. Teaching forces and appliances.
Fourth. Support-revenue and expenditures.
Under these four heads they would group the following details:

## I.

Statistics of aitendance should answer questions like the following-
(a) How many?
(b) How long?
(c) Who?

That is to say: (1) How many pupils in the aggregate? (2) How many relatively to the entire population? (3) How many relatively to the population of the school age, say 5 to 21,6 to 14 , or some other period agreed upon? Then this item should be further defined in five items: (1) How many enrolled during the annual session of school? (2) How many as average

The second list contains the more important of what we may call occasionaı statistics, and shond not be expected every year, perhaps, nor from all schools. A
belonging? (3) How many in actual average daily attendance? (4) How many were dropped and afterwards readmitted? (5) The number of cases of tardiness.

Under the second item of attendance (How long?) we wish the number of daily school sessions for the year, and the hours of a school session, the length and hour of recesses and intermissions.

Under the third item of Who? we include such items as-
(1) How many of each sex?
(2) How many at each year of age, and the arerage age?
(3) Race.

(5) How many born in other parts of the same nation?
(b) How many born abroad?
(7) Occupations of parents.

## II.

Under the second of our four chief heads we should ask for statistics regarding the course of study, and thrs determine by this grade of schools as follows:
( $\alpha$ ) Findergarten.
(3) Primary and grammar school.
(c) Secondary education.
(d) Sigher education.

We shoula ask very carefully as to the relations of these items to the first class of items, especially age, sex, and average attendance.
The primary and grammar schools are to be distinguished from the secondary schools by the following tests: The introduction of algebra, or of an ancient or modern language, marks the beginning of the secondary course of study. The higher course of study should be marked by analytic mathematics, or by logical and philosophical studies, or by advanced language studies.

III,
The third general head, "The teaching forces and appliances," includes-
(1) Buildings and accommodations.
(2) Size of schools under one principal teacher (or else number of pupils per teacher).
(3) Number of teachers.
(4) Supervision.
(5) Means of training teachers.
(6) Examinations of teachers.
(7) Mothods of discipline and instruction used by teachers.
IV.

The foarth general head. "The support of schools," includes-
(1) Puvenue Items of.
(a) Receipts from State and local taxation.
(b) Receipts from funds or productive property.
(c) Receipts, if any, from tuition.
(2) Expenditures.
(a) For teachers' salaries, including supervision.
(b) Incidentals, including janitor hire, fuel, apparatus, and other current expenses.
(c) Permanent investments, including building and repairs.

Your committee would call attention to the importance of a detailed discussion of the use to be made of these several items, in studying the effective forces of educational systems, and in comparing one with another. Such discussion is not here attempted, but is suggested as a proper subject of a supplementary report. Moreover, your committee have observed the prime necessity for such a definition of the several items as to prevent misunderstanding. A description of the best methods of keeping and tabulating the several items would also be a very useful addition to such a report.
In dealing with reports, not merely reports from a foreign country, but with reports from different sections of the United States, your committee has been impressed with the necessity of a glossary of terms used in tabulating statistics. There should be a careful collation of all terms and designations used here and ebroad, and so minute a description given of the processes of ascertaining the data under the several heads, as to leave no doubt in the mind as to the exact meaning of each. Without this accurate information there can be no satisfactory comparative study of school systems.

All of which is respectifully submittod.

W. T. Harris.<br>Jas. MacAlister.<br>George P. Brown.

State suparintendent may, for ezample, collect statistics one year regarding the place of nativity of pupils and parents, another year he may take occupations, and another year he may collect itoms regarding the preparation of the teaching force.

In our third list we have included still less essential items, which may be collectel at still rarer intervals.

In the next place, we have given a tabular summary showing in detail the iterns actually collected in the several States of the Union, and side by side with it an exhibit of the statistical items collected in the several countries of Europe. As these details can not be read before an audience, your committee submit tho same for printing in an appendix, hoping that they will be found useful to State officers in the preparation of their forms and blanks for collecting these returns.

All of which is respectfully submitted.

W. T. Harris, Chairman of Committee.

## Appendix I.

## SCHOOL STATISTICS.

## I. Fundamental Items.

1. Number of children of legal school age, ciassified by race and sex (school population).
a, White males.
b, White females.
c, Colored males.
d, Colored females.
Nore.-These letters, $a, b, c, d$, are used in these tables always to indicate race or sex as here indicated.
2. Number of pupils enrolled on the school registers (excluding duplicate registrations), classified by race and sex $(a+b+c+d)$.

Note.-The plus sign ( + ), when used, indicates that the items between which it is placed are taken separately. Thus, $a+b$ means that the white males and white females are given separately. Where this plus sign is omitted, the items are not given separately in the reports.
3. Average daily attendance classified by race and sex.
4. Arerage length of school year (days or months).
5. Number of teachers, classified by race and sex.
6. Number of pupils receiving kindergarten instruction, classified by race and sez.
7. Number of pupils receiving elementary instruction (including kindergarten pupils), classified by race and sex.
8. Number of pupils receiving secondary instruction, classified by race and sex.
9. Number of students receiving higher instruction, including colleges, schools of medicine, theology, law, technology, classified by race and sex.
10. Number of students in special schools, classiged by race and sex, including trade schools, evening schools of all kindis, manual training schools, schools for the defective and dependent classes, reform schools, commercial schools, and nur'ses' training schools.
11. Number of buildings used as schoolhouses.
12. Total seating capacity of such buildings (number of pupils that can be accommodated).
13. Value of all property used for school purposes.
14. Average monthly salaries of teachers, classified by race and sex.
15. Total school revenue.
(1) Income from productive funds and rents.
(2) State school fund.
(3) Local tazes.
(4) Other sources.
16. Total expenditure.
(1) Salaries of teachers (including supervision).
(2) Other current expenses.
(3) Permanent expenditure (for buildings, grounds, etc.).
17. Amount of permanent invested funds.

## II. Less Essential but Desirable Items.

18. Age classification of pupils enrolled.
(1) Number of pupils under six.
(2) Number of pupils between six and seven, etc.

* 

(11) Number of pupils between fifteen and sixteen.
(12) Number of pupils over sixteen.
19. Number of cases of tardiness.

20 . (1) Number of pupils born within the State.
(2) Number of pupils born in other States.
(3) Number of pupils born in foreign countries.
21. Occupation of parents.
(1) Agents.
(2) Bankers and brokers.
(3) Clerks and salesmen.
(4) Domestic servants and waiters.
(5) Draymen and teamsters.
(6) Farmers.
(7) Factory and mill operatives.
(8) Hotel and boarding-house keepers.
(9) Laborers (unskilled).
(10) Manufacturers.
(11) Mariners and boatmen.
(12) Mechanics and artisans.
(13) Miners and quarrymen.
(14) Merchants, traders, and dealers.
(15) Professionals.
(16) Public officials and employees.
(17) Railroad employees.
(18) Seamstresses.
(19) Saloon keepers and bartecders.
(90) Unclassified.
22. Average number belonging, including temporary absentees.
23. Number of pupils in each branch of study.
24. (1) Average age of kindergarten pupils.
(2) Average age of elementary pupils.
(3) Average age of secondary pupils.
(4) Average age of higher pupils.
(5) Average age of special pupils.
25. (1) Number of normal schools.
(2) Enrollment in normal department.
(3) Average attendance.
(4) Number of teachers.
(5) Expenses.

## III. Occasional Items.

26. (1) Number of teachers who have taught less than two years.
(2) Number from two to five years.
(3) Number over five years.
27. (1) Number of applicants for teachers' certificates.
(2) Number who are certified.
28. (1) Number of teachers graduates of normal schools.
(2) Number of teachers graduates of universities and colleges.
(3) Number of teachers graduates of high schools, academies, etc.
(4) Number of teachers who have received only an elementary education.
29. Number of pupils dropped and readmitted in the course of the year.
30. Number of hours in each school session.
31. Length of recesses or intermissions, and time of beginning.
32. Number of cases of corporal punishment.
33. Number of pupils promoted to next higher grade.

## Appendix II.

An exhibit showing which of the essential items enumerated in Appendix I are reported by the several States of the Union and by leading foreign nations.

## I. The United States.

Amabama. - 1. $a b+c d$ (enumeration made on alternate years). 2. $a b+c d .3 . a b+c d .4 . a b+c d$. 5. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad 14 . \mathrm{ab}+\mathrm{cd}$. 15. (1) $+(2)+(4) ;(3)$ is imperfectly given. 16. (2) and (3) are only leported in city districts. 23. 25.
Arizona. -1. $\mathrm{a}+\mathrm{b} .2 . \mathrm{a}+\mathrm{b} .3 .4 .5 . \mathrm{a}+\mathrm{b} .8$ 8. 13. $14 . \mathrm{a}+\mathrm{b} .15 .16$.
 15. 16.17.

CAlifornia $-1 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$. 2. $\mathrm{ac}+\mathrm{bd} .3 .4 .5 . \mathrm{a}+\mathrm{b} .7 .8 .11 .13 .14 . \mathrm{a}+\mathrm{b} .15 .16 .22$. 25. 27. 28.



District of Columbia. -2. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad 3 . \mathrm{ab}+\mathrm{cd} .4 .5 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} .6 .6 .8 .10 .11 .14$. $\mathrm{ab}+\mathrm{cd} .15 .16 . \quad 22.25$. (1) (2) (3) (4).
Flofida. - 1. $\mathrm{ab}+\mathrm{cd} . \quad$ 2. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad$ 3. $\mathrm{ab}+\mathrm{cd} . \quad$ 4. $\mathrm{ab}+\mathrm{cd} . \quad$ 5. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad 11 . \quad 13.14$. $a+b+c+d . \quad 15 . \quad 16 . \quad 17 . \quad 23$.
Georgia. - 1. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$ (enumeration every 5th year). $\quad 2 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad 3 . \mathrm{ab}+\mathrm{cd} . \quad 5 \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$. 15. 16. 23.

Іыдно. $-1 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$. 2. $\mathrm{a}+\mathrm{b}$. 3. 4. 5. $\mathrm{a}+\mathrm{b}$. 11. 15. 16.
 (3) (4) (5). 27.

Indiana. $-1 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$. 2. $\mathrm{a}+\mathrm{b}$. 3. 4. 5. $\mathrm{a}+\mathrm{b} .11 .13 .14 . \mathrm{a}+\mathrm{b}$. 15. 16. 20̆.

KANSAS. $-1 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad 2 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad 3 . \mathrm{ab}+\mathrm{c} d .4 . \quad 5 . \mathrm{a}+\mathrm{b} .11 .13 .14 . \mathrm{a}+\mathrm{b} .15 .16 .17 . \quad 27$.
Kentucky. $-1 . a+b+c+d . \quad$ 2. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad$ 3. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad 4 . \quad \mathrm{ab}+\mathrm{cd} . \quad 5 . \quad \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad$ 7. $\quad$ 8. 11. 13. 14. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$. 15. 16. 17. 23. (1) (4). 23.. 26. (1). 27. (1) (2). 28. (1).

Louisiana. $-1 . \quad 2 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad 3 . \mathrm{ab}+\mathrm{cd} . \quad 4 . \mathrm{ab}+\mathrm{cd} . \quad 5 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad 11 . \quad 14 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad 15 . \quad 16$. Maine.-1. 2. 3. 4. 5. $\mathrm{a}+\mathrm{b}$. 8. 11. 13. 14. $\mathrm{a}+\mathrm{b}$. 15. 16. 23.25.
Maryland. $-2 . a b+c d .3 . a b+c d .4 . a b+c d . \quad 5 . a+b+c+d .11 .15 . \quad 16 . \quad 23$.
Massachusetts. - 1. 2. 3. 4. 5. $\mathrm{a}+\mathrm{b}$. 8. 14. $\mathrm{a}+\mathrm{b}$. 15. 16. 17. 22. 25. 28. (1).

Minnesota.-1. 2. 3. 4. 5. $\mathrm{a}+\mathrm{b}$. 11. 13. 14. $\mathrm{a}+\mathrm{b}$. 15. 16. 17. 28. (1) (2) (3).
Mississippr. $-\mathrm{l} . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad$ 2. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad 3 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad$ 4. $\mathrm{ab}+\mathrm{cd} . \quad 5 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} .11 .13 .14$. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad 15.16 . \quad 17.27$. (1) (2).
Missouri. $-1 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$. 2. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$. 3. 4. 5. 12. 13. 14. $\mathrm{ab}+\mathrm{cd} .15$. 16. 17. 27. b . 28. (1).
Montana. -1. $\mathrm{a}+\mathrm{b} .2 .3$. 4. 5. $\mathrm{a}+\mathrm{b}$. 11. 13. 14. $\mathrm{a}+\mathrm{b}$. 15. 16. 17. 28. (1).
 (1) (2).

Nevada.-1. $\mathrm{ac}+\mathrm{bd} .2 \mathrm{ac}+\mathrm{bd} .3 .4 .5 . \mathrm{a}+\mathrm{b} .11 .13 .14 . \mathrm{a}+\mathrm{b} .15 .16 .17 .22 .26$. (1).

 18. 27. (1) (2).

New Mexico.-1. 2. 3. 4. 5. $\mathrm{a}+\mathrm{b}$. 13. 1ŏ. 16.
NEN YORK.-1. 2. 3. 4. 5. $\mathrm{a}+\mathrm{b}$. 11. 13. 14. 15. 16. 25. 27. (1) (2).
North Carolina. $-1 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$. $2 . ~ \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad 3 . \mathrm{ab}+\mathrm{cd} . \quad$ 4. $\quad 5 . \mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} .11 .13 .14$. $a+b+c+d .15 . \quad 16 . \quad 23$.
North Dakota. $-1 . \mathrm{a}+\mathrm{b} .2 . \mathrm{a}+\mathrm{b} .3 .4 . \quad 5 . \mathrm{a}+\mathrm{b} . ~ 8 . ~ 11 . ~ 13 . ~ 14 . ~ a+b . ~ 15 . ~ 16 . ~ 1 \% . ~ 23 . ~$


Pennsylvania.-1. 2. $\mathrm{a}+\mathrm{b} .3 . \mathrm{ab} .4 .5$. $\mathrm{a}+\mathrm{b} .11 .13 .14 . \mathrm{a}+\mathrm{b}$. 15. 16. 26. (1) (4). 27. (1) (2). 28. (1) (2) (3).

RHODE ISLAND. $-1 . a+b .2 . a+b .3 . a b .4 .5 . a+b .6 . a+b .8 . a+b .11 .13 .15 .16 .17 .23$.
South Carolina. -2. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$. 3. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$. 4. $\quad$ 5. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$. 11. 13. 14. $\mathrm{ac}+\mathrm{bd} . \quad$ 15. 16. 23.

Soute pakota. - 1. $\mathrm{a}+\mathrm{b}$. 2. $\mathrm{a}+\mathrm{b}$. 3. ab. 4. 5. $\mathrm{a}+\mathrm{b} .11 .12 .13 .14 . \mathrm{a}+\mathrm{b} .15 .16 .23 .2 \%$. (1) (2).
 15. 16.23.

Texas. $-1 . a+\mathrm{b}+\mathrm{c}+\mathrm{d}$. 2. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$. 4. 5. $\mathrm{ab}+\mathrm{cd}$. 11. 12. 13. 14. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} .15 .16 .12 \pi$. 23. 28. (1) (2).

Utah. $-1 . \mathrm{a}+\mathrm{b} .2 . \mathrm{a}+\mathrm{b} .3 .4 .5 . \quad \mathrm{a}+\mathrm{b} .13 .14 . \mathrm{a}+\mathrm{b} .15 .16 .23$.

Vermont.-1. $\mathrm{a}+\mathrm{b}$. 2. $\mathrm{a}+\mathrm{b} .3 .4 .5 .5+\mathrm{b} .7 .8 .11 .13 .14 . \mathrm{a}+\mathrm{b} .15 .16 .17 .13 .23$.
Virginia. $-1 . a+b+c+d . \quad$ 2. $a+b+c+d . \quad 3 . a+b+c+d . \quad$ 4. $\quad$ 5. $a+b+c+d . \quad 8 . ~ a b+c d . \quad 11 . \quad 12$. $\mathrm{ab}+\mathrm{cd} . \quad 13.11 . \mathrm{ac}+\mathrm{bd} . \quad 15 . \quad 15.17 .18 .24 . \quad 25 . \quad 27$. (1) (2).
 27. (1) (2)

West Virginia. $-1 . a+b+c+d$. a. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d}$. $3 . a+\mathrm{a}+\mathrm{c}+\mathrm{d} . \quad$ 4. $\quad$ 5. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} .11 .13 .14$. $\mathrm{a}+\mathrm{b}+\mathrm{c}+\mathrm{d} . \quad 15 . \quad 16 . \quad 17 . \quad 23 . \quad 27$.


## II. Foreign Countries.

Canada-England.-1. $\mathrm{ab} . \quad 2 \mathrm{a}+\mathrm{b} . \quad 3 \mathrm{a}+\mathrm{b} .4$ 万. $\mathrm{a}+\mathrm{b} .6 . \quad \mathrm{a}+\mathrm{b} .7 . \quad \mathrm{a}+\mathrm{b} . \quad 12.14 . \mathrm{a}+\mathrm{b}$ (yearly). 15. 10. 13. ab ( $a+b$ in some cities). 23. 25. 23 (in some cities). 27. 23.
SCOTMAND. $-1 . a b .2 . a+b .3 . a+b .4,5 . a+b .6 . a+b .7 . a+b .8 . a+b .12 .14 a+b$ (average annual salary). 15. 13. 18. ab. 23. 25. 27. 23.
 81 (Paris). 23. 23. 30. 31.
Iraly.-1. ab. 2. $a+b$. 4 (by months). 5. $a+b .6 a b$ (reports infant schools which include Froebelian methods and a few kindergartens in the largest cities). 7. a+b. 8. a+b. 9. ab. 10. $\mathrm{a}+\mathrm{b}$. 11. I4. $\mathrm{a}+\mathrm{b}$ (reports maximum and minimum annual salary). 15. 16. $25 . \mathrm{a}+\mathrm{b}$. 27. $\mathrm{a}+\mathrm{b}$ (reports numbers certified). 23. $\mathrm{a}+\mathrm{b}$ (reports graduates of normals). 30. 31.

Nemperinis. $-1 . \quad \mathrm{ab} .2 . \mathrm{a}+\mathrm{b} .5 . \mathrm{a}+\mathrm{b} . \quad 7 . \mathrm{a}+\mathrm{b}$ (kindergartens not included). 8. $\mathrm{a}+\mathrm{b} .9$. $a+b .10 . a+b .11 .14 . a b$ (reports maximum and minimum annual salary). 15. 10. 23. $\mathrm{a}+\mathrm{b} .23 . \mathrm{a}+\mathrm{b} .27 . \mathrm{a}+\mathrm{b} .28 . \mathrm{a}+\mathrm{b}$ (reports graduates of normals). 33. ab.
Spain.-1. $a b .2 . a+b .3 . a+b .5 . a+b .7 . a+b$ (kindergartens notincluded). 8. $a+b .2$ (in part). 10 (in part). 11. 14. $a+b$ (reports maximum and minimum annual salary). 15.16. 20. $a+b$. $2 \%$. $a b$ (reports numbers certified, and those certificated). 20. ab (reports graduates with normal certificates). 30. 31.
NORWAY. -1 . ab. $2 . a+b .4$ (reports number of weeks). 5. $a+b, \quad 7 . a+b$ (kindergartens not included). 8. $a+b .9 . a b .15 .16 .25 . a b$. 23. $a b$ (reports graduates of normal schools and academies). 30. 31.
SWEDEx. $-1 . \mathrm{ab}^{2} .2 . \mathrm{a}+\mathrm{b} .4$ (by weeks). 5. $\mathrm{a}+\mathrm{b} . \quad \pi . \mathrm{a}+\mathrm{b}$ (kindergartens not included). 8. $a+b$. 9. ab. 10. $a+b$. 11. 14. $a+b$ (reports maximum and minimum anntal salary). 15. 16. 18. ab . 23. ab (reports per cent of pupils in each branch in secondary schools). $25 \mathrm{a}+\mathrm{b}$ (reports separate schools for the sexes). 30. 31. 33. ab.
Pusisi.-1. ab. 2. $\mathrm{a}+\mathrm{b}$. 5. ab. 7. $\mathrm{a}+\mathrm{b}$ (kindergartens not included). 8. $\mathrm{a}+\mathrm{b} .9 . \mathrm{a}+\mathrm{b} .10$. $a+b$. 15. 16. 25. $a+b$.
Pressia.-1. $\mathrm{a}+\mathrm{b}$. 2. $\mathrm{a}+\mathrm{b}$ (every fifth year). 4. 5. $\mathrm{a}+\mathrm{b} . \quad$ \%. $\mathrm{a}+\mathrm{b} .8 .8 . \mathrm{a}+\mathrm{b} .9 . \mathrm{a}+\mathrm{b} .11 .15$. 13. 17 (every third year). 23. 27 (partially). 28. 30.

SAXONY.-1. $\mathrm{a}+\mathrm{b} .2 . \mathrm{a}+\mathrm{b} .4 .5 . \mathrm{a}+\mathrm{b} . \quad 7 . \mathrm{a}+\mathrm{b} .8 . \mathrm{a}+\mathrm{b} . ~ 9 . \mathrm{ab} .10 . \mathrm{ab} .11 .15 .16 .17$ (every third ycar). 20 (regarding language spoken). 23. 27 (partially). 28. 30.
 (only partially). 25 (partially). 27. 28. 30.

Hamérg. $-1 . a+b .2 . a+b .4 .5 . a+b . \quad 7 . a+b .8 . a+b . \quad 10 . a b .11 .15 .16 .17 .25 .2 \pi .23$.



Hungary. $-1 . a+b .2 . a+b$. 4. 5. $a+b .6 . a+b . ~ \tilde{b}, ~ a+b .8 . a+b .9 . a b .10 . a b .11 .15 .16$. 17. 25. 27. 28. 30.
 25. 27. 28. 30.
 10. $\mathrm{ac}+\mathrm{bd} . \quad 11 . \quad 12 . \quad 13 . \quad 14 . \mathrm{ac}+\mathrm{bd} . \quad 15 . \quad 16 . \quad 17 . \quad 20 .(1)+(3) . \quad 21 .(6)+(10)+(12)+(14)+(20)$. 83. 25. $(1)+(2)+(3)+(4)+(5)$. 23. (1) $+(2)+(3)$. 28. $(1)+(3)+(4)$.

## Appendix III.

Giving the definitions of certain technical terms used in educational reports, together with their equivalents in certain foreign countries.

Technical Terms used in Education-Definitions and Foreign Equivalerts.
1 (a). School age.-Age at which children are permitted free attendance at the public schools. This age varies in the different States, but 6 to 21 may be considered the representative school age in this country, being designed evidently to embrace all minors old enough to render school
instruction advisable and profitable to them. The children of school age in each State, whatever that age may be, collectively constitute the school population of such State.
Note.-There are, in the foreign countries considered in this vocabulary, no terms corresponding in significance to "school age" and "school population," as understood in the United Statos. In a popular sense, however, as used in literature exerywhere, "school age" includes the period of life from the age of 4 or 5 years to adult age as the epoch most suitable for schooling.

1 (b). Computsory school age. -The age at which children are obliged by law to attend school in those States of the Union having compulsory school laws. This age also varies in the several States, but 8 to $1 \frac{1}{2}$ may be considered as the representative. The children sabject to a compulsory school law constitute the "compulsory school population " of a State.

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Eng. Age for school attendance.
Gor. Schuluflichtiges Alver.
Fr. Âge scolaire.
It. Obbligo di frequentare la scuola.
Sp. Edad escolar; or edad de la obligación escolar.
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NoTE. -Tho compulsory school age in the foreign countries considered above varies, bret 6 to 13 may be regarded as typical. All the children subject to compulsory school laws in England and France, and the major part of those in Germany, are allowed free instruction at lulic schools.

1 (c). School population. See 1 (a) and note.

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1(d). Compulsory school population. For definition see 1 (b).
    Eng. Population of school age.
    Ger. Schulpflichtige Kinder.
    Fr. Enfants d'age scolaire; or, Nombre d`enfants à instruire.
    It. Popolazione da b a 12 anni.
    Sp. Niños en edad de escuela.
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2. Enrollment.-Number of different pupils enrolled (or entered) on the school registers during any given year; or, in other words, the entire number of different pupils who have attended at any time during the year.
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Eng.Number of children (or scholars) on registers.
    Ger. Zahl der Einqeschriebenen.
    Fr. Population des écoles; or, Nombre des élèves inscrits.
    It. Numero degli iscritti.
    Sp. Número de ninos concurrentes (or inscriptos).
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    3 (a). Attendance.-Number of pupils present (on any given day or at any given time).
        Eng. Aitendance.
    Ger. Frequenz, determined on two test-days (Stichtage) each year.
    Fr. Fréquentation, or Élèves présents, determined as in Germany.
    Sp. Asistencia.
    3 (b). Arerage aitendance-Average number of pupils attending each day or session.
Eng. Average aitendance.
Ger. Durchschnitts-Frequenz.
Sp. Asistencia media; or Promedio de la asistencia diaria.
4 (a). School year.-(1) The year, or period of twelve months, for which school officiais nre elected, appropriations of money made, teachers hired, school reports made, etc., though ihe annual epoch of some of these features sometimes dates from a different day than that of others. In the United States the school year usually begins the 1st of July, or some other day dirring the summer vacation. The term is sometimes restricted to (2) that portion of the school year during which the schools are in actual session.

Eng. School year. "A year or other period for which an amual parliamentary grant is . . . paid or payable." It "is the year ending with the last day of the month preceding that fixed for the inspectors' annual visit."-Ed. Acts ILan., 17 ed., p. $3 \%$.
Ger. Schuljahr.
Fr. Année scolaire.
1t. Anno scolastico.
Sp. Año escolar.
4 (b). Length of school year.-The number of days, weeks, or months the schools were in actual session during the school year. The expressions "length of schools," "duration of schools," "length of school term," etc., are also used. The average length of the school year is the average of a group of schools in which the number of days of session varies. As in most foreign govern-
mental school systems the number of days is nearly uniform, this latter term has little application outside the United States.

Eng. Number of times school has kept This must be divided by two to get the number of days.<br>Ger. Dauer des Schuljahres.<br>Fr. Durée de l'année scolaire.<br>Sp. Número de dias de clase.

5. Teacher.-An instructor in an elementary or secondary school.

Eng. Schoolmuster, schoolmistress, teacker.
Ger. Lehrer, Lehrerin; Oberlehrer.
Fr. Maître, maîtresse, instituteur, institutrice.
It. Insegnánte, maestro, maestra.
Sp. Maestro, maestra.
6. Kindergarten.-A school for young children, from about three to six years, conducted after the methods of Froebel,

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Eng. Infant school, or class.
Ger. Kindergarten.
Fr. École maternelle.
It. Asili d'infancia.
Sp. Jardin de infantes.
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7. Elementary instruction. -Instruction in the first principles or rudiments of knowledge, including chiefiy reading, writing, spelling, arithmetic, grammar, geography. United States history, and often the outlines of natural history and science, the pupil being prepared by this course to enter upon algebra and Latin or some modern language. Usually in the United States the first eight years of a fully graded public-school course mark the period of elementary instruction, the child entering at the age of about 6 years. Elementary schools are schools in which elementary instruction is the sole or predominating feature. These, in a fully graded course, may be subdivided into primary schools (first four years) and grammar (or intermediate) schools (second four years). Kindergarten instruction is also classed as elementary.

> Eng. Elementary instruction.
> Ger. Elementar-Unterricht.
> $\mathrm{Fr} . \quad$ Enseigncment primaire (exeluding the "primaire supérieur").
> It. Istruzione elementare.
> $\mathrm{Sp} . \quad$ Enseñanza primaria.
8. Secondary instruction.-This is supposed to begin the ninth year of the course of study, and to take up algebra, geometry, natural philosophy, physical geograply, Latin, Greek, French, and German, for some or all pupils, and for a whole or a part of the four years; also an outline study of universal history, English literature, and some of the special natural sciences, as geology, human physiology, botany, etc. A secondary school is a school whose ultimate object is to give a secondary education, and which may or may not have a preparatory course of elementary grade, or pupils pursuing elementary studies.

Eng. Secondary (or intermediate) instruction. The term "secondary schools" in England is applied to certain groups of schools designed for the education of the upper and middle classes, including endowed grammar (i. e., classical) schools, endowed nonclassical schools, private schools, and proprietary schools. These are also known as middle-class schools. They receive pupils at about the age of 8 , continue them in their elementary studies, and carry them along to an age varying from 14 to 19 , giving them an education in some cases higher, in othersespecially in the "private" schools-not so high as is indicated by the term secondary in the United States The nine great public schools of England (Eton, Harrow, etc.), which are properly "intermediate" schools-i. e., standing between preparatory primary schools or private tutors and the "universi-ties"-receive pupils from 10 to 15 , and are of higher grade than most of the secondary schools of the United States. Higher board schools have developed in some of the large cities, and correspond nearly to our public secondary schools (high schools), giving to the children of their people an opportunity to continue their education beyond the elementary grade. About 80,000 pupils pursue highschool subjects in elementary schools.
Ger. Höherer Unterricht (i. e., higher than that given in the Volksschulen).
Fr. Enseignement primaire supérieur. The instruction given in the Division de grammaire of tycées and collèges communaux also belongs here.
It. Istruzione secondaria.
Sp. Enseñanza secundaria.
9. Higher (or superior) instruction.-This is supposed to take the fourth epoch of four years in a complete course of education, secondary taking the third four years, and elementary educa-
tion the first eight years By topics and methods, the higher education is distinguished by taking mathematics in those branches which succeed plane geometry and elementary algebra; Latin and Gieek writers, that require more maturity of reflection to master, such as Horace, Livy, Tacitus, Juvenal, Cicero’s moral essays, Homer, Demosthenes, Plato, Aschylus, Sophocles, Euripides, Aristotie; physics treated by mathematics; rhetoric; mental philosophy; the philosophy of history. In general, the studies of higher education are conducted on a comparative method, with the purpose of treating each theme in the light of all branches of knowledge. A higher institution of learning is one whose ultimate object is to give a higher education. and which therefore may or may not hare a preparatory department, in which instruction is given in secondary or even elementary branches.

Eng. University instruction; collegiaie instruction.
Ger. Hochschulunterwicht.
Fr. Enseignement supérieur. The last three year's of the enseignement secondure is also of the higher grade, according to the United States standard.
It. Istruzione superiore.
Sp. Enseñanza universitaria.
10 (a). Special schools.-Schools of elementary or secondary grade, which (1) educate for some special trade, business, or occupation (e.g., commercial colleges, art schools); or (2) educate some special class of persons (e. g., deaf-mutes, juvenile delinquents).

Sp. Escuelas especiales.
10 (b). Evening schools.-A class of special schools, generally public and located at the centers of population, designed to give evening instruction in elementary and sometimes in secondary branches, general and technical, to persons whose occupation, age, or both, prevent them from attending the day schools. A special feature of erening schools in some cities of the United States is the instruction of foreigners in the English language.

Eng. Evening schools.
Ger. Fortbildungsschulen (elementar).
Fr. Classes d'adultes. (Held in the evening or on Sunday.)
It. Scuole serali.
Sp. Clases nocturaus.
10 (c). Evening high schools. Continuation schools.-A class of erening schools, designed more particularly to give some degree of secondary education to youths who are obliged to go to work after finishing their elementary education in the day schools.

Ger. Höhere Fortibildungsschulen. (Evenings or Sundays.)
11. Schoolhouse.-A building used for school purposes, one in which instruction is given

Eng. School building.
Ger. Schulhans.
Fr. Maison d'école.
It. Edificio-scolastico. Locale per le scuole.
Sp. Casa de escuela.
12. Number of sittings for study, excluding those used̄ only for recitation purposes.

Eng. Accommodation, number of seats. Includes all seats, being total seating capacity. Sp . Area de las salas de clase.
13. School property.-All property, real and personal, belonging to a school system (i. e., not hired or rented), and designed to be used for school purposes, including school sites and buildings, furniture, libraries, apparatus, etc.

Eng. School buildings, premises, and furnishing.
Ger. Schul-Eigenthum.
Fr. Bâtiments et matériaux scolaires.
Sp. Edificios, menage, y útiles escolares.
14. Salary (or wages) of teachers. -The sum paid to teachers weekly, monthly, or annually, as compensation for their services. In computing the average monthly salaries of any gronp of teachers, weekly and annual salaries must be reduced to a monthly basis.

Eng. Salary.
Ger. Gehalt.
Fr. Traitement.
It. Onorario stipendio.
Sp. Sueldos.
15. (a). Revenue (school).-Money from any source received for school purposes.

Eng. Income.
Ger. Einnahmer.
Fr. Ressource.
It. Rendita.
Sp. Ingresos.

15 (b). Sitcte (school) tax.-A uniform tax levied on all the property or polis of a State, the proceods whereof is apportioned to the counties, towas, or school districts generally, according to school population or average atteadance.

Eng. Rates.
Ger. Stacits-Schalsteuern.
15 (c). Local (school) taws.-County, town, and school district taxes for school purposes.
Eng. Rates.
Ger. Orts- (or Mrunicipal-) Stcuern.
Fr. Contimes additionels, or spéciaux.
It. Tasse rommunale e provinciale.
Sp . Fondos provincialcs, comanalcs, y municipaies. Impuestos depariamentales de instrucción pública.
1.5 (d). Revenar from permanent funds. -The interest on invested funds, including ront of school lands, if any.

Eng. Income from cndowment.
Ger. Interessen cingelcgter Fonds.
Fr. Produit des legs ct dons.
Gip. Ingresos por donativos y legados.
19 (a). Expenditure (sclool).-Money expended for school purposes.
Eng. Exponditure.
Ger. Ausgaben.
Fr. Dépenses.
It. Spese generali.
Sp. Gastos.
19 (b). Amount paid to teachers (for salaries), including salaries of superintendents.
Eng. Teachers' salaries.
Ger. Ausgaben für Gehälter.
Fr. Tiaitements.
It. Stipendi; rimunerazioni ed indemnita al personale.
Sp. Obligaciones del personal. Gastado en el personal enseñante.
13 (c). Oifer curvent expenditure in addition to amount paid to teachers; i. e, incidental or miscellaneous expenditure for the maintenance of the schools and care of school buildings, including, among other things, fuel, lighting, janitors, incidental repairs, free text-books if any, and stationery, cost of administration, rent of hired buildings, ete. Foreign countries do not conform to this classification, but the analogous foreign terms are as follows:

Eng. Miiscellaneous cxpenditure.
Ger. Andere Ausgaben.
Fr. Dépenses diverscs.
Sp. Eventuales. Gastos cn materiales, útiles, etc., de consumo anual.
15 (d) Permanent oxpenditure.-Expenditare for school buildings (including permanent repaixs), grounds, furniture, libraries, and lasting apparatus.

Eng. Capital charges.
Ger. Baukosten.
Fr. Dépenses de construction; frais de location de maisons d'école; entretien des locaux scolaires; entretien et renouvellement du mobilier scolaire et du matériel d'erseignement.
It. Sussidi per construzione e riparazione di edifici scolastici.
Sp. Gastos que aumentan el capital escolar.
17. Permancut funds.-Value of funds and other property yielding an annual revente for school purposes.

Eng. Endowment.
Ger. Fonds.
Fr. Dons ct legs; biens.
Sp. Donativos, legudos, y mandos.
19. Tardy.-Late in arriving at school.

Eng. Not punct́ual.
Gev. Zuspäthommend.
Fr. En retard
Sp. Falia de ountualidad.
22. Average number belonging to a school, or system of schools, inciudes temporary absentees. Pupils absent for sickness or other cause, but with intention of returning to schocl, are considered as "belonging." This number differs from the number "enrolled" (see 2), inasmuch as the latter includes all different pupils who have attended at any time during the year, some of

Whom may have been dropped from the roll of those "belonging," on account of death, removal from the district, protracted sickness, entrance on business, etc.

Sp. Alumnos existentes.
25. Normal school-A school designed for the professjonal training of persons intending to become teachers, usually maintained by a State or city.

Eng. Tiaining college.
Ger. Lehrer-Seminar.
Fr. École normate.
1t. Scuela normale.
Sp. Escuela normal.
$2 \%$. Certificate: license (to teach), - A formal testimony of ability to teach, or permission to teach, awarded as the result of satisfactory examination before an examining board, or after having sticcessfully completed a certain prescribed course of study, or given other evidence of capacity to teach.

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Eng. Certificate.
Ger. Zeugniss; Reifezeugniss; Licenz.
Fr. Titre (or brevet) de capacilé; certificat d'aptitude pédagogique.
It. Diplôma d'abilitazione (or ilidoneita).
Sp. Certifcado de aptituü; diploma ó titulo de macstro.
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28 (a). University - An institution for higher education, having as its nucleus a college in which the so-called liberal arts are tanght in a course of three or four years for the degreo of A. B., and in addition one or more departments for the learned professions, medicine, law, ar divinity-or it may le for adranced or post-graduate work, along any lines of learning or intestigation. In England the university unites several colleges.

Eng. Universily.
Ger. Universitüt.
Fr. Faculté. Université is the term very generally employed for the Paris "facultés."
It. Universita.
Sp. Universidad.
28 (1)). College.-Strictly speaking, an institution of higher education, usually with a fonir years' course comploting preparation for the degree of A. B. The word college is also used in comection with a descriptive word to designate other species of higher education, as, "agricultural college," "medical college."

Eng. College.
Ger. Cymancisium.
Fr. Lycéc; collége communal (de pleiñ exercice)
It. Gimnasio: liceo.
Sp . Instituto; colegio.
28 (c). High school.-A priblic secondary school.
Eng. Higher board school.
Ger. Fïhere Scłulle, Realschule, liöhere Bürgerschule.
Fr. École primaire supérieure.
23 (d). Academy; institute; seminary.-Names given indifferently to private secondary schocls "Institute" is occasionally applied to schools of higher grade.

Eng Grammair school; high school: institute; public school, etc.
Fr. Étabissement libre d’enseignement secondaire; établissement lä̈que; étublissement ecclésiastique; petit seminaire.
Sp. Establecimiento privado de enseñanza secundaric; seminario; instituto; liceo.
30. Session.-A sitting of a sshool, or assembly of the pupils for recitations, exercises, and studies, continuing from the time the school is called to order until the pupils are dismissed beyond the teachers' jurisdiction. There are generally either one or two sessions each day.

Eng. Meeting of the school.
Ger. Schzulstumade.
Sp. Horas de clase.
31. Recess: intermission.-Brief suspensions of school exercises, recurving periodically ench day, for recreation, meals, or some other purpose. In public elementary schools holding sessions from 9 to $1.2 \mathrm{a} . \mathrm{m}$. and from 1 to $4 \mathrm{p} . \mathrm{m}$., two recesses of fifteen minutes each take place, the first at or near the hour of $10.30 \mathrm{a} . \mathrm{m}$., and the second at or near the hour of $2.30 \mathrm{p} . \mathrm{m}$. The noon hour for dinner is not called a "recess," But usually an "intermission."

Ger. Freiviertelstunde.
Fr. Récréations: sortie de midi.
Sp. Recreos y salidas.
32. Corporal punishment.-Punishment inflicted upon a pupils person, generally with a rod, cane, or ruler, but including a varity of other punishments in which bodily pain is caused. Other punishments, to be discriminated from corporal, are such as are based on the sense of honor, such as deprivation from privileges of the school, confinement after school hours, requirement to sit or stand in some unusual place, enrollment on a list of disgraced pupils, etc.
33 (a). Promotion.-Advancement from any grade to the next higher.
Eng. Alvance to higher standurd.
Ger. Veisetzung.
Fi. Avancement; montée d'une classe.
Sp. Promociones; pases.
33 (3). Grade: class - The body or group of pupils having the same degree of advancement pursuing the same studies, etc.

Eng. Stindard.
Ger. Klasse.
Fr. Classe.
It. Classe; grado.
Sp. Clase; grado; curso.

## CHAPTER XXX.

## MEDICAL INSPECTION OF SCHOOLS.

A system of daily inspection of schools by physicians has been introduced in several cities, among others Boston, New York, Chicago, Philadelphia. In the following pages is given a compendium of information bearing upon this subject, in a series of extracts from school and other official reports, from the writings and addresses of eminent professional men, and from other sources. A short description of the system in Paris is also given.

## MEDICAL INSPECTION OF SCHOOLS IN BOSTON.

[Massachusetts State Board of Health Report, 1894, p. 819.]
The need of medical inspection of schools, for the purpose of detecting contagious and other diseases among the school children, was brought to the attention of the mayor and city council in 1892, and for this purpose an appropriation was then secured. A delay of several months was occasioned in securing theapproval of the school committee, so that the plan did not finally go into operation until November, 1894, when the board of health selected 50 physicians for this purpose, divided the city into 50 school districts, and began school inspection. These physicians are appointed medical inspectors of schools and agents of the board of health, and are authorized to visit each school daily during the early part of the morning session and to examine all pupils who complain or appear to the teachers to be ill. If an inspector finds a pupil showing symptoms of any contagious disease, or is otherwise too ill to remain in school, he will advise the teacher to send the pupil home for the temporary observation of its parents or family physician. He will also give such professional advice as may be required by the teachers to a d them in carrying out all laws and regulations pertaining to contagions diseases, vaccination, and general school hygiene, whose enforcement belongs to the school committee or board of health. In the examination of throats the medical inspectors will use only the wooden tongue depressors which are furnished by the board of health, each of which is to be burned after a single use.

The medical inspectors of schools are also authorized agents of the board of health, and will, on notification of said board, visit all cases of scarlet fever and diphtheria at the homes of the patients, for the sole purpose of examining the places and plans of their isolation, and as such agents they will report to the board of health their approval or disapproval of such places and plans of isolation. Such medical agent will not prescribe, advise, or criticise anything beyond that which pertains strictly to the isolation of the patient, and will carefully avoid any word or act which may be construed as an infringement upon the rights: of the family or attending physician. He will visit the patient as often as may be necessary to inform himself as to the continued isolation of the case. No case of scarlet fever or diphtheria will be discharged from isolation until its completerecovery is certified to the board of health by one of its medical agents, and such certificates of recovery will be based on the complete disappearance of desquamation in cases of scarlet fever, and on the absence of the Klebs-Lœefler bacillus in cases of diphtheria, the latter to be shown by bacteriological examination madesatisfactory to the board of health.

The reports of the medical inspectors of schools for the months of November. and December show that 4,962 pupils were presented to them for examination. Five hundred and sixty-four were found to be too ill to remain in school for thetime being, 212 were suffering from contagious diseases, 43 were suffering from. diphtheria, and 131 were too ill from troubles in the eyes and ears to be in school.

Diseases of the throat were most prevalent, and were found in 1,749 pupils. Diseases of the eje, ear, and spine are found sufficiently often among the school children to warrant a more careful examination to find those who may be suffering from mild forms or early stages of these diseases. It often happens that school children suffer serious and unrecognized disadvantages by reason of defective eyesight, deficient hearing. or a commencing deformity of the spine. The mild forms and early stages of these ills would not generally be seen and appreciated by the teachers, and it would be unreasonable to expect them to detect illness which requires special skill on the part of the physician to recognize.
The board of health reported that " diphtheria became epidemic during the year (1894), causing 817 deaths, and its increase was noticeable in every month of the year over those of 1893. It assumed an epidemic form in the last week of September, reached its climax about the first week in December, and gradually fell off at the end of the year. * * *
"The prevalence of the disease in epidemic form made it possible for the board of health to introduce three new forces for the suppression of the disease. One is the new remedy, 'antitoxin;' * * * another agent has been found in the use of the bacteriological laboratory. $\% ~ \% ~ \% ~ T h e ~ t h i r d ~ a n d ~ p r o b a b l y ~ m o s t ~ p o t e n t ~$ agency in controlling the spread of this disease and that of scarlet fever is the new force of 50 physicians for the daily inspection of the schools, in which there are more than 60,000 of the most susceptible subjects to these two diseases. This has set in practice the most active, constant, and skillful watchfulness for the earliest symptoms of these and other diseases among school children."

## [Massachusetts State Board of Health Report, 1893, p. 756.]

The inspection of schools, which was commenced in November, 1894, and described fully in our last annual report, has been followed through the year with excel!ent results. The schools have been visited daily, and all children who have complained of illness or appeared to the teachers to be ill have been examined by the visiting physician, who, in all cases, advises the teachers what to do with the pupil. This work has now been in progress for fourteen months, and it has demonstrated the fact that there are not only many cases of contagious diseases to be found in the schools, and which require early recognition and removal, but that there are large numbers of school children whose illness and whose disposition by the teacher require the decision of a competent physician.

Foi the fonteon months ending Deceinber 3:, 1895, 16,790 pupils were examined, $10,73 \%$ of whom were found to be ill, 6,053 were found not to be ill, and 2,041 of these were too ill to remain in school for the day.
Seventy-seven cases of diphtheria, 28 cases of scarlet fever, 116 of measles, 28 of chicken pox, 69 of pediculosis, 47 of scabies, 47 of mumps, 33 of whooping cough, and 8 of congenital syphilis were found in children sitting in their seats, spreading these diseases to other children. The remaining 10,372 sick children were suffering from a large variety of other diseases.

Coinmendable efiorts were made by the board in the direction of a general improvement of the sanitary condition of the schoolhouses of Boston. In view of the fact that contagious diseases may easily le spread in the schools through the medium of infected books, pencils, sponges, slates, desks, and other surfaces of the schoolroom handled or used by the children, the following recommendation was nade to the school committee in 1894:

## To the Honorable School Committee, City of Boston.

Gentlemen: The board of health begs respectfully to recommend that the desks, chairs, window sills, wainscotings, doors, doorknobs, and such other surfaces as are likely to bo handled by the children within the school buildings be carefully rubbed with cloths or sponges, wet with a solution of corrosive sublimaite (one part of comosive sublimate to 1,000 parts of water), as of̈ten as every Saturday during the school year; that the floors of the schoolhouses be well covered with sawdust, thoroughly wet with the same disinfecting solution, at least once a week, and the sawdust swept up and burned; that the use of all slates, slate pencils, and sponges for slate use be discontinued, and that paper and lead pencils be substituted.

The disinfection of books is scarcely practicable except by fire, and the board would recommend, whenever it is known that a book has been handled by a pupil who was at the time affected with a contagious disease, or the book is otherwise much soiled, it be immediately burned.

Very respectfully,
The Board of Health, By S. H. Durgin, Chairman.

There were 72 fewer deaths from diphtheria than in 1895, although the number of cases of diphtheria reported was largely increased on account of the larger number discovered among the pupils in the public schools by the medical inspectors of schools and the bacteriological tests in the otherwise unrecognized cases. The ratio of deaths to the number of cases of diphtheria reported was 11.48 per cent, as against 14.48 per cent the preceding year.

The medical inspection of schools has been continued during the past year, with the same encouraging and satisfactory results as during the previous fourteen months. All pupils who have complained or appeared to their teachers to be ill have been examined by the risiting physicians, and the teachers advised as to what should be done with such pupils. The teachers and visiting physicians have entered upon and pursued this work with surprising hamony. The search for infections diseases in the schools during the last year has been even greater, while the number of cases in this class found in 1898 is less than that of 1895 . Tho same is true also of the other miscellaneous diseases. Considerable inquiry has been made by officials of other cities as to our methods and results in this work, and several cities are now preparing to adopt a similar system.

For the year ending December 31, 1896, the whole number of pupils examined was 8,964 , and of this number 1,156 were found to be too ill to remain in school. The diseases found may be classified as follows:






Total number of examinations .-................................................. . . . . 8 , 964

## MEDICAL INSPECTION IN NEW YORK CITY.

At a meeting of the New York board of health held March 18, 134 medical inspectors were appointed for public schools, in accordance with the provision recently made by the city authorities at the recommendation of the health department, indorsed by the board of education. Dr. A. Blauvelt, formerly assistant chief of the burear of contagions diseases, was appointed chief inspector at an annual salary of $\$ 2,500$.

## Some results of school inspection in New York City. ${ }^{2}$

The weekly report of Dr. Blauvelt, chief of the bureau of school inspection, for the week ending April 10, shows that in the public and parochial schools of the city 7,398 children were examined and 364 excluded. The number of cases of disease were as follows: Measles, 2; diphtheria, 13; scarlet fever, 1; croup, 3; whooping cough, 4; mumps, 10; contagious eye diseases, 59 ; parasitic diseases, 227 ; chicken pox, 15; skin diseases, 19.

Dr. Blauvelt, chief of the medical school inspectors, in his report to the health board ${ }^{3}$ of the work of the school inspectors for the week ending April 23, stated that out of 4,599 examined, 243 children were excluded. There were 4 cases of measles, 4 of diphtheria, 1 of scarlet fever, 2 of croup, 13 of mumps, 8 of chicken pox, 23 contagious eye diseases, 160 cases of parasitic diseases of head and body, and 13 skin diseases.

## IN CHICAGO.

For the supervision of contagious diseases and the inspection of schools the city has been divided into 9 districts. one medical inspector being assigned to each. giving an average of more than 20 square miles for each inspector to cover, and the number of schools assigned to each is about 30 , with branches varying in number from 10 to 20.

[^30]
## IN PHILADELPHIA.

Jine 7,1898 , the bureau of health-
Resolved, That the medical inspector be directed to have the 15 assistant medical inspectors visit one public school each day in their respective districts, who shall inspect each school according to the methods now employed in Boston, New York, and Chicago.

## MEDICAL INSPECTION OF SCHOOLS IN ST. LOUIS.'

The memisers of the Medical Society of City Hospital Alumni of St. Louis have offered their services gratuitously to the board of education for the purpose of conducting a daily medical inspection of the pupils in certain schools in order, they say, that a practical local test may be made of a service that has been found so valuable in a sanitary sense in other cities. It is proposed to select 10 schools which will fairly represent the entire school population and have them visited daily during October, November, and December by physicians whose duty it will be to advise the several principals in the cases of pupils found ailing and suggest the most judicious course to be pursued-the object of the service being the earliest possible detection of such diseases as diphtheria. scarlet fever, croup. etc., and the prevention of their further spread. This ofter has been accepted by the St. Lo is board of education, and the preliminary details are now being worked out by the committee of the Medical Society of the City Hospital Alumni.

## BROOKLINE, MASS. ${ }^{2}$

The board votel December 10 that the agent should secure a sufficient number of physicians to make daily medical inspections of the schools. Six inspectors and 4 substitutes were at once appointed. All accepted were assigned to schools, and on the 11 th all were at their posts. The duties of the inspectors were manly confined to the examination of children founa by their teachers to be ill, and also any noticed by the inspectors, and advice as to the disposal of sick children, and with very few exceptions the teachers heartily cooperated.

## MEDICAL INSPECTION IN NEWTON, MASS. ${ }^{3}$

The plan of appointing medical inspectors for each ward or school district, on whom the board can call to examine the children in a school or elsewhere in the event of suspected cases, has worked most satisfactorily. Several school inspections have been made and a large number of children hare been examined at their homes by the inspectors; in several instances unsuspected cases of disease have been (iscovered and reported to the board, thas enabling it to take proper precautions. No complaint in regard to the interference by the inspectors with the work of the family physician has been reported, and the board will continue the system during the coming year.

## DESIRED IN LOWELL, MASS. ${ }^{*}$

A. K. Whitcomb, superintendent of schools in Loweil, Mass., says: No consideration is more important than the health of children. Education gained at the expense of health is a loss, and a sound body is a price too great to pay for even a whole worid of knowledge. Nor do unsanitary conditions at school affect the children alone. One-seventh of Lowells population is in school, and this serenth inevitably carries disease, if it finds it in the schoolhouse, into every family in the city. Hence the superlative importance, not only to the children, but to every citizen, of expert supervision of the schools. the schoolhouses, and of all the physical conditions under which the children live in school.
Most of the great tuition schools abroad, and many here, have a resident physician for the prevention rather than the cure of disease, and the value of their work is beyond question. In the public schools medical inspection, where there is any, usually takes the form of visits at intervals of several months rather than of daily calls. In Boston 49 physicians are employed at a nominal salary of $\$ 200$ per annum to visit every school each day and examine pupils of whose fitness to

[^31]remain the teacher has a doubt. In the first month of such visitation 437 sick children were found in school, among whon were 37 ill with diphtheria and 104 with scarlet fever. These startling flgures tell their own story and leave no need of argument to prove the value of the work. * * * A phase of the subject which has been attracting widespread attention in recent years has been the study of children physically defective, the defects most noted being those of sight and hearing. Tests in Europe and in this country hare shown a startling prevalence of these defects, which have been unsuspected by either child or parent. A child, for instance. blamed for stupidity because he had learned nothing in several months, was found to be so defective in vision that he had never seen, a letter clearly enough to distinguish it from others. And scores of cases as pitiable, where not only education but health and life itself have been imperiled or lost through such unsuspected deficiencies, have come to my personal knowledge and have brought me to feel that anyone who reveals such defects and puts them in the way of cure or mitigation is second to none as a public benefactor. To discover such cases in the Lowell schools, in order that parents may, if they please, secure for their children such treatment as will most benefit them, is one of the reasons why I plead for medical inspection.

I have not myself yet seen the need of daily visits by many physicians. My ideal is to have one who shall give his whole time to the work, though I shall not at all object to a cooperating board of daily visitors at a nominal salary. The man selected should be an expert in sanitation as well as a skilled physic:an. He should go to each house, should begin with the basement and see that it is clean, dry, and well ventilated; should inspect the plumbing and see that sanitaries are in perfect order; should enter the schoolrooms and have regard to temperature, ventilation, light, curtains, the position and use of blackboards, the size and position of seats and desks; should test the air of schoolrooms for carbonic oxide or other noxions gases; in short, should interest himself in everything which pertains to the physical well-being of the child. He should be constantly on the watch for contagions diseases; should have power to send home children too ill to be in school, and in this should be in close touch with the board of health, of which he might well be a member. He should test for physical defect; of sight and hearing, and should see that parents are notified of matters needing their attention, and so ou through a round of useful duties too numerous to be specified.

## IN FALL RIVER, MASS. ${ }^{1}$

William C. Bates, superintendent of schools in Fall River, Mass., says: In my report last year I called attention to the medical visitors in the schools of the city of Boston. The experience of this year has shown that such a servise of daily visitation is much needed here. The room teachers, the principals of luildings, the truant officers, and the clerks in the office do all in their power to guard the children from contagious diseases. If these efforts could be supplemented by the regular visits of physicians, more immediate and positive action could be taken in suspicious cases. We are under very great obligation to the agent of the board of health and the city physicians for almost daily visits to the Robeson and Columbia street schools while contagious diseases were prevalent in that district. More care than ever has been taken to exclude all children from families afflicted with measles and all children who have the whooping cough, but even in these diseases we feel the need of the medical visitor in order that we may be sure that the right action is taken.

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\text { COMMENDED IN WASHINGTON, D. C. }{ }^{2}
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Among other notions that have been introduced into the public schools of Bostoa is a daily medical inspection. The city employs for this service 50 doctors at a salary of $\mathrm{S}_{2} 00$ a year. It is stated that bright young members of the medical profession are glad to accept such appointments, and it can readily be seen that such an introduction into business may be advantageous. The work occupies but a small part of the day. During the last school year this inspection disclosed 500 cases of infectious diseases, while 3,000 pupils were sent home. The list of diseases discovered included 200 cases of mumps, 100 cases of measles, and 175 cases of diphtheria, scarlet fever. whooping cough, chicken pox, and intluenza.

Diphtheria is now extremely prevalent among the school children of Worcester, and the Worcester Telegram urges that the Boston plan be applied in that city. "Ten physicians," it says, "ought to be able to make the daily rounds of W orcester
schools if 50 can cover the ground in Boston, and $\$ 2,000$ will be wisely spent paying them."

We do not know just how much time is devoted to the daily inspection or whether it includes all the scholars, or only such as seem, from general appearance, to need attention. If it could be so managed as not to interrupt the regular progress of school work, it would be desirable in the schools of all cities. The cost would be trivial in proportion to the probable results.

SOME RESULTS OF THE MEDICAL INSPECTION OF SCHOOLS IN BOSTON, WITH AN ACCOUNT OF AN EPIDEMIC OF DIPHTHERIA AND AN EPIDEMIC OF SCARLET FEVER.
[By H. D. Arxold, M. D., Boston, Mass.]
It has long been recognized that the schools are an important factor in the spread of contagious diseases. In addition to the fact that in any collection of large numbers of people within a small space we have a favorable condition for the spread of infection, there are certain factors in the schools which increase the danger. The children are of a susceptible age. Our schoolrooms are overcrowded and the ventilation is generally inadequate. In their play and in some of their school erercises the children come in close contact, and they still use many articles in common. They are careless in regard to the secretions of the mouth and nose, and the road is an easy one from mouth to hand, from hand to an article in common use, or to another hand, and again from hand to mouth. Given a case of contagious disease in a cchoolroom and we conld hardly ask for better facilities than are there furnished if we wished to spread the disease. Given a case of contagious disease anywhere in the school district and unless effective measures are taken to isolate it until all danger is past its chances of reaching the schoolroom are excellent. Given careless parents, and parents who are urable or unwilling to call a doctor to pronounce on the nature of apparently slight affections of the throat, etc., and we have the most mischievous factor of all in the spread of contagious diseases, namely, the appearance in public of these diseases in a form which is light and unrecognized by the laity. That these unrecognized light cases find their way into the schoolroom has been the experience of every school inspector. That such light cases may give rise to serious and even fatal forms of the disease in others we all know. That it has done so through the medium of the school some of the inspectors can prove.

In view of these considerations, I think we can not question the wisdom of the board of health in attempting to detect cases of contagious disease at the schoolroom and to exclude them before they have done mischief, and in attempting to secure better isolation of cases of contagious disease at home as soon as they are recognized. These are the two aims of the system of school inspection.

The city of Boston, for this purpose, has been divided into 50 districts, to each one of which a medical inspector is assigned. The average is four schoolhouses and 1,400 pupils to each district. It is the duty of the inspector to visit the schools daily; also to visit at their homes all cases of diphtheria and scarlet fever when thny are reported to the board of health, for the purpose of reporting in reference to isolation.

At the schools we do not attempt to examine all the pupils, but only those who are called to our attention by the teachers. It was felt that the teachers, who are constantly with the children, would be more likely to notice that a child was "ailing "than would a physician in making so hasty an inspection of each case as he would be olliged to make if he attempted to see them all. The teacher picks out the "ailing" child, the doctor examines and decides what the ailment is. Practically this plan has worked well, although its weak point is that its efficiency depends entirely upon the conscientiousness and the keenness of observation of the teacher. Our visit to the schools is made, by preference, soon after the morning session begins, having allowed enough time foi" the teachers to observe the pupils, to inquire for cases of sickness, and to report them to the master. This shows another weak point, namely, that any contagious case that cones to school still has an opportunity during a varying length of time to infect other pupils in the room beifore the disease is recognized. Still, owing to the shortness of the time, and in some cases to the good judgment of the teachers in sending a suspicious case out of the room while waiting for the doctor, the practical result is fairly satisfactory. A perfect system of medical inspection of schools should not, however, be based so fundamentally upon the judgment of a nonmedical observer, the teacher.

When a pupil is presented to usfor examination we have several questions to decide. Is he sick or not? If sick, is the disease of a nature to render him a possible source of danger to the other pupils, or is it of such a nature or severity as to
render his stay in school prejudicial to himself? If a positive answer is given to either of these questions we recommend to the teacher that she dismiss the pupil. Usually a verbal or written message (according to age and intelligence) is sent home with the pupil, explaining the circumstances, and if the inspector thinks the pupil needs medical care he adds the recommendation that the family physician be consulted. We do not prescribe for nor give advice to any pupil at the school. They receive no treatment whatever from us, except in the case of emergencies, when such assistance as is demanded on the spot is given. In regard to diagnosis, only so much is said as is essential to explain the action taken. We prefer to say "sore throat," instead of diphtheria or tonsilitis, as the case may be. In other words, when we meet a case of sickness in the school, it is our aim to try not to interfere in any way with the rights of the family physician, certainly not to treat his cases or to indicate what diagnosis or treatment is proper.

There are cases, however, where the question of the safety of the other pupils demands that an investigation should be carried out beyond the schoolroom and at the pupils nome. Here the inspector is placed in a delicate and sometimes an embarrassing position, and good judgment must be exercised. Sometimes this investigation is best undertaken through or in company with the family physician. Oftentimes, however, we feel that it is neither right to put the people to the expense of consulting a physician nor the physician to the trouble of giving a free consultation. Especially is this the case among people who are in poor or moderate circumstances and where the question at issue is one of only slight suspicion or doubt on our part. It would seem in such cases, where it is a question of public safety (not of benefit to the individual), that the investigation might rightly be undertaken by the public medical inspector, provided he makes it plain that he is acting solely in an official capacity for the public good.

Our main duty at the school is, then, to examine such pupils as are reported to us as being ailing, to advise the teacher whether the pupil should be sent home eithex for his own good or for the safety of the other pupils, and to recommend such pupil to the care of the family physician if medical care seems advisable. Incidentally other duties come up. We examine and give certificates of vaccination to such pupils as enter the schools without the required certificate. We vaccinate pupils who have not been vaccinated, if after stitable inquiry we find the family is in real poverty, bat not otherwise. We also advise the teachers with reference to the return of pupils after an absence for sickness, when the only evidence in their possession is a note from the parents. Similar advice is sometimes called for when there is a note from a physician. Not that the diagnosis of the physician is subject to criticism, but that sometimes such notes do not furnish the information which is required to enable a pupil to return to school. I doult whether you all realize that this requirement is determined by statute law, and that the regulation of the school committee is merely carrying out the public statutes of the Commonwealth. The following extract from chapter 198, acts of 1855, will make this clear:
"The school committee shall not allow any pupil to attend the public schools while any member of the household to which such pupil belongs is sick of smallpox, diphtheria, scarlet fever, or measles, or during a period of two weeks after the death, recovery, or removal of such sick person; and any pupil coming from such hotisehold shall be required to mresent, to the teacher of the school the pupil desires to attend, a certificate from the attending physician or board of health of the facts necessary to entitle him to admission in accordance with the above regulation."

By the regulations of the school board each teacher is obliged to keep a record of all pupils absent from school for a contagious disease either in their own person or in a member of the household and arecord of the date of return and of the physician who signed the certificate for return. The teacher is kept posted as to the existence of contagious diseases among her pupils or their families by receiving for inspection each day a list of all contagious diseases reported to the board of health in the preceding twenty-four hours, with the addresses. When, therefore, a pupil returns after a contagious disease, with a note like the following: "In my opinion it is perfectly safe for $A B$ to return to school. X Y Z, M. D.," the teacher has no authority to readmit the pupil. When this case is referred to the medical examiner, if he is not in possession of facts which enable him to fill out a proper certificate himself, he must refer the case back to the physician for a proper certificate, for he is not given authority to alter the statute law of the State.

We are also called upon sometimes by the teachers for advice about the hygiene of the schoolroom, etc., and sometimes the hygienic condition of the school calls for notice on our part. So there are a number of ways in which the daily visit of the school inspector may be oí benefit to the health of the school children.

The school inspector also has duties outside of the school in connection with contagious diseases. Acting as the agent of the board of health, he visits all cases of diphtheria or scarlet fever reported to the board of health which lie in his district. He is required to report to the board of health whether the proper isolation required by them is being carried out. He is also required to certify when the danger of infection from the body of the person has ceased, and the case is ready for release from isolation, and the apartments ready for disinfection. Since the development of the method of determining the presence of the bacilli of diphtheria by cultures, that method has been adopted by the board of health as the proper test to determine when it is safe to release patients who have been sick with diphtheria. When the terminal culture taken by the family physician is foumd to be negative, the board of health has all the evidence required. and is ready to disinfect at once (without the intervention of its agent), provided the family physician indicates that the patient is otherwise ready, by marking the card that goes with the culture "For release." In such case, if the culture is negative, the laboratory notifies the board of health, and no other formality is necessary. In case the family physician is unable to take the culture for release, the board of health will, on request, send its agent, the school inspector, to take the culture.

In the case of scariet fever, however, there is no bacteriological test possible to determine when the danger of infection ceases. As infection from a case of scarlet fever in its later stages commonly comes through the desquamating epithelium, the cessation of desquamation has been adopted by the board of health as determining practically the time when danger of infection ceases. That the desquamating epithelium is a medium by which the infection may be conveyed is, I believe, universally admitted by physicians. It is not universally recognized, however (if we may judge by certificates that "all danger of infection has ceased"), that the epithelium from the later stages of desquamation is dangerous. It is owing to the apparent differences of opinion among physicians on this point that the board of health has deemed it wise to require a statement from its own agent before releasing the patient and disinfecting after scarlet fever. It does not assume that its medical inspectors possess superior judgment or more knowledge of the diseases than the family physician, but merely that it can require them as its agents to report certain definite facts and can thus secure definiteness and uniformity in carrying out its regulations. We have no practical means of determining whether the desquamating epithelium in a given case at a certain stage is or is not infectious. The only safe rule seems to be tiat recommended by a committee from the school inspectors appointed to consult the medical authorities on this question-that desquamation in any stage must be regarded as dangerous.
As agents of the board of health, the school inspectors are, therefore, instructed not to recommend the release of a patient after scarlet fever until desquamation has entirely ceased, although the period required for this is often long enough to make the family, and sometimes the physician, restive.

During the winter of 1894-95 (the first winter of the work of school inspection) we had an epidemic of scarlet fever in the city of a fairly mild type, but typical. Of the cases which came under my observation as school inspector I secured definite information in twenty cases of scarlet fever as to the time from the beginning of the disease to the end of desquamation.

The average time was thirty-seven and one-half days from the first definite symptoms of the disease, and thirty-five and one-half days from the appearance of the rash. The shortest time, twenty-five days: the longest, sixty days. * * *

The usefulness of the inspector's work at the schools is shown not only by the statistics of the total number of cases examined, but by such results as are given in the following account of an epidemic of diphtheria. It occurred in a class room in a school under my charge, and it is interesting as showing how such an epidemic may be introduced and spread among the pupils of a class, as showing that an epidemic may be stamped out by prompt and efficient measures, and as illustrating some of the difficulties involved in the medical inspector's position.

The class was the lowest primary class, still using some of the kindergarten methods and having a number of articles in common use. It consisted normally of about 50 pupils, but had been reduced by absences for measles and other causes to about 40. The room was rather crowded, the school building an old one, with poor facilities for ventilation, and hence the hygienic condition was not of the best.
(If the 40 pupils it is known that at least 14 were sooner or later affected by diphtheria, and that at least 4 other chiidren in the families of these children contracted the disease from them. There was 1 fatal case among the 14 pupils, and 1 fatality anong the 4 who were infected by them. We have, then, an epidemic of 18 cases, with 2 deaths.

The earliest case in this epidemic attended school last on April 20, 189\%, but owing to a combination of circumstances the existence of an epidemic was not recognized until May 5. One canse for the delay was that for some time there had been so many absences caused by measles, colds, etc., that the absences caused by 8 cases during the two weeks did not attract the teacher's attention as being rumsual. The other principal reason was slowness on the part of physicians in reporting some of the cases to the board of health. Notice of the earliest case did not reach the school inspector until two days after the epidemic was discovered and sixteen days after the child was taken sick. One other case went directly to the hospital, another was outside my district for visiting the homes, and of the other 5 cases up to that time I had received word about only 2 by May 4. Finding that these 2 attended the same class, I went to the school May 5 to investigate. The teacher was already aroused in the matter, for she had that morning found on the board of health report 2 more cases of diphtheria from her class. She had also heard rumors from the pupils that two or three others had the disease, and she found 3 cases of sore throat in the room, the first time, by the way, that any of these cases had appeared to be at all sick while they remained at school.

It was at once apparent to me that we had an epidemic on hand. Four suspicious cases were sent home and recommended to the care of the family physician. The extent of the epidemic was investigated during the day. The board of health had arrangements made for disinfection at 9 the next morning. The class was allowed to assemble for purposes of investigation, every throat being examined and a culture taken in all suspicions cases. The class was then dismissed, and the formaldehyde generators set to work at once. This was on Thursday morning. After the disinfection the room was cleaned up, allowed to air for two days, and opened for school again on Monday. For a week and a half the throats of all pupils present in the class were examined the first thing in the morning. No child who had had any suspicious symptoms was allowed to return until a culture from the throat was found to be negative. As a result of these ineasures, notwithstanding the fact that the epidemic had made such good headway before discovery, not a single case of diphtheria developed after the epidemic was discovered except those known to have been infected at the time.

I am not sure that I have discovered the case which brought diphtheria into the class room. The first case that could be found after a diligentinvestigation attended school last on April 20. She was supposed by her parents to be well, and the teacher did not notice anything wrong. The next morning she complained of a sore throat, and her father saw some "white patches" in the throat. The presumption is that she had the disease on the 20th when she attended school and gave it to 4 other cases that developed from three to five days later. It is possible, however, that her case, as well as those immediately following, may have been caught in the schoolroom from some other case so light in its symptoms that at the time of investigation no trace could be found of it. It is instructive to learn. in reference to the virulence of the bacilli in light cases and after clinical symptoms disappear, that although this first case proved to be a light case and clinically a short one, a brother and a sister were taken sick on the 23 th and 31st, after the beginning of the disease, owing to a relaxation of the isolation. Both the brother and the sister were seriously sick, and the brother died. The fatal case among the pupils of the class came among the 4 cases which I think were infected by the first case. With these two exceptions, the other cases in the epidemic were quite mild.

How little protection would come by trusting to the parents of some publicschool children is shown by their action in the following cases:

Four cases were sent home at the time of the discovery of the epidemic on the morning of May 5. They all had suspicious-looking throats, and in view of the existing epidemic the diagnosis of diphtheria was warranted clinically. With each child was sent a note stating that there had been some cases of diplitheria in the schoolroom, that the child had a sore throat that probably was diphtheria, and that the school inspector advised calling the family physician. The doctor was not called in a single case. The mother of one of the children brought him back herself in the afternoon, and was abnsive to the teacher for sending him home. I turned up just in season to get my share. 1 was informed that I did not know what I was talking about; that his nausea and romiting and constitutional symptoms two days before were due to indiscretion in eating; that his sore throat was " simply tonsilitis," that he was subject to, and that the patches in the throat were of no importance. The other children might have diphtheria, but her boy didn't, "because he wasn't sick enough." She refused to let me take a culture, and was informed that the boy would not be admitted to the school until a negative culture had been obtained by myself, or, if she preferred, by her family physician. She did not go to the family physician until another week had elapsed,
when a culture proved negative. I feel reasonably sure, however, that an earlier culture would have been positive.
The three other cases returned next morning. Two brought verbal messages that they were well enough to come to school. The third brought a note from his father, saying that it was absurd to say his boy had diphtheria. Cultures were taken from all three throats, and all proved positive. The mother of one of these was not convinced even then. She called another doctor to prove that the school doctor was wrong, and discharged him when he obtained a positive culture, and she was only partially persuaded there was no trick to it when a third doctor also found a positive reply to his culture.

One other case is instructive. This boy was subject to tonsilitis, so his parents did not attach any importance to a sore throat, which began May 2. He returned May 5 and was examined. His throat was negative. I learned, however, that his brother, who s'ept with him, had a sore throat beginning the day before, May 4, and had stayed at home, but that he also was at school that morning in another room. He was sent for, and I found several characteristic patches in his throat. Thus a possible source of infection of another class was nipped in the bud. Both were sent home with a note recommending the family physician and stating what the tromble was. They did not consult a physician for ten days. Naturally the throats were cleared up then, and the physician, not understanding the full circumstances, gave them a note stating that they might return to school. Admission was refused until a negative culture was found. They proved positive, and the one from the class room which had the epidemic lasted positive for two weeks more. Had I allowed him to return without a culture he would have had two weeks in which to start another epidemic of diphtheria, which, while it might have been ascribed to imperfect disinfection of the room, would in reality have been due to my carelessness in taking it for granted that the throat was negative.

The epidemic of scarlet fever occurred in one of the lower boys' classes of the grammar school, the pupils averaging about 10 years of age. This epidemic was definitely traced to a pupil who was supposed by his parents to have German measles. Twelve cases of scarlet fever occurred among the other pupils; at least 1 case occurred in the family of an infected pupil, and 2 cases which disappeared from the class at the same time as the scarlet fever cases were diagnosticated "tonsilitis" and may perhaps have been light cases of scarlet fever. Leaving these two donbtful cases out of the count, the epidemic affected 13 pupils of the class and 1 outsider-14 in all. There was 1 death; the other cases were light. One case developed nephritis.

The original case attended school on May 18, and on returning from school in the afternoon his mother noticed he was red about his neck, and on undoing his clothes found his skin was red about his shoulders and upper chest. She was quite positive this condition had not existed at noon. Here is a case, then, at school on the afterncon of May 18, with scarlet fever in a state of efflorescence. The first case of scarlet fever to follow absented himself on May 21. This was Friday. Another casa devaloped before Monday, May 24, and the third on May 24. This last case was extremely light and only stayed at home May 24 and 25. He returned with a story which did not arouse any suspicion on the teacher's part, May 23, and remained in school until the afternoon of June 7. He was examined by me that day without having the scarlet fever discovered, and was then taken out of school by his parents "lest he might catch the disease." The existence of scarlet fever was only discovered on June 16, when the attending physician, in seeking for an explanation of a nephritis, by careful search found a little desquamation about his toes. He ver'y likely was a factor in the subsequent spread of the disease, The other factor was the return to school of the first case. He came the afternoon of May 24 and remained the morning of May 25. My visit was delayed that morning, especially at one of the schools, and I arrived just after the class had been dismissed. I found a note from the teacher saying this boy had returned with a note from his parents saying he had had German measles, and asking for instructions. I left word that German measles reported by the parents was to be treated as measles, and he must stay out two weeks. He returned for the afternoon session and was immediately sent home. He was in school, then, an afternoon and the following morning during the seventh twenty-four hours after the beginning of the rash. This was. May 24 and 25 . On May 28 two cases disappeared for scarlet fever; on June 1 five cases (and one of the "tonsilitis" cases); on June 4 one case, and on June 8 one case (and the second "tonsilitis" case).

The epidemic was not discovered until June 3. By that time nine cases were out for scarlet fever besides the so-called German measles case. That morning only the second of these had appeared on the board of health report, and the teacher had heard through the pupils doubtful rumors of one or two other cases.

The real gravity could not be realized, but there was enough to lead me to institute an investigation. That day was spent in inquiring about the cause of absence of those pupils who were out, and in following up two or three false clues as to the origin of the trouble. The next morning I knew better how much of an epidemic we had, and hunted for the source among the pupils present. Nothing was found. That afternoon in following other clues I investigated the case of "German measles" and found that it was scarlet fever. The next morning, June 5, the room was disinfected by the board of health. For ten days after that the pupils were examined at the opening of the session. No new cases developed except one on June 8, who was undoubtedly infected before disinfection was done. On June 16 I-learned of the case which had developed nephritis. As he had attended school one session on June 7 after disinfection, the room was again disinfected June 17. This was the end of the trouble.

## MEDICAL INSPECTION OF SCHOOLS. ${ }^{1}$

[By SAMuEl IH. Durgin, of Boston Board of Health. 1
The influence of schools upon the spread of infectious diseases and the need for the exercise of greater public care over the schools have been much discussed within the last fow years and with nearly unanmous conclusions. I think we should all agree mpon the fact that the collection of large numbers of persons within small spaces, generally speakiag, furnishes the most favorable opportunity for the spread of infectious diseases, but more particularly with school children whose susceptible age and familiar habits render them unusually liable to the incidence and extension of these diseases. We shall also agree that the infective agent is freauently preseat in our public schools, and that it only remains to be shown by what means the infection is conveyed.

We need to consider but two of the most common and dreaded infectious dis-eases-diphtheria and scarlet fever-and perhaps diphtheria alone would be sufficient.
It was thought from the beginning of our knowledge of diphtheria until within a few years that it belonged in the list of what has been termed filth diseases, and with this view in mind boards of health followed out different lines of work for the purpose of proving or disproving the theory that this disease might be caused by any unsanitary conditions.
In 1878 the board of health, with which I am identifed in Boston, called for reports of cases of diphtheria, and for the last nineteen years we have examined every house in which a case of diphtheria was reported, and among other reasons to see what connection filth and defective drainage within buildings had with the prevalence of this disease, but with such negative results as to warrant the belief that it is scarcely, if at all, more likely to occur in the poorly constructed and badly kept houses than in the best. The percentage of defects found in connection with cases of diphtheria is found to be but slightly greater than that found when examining from house to house where no disease or complaint has occurred.

In 1888 we made an investigation to ascertain what connection there might be between cases or groups of cases of diphtheria and street gullies, perforated sewer covers, sewer outialls, proximity to tide-water flats, low, damp ground, and high ground. Here again, we found not even a suspicion of relation between cases of diphtheria and any of the suspected causes. On the other hand, we are continually reminded of the unmistakable, direct or indirect, connections between new cases of these diseases and other infected persons or rooms and articles which hare become infected. We are forced to believe that the means by which children afflicted with diphtheria may and do create foci of infection in our school buildings as well as in their homes, and the facilities by which others may take on the infection from such foci, are both natural and easy. I think we are warranted in this belief by every process of reasoning and upon the facts connected with the disease. Diphtheria is unquestionably an infectious disease and may be communicated directly from person to person, or indirectly through some intermediate object upon which the infective matter may have been lodged and where it may remain active for a longer or shorter time. The local nanifestation of diphtheria is nearly always in the throat, where we have the bacilli of the disease in abundance, mixed with the secretions of the throat and mouth, and in the most convenient form to be transferred to any surrounding object. This infective matter is easily scattered and attached to things by coughing, sneezing, and spitting, or by the fingers, which perform a continual messenger service between the mouth and whatever may be touched within the reach of such fingers. We have, for instance,
a child suffering from diphtheria in school. not ill enough to attract special attention. He may be there a day or two before the disease is discovered, with a mild, unre ognizcl case, or he may ba there for a much longer time in a condition for spreading the disease. During this time he may attach the infective matter to the desk, chair, books, slates, slate pencil. lead pencil, penholder, sponge, drinking cup, door knob, door, window sill, banister, wainscoting, or to anything else which he may handle or touch atter using his fingers about the mouth. The fact that these things may become infected with diphtheria in this way has been conclusively shown in the laboratory by Professor Ernst.

In kindergarten schools the danger of spreading the disease by a single case is much greater, both by direct and indirect infection, because these children by virtue of the different processes of teaching are brought into much closer contact with each other and they use a large number of ob;ects in common which are very liable to become infected. One unrecognized case under such circumstances may give rise to a dozen more, and without our being able to trace one of them to its particular source.

The following account of a kindergarten teacher may be of interest at this point:

- Regarding the contact of children with each other in kindergarten and the interchangeable use of material, it is as follows: The chairs for seating the children are small, portable ones. These are carried from one place to another as the classes need them: no one chair is allotted to any particular child; all are used in common. The tables at which the children sit are long enough for four or five children to sit at each. It is impossible to arrange so that each child may have the same chair or the same place at the table regularly. The material used is such that it is almost impossible to let one child use any portion of it solely as his. We have but two dozen worsted balls with which to teach color, form, and direction; and we have 70 children to use the ball. It is the same with ererything else. The blocks used are handled by two or three classes during the same day. The iron rings, wooden sticks, wooden p'anes, pasteboard tablets. wooden keads, we aving needles, and worsted needies are all used in common. The napkins used at lunch time are washed once a week, and taken out before then if really soiled, otherwise they are foldod and returned to the drawer ready for the next day. The picture books are enjoyed by all and the dolls are used at every recess. In playing the games the children stand holding hands on the ring, and when there is good attendance they are crowded.
$\because$ Many of the games bring them very close together, for instance:
"In playing the 'bird's nest,' the mother bird chooses six or more children, who kneel upon the floor in a somicircle; she twines their arms about each other to imitate weaving the nest. She then chooses three children. who are putclose together, necessarily, in the nest. and then the game proceeds. This is a typical bird game, and is very pretty; but in time of epidemic of throat diseases, we do not like to play it in onr kindergarten, as it brings the heads so near each other. There are otber games, of course, which do not need such close proximity as the one des ribed; butall the games are for two or more children to take part in. and they are general y in contact in some way, if only holding hands."

Numerons instances have come under our observation where a child has keen found in school suffering from an infectious disease, by the medical inspector of schools, and sent home. This case has been followed in due time by other cases in children whose only discoverable exposure was that which occurred in the schoolroom. * * *
The board of health divided the city into 50 districts, giving an average of about 4 schoo?houses and 1,400 pupils to each district. No difficulty was experienced in finding well-qualified and discreet physicians who would undertake the duties prescribed, and the board secured and appointed one physician for each district, with a salary of $\$ 200$ a year.
In the examination of the children in school every facility is extended to the doctor by the teachers, and he in turn reaches a satisfactory conclusion with the least possible delay or ammoyance to anyone. There being frequent need for looking into the children's throats, we provided the inspectors with something for a tongue depressor which could be used once and destroyed, and thus get rid of the danger of communicating any disease from one pupil to another and avoid unfavorable criticism on that score. These little pieces of clean pine are inade for us at a cost of one-terth of a cent each. They are w.thout objection in use or appearance and wi!l burn as easily as a match, which is the intended destiny of each after being used once. The thermometer is rarely a nesessity in these examinations and when used is treated with due care. * * \%

The corps of inspectors has become an organizel association. which meets once in two months to discuss the manifold medical questions which arise in the performance of their duties.

## MEDICAL INSPECTION OF SCHOOLS.

[By Miss Dora Keen, chairman of the committee on medical inspection of schools of the Public Education Association of Philadelphia.]

The influence of schools upon the spread of contagious diseases and the need for the exercise of greater public care over the schools are subjects that may well interest members of health boards, pledged to secure the greatest good of the greatest number in questions of public safety, or teachers in training for intelligient work under accepted conditions.

In October, 1896 , Dr. Charles F. Roberts, sanitary superintendent of the New York Board of Health, sent a communication to the board setting forth his belief that the greatest source of the transmission of infectious and contagious diseases among children was through contact with one another at school, and that this transmission could best be overcome by systematic daily examination of the school children by medical inspectors of the health department. $\% ~ \% ~ \%$

While the inauguration of the work comes properly within the function of the city boards of health, with whom it lies to organize and conduct the work, yet no less does it claim the interest of the physicians and teachers.
To assure themselves of the value and necessity of the system, the boards of health of New York and Boston conducted preliminaryinvestigations. The Boston board published tables, arranged by months, of all the cases of diphtheria in the city reported in nineteen years. There was a variation of 1,600 cases reported in any two months, and the smallest numbers were during the summer vacations. The total for the nineteen years was 3,339 cases in January, the highest number, as opposed to 1,"65 cases in August, the lowest. Similar scarlet-iever records for twenty years showed $3,10 \gamma$ cases for January, the highest number, as compared with 1, 20s cases for August, the lowest. Although recominended by the board in 1890, it was not, however, until a severe epidemic of diphtheria in 1894 that the innovation was made. An example of the effective protection of the community by the plan was afforded by an epidemic of diphtheria in 1897. A primary school of 40 pupils had $1 \frac{1}{x}$ of its number attacked with diphtheria in eighteen days, all from one room. Uf the 14 cases 7 were discovered by a medical school inspector and 3 of these only by cultures. All suspicious cases were dismissed from school May 5, and recommended to the care of their family physicians. The next morning every child was examined and many cultures taken. The class was then dismissed from Thursday to the following Monday and the rooms disinfected and cleaned. For ten days after his return the throat of every pupil was examined by the medical inspector when the children first assembled in the morning, and no pupil who had been absent with any suspicious symptoms was allowed to return until it was proved by a negative culture that there could be no danger, As a result of these measures not a single case of diphtheria resulted beyond those known to have been infected at the time the epidemic was discovered. Similar experience with scarlet fever occurred within two weeks in the service of the same school inspector, in which 11 cases resulted from the presence in school of one pupil, and his illness had been attributed to German measles.

The preliminary investigation in New York was made as a result of the abovementioned communication of the sanitary superintendent, in order to obtain definite data as a basis for action. The best results were obtained by securing the absence list of a class in which a case of contagious disease had occurred, and visiting the absent children to learn the causes of absence. Eighty-five families with scarlet fever or diphtheria were visited, and showed 15 cases of scarlet fever and 19 cases of diphtheria, 34 cases out of 85 , in which the first case in the family was a school child. It was in the district reporting the largest number of scarlet-fever cases that the connection with the schools was best marked. The examiner reported that in his experience any severe outbreak had always come from schools. The statistics seemed to show that many cases of diphtheria went unnoticed, and the same was true, to a lesser extent, of scarlet fever. Children sent home by teachers for" "sore throat" frequently fail to call in a physician and return to school when feeling well. A statement of all known cases of scarlet fever in one school one fall shows that 13 cases out of the 20 would probably have remained unknown if the absence list had not been investigated. Of these 13 cases 4 did return to school, and although in a condition to spread contagion, would have remained if they had not been found. Several others were mreparing to return, and the epidemic would certainly have been indefinitely prolonged in the absence of systematic in vestigation. In regard to measles, 17 cases reported in three weeks. in one district, were investigated, with the result that 20 additional cases were
found which, from ignorance or the mildness of the attack, had not been reported, 9 never having called a physician. Of these 37 cases, 22 had been contracted in schoois. Of 13 of these same cases contracted in a parochial school, but 3 were known to those in charge.
The evidence set forth in this preliminary investigation proved so entirely convincing that application was made for the appointment of one chief medical inspector and a staff of 150 , to serve during the school term each year. *** In Chicago so much benefit resulted from the first attempt at supervision that the health department determined "to continue the work to the full extent of its resources." For lack ot appropriations for a special item the work was undertaken by the regular medical inspectors, and based on the notifications from physicians of cases of infection. If the patient had been attending school, the school was at once visited, precautionary measures taken against the spread of the disease, and insanitary conditions remedied. During four months 850 individual inspections of 233 public schools were made, with the result that 1,417 cases of diphtheria and 306 cases of scarlet fever were located. * * *

On the side of defective sight and hearing preliminary and uncoordinated tests are all that can be reported. The field is an important one, and has received much attention from specialists, but no city has yet coordinated this work with that of general medical inspection of schools.
The financial basis of medical inspection of schools must be thought of. Where expense prevents a complete investigation, the work may best be begun in the kindergartens and the primary grades. This plan will include practically all the children under 10 years of age, and it is among these that the chief danger exists. This principle applies especially to the kindergarten, in which hy virtue of different processes children are brought into close contact with each other, and use, in common, a large number of objects liable to become infected.

Coming next to the sanitary and hygienic side of the subject, the control that will be obtained over contagious diseases will redound to the redit of health boards and repay the community for all that the inspection may cost. It has been estimated by one physician that $i 0$ per cent of epidemics might be prevented by school inspection. There are many diseases undoubtedly contagious upon which the law requires no report, namely, the four diseases that inspection has thus far shown to include the largest numbers of school cases-parasitic diseases of the head, contagious eye diseases, follicular tonsilitis, and oral and respiratory diseases; and, further, measles, consumption, mumps, whooping cough, rubella, and chicken pox. Medical inspection will detect a large number of cases that have not before been considered as requiring exclusion from school. While the main purpose of the health board is undoubtedly the preservation of life, yet the community has the right also to demand the best possible protection against the spread of the above-named diseases and the incident interruption of the school life of the child.

In a very large number of cases the mildness of the attack, or ignorance, has prevented the recognition and report of the disease, while the child was nevertheless in a condition to spread contagion. " * *
Chicago's experience proves that inspection should begin in the old schoolhonses, since the number of sick children from these is greater than from the new buildings. The fact points to another side for the notice of the school inspector. If the inedical school inspectors are alive to the possibilities of their work, full information may be incidentally gained as to defective conditions of school life, and particular defects, from time to time, will certainly be brought to the attention of the authorities. It will suffice to enumerate the conditions to which attention should be directed. Overcrowding, defective heating, plumbing and ventilation, dark basements, insufficient and uncleanly sanitaries, seating and school furniture, recess periods, overstudy, and grading of pupils. The medical profession, quite generally through the journals, have suggested or indorsed the movement for school inspection, and, wherever established, the boards of education have cooperated in the work. After two and one-haif years of test, Boston reported the plan constantly growing in favor with the medical profession, among the school teachers, and in the community at large. When organizing the work, the New York board of health took the wise step of giving a few explanatory lectures to the sthool inspectors. It is hoped that a movement to institute the work throughout our State may result from this presentation of its proven value.

## DISCUSSION.

Dr. W. W. Feen, Philadeiphia, said the State owes two duties to its children. The first one an education; and in order to obtain this, we all know that the State has passed a new law-compulsory attendance at school. The second duty of the

State to its children is a preservation of their health, and yet at the present time, owing to the compulsory education law and the absence of any law for medical inspection, we compel our children to go directly into the midst of danger to their health. You all know very well that at the seaside hotel or boarding house, if a case of scarlet fever or diphtheria breaks out, you find the place deserted in from twenty-four to forty-eight hours moless the child is taken away; and yet right in the midst of our schools a case of scarlet fever may exist or a case of diphtheria break out, and all of the children in the school are exposed to it, just as though it were a healthy child. Now, this is not right, and this practice ought not to be, when it bears so severely on the poor, or those who are either unable or do not know enough to obtain medical aid. Being in a rich or well-to-do family, when the child shows symptoms of sore throat (typical disease, and most dangerous to our school children), instantly a physician is called and the child kept from school, in order to nurse it at home. But in a poor family, very possibly the woman going out to do washing from day to day, it is impossible for her to take care of the child at home. In addition, she does not call a physician. The child is sent to school. The others are not protected; hence this child spreads the disease to all with whom it comes in contact. We mast not forget, in connection with this, the fact that it is not the severe cases that are dangerous; they are so sick they must stay at home, but it is the simple cases that are the cause of severe ones very often. A mild case in one child may give another child a severe attack of diphtheria; a mild case of scarlet fever in one child may give your child a fatal attack of the disease. Therefore it is that this medical inspection of schools, the finding of mild cases each day going to school who ought not to go, is saving an enormous number of very likely severe cases, as well as many mild ones. Moreover, a great many of these cases are not made compulsory of notification. We can not have every case of measles, chicken por, infected heads, and so on, reported. That is impossible. Yet these childrea go to school and infect others; and, taking measles (a mild disease) as an ilustration, very many of us, I believe, in different communities do not regard it as particularly dangerous, and yet the records are very large regarding mortality as a result ofí measles. Next to all those oral and respiratory contagious diseases come diseases of the eye, where the secretion likely goes on the handkerchief and then to books, desks, etc. They are touched by the healthy children, who, placing their fingers in their eyes, are infected from the first child. The records of our blind asylums show that the blindness of a great majority of the children that are filling these establishments has resulted from disease. We must remember, therefore, that these cases of nonreported diseases are as dangerous as reportable ones. You may possibly have noticed the large number of children that were examined in New York and found ill. Out of 9,000 cases that were examined, some 1,200 were sick enough to be sent home-too ill to be at school; and, what is still more striking, in Chicaro 744 cases of diphtheria in school led to the discovery of 23 cases in homes-cases that had not had any physicians called to them, therefore were not reported to a board of health. To these two instances I shall add a third, namely, that 231 cases of scarlet fever in school were discovered, not by physicians at home, not by careful mothers who could see that their children were ill, but 231 cases allowed to go to school were sent home by the physicians in attendance, the medical inspectors of the schools; and then, notifying the health board where these children lived, resulted in discovering 745 cases at home. I venture to think that the very facts that I have stated, from the sanitary point of view, are a justification of the necessity of compulsory medical examination of school children, lest they become a nuisance in the community in the technical serse.

Dr. S. S. Risley, of Philadelphia, said the systematic medical inspection of our schools, not only as regards the hygiene of the schoolhouse, but the examination of the individual pupils for the purpose of excluding contagious diseases and infections, must commend itself to the judgment of every thoughtful citizen of our great Commonwealth.

## ILLS CHARGEABLE TO SCHOOL ATTENDANCE.

[Dr. S. H. DuRgir, Boston, Mass., before Boston Society for Medical Improvement.]
To find these diseases at home in the family of the pupil, whether contagious in character or umpleasant to the sight, is looked upon with comparative indifirerence by the public; but when they are found in the public schools or in any other place where the public or private rights of other parties are concerned, then the laws which deny one the right to use his own or the public place to the injury of his neighbor must be invoked. We have now 71.495 pupils and about 1,500 teachers in our public schools and 11,808 in the parochial schools of Boston. It is fair to
say that under the stimulus of this daily medical attention every teacher will become more and more expert and desirous to detect any existing illness among the children under his or her charge. Every parent can feel that his child is less exposed to disease in school and less likely to be ill without immediate and proper attention from teacher and physician than at any previous time. I am satisfied that it would be hard to find a field for medical inspection and supervision which presents equal facilities for detecting diseases among congregated bodies or which offers more encouraging results.

In looking over the list of diseases which we have found among the children attending our schools. one is forced to notice several ills which may not only be induced, but aggravated and perpetuated, by the present faulty means of seating children, a subject which has recently engaged our attention with very hopeful results. But that which strikes one more forcibly is the excessive prevalence of diseases in the throat, lungs, and air passages. We find, of the 9,188 children found to be sick, no less than 5,689 had acute or chronic diseases thus located; and of these, 5,053 were located in the throat. I would not overlook the many faulty conditions of the homes of the school children or the many outside influences which contribute to the causes of these ills; but we are painfully a ware of the fact that in many of our schoolhouses there are such grave deficiencies in ventilation, heating, and cleanliness, with the attendant excessive heat or cold or sudden alternations from one to the other, that we are warranted in concluding that a proportion, at least, of this illness is chargeable to school attendance. The very large number of cases of tonsilitis, pharyngitis, laryngitis, and sore throat found gives rise to a strong' suspicion, especially in view of our recent work in culture diagnosis, that if cultures had been made in all these cases many of them would have been found to be accompanied by diphtheria bacilli.

## MEDICAL INSPECTION OF SCHOOLS IN BERLIN.

The municipal anthorities of Eerlin have decided to appoint medical officers to the municipal schools. This step will certainly meet with the general approval of the medical profession, which has for a long time past recommended medical supervision of schools. According to the instructions drawn up by the municipal school board, the duties of these medical officers will be as follows: (1) They will examine children as to their state of health before they enter a school; (2) in cases of bodily or mental abnormalities they may recommend the adoption of special instructions; (3) they will have to look after children who are absent from school without sufficient reasons; (4) they will have to advise the head master in cases of infectious diseases; (5) they must give notice to the school board when they have found the health of the children unfavorably affected by the unhygienic conditions of a school; (6) they will have to be present at a certain hour at the school once a fortnight, so that the master may obtain their advice in individual cases; (i) they will have to control the class rooms without reference to the hours of instruction; (8) all the medical officers of schools will have to meet regularly under the presidency of a member of the school board to discuss matters relative to the hygienic conditions of schools, etc. The duties of these medical officers will thus be rather complex, and a good deal of tact will be required on the part of these gentlemen to avoid friction with the teachers, or with the family medical attendants of the children. A large proportion of school managers.and teachers are opposed to the appointment of these medical officers, because they are anxious that their own authority shall be supreme in everything that belongs to the schools, and they are of opinion that the medical men may eventually undermine discipline. These apprehensions, however, seem to be unfounded, for a similar system has given satisfactory results in other towns, for instance, in Wiesbaden.

## MEDICAL INSPECTION OF SCHOOL CHILDREN.

[By Severance Burrage, instructor in sanitary science, Purdue University, Indiana.]
No one more than the superintendent or teacher realizes what a glorious place the public school is for the spread of contagious disease. School epidemics are quite common; and yet it can not be denied that, in most cases, if ordinary precautions are taken, these epidemics, as such, can be prevented. It is not of ten that the teacher is at fault, however. It is through ignorance and carelessness of the parents, and because of insufficient sanitary regulations on the part of the public authorities, that the epidemics prevail.

[^32]An epidemic may originate either from within the school, directly or indirectly from some sanitary defect about the building, or from without the school through the agency of infected children or teachers.

When an epidemic has broken out, extraordinary or heroic measures are necessarily taken to check its spread and to prevent its future outbreak. If the trouble is in the sanitary condition of the building itself, the school may have to be closed for repairs or renovation. If it is brought in by the pupils, a most careful isolation, quarantine, and fumigation, with perhaps a temporary closing of the school, may be necessary.

But, looking at the subect from the standpoint of the sanitarian, it is our great des re to prevent the diseases altogether, particularly in epidemic form. This being the object, we must observe a number of ordinary precautionary measures continuously, such as a regular sanitary inspection of the building, resulting in the proper cleansing and airing before the beginning of the school year, and the subsequent cleaning, and, perhaps, fumigation at regular intervals; providing the scholars with a pure water supply, and distributing the same in a safe and proper manner; maintaining good sanitary arrangements; keeping the amount of floating dust and dirt down to the minimum, perhaps by the use of some form of "dustless" oil on the floors; and. in short-assuming, of course, that the school building is properly constructed, ventilated, heated, and hygienicaily furnishedevery precaution should be taken to keep the children in that vigorous and healthy condition in which they are least susceptible to disease of any kind.

But more immediately effective than any of the above precautionary measures is the medical inspection of the school children. While only practiced by a very few of our larger cities, it has worked so well there that we can no longer regard it as an experiment.

The aims of the system are, first, to discover cases of contagious disease at the schoolroom, and to send such cases to their homes before they have done mischief; and second, to obtain better isolation by keeping these cases at home as long as the period of possible infection lasts. * * *
It is a comparatively simple matter for the teacher to recognize an "ailing" pupil, one who does not appear as bright and responsive as usual, and the process of reporting such cases to the master can occupy but a few moments at most. It would seem, after conversing with several of the Boston teachers, that they found but little objection to the system on account of the time it required of them, and they did not hesitate heartily to commend it. They did say-and of course we would naturally expect-that very much depends on the personality, the disposition, and the tact of the medical inspector. On the other hand, some parents have taken the stand that boards of health have no business to prevent these children's diseases in this or any other way; that they wish their chid dren to have the measles, scarlet fever, etc., while young, and thus have it over with. But taking into account the very great difference in degree with which different children are affected, and the serious results which commonly follow many of these diseases, such as deafness and blindness, to say nothing of those cases which result fatally, I feel that the authorities are justified in taking this and every other possible precaution to prevent their spread in our schcols. I can see no reason within the bounds of common sense, for commending such a stand on the part of the parents. * * *
During the school year 1896-97, in Chicago, even with their small force, 1.181 visits were made to the schools; $4,0: 3$ cases of contagions and infective diseases were located and taken charge of for preventive purposes, and insanitary conditions in 63 public schools were reported to the board of education, and similar conditions remedied in 53 homes of patients.

In the first three months, in New York, 63,812 children were examined, and over 6 per cent were excluded because of contagious disease. \# \% \%

There is absolutely no reason why its introduction should be confined to large cities. The fact of the matter is that it would be very much easier to introduce, and much cheaper to operate, in smalier cities and even in towns, and as a system it would be just as effective.
As to the expense of the system, it seems to me slight in comparison with the enormous benefits that result from it. If railroad companies find it economical to spend thousands of do!lars for the analysis and supervision of the water supplies of their employees, believing that they can get more and better work from healthy workmen, why should not towns and cities get much better educational results from healthy teachers and scholars, which they almost insure by spending some money for sanitary improvements and medical inspection?

It is impossible to estimate the extent of prevention which has already resulted from this system; but the figures citel above, particularly the specific infectious
diseases which were eliminated at once from the schools and placed under proper care, supervision, and isolation, give us an idea, at least, of the great value to the school and to the community. Take alone the 73 cases of diphtheria which were sent home the first year in Boston --we can simply ask the question, How many more cases did this early separation prevent?

That there has been a demand for something of this sort abroad is shown from the following extracts from the Berlin letter to the Medical Record of date January 22, 1898:

Public meetings were held at Berlin after a serious epidemic of measles, in which three-fourths of the scholars of the local academy suffered because the school was not closed. These meetings resulted in the passing of resolutions as follows: "Laymen and physicians demand that each school have a physician assigned to it, to have charge of the general hygiene of the building and be watchful over the health of scholars; to see to the proper leating, ventilation, cleanliness, and, if necessary, disinfection of the building; to order the closing of the school when the heat becomes excessive and in time of epidemic; furthermore, to examine new scholars, in short, the school physicians should protect the scholars against the dangers of school life."

Aithough this is not at all similar to our systems in its details, it shows that the need of something of the kind is widespread.

Besides being a most valuable preventive measure against the fostering and spreading of contagious disease, medical inspection may be Iooked upon as a most important factor in the education of the children and their parents on sanitary matters. Its operation also brings before the health authorities in a very emphatic manner several needed reforms and improvements, such as a sanitary inspection of school buildings and their surroundings, entirely apart from the medical inspection; the examination of the eyes and cars of the scholars, and humoring the weak ones as far as possible by seating in most favorable locations, according to their weaknesses, and the introduction of bathrooms in the schools, as so many of the children do not have access to the proper bathing facilities.

While not intending to lose sight of many of the other features of school hygiene and sanitation, nor detract from their value and importance, it is the purpose of this paper to emphasize above all this matter of medical inspection, as it is one of the greatest preventive measures so far devised. It has been highly commended by all thinking people who have seen it in active operation, especially by teachers and physicians. Realizing its importance to the health of a community, as well as its great educational value, and feeling that untold benefit can come from a more widespread introduction of it in one form or another, the writer does not hesitate to commend the matter of medical inspection as worthy of thoughtful consideration. ${ }^{1}$
B. A. Hinsdale said he could not assent to the view of Professor Burrage; that it would be easier to secure needed medical inspection of schools in the villages, towns, and smaller cities than in the larger cities. In the communities referred to the sentiment and practice of individualism were developed to a remarkable degree. The people were very democratic. They were not so accustomed to feel the pressure of what is called the "social whole" as the people of the larger cities, and did not so well undorstand it, its value, and its necessity. The communities that he referred to were not prepared to accept measures that large cities accepted as a matter of course. This fact might be the best of all reasons why the campaign of education should begin at once and be carried on with vigor, but it was certainly a conclusive reason why it should be undertaken and be conducted with prudence, tact, and wisdom.

## SCHOOL DISEASES AND MEDICAL INSPECTION.

[By Prof. Delos Fall, Albion College, Michigan.]
By the term " school diseases" is meant all such as are likely to be spread by the gathering of pupils in schools. The list is a very large one. They are probably all communicable diseases, but not all dangerous diseases. The list, however, would include only a portion of the dangerous communicable diseases to which all mankind is subject.

The common and well received tradition concerning this subject is that, in the nature of the case, school diseases, like all others, are only to be recognized and dealt with by expert medical men, acting in the capacity of medical inspectors,
who themselves must initiate and carry forward every movement which shall eventually rid the pupils and the schools of disease and allow them to pursue their work under improved conditions. This method makes the medical inspector the only active agent in working out the problem of restricting and preventing disease. Teachers and pupils, under this system, place themselves passively in the hands of the health officer, without themselves having any active relation to the case. This must be the case if the problem is to be solved at all from the standpoint of curative medicine, for the science of medicine remains to-day with a great deal attached to it which is vague and mysterious; that could not be taught in the schools or understood by the pupils; and all the skill of the trained physician is required to cope with the evil. Under this system it is frequently the case that the schools have to be closed, and serious interruption of their work results.
But the e is a science of the prevention of disease, a science somewhat simple in its principles and so clear and manifest in its practical application that all may participate in the work and contribute to the glorious end. And this intelligent and mutual cooperation of all classes of people is the one condition by which the great work is to be done. For example, consumption is a communicable disease which destroys 150,000 of the inhabitants of the United States every year, and yet the means for its prevention and final extermination are so well understood and so simple that young children can clearly apprehend and put them into successful operation. Hence it is of much greater importance that the problem, enlarged so as to include all communicable diseases, should be studied and acted mpon.
From the standpoint from which the paper is written it will not do simply to study diseases with reference to their keing "school diseases;" and, again, it would fall far short of the end to be desired if medical inspection should be the one means employed for the restriction and prevention of communicable diseases.

The solution of the problem by which public schools may not be interrupted by epidemics of disease, and at the same time the health of the pupils and patrons alike be preserved from the scourges of consumption, scarlet fever, diphtheria, and other communicable diseases, will have been made when there can be secured the intelligent cooperation of pupils and teachers, patrons of the school, and all other citizens, and these aided and directed by an efficient public-health service.
I desire especially to call attention to what may be called the "Michigan idea" concerning the successful solution of this important problem. By a law of the State, enacted some four years ago, it is decreed that "there shall be taught, in every year, in every public school in Michigan, the principal modes by which each of the dangerous commanicable diseasas is spread, and the best methods for the restriction and prevention of each such disease." By the same law the State board of health is required annually to send to the public-school superintendents and teachers throughout the State printed data and statements which shall enable them to comply with such act. Such data have already been furnished, and other and move complete information will be given to the teachers during the coming school year.
Some reasons why it is believed that in time many of the important communicable diseases may be destroyed are:
First, the science of bacteriology has made known the specific canse of many of the dangerous communicable diseases, and this knowledge has made clear the methods by which their spread may be prevented, thus causing the saving of hundreds of lives of those who would otherwise fall victims to them.
Second, the methods by which this work is to be done are so simple that school children can easily learn them, and thus be led willingly to cooperate with their parents and health officials in the great work.

Consider for a moment what needs to be done in order that the schools may go on continuously and yet not be centers of infection from which dangerous disease shall spread. First of all, it is essential that the school and health authorities of the city be alert to the fact that the school, in the very nature of the case, is the most certain center of infection ever established in the community. Careless and ignorant parents allow their children to come to school while they are yet in a condition to communicate disease to others. The need of medical inspection of schools can be clearly seen by the study of the fact just stated, and that fact is the complete justification of municipal or school authorities, when money is expended for this purpose. When a given case is one which involves serious danger to the community, steps must be taken to see that in no way does the disease spread. ${ }^{1}$

# MEDICAL INSPECTION A VALUABLE EDUCATIVE INSTRUMENTALITY. 

[By W. B. Powell, superintendent of schools, Washington, D. C.]
The most important argument in favor of medical inspection of schools and school children is the educational benefit it would be to the community at large. Its direct and naturally aggressive tendency would Da to make knowledge of the common laws of health universal, and to create an interest in the study of social life. Intelligence respecting the effects of modes of living on length of life, on happiness of life, and on cost of living is very meager, especially among the lower classes of society. The school has reason to know and to understand the disadvantages of this condition economically and morally. Knowledge of these subjects would grow rapidly if the school would take hold of the matter purposively and would cause people to begin knowledge-getting in experience. Medical inspection would result in giving knowledge of conditions and causes, and would suggest changes in modes of living, with reasons for the same. These would cause thought and would give information to satisfy the same. which, with the purposive effort induced in the realization of suggestion, would educate in the most effectual way. This experience would create interest, which, in turn, would insure further knowledge-seeking by means of reading, attending lectures, by inquiry, and in many cases by original investigation and experiment. Is it not the duty of the school to arouse society to intelligent thought on the importance of better modes of life? By no other means can this be done so effectively. Is it not the duty of the school to train people to live better? Is not this the true purpose of the school? The logical place to begin this is with the physical life of society, the one phase of life that has been the most ignored by our educational methods, because least thought about, and until now least understood.'

## SCHGOLS AND THE SPREAD OF DIPHTHERIA. ${ }^{2}$

The public health department of the London county council has issued a report upon diphtheria and elementary schools, in which Dr. Shiriey F. Murphy repeats his opinion that the increase of diphtheria in London is largely due to the aggregation of children in schools. Dr. Murphy closes his report with this very grave warning:
"I am satisfied that the full recognition of the effect of compulsory school attendance in this connection is absolutely necessary if efficient measures are to be adopted for the prevention of diphtheria caused in this way. The system of notification supplies but a very inconsiderable record of the total number of persons actually suffering from the disease, its principal use being to give indications as to where inquiry shonld be made. The circumstance that schools contribute largely to the prevalence of this disease not only justifies but necessitates the medical officer of health having free access to schools where school children can be most readily examined for the prosecution of his inquiries. I am led to make these observations because the medical officer of health of a London district reports that the London school board has addressed to his authority a letter 'severely censuring' hinı for examining in schoul certain children during searlet fever prevalence among the pupils of the school, where, in fact, he found children he had grounds for regarding as possibly infective. The board stated that they would not allow him or any other medical officer to examine children in their schools. The authorities in London should look to this, and would act wisely if they followed the example of New York in this respect."

## THE SCHOOL A FOCUS FOR SPREADING DISEASE. ${ }^{3}$

The effect of schools in spreading diphtheria has long occupied the attention of sanitarians. The medical officer of the school board seems to attach little importance to this influence, but it is so natural to believe that the aggregation of many children offers full opportunity for the spread of so infectious a disease that no one can be surprised that the danger is frequently pointed out. There have been many outbreaks which have been traced to the presence of a case or two in a school, and the closing of such an infected school has often sufficed to arrest the spread.

At Southall, England, Dr. Windle suggested to the authorities systematic e: amination of the school children, and they accepted his advice. They had previously

[^33]adopted the plan with great success in the case of scarlet fever, and there can be little doubt that the inspection which has just been carried out will serve to check diphtheria, which has prevailed for the last two years in Southall.

## MEDICAL SUPERVISION OF THE SCHOOLS IN PARIS. ${ }^{1}$

The present institution of medical supervision of the schools in Paris does not date farther back than 1884, although previous to that year the schools were not entirely without supervision by physicians. The law of 1833 (June ©8) had charged the school committees of the respective towns and cities with the care of keeping the schoolhouses clean, while a royal ordinance of 1837 (December 22) made it a special duty of the female supervisors of maternal schools (kindergartens) to watch over the health of the little children in the infant asylums.

For the city of Paris separate governmental decrees had been issued, while the two decrees mentioned had reference to all the schools of France. The decrees of 1842 (December 20) and 1843 (May 19) ordered that every public boys' and girls' school should be visited by a physician, who was to inspect the localities and the general health of the school children. For private schocls and maternal schools similar regulations were issued. These school physicians of public institutions and the lady inspectors of maternal schools were appointed by the prefect of the department, selected from nominations made by the mayor.

However praiseworthy this arrangement was, it had a great drawback. In the annual budgets of the communities no provision was made for paying these physicians; hence an appeal to the generosity of the medical fraternity was necessary. Many offered their services and acted gratuitously for many years.

In January, 1878, Messrs. Lauth and Harant, members of the general council of the Seine department, moved a reorganization of the medical service in schools. Their endeavors were not without speedy success; for during the session of April 23,1879 , the council voted in favor of paying for medical supervision of the schools during the last six months of the year. The sum appropriated was 34,200 francs. New regulations issued by the prefect determined certain mooted questions and defined the duties of the physicians. The Seine department was divided into 114 medical districts, of which 88 were within the city of Paris. Each district contained between 20 and $2 \pi$ schoolrooms.

The medical inspectors, who had to be graduates of well-reputed schools of medic ne, were nominated by the mayors of the different arrondissements (wards) and apponted by the prefect of the department.

The term of office was three years, at an annual salary of 600 francs. They were obliged to visit the schools of their district at least twice a month, carefully inspect the localities, and remore any children found to be suffering from contagious or infections diseases; they were even empowered to order a school closed in times of epidemics.

During the absence of the physician the principals of the schools had to watch over the health of the pupils in their respective buildings. In order to assist them in this, the authorities provided them with instructions issued by the supreme sanitary council of Paris, according to which they could detect the symptoms of contagious and infectious diseases. In Paris the medical service in school stood under the immediate supervision of the mayor of the arrondissement, while in the suburbs and the country the head of the canton watched over the faithful discharge of duty on the part of the physicians.

Up to the year 1882 the entire expense for the new institution was defrayed by the department, but in that year the communal budget of Paris contained the item of 53,000 francs for salaries of school physicians.

The experiences of the first period of three years of service had taught the authorities valuable lessons, which led to the following reforms: It was found that the number of schoolrooms (20 to 25) given to one physician to supervise was too large. The consequence was that the examination of individual children with reference to their eyesight, ears, and teeth (the seats of most children's diseases) could not be minute and exact enough. Hence the city council appointed a commission which worked out and subinitted a new statute, or set of regulations; this was adopted on November 7, 1883, and went into effect January 1, 1884.

The most important points of these regulations, which are still in force, are as follows:

Article 2. The public schools of the city of Paris are, for the purpose of medical supervision, to be divided into groups of from 15 to 20 schoolrooms. Any mater-

[^34]nal school is to be reckoned as two rooms. A redistricting takes place every three years. The prefect performs this duty. Newly opened schools are assigned to the nearest 'medical group."

Article 3. The salary of a school physician is 800 francs ( $\$ 160$ ) per annum.
Article 4. The physicians are nominated by the mayors and appointed by the prefect of the department.

Article 5. The tenure of office of these physicians is for three years.
Article 8. Every schooi physician musit announce to the mayor his address or residence or office and the hours at which he can be found there. This statement is posted in a cunspicuous place in the respective schools. A book must be kept in every public school and maternal school, in which the school physician notes down his observations. This book must be submitted to the inspection of officials and supervisory authorities.

Article 10. The school physician is obliged to visit every public and maternal school twice a month, but he must also appear there when the mayor or prefect may see fit to order a visit.

Article 11. When visiting a schoolhouse the physician shall first thoroughly inspect the "localities" (corridors, stairs, water-closets, etc.). In so doing, the principal of the school is to accompany him, so that he may receive suggestions from the physician. Then the latter visits each class room, and after he has inspected them with reierence to light, heat, ventilation, furniture, etc., he must proceed to examine the pupils separately, especially those who are pointed out by the principal and teachers as showing symptoms of indisposition. After the examination of a schoolroom and its immates is completed, the physician enters the results in his book intended for this purpose. He answers the different questions and tabulates his answers in the columns provided for them. In the column "ad hoc" he enters the nam sof those children in whom he has noticed symptoms of approaching disease, states that their withdrawal from school is found necessary, and especially notes whether the disease is contagious. Finally, he enters the number of pupils absent on account of sickness on the day of his visit, and inquires of the teachers what sickness, if any, seems to be prevalent at that time.

Article 13. At least once a month a thorough examination of each child is to be made with reference to eyes, ears, and teeth. If the physician finds an inclination to disease, or if the general state of health of a child needs special attention on the part of the parents, these must be notified by the physician's certificate, which is to be handed to the child.

Article 14. Children in whom the physician discovers the symptoms of a contagious or infectious disease are to be sent home at once with a sealed letter, in which the physician states the cause of this step. In this letter the parents are notified that the child is not permitted to attend school until it comes with a certificate signed by a school physician announcing its complete recovery.

Article 15. The principal of every school keeps at hand a series of instructions, issued by the supreme sanitary council, in which the symptoms of contagious and infections diseases are stated. If a child gets ill during the absence of the school physician, the teacher of the respective class room notifies the principal. If the latter finds symptoms of a contagious or infectious disease, he must send the child home with a sealed letter, in which he asks the parents or guardian to call at the office of the respective school physician during his office hours, which are mentioned.

Article 16. A certificate of recovery may even be required of children who have been absent for any length of time on account of sickness, without having been sent home. In this case the nature of the illness is to be stated, unless the child is subjected to a special examination by the school physician and thus acquires a cerififate of recovery.

Article 18. Within twenty-four hours after each sanitary and medical inspection the physician is obliged to report to the mayor of the arrondissement (ward) about the sanitary condition of the school. Blanks for this purpose are furnished him.

Article 19. The mayors of all arrondissements preparesummaries of the various individual reports and submit to higher authority all those propositions and suggestions which seem of special importance. Propositions which are of a more general nature, and not very pressing, are referred to medical committees for deliberation and subsequent report. In case an epidemic breaks out, the mayor has the right, upon motion of the school physician. to close a school; but he is obliged to give notice of his action to the school inspector and his own superiors.

Article 20. The mayor is required to report regularly every three months to his higher authority (the prefect of the department) concerning the sanitary and medical condition of the schools in his arrondissement. Semiannually he must send in a more elaborate report, containing suggestions for changes and improve-
ments, such as are made by the physicians in their reports to him. Advice regarding changes and "adaptations" in buildings is equally welcome.

This supervision of the Paris elementary schools was, in 1886, performed by 128 physicians. The budget of the city for that year contained the sum of 100,800 francs for this institution. Medical supervision of schools in Paris has served as a model for similar arrangements in other French cities. By means of a ministerial order of November 14, 1879, the attention of all prefects was called to the instructions quoted above at length. But since then, through the school law of October 30, 1880, as well as through ministerial decrees and orders dated November 18, 188\%, medical and sanitary inspection has been made obligatory for all the schools, public and private.

A few years ago the city council of Paris expressed the desire that with this institution of supervision be connected a free school dispensary. This suggestion is under advisement at present.

These dispensaries, so it is intended, shall go further than the school physicians who are watching over the health of the children. These dispensaries shall take sick children and treat them in hospital wards specially arranged for children, and provide them with medicine and surgical assistance.

As early as 1862 a few free dispensaries were in existence in Paris supported by charitable societies, notably the "Société philanthropique." These dispensaries were connected with hospitals for children, but there is a difference between institutions founded and maintained by charity and those by law. In these private dispensaries children could not always have the desirable special treatment, medicine, shower baths, etc. To the city of Havre belongs the honor and credit of having founded the first public free dispensary for children. This institution is equipped with all the most desirable conveniences and all necessary appliances. In 1875 a plysician, Dr. Giebert, aided by contribations of charitable persons, established an institution of this kind which had astcnishing results, and was subsequently made a city institution.

In Paris the first children's dispensary was opened in the first arrondissement upon urgent solicitation of Dr. Dubricay and M. Baudof. It found a home in Jean Lantrie street, No. 15, in a house which was offered by the owner free of charge. Since the date of opening, April 1, 1883, the consultations in this institution have reached the enormons number of 60,000 . In the first year the number was 5,037 , then, steadily increasing, it reached 19,000 in 1889. The expenses during 1899 were 5,980 francs, but the annual donations amounted to 8,205 francs.

The example set by the first arrondissement soon found imitators. To-day (in 1890) eight arrondissements have children's dispensaries, partly supported by private persons (like those in the thirteenth and fourteenth arondissements), partly by the city. The excellent infuence these few institutions have exerted has awakened the desire of increasing their number and to provide every ward of the city with one; hence a credit of 100,000 francs was opened for that purpose in the city budget of 1890 , and all indications point toward an early fulfillment of the desire mentioned above, namely, that the medical and sanitary inspection of the schools be supplemented by a great number of free dispensaries, in which children will find treatment needed in cases of sickness.

## CHAPTER XXXI.

## BIBLE STUDY IN AMERICAN COLLEGES.

The following report upon the condition of Bible study in the colleges of the country has been furnished to this office through the courtesy of Dr. Wiliiam R. Harper, president of Chicago University.
The investigation was conducted during 1897 by a committee appointed by the Council of Seventy of the American Institute of Sacred Literature. The organization of the institute and that of the council are explained in the following paragraphs, compiled from the publications of the institute.

## THE AMERICAN INSTITUTE OF SACRED LITERATURE, DIRECTED BY THE COUNCIL OF SEVENTY.

The work of the American Institute of Sacred Literature is directed and maintained by the Council of Seventy, a governing body composed of representative Biblical teachers of America, organized for the purpose of promoting the historical study of the Bible, and of improving and increasing Biblical instruction.

The experimental period of the institute has passed. Its work has become a recognized part of the worlds work. The following plan has been adopted for the conduct of the Institute, along the lines already well established and in new directions not yet developed.
The chief features of the plan are (a) the organization of the leading active Biblical teachers of the country for a common purpose; (b) the constant training of new teachers in the guilds of the council, which will resalt in added dignity and a consequent increase of interest in Biblical teaching as a profession; (c) the possibiity of increase in the working power of the institute through councilors and fellows in all parts of the country; (d) the boly of patrons, who will give staunch support to the work by their money and influence.

The first annual meeting of the Council of Seventy was held in Chicago, Decennber 9,1896 ; the second, January 14, 1898; the third, March 4, 1899.

## THE CONSTITUTION OF THE COUNCIL.

1. The name of the organization shall be the Council of Seventy, in full "The Council of Seventy of the American Institute of Sacred Literature."
2. The purpose of the council shall be (1) to associate more closely those who desire to promote the study of the Bible from the historical standpoint. and of other sacred literatures as related to it; (2) to induce properly qualified persons to undertake this work either independently or in connection with another calling; (3) to extend through the American Institate of Sacred Literature a wider acquaintance with the right methods of Bible study and their results; (4) to direct the affairs of said institute.
3. The council shall consist of persons who, believing that the critical need of the times is teachers of the Bible properly trained and imbued with the historical spirit, (a) having secured a thorough knowledge of a particular portion of the Bible or of other sacred literatures as related to it, and (b) having prepared themselves to teach the same, (1) shall by the acceptance of membership in the council pledge thernselves to accept such opportunities as may present themselves to communicate to others the results of their work in Bible study, and (2) thus express themselves as willing to accept the appointments of the American Institute of Sacred Literature in so far as such appointments do not interfere with other obligations which they have assumed.
4. The number of members in the council shall be limited to 70 , and the councilors sha!l be divided into three chambers according as their work pertains to the Old Testament, the New Testament, or sacred literatures in general. No chamber
shall contain more than 23 members, exclusive of the president of the council, who shall be reckoned as a member of each chamber.
5. The officers of the Council of Seventy shall be a president; a principal of the institute; a recorder, who shall leep the records and edit the reports of the council: a treasurer, who shall also be the treasurer of the institute; three trustees. who shall have general charge of the funds of the council and who shall be elected by the council from among the patrons; and a master and a scribe for each chamber. These thirteen shall constitute the senate of the council, to whom shall be committed the management of the affairs of the council in the intervals of its meetings and the detailed management of the institute, which shall include the arrangement of courses of instruction, the organization of aggressive work, the selection and appointment of instructors. The president shall be elected by a separate ballot of each chamber and a majority of the votes of each of the three chambers shall be necessary to an election. The recorder and treasurer shall be elected by a majority of the rotes of the three chambers, and the mester and scribe by a majority of the votes of the chamker concerned. Friends of the work who may consent to render aid in furthering the purposes of the council shall be denominated patrons, and their names published as such in the documents of the council.
6. One-fourth of the council shall constitute a quorum, provided each chamber is represented. One-third of each chamber shall constitute a quorum. One-half of the senate shall constitute a quorum.
7. New councilors shall be elected by the respective chamkers, subject to confirmation by the senate. The rank of councilors in each chamber shall be determined in each case by academic seniority.
8. The council shall hold an annual meeting in the month of December at such time and place as may be determined. At this meeting (1) the annual report of the president and principal shall be presented; (2) an election of officers shall take place; (3) separate meetings of the chambers shall be held for the discussion of special questions.
9. Each councilor shall be anthorized to organize a guild of those of his pupils or others ( $a$ ) who have shown sufficient advancement in Biblical work and interest in the purpose of the council to warrant such appointment; (b) who will undertake to give earnest attention to the securing of a thorough knowledge of a particular portion of the Bible or other sacred literature; (c) who will make every effort to prepare themselves to teach the same to others; $(d)$ who will hold themselves in readiness to accept the appointments of the Institute of Sacred Literature so far as such appointments do not interfere with other obligations which they may have assumed. All appointments to a guild shall be made annually and shall be confirmed at the annual meeting by the chamber of which the councilor is a member. Members of the guilds shall (1) be called fellows of the council; (2) report, through their conncilors, to the chamber the work of each year; and (3) pay to the treasurer the sum of $\$ 5$ a year. In filling vacancies in the council preference shall be given to the fellows.
10. The council shall undertake the publication of such pamphlets and doctments as may be needed for the work of the institute.
11. A record of the work of each councilor and of each fellow shali be preserved. This record shall be printed annually and sent to each councilor and fellow.
12. An annual report of the work of the institute shall be prepared by the principal and shall be pablished for the benefit of the conncilors and patrons.

The officers of the Council of Seventy for the year 1898 were: President, Dr. John H. Barrows, the University of Chicago; principal, President William R. Harper, the University of Chicago; recorder. Dr. Clyde W. Votaw, the University of Chicago; treasurer, Frof. George H. Gilbert, Chicago Theological Seminary.

The council is divided into three chambers, one having in charge the work connected with the Old Testament, another having in charge the work connected with the New Testament, and a third having in charge the work connected with sacred literatures in general. The ofincers of the three chambers are: Old Testament chamber: Master. Prof. Edward T. Harper, Chicago Theological Seminary; scribe. Prof. George L. Robinson, McCormick Theological Seminary. New Testament chamber: Master, Prof. Charles F. Bradley, Garrett Biblical Institute; scribe, Frof. Shailer Mathews, the University of Chicago. General chamber: Master, President Charles J. Little, Garrett Biblical Institute; scribe, Prof. George B. Foster, the University of Chicago.

The names of the members of the Council of Seventy will be found below.
The senate of the council, consisting of the 13 officers of the council, meeting monthly in Chicago, directs the work in detail through the executive officers of the institute, reporting at intervals to the general council. These executive
officers are: President William R. Harper, principal; Prof. Frank K. Sanders (Yale), eastern vice-principal; Miss G.L.Chamberlin, executive secretary.

## THE WORK OF TME INSTITUTE.

Any statement in regard to the work of the American Institute of Sacred Literature should be prefaced by a clear definition of the aim of the organization, viz, to stand for no special theory of interpretation, school of criticism, or denomination, but to promote a systematic knowledge of the Bible as interpreted in the best light of to-day, and to increase the facilities for obtaining such knowledge.

It works in harmony with all Christian denominations. It joins handswwith all organizations for Christian work.

Specifically, the divisions and subdivisions of the institute work are as follows:
I. The correspondence work.-In this department courses are offered:

1. In the Hebrew and Cognate langwages: (a) For begimers; (b) for reviewers; (c) for advanced students.
2. In New Testament Greek: (a) For beginners; (b) for reviewers; (c) for advanced students.
3. In the English Bible: (a) Book study, e. g., Luke, John, etc.; (b) subject study, e. g., the founding of the Christian church, etc.

The correspondence instruction is given by men of university and theological training. It is conducted by means of printed instruction sheets sent to the student weekly. The recitations, written out in accordance with the instructions, are returued to the instructor, examined and criticised by him, and again returned to the student with further suggestions. Since 1878 , the year in which the correspondence school of Hebrew was organized, about 1,030 persons have received instruction in the department. A large proportion of these have completed courses and received certificates. The work has not been confined to America and Great Britain, but has been carried among Christain nussionaries into every part of the world, Australia, Africa, and China adding not a few names to the roll.
II. Reading work.-1. The Bible Students' Reading Guild: This Guild aims to provide reading courses, both popular and professional, upon Biblical and theological topics. At present only the professional courses are available, but the number of these will be made to meet the demand. The courses cover such subjects as the following:
(1) Historical and literary origin of the Pentateuch; (2) Old Testament prophecy; (3) The origin and growth of the Hebrew psalter; (4) The life of the Christ; (5) The apostolic age; (6) The problems of the Fourth Gospel; (8) Christianity and social problems; (8) The preparation of sermons.

The books upon these courses (six or more in number) are selected by the Council of Seventy, and are intended to present impartially all sides of the subject. The Biblical World or the American Journal of Theology, according to choice, is sent to each member foir one year from date of registration. In order that the courses may be available to the largest possible number of ministers and Bible teachers, the books are loaned as well as sold. A carefully prepared review accompanies each volume.
The details of this scheme gire to the professional Bible student an opportunity (1) to secure a consensus of opinion upon the most important literature on the subjects connected with his work; (2) to obtain temporarily the use of books thus wisely selected; (3) to build up his own library under most competent advisers; (4) to have at hand in his reading a carefully prepared review which he may annotate and keep for future reference; (5) to keep in touch with the best current thought in periodicals, both American and foreign; (6) to secure advice along lines of special reading not in the courses announced; (7) to do all this at a very small annual expense.
Arrangements for special credit for work are made with individual students when desired.
2. The Outline Bible Club course for Christian organizations: The urgent necessity for a course of study for young people and for all Christian organizations, a legitimate feature of whose work might be Bible study, renders advisable a special course upon which all organizations may unite and thereby avoid a confusing complication of work, and duplication of membership. The course presents four subjects, viz, The life of the Christ, The foreshadowings of the Christ,' The founding of the Christian church, The work of the Old Testament sages. Each year is independent, and stadents enter at any time with the then current year.
Since it is a study course, and not a reading course, only the Bible is used. The work is conducted by means of monthly direction and question sheets sent to all students, in which daily work is assigned. The work is inductive; the student is
led to investigate the original sources, and is given information only when it seems necessary. The time required in the work of this division is fif ceen minutes a day. It is, therefore, especially suited to busy Christian workers. Five thousand persons have enrolled for this course during the past year, among them members of the Young People's Society of Christian Endeavor, the King's Sons and King's Daughters, the Young Men‘s Christian Association, and the Young Women's Christian Association, the Women's Christian Temperance Union, the St. Andrew's Brotherhood, the Epworth League, and other similar organizations. The course is personally recommended by the heads of these organizations.
III. Examination work.-In order to stimulate such study of the Bible as is not carried on directly in connection with the institute, certain annual examinations are offered as follows:

1. An examination in connection with the International Sunday School Lessons. (This is sometimes omitted.)
2. To undergraduate college students in (a) Hebrew; (b) New Testament Greek; (c) a specific Biblical subject (English).

For the best two papers in each of the college examinations prizes of $\$ 100$ and $\$ 50$, respectively, are offered.
IV. Summer schools.-The summer schools of the institute are usually held in connection with other institutions or organizations, the number of courses and the character of the work depending upon the desire and financial resources of each institutioil or organization. Instruction has been given under the auspices of the institute in connection with the University of Chicago; the Chautauqua Assemblies at Chautauqua, N. Y.; Bay View, Mich.; Des Moines, Iowa; Lake Madison, S. Dak.; Lakeside, Ohio; Monteagle, Tenn.; Winona, Ind.; Saratoga, N. Y.; Winfield, Kans.; Glen Park, Colo.; Pertle Springs, Mo.; Ruston, La.; Waseca, Minn.; Marinette, Wis.; Silver Lake, N. Y.: Tully Lake, N. Y.; Crete, Nebr.; also under different auspices at Macatawa Park, Mich.; Jackson, Tenn.; Lewiston. Me. Not less than 5,000 students receive a longer or shorter term of instruction each summer.

It is the purpose of the institute to organize independent summer schools, where it seems wise to do so.
$V$. Lecture work.-Biblical lectures are given under the auspices of the institute (a) in courses, in cooperation with university extension organizations; (b) in courses, in colleges and local institutes; (c) as single lectures and addresses at conventions and elsewhere.
VI. Local board work.-Local boards of the institute, whose duty it is to propagate the work of the institute in their respective localities, are organized in several of the larger cities.
VII. Publication work.-The institute publishes all its own instruction sheets. Outline inductive studies, supplemental to the International Sunday School Lessons, have been furnished to the Sunday School Times for five years. Series of studles are also provided for other periodicals. It is the province of this department to provide supplementary material for the reading courses when necessary.
members of the council of seventy.

## OLD TESTAMENT CHAMBER.

Prof. W. J. Beecher, Auburn Theological Seminary, Auburn, N. Y.
Prof. W. R. Betteridge, Rochester Theological Seminary, Rochester, N. Y.
Prof. C. R. Brown, Newton Theological Institution, New ton Center, Mass.
Prof. Sylvester Burnham, Colgate University, Hamilton, N. Y.
Prot. A. S. Carrier, McCormick Theological Seminary, Chicago, 111.
Dr. C. E. Crandall, University of Chicago, Chicago, Ill.
Prof. Edward L. Curtis, Yale University, New Haven, Conn.
Prof. Samuel I. Curtiss, Chicago Theological Seminary, Chicago, Ill.
Prof. T. F. Day, San Francisco Theological Seminary, San Anselmo, Cal.
Prof. F. B. Denio Bangor Theological Seminary, Bangor, Me.
Prof. O. A. Gates, Oberlin Theological Semi nary, Oberlin, Ohio.
Prof. Etward T. Harper, Chicago Theological Seminary, Chicago, Ill.
President William R. Harper, University of Chicago, Chicago, Hil.
old testament chamber--continued.
Prof. Charles Horswell, Garrett Biblical Institute, Evanston, Ill.
Prof. Lincoln Hulley, Bucknell University, Lewishurg, Pa.
Prof. Charles F. Kent, Brown University, Providence, R. I.
Prof. D. A. McClenahan, United Presbyterian Theological Seminary, Allegheny, Pa.
Prof. L. B. Paton, Hartford Theological Seminary, Hartford, Conn.
Prof. Ira M. Price, University of Chicago, Chicago, 111.
Prof. G. L. Robinson, McCormick Theological Seminary, Chicago, Ill.
Prof. Frank K. Sanders, Yale University, New Haven. Conn.
Prof. Nathaniel Schmidt, Cormell University, $\mathrm{N} . \mathrm{Y}$.
Dr. Herbert L. Willett, University of Chicago, Chicago. 111.

## NEW TESTAMENT CHAMBER.

Prof. Alfred W. Anthony, Cobb Divinity School, Lewiston, Me.
Prof. Benjamin W. Bacon, Yale University, New Haven, Conn.

## MEMBERS OF THE COUNCIL OF SEVENTY-continued.

NEW TESTAMENT CHAMBER-continued.
Prof. J. H. Barbour, Berkeley Divinity School, Middletown, Conn.
Prof. E. I. Bosworth, Oberlin Theological Seminary, Oberlin, Ohio.
Prof. Charles F. Bradley, Garrett Biblical Institute, Evanston, [ll.
Prof. Marcus D. Buol!, Boston University, Boston, Mass.
Prof. Ernest D. Burton, University of Chicago, Chicago, Ill.
Prof. G. H. Gilbert, Chicago Theological Seminary, Chicago, Ill.
Dr. Edgar J. Goodspeed, University of Chicago, Chicago, Ill.
Prof. Ezra P. Gould, Protestant Episcopal Divinity School, Philadelphia, Pa.
Prof. D. A. Hayes, Garrett Biblical Institute, Evanston, Ill.
Prof. M. W. Jacobus, Hartford Theological Seminary, Hartford, Conn.
Prof. J. H. Kerr, San Francisco Theological Seminary, San Anselmo, Cal.
Prof. R. R. Lloyd, Pacific Theological Seminary, Oakland, Cal.
Prof. Shailer Mathews, University of Chicago, Chicaso, Ill.
Prof. Rush Rhees, Newton Theological Institution, Newton, Mass.
Prof. James S. Riggs, Auburn Theological Seminary, Aubuin, N. Y.
Prof. C. J.H. Ropes, Bangor Theological Seminary, Bangor, Me.
Prof. J. H. Ropes, Harvard University, Cambridge, Mass.
Prof. W.H. Ryder, Andover Theological Seminary, Andover, Mass.
Prof. Wilbur F. Steele, University of Denver, Denver, Colo.
Prof. William A. Stevens, Rochester Theological Seminary, Rochester, N. Y,
Dr. Clyde W. Votaw, University of Chicago, Chicago, Ill.

GENERAL CHAMBER.
Pres. John H. Barrows, Oberlin College, Oberlin, Ohio
Prof. James H. Breasted, University of Chicago, Chicago, 111.
Dr. Edmund Buckley, University of Chicago Chicago, Ill.
President G. S. Burroughs, Wabash College, Crawfordsville, Ind.
Prof. George B. Foster, University of Chicago, Chicago, Ill.
Prof. Kemper Fullerton, Lane Theological Seminary, Cincinnati, Ohio.
Prof. G. W. Gilmore, Bangor'Theological Seminary, Bangor, Me
Prof. G. S. Goodspeed, University of Chicago, Chicago, Ill
Dr. Wm. Eliot Grifins, Ithaca, N. Y.
Prof. Thomas C. Hall, Union Theological Seminary, New York City.
Prof. Henry C. King. Oberlin Theological Seminary, Oberlin, Ohio.
President Charles J. Little, Garrett Biblical Institute, Evanston, 111.
Prof. W. D. Mackenzie, Chicago Theological Seminary, Chicago, Ill.
Prof. D. B. MeDonald, Hartford Theological Seminary, Hartford, Conn.
Prof. E. K. Mitchell, Hartford Theological Seminary, Hartford, Conn.
Prof. Frank C. Porter, Yale University, New Haven, Conn.
Prof. Henry P. Smith, Amherst College, Am herst, Mass.
Cliancellor O. C.S. Wallace, McMaster University, Toronto, Canada.
Prof. Irving F . Wood, Smith College, Northampton, Mass.
Prof. A. C. Zenos, MeCormick Theological Seminary, Chicago, Ill.

REPORT OF THE COMMITTEE APPOINTED BY THE COUNCIL OF SEVENTY OF THE AMERICAN INSTITUTE OF SACRED LITERATURE TO INVESTIGATE THE CONDITION OF BIBLE STUDY IN AMERICAN COLLEGES. ${ }^{1}$

Your committee beg leave to submit the following report of the condition of Bible study in the colleges of the country, as they have studied it in pursuance of orders received.

> Owen H. Gates,
> Oberlin Theological Seminary, Oberlin, Ohio. Willis J. Beecher, Auburn Theological Seminary, Auburn, N. Y. Charles F. Bradley, Garrett Biblical Institute, Evanston, Ill. Edward T. Harper, Chicago Theological Seminary, Chicago, Ill. Frank K. Sanders, Yale University, New Haven, Conn.

Jandary 14, 1898.

[^35]
## ACCOUNT OF THE METHOD EMPLOYED.

A circular letter was sent to the presidents of the colleges of the country (exclusive of the Roman Catholic institutions) which are listed in the latest published report (1894-95) of the United States Commissioner of Education. The letter inclosed a list of questions to be answered and the familiar circular of the institute. The letter and list of questions are given herewith:

> The American Institute of Sacred Literature, Oberlin, Ohio, Moy 1, $189 \%$.

Dear Sir: At their annual meeting in December the Council of Seventy appointed a committee "to make a thorough investigation of the teaching of the Bible in American colleges, said committee to present the results of the investigation and recommendations thereupon at the next meeting of the council."
The committee ask for the cordial cooperation of the several colleges, in order that the investigation may be as thorough and the report as complete as possible. The inclosed questions are sent to you in pursuance of the task laid upon us. The formulated questions can not, of course, exactly suit each case, and we ask you to answer them as fully as possible, and in addition to give supplementary information of which, in your judgment, we ought to be in possession.
It is expected that copies of the report will be sent to each college, so that all will share the information we secure.
If there is likely to be delay in replying, kindly drop us a card, that we may know that our letter has reached the proper persons.

Please send as soon as convenient to Prof. Owen H. Gates, Oberlin, Ohio, the following items:
I. The current issue of your catalogue, for the sake of general information as to your curriculum, as well as its description of your Bible courses.
II. Any other printed description of your Bible work which you may have.
III. Information on the following points, as to each of your Bible courses, as exact as possible for the purpose of tabulation, and as full as possible, in order to preclude improper inferences:

1. Name, description, length in hours per week, and total hours.

2a. If required, of what classes? Preparation involved for recitation and for examination. Estimate of the value to the student body of required Bible courses.
2b. If elective, how freely elected? Preparation involved for recitation and for examination.
3. Primary aim, devotional, culture, theological?
4. Method employed in the conduct of the course.
5. Is the instruction by a teacher (or teachers) designated wholly or chiefly for this purpose? Is the work attached to some other chair? Is it assigned according to circumstances to some suitable member of your faculty? Are the courses tanght by the same teacher in successive years?
6. Any recent or proposed changes in regard to the work. We would like to note any marked tendency among the colleges.
7. Opportunities outside of the curriculum upon which you rely for instruction in the Bible; e. g., Y. M. C. A. courses, etc.
8. Additional remarks.


It was early seen that the conditions obtaining in the girls" schools of the second grade were different from those in the other classes that they could not in any case be treated in connection with them; accordingly no efforts were made after the first letter to get information from them.

The report will mention the women's colleges of the first grade in a group by themselves in order to facilitate comparison among themselves.

The basis of the body of the report is therefore the 243 men's and coeducationar colleges which responded to the request for information.

As is intimated above, the replies were not all sent at once in response to the first call. Supplementary letters were sent to many, and it was a puzzling question what amount of energy should be devoted to the prosecution of the inquiry. We are happy to state that in almost every case the second call brought a reply. This was in part due to the fact that we selected for a second letter the better known and more responsible colleges which had not replied at first; and in part that it involved a written and more individual letter, which is, of course, more effective than a printed circular, though sent under a sealed cover. In some cases a postal card asking for a catalogue was answered when the circular was ignored.

In order to secure the freshest possible information, the letter was not sent out until May-of course during the summer no correspondence could be carried onand when the work was resumed in the fall it was prosecuted in the midst of other pressing duties. We decided that unless practical completeness were to be our aim, we had in the results already mentioned material enough for safe deductions. We therefore suspended the work of collection for the more difficult one of collation.
The colleges heard from constitute about 60 per cent (571) of the Protestant colleges of the country within the group mentioned above. The enrollment of students in these reporting colleges exceeds 77 per cent of the whole enrollment in the same group. This, of course, means that we have heard from the larger colleges. The average number of students in the colleges which report is 185, while in the remainder it is only r6. The total number of students in the institutions reporting is 47,700 out of a total of about 61,700 students in the group of colleges under consideration. It is thus evident that we have quite general and satisfactory information as to the advantages afforded the students of our colleges for the study of the Bible.


Total students in colleges reporting
47,700
From the circumstances of the appointment of the committee it is fair to assume that the report will urge more and better Bible study. The institute stands for more, rather than less, Bible work. Now, it is clear that if the report errs on account of not being complete it will err in representing that the Bible study of the colleges is better than it is, for the conditions in the nonreporting colleges will be less favorable than in those which replied. * * * In other words, we have very much more than three-fourths of the amount of Bible study in the colleges represented in our report.

Further, the smaller colleges with their fewer teachers and less subdivision of labor can not furnish as good a quality of instruction as the larger institutions, so that from our studies we form none too low an estimate of the quality of Bible study in the country at large.

We therefore will not err in basing our appeals for more and better Bible study in colleges on the information which we have been able to gather in our investigation.

The following is a list of the colleges responding and included in the statistics. The data correspond with the table of colleges in the report of the Commissioner of Education for 1894-95, pages 2115 and following, except that in the last column "State" takes the place of " nonsect" in the case of the State institutions:

| No. | Location. | Name of college. | Denomination. |
| :---: | :---: | :---: | :---: |
|  | alabama. |  |  |
| 3 | Eastlake | Howard College.......... | Bapt. |
| 9 | University | University of Alabama ................... | State. |
|  | Alizona. |  |  |
| 10 | Tucson.. | University of Arizona | State. |
|  | ARKANSAS. |  |  |
| 1113141517 | Arkadelphia | Arkadelphia Methodist College | M. E. So. |
|  | Batesville. | Arkansas College ............... | Presb. |
|  | Clarksville. | Arkansas Cumberland College | Cumb. Presb. |
|  | Little Rock. | Philander Smith College. | M. Е. |
|  | California. |  |  |
| 1920242631 | Berkeley. | University of California | State. |
|  | Claremont | Pomona ................. | Cong. |
|  | Oakadena | California College --....-. | Bapt. |
|  | Stanford University | Leland Stanford University . | Nonsect. |
|  | colorado. |  |  |
| 343536 | Boulder. | University of Colorado | State. |
|  | Colorado Springs | Colorado College ......-............... | Nousect. |
|  | Del Norte.. | Presbyterian College of the Southwest | Presb. |
|  | connecticut. |  |  |
| 394041 | Hartford.. | Trinity Coliege...... | P. E. |
|  | Middletown | Wesleyan University | M. E. |
|  | New Haven. | Yale University ..... | Cong. |
|  | delaware. |  |  |
| 42 | Newark | Delaware College | Nonsect. |
|  | district of columbia |  |  |
| $\begin{aligned} & 43 \\ & 44 \\ & 47 \end{aligned}$ | Washington |  |  |
|  | … do -....... | Gallaudet College ... Howard University | Nonsect. Nonsect. |
|  | florida. |  |  |
| 4849$5: 3$ | De Land. | John B. Stetson University | Bapt. |
|  | Leesburg | Florida Conference College. | M. E. So. |
|  | Winterpark | Rollins | Cong. |
|  | georgia. |  |  |
| $\begin{aligned} & 53 \\ & 54 \\ & 5 . \\ & 60 \end{aligned}$ | Athens.- | University of Georgia | State. |
|  | Atlanta | Atlanta University ... | Nonsect. |
|  | Oxford | Morlis Brown College Emory College ....... | A. M. S. |
|  | idalio. |  |  |
| 64 | Moscow. | University of Idaho.... | State. |
|  | illinois. |  |  |
| 65 | Abingdon. | Hedding College | M. E. |
| 68 | Carlinville | Blackburn University | Presb. |
|  | Carthage - | Carthage College ..... | Luth. |
| 70 | Champalign | University of llinois | State. |
| 72 | Elmharst. | Evangelical Proseminary |  |
|  | Eureka | Eureka College. | Christian. |
|  | Evanston | Northwestern University | M. E. |


| No. | Location. | Name of college. | Denomination. |
| :---: | :---: | :---: | :---: |
|  | ILLINOIS-continued. |  |  |
| 79 | Galesburg | Knox College | Nonsect. |
| 80 | ---do...- | Lombard University | Univ. |
| 82 | Jacksonville | Illinois College . | Nousect. |
| 83 | Lake Forest | Lake Forest University | Presb. |
| 84 | Lebanon | McKendree College .... | M. E |
| 85 | Lincoln | Lincoln University | Cumb. Presb. |
| 87 | Naperville | Northwestern College | Ev. Ass'n. |
| 89 | Quincy .. | Chaddock College. - | M. E. |
| 41 | Rock Island | Augustana College | Lath. |
| 95 | Wheaton. | Wheaton College. | Coug. |
|  | INDIANA. |  |  |
| 98 | Bloomington | Indiana University | State. |
| 99 | Crawfordsville | Wabash College .-- | Nonsect. |
| 100 | Fort Wayne .-. | Concordia College | Luth. |
| 101 | Franklin. | Franklin College | Bapt. |
| 102 | Greencastle | De Pauw University | Meth. |
| 103 | Hanover | Hanover College --- | Presb. |
| 106 | Merom.. | Union Christian College | Christian. |
| 109 | Richmond | Earlham College .-.-... | Friends. |
| 112 | Upland... | Taylor University | M. E. |
|  | IOWA. |  |  |
| 113 | Cedar Rapids. | Coe College.- | Presb. |
| 114 | Charles City .- | Charles City College | M. E. |
| 115 | Clinton----- | Wartburg College . | Luth. |
| 116 | College Springs | Amity College... | Nonsect. |
| 117 | Decorah. | Luther College. | Luth. |
| 119 | Des Moines | Drake University ...- | Christian. |
| 121 | Fayette | Upper Iowa University | M. E. |
| 12:3 | Grinnell | Iowa College --..---- | Cong. |
| 123 | Hopkinton | Lenox College | Presh. |
| 124 | Indianola | Simpson College | M. E. |
| 125 | Iowa City ------ | Iowa State University | State. |
| 128 | Mount Vernon | Cornell College .-...... | M. E. |
| 134 | Tabor --.-.---. | Tabor College . | Cong. |
| 135 | Toledo | Western College | U. B. |
|  | KANSAS. |  |  |
| 136 | Atchison . | Midland College | Luth. |
| 138 | Baldwin. | Baker University | M. E. |
| 144 | Lawrence | University of Kansas | State. |
| 151 | Topeka | Washburn College ........ | Cong. |
| 152 | Winfield | St. John's Lutheran College | Luth. |
| 153 | --.-do. | Southwest Kansas College... | M. E. |
|  | KENTUCKY. |  |  |
| 155 | Berea | Berea College | Nonsect. |
| 156 | Bowling Green | Ogden College. | Nonsect. |
| 158 | Danville | Centre College | Presb. |
| 166 | Russellville | Bethel College. | Bapt. |
|  | LOUISIANA. |  |  |
| 169 | Baton Pouge | Louisiana State University - | State. |
| 174 | New Orleans | Leland University .- | Bapt. |
| 175 | -... do - | New Orleans University | M. E. |
| 176 | .... do | Straight University --... | Cong. |
| 177 | -..-do | Tulane University | Nonsect. |
|  | MAINE. |  |  |
| 178 | Brunswick | Bowdoin .-.. | Cong. |
| 179 | Lewiston- | Bates College..... | Bapt. |
| 180 | Waterville | Colby University | Bapt. |
|  | MARYLAND. |  |  |
| 181 | Annapolis | St. John's College .-....-... |  |
| 182 | Baltimole --. | Johns Hopkins University | Nonsect. |
| 190 | Westminster | Western Maryland College. | Meth. Prot. |
|  | MASSACHUSETTS. |  |  |
| 191 | Amherst | Amherst College | Cong. |
| 194 | Cambridge - | Harvard University | Nonsect. |
| 196 | Tufts College. | Tufts College | Univ. |
| 197 | Williamstown. | Williams College | Nonsect. |
|  | ED 98-_-96 |  |  |





Location of colleges, by States.


It will be noticed from this table that the replies are more numerous from the Northern and Eastern colleges.

Classification，according to religious denomination，of the colleges in the foregoing table．${ }^{1}$

|  |  | $\begin{aligned} & \text { 峇 } \\ & \text { Mn } \end{aligned}$ | $\begin{array}{\|l\|} \text { 守 } \\ \text { • } \end{array}$ |  | $\begin{aligned} & \dot{1} \\ & \dot{1} \\ & \dot{4} \end{aligned}$ | $\begin{gathered} \dot{y} \\ \text { y } \\ \dot{+} \\ \dot{\sim} \\ \text { B } \end{gathered}$ | $\begin{gathered} \\ \vdots \\ \vdots \\ 0 \\ 0 \\ 0 \\ \sim \end{gathered}$ |  |  | $\begin{aligned} & \text { 官 } \\ & \text { Bi } \end{aligned}$ | $\begin{aligned} & \text { 萿 } \\ & \underset{y y}{*} \end{aligned}$ | $\begin{aligned} & \text { ت̇를 } \end{aligned}$ | $\begin{aligned} & \infty \\ & \dot{B} \\ & 0 \end{aligned}$ | $\frac{B}{B}$ |  |  |  | $\begin{aligned} & \text { ジ } \\ & \text { 亏ु } \\ & \text { B } \\ & 0 \\ & \text { B } \end{aligned}$ |  |  |  | بٌ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9 | 25 | 3 | 17 | 11 | 55 | 339 | 13 | 11 | 335 | 20 | 75 | 69 | 135 | 80 | 109 | 258 | 328 | 343 | 190 | 36 | 87 | 208 |
| 10 | 31 | 24 | 40 | 15 | 345 | 282 | 36 | 85 | 379 | 41 | 105 | 91 | 344 | 196 | 299 | 273 |  |  |  |  | 378 | 269 |
| 34 | 3.5 | 43 | ${ }^{65}$ | 49 | －．．－ | 425 | 68 | 243 | 412 | 5 | 119 | 116 | 363 | $\stackrel{20}{ }$ | $3 \% 1$ | 460 |  |  |  |  |  | 302 |
| 53 | 42 | 48 | 76 | 60 | － | 329 | $8: 3$ | 414 |  | 9．3 | 227 | 115 |  | 311 | 385 |  |  |  |  |  |  | 342 |
| 64 | 4 | 72 | 84 | 236 |  |  | 103 | 440 |  | 12： | 232 | 118 |  |  |  |  |  |  |  |  |  | 366 |
| 70 | 54 | 101 | 89 | 393 |  |  | 113 |  |  | 134 | 331 | 136 |  |  |  |  |  |  |  |  |  | 373 |
| 98 | 79 | 166 | 102 | 424 |  |  | 123 |  |  | 151 | 418 | 152 |  |  |  |  |  |  |  |  |  |  |
| 125 | 82 | 172 | 112 | 448 |  |  | 158 |  |  | 176 |  | 211 |  |  |  |  |  |  |  |  |  |  |
| 144 | 99 | 179 | 114 | 451 |  |  | 202 |  |  | $1 \%$ |  | \％17 |  |  |  |  |  |  |  |  |  |  |
| 169 | 116 | 180 | 121 |  |  |  | 218. |  |  | 191 |  | 333 |  |  |  |  |  |  |  |  |  |  |
| 203 | 156 | 207 | 124 |  |  |  | $23 \%$ |  |  | 205 |  | 341 |  |  |  |  |  |  |  |  |  |  |
| 215 | $17 \%$ | 242 | 128 |  |  |  | 246 |  |  | 210 |  | 359 |  |  |  |  |  |  |  |  |  |  |
| 234 | 181 | 283 | 138 |  |  |  | 296 |  |  | 216 |  | 358 |  |  |  |  |  |  |  |  |  |  |
| 261 | 47 | 292 | 153 |  |  |  | 297 |  |  | 259 |  | 369 |  |  |  |  |  |  |  |  |  |  |
| 266 | 155 | ${ }_{306}^{303}$ | 175 |  |  |  | 34. |  |  | 20 |  | 498 |  |  |  |  |  |  |  |  |  |  |
| 309 | 194 | 316 330 | 201 |  |  |  | 36\％ |  |  | 261 |  | 456 |  |  |  |  |  |  |  |  |  |  |
| 325 | 197 | 374 | 291 |  |  |  | 389 |  |  | 331 |  |  |  |  |  |  |  |  |  |  |  |  |
| 350 | 238 | 390 | 312 |  |  |  | 392 |  |  | 403 |  |  |  |  |  |  |  |  |  |  |  |  |
| 382 | 250 | 396 | 315 |  |  |  | 395 |  |  | 405 |  |  |  |  |  |  |  |  |  |  |  |  |
| 404 | 251 | 442 | 364 |  |  |  | 400 |  |  | 420 |  |  |  | －－ |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 413 \\ & 431 \end{aligned}$ | 281 | 466 | 401 |  |  |  | 4148 |  |  | ${ }_{4}^{466}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 445 | 284 |  | 420 |  |  |  | 428 |  |  | 478 |  |  |  |  |  |  |  |  |  |  |  |  |
| 446 | 287 |  | 437 |  |  |  | 429 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 450 \\ & 462 \end{aligned}$ | 200 320 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 470 | 323 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 475 | 396 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 481 | 333 336 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 337 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 358 <br> 370 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 380 <br> 385 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $391$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 423 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $4{ }^{47} 4$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & 453 \\ & 457 \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 | 43 |  |  |  |  |  | 25 |  |  |  |  | 16 | 3 | 4 |  | 3 |  | 1 | 1 | 1 |  | 6 |

[^36] the previous list．

Bible study in colleges.

| Denomination. | Total number of colleges. | $\begin{aligned} & \text { Total } \\ & \text { answer- } \\ & \text { ing. } \end{aligned}$ | With Bible. | Bible required | Bible elective | Required or elective. | No Bible study. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| State institutions |  | 30 | 13 |  | 13 |  | 17 |
| Other nonsectarian |  | 43 | 29 | 14 | 20 | 5 | + |
| $\begin{aligned} & \text { Baptist.-Fill } \\ & \text { Free } \end{aligned}$ | 50 | 22 | 20 | 8 | 16 | 4 | 2 |
| Methodist Episcopal | 57 | 27 | 26 | 16 | 13 | 3 | 1 |
| Methodist Episcopal, South. | 25 |  | 6 | 5 | 2 | 1 |  |
| African Methodist Episcopal | 4 | 2 |  | , |  |  |  |
| Protestant Episcopal .......- | 5 | 4 | 3 | $\stackrel{2}{2}$ | $\underset{\sim}{2}$ | 1 |  |
| Presby terian ${ }^{\text {Cumberland Presbyterian............... }}$ | 40 7 | 25 5 | 25 4 4 | 25 4 | $\begin{array}{r}7 \\ 3 \\ \hline\end{array}$ | 3 | 1 |
| United Presbyterian....... | 6 | 3 | 3 | 3 |  |  |  |
| Congregationalist.. | 25 | 24 | 23 | 18 | 13 | 8 | 1 |
| Christian | 20 | 7 | 7 | 3 | 6 | 2 |  |
| Lutheran -...... | 23 | 16 | 15 | $1 \frac{1}{3}$ | 3 | ${ }_{2}$ |  |
| United Brethren | 13 | 3 | 3 | 3 | 1 | 1 |  |
| Universalist | $\stackrel{4}{7}$ | 4 | 4 | 3 | 1 |  | 2 |
| Seventh Day Adventists. | 3 | 3 | ${ }_{3}^{4}$ | 1 | $\stackrel{1}{2}$ |  |  |
| Church of God....... | 1 | 1 | 1 | 1 | 1 | $1-$ |  |
| New Church...--. | 1 | 1 |  |  |  |  | 1 |
| Methodist Protestant.... | $\stackrel{2}{2}$ | 1 | 1 | 1 | 1 | 1 |  |
| Reformed Presbyterian <br> United Evangelical | $\stackrel{2}{4}$ | $\stackrel{1}{2}$ | $\stackrel{1}{2}$ | 1 | 1 |  |  |
| Reformed ............. | 8 | 6 | 5 | 5 | 1 | 1 | 1 |
| Total. |  | 243 | 197 | 129 | 103 | 40 | 45 |

A word should be added as regardis the construction which the committee have put upon the term "Bible study" in studying the information received. The study may be done in Hebrew or Greek, or in the English Bible: but in order to be admitted into the tables it must be a regular part of the curriculum. If it is by catalogue statement recuired of all its students, it is included. If not required, it must be regularly elective, and account must be taken of it in some way in the requirement for graduation. We felt justified in rejecting from consideration for purposes of tabulation such statements as this: "The president conducis a voluntary Bible class Sunday mornings," when no other information is given of the work and its place in the college duties.

In order to guard against any misrepresentation in any lists which might be published, we gave the colleges an opportunity, by a special question, to state what outside means are employed in Bible instruction.

## INFORMATION GATHERED.

"no STUDY" COLLEGES.
Of the 243 listed (men's and coeducational) colleges, 46 are without Bible study. Of these, 17 are State institutions, 14 nonsectarian, and 15 denominational.

The following is a list of these 46 colleges, together with the remarks made by them by way of explaining, apologizing for, or justifying their lack of opportunities for Bible study:
9. University of Alabama.-None.
10. University of Arizona.-" Prohibited by law."
11. Arkadelphia.-W Would be glad to arrange Bible study, and would appreciate information as to methods.
19. University of California.-"In State institutions distinctive Bible study is not favored, butt in literary classes írequent reference is made to the literary qualities of the Bible."
26. Throop Polytechnical Institute.-From the catalogue. No other reply made; nothing appears.
53. University of Georgia.-There is a teacher of Bible outside of the faculty. It is proposed to raise an interdenominational fund.
64. University of Idaho.-Young Men's and Young Women's Christian Associations. No other course thus far.
70. University of Illinois. - The letter was referred to the Young Men's Christian Association, who conduct the only course.
85. Lincoln University.-No regular work as yet.
98. Indiana University. - No Bible work appears in the catalogue.
125. Iowa State University. - No Bible work appears in the catalogue.
152. St. John's Lutheran.-No Bible course as such in the curriculum. This institution being preparatory to a seminary, the systematic study of the Bible under the head of isagogics is entered on in that department. "We give at least two hours per week in the preparatory department to Bible history, Old and New Testament, guided by text-book; college freshman, and sophomore years, Luther's Catechism, etc., junior and senior, Greek New Testament." The president adds: "If you publish outlines for Bible study in college, I would be glad to get a copy."
156. Ogden College. - "From lack of funds, we have not been able yet to arrange for a Bible course in the college."
175. New Orleans University.-Bible is taught in the preparatory department. A theological course is advertised, but no students are recorded in that course.

1\%\%. Tulane University.-"I shall be glad to learn of any practicable plans to promote Bible study."
179. Bates.-President Chase replies that they have Bible study. As it is explaned, however, it falls in the class of extra-curriculum study. There is a required course in ethics, and there are large voluntary classes in Bible conducted by Professor Purinton, of the (Cobb) Divinity School.
181. St. Johns College.-The president teaches a Sunday Bible class.
250. Washington.-Constitution forbids instruction "either sectarian or religious, or partisan in politics," etc. Charter forbids instruction "either sectarian in religion or partisan in politics," etc. * * *
266. State University of Nevada.-"I regret to say that there is no Bible instruction in the university."
280. St. Lawrence.-The catalogue has no hint of Bible study. The religious attitude of the university is shown by required church and chapel attendance and by the fact that they have a theological department.
290. New York Uuiversity.-None.
302. Catawba.-No study.
308. Fargo. - Requires it of preparatory students, but has no course in college. Number of students of college grade, 4.
309. University of North Dakota.-"Forbidden by law;" "no instruction either sectarian in religion or partisan in politics shall be allowed in any department of the university." There are simple religious exercises each day and voluntary Bible classes Sunday evenings. Actendance is gratifiyingly large, including most of the Roman Catholics among the students.
311. Buchtel.-Does not report Bible study.
343. Urbana College.-Bible study seems to be completed in the preparatory department; in the college, theological instruction takes its place.
345. Wilberforce University.-None.
350. University of Oregon.-No study.
358. Western University.-None.
380. Central High School, Philadelphia (college grade).-None.
385. Pennsylvania State College (land grant).-Catalogue makes no statement. It is known that the professor of English includes a study of Job in one of his courses.
391. College of Charleston.-None. Letter gives no explanation.
413. University of Tennessee.-Catalogue shows none. There is a Young Men's Christian Association.
424. Vanderbilt.-. We have often discussed the matter, and are desirous of introducing an elective in Bible study."

42J. University of the South.-None in the catalogue.
42ia. Jesse Mai Aydelott.-None.
431. University of Texas.-Catalogue shows none. There is a Young Men's Christian Association.
445. University of Utah.-Catalogue shows none. There is a Young Men's Christian Association.
446. University of Vermont.-President conducts a Bible class Sundays.
447. Middlebury College.-None.
450. University of Virginia. - No official provision, but much interest on the part of some teachers and students. Professor Willett lectures.
451. Emory and Henry College.-" I desire to make Bible study, as soon as practicable, a part of the curriculum.
457. William and Mary College.-None; they rely on outside aids.
462. University of Washington.-Catalogue shows none.
476. Milton.-None.
481. Wyoming University. - All instruction in religious matters is voluntary. No Young Men's Christian Association as yet.
238. Doubtful if any.

The number of students in the colleges listed above which have no regular study of the Bible in the curriculum is a little less than 8,000 . The average number in each college, 1 15.

Colleges (for mumbers see list above) with required, elective, and no-Bible study.


Totals: Required, 129; elective, 10S; none, 46. Total with Bible. 197.

Alabama.-None.
Arizona.-Prohibited by law.
Arkansas.-No State institution reporting.
California.-"In State institutions distinctive Bible strdy is not favored, but in literary classes frequent reference is made to the literary qualities of the Bible."

Colorado. -Hebrew appears in the catalogue.
Connecticut.-No college.
Delaware. - No State institution reporting.
Florida.-No State institution reporting.
Georgia.-Teacher outside of faculty. Proposal is made to raise an interdenominational fund.
Idaho.-Young Men’s Christian Association and Young Women's Christian Association. No other courses thus far.

Illinois,-Letter was referred to the Young Men's Christian Association, who conduct the only courses.

Indiana.-No Bible work appears in the catalogue.
Iowa.-Catalogue shows no Bible.
Kansas.-Two Greek classes use Greek Testament for sight reading. Occasionally there is a regular class in Greek Testament. The professor of English literature lectures on English Bible; Greek professor on origin of the Bible. Young Men's and Young Women's Christian Associations.

Kentucky.-No State iastitution reporting.
Louisiana.-Stevens and Burton's Harmony of the Gospels one hour weekly is studied. No examination. Aim, devotion and culture. Assigned to suitable teacher. Next year we want to introduce Burton's Letters and Records of the Apostolic Age. We find the course of study we are pursuing a good one.

Maine.-No State institution reporting.
Maryland.-No State institution reporting.
Massachusetts.-No State institation reporting.
Michigan.-Courses of Biblical literature in Young Men’s Christian Association building through the voluntary agency of the Church of the Disciples, who have established chairs here for that purpose, and have done a great deal of good here for the last few years. "Students (I think) pay a small fee." Endowment courses of lectures have also been established by an Episcopal guild and also by a Methodist guild. Catalogue shows several Hebrew and Hellenistic Greek courses.

Minnesota.-Hebrew and history of the Hebrews.
Mississippi.-No information.
Missouri.-New Testament Greek. Disciple Bible college in connection. Work there is not counted on a degree. Episcopal guild to be established. This idea is gaining ground in Missouri. The president of the Bible college writes that credit is given for time spent in that college. This has 100 university students ( 50 from the law department) taking two to four hours of work in the Bible college.

Montana.-No State institution reporting.
Nebraska. - New Testament Greek; Old Testament literature. Interpretative study of Old Testament poetry and characierization, one semester. Led by English literature teacher.

Nevada.-"I regret to say that there is no Bible instruction in the university." New Hampshire.-No State institution reporting.
New Jersey.-No State institution reporting.
New Mexico.-No State institution reporting.
New York.-No State institution reporting.
North Carolina.-Catalogue statement: New Testament Greek, two hours per week. Literary study of the Bible. For graduates, critical survey of one or more books. Influence of the Bible on literature and development, by professor of English; not given every year. The professo of history lectures on New Testament history to the Young Men's Christian Association. This can not be counted toward a degree.

North Dakota.-"Forbidden by law." "No instruction either sectarian in religion or partisan in politics shall be allowed in any department of the university."

Ohio.-No information.
Oklahoma.-No information.
Oregon.-No study.
Pennsyivania.-Elective (189~-98) to juniors and seniors, by Dr. T. H. P. Sailer. Two hours per week. "Introduction to Bible" for those not prepared to study it in the original.

Rhode Island.-No State institution reporting.
South Carolina.-No State institution reporting.
South Dakota.-Biblical literature, four hours, twenty-four weeks, offered for the last three years. Elected only once, and then by 16 or 18 students. Aim: culture, Iiterary, archeological, scientific. Two professors.

Tennessee.-Catalogue shows no work. Young Men's Christian Association.
Texas.-Catalogue shows no work. Young Men's and Young Women's Christian Association.

Utah.-Catalogue shows no work.
Vermont.-President conducts Bible class on Sundays.
Virginia.-No official provision, but much interest on the part of some teachers and students. Professor Willett.

W ashington.-Catalogue shows none.
West Virginia.-Bible is taught only as a literary book, and Bible ethics as a part of general ethics.

Wisconsin.-Hebrew and New Testament Greek courses are numerous. Also there is listed under Hebrew: Isaian, literary and historical study, two hours. History and geography of Palestine, one hour. In these there is no knowledge of Hebrew required.

Wyoming.-All instruction in religious matters is voluntary. No Young Men's Christian Association as yet.

## COLLEGES HAVING BIBLE STCDY.

Of the 243 colleges in the list 197 report Bible study as a part of the curriculum. These are divided between required and elective work, as follows:
Requiring Bible work ................................................................................. 129
Not requiring, but offering as an elective...-.............. ............................. 68

Requiring some and offering more as elective.......-......................................... 40
Not requiring, but offering as an elective ..................................................... 68
Total offering Bible study as an elective ........................................... 108

REQUIRED BIBLE STUDY.
One of the special points of interest in our investigation was the mode of instruction in required Bible courses. The number of hours per week devoted to the study in the colleges which make a requirement in Bible is shown from the following table:
Unknown .............................................................................................. 12
One-hour courses .-............................................................................................... 67
Two-hour courses ..-.-.......................................................................................... 23

Four-hour courses ..................................................................................................... 5
Five-hour courses ..............................-.......................................................... 17
There are one and two hour Bible courses in 90 colleges and three, four, and five hour courses in 34.

The 34 which adopt the method of frequently occurring exercises are named in the following condensed list, arranged by States:

> Colleges liaring three, four, and five nour courses.

Arkansas .-.-... Arkansas College, Philander Smith.
Colorado ......... . Presbyteri an College of the Southwest.
Tlinois -..........-Hedding. Blackburn, Carthage, Lake Forest, McKendree.
Iowa ............. Charles City, Amity, Simpson, Tabor, Wartburg.
Maine........... . Bowdoin.
Missouri --........Christian University.
Nebraska ........ Doane, Gates, Nebraska Wesleyan.
North Carolina_ Biddle, Davidson, Shaw.
Ohio ............... Findlay, Hiram, Marietta, Muskingum, Oberlin.
Pennsylvania ... Grove City.
South Dakota ....Black Hills, Yankton.
Tennessea ...... Southwest Presbyterian, Milligan, Fisk,
Washington.-... Walla Walla.
Wisconsin ...... Ripon.
There are two-hour courses of required work in the following colleges:
Colleges having two-hour courses.
Colorado ........ - - Presbyterian College of the Southwest.
Illinois.-........... Chaddock, Augustana.
Iowa.--.......-.-. Upper Iowa, Simpson, Western.
Kansas --..-. --. - .- Baker.
Minnesota ---...-St. Olaf. Macalister.
Missouri ......... Westminster.
New Hampshlre Dartmouth.
North Carolina...Biddle, Davidson, Wake Forest.
Ohio ................ Lima, Otterbein.
Pemnsylvania - - Ursinus, Thie!.
Tennessee ...-.- Central Tennessee College.
Washington..... Puget Sound.
Wisconsin .-...-.Lawrence.
The following colleges reauire Bible stady in one-hour courses (i. e., one period per week). There are appended some remarks made in their letters or catalogues, bearing on the preparation required for the lessons, and upon the value of one-hour required courses:
17. Philander Smith.-Twenty minutes each day throughout the course. The Greek Testament is taught in autumn of sophomore year.
20. Pomona.-One hour through the course. Two hours' preparation required and examinations. "Frequent testimonials and clear evidence of real and important value." Aim is culture, with strong devotional bias. Electives are also offered.
39. Trinity.-Held Monday morning. Great value.
44. Gallaudet.-Practically is a Sunday-school class. On the whole it is satisfactory.
47. Howard,-Freshman year, two terms. Also a Sunday-school class for boarders.
54. Atlanta.-Little preparation, and little vaiue.
60. Emory. - Wonderfully successful, intellectually and religiously. Old and New Testaments are used. Through the course.
87. Northwestern College.-Through the course. Old and New Testament.
95. Wheaton,-Recitations and examinations. Very helpful. "We propose to be more exact in requirements."
102. Hanover. - Held Sunday. It is valued highly.
109. Earlham.-Required of nonresidents. Preparation voluntary; no exam. inations.
113. Coe.-One hour of preparation required. Use the Blakeslee method. "Formerly we used Smith; now the Bible."
116. Amity.-Their one-hour course is in New Testament Greek; required of sophomores.
123. Lenox.-Preparation and examination as in any other course. An improvement is noticed in college morals.

12s. Cornell.-One-hour course on the Acts. (Possibly not required.)
136. Midland.-One hour for three years. Senior year, comparative religion and evidences of Cinistianity. Bible classes like other classes, except that there are more comments by the professor on the text.
155. Berea.-Lectures and examinations.
158. Center College.-Lectures and examinations. Through the course. Oid and New Testaments.
160. Bethel.-Required of every student. Value, as judged by the interest of the students, is considerable. No examinations. Obligatory feature on account of the importance of Bible in literary course; but compensated for by giving credit in excess of time and labor given to it, as compared with o her stadies. Aim is culture, not excluding devotion. This depends on the current sentiment in college. Many have not stadied, some not read, the Bible before coming. Would like to know best books and plans. We favor direct contact with the Bible. We have advanced; present state tentative. Some professors report their Bible classes to be their best.

1i6. Straight. - Weekly, three years.
202. Alma. - Preparation and examinations as in other course. We think highly of the work. No other influences character so much.
205. Benzonia.-"One hour a week through the course," is the reply; but only freshman year is devoted to Bible study; the rest is church history and evidences.

20\%. Hillsdale.-Examinations as in other courses. Seventy per cent is passing mark. Highly valuable.
208. Hope.-Examinations as usual. Seventy per cent is passing mark.
210. Olivet.-Freshmen, New Testamentethics; sophomores, planting and development of Jewish and Christian Church; juniors. evidences; seniors. doctrines and duties of Old and New Testaments. Aim, culture, with strong devotional element.
216. Carleton.-Freshmen and sophomores. Good grades are made.
236. Central.-"Some students, the best, appreciate the work; others study it because they are obliged to. It is taught for its religious influence."
246. Park.-Freshman and sophomore yєars. The theoretical has been separated from the devotional since 1830 .
243. Missouri Valley.-Entrance requirements in Bible. One hour through the course. Endowed professorship. Usual academic nethods.
251. Drury.-Two terms at least, each year, through most of the course. This includes, however, other re'igious instruction besides Bible.
269. Rutgers.-English Bible and evidences required for seniors.
281. Hamilton.-Through the course; systematically arranged. "We like the plan."
296. Biddle. - All freshman and sophomore and part of senior year, one hour; otherwise two and three hours.
299. Guilford.-Through the course. At least one hour of preparation. Aim, devotion and culture. "We value Bible work highly."
320. Cincinnati.-No definite information.
323. Western Reserve.-Freshman year. Two hours' preparation and semiannual examinations. "Value great, it teaching is good." 329. Kenyon.-Freshman year. Preparation similar to that for other studies. 330. Denison.-Greek Testament, two terms. "We do not feel the need of an English Bible chair."
342. Heidelberg.-Two terms first three years. Study is growing more thorough.
347. Wooster.-First two years. Two hours' preparation; examinations. No question of the value of required Bible study. "The confessedly religious and denominational basis of our organization prevents the question. Bible is the best means to character, culture, and strong life."
351. Pacific.-Through the course. Aim, to learn the contents of the Bible. The Young Men's Chr’ tian Association does the devotional work.
362. Geneva. - Preparation as for other courses. Aim, information, inspiration.
363. Moravian.-Freshman year. Most of the students study for the ministry. 36i. Lafayette.-Three years. Prestmed to require two hours' study Sunday afternoon. Cheerfully attended, decorous, thoughtful.
368. Pennsylvania.-Freshman and sophomore years. Preparation as for other studies. Also a Sunday school.
371. Haverford.-Through the course. Regular workrequired. Highly valuable.
373. Franklin and Marshall.-Freshman year.
375. Lincoln.-Through the course. Memorizing is emphasized. On entrance an examination is required on Genesis and Mark. (College is for negroes.)
379. Westminster.-One term each year.
389. Washington and Jefiferson.-Through the course; \$100 prize for excellence in Bible study.
395. Frskine.-Four years' course. Graded as in other studies. Sunday. Growing appreciation of the work. Aim, devotion and culture.
396. Furman.-Some are interested; others would gladly be excused. Bible Union lessons used. "I am exceedingly anxious to find out the best method of securing effective Bible study, and will hail any light on this matter. More recitations are needed; can be secured by making part elective or by substituting Eible for something else."
397. Newberry.-Each c'ass one hour. Recitations.
398. Claflin.-No previous study. Forty-five minutes daily devoted to Bible reading and study. Aim is devotional.
399. Wofford.-Half hour a week. The time is so short that no effort is made to make the exercise a drill. Practical aims are sought.
400. Pierre.-One-half hour, including chapel service. Probably more time will be given; more class work done. In the newer West we can not bring Bible teaching into very close class work. To secure the largest attendance we must use more general methods.
412. Knoxville.-Forty-minute periods. Through course. Aim. good Christians and good citizens. Examinations. A change from weekly to daily recitations is seriously considered.
414. Cumberland.-English Bible is a department of the English literature work during freshman year.
416. Maryville.-Through the course. Stndents take the work cheerifully and with interest for the most part; promotes seriousness and dignity. We think the moral and religious tone has been elevated; conversions maltiplied; growth in grace of students and teachers promoted. Regular Bible work was introduced in 1889. All teachers participate and grow more expert each year. Young Men's Christian Association is somewhat under the influence of Mr. Moody's methods.
428. Greenville and Tusculum. - Forty-five minutes. Through the course. "Would like to have a good text-book. None of the several which I have seen satisfy me."
429. Washington.-Forty-five minute periods. Of great value. "Teaching is now distributed, but we will probably arrange to have one man do all the work."
440. Trinity.-Bible lessons in chapel, varied and adapted to the several grades of students.
4万̃6. Roanoke.-Sophomore year. Required work is not generally popular. Most work is done by Young Men's Christian Association.
466. Whitman.-Through course. Inductive study of the Bible.
472. Beloit.-Monday morning. Courses well organized.

Number of students in colleges requiring Bible work is: Men, 10,645 ; women, 2,720 ; total, 13,365 ; average, 104. It is, then, the smaller colleges which require Bible.

WHAT IS THE REQUIRED WORK?
Of the 129 colleges it is stated that Old Testament study is required in 49; New Testament in $\tilde{i}$; using Greek New Testament alone, 13; using Greek in part, 9; Old and New Testaments, 40; Old Testament alone, 4; New Testament alone, 26; choice offered, 2 or 3. In these it usually occurs that the Testament which is omitted has leen studied in the preparatory department. Old Testament history is, it seems, more frequently taught there than any other part of the Bible.

More than one-third of the colleges do not state in the catalogue or in their letters what part of the Bible is covered by the required work. Some of the onethird follow the Sunday School lessons. Some use a text-book and follow that.

Biblical history is most frequently studied. Different periods of the Old Testament times are not commonly separated in titles of courses. The Maccabean period is once specified. The New Testament history is divided into life of Christ (gospels, harmony) and Acts (Paul, early church history, propagation of the gospel, etc.). Almost all who make their requirement in Old Testament require Old Testament history. Biblical introduction is not known very widely as a science. Geography and antiquities are mentioned about six times. Introduction about as often. Outlines and analysis five times. History of the English Bible once. The Bible as literature is specifically mentioned three times.

## VALUE OF REQUIRED WORz.

Only 33 answer the question. Twenty-four of these answers are from colleges having one-hour courses. Eleven say the value is great; 1 , great if teaching is good; 1, helpful; 1, good grades are made; 1, growing appreciation; 1, considerable; 2 , some interested, some not (more hours needed) : 1 , taken cheerfully for the most part: 1. unsatisfactory; 1, not popular; 1. little; little preparation; made a required subject last year; 1, dces not know how much knowledge is gained, but it gives the professors a chance to reach the students; 1, changed to elective last year.

Five answers from two-hour course coileges say that they are valuable, appreciated, popular; a three-hour course college says decidedly valuable: 3 four-hour, profitable, usefnl, helpful; 2 fire-hour, high, iñcalculable.

In addition to these few specific answers to the question as to the value it is to be noted that the one-hour plan is the older one, and that accordingly any change from that plan in favor of a larger number of hours per week is evidence of dissatisfaction, more or less pronounced, with the older method. At least they were searching for something more valuable.

ELECTIVE BIBLE STUDY.
The interest of the committee centered in the minimum rather than the maximum of Bible study. The information gained shows that the elective courses are found chiefly in the larger and better-equipped colleges, those which are the leaders in methods. The elective courses reveal in their subjects and methods the influence of competition with other academic courses, and offer fewer peculiar or questionable methods than is the case with the required courses in other colleges. The present report has not been developed in further detail.

The average number of students in colleges where Bible is offered only as an elective is 3.53 ; total number of students in them, $23,96 \%$.

Average attendance in colleges offering Bible either as required or elective work, 190.

TEACHING FORCE.
The inquiry concerning teaching force was answered by 142 colleges:
All teach in ............................................................................................. 6
Work assigned to firom 1 to 9 teachers .......................................................... 37
Stated to be done by 1 man (or several, if the work is mora than 1 man can do) - 92
Of these there are special professorships (alone, or with evidences or ethics;
perhaps the professor does other work, but this is his chief work) in .........26
Attached to some other chair in .................................................................... 25
Not stated what other chair. .................................................................... 6

English .-.-.................................................................................................. 8
Taught by the president in .............. ............................................................ 25

Taught by the pastor ................................................................................... 2



The following are the facts about Bible stady in 9 of the 15 colleges for women, Division A.

1. Mills.-One hour per week required of juniers and seniors. Outlines of Bible study, using Steele's book. (This course, in addition to Sunday work in the college Sunday School.) One and a half hour"s preparation is estimated for each lesson, conducted by the president and the pastor of the college church. Increase in thoroughness of work is a recent improvement. There are also courses of (outside) lectures on the Bible as iiterature. Our Bible work seems valuable.
2. Rockford.-One hour a week, freshman and sophomore years. One and a halr hours' preparation. Regular work of teacher of philosophy. Have just been obliged to drop reauired Bible ior juniors and seniors. This was on account of the many subjects in the curriculum for required study.
3. Smith.-Required work for freshmen, one-half year; sophomores, whole year; juniors, one-half year-all one hour. Kept one hour by reason of the numerous difficulties of making a change, which is in itself desirable. Elective work is well, increasingly, elected. The department is of equal dignity with others. One teacher in charge. Sophomores and juniors taking their elentives are excused from their required work, in order to get them out of the one-hour courses; these are unscholarly and inefficient and opposed by a majority of the faculty.
4. Mount Holyoke. -Required, one hour a week for the first three years. Seniors have theism. Two hours' preparation, examinations, etc. Aim, culture and information. Elective work offered next year for the first time. Special chair of instruction in biblical literature. It is proposed to offer choice in the reauired work. The great question in college Bible study is one of method-method of conducting classes and of directing individual work of students.
5. Wellesley.-Required, one hour in freshman and sophomore years each; two in junior year. Juniors may choose between seven parallel courses. Preparation same as for other work. Aim, culture or general education. Work done by a corps of instructors designated wholly for this work. The department of biblical instruction has been recently organized. Mach devotional study of the Bible among the students. Numerous electives open, with credit on degree.
6. Wells.-Required, one hour a week of íreshmen and sophomores. Two hours of preparation, with rigid examinations. Electives offered to juniors and seniors. Largely elected. The biblical department was specially organized recently, and is in charge of a specially trained professor.
7. Vassar.-Have depended thus far upon lectures by specialists, given Sunday evenings; attendance of all students expected. "Will not say that we are satisiied with the method, for there is no way of testing the results, except as the sivdents organize for special supplementary studies. However, I know of no better method than this, unless we are able to secure a special student of the Scriptures, who can offer attractive elective courses as well as a general prescribed course for the freshmen." The difficulties of arranging the curriculum are to be considered in this connection.
8. Cleveland College for Women.-Required for first three years, two hours' preparation and examinations as usual. No devotional aim.
9. Bryn Mawr. - Required once a week through the year, " Biblical hiterature." Numerous elective courses one and two hours a week. Required work is taken usually in the junior or senior year. Preparation the same as for other work. We regard it as of great value. Primary aim of biblical work is cultural, incidentally derotional. Special chair of instruction.
10. Randolph-Macon.-Definite Bible instruction only on Sundays, when the students meet the various professors, who present studies in various lines of Bible literature.

REVIEW OF THE SITUATION.
The conditions are most hopeful. The larger colleges-those best organized for work-are giving gratifying attention to Bible study.

Many of the smaller colleges are doing their best. A number express their desire to do more, signifying their purpose to develop the work as time and money and students increase. Some very frankly express their ignorance of the best methods, and say that they will gladly welcome any suggestions for improvement.

We regard the number and character of the responses received to our circular as in themselves indicative of considerable interest in the matter.

There is a disposition on all sides to increase the amount and quality of the work done. It is coming to be more on an equality with other departments. Recent appointments of special teachers are reported. Tentative instructorships are being made permanent.
Some of the State institutions have regular work. Others report themselves as being in sympathy with Bible study, and rely upon and actively cooperate with outside efforts to accomplish the desired ends.

On the other hand, it is evident that there is still great need of such efforts as this Institute stands for, and a great opportunity to secure still further gains.
Many, though by no means all, of the colleges which do not reply doubtless have little or no Bible study to report. There are colleges which make a report, though that has to be "no study." There are many schools where the so-called Bible instruction is distributed among the members of the faculty, with results which are inevitable. Too many answer our questions as if we were inquiring about common Sunday school classes. From the answers received there is more than a suspicion warranted that the typical one-hour course is little more than the average Sunday-school class in method of conduct, dignity, and results. Add, however, to such a class the element of required attendance and we would expect to find what is stated in some instances to be the case, that the value is questioned, results indifferent, interest slight. "No preparation," "preparation slight." "preparation voluntary," "one hour's preparation is expected"-such phrases show the character of the work. Some who reply seem not to understand what Bible study means. They include in their statements evidences, church history, and ethics. One replies that they have Bible study one hour a week through the course, when only the freshman year is occupied with strict Bible study.
The State colleges are, or think that they are, hindered by law from doing Bible work-a condition which may be improved. The history and literature of the Hebrews and the Jews may and should be studied as other history and literature is studied. The peculiar religious element need not be dealt with, and modern sestarianism is not found in the Bible. Such a large and influential portion of universal history and literature should not be ignored, or information about it be left to chance instruction.

## SUGGESTIONS. ${ }^{1}$

From the answers received, the committee feel justified in offering the following suggestions to the Institute:

1. The aim should be some Bible work in every college in the country, State institutions included.
2. Bible study should be conducted in the best modern way, with the use of the best books, and with the most skillful teachers obtainable. It is important that

[^37]the colleges understand that modern methods and radical higher criticism are not synonymous.
3. Except under pecnliar conditions the Bible itself should be studied, other text-books being used only to direct attention to this book itself.
4. A clearly-drawn line should separate Bible study as an immediately devo~ tional exercise from Bible study as a part of the college curriculum.
5. The Young Men's Christian Association is well equipped for furnishing Bible work of a devotional nature, and is heartily to be commended to the colleges for that purpose. We make this suggestion with the more emphasis, because if the devotional work is given into the charge of this or some similar agency the problem of Bible study in the curriculum, for which credit is to be given toward ane academic degree, is much simplified. ${ }^{1}$
6. The Young Men's Christian Association courses, or whatever other outsideorganization is in the field, or is brought in, should not supersede all curriculum courses. There is real and abundant need of both. The value of each is impared if it is to do duty for both; while if each restricts itself to its own sphere, they may: supplement each other perfectly.
7. The college Bible course should be so free from avowed and direct devotionar aims, that the teacher can demand as thorough work as in any college course. Bible study will then take its place as a worthy part of the curriculum. When the student has joined the class, attendance, preparation, recitations, tests, examinations, theses, should correspond with those demanded in other college work.
8. The college should create as soon as possible a department of Bible study on a par with others, though the amount of work offered at first be small.
9. The teaching ought to be done by some one (or more, if the work to be done is more than one man's work) who is equipped for this work with the same thoroughness as is demanded of teachers in other departments. The commitiee would certainly not overlook the important infuence upon the teachers, as well as upore the students, of the enlistment of the whole teaching force in Bible instruction. The assignment of the systematic curriculum work to a trained specialist should not and will not interfere with extra-curriculum devotional Bible classes led by the several professors. ${ }^{2}$
10. The committee agree heartily to recommend that one-hour courses be made at least three hours a week, in order to secure for them fuller recognition, closer ${ }^{-}$ application, more definite aim, and a better outlook for the elective work whick should, and very often does, follow. We recommend this, even knowing that ire most cases the work must be confined to fewer weeks. But conditions differ, and we do not feel ready to reject as valueless all one or two hour courses. After all, the character of the work done is the chief thing, and it may be that insistence upon three, four, and five hour courses would prove an artificial and needless condition. It is our judgment, however, that there is more than an accidental connectiou between one-hour courses and the Sunday School-like methods of the past; and that the easiest way to elevate the style of instruction in Bible is to concentrate the work. A one hour course is often, perhaps usually, regarded as an:

[^38]ED 98--97
extra, which must not be allowed to interfere with the regular five hour courses. So long as, and in so far as, one hour Bible courses are thus originated, and an entrance is granted only grudgingly to the Bible as a study, results will certainly not be satisfactory. It is absolutely essential that the importance of the study be conceded and maintained by the college authorities. This being the attitude, the one hour feature is not an unsurmountable dificulty. If the conditions seem to require it, a weekly exercise can be mado a success; experience has abundantly proved that. The commitiee makes this explanation in order to avoid discouraging the many colleges where batter arrangements can not at present be made.
11. The committee has no recommendation as to required versus elective Bibie courses in college. The conditions in and around one college differ so largely from those of another that each must probably think the matter through for itself. One college finds raquired work satisfactory from every point of view. Another finds it the opposite; students and teachers disike it. One (a unique one, indeed) is just making its work required. Another is making its work elective.
It would seem a natural outcome of the careful differentiation of devotional study of the Bible from the curriculum strady, which has been recommended above, that an important objection to the requiremeat of Bible study from college students disappears, viz, that it interferes with the sovereign rights of an American. It seems that a boy reaches the age of consent earlier in religious matters than in intellectual. Horace's Odes and Greek philosophy, but not the Psalms or the teaching of Jesus, may be required studies for him.

On the other hand, the absence of the strictly devotional element would for many destroy the chief argument for making Bible study required. It would seem, however, that moral and religious profit from the study of the Bible does not disappear with the disappearance of the immediately devotional element; that Bible truth presented without appeal or invitation, presented as judicially as possible; that the facts of the Bible, recited as the facts of profane history are recited; that the cthics of the Bible, studied as any other subject is stadied (and no conscientious scruples, however abnormally developed, can reasonably stand in the way of such treatment), ought to form in the end as potent an infuence over thoughtful men and women as could be demanded.
12. Dible stady in State universities should receive more detailed stady. It is in order, however, to state our conviction that State enactments against biblical instruction are directed against it as it was formerly given, and that with the rise of the new methods of study of the Bible, and with the training of men ready and fitted to conduct it with entire respect for the religious scruples of students and parents, just as anovel may be studied without the inculcation of all the follies of its characters, or as historical study does not compel us to adopt the vices of its heross, abundant freedom may be had for Bible study. It is a sad commentary on former methoals that the phrase prohibiting teaching which is "sectarian in religion" should be quoted as forbidding Bible study. Doubtless the legal diffculties differ in the various States. It may well be that the use of State funds for the salary of a teacher of the Bible would be illegal, whereas the State could not dechine to receive and administer gifts to endow such a chair. It may be that the time has not yet come when it would be fitting to press the claims of formal Bible study upon certain State institutions. Meantime, there is an abundant opportunity, with rare, if any, exceptions, to include Hebrew history in ancient history, biblical masterpieces of literature in literary courses, biblical ethics in general ethics, until, in entire conformity to law, the students are put in possession of a fair knowledge of Bible facts.

## CHAPTER XXXII.

## THE BIBLE IN THE PUBLIC SCHOOLS AND STATE UNTVERSTTTES.

I.- Report concerning Bible reading in the public schools of the United States, prepared by Elizabeth B. Cook, president Chicago Woman's Educational Union.
(1) Origin of the investigation.
(2) Detailed report, by States, of the present practice relative to Bible reading in the public schools.
(3) Tabulated summary of statements raade by school superintendents.
(1) Readings from the Bible selected for school.
II.--The Bible in the public schools; from an address by Dr.A. P. Peabody, of IFarvard University. III.-The English Dible and State Universitios, by Rev. Dr. Young, field secretary of the Christian Woman's Board of Missions.

In May, 1890, the Chicago Womans Educational Union requested its president to prepare a statistical and historical report concerning Bible reading in the public schools of the United States. In compliance with the request, letters of inquiry were sent to the 45 State superintendents of schools, all of which, with two exceptions, have been answered. Two forms of blanks were sent to county and city superintendents of schools, one containing the following questions, the other two less:

Are portions of the Bible read regularly in all the schools of your city?
If not, is the Bible read in part of them?
If read, for how many years has this been the custom?
If not, was it formerly read there?
For how many years?
Is there a rule of your board on this matter?
Although many of these blanks reached the superintendents aiter their schools were closed for the summer and many school officers had no accurate data upon the subject, replies were received in response to these inquiries from every State of the Union. The earnest and cordial spirit pervading these returns was noticeable.

Dividing the United States for convenience into the North and South Atlantic, the South and North Central, and the Western portions, their attitude toward Bible reading in the public schools is found to be as follows:

## NORTH ATLANTIC DIVISION.

## MAINE.

Hon. W. W. Stetson, State superintendent of schools, Augusta, Me., reports in general as follows:

I am very happy to be able to report that the opening exercise in most of the common schools of this State consists of reading a passage of Scripture by the teacher and repeating the Lord's Prayer by the teacher and pupils.

This custom is so general that I think it is unnecessary to attempt to collect any statistics upon this matter in this State.

Reports from superintendents and school officers from 9 of the 16 counties in Maine, received since June 17, 1896, state that there is Bible reading in every schoo?. In the tenth, teachers read or not, as they please.

As soon as the Pilgrims penetrated the wilds of Maine and established schools, the Bible was the Book essential. Through public spirit and respect for the Government, in whose interest public schools are administered, daily reading of the Bible has been maintained for two hundred and seventy-one years.

The rule for the opening exercises in the schools of Portland, Maine's chief city, is as follows:

Reading of select portions of Scripture by the teacher and the repeating of the Lord's Prayer in concert by the pupils shall constitute the opening exercises of the schoo's.
The practice of the school teachers of Maine is in harmony with the decision of Justice Appleton, which was concurred in by the entire lench of seven members of the supreme court of Maine (see 39 Maine, 379 ).

The Maine court says:
If the Bible, or any particular version of it, may be excluded from the schools because its teachings may be opposed to the teachings of the authorities of any church, the same result may ensue as to any other book. If any one sect may object, the same right must be granted to others. This would give the authorities of any sect the right to annul any regulation of the constituted authorities of the State as to the course of study and the books to be used. It is placing the legislation of the State, in the matter of education, at once and forever in subordination to the decrees and teachings of any and all the sects, when their members conscientiously believe such teachings. It at once surrenders the power of the State to a government not emanating from the people nor recognized by the constitution. * * * As the existence of conscientious scruples as to the reading of a book can be known only from the assertion of the child, its mere assertion must suffice for the exclusion of any book in the reading or in the hearing of which it may allege a wrong to be done to its religious conscience. * * * As a right existing on the part of one child, it is equally a right belonging to all. As it relates to one book, so it may apply to another, whether relating to science or morals. * * * As the child may object to reading any book, so it may equally object to learing it read for the same cause, and thus the power of selection of books is withdrawn from those to whom the law intrusts it, and by the right of negation is transferred to the scholars. The right as claimed undermines the power of the State. It is that the will of the majority shall bow to the conscience of the minority or to the conscience of one. *** Nor is this all; while the laws are made and established by those of full age, the right of obstruction, of interdiction, is given to any and all children, of however immature age or judgment.

## NEW HAMPSHIRE.

The New Hampshire school law, Chapter III, sections 15, 17, and 18, is as follows:
SEc. 15. No book or tract designed to advocate the tenets of any particular sect or party shall be permitted in any of the schools, nor shall any sectarian or partisan instruction be given by any teacher in the same.
SEC. 17. Good morals being of the first inportance to pupils and essential to their highest progress in useful knowledge, instruction therein shall be given in each of the schools, and the principles of truth and virtue faithfully inculcated upon all suitable occasions. The pupils shall be carefully instructed to avoid idleness and profanity, falsehood and deceit, and every wicked way and disgraceful practice, and to conduct themselves in an orderly, courteous, and respectful mamer; and it shall be the duty of the instructors, so far as practicable, to exercise a general inspection over them in these regards both in and out of school and while going to the same and returning home.

SEc. 18. The morning exercises of all the schools shall commence with the reading of the Scriptures, followed by the Lord's Prayer.

Hon. Fred Gowing, State superintendent of schools, Concord, N. H., writes June 20, 1806:

I not only do not object to using the actual Bible, leaving to the teachers' discretion the selection of passages, but encourage it.

Reports from superintendents or teachers in all but one of the counties of New Hampshire have been received. In ali the schools of the State, with a very few exceptions, the Bible is read and has been since the schools were first established
(about 1623). Many of the school boards emphasize the State law for Bible reading with local rules.

## VERMONT.

Hon._Mason S. Stone, State superintendent of education, Montpelier, Vt., writes:

We encourage Bible reading in our public schools, although we have no law requiring it. The Bible is read in nearly every school. The Lord's Prayer and Bible verses are quite generally recited.

Three local reports received show that the general custom from the earliest existence of the schools has been to have the Bible read daily. One of these states that the Bible is not read in the graded schools of the town, but in the outlying districts only. A second states that it always has been read in a part of the schools, and the third that it has always been read in all the schools

## MASSACHUSETTS.

Hon. Frank A. Hill, secretary State board of education, Boston, Mass., writes June 15, 1896:

So far as my knowledge, my observation, and my experience go, the schools of Massachusetts read selections from the Bible once a day. The repetition of the Lord's Prayer is generally used in connection with the devotional exercises, and the singing of sacred music, while not universal, is exceedingly common.
The enthusiasm with which chairmen of school boards and other officers of schools send in their affirmative reports ( 100 received) shows a deep interest in Bible reading in schools. For two hundred and seventy-six years the Bible has been most intelligently read by the people of Massachusetts.

The State law upon this subject is as follows:
SEC. 32. The school committee shall require the daily reading in the public schools of some portion of the Bib'e without written note or. oral comment, but they shall not require a scholar whose parent or guardian informs the teacher in writing that he has conscientious scruples against it to read from any particular version, or to take any personal part in the reading; nor shall they direct to be purchased or used in the public schools schoolbooks calculated to favor the tenets of any particular sect of Christians.
In the current edition of the State school laws the following annotations are made to this section:

The school committee of a town may lawfully pass an order that the schools thereof shall be opened each morning with reading from the Bible and prayer, and that during the prayer each scholar shall bow the head, unless his parents request that he shall be excused from doing so; and may lawfully exclude from the room a scholar who refuses to comply with such order, and whose parents refuse to request that he shall be excused from doing so. (12 Allen, 127.)

It is the settled policy of the State to require the use of the Bible in the public schools, and since the passage of the act of 1855 there have been but few objections made.
The duty of the committees is performed if they require the Bible to be read by the teachers as a part of the morning devotional service. The law does not prescribe, as a rule from which there are to be no deviations, that every pupil who may be able to read the Bible shall be required to do so. In this respect a discretion is vested in the committees. No sectarian books are used in the schools.

Many school committees have local rules, some of which we quote below:
RULE OF THE CITY OF CAMBRIDGE.
Morning exercises in all the schools shall begin with reading from the Scriptures and the Lord's Prayer.

RULE OE THE CITY OE BEVERLY.
11. All teachers shall, according to the requirements of the laws of this Commonwealth, as set forth in the public statutes, in chapter 44, section 15 , exert their best
endeavors to impress on the minds of children and youth committed to their care and instruction the principles of piety and justice and a sacred regard to truth; love of their country, humanity, and universal benevolence; sobriety, industry, and frugality; chastity, moderation, and temperance, and those other virtues which are the ornament of human society and the basis upon which a republican constitution is founded: and it shall ke the duty of such instructors to endeavor to lead their pupils, as their ages and capacities will admit, into a clear understanding of the tendency of the above-mentioned virtues, to preserve and perfect a republican constitution and secure the blessings of liberty as well as to promote their future happiness, and also to point out to them the evil tendency of the opposite vices.
30. The morning session in all the schools shall open with reading from the Bible.

THE CHELSEA SCHOOL LAW.
SEc. 4. In each schoolroom the morning exercises shall commence with the reading of suitable selections from the Bible by the teacher, to be followed by the audible repetition of the Lord's Prayer by the teacher alone, or by the teacher and pupils in concert.

SEC. 46. Good morals being of the first importance to the pupils and essential to their highest progress in useful knowledge, instruction therein shall be given in each of the schools, in conformity with the provisions of public statutes (chap. 44, sec. 15) and the principles of truth and virtue faithfully inculcated upon all suitable occasions. The pupils shall be careîully instructed to avoid idleness, profanity. falsehood, deceit, and every wicked and disgraceful practice, and to conduct themselves in an orderly and proper manner; and it shall be the duty of their instructors, so far as possible, to exercise a general inspection over them in these regards both in school hours and while going to and from school.

THE Fitchburg RUle.
SEC. 3. The beginning of the morning exercises in the school shall include the reading of some portion of the Bible without comment, but no scholar shall be required to read therefrom whose parent or guardian shall notify the teacher that he or she has conscientious scruples against such reading.

THE SALEM REGULATION.
Morning exercises in all the schools shall commence with the reading by the teacher of some portion of the Bible, without written note or oral comment; but no pupil shall be required to read from any particular version whose parent or guardian shall state in writing that he has conscientious scruples against allowing him to read therefrom.

NEW BEDFORD SEHOOL LAW.
[Chapter XV, sec. 4, as amended December, 1894.]
Opening morning exercises.-A portion of the sacred Scriptures shall be read without comment to the pupils by the teacher of each school at the opening of the morning session; also a patriotic selection shall be recited or a patriotic song shall be sung by the school; and the board recommends that the Lord's Prayer be repeated by the teacher alone or by the teacher and pupils in concert.

THE NEWBURYPORT RULE.
SEc. 3. The teachers shall open their respective schools in the morning with reading of the Scriptures and the recitation of the Lord's Prayer, the opening exercises not exceeding ten minutes in length; and it is recommended that the afternoon services close with singing.

In 1842 an ordinance was passed requiring "chosen men" to take account of the ability of children "to read and understand the principles of religion and the capital laws of this country."

An ordinance establishing grammar schools was passed November 11, 1647, in the preamble of which occurred a clause indirectly showing that our earliest legislators attached importance to a knowledge of the Bible. The clause is as follows:

It being one of the chief projects of that old deluder, Satan, to keep men from the knowledge of the Scriptures, etc.

In 1654 an ordinance was passed forbidding the continued employment of teachers who had maniested themselves "scandalous in their lives and not giving due satisfaction according to the rules of Christ."

More than on hundred years later, in 1789, an act was passed making it the duty of instructors to impress upon their pupils "the principles of piety justice, and a sacred regard to fruth; love to their conntry, humanity, and universal benevolence; sobriety, industry, and frugality; chastity, moderation, and temperance, and those rirtues which are the ornament of human society and the basis upon which the republican constitution is structured.
"According to the New England theory of life, it was absolutely essential that everyone from early childhood should be taught to 'read and understand the Bible and other good and proitable printed books in the English tongue.'"

This feeling strengthened with the passing years, and, as regards Bible reading in schools, indefniteness changed to clearness and option concerning Bible reading to judicious and careful requirement.

## RHODE ISLAND.

Under date of June 13, 1896, Hon. Thomas B. Stockwell, State commissioner of public schools, Providence, writes:

I inclose extract from the last edition of our school inantal, which shows very clearly the relation of the State to the subject of religious and moral teaching in the public schools. Twenty years ago I made quite a careful study oif this subject and embodied it in my annual report, of which I am able to send you a copy. ${ }^{1}$

It is my impression that there has not been much change since then. If any change, it is in the direction of less reading of the Bible.

The report states that 10 towns require by rule the reading of the Bible. That in 5 it is simply recommended by them; that in 6 either the reading of the Bible or a prayer, generally the Lord's prayer, is required. In 1 town some moral or religions exercise is made obligatory. In 12 towns no rale or recommendation upon the specific subject exists.

Passing from rule to practice, Mr. Stockwell found it to be the almost universal custom to open the daily session with some form of devotional exercise, of which the reading of the Scriptures formed an important part.

Returns received directly from 11 towns and cities in Rhode Island ratify, so far as their localities are concerned, Mr. Stockwell's report. They show (1) that the use of the Bible is recommended to teachers; (2) that it has always been the custom in the school; (3) 6 of the 11 cities and towns report that the Bible is read in every school. The management in 1 city and in 1 town have adopted rules requiring Bible reading. In the rest Bible reading is optional, but universal in 4 of the remaining 9 localities, and almost universally read in 2 more, and read in some of the schools of the remaining 3. One of these is Providence, the largest city in the State.

Mr. Stockwell's report contains the following, on-

MORAL CULTURE.
While we acknowledge fully the labors of the teachers in this branch of their work, we can not also fail to recognize the existence of a lower moral tone in the community than formerly prevailed. For various reasons, some inseparable from our condition, and others the result of our own negligence, we have fallen upon a period when the public morals are at a low state. In this condition of affairs there is devolved upon the schools the greater necessity for lending all the aid in their power to the work of elevation.

School officers in their selection of teachers should exercise a wide discretion and seek for those individuals who can be relied on as efficient and faithful

[^39]instructors in virtue. Teachers are called upon to throw more of devotion into their work, and to labor for the education of the heart as well as of the head. They must not be satisfied with keeping the letter of the law, but must live up to its spirit with a heartiness that shall carry before it all opposition and indifference.

The accompanying special report to the general assembly was prepared, as its tenor indicates, in response to a resolution passed by that honorable body at the May session. I have thought it best to incorporate it in this report, in order that it might take a more permanent form, regarding it as of some future value, at least as showing the present status of our schools in reference to this great question.

## To the Honorable the General Assembly:

I have the honor to present the following report in response to a resolution adopted by your honorable body at the May session, 1876, to wit:
"Resolved (the senate concurring), That the commissioner of public schools be instructed to report to the general assembly, at the next January session, whether any and what means are used in the public schools' to implant and cultivate in the minds of a!l children therein the principles of morality and virtue,' as provided in section 6 of chapter 54 of the general statutes."

The chapter of the general statutes from which the quotation in the above resolution is made is the one which refers mainly to teachers, the conditions of their service, and their duties. The whole section referred to reads as follows: Every teacher shall aim to implant and cultivate in the minds of all children committed to his care the principles of morality and virtue.

From the tenor of this chapter, and especially of this section, coupled with the fact that the sukject of morals is nowhere else alluded to in the laws relating to schools, and that such has always been the fact since the first enactment of the law, I have always supposed it to have been the purpose of the general assembly to place the subject of moral instruction chiefly in the hands of the individual teachers in preference to those of any official or body of officials.

In accordance, therefore, with these facts, we can not expect to find that welldefined system or comprehensive plan of instruction in this department that we should in reference to those subjects which are specifically placed under the control and direction of the school authorities. It needs, however, but a survey of the various reports of the school committees of the several cities and towns in the State for the last few years, and especially for the past year, to show conclusively that the school anthorities throughout the State are deeply alive to the importance of the subject, that they are ready and anxious to take as advanced ground in the matter as the sentiment of their respective constituencies will yermit, and that they are now exerting a constant influence in all directions, upon both teacher and pupil, in order to bring them up to a higher noral law.

Of the means used to secure moral and virtuous development, we naturally consider the Bible first. As a result of my inquiries on the subject I have received information from all but 2 of the 33 cities and towns in the State. I find that in 10 towns the reading of the Bible is required by a rule of the committee; that in 5 it is simply recommended by them; that in 6 either the reading of the Bib? e or a prayer, generally the Lord's prayer, is required, while in 1 town "some moral or religious exercise" is made obligatory. In the other 12 towns no rule or recommendation upon this specific subject exists.

Passing now from rule to practice, I find from the testimony of the several town superintendents that not only in those towns where there is a specific rule or recommendation, but also in all of the others it is almost the universal custom to open the daily session with some form of devotional exercises, of which the reading: of the Scriptures forms generally an important part, and often the whole. As a result of my own observation I have noticed that it is now much more common than formerly for the teacher to read the Scripture selection alone, instead of making the exercise a concert or responsive one. This course I believe to be the best calculated to produce the desired impression upon the minds and hearts of the pupils. It will thus be seen that there are but few schools in our state wherein the pupils are not brought into daily contact with the Scriptures, the fountain of all truth, the source of all virtue, the essence of all morality. * * *

As every school is, in a certain sense, a minature government and the same principles underlie its existence and control its life as in the case of the nation, it is, of course, both the duty and the privilege of the teacher to call the attention of his pupils to these fundamental ideas and to impress them upon them as the mainspring of their actions. $* * *$

A reference to the "rules and regulations" adopted by the several school committees will, in nearly all cases, I think, reveal the presence of one or more provisions
upon the matter of morals and behavior, and referring to both teacher and pupil. In illustration of this influence I have the pleasure of quoting one rule from each of the recent reports for two towns, situated quite remote from each other, and thus fairly representing the State as a whole.
The first: "It shall be the duty of the teachers to use their best endeavors to impress upon the minds of the youth committed to their care and instruction the principles of piety, justice, and a sacred regard for truth; love to their country, humanity, and universal benevolence; sobriety, industry, frugality, chastity, moderation, temperance, and those other virtues which are the ornament of human society and the basis upon which a republican constitution is founded; and they shall endeavor to lead their pupils, as their ages and capacities will allow, into a clear understanding of the tendencies of those virtues, to preserve and perfect a republican constitution and secure the blessings of liberty as well as pronote their own happiness, and also to point out to them the evil tendency of the opposite vices."

The second: "Good morals being of the first importance, and essential to their progress in useful knowledge, pupils are enjoined to avoid all vulgarity and profanity, falsehood and deceit, and every. wicked and disgraceful practice. They will be expected to conduct themselves in an orderly manner, both in and out of school; to be diligent and attentive to their studies; to treat each other kindly and politely in all their intercourse; to respect and obey their teachers, and to be punctual in their attendance."
From what precedes, it will be seen, I think, that the main force to be relied upon for the promotion of moral culture, is not so much a systen of ethics or a well organized plan of instruction as the life which the teacher lives before his papils. The most effective means for implanting the seeds of virtue and inculcating a sound morality are often the almost unconscious words and acts of the sincere and faithful teacher, which are, as it were, the spontaneous overflow of his own pure character. ***

In recognition of this truth, and also of the consequent responsibility resting upon them, I am glad to be able to report that the school authorities of various towns are adopting more and more stringent rules in reference to the moral qualifications of their teachers. I hope the standard will be raised still higher, and they shall be sought for not merely the negative grace of a character: without reproach, but the positive virtue of an aggressive morality.

From "Instruction to teachers," in the last school manual of Rhode Island, Mr. Stockwell sends the following:

Moral instruction should, by all means, be inculcated by the teacher, but yet so as to avoid all sectarian comment or bias.

The rule as laid down in the law of the State of Massachusetts isee text of law nnder "Massachusetts"), while it points out and inculcates the duty of the teacher to give moral instruction, is carefully drawn to avoid giving countenance to any attempt to impart sectarian instruction and may well be followed in this Commonwealth. [And adopted by it and by every other Commonweath in the United States.-Ed.]
Here follows extract from Massachusetts statutes, as quoted under "Massachusetts" in "Rule of the city of Beverly."

Mr. Stockwell continues:
Reading the Bible and praying in schools. -The constitution and laws of the State give no power to a school committee, nor is there any authority in the State, by which the reading of the Bible or praying in school, either at the opening or at the close, can be commanded and enforced. On the other haud, the spirit of the constitution and the neglect of the law to specify any penalty for so opening or closing a school, or to appoint or allow any officer to take notice of such an act, do as clearly show that there can be no compulsory exclusion of such reading and praying from our public schools. The whole matter must be regulated by the consciences of the teachers and inhabitants of the district and by the general consent of the community. Statute law and school committees' regulations can enforce neither the use nor disuse of such devotional exercises. School committees may recommend, but they can go no further.

It is believed to be the general sentiment of the people of Rhode Island that this matter shall be left to the conscience of the teacher: and it is expected that if he read the Bible as an opening exercise, he shall read such parts as are not controverted or disputed, but such as are purely or chiefly devotional; and if he pray at the opening of his school, he shall be very brief and conform as nearly to the
model of the Lord's Prayer as the nature of the case will admit. And in all this he is bound to respect the conscientious scruples of the parents of the children before him, as he would have his own conscientious scruples respected by them in return; always, of course, taking care that in the means he uses to show his respect for the consciences of others he does not violate the law of his own conscience.

In regard to the use of the Bible in schools, two observations occur here. If the committee prescribes or the teacher wishes to have the Bible read in school, it should not be forced upon any children whose parents have any objections whatever to its use. In most cases the teacher will have no difficulty with the parents on this subject if he conducts with proper kindness and courtesy.

CONNECTICUT.
Char'es D. Hine, secretary of the State board of education, Fartford, Conn., under date of July 17,1896 , writes:

In most schools of the State the Bible is read, or some part of the Bible recited; often it is a portion of the Psalter. There is. however, no uniform practice. In most of the best schools the only opening exercise is the Lord's Prayer or some devotional exercise, with singing. As I have said, however, in most schools the Bible is read and always has been read. Generally there is no objection to it.

Hartford, Connecticut's largest city, has a rule for Bible reading, which, it may be umnecessary to say, is observed.

Bridgeport and Meriden (with a population of 48,858 and 21,230 , respectively) have each a careíully observed rule requiring Bible reading. Although left to the teacher's discretion, so far as the reports received show, in the other cities of the State, Bible reading is carefully observed in all of them, with one exception, and in many of the schools of that one.

The early legislation of Connecticut is similar to, when not identical with, that of Massachusetts.

From the summary of the system of public instruction in Connecticut at the opening of the eighteenth century, made by Dr. Hemry Barnard, notice the following:

It is an obligation on every parent and guardian of children "not to suffer so much barbarism in any of their families as to have a single child or apprentice unable to read the Holy Word of God and the good law of the colony," and also "to bring them up to some lawful calling or employment," under a penalty for each offense.

NEW YORK.
The great metropolis of the Empire State has a positive law concerning Bible reading in public schools. Jt stands as follows:

RULE FOR BIBLE READING IN SCHOOLS IN THE CITY OF NEW YORK.
[All schools to be opened by reading the Bible.]
SEC. 134. All the schools of this city under the jurisdiction of the board of education shall be opened with reading a portion of the Holy Scriptures, without note or comment.

Further instructions reating to this subject in the city are:
SEc. 1062. No school shall be entitled to or receive any portion of the school moneys in which the religious doctrines or tenets of any particular Christian or other religious sect shall be taught, inculcated, or practiced, or in which any book or boots containing compositions favorable or prejudicial to the particular doctrines or tenets of any particular Christian or other religious sect shall be used, or which shall teach the doctrines or tenets of any other religious sect, or which shall refuee to permit the visits and examinations provided for in this chapter. But nothing herein contained shall authorize the board of education to exclude the Holy Scriptures, withoat note or comment, or any selections therefrom, from any of the schools provided for by this chapter; but it shall not be competent for the said board of education to decide what version, if any, of the Holy Scriptures, without note or comment, shall be used in any of the schools: Provided, That
nothing herein contained shall be so construed as to violate the rights of conscience as secured by the constitution of this State and of the United States.

The rule for Brooklyn, which she has observed with no record to the contrary since her schools were established, is as follows:

Part III, section 5.-( At the opening of school.) A portion of the Holy Scriptures shall be read aloud by one of the teachers in each department, without note or comment.

Returns from 34 school offeers, residing in 48 of the 59 counties of New York, are received. About one-half of them, as school commissioners, speak for a section of a county each. Fifty-three of these report Bible reading as an opening exercise in all of their schools. Two others think the custom is universal, it being the expressed wish of the superintendents to have the Bible read. Twelve others report that the Bible is read in nearly all or in a very large per cent of their schools, and the statement is generally made that the custom is as old as the schools. Three report written or unwritten local rules prohibiting Bible reading. Nine others report no Bible reading. In these schools, with two exceptions, it is stated that the Bible was formerly read in them. Three state that the Bible is read less than formerly, while two report that the custom seems to be growing, a larger per cent of teachers in the counties reading the Bibe than formerly. In the rest the Bible is read to some extent. As teachers do not usually report concerning this custom, data are not so easily obtained nor so reliable as on some less important subjects. The reports show unmistakably that New York in its public schools is a Bible-reading State.

The early records of New York afford many proofs that its tendencies were not very different from those of its more eastern sisters. The following facts and statements are found in Morris's History of the Character of our Civil Institutions:

The first emigrants (to New York) were those who had fled from the severity of religious persecution in the seventeenth century in the French-Belgic provinces, and came with a faith tried in a fiery furnace.

The East India Company, formed in 1621, stipulated that "where emigrants went forth under their auspices and that of the States-General of Holland, it should be their duty to send out a schoolmaster, being a pious member of the church," whose office it was to instruct the children and preside in their religious meetings on the Sabbath and other days, leading in the devotions, and reading a sermon, until the regular ministry should be established over them.

The first settlers of New Rochelle and West Chester counties were said to have such regard for the sanctity of the Sabbath that they would take up their march of foot Saturday noon for public worship 20 miles away, engage in the services, remain until after midnight, and then take up their homeward way, relieving the monotony and weariness of the journey with the singing of hymns.

An order for the opening and closing exercises of a school at Long Island, adopted October 8, 1682, contains the following:
"ArT. 2. When school opens, one of the children shall read the morning prayer as it stands in the catechism, and close with the prayer before dinner; and in the afternoon the same. The evening school shall begin with the Lord's Prayer and close by singing a psalm."

In a letter written on the 11th of August, 1628, by Rev. Jonas Michaëllus, the first minister of the Dutch Reformed Church in the United States, there is found the following statement:
"We must have no other object than the glory of God in building up His kingdom and the salvation of many souls. As to the natives of this country, I find them entirely savage and wild, proficient in all wickedness, who serve nobody but the devil. Let us, then, leave the parents in their condition, and begin with the children who are still young and place them under the instruction of some experienced and godly schoolmaster, where they may be taught especially in the fundamentals of our Christian religion."

The constitution of the State as formed in 177\%, and also as re-formed in 1821, contains the following:
"This convention doth further, in the name and by the authority of the good people of this State, ordain, determine, and declare that the free exercise and enjoyment of religious profession and worship, without discrimination or preference, shall forever hereafter be allowed within this State to all mankind: Provided,

That the liberty of conscience hereby granted sha! not be so construed as to excuse acts of licentiousness or justify practices inconsistent with the peace or safety of the State."
In 1838 the legislature of New York, by a vote nearly unanimous, declared that-
"In all countries some kind of religion or other has existed in all ages. No people on the face of the globe are without a prevailing national religion. Magistrates have sought in many countries to strengthen civil government by an alliance with some particular religion and an intolerant exclusion of all others. But those who have wielded this formidable power have rendered it a rival instead of an auxiliary to the public welfare-a fetter instead of a protection to the rights of conscience. With us it is wisely ordered that no one religion shall be established by law, but that all persons shall be left fres in their choice and in their mode of worship. Still, this is a Christian nation. Ninety-nine hundredths, if not a larger proportion, of our uhole population believe in the general doctrines of the Christian religion. Our government depends for its being on the virtue of the people-on that virtue that has its foundation in the moraiity of the Christian religion; and that religion is the common and prevailing faith of the people. There are, it is true, exceptions to this belief; but general laws are not made for excepted cases. There are to be found, here and there, the world over, individuals who entertain opinions hostile to the common sense of mankind on subjects of honesty, humanity, and decency; but it would be a kind of republicanism with which we are not acquainted in this country which would require the great mass of mankind to yield to and be governed by this few.
"It is quite unnecessary to enter into a detailed review of all the evidences that Christianity is the common creed of this nation. We know it, and we feel it, as we know and feel any other unquestioned and admitted truth."

## NEW JERSEY.

C. J. Baxter, superintendent of public instruction, Trenton, N. J., writes:

Many boards require the Bible to be read. A few do not. It is read in nearly all of the schools, and has been as far back as I can remember.
Bancroft writes:
The people (of New Jersey) rejoiced under the reign of God, confident that he would beautify the meek with salvation. The motto on the provincial seal was, "Righteousness exalteth a nation."
With this early record it is not surprising to learn that the following rule is to be found in the school laws of the State of New Jersey, 1895, page 45, section 123:
It shall not be lawful for any teacher, trustee, or trustees to introduce into or have performed in any school receiving its proportion of the public money any religious service, ceremony, or forms whatsoever, except reading the Bible and repeating the Lord's Prayer.
Jersey City has the following rule:
The principals of the several departments shall open their schools each morning by reading a portion of the Scriptures, without note or comment.
From 21 reports received, 19 state that the Bible is read in all the schools. Of this number, 12 cities have special laws requiring Bible reading. One report states that it is read in nearly all, and the other that only the Lord's Prayer is used.
The role for the Hoboken schools is:

## Rule LVII.

SEc. 81. The opening exercises of each department shall consist of the reading of a chapter out of the Bible (no comments to be made) and repeating the Lord's Prayer. During the above exercises the doors shall be kept closed and good order shall be observed.

## Rule LVIII.

Sec. 82. The opening exercises shall close at $9.15 \mathrm{a} . \mathrm{m}$.
The Passaic rule is:
At the opening of the morning session each day they shall read, or cause to be read. without comment, a selection from the Bible. This exercise may be accompanied by singing a hymn and repeating the Lord's Prayer.

In Long Branch City schools are opened with Bible reading and cnanting the Lord's Prayer.

## PENNSYLVANIA.

The Book of School Laws and Decisions for the State of Pennsylvania contains the following decisions, page 146, Nos. 114 and 115:
114. The Scriptures come under the head of text-books, and they should not be omitted from the list.
115. Sectarian works and all books of controversial or immoral tendency should be excluded. The common school is no place for controversy or the implanting of the habit of it, either on religious or political subjects, much less for books or lectures of questionable morality.
In the report of the superintendent of the State for the school year ending June 3, 1895, the total number of schools in the State is 18,019. The number in which the Bible is read is 15,780 , or more than $87 \frac{1}{2}$ per cent.
Pennsylvania, taking advantage of this principle for the good of the schools, presents accurate reports upon the subject. Other States may wisely give this item a place in their reports in the interest of character building.

The rule for Bible reading in the schools of Philadelphia is as follows:
At the opening of each session of the schools at least ten verses of the Bible shall be read, without note or comment, to the pupils by the principal, or, in his or her absence, by one of the assistants. A suitable hymn may also be sung.
Of the 50 reports recently received from city and county superintendents in the State of Pennsylvania, 41 state that the Bible is read in all their schools, 1 in all but the primary, 4 that it is read in many of them, and 5 that it is not read at all.
These reports show also that Bible reading has been a custom from time immemorial in most of the schools. Only 2 state that it has never been read in them. Few report it as a modern custom three, five, ten, fifteen, twenty, and twentyfive years old. Many schools have special rules requiring the reading; some, the unwritten law of Christian community; others, custom, public sentiment, inclination of teachers, etc.
Maine, with her supreme court decision; Massachusetts, with her model State law; Rhode Island, with her watchfulness for the morality and virtue of teachers and pupils; New York, with her law forbidding the exclusion of the Scriptures; Pennsylvania, with her requirement that Bible reading should be reported by all teachers; these, and all the other States of the North Atlantic Division, are in accord with the great jurist, Rufus Choate, who declared:
We would have the Bible read not only for its authoritative revelations and its commands and exactions, obligatory yesterday, to-day, and forever, but for its English, for its literature, for its pathos, for its dim inagery, its sayings of consolation and wisdom and universal truth.

## SOUTH ATLANTIC DIVISION.

DELAWARE.
Hon. C. C. Tindal, State superintendent of schools, Dover, Del., writes:
I think I am safe in saying that Bible reading at opening of school is well-nigh or quite universal in Delaware schools.

A loyal spirit of confidence in Bible principles as essential to good citizenship has led her to honor the Scriptures from her earliest colonization. One qualification to be possessed by every officer of the State, required by her first constitution, was belief in the inspiration of the Holy Scriptures.

The superintendent of schools, Baltimore, Md., writes as follows:
The Bible is read daily in our schools; the Lord's Prayer is also recited. I inclose a copy of the rule which has been in force for over thirty years:
"Each school, either collectively or in classes, shall be opened by the reading of a chapter or part of a chapter in the Holy Bible and the use of the Lord's Prayer. The Douay version may be used separately by those pupils who prefer it."

The Bible has been read in all the schools in the city of Frederick for twenty years or more. Westminster has no Dible reading in her public schools.

## TIE DISTRICT OF COLUMBIA.

On the subject of Bible reading and moral instruction the city of Washington has the following rule:
32. They (teachers) shall practice such discipline in their schools as would be exereised by a kind and judicious parent in the family, always firm and vigilant, but prudent. They shall endeavor, on all proper occasions, to inculcate in their pupils truthfulness, self-control, temperance, frugality, industry, obedience to parents, reverence for the aged, forbearance toward the weak, respect for the rights of others, politeness to all, kindness to animals, desire for knowledge, and obedience to the laws of God; but no teacher shall exercise any sectarian influence in the schools.

The opening exercises in every school shall consist of reading by the teacher, without note or comment, a portion of the Bible, repeating the Lord's Prayer at the option of the teacher, and appropriate singing by the pupils.

## VIRGINIA.

The following works of George Washington fittingly introduce the report received from his native State:

Of all the dispositions and habits which lead to political prosperity, religion and morality aie indispensable supports. In vain would that man claim the tribute of patriotism who shonld labor to subvert these great pillars of human happiness, these firmest props of the duties of men and citizens. The mere politician, equally with the pious man, ought to respect and to cherish them. A volume could not trace all their connection with public and private felicity. Let it simply beasked, Where is the security for property, for reputation, for life, if the sense of religious obligation desert the oaths which are the instruments of investigation in courts of justice? And let us with caution indulge the supposition that morality can be maintained without religion. Whatever may be conceded to the influence of refined education on minds of peculiar structure, reason and experience both forbid us to expect that national morality can prevail in exclusion of religious principle. It is substantially true that virtue or morality is a necessary spring of popular government.

Hon. John E. Massey, State superintendent of public instraction, Richmond, Va., writea that he believes the Bible to be read in nearly all the Virginia schools; that this has been the custom since their organization.

Richmond reports the Bible as read in all her schools since their establishment. Manchester and Roanoke report fully observed rules requiring Bible reading. The rule in Roanoke specifies reading some portion of Scripture, the singing of a suitable hymn, and repeating the Lord's Prayer. No exposition allowed.

The Bible is read in all the schools of Stannton also. Two others report the custom as general, but not universal.

Perhaps the position of superintendent of schools in Virginia can not be more correctly expressed than by Bushrod Rust, superintendent of schools, Roanoke, Va. Mr. Rust writes:

I am strongly opposed to setting aside the dear old Bible as it stands for all the books in Christendom. * * * I believe in having the entire work at hand and in reading such selections as would "establish our youth in habits of truth, purity, uprightness, unselfishness, and goodness." I believe in being absolutely nonsectarian in and around our schools, and at the same time I would have all our
teachors be godly men and women, exemplifying all the graces of the Christian character in their daily lives before the pupils. This woald tend to the building of high character and good citizenship.

## WEST VIRGINIA.

The secretary of the State department of free schools reports that the Bible has been read in part of the schools of the State since 1833. There is no State law on the subject of Bible reading in the public schools of West Virginia, but on April 6,1893 , her supremo court decided that such reading should not lee excluded. Thirteen reports have been recently received, four from her cities. In two of these it is stated that the Bible is read in all of the schools every day. In the other two it is read at option of teachers, and has been since the organization of the schools. Oi the 8 county superintendents, 4 report Bible reading in all the schools of the county, excepting the high school in one county. Of the other 4 , 1 reports the Bible as read in 25 per cent of the schools, saying that formerly teachers had done very little along that line, but at present the interest is increasing. A second, that the custom, although having been practiced for twenty-five or thipty years, is at present discontimued. The third states that it is read at the option of the teacher; that for twelve years it was read in all the schools under a requirement made when the free-school system was organized.

## NORTH CAROLINA.

Hon. John C. Scarborongh, State superintendent of public instruction, Raleigh, N. C., writes:

In our town and city graded schools, supponted by local taxes as a supplement to the fund regularly apportioned to the town or city, the Bible is generally read, either in opening or at some other time, generally, however, at opening, the superintendent or principal in charge offering a short prayer or repeating the Lord's Prayer in concert with other teachers and pupils. \% \% \% There is no rule about it, eacept as the custom of reading the book makes it a rule.

Superintendent Scarborough states further:
The question of reading the Bible in the problic schools of North Carolina has never been mooted or discussed in the State. Many public school teachers read it, and have it read, sometimes as a part of a short exercise at opening, sometimes as a reading lesson selected by the teacher, the whole school, or so inany as can read, reading alternate verses or passages. It depends entirely on the inclination of the teacher in charge.

One county ezaminer writes that the Bible is read in about 50 per cent of the schools. That the custom has been growing for twenty years. Another, that the Bible is more generally read now than at any former time. The remaining five, from whom special reports are received, state that the Bible is read in all their schoois.

SOUTH CAFOLINA.
Hon. W. D. Mayfield, State superintendent of schools, Columbia, S. C., writes:
There is no law for or against reading from the Bible in our schools. Such teachers as desire to do so read from it as they may choose.

Twelve offc 3 ris report Bible reading under their juristiction. Nine of these state that it is read in all of their schools. It has been read in the schools of Charleston, the chief city of the State, for the last thirty-five years. Of the remaining five, two county superintendents state that the Bible is not generally read. A third, that the custom is quite common, but not universal, as it shou'd be, and the fourth states that it has been generally read, but not regularly, for the last thirty-five years. The fifth, that it is read in part of the schools.

Thomas S. Grimké, the South Carolina statesman and plillosopher, wrote of the harmony of our civil institutions with the Bible as follows:

If ever a political scheme resembled the divine government it is ours, where each exists for the whole and the whole for each.

## (iEORGIA.

Hon. G. R. Glenn, ふ̌tate school commissioner, Atlanta, Ga., writes:
Under our public school laws the Bible can not be excluded from our schools. The teacher is left to use the Bible as she may see fit. I am glad to say that a great many of our teachers open the school with some sort of religious exercises, sometimes reading from the Bible.
The Bible is read in large numbers of the public schools as far back as remembrance reaches. Of the 12 reports received from Georgia, 6 state that the Bible is read in all the schools and the other 6 state that it is read in part of them.

## FLORIDA.

Hon. William N. Sheats, State superintendent of public instruction, Tallabassee, Fla., writes:
No data published in regard to Bible reading in the schools. There is no law prohibiting it, and most Christian teachers read short lessons from the Bible and open their schools with prayer daily.

Of 4 reports received from other school officers, 1 states that Bible reading in all the schools has always been the custom under a school board rule requiring it. A second reports reading of Bible in the county schools. The other 2 state that while Bible reading may not be universal the practice is and has been generally observed in all their schools since organization. The rule for Bible reading adopted by the board of instruction for Osceola County is as follows:
SEc. XI (p. 10). The reading of the Bible and short devotional exercises of a nonsectarian character at the opening of the school are hereby encouraged. Also the reading occasionally of the Declaration of Rights as set forth by the constitution of the State of Florida and the Constitution of the United States.

The South Atlantic Division has Bible reading generally in its schools. The largest cities observe the rule in all their schools.

## SOUTH CENTRAL DIVISION.

## KENTUCKY。

There is nothing in the law of Kentucky to enjoin or forbid the reading of the Bible in schools. The teaching of infidel or sectarian doctrine is forbidden.

Fourteen replies from county and city superintendents in this State give the following information: Eight of them report the Bible as read in all the schools under their supervision, the custom having been observed for twenty-five, thirty, or more years-ever since the organization of the schools. In one of them it has been the custom for three years only; in another two years. Two of these schools have rules requiring Bible reading. In others it is optional. Louisville, Kentucky's largest city, has the Bible read in every school. There is $a$ rule requiring such reading. Four others report that the Bible is read in part of the schools. Two report no Bible reading, the superintendent of one of which expresses deep regret that such is the fact.

## TENNESSEE.

This State sends two reports, one of which assures us of Bible reading in all the schools since their organization. The superintendent writes:

Should the Bible be removed from our schools I would not superintend or instruct in them. The Bible is our rock of public safety.

The other superintendent reports Bible reading in part of the schools and states that a rule will be made this summer requiring it of all teachers.

## ALABAMA.

Five reports are received from Alabama. Three of them, including one from the capital of the State, report that Bible reading has been the custom in their schools since organization. The fourth has no data on the subject. The fifth states that Bible reading is not customary.

MISSISSIPPI.
The constitution of this State requires that the free enjoyment of all religious sentiments shall be held sacred.

The rights hereby secured shall not be construed to justify acts of licentiousness injurious to morals or dangerous to the peace and safety of the State, or to exclude the Holy Bible from use in any public school of this State.

Of the two reports received, one states that the Lord's Prayer is used; another that the Bible is read occasionally and that vigorous efforts will be made to have "Readings from the Bible " ${ }^{1}$ introduced this fall.

## LOUISIANA.

The constitution of Louisiana has several sections forbidding the connection of schoo's with any sectarian enterprises. The one report received from that State informs us that there is no local rule on the subject of Bible reading, and that the Bible has not been read during the last six years. From this report the custom of the schools of the State can not be ascertained.

TEXAS.
Hon. J. M. Carlisle, State superintendent of public instruction, Austin, Tex., writes that the state department has not collected any special statistics on this subject. He regrets his inability to aid in the preparation of this report.

Seven local reports have been received. In Houston the Bible is read in all the sthools under a law requiring such an exercise. One reports some Bible reading, but no system or regularity. Another states that the Bible is read in the third and fourth grades in course of ethical reading. The fourth writes that it is read regularly mornings in high schools and has been since they were organized. The remaining three report no Bible reading. Two have no rule on the subject, and one of them has a prohibitory regulation.

## ARKANSAS.

In the bill of rights of the State of Arkansas, amended in 1868, she directs her general assembly to * * * "encourage schools, because 'religion, morality, and knowledge' are 'essential to good government,'" etc. The constitution of the State (1874) maintains free schools, because "intelligence and virtue are the safeguards of liberty." Hon. Junius Jordan, State superintendent of public instruction, Little Rock, Ark., writes that the State constitution has no rule on the subject of Bible reading. That the custom has been observed in part of the free schools for twenty-itve or more years-ever since such schools were organized. Three other reports received state that the schools have no rule on the subject; that the Bible is read in part of them at option of the teacher.

## NORTH CENTRAL DIVISION.

## OHIO.

The concluding sentence of the seventh section of the bill of rights in the present constitution of the State of Ohio is nearly identical with the article concerning

[^40]schools in the ordinance of 178 ; and by the general custom of Bible reading throughout the State this is indicated as the book from which the religion and morality required by the State is to be found.

Reports are received from 53 counties and cities in Ohio. Thirty-one of these state that the Bible is read in every school ( 29 of them report the custom as observed for many years, ever sincł the establishment of the schools, and for so long a time that "the memory of man runneth not to the contrary)." In one instance it is reported as having been observed ten or fifteen years. One reports a rule on the subject. Three report an unwritten law favoring Bible reading. The request of the superintendent operates as law in another locality. Of the remaining $\mathfrak{2}$, two have insufficient data, but believe that the Bible bas been read for at least five years in all the schools. Another states that teachers are requested to read portions of the Bible regularly, and that most of them do. Four more state that most of the schools have Bible reading. Two more report reading in part of the rooms. Four others say that the Bible is not generally read in the schools under their care. Two report the reading only of the selections from the Bible found in their school readers. Two report very little, if any, Bible reading, and 3 report none.

One superintendent writes:
All our schools, from the first primary through the high school, have the Bible read, and a short prayer, or the Lord's Prayer repeated, accompanied by some appropriate song. We thoronghly believe in it, and we know that it has a good induence on our chiluren.

INDIANA.
Indiana has the following law on the subject (1865, p. 3, approved and in force March 6, 1865):
4403. Bible. The Bible shall not be excluded from the public schools of the State. (167.)

The following note is of interest in this connection:
Note. -The Bible, without note or comment, is installed in the common schools of Indiana. Its continuance as a moral class book in these nurseries of her future citizens will as surely mark the period of her prosperity and grace the zenith of her glory as its exclusion would prove the precursor of her decine, the herald of her shame,-(Mills, superintendent.)

Reports received from 31 county and 26 city superintendents of schools are as follows: Seven county and 11 city superintendents report that the Bible is read in all their schoo's. Twenty-four other school officers report that it is read in nearly all their schools. Three report no Bible reading. All the others report Bible reading at the option of teacher. Six of the city boards have rules concerning Bible reading, 1 of which we quote.

## GREENSBURG RULE.

SEC. 3. Opening of the schools.- The school shall be opened in the morning with reading of the Bible and prayer or singing; but the first shall in no case be omitted.
Several superintendents of schools in Indiana are using the book "Readings from the Bible," and like it very much.

## ILLINOIS.

Hon. Samuel L. Inglis, State superintendent of public instruction, Springfield, Ill., writes-
The constitution of the State neither requires nor forbids the reading of the Bible.
Of the 71 reports received from Illinois city and county public school superintendents, 7 report Bible reading regularly in all their schools. Four more state
in nearly all. Twenty-eight others write that it is read in part of their schools at the teacher"s option. Twelve report no Bible reading. A few have written rules requiring Bible reading. Others observe an unwritten law, based on custom or the will of the teacher.

On the general subject of Bible reading, one superintendent writes:
All of our public schools have been opened daily with derotional exercises, and nearly all of our teachers' meetings have been opened with prayer.

## Another-

Teachers are requested to open morning sessions with appropriate songs, the reading of a Bible selection, and prayer. They are to make no comments in these or other school exercises of a sectarian character. butreverence for God and respect for holy things must be inculcated and enforced in every school.

## MICHIGAN.

Of the 42 reports received from county and city superintendents in Michigan, 17 report the Bible read in all their schools; 5 more repert it as read in nearly all or quite generally; 11 more as read in part of the schools; 9 report that the Bible is not read at present, but in 3 of these it was formerly read. The custom of Bible reading in Michigan dates back to the organization of the schools.

Detroit has adopted "Realings from the Bible " for use in her public schools.
In December, 1893, the supreme court of Michigan rendered a decision favorable to Bible reading in the public schools.

## WISCONSIN.

Hon. J. Q. Emery, State superintendent of public schools, Madison, Wis,, in a circular letter dated April, 1896, to superintendents of schools, and town and district clerks, states-

The supreme court has decided that sectarian instruction, within the meaning of the constitution, is instruction in religious doctrines which are believed in by some religious sects and rejected by others.

Fifty-three reports have been receired from city and county superintendents. All indicate a loyal observance of the construction placed upou the decision of the supreme court. A careful reading of this decision seems to show that the judges make an exception to the general rule of excluding the Bible, which would permit the use of some book of suitable Scripture selections. The passage referred to is found on page 1ir, section 5 , in the pamphet containing the decision of the supreme court of Wiscongin concerning the district board of school district No. 8, of the city of Edgertor. It is as follows:

Furthermore, there is much in the Bible which can not be justly characterized as sectarian. There cau be no valid objection to the use of such matter in the secular instruction of the papils. Much of it has great historical and literary value, Which may be thus utilized without violating the constitutional prohibition. It may also be used to inculcate good morals-that is, our duties to each other-which may and ought to be incralcated by the district schoois. No more complete code of morals exists than is contained in the New Testament, which reafirms and emphasizes the moral obligations laid down in the ten Commandments. Concerning the fundamental principles of moral cthics, the religious sects do not disagree.

The following sentiment was prepared for the use of the Wisconsin schools, in their patriotic exercises in May, 1895:

The best citizen, the best patriot, the best son of his country, is he who gives the best manhood to his country. He is the man who writes upon his nature the Ten Commandments and the Nine Beatitudes.

Hon. W. W. Pendergast, State superintendent of public instruction, St. Paul, Minn., writes-
I have to some extent examined the book entitled " Readings from the Bible," and think the selections have been made with the greatest of care and the best of juadment.
Thres reports concerning Bible readings have been received from the Minnesota superintendents, in one of which it is said that the Bible is read in part of the schools, and two which report no reading.

The city of Minneapolis has adopted "Readings from the Bible" for use in her schools.

## IOWA.

The school law of Iowa states (sec. 1764, p. 57)-
The Bible shall not be excluded from any school or institution in this State, nor shall any pupil be required to read it contrary to the wishes of his parent or guardian.
Hon. Henry Sabin, superintendent of public instruction, Des Moines, Iowa, writes-
The great fault in the education of to-day is undoubtedly the tendency to crowd the intellect and to neglect nearly everything which tends toward moral training. I think the selections are most judiciously chosen and that the book is well adapted to carry out the praiseworthy deagn. I can not see how it can be objectionable to anyone who has the welfare of the children at heart.
Twenty reports from county and city superintendents have been received. Seven report the Bible read daily in all their schools; 1 states that it is read in the high and grammar school grades; 3 that it is read in nearly all of the schools; 6 report regular reading in part of them; 1 reports the Bible read at irregular intervals; 2 report no Bible reading; 3 boards report special rules on the subject as follows:
North Des Moines.-A recognition of the divine character of God, and of the accountability of man, is expected of all the teachers, particularly in the brief opening exercises of each day; but all matters of a sectarian or partisan character shall be excluded from the schools.
Fort Dodge.-Opening exercises shall be held in all the departments, and may consist of Bible reading without note or comment, prayer, music, or other appropriate exercise, at the option of the teacher.
[Oskaloosa School Mantal, p. 43, sees. 50 and 52.]
SEC. 50. They [teachers] shall open the morning session in each school with reading from the Bible, followed by prayer or appropriate singing, at the option of the teacher.
SEC. 52. Sectarian influence.-Teachers shall not exercise any sectarian influence in school; but they shall endeavor at all proper times to impress upon the minds of their pupils correct principles of morality and virtue, a sacred regard for truth, habits of sobriety and industry, love for God and man.
In addition to the cities whose rules are quoted above, replies were received from Sioux City, Burlington, Muscatine, Ottumwa, Narshalltown, and others. These show that the custom of Bible reading extends back to the organization of the schools.

One county superintendent writes-
We find in the Bible beatutiful literature, excellent teachings, and the foundation of our discipline.

## MISSOURI.

Hon. John R. Kirk, State superintendent of schools, St. Louis, Mo., writes-
There is nothing in the school law of this State with reference to Bible reading in the public schools. The matter is left entirely to the board of directors of each district to settle according to the wishes of the community.

Twenty-six reports from city and county superintendents acquaint us with the following facts: Six report Bible reading in all their schools; 1 reports it in most of them; 1 has no data; 11 report Bible reading in part of their schools; 7 report no Bible reading. Returns show that the Bible has been read in many localities since the organization of the schools. Others state that the custom is growing, and that the Bible is read more now than ever before; 4 state that the Bible has never been read in their schools.

One superintendent writes--
Your enterprise deserves the greatest encouragement from educators. I have received and examined carefully the book "Readings from the Bible," and think such a book should be in every school course as a supplementary reader. Every boy and girl should know it well.

Another states that-
Each schoolroom acknowledges God in some way every morning. * * * Character building is an important factor with us.

## NOR'TH DAKOTA.

Hon. Emma F. Bates, State superintendent of public instruction, Bismarck, N. Dak., sends the following from the revised code of 1896, section 754:

The Bible shall not be deemed a sectarian book. It shall not be excluded from any public school. It may, at the option of the teacher, be read in school without sectarian comment, not to exceed ten minutes daily. No pupil shall be required to read it, nor to be present in the schoolroom during the reading thereof, contrary to the wishes of his parents, guardian, or other person having him in charge. Moral instruction, tending to impress upon the minds of the pupils the importance of truthfulness, temperauce, purity, public spirit, patriotism, and respect for honest labor, obedience to parents, and due deference to old age shall be given by each teacher in the public schoo's.

Ono superintendent reports Bible reading in part of the schools.
The legislative provision for the establishment and maintenance of schools is founded upon the fact of the necessity of a high degree of intelligence, patriotism, integrity, and morality on the part of every voter in a government by the people.

The superintendent understands that in order to secure the highest educational results in children, parents must be in intelligent cooperation with all efforts to improve the pupils. Hence, June 26,1806 , was designated as parent's day, to be observed throughout the State.

The exercises upon that day consisted of select songs, recitations, essays, dialogues bearing upon home life, its beauties and duties, the child in the home, the mother, the father, the family. * * * The home is the unit of govermment, and for the perpetuity of holy home life, and for the right education of the children of those homes our nation was established and our public-school system is maintained.

## SOUTH DAKOTA.

Hon. George N. Parker, deputy superintendent of public instruction, Pierre, S. Daik., writes:

We send you a copy of the school law of 1891, on page 44 of which you will find all the law we have upon the reading of the Bible in the public schools. * \% \% We have examinel the publication (Readings from the Bible) you mention, and we are much pleased with it.

## [South Dakota School Law, p. 44, sec. 18.]

No sectarian doctrine shall be taught or inculcated in any of the schools of the corporation, but the Bible, without sectarian comment, may be read therein.

Thirteen reports are received from city and county superintendents of South Dakota; 5 report that the Bible is read in all the schools and 8 that it is read in part of them. The State law is the only rule on the subject.

Hon. H. R. Corbett, State superintendent of schools, Lincoln, Nebr., writes:
The State of Nebraska has by its laws and the regulations of the department of education always encouraged moral culture in its public educational system. The Bible is generally read in our schools. I have, however, no carefully compiled data showing the exact extent or nature of the efforts in this direction.
I have examined the book entitled Readings from the Bible, and regard it as one of the most important educational publications of recent times. It will certainly facilitate the introduction of Scripture reading into many schools where such exercises have heretofore been impossible.

From the 28 reports received from city and county superintendents, 13 state that the Bible is read in oll the schools; 2 more have not complete data, but believe it to be read in most of their schools. Generally speaking, writes one, the Bible is read throughout the county. One states that it is read in nearly all of the schools; 8 report Bible reading in part of them-in some counties more, in some less. The Bible has held an honoreä place in the educational system of Nebraska since the organization of their schools.

One superintendent of schools answers the questions in regard to Bible reading in the nogative. She writes:

I read these questions aloud to our teachers in attendance at the institute, and I think if you ask us the same questions next year I can answer yes.

Another speaks of introducing "Bible readings" into his schools during the coming year.

Another writes:
I have examined Readings from the Bible with much care and interest in view of the discussion now going on along this line, and I must certainly say that it seems to me the work undertaken and presented in this little volume has been admirably done.

## KANSAS.

Hon. E. Stanley, State superintendent of public instruction, Topeka, Kans., writes:

We have but little law bearing upon the subject of Bible or moral instruction in the common schools of the State. * * * I like your little book, Readings from the Bible, selected for schools, very mach. I think the selections are very well chosen.

Thirty-four reports from county and city superintendents on the subject of Bible reading have been received. Seven state that the Bible is read in the opening exercises of all their schools, another thinks this is done, 2 more report Bible reading in most of the schools, and 2 report such reading in many. Seven report Bible reading in part of their schools, and 5 report it as not being read. The custom of Bible reading has been general since the schools were organized. Three superintendents report school laws on the subject. Others say custom is the law in their localities.

THE WESTERN DIVISION.
MONTANA.
Hon. E. A. Steere, State superintendent of public instruction, Helena, Mont., states that there is no rule in the constitution of Montana concerning the Bible; that it is read in a few of the schools. He expresses his approbation of Readings from the Bible as follows: "I am highly pleased with its contents."

A report from a local superintendent in Montana states that the Bible is not read in his schools.

Hon. Esteile Reele, State superintendent of public instruction, Cheyenne, Wyo., writes:
There is no provision whatever in the Wyoming school laws relative to the iuatter [Bible reading], it being leit entirely to local school boards, or in almost all cases to the individual teachers. * * . * I have examined the copy of Readings from the Bible sent me and like it very much.
Eight reports from county and city superintendents are received. One states that the Bible is read in all schools; another that some teachers read it regularly; a third that it is occasionally read; one expresses sorrow that the custom is not universal; one states that in the primary grade portions of the Bible are learned and repeated; another reports no Bible reading at present, but writes that it was formerly read; two report no Bible reading.

COLORADO.
Hon. A. J. Peavey, State superintendent of public instruction, Denver, Colo., writes:
Have examined the Bible readings and consider it very valuable. We have no statistics about Bible reading.
Twenty-four reports from city and county superintendents have been received. Four of these state that the Bible is read in all their schools; 11 report reading in part of the schools; 9 report no reading. One of these superintendents expects to put Readings from the Bible into all the schools of his county this coming year. Another suggests the use of it for supplementary reading. One writes as follows:
I am in happy accord with the moveruent, and hope to see Bible reading practiced for morning exercises in all our schools of this county. I shall tale pleasure in directing the attention of the institate to this very important subject.

UTAH.
Hon. John R. Park, State superintendent of public instruction, Salt Lake City, Utah, writes:

While morality is taught and inculcated in all of the public schools of this State, the Bible is not read in any of them. The belief seems to be quite widespread here that moral teaching in the public schools should be wholly nonsectarian, and many believe it to be impossible to introduce the Bible into the schools withont at the same time removing one of the strongest safeguards against sectarianism.

Wight reports from city and county superintendents verify the information contained in Mr. Park's letter. One of them states that the Bible had been read at option of teacher for twenty years, until 1896. Another that it had been read for thirty-eight years, ending in 1885.

NEVADA.
Hon. H. C. Cutting, State superintendent of public instruction, Carson City, Nev., writes:

Although there is not one school in the State where the Bible is read, efforts at moral training are made in all.

Two reports received from local superintendents are in harmony with that of the State superintendent.

IDAHO.
Hon. C. A. Forseman, State superintendent of public instruction, Boise City, Idaho, writes:

Our school law prohibits any reading of the Bible, or at least that is the recognized construction.

Eight county superintendents verify the report of their chief.

## WASHINGTON.

Hon. C. W. Bean, State superintendent of public instruction, Olympia, Wash:, forwards a copy of the attorney-general's opinion regarding the reading of the Bible in the public schools of the State, dated September 19, 1891. Four reports from county and city superintendents are received. Each states that the Bible is not read, being under ban of attorney-general's ruling. Two state that it was read in their schools previous to 1891. One writes:

I believe the day will come when the Bible may be read and taught.

## OREGON.

Hon. G. M. Irwin, State superintendent of public instruction, Salem, Oreg., writes that the Bible is not generally read in the schools of the State. Ten reports are received from county superintendents; 4 state that there is no Bible reading in their counties; the others say that it is read in a few schools in each of their counties. 'There is no rule in Oregon prohibiting the reading of the Bible, and in some schools it is reported to have been read for forty-eight years.

## CALIFORNIA.

Hon. Samuel T. Black, State superintendent of public instruction, Sacramento, Cal., refers the questions relating to Bible reading in the schools to the county superintendents of his State. Twenty-six replies to these questions have been received; 19 of these report no Bible reading; 6 understand section 8 of Article IX of the constitution of 1879 to be opposed to such reading; 7 report Bible reading in part of the schools; 1 writes.that it is read for its literary value, stating that many of its stories are required to be told and read in course of study.

One superintendent writes as follows:
I am much pleased that something is being done in this direction. I have read the notices that have appeared, from time to time, in the papers with reference to the preparation of a book of extracts from the Bible. I shall surely try to have it introduced into our schools.

## Superintendents of public schools reporting in the summer of 1896 Bible reading in all, in part, or in none of their schools.

|  | Superintendents reporting Bible reading- |  |  | Total reports received. |
| :---: | :---: | :---: | :---: | :---: |
|  | In all their schools. | In part of their schools. | In none of their schools. |  |
| North Atlantic Division: |  |  |  |  |
| Maine --...- | 14 | 1 |  | 15 |
| New Hampshire | 15 | 1 |  | 16 |
| Vermont......- |  | 2 |  |  |
| Massachusetts . | 100 6 | 5 |  | 10 |
| Connecticut. | 8 | 1 |  | 9 |
| New York. | 53 | 16 | 14 | 83 |
| New Jersey | 21 | 1 |  | 22 |
| Pennsylvania | 41 | 5 | 4 | 50 |
| South Atlantic Division: |  |  |  |  |
| Delaware | 1 |  |  |  |
| Maryland. | $\stackrel{2}{2}$ |  | 1 | 3 |
| District of Columbia. | 4 |  |  | ${ }_{8}$ |
| West Virginia | 6 | 4 | 2 | 12 |
| North Carolina | 6 | 1 |  | 7 |
| South Carolina | 10 | 3 | 1 | 14 |
| Georgia ... | 6 | 5 |  | 11 |
| South Central Division: | 1 | 3 |  | 4 |
| Kentucky ............ | 9 | 6 | 2 | 17 |
| Tennessee.... | 1 | 1 |  | 2 |
| Alabama | 3 | 1 | 1 | 5 |
| Mississippi |  | 1 | 1 | ${ }_{1}^{2}$ |
| Texas. | 2 | 2 | 4 | 8 |
| Arkansas. |  | 3 | ........... |  |

Superintendents of public schools reporting in the summer of 1896 Bible reading in all, in part, or in none of their schools-Continued.

|  | Superintendents reporting Bible reading- |  |  | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | In all schools. | In part of their schools. | In none of their schools. | reports received. |
| North Central Division: |  |  |  |  |
| Indianto-.......... | 13 | 15 10 | ${ }_{3}^{5}$ | ${ }_{28}^{58}$ |
| Tllinois . | 27 | 33 | 11 | 71 |
| Michigan | 18 | 96 | 11 | 125 |
| Wisconsin |  |  | 53 | 53 |
| Minnesota. |  | 1 | 2 | 3 |
| Iowa -.- | 8 | 11 | 1 | 20 |
| Missouri. | 1 | 1 |  | $\stackrel{\square}{*}$ |
| North Dakota- | 1 | 1 |  | $\stackrel{2}{13}$ |
| South Dakota | 5 | 8 |  | 13 |
| Nebraska .-.- | 13 | 12 | 5 | 30 |
| Kansas ---- |  | 12 | 5 | 34 |
| Western Division: |  |  |  |  |
| Montana - .-. |  | 1 | 1 |  |
| Colorado. | 3 | 12 | $\stackrel{4}{9}$ |  |
| Utah ... |  |  | 8 | 24 |
| Nevada. |  |  | 2 | 2 |
| Idaho. |  |  | 8 | 8 |
| Washington . |  |  | 15 | 15 |
| Oregon- |  | ${ }^{6}$ | 4 | 10 |
| California |  | 7 | 19 | 26 |
| Total United States | 454 | 295 | 197 | 946 |

Reports of State superintendents are not included above. Superintendents having " no data" are not counted. Three-fourths of superintendents report Bible reading in part or all of the schools under their supervision. The recapitulated laws of nine States concerning Bible reading in schoois are as follows:
Mrassachusetts.-The school committee shall require the daily reading in the public schools of some portion of the Bible, without written note or oral comment, etc.

Pennsylvania, Decision No. 114. -The Scriptures come under the head of textbooks, and they should not be omitted from the list.

New Jersey.-lt shall not be lawful for any teacher, trustee, or trustees to introduce into or have performed in any school receiving its proportion of the public money, any religious service, ceremony, or forms whatsoever, except reading the Bible and repeating the Lord's Prayer.

Georgia.-The county board of education shall prescribe from time to time what text-books and books of reference shall be used in the common schools of the county; provided the Bible shall not be excluded from the common or public schools of the State.

Mississippi.-The constitution of this State requires that the free enjoyment of all religious sentiments shall be held sacred. "The rights hereby secured shall not be construed to justify acts of licentiousness injurious to morals or dangerous to the peace and safety of the State, or to exclude the Holy Bible from use in any public school of this state."

Indiana.-The Bible shall not be excluded from the public schools of the State.
Iowa.-The Bible shall not be excluded from any school or institution of this State, nor shall any pupil be required to read it contrary to the wishes of his parent or guardian.

North 1)akota.-The Bible shall not be deemed a sectarian book. It shall not be excluded from any public school, etc.

South Dakota.-No sectarian doctrine shall be taught or inculcated in any of the schools of the corporation; but the Bible, without any sectarian comment, may be read therein.
Educators connected with our public schools recognize the truth of which the poet sings:
"If half the power that fills the world with terror,
If half the wealth bestowed on camps and courts,
Were given to redeem the human mind from error There were no need of arsenals or forts."

The need of appropriate selections from the Bible to be read in schools is obvious. Generally the choice rests with the teacher, who would undoubte $\begin{aligned} & \text { ly }\end{aligned}$ in many instances be glad to have the assistance of a book of selections that would economize time and effort. It might be possible also, by means of judicious selections, to meet the conficting notions that sometimes result in the total elimination of the Bible from schools.

At the instigation of Prof. David Swing, of Chicago, the Woman's Educational Union undertook to secure the preparation of such a book, and the result is the little volume Readings from the Bible Selected for Schoois, referred to several times in the preceding report. As stated by the society, the book consists of selections from the Old and New Testaments of the Dible, made by ten c'ergymen, namely, Cardinal Gibbons, Proさt. Herrick Johnson, Rev. Theodore N. Morrison, President Charles A. Blanchard, Dr. H. W. Thomas, Rev. Jcsiah Strong, Dr.F.W. Gunsaulus, Dr. J. H. Barrows, Rev. Theodore F. Wright, and Dr. Thomas C. Hall.

These selections were edited by a committee of four persons, named by Prof. David Swing (together with a fifth, who did not act) in a letter written April 3, 1894. The committee consisted of Hon. William J. Onahan, Dr. John Henry Barrows, Hon. Charles C. Bonney, and Mrs. E. B. Cook. Rabbi Joseph Stolz, Prof. Henry G. Moulton, and others also rendered valuable assistance to the committee.

President William R. Harper, of the Chicago University; President Henry Wade Rogers, of the Northwestern University; President John M. Coulter, at that time of the Lake Forest University; Dr. M. M. Mangasarian, and others reviewed the manuscript, with commendations and suggestions.

A feeling that the work was both patriotic and philanthropic seemed to inspire those who interested themselves in it. The publishers also did their part with a desire to serve the schools in the most helpful manner possible.

The book received a hearty welcome from the evangelical clergymen of Chicago, who in mass meeting assembled spoke eloquent words for it and voted their approval of it. The Chicago metropolitan press, with great unanimity, expressed the popular sentiment of approbation through their columns, both editorially and otherwise.

It was also the subject of favorable notice by educators and religious journals throughout the country.

The editorial committee bear,hearty testimony to "the intelligence, prudence, and wise and painstaking zeal with whish the work was pursued by the Chicago Woman's Educational Union, under the faichiful and earmest leadership of its president, Mrs. Elizabeth B. Cook."

As to the purposes of the book, Hon. W. J. Onahan, a distinguished Roman Cathoic layman and chairman of the editorial committee, wrote:

We do not wish to outline any scholar's religious belief. We simply want to lay the foundation for a belief of some kind. Personally, I should regret not having done what I could to make it impossible for a child to grow up in ignorance of God. Let them grow up in what church they may, but let them have a belief of some kind.

Dr. Barrows, also of the committea, says:
It is historically certain that the best elements of our institutions sprang from the Bible. * * * Thera isnosectarian bias for this movement. Only the highest results, dear alize to Catholic, Protestant, Israelite, and even agnostic, are desired and sought for. There is surely no agnostic in Chicago whose judgment has the weight of Professor Huxley's, and he knew of no substitute for the Bible equal in value to the Hebrew and Christian Scriptures.
Hon. C. C. Bonney, the third member of the committee, writes as follows of the legal aspect of the case:
In contemplation of law, no injury is possible as the result of reading the Bible in the public schools. In contemplation of law, the exclusion of the sacred Scrip-
tures from the public schools is an indignity to the sovereign authority and a violation of the compact of $178 \%$. In contemplation of law, such exclusion is a breach of the trust on which the school fiunds are held and an injury to all who are interested in the schools. The bane of American education is the idea that mere knowledge will make useful men and women,

Religion, morality, and knowledge all being necessary to good govemment and the happiness of mankind, they should all be taaght in the public schools, where the children and youth ought to learn the virtues we desire to have them practice when they arrive at mature years.

The selections used in this book were made, as already stated, by clergymen of difforent denominations. They were carefully arranged in form of a trial book of selections, which, after being approved by the Edueational Union, was submitited to clergymen, educators, ethical teachers, and leaders of the unchurched masses for revision, and their suggestions have been considered by the committce having this work in charge.
It is obvious that every possible effort has been made to avoid sectarian loias in this compilation, while maintaining the highest literary and ethical standard.

## II.-The Bible in the Public Schools.

[Trom an address by Dr. A. P. Peabody, of Earvard University.]
We are asked to exclude from our schools the Bible, and, by parity of reasoning, all instruction drawn from or to the Bible. What is this, in the first place, but garbling and truncating listory? There are important, momentous portions of the worlds history of which the Bible is the only manaal. The Jewish people have exercised an infuence upon mankind far exceeding that of all other ancient nations, and outside of the Bible how scanty and fragmentary is all that can be known or taught concerning this people! Christianity is the most important factor in the history of mankind. It has been the inspiration and the mold of modern civilization and has supplied all the elements that distinguish it from the culture of the ancient world. It has modified all political and social institutions. It has given birth to philanthropy in its protean forms. It has created home, with its unnumbered amenities and charities, white the classic languages have not a word that corresponds to our idea of home. It has reversed the scale of the virtues, attaching supreme importance to some that had not even a name, and throwing into the background others that arrogated to themselves the erciusive tite of virtue. Shall our children be forbidden to learn what Christianity is in its own universally acknowledged manual? Jesus Christ, whaterer be his actual char-acter-whether he be or not, as I believe him to be, all that his biograplers claim for him-is so far the most infuential personage that has ever appeared in the history of the world. To exclude his life and character from the narrative of human existence for the last nineteen centuries is an immeasurably more groas, foolish, and stupid mutilation of history than it wonld be to omit the names and doings of Waskingion, Franklin, and Adams from American history. Shall not our children be permitted to learn what he was from the only authentic record of his person, words, and works? If history is to be one of our school strudies, I rnow not how it is to be taught if the Bible and its contents be ezcluded.

There are other departments of education in which the Bible is no less essential than in history. If moral philosophy is to be taught at all, I suppose that none would deny that it is distinctively Christian ethics in which our children are to bo trained.

But if Christian ethics be taught, shall they be taught as they are interpretedand it may be distorted and misrepresented-by modern theorists, or as they fell from the lips and are embodied in the life of the divine teacher?

Again, in our school education we are laying a constantly increasing stress on the culture of the taste and imagination in literature. We deem it of no little
importance that our children and youth should become conversant with the best mode:s of composition, should learn to admire what is truly grand, and to love what is truly beautiful, and should thus, both in their choice of books and in their choice of words in speaking and writing, be under the guidance of a pure, refined, and cultivated taste. In this department who will dare dispense with the Bible? Leaving their religious worth out of the account, in a purely literary point of view I should feel myself bereaved of the choicest productions of human genius, of my highest inspiration and my most finished models, were you to blot out of my knowledge the Psalms of David, the parables of our Saviour, St. Paul's description of charity, his sublime chapter on the resurrection, the glorious vision of the Apoca!ypse, and many portions of sacred writ which transcend all other literature equally in the glow and fervor of their God-breathed thoughts, and in the sweetness, majesty, and grandeur of their diction.

We are by profession a Christian people. We recognize the great principles of religion, of Christianity, in the devotional services in our legislatures and our courts of justice, and in the use of oaths in every department of public administration. Shall our children be trained as citizens without the inculcation of those fundamental religious ideas which will impress upon them the significance of prayer and the dread solemnity of an oath?

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The question virtually before us is not that of the use of the Bible in schools, but that of the permanence of our public schools as an institution. * * *

I have left myself little space to speak of the way in which the Bible should be used in schools. Of course it should not be made a mere class book, and should not be read indiscriminately. I would have it, in the first place, furnish the material for whatever devotional services there may be in the school. Such services are intrinsically proper, and apart from their religious worth they aid materially in the discipline of the school, by the relations of a more tender and sacred character which they create between teacher and pupils and among the pupils. But prayer in the teacher's own words may be sectarian or, what is fully as bad, may be suspected of being so. Far better is it then that prayer be offered in the comprehensive form given by our Saviour. To this, where it is found practicable, may be added the responsive reading of Psalms and other appropriate passages of Scripture, by teacher and pupils alternately, or of such scriptural liturgies of praise as might be prepared for that use. Where sacred music can be added, nothing could be easier, more pleasant to the ear and taste, or more edifying to the spiritual receptivity than the chanting of Psalms. Over and above such devotional exercises it should be left to the discretion of committees and teachers, and should depend on the grade and character of the school, whether additional direct use be made of the sacred volume.

Where all or the major part of a school are of an age to profit by such reading, I would have shoit lessons read by the teacher or one of the scholars, embracing the most instructive biographies and historical narratives of the Old Testament, the choicest specimens of Hebrew poetry, the principal parables and discourses of our Saviour, the leading incidents in His life, and some select portions of the apostolic epistles. For such purposes there are volumes of extracts for school use, well chosen and arranged, and easily accessible, or the teacher may exercise his own taste and judgment in the selection.

But what I would chiefly contend for and urge is, that the teacher be not oniy permitted, but expected, instructed, and encouraged to make free use of the Bible for any and every purpose for which he may find it available--for instruction in history, literature, morals, and the fundamental truths of religion; that it be a reference book, a standard work, a recognized authority in the school; that as the teacher has recourse to all other books within his reach for such help as they may furnish him in teaching, so should he have especial recourse to this exhaustless
manual of knowledge, human and divine, for whatever knowledge and wisdom he can draw from it for the pupils under his charge.

The problem of religious instruction in State universities is a serious one, and is attracting much earnest attention at the present time. One method of its solution is shown in the accompanying account of the work of Bible chairs at State universities under the auspices of the Christian Woman's Board of Missions. The office is indebted for the statement to the courtesy of Rev. Dr. Young, field secretary.

## III.-The English Bible and State Universities.

[By Rev. Chas. A. Young.]
The Bible has been recognized all through our American history as the sheet anchor of our civil liberties and the source of our higher civilization. It was faith in the Bible which actuated the American Congress, when the Revolution was at its height, to issue an order for 20,000 copies of the Scriptures, side by side with appropriations for the purchase of gunpowder. The grant of public lands for the purpose of education in 1787 states that religion is "necessary to good government." That the religion of the Bible is implied may be inferred from the following statements of Presidents of the United States:

The studious perusal of the sacred volume will make better citizens. (Thomas Jefferson.)

In regard to the Great Book, I have only to say that it is the best gift which God has given to men. (Abraham Lincoln.)

So great is my veneration for the Bible that the earlier my children begin to read it the more confident will be my hopes that they will prove useful citizens of their country and respectable members of society. (John Quincy Adams.)

Hold fast to the Bib'e as the sheet anchor of your liberties; write its precepts on your hearts and practice them in your lives. To the influence of this book we are indebted for the progress made in civilization, and to this we must look as our guide in the future. (U. S. Grant.)

The more profoundly we study this wonderful book, and the more closely we observe its divine precepts the better citizens we will become and the higher will be our destiny as a nation. (Wm. McKinley.)

None of these Presidents were ecclesiastically inclined, yet all recognized the religion of the Bible as the basis of true citizenship. The Bible is the great textbook of civilization. As Daniel Webster said: "There is no solid basis for civilization but in the Word of God." Horace Mann wrote: "Our system earnestly inculcates all Christian morals; * * * it welcomes the religion of the Bible." Even Professor Huxley, certainly no piéist, says: "True science and true religion are twin sisters, and the separation of either from the other is sure to prove death to both." No scheme of intellectual equipment is complete which omits the study of the interpretations of life contained in the classic masterpieces of the wonl's best thought. Some knowledge of the literature of the Roman, Greek, German, English, and other peoples is essential to any adequate understanding of history. Strange as it may seem, the body of literature which we call the Biblewhich is permeated by a healthful moralism and hopeful optimism, and judged by every canon of literary criticism is the most beautiful, fascinating, inspiring, and ennobling literature in the world, and which has exerted an unparalleled influence upon our best literature-has been almost totally neglected in our higher institutions of learning. Consequently, those who stiudy the great lessons of life revealed in literature are properly expected to have some knowledge of Homer, Horace, Dante, Goethe, Shakespeare, and Milton, but are unfortunately almost totaily ignorant of the literary worth of the Bible, the most important collection of books in the worid. When, in addition to its superior literary merits, the ethical value of the history and literature of the Bible, which exceeds that of all
other literature combined, is taken into account, the absence of the literary study of the Bible in the curricula of our colleges and universities is indeed strange. The rising tide of interest in the Bible from the standpoint of history and literature, as well as from that of ethics and religion, is taking practical shape in the establishment of chairs in Biblical literature in many endowed denominational schools. The introduction of Biblical study in State universities, however, is attended with some difficulties. The reason of this is apparent. It has usually been regarded as impossible to teach the Bible except from the standpoint of theology, thus affording the instructor opportunity to force his peculiar denominational tenets upon students. The fear of sectarian prejudice has made the exclusion of the Bible from the curriculum seem the safer course. Again, the Bible has been viewed from the ecclesiastical standpoint, rather than from the staudpoint of life and literature, history and ethics. This fact, owing to the separation of church and state, has perkaps had more inftuence than fear of sectarian biasin preventing the study of the Bible in State miversities. It has been proved, however, that the Bib'e can ba taught from the standpoint of history and literature, scientifically and without sectarian bias, and this fact has encouraged the establishment of Bible chairs at the seats of several State universities.

While the separation of church and state is a fundamental principle in American civilization, every informed person knows that we can not divorce our political life from our religious influence without the most disastrous consequences. Religious culture is essential to the highest and completest intellectual attainments. It was a recognition of the moral and spiritual needs of university students, whether church members or not, which prompted the Christian Woman's Board of Missions, an organization of Christian women with headquarters at Indianapolis, Ind., to undertake "the establishment of English Bible chairs for the purpose of giving religious instruction to students attending State universities." The method of coordinating religious instruction with the university sindies is very simple and has proved eminently practicable. The instruction is provided by Christian people who are responsible for the expenses. Classes are arranged for all students who desire to study the Bible. This plan not only meets the needs of students preparing for Christian service in the ministry or the mission field, but affords opportmity for general religious culture to all. Dr. Richard T. Ely, of the University of Wisconsin, recommends the establishment of denominational dormitories around State universities, but having no legal connection with them.

THE ORIGIN OF THE BIBLE CHAIR IDEA.
The present has its roots in the past. The unity of life pervades every realm of thought to-day. The idea of coordinating religious culture and intellectual development is not new. "Let us reason tosether saith the Lord." (Isaiah i, 18.) An eariy charch father reminds us that in the Bible the tree of knowledge and the tree of life grow side by side. The charter of Harvard College, the first institution of learning on the continent of America, declared the object of the institution to be " the education of the English and Indian youth of this country in knowledge and godliness." In our State universities, however, the emphasis is placed almosi exclusively upon intellectual development. Through the infuence of Thomas Jefferson the University of Virginia was the first State university to invite religious denominations to plant their theological schools around it. In Jefferson's letter to Dr. Cooper, November 2, 1822, describing his plan of allowing independent schools of theology to be established in the neighborhood of the university, two things are very plain. (1) His chief concern was to disarm prejudice against an institution of "no religion." We who heartily accept the doctrine of the separation of church and state may not fully realize the bitterness of the prejudice which the father of the University of Virginia felt. (2) While Jefferson's chief concern was negative, it is also quite evident that, as to the positive work
"the different religions sects" might accomplish, he did not anticipate the teaching of the Bible from the standpoint of history and literature to all students irrespective of creed or calling. I give his letter as quoted in the History of Higher Education in Virginia.

In our university you know there is no professorship of divinity. A handle has been made of this to disseminate an idea that this is an institution not merely of no religion, bat against all religion. Occasion was taken at the last meoting of the visitors to bring forward an idea that might silence this calmmny, which weighed on the minds of some honest friends to the institution. In our annual report to the legislature, after stating the constitutional reasons against a public establishment of any religious instruction, we suggest the expediency of encouraging the different religious sects to establish each for itsolf a mrofessorship of their own tenets, on the confines of the university, so near as that their students may attend the lectures there, and have the free use of our library and every other accommodation we can give them; preserving, however, their independence of us and of each other. This fills the chasm objected to ours, as the defect in an institution professing to give instruction in all useful sciences. \% \% \% By bringing the sects together and mixing them with the mass of other students we shall soften their asperities, liberalize and neutralize their prejudices, and make the general religion a religion of peace, reason, and morality.

My interest in the coordination of religious culture and secular education at State universities was enlisted by Dr. Samuel Spahr Laws. His view of the coordination of church and state at the most strategic point, the State university, is embodied in the following letter concerning the establishment of Bible chairs at the seats of State universities, written from Columbia, S. C., January 1, 1894:
Rev. Charles A. Young, Ann Arbor, Mich.
Miy Dear Friend and Student of Former Days: It was a great pleasure to me to receive your letter from your present fie!d of labor. The plan of organization and operation which you outline is, in my judgment, perfectly feasible, Those educational institutions which are not under denominational supervision are unprovided permanently with any assured and adequate care of their religious interests. This remark is particularly applicable to our State universities. At the University of Virginia it was the idea of its founder, ThoLias Jefierson, that theological schools might be pat on independent foundations, in close proximity to it, so as io avail themselves of its advantages, and reciprocate by extending over it their religious inftuences. In a letter written by Mr. Jefferson from Monticello, in September, 1813, he uses the following language, to wit: "Of all the systems of morality, ancient or modern, which have come nnder my observation, none appears to me so pure as that of Jesus. * * * The problem confronts us, How can Christian infuences be best mingled with educational influences in those institutions not directly under religious care?" In our country, wisely, church and state are separated, and State edncation is, as in no other country of the world, secularized. In Germany for centries the theological facuity has stood first of the four fundamental faculties of the university. Such a combination with us is impracticable. The influence of religion in our State universities must consequently be indirect. You are pleased to ask me about my own attitude on this matter during my long service as chancellor of the University of the State of Missouri, of which you gained some knowledge while a student there. * \% \% As an established means of organizing Christian influences in permanent association with the university, I held for a number of years a magnificent lot of 10 acres right alongside of the university, with the view of its allotment to the Christian denominations of the State for their individual Christian schools, or for one grand united Bible school, which should sponge out of the university all that was available for theological students. * ** I had then several hundred thousand dollars deemed available for founding this enterprise. However, "The best laid schemes o' mice and men gang aft aglee." Wishing you great strength in your work, I remain,

Your íriend,
S. S. Liws.

It will be seen that the union Bible school which Dr. Laws hoped to establish would have been a great improvement over Mr. Jefferson's idea of the different religions sects establishing "each for itself a professorship for their own tenets." It remained for Christian women to realize what Mr. Jefferson and Dr. Laws hoped but failed to accomplish.

In 1886 Mrs. Sarah Hawley Scott, of Detroit, died, leaving over $\$ 12,000$ to missionary societies. This amount was intrusted to the Christian Woman's Board of Missions, of which Mrs. Maria Jameson was then president. With the proceeds of the Scott bequest a handsome chapel was built and the Church of Christ organized at Ann Arbor, Mich., in 1891. The church which the Chistian Woman's Board of Missions establishod was an essential prerequisite for the establishment of the English Bible chairs. But while preaching religious truth on Lord's days is efficient, it is not sufficient for university students. The student habit of mind makes "Jesus as a teacher" more influential than "Christus orator." The preaching function is important, but the teaching function, even in matters of religion, is still more important. University students are surfeited with science, even to the neglect of history and literature, language and the fine arts. The Bible-its ethics and its literature, its truth and its life-should be taught in order to restore the symmetry of a true development, physical, intellectual, and spiritual. In 1893, under the leadership of Mrs. O. A. Burgess, the Christian Woman's Board of Missions established the first English Bible chair at the seat of the University of Michigan. Its purpose is to teach the Bible-not theology, not denominational tenets, but the Bible-from the standpoint of history and literature, to all students, Christian and non-Christian, male and female. Literature is the interpretation of life. Biblical literature is the best interpretation of the ligher life. The necessities of positive spiritual ideas in State universities, where science, with its secular tendencies, is so largely emphasized, has been well expressed by Dr. Harris:

Nature presupposes a God of grace and good will toward His creatures. * * * But the mind, disciplined solely in observing independence and external relations, becomes of the opinion that it is not necessary to assume self-activity to explain anything in nature. * * * Natural science, with its predominant use of the categories of quality and quantity, fails in the department of organic nature to comprehend the plant and the animal, and it fails still more signally to recognize the spiritual in man. * * * Now, the corrective for such strdies as lay too much stress on external observation is found ready at hand in the studies of human nature, language, history, and literature. Religious literature, of course, touches the problem directly and offers to the individual in the form of authority the spiritual theory of the universe. (The Study of Natural Science-Its Uses and Dangers. W. T. Harris, LL. D.)

Man is material, mental, and moral. As a university student he needs athletics or manual training for his physical development; he needs to study science and art, language and literature, for his mental expansion, but above all and conserving all he needs to study the Bible as the Book of Life, its history and its literature, for his religions culture.

## HISTORY OF THE ANN ARBOR BIBLE CHAIRS.

The idea of endowing an English Bible chair at the seat of the University of Michigan was first advocated by the writer in 1891, while pastor of the Church of Christ in Ann Arbor. Harris Hall, McMillan Hall, and Newberry Hall were equipped with libraries and other facilities for Christian students of the various denominations, but no systematic Bible teaching was offered. At the National Convention of the Christian Woman's Board of Missions held in Nashville, Tenn., in 1892, the president, Mrs. O. A. Burgess, recommended the establishment of an English Bible chair at Ann Arbor, Mich. After due deliberation the convention unanimously recommended "the endowment of one or more Bible chairs" at Ann Arbor, and a committee was appointed to present plans for the work at the next national convention. This was held in Chicago in 1893, when the following report was made by the Bible chair committee:

Inasmuch as the great need of the world is a knowledge of Christ and the simple gospel He taught, and as a higher education and a broader culture are demanded by the people, which demand can only be met by an increase in the force of edu-
cated workers; and inasmuch as God has opened the way for the Christian Woman's Board of Missions to further this end through its mission:
Resolved, That we heartily indorse the steps that have been taken toward the permanent establishment of a chair of the English Bible at Ann Arbor, and would recommend-

1. H. L. Willett, who comes to the position bearing the honors of Bethany and Yale and Chicago universities, as one eminently fitted for the professorship of that chair.
2. We would recommend Clinton Lockhart, whose credentials for fitness are unquestioned, as a suitable assistant to the work.
3. We recommend, inasmuch as the needs of the present year are in a large measure provided for, that the executive committee be directed to take such steps as may be required for the further progress of the Bible chairs.

Respectfully submitted.

> Mrs. Persis L. Christian. Mrs. M. F. Miles. Lura V. Thomplon. Mrs. V. A. Pollard.

The recommendations of this committee were adopted, and the executive committee of the Christian Woman's Board of Missions was authorized to begin the work at once.
The purpose of the Ann Arbor Bible chairs is as follows:

1. To provide biblical instruction for the students of the university and other persons who may desire to study the Bible.
2. So to present the claims of the Christian ministry as to win to it well-educated young men who are endowed by nature and qualified by character for such work.
3. In connection with advantages already offered by one of America's greatest universities, to provide a high-grade missionary training school where young men and young women can prepare themselves for the foreign field. Those desiring to become medical missionaries will find superior advantages in the medical schools of the university, and may at the same time receive training under the Bible chairs in the study of the Bible and in missionary history and methods.
4. To provide training in Bible study and methods of work for young preachers and others who are to engage in Sunday school, Endeavor, and other church work. It is thought that Sunday school teachers and leaders in Endeavor work may be glad to avail themselves of this instruction, and perliaps at the same time attend some of the lectures in the university.

The methods of the Ann Arbor Bible chairs are as follows:

1. Regular courses of Bible study for university students are offered by the instructors each year. They aim to make their instruction as scholarly and as inviting as any that is offered in the university, and especially to appeal to the spiritual nature of the students. They are in deep sympathy both with the Bible and with the students. It is their chief purpose to teach the Bible.
2. One or more Bible institutes, lasting from three to five days, are conducted at Ann Arbor under the auspices of the Bible chairs each year. The instructors in these institutes are the best biblical scholars that can be secured, regardless of denominational affiliations. These institutes are well attended and are much appreciated by students and by citizens of Amn Arbor.
3. Lecture courses on Christian sociology, Christian missions, and other problems involved in the application of Bible truth to individual and social life are provided each year.
4. It is the aim of the instructors to put the students into sympathetic touch with the best biblical literature.

The actual work of the Bible chairs began October 1, 1893. The courses offered for the year 1893-94 were as follows: History of Israel, Prophecy, Psalms, The Life of Christ, Paul and His Epistles, Methods of Christian Werk, Religious Movements in America, and New Testament Greek. The largest classes were those in the Life of Christ and in the Life and Epistles of Paul. The number of registrations during the first year was 59 . The number of courses elected wa; 80 . Special lecture courses were given by A. McLean, general secretary of the Foreign ED 98 99

Christian Missionary Society, on "Missions and missionaries," and by Prof. George D. Herron on "Applied Christianity." Hundreds of students and citizens of Ann Arbor attencled these lectures. The lectures have since been published in book form. The price fised by the instructors for each course of study was $\$ 1$ per term. Owing to an arrangement with the Student's Christian Association, whereby the use of Newberry Hall was secured for the classes, the members of that association were admitted at one-half price.
The success of the Bible chairs for the first year surpassed the expectations of the most sanguina friends of the work. The question whether university students would avail themselves of biblical instruction it it should be offered them was definite? sattled by the fact that a large number of them had elected the Bible chair courses and faithfully pursued them. The instraction offered was placed on a thoroughly scientific and practical basis. The Bible chair experiment received strong commendations in the press, both local and general, and especially in the religious papers. Prominent educators all over the country took an interest in the experiment. Dr. Richard T. Ely, of the University of Wisconsin, thinks the success of the principle involved will form an epoch in the history of education.
The following letters written at the close of the first years work indicate the impression which it made npon the leaders of thought and religious life in Ann Arbor:

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\text { Ann Arbor, Mich., June s, } 1394 .
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To the Christian Woman's Board of Missions:
You might like to learn our impression of the work undertaken here by Mr. Willeit and Mr. Lockhart. It gives us pleasure to say that their classes have been larger than they expected and that we feel under obligations to them for the heip they have rendered in the religious work among our students. The friends who have contributed to the support of the new enterprise have every reason, I think, to be more than satisfied.

Yours, truly,

James B. Angell,<br>President University of Michigan.

Mrs. O. A. Burgess,
President of the Christian Woman's Board of Missions:
We, the undersigned, pastors of Ann Arbor, Mich., wish to express our sympathy with and approval of the great and commendable work which the Christian Woman's Board of Missions have done and are doing in our city, the seat of the University of Michigan. The Church of Christ has. from its beginning, been unequivocal in its loyalty to our divine Lord and Saviour, as the Son of God, and the work of the Bible chairs has been, and we trust shail continue to be, a tower of strength for evangelical Christianity among the students of the university. We rejoice in the success which has thus far attended your efforts to have the Bible taught systematically as the Word of God to our students, and hope the Bible chairs may be firmly established and well endowed.
Respectfully submitted.

> C. M. Cobern,
> Pasior Methodist Episopal Church.
> J. M. GELSTON,
> Pastor Presilterian Church.
> J. W. Bradshaw,
> Pastor Congregational Church.

Prof. G. P. Coler was calied to take charge of the Bible chair work in February, 1895. Fifty-two students took regular work the second year. The following courses were given: The Life of Christ, the Life and Epistles of Paul, Prophecy, History of Miskions, a Normal Course for Sunday School Teachers, and the Philosophy of Religion.
The third year of the Bible chairs began the first week of October, 1895, with a Bible institute, which was conducted by Ernest D. Burton, professor of New Testament Exegesis in the University of Chicago, and by Dean H. L. Willett, of the

Disciple Divinity House, Chicago. There were ten sessions of this institute and these sessions were well patronized. The institute served a good purpose in many ways, one of which was the prominence into which the Bible chair work was brought before the students and citizens of Ann Arbor. At the close of this institute Bible chair classes were organized and taught by Rev. C. A. Young and G.P. Coler. Mr. Young withdrew from the work as instructor in February, 1895, and Professor Coler was assisted by Mrs. W. C. Hull, who taught a class in Old Testament history. During the year courses were given in the following sabjects: The Life of Christ, the Gospel of John, the Life and Epistles of Paul, the Epistles to the Hebrews, Old Testament History, Christian Ethics, the Gospel of Matthew, the Epistle to the Romans, the Great Religions of the World.
Ninety-iive different students enrolled in these classes, 59 young men and 36 young ladies. Many others applied for courses, but hours could not be suitably arranged.
The fourth year of the Bible chairs opened the first week of October, 1896, with an interesting Bible institate, conducted by Dr. H. L. Willett. Seventy-five students are already (November 17, 1893) enrolled in the Bible chair classes, and it is probable that still others will enroll before the close of the semester in Febriary. It is expected that a much larger enrollment will be secured for the second semester of this year.

SIMILAR WOORK AT OTHER STATE UNIVERSITIES.
This wise policy has been signally pursued in occupying State university centers. Not only at Ann Arbor, Mich., where nearly 3,000 students are annually gathered, is the Christian Woman's Board of Missions bringing the English Bible chair to the attention of a great university community, but also at Charlotiesville, the seat of the University of Virginia, and Athens, the seat of the University of Georgia.
It is worthy of note that the influence of the wise policy of the Christian Woman's Board of Missions in having the Bible taught at State university centers has been even more far-reaching than was anticipated when the work at Ann Arbor began in 1893. This is plainly manifest in the fact that the Disciples of Christ in several States have not only adopted the plan of teaching the English Bible from the standpoint of history and literature to all students, irrespectice of their future life work, but in three States at least have advanced beyond the popular feature of the Bible chair work emphasized by the Christian Woman's Board of Missions to the more distinctly educational feature of giving spocial training to ministerial students. With this in view the Berkeley Bible chair, located at the seat of the University of California, has been superseded by the Berkeley Bible Seminary, with two competent instructors. H. D. McAneny, financial secretary of the Berkeley Bible Seminary, deserves great credit for the excellent work he has done. The year ending July 30,1890 , this faithful, energetic secretary reported over $\$ 30,000$ pledged by the churches of California to the Berkeley Bible Seminary fund. Since then I have been informed that Hesperian College has transferred its endowment, over and above its indebtedness, to the seminary fiund.
At Columbia, Mo., under the leadership of J. H. Garrison, editor of the Christian Evangelist, assisted by I. P. Haley, W. T. Moore, D. O. Smart, and others, steps are being taken toward the establishment of a Bible college contignons to the University of Missouri. So far the teaching of Dr. Moore has been a popular work among a large number of students rather than special training to a limited number of ministerial students, but as soon as sufficient endowment can be raised to support two or more regularinstructors more technical work will be done without neglecting the broader popular features of the work. Prof. E. C. Sanderson is doing excellent work in pushing the establishment of the divinity school at Eugene, the seat of the University of Oregon. Perhaps the most significant enterprise
related to the Bible-chair movement is the establishment of the divinity house in connection with the divinity school of the University of Chicago. The work of the divinity house, under the direction of Herbert L. Willett, Ph. D., and Edward S. Ames, Ph. D., is quite distinct from the Bible-chair work and should not be classed with it, since it is of a technical theological character and not popular Bible study. It is related to the Bible-chair enterprise, since it is in alliance with a university, but it differs from it in being gradnate in character and in being connected with a university which is not a State institution. The establishment of one or more Bible chairs at the seat of a State university was first proposed by Mrs. O. A. Burgess for national consideration in 1892. The actual work of teaching the English Bible, from the standpoint of history and literature, to students in general began at Ann Arbor in 1893. The Bible-chair movement is only three years old-still in its infancy-yet systematic biblical instruction will be offered the students at six of our State universities this coming year by the disciples of Christ. Under the auspices of the English Bible chair of the Christian Woman's Board of Missions, Prof. G. P. Coler and others will give systematic instruction in the Bible and the history of missions, at Ann Arbor; Dr. Herbert L. Willett, during his leave of absence from work in Chicago, will be employed in systematic Bible teaching at the University of Virginia; C. A. Young will do similar work at the University of Georgia; Dr. W. T. Moore gives all of his time to Bible teaching at the University of Missouri; Prof. S. M. Jefferson and Prof. A. M. Elston at the University of California, and Prof. E. C. Sanderson at the University of Oregon. When the report of the committee recommending the establishment of the first English Bible chair was read at Nashville, J. H. Garrison said: "The inauguration of this movement will make this night historic." No one who understands it questions the wisdom and practicability of the Bible-chair movement. The only question before us is, Shall we adequately support it? Each Bible chair ought to have an endowment of at least $\$ 50,000$. The following communication expresses the judgment of a number of State university presidents and may fitly close this report:

University of Georgia, Chancellor's Office, Athens, Ga., May S, 1896.
Rev. Mr. C. A. Young.
Reverend and Dear Brother: The Nanual of Bibie Chairs at the University of Michigan has given me both pleasure and instruction. You may rest assured that such work at this university would receive a warm welcome and hearty support from all good men, especially from the faculty and trustees.

The general idea embodied in the Manual has been for years in the minds of some of us. In our opinion it solves one of the greatest problems of the higher education in the United States, viz, How can the religious element be fostered in our State universities? To this you reply: This great work can be best done by the churches of Christ placing Bible chairs in close contact with their young men while enjoying the benefits of the State university. The enterprise must be wholly ecclesiastical, and the control must be in the denomination, not in the university.
The benefits of your plan seem to be equally great to all parties concerned:
(1) It fully recognized the American doctrine of the complete separation of church and state. Each of these great societies is left uncontrolled and unhindered to pursue its own legitimate ends in its own constitutional way. Yet ineidentally they benefit each other very much, as two independent political sovereignties would do which permit their people to exchange commodities on favorable terms.
(2) It secures to members of such churches, with the least possible expenditure, all the benefits of the State's costly endowments for literary and scientific education. They reap a return from the taxes paid by them, and at the same time enjoy all that can be done to retain their sons while they are minors in the faith of their parents. And the church, as it seems to me, ought to accomplish better results than she can do in any other way. She is helping to keep a great institution from the possibiiity of being given over to secularism. And yet she is acting strictly within her divine commission, which reads: "Go ye, therefore, and make disciples
of all nations, * * * teaching them to observe all things whatsoever I have commanded yon." That is to say, she escapes from the entanglements of geology, biology, and metaphysics, which, however valuable they may be for mental training, are certainly not among the "things" which Christ commanded. And if, like Paul, the church can truly say, "This one thing I do," like him, she should be able to do it well.
(3) The State and her university will share fully in the blessing of this arrangement, for all men know that the morality of the gospel is the best and cheapest safeguard to order. All see that Christianity creates a better citizenship-manlier men, more womanly women. The withdrawal from the State university of so many of the more pious young men is a public calamity, for in the university they are "the salt of the earth" and the "light of the world."

Nor would the Bible chairs interfere in the least with the work done by the Young Men's Christian Association. the influence of which is chiefly to stimulate devotional feelings and promote Christian work for others. The Bible chairs would supply a steadier light to the conscience, and would forearm the reason against doubt and disbelief.

I conclude, dear brother, as I begun, by assuring you of a warm welcome and a wide field in the University of Georgia, should your friends enable you to plant Bible chairs close beside us.

Yours, faithfully, Wm. E. Bogas, Chancellor of the University of Georgia.
The establishment of English Bible chairs at the seats of State universities, so as to coordinate secular and religious instruction, I consider eminently practicable. It provides symmetrical education on the most economical basis possib?e. It disarms prejudice against our State universities from those who fear the tendencies of secular education. As has been well said, "It is the principle of business in Christianity which recognizes the importance of occupying great educational centers for the purpose of radiating the light of religions trutli."
$\qquad$。

As the above matter goes to press a letter is received from Rev. Charles A. Young respecting the promotion of Bible study among the students of the University of Virginia. The following extract from the letter and the circular appended show the work in detail:

I have been conducting Bible study from the standpoint of history and literature among the students of the University of Virginia upon the same plan I introduced at Ann Arbor, Mich., Athens. Ga., and elsewhere. \% * \%

Over a score of the best and brightest young men who are students of the University of Virginia gave me two hours per week in class room and three hours per week studying special duties I assigned them in biblical history and literature, making five full hours per week given to the systematic study of the Bible.

## Young Men’s Christian Association, University of Virginia.

## BIBLICAL INSTRUCTION.

The purpose.-It is the object of these lectures to afford opportunities for the study of the Bible from the standpoint of history and literature to members of the university and other persons who may desire to pursue such courses of iavestigation. The Bible is obtaining increasing recognition as a collection of literature, possessing a distinct educational as well as ethical and religious value. It is recognized as the most profoundly influential book in existence. Its study may, therefore, well find a place in the educational discipline of every member of the community.

Courses of study. - The themes presented will include four coursess of study, as follows: The Life and Letters of Paul, ten lectures: The Minor Prophets, ten lectures; The Life and Writings of John, five lectures; Book Stadies, etc. (popular course), five lectures.

These lectures will be delivered in the university chapel on Tuesday, Wednesday, Thursday. and Friday evening of each week during five weeks. from January 18 to February 18, 1898, and at such other places and hours as shall be arranged by
the general secretary of the Young Mens Christian Association with those who may pursue any of the above courses.

Admission to courses.-Those who are desirous of taking any or all of these courses will register with Mr. Charles Hancock, to whom the fees may be paid upon registration as follows:
One course of five lectures.....-..........-.............................................. \$1. 00
Two courses of five lectures, or one double course of ten lectures.............. 1.50

The fees to members of the Young Men's Christian Association and to ministers will be one-half the above.

Arrangements for nonresidents.-Persons residing in other places may arail themselves of this opportunity for Bible study by residence in Charlottesville during the period of the courses. Ministers can return to their churches over Sunday if they find it desirable. The necessary expenses of residence in Charlottesville will not exceed $\$ 5$ per week.

Consultation.-Those desiring to make inquiries or engage accommodations may address W. I. McNair, general secretary of the University of Virginia, Young Men's Christian Association.

Those who desire to inquire further regarding these courses may consult Mr. Hancock or the general secretary at the ofice of the Young Men's Christian Association.

## CHAPTER XXXIII.

## METHODS OF INSTRUCTION IN AGRICULTURE.

INCLUDING LEAFLETS ILLUSTRATING THE EDUCATIONAL WORK DONE AT THE<br>CORNELL AGRICULTURAL EXPERIMENT STATION AND AT PURDUE UNIVERSITY.

THE SCHOOL GARDENS AT THE BUSCOMBE BRITISH SCHOOL.

[From volume 2 of Special Reports on Education by the British Educational Department.]
Starting a school garden. - There are two ways of setting boys to work at gardening. They may either cultivate a plat in common or each boy may be provided with a plat of his own. The latter plan is the better, because it offers superior educational advantages. If, for example, a boy is one of a group cultivating a garden, he can not know for certain what is the effect of his share of the work. It is only when a boy is sole master of a plat of his own that he can be sure what the results of his efforts really are-whether meritorious or defective.

The objects of school gardening.-A school garden must not be treated as though it were an allotment. The difference is important, because, if it is ignored, the school garden may prove a pecuniary success, but an educational failure. The owner of an allotment naturally seeks to make the greatest commercial profit out of his parcel of land. In the school garden, on the other hand, the boys have partly to receive instruction in the rudiments of the gardeners craft according to the best methods and partly to find illustrations for their lessons in natural science and to make practical application of them. In an allotment the owner often finds it to pay better to grow one or two kinds of crops, either for the sake of the demand for them in his market or because the soil is best suited for them. The schoolboy should learn how to raise a variety of crops, and will benefit educationally as much by failure as by success. Indeed, when the conditions of soil and climate are so favorable that, be the gardening good or bad, the crop is always forthcoming, though the rudertaking may prove a greater commercial success, yet as an educational exercise it will have less value than where nature is unkindly and hard to subdue.

Again, the object of a school garden is certainly not to put boys as apprentices to gardening. Some boys, no doubt, who learn gardening will become gardeners in a professional way, but it would be wholly out of place in school unless it served a general purpose as well as having a technical aim.

School gardens are a part of general as well as technical education. A very slight acquaintance with modern text-books and their readers, whether dealing of the farm or of the garden or of the home, is suificient to show that while many of the plain facts of modern science are assumed by the writers to be maiters of general knowledge. most of the readers continue to regard such facts as outside their province and belonging to the peculiar domain of men of science. Now, some knowledge of the nature of a few of the chief gases and other chemical elements is really indispensable for the farmer, the gardener, and the housewife, and it may be acquired in more ways than one. While a girl may study it in connection with
cooking and cleaning, a boy may have it broughtt home to him in connection with a garden piat. The kind of experiments which may be made and studied with advantage in connection with school gardens are described in Laurie"s Food of Plants and in an extremely practical and suggestive paper by the professor of botany in the Durham College of Science, Mr. M. C. Potter. Mr. J. H. Crawford published in Natural Science (July, 1892) a plan for making an agricultural museum, which offers valuable suggestions for associating practical garden work with the study of elementary science in the class room.

The result of this combined indoor and outdoor instruction will be to spread a much-needed type of general as well as technical knowledge. The rising generation will learn what is the true nature of an experiment, what are the methods of modern science, in what way observations are made and inferences are drawn from them, what are the sources of error, and how it comes about that a nerely practical man may as easily underrate as overrate the researches of the laboratory.

The division of the ground, and therefore, first the size, shape, and arrangement of the individual plats.- Each boy, then, should have a plat to himself. In the Buscombe School Gardens there are plats for 12 boys. The plats must not be too large, because the boys can not work more than two afternouns a week. .The shape, again, is important, because it is desirable that the boys should be able to perform much of their gardening while standing on the paths between the plats instead of having to step on the border for every operation. The plats, therefore, measure 30 feet in length and are only 10 feet in width. The four corners of each plat are carefully marked by squared and substantial pegs firmly driven into the ground. Each plat is numbered and the numbers are written clearly and boldly on the face of the pegs. The longer axis of each plat extends along a line from east to west, which facilitates the cropping. The vegetables are planted in rows across the plats from north to south, because this plan gives them the best chance of thriving. Each particular kind of vegetable is planted on the same line right across all the plats (see plan), so that although in the separate plats the rows are short, being only 10 feet long, yet, when the whole set of plats is looked at in one view, the vegetables are seen to be planted in long rows extending right across the gardens in regular lines, from the north boundary to the south. The success of each boy is thus easily comparable with that of the others.

Cropping of a plat.-Let us now see how a plat is cropped: Broad beans, hollow crown parsnips, white Spanish onions, Bedfordshire champion onions, radishes, lettuce (cos and cabbage), potatoes (three rows--early, medinm, and late), Brussels sprouts, caulifiower, James's intermediate carrot, shorthorn carrot, pineapple beet, Wheeler cabbage, drumhead savoy, Veitch`s autumn giant canliflower, scarlet runners. The scarlet runeers were planted on the side next the road, and served as a screen against the depredations of roughs and idlers, who, in the absence of the boys, would occasionally steal their best vegetables.
(2) Other plats for working in common.--Besides the grond which was taken up by the 12 plats and the paths between them. the inclosure contained space for two other purposes.
(a) Along the south side there is a border about 100 feet in length and 10 in width for growing certain vegetables which will not lend themselves readily to separate treatment in the 12 plats, such as asparagus, marrow [gourds], and seakale. Here too are plarted several pot herbs, such as thyme, sage, marjoram, etc., and also seedlings to be pricked out later in the other plats, such as lettuce, celery, leeks, sprouts, and cabbage.
(b) At the east end of the ground there is space for 4 plats of the same size as the 12 others-namely, 30 by 10 feet-in which certain fruit trees were planted, including standard apples, pears, and plums, and also such brush fruit as currants, gooseberries, and raspberries. Room is also found for some tomatoes, a strawberry bed, and a few herbaceous flowers, by way of ornament, and some roses.

In the northeast corner a small frame 6 by 4 feet was placed for the purpose of growing seedlings, which might thas be preserved through the winter for early spring planting. In these plats the boys learned how to bud roses. to train fruit trees, and to make grafts in different ways.

Care of tools.-The ground was inclosed by a barbed-wire fence, which was stretched upon strong posts. Inside of this fence was planted a privet hedge, in which were set at intervals a few trees, such as poplars, maple, birch, and ash. At the gate of the inclosure a wooden hat was built for the accommodation of the tools and seeds. It was made of tarred boards, with a corrugated iron roof, 9 feet square, 9 feet high at the back and 6 feet in front. The floor is of brick, and shelves are provided. Each plat has a set of tools assigned to it, and each tool is numbered to correspond with the plat to which it belongs. Each set of tools hangs from a peg, which is numbered to correspond with the plat to which it belongs. The boys are taught to keep their tools scrupulously clean by aid of linseed oil and paraffin, and to put them away in an orderly manner after using them. The plat tools are adapted in size to the use of the boys, one 4 -inch Dutch hoe; one 4 -inch draw hoe; one 4 -prong [spading?] fort; one spade ( 7 by 11 inches), and one 10 toothed rake. Besides these are other tools for common use, to wit: 1 besom, 1 mallet, 2 wheelbarrows, 1 water can, 2 boat baskets, $\frac{1}{4}$ ines 60 feet in length. The plans show the details of the arrangements, which have been described.
The effeci of good and bad gardening contrasted. -The soil was originally of the worst possible description, consisting of almost pure gravel. The boys had obviously to overcome natural difficulties. Cultivation was commenced by trenching to a deptly of 2 feet, which involves digging out three spits (to the denth of three spades about). Stable manure was applied some what liberally at the bottom of the trench. The summer of 1896 was very dry, but owing to this "bastard" trenching, although there was no artificial watering, the fine growth of the crops in these plats, as compared with the scanty growth in neighboring gardens, where there twas far less labor expended, proved the truth of the old saying, justissima tellus, for " the honest earth well repaid all the toil." The produce of the gardens received certificates of merit at more than one hortic-iltural show. The contrant between the results of good and bad gardening forms a most telling object lesson, and the difference in the crops according as the boys are more or less skillful, or as they are careful or careless, is well demonstrated by the arrangement of the rows of vegetables which cross the plats in a straight line. In the report of the Woburn fruit farm for $189 \%$ a method is described of making approximate measurements of the comparative loss of growth which is due to neglect and bad method. The instructor of the Buscombe School Gardens, himself a nurseryman, is attempting to teach the boys to practice the method of measurement there described.
The young gardeners' diary and account bool. - The boys are taught to make rough notes on the ground, recording the operations of each day, the dates of planting seeds, and the names of the sorts selected. Hints are added to this instruction as to the distance between the rows of plants, and also between plants in the row, and a record is made of the kind of manure which is used and other matters. A daily record of the weather is kept and the amount of rainfa? observed and noted. The notes are afterwards worked up in a systematic form, and serve as a gardener's diary of great value for future use should the boys in later life do some gardening of their own. A few extracts from one of the diaries are given:
March 15.-Sowing onion seed. White Spanish and Bedfordshire versts champion. One row of each, 1 foot apart; made drill about 3 inches deep. After sowing the seed, raked the soil over them and patted it down with the spade.

Murch 22.-Trenching and manuring. The brood beans and pease are showing above ground.
March 16, 23, and 29.-Trenching, manuring, and weeding.
April 2.-Finished trenching in all the plats to day. Edging and weeding paths.

May 14.-Sowed one row of cabbage lettuce in the experimental plat. Dressed the cabbage plants with four different kinds of artificial manure, namely: Two rows with nitrate of soda, two rows of nitrate silicate, two rows with native guano, one row with ichthemic guano.

Each boy sold the produce of his own plat, and the money so earned was brought to the instructor, who received it and entered the amount in an account book, reserving a separate page for each plat. Each boy also kept an account book of his own, so that he might feel sure that he received his proper share. The money is divided, and one-half is devoted to the purchase of seeds for the next season, while the other half is given to the boys in proportion to their earnings. In this way some boys earned as much as 8 shillings in the year, while the average was about 6 shillings.

In conclusion, says Mr. Rooper, I may add that a years garden work had a strikingly beneficial effect upon the growth and physical development of the boys who had thus done their part to carry out the somewhat neglected instruction to man to go forth " and till the ground whence he was taken."

> [For the uee of trachers.]
> No. 22.

LEAFLET. ${ }^{1}$
on Natere study.
mepecially adabted to the use of chididen in schools in rural districts.

> [Prepared by the faculty of Purdue University.]

# AN EXPERIMENTAL FARM FOR YOUNG PEOPLE. 

[By Prof. W. C. Latta.]

In Leaflet No. 9 Professor Coulter told you about a school garden. If you have acted on the suggestions of that leaflet, you are beginning to realize how attractive, interesting, and instructive such a garden may become. More than this, you have learned how easily and cheaply you can beautify the school yard with flowers and vines.

[^41]President's Roon, Purdue University,
Lafayette, Ind., March 4, 1899

In this leafet I wish to show you how to have a miniature school farm, which may be made quite as interesting and instructive as the school garden.
But I fancy I hear you say, "Where can we find room for such a farm? We can't take it out of our playground. It is too small now." You are cuite right. Don't take any part of your school yard, but persuade the school authorities to provide a small enclosure-at least one rod by four in size-just outside the school yard. Doubtless some kind-hearted farmer who has not forgotten that he was once a boy will let you have the ground, and then 1 am sure you can get the school board to put a strong, close fence around it.

In this small enclosure the older boys can prepare the ground, plant the seeds, and cultivate the crops "by hand." About tho only tools you would need for this purpose would be the spade, the hoo, and the rake.

In such a piece of growad you could conduct a great many simple experinents with the farm crops. You could watch the process of germination, growth, fertilization, and development of grain, and you could also note when, where, and how insects and fungous diseases attack the several crops. By conducting these experiments you would learn many interesting facts that would prove very helpful on the farm.

It is not expected that you would be able to grow as good crops as the farmer can under more favorable conditions. You must remember that the chief object of the school farm is to get knowledge, which will, later in life, help you to become more successful farmers.

Do you know how valuable knowledge gained by careful observation and experiment really is? Just this kind of knowledge is considered so valuable that our Government expends annually neariy a million of dollars to maintain agricultural experiment stations in the several States and Territories and in the District of Coiumbia.

This vast amonnt is expended in conducting and in publisbing the results of experiments that will help the farmers to avoid mistakes and employ only the best methods. By using this experimental knowleage the farmers of the country will be enabled to sare many times this sum.

A prominent farmer of northern Indiana estimates that the farmers in his county alone might have saved one and one-half millions of dollars in the last ten years by fully using the information afforded by the experiment station and the farmers' institutes.

Experiments have shown that the stinking smut of wheat can be effectually destroyed by simple treatment with hot water. If this remedy alone were faithfully used by all farmers whose wheat is affected it would save them millions of dollars.

The farmers of Indiana amnaily expend many thoasands of dollars for new rarieties of grain in the belief that the old varieties are "running out." Many carefully conducted experiments at Purdue University and elsewhere have clearly shown that these varieties do not necessarily run out, and that the old and tried sorts, if well cared for, will generally do as well as, or better than, the new kinds for which some farmers will pay three or four prices.

The value of the experiments which you can conduct on a school farm will depend on what you undertake and how you do the work. If you begin at the wrong time, do the work in a careless manncr, or if you fail to finish what has been well begun, your observations and experiments mas have very little value; but if you will carry out even the simplest kind of an experiment from beginning to end in a careful inanner, you will surely gain some useful knowledge. More than this, you will acquire the habit of systematically taking and recording observations which will prove invaluable to you all through life.
In order to help you, I will suggest (1) a few very simple experiments that you can try in the garden at home or in some corner where they would not be dis-
turbed, and (2) how to arrange and manage a school farm, in which you could join with your schoolmates in conducting a variety of experiments.

One of the very interesting things you might do in the garden at home is to collect and plant all the varieties of peas you can get. This might include the Canada f.eld peas, the several kinds of garden peas, and the different varieties of sweet peas. Plant in drills, at least one foot apart, dropping the seeds two or three inches apart in the drill. Do all the planting in one day in the early spring, and cover about two inches deep. Note (1) when each kind "comes up;" (2) the difference between the first or seed leaves and those which follow; (3) how tall each kind grows: (4) when each kind blooms; (5) differences in the size, color, and fragrance of the flowers; (6) differences in the form and size of the seed pods and in the number of pods produced on a single plant of each kind; (7) when each kind matures. You will, of course, need supports for the taller varieties. When each variety comes into bloom it will be interesting to carefully dig up one plant of each kind and examine the roots for nodules (little rounded enlargements), which will vary in size from a pin head to a pea. The little colonies of microbes which live in these nodules have the singular power of capturing the free nitrogen of the air and of rendering it available for crops.
Most if notall of the leguminous plants (including peas, beans, clovers, etc.) have this peculiar power of "fixing" nitrogen through the agency of microscopic soil microbes, and this is one reason they are called soil-renewing crops.

This experiment would be nearly, if not quite, as interesting if made with varieties of beans or corn or potatoes.

If in addition to, or instead of, these experiments at home you desire to join with your schoolmates in making a series of experiments, the school farm will best serve your purpose. An enclosure 1 rod wide by 4 long is perhaps as large as you can well take care of "by hand." In such an enclosure you can lay out a series of 20 plats, each 1 yard square, for the small grains, and another series, each 6 feet by 7 , for corn, potatoes, etc. The accompanying diagram, containing half the plats in each series, shows how the plants may be arranged, and indicates also the number of hills or drills to each plant.

## LIST OF EXPERIMENTS.--SERIES I.

No.1. Wheat sown broadcast.
No.2. Wheat sown in drills.
Nos. 3 and 4. Rye sown as Nos. 1 and 2.
Nos. 5 and 6. Oats sown as Nos. 1 and 2.
No. 7. ${ }^{1}$ Two drills seed wheat covered $\frac{1}{2}$ inch deep and two drills seed wheat covered 1 inch deep.
No.8. Two drills seed wheat covered 2 inches deep and two drills seed wheat covered 3 inches deep.
Nos. 9 and 10. Seed oats sown as Nos. 7 and 8.
No.11. Two drills small shrunken seed wheat and two drills large piump seed wheat.
No. 12. One drill seed wheat sown September 1 to 15 , and one drill, each, seed wheat sown 2 , 4 , and 6 weeks later.
No. 13. Two drills seed wheat, 12 grains to each drill, and two drills seed wheat, 24 grains to each drill.

No. 14. Two drills seed wheat, 36 grains to each drill, and two drills seed wheat, 48 grains to each drill.
No. 1̄̃. One drill seed oats sown March 1 to 15̃, and one drill, each, seed oats sown 2,4 , and 6 weeks later.
No. 16. Two drills seed oats, 12 grains to each drill, and two drills seed oats, 24 grains to each drill.
No.17. Two drills seed oats, 36 grains to each drill, and two drills seed oats, 48 grains to each drill.
No.18. One drill, each, of red clover, crimson clover, alsike clover, and alfalfa, sown about April 1.
No. 19. One drill red clover, sown February 15 to 25 , and one drill, each, red clover sown 2,4 , and 6 weeks later.
No. 20. Four drills crimson clover sown as No. 19.

## SERIES II.

No. 1. Corn in hills, 3 grains to each hill.
No.2. Corn in hills, 4 grains to each hill.
No.3. Corn in drills, 6 grains in each drill.
No.4. Corn in drills, 8 grains in each drill.
No.5. Corn in drills, 12 grains in each drill.

No. 6. Corn in drills, planted April 20 to 30.
No. 7. Corn in drills, 2 weeks after No. 6.
No. 8. Corn in drills, 4 weeks after No. 6.
No. 9. Corn in drills, covered 2 inches deep.
No.10. Corn in drills, covered 4 inches deep.

The following are some of the many other experiments you might undertake:

1. A test of varieties of corn, oats, and wheat.
2. Treatment of seed wheat, oats, and potatoes for fungous diseases.
3. Planting large and small cuttings of̂ potatoes.
4. Planting potato cuttings, part with the "eye" up and part with the eye down.
5. Planting tip and butt kernels of corn.
6. Planting sound and defective seed corn.
7. A test of frequency and depth of cultivation of corn or potatoes.


INSTRUCTIONS.

1. Get adrice from your elders as to best time and manner of doing the work.
2. As far as possible, avoid working the ground when wet. This is very important if the soil is heavy. In early and late planting you can not always avoid this.
3. Try to get the soil well pulverized before planting or sowing.
4. Each one of the older boys should have a memorandum book, in which he should draw a diagram of the plats, and number each one in both series.
5. Under the proper date and number note when and how each plat is prepared and planted.
6. Treat the several plats of a group just alike in all respects except the point under investigation. To illustrate: If you want to learn the effect of planting seeds deep and shallow, take care that the several plats in this group are prepared alike, planted the same day, with the same kind of seed, the same number of seeds, and cultivated at the same time and in the same manner.
7. Observe when the seeds in each plat "come up," the per cent of seeds that germinate, how the young plants look, etc., and make careful notes of these and other observations under the proper numbers and dates in your memorandum book. The chief purpose of this is to acquire the habit of making close observations and carefully recording the same. Your teacher will show you how to make the notes in your book.
8. From time to time during the season make careful observations, always comparing the several plats of the group with each other, and note in your book the points of interest.
9. Be on the lookout for the first appearance of rust on wheat, oats, rye, and corn. Examine both upper and under surfaces of leaves. Note to what extent each variety is affected by rust.
10. Note what per cent of smutted heads appear in wheat, oats, and rye. Be very careful to note the effect of treatment of seed on the amount of smut present.
11. Note when and where corn smut first makes its appearance, and whether any varieties show more smatted stalks than others. Note how many of the smutted stalks produce no ears. Extend your observations to the fields of corn
near lyy. By counting stalks in the field with and without smut, and noting the per cent of ears in each lot, you may learn how the proportion of grain is affected by smut.
12. If any plants become sickly or die before they mature, try to find the cause. It is quite likely to be the work of some injurious insect. If you do not look very carefully the little fellows may escape notice. Prove that boys have "sharp eyes" by finding and capturing the culprits.
13. It will be necessary to continue operations on your school farm during the summer vacation. Six or eight of you can do this by taking "turns" on successive weeks. Why not organize a school-farm club and elect one of the older boys director of experiments? If no one of the scholars feels competent to take charge of the experiments, invite some wide-awake, progressive young farmer of the neighborhood to act as director. Your teacher will cheeríully aid you to organize and conduct such a club. You could meet each fortnight at the schoolhouse and compare notes and observations. You would find such a club both interesting and profitable.
14. In performing the experiments many puzzling questions will arise as to principles and methods of cropping. If your school farm does not give you the answers, consult the other leaflets of this series. Consuit a'so your teacher, parents, and others, and if you are not fully satisfied, write to me, and I will try to give you the desired information. I will be glad to hear from you at any time, and will be especially pleased to have you report anything of interest in connection with your school farm.
[FOR THE USE OF TEACHERS.]
No. 2.
LEAFLET
on Nature study.
especially adapted to the use of children in schools in rural districtis.
[Prepared by the faculty of Purdue University.]

THE STUDY OF THE FOLIAGE LEAF.
[By Prof. Stanley Coulter.]
The materials for "nature" study are the nearest and most conspicuous natural objects. These materials necessarily differ with the locality, with the seasons, even from day to day. It will be found, however, that in almost every locality the greater part of these studies will be connected with plant forms. The reasons for this are very apparent. Plants are living things and life appeals to the child. The material for the studies is convenient and abundant. Plants have a fixed position, allowing the effect of varying conditions to be readily seen and understood. The life cycle is so short that all of its phases may be observed in a single school year. Beyond this it is to be remembered that plants stand as the visible sign of the agricultural capacity of any region, giving us direct report of the character of its soil and climate; that they are intermediaries between unorganized matter and animal forms, and that they have profound economic importance not merely in furnishing food stufis, but also in some of their forms, in absolutely conditioning public health. It is, however, because of their abundance and rela-
tive ease of preservation in any desired condition that plant forms must naturally furnish the material for a large part of nature studies.

The filowering plants are evidently the most conspicuous plant forms in any region, and of these the foliage leaf is the most conspicuous part. From the earliest spring, when it begins to unfold its blade of delicate green, until it falls clothed in antumnal brilliance, it is the dominating feature of the plant. For this reason this leaflet is intended to suggest how the foliage leaf may be used as an object for nature study in such a way that all work done will have a definite purpose and an equally definite value.

Eoliage leaves are so variant in general appearance, in position, in size and general outline, that it seems necessary to determine what characters are common to allsuch organs. The following general characters will be found to apply to all foliage leaves however diverse they may be in appearance:

1. The foliage leaf is a lateral organ of the stem. It is found apon no other part of the plant body.
2. The foliage leaf is characteristically green, due to the presence of chlorophyll, which is developed only in the presence of sunlight.
3. The foliage leaf is an expanded organ, giving the greatest possible surface exposure to light and atmospheric conditions. Other parts of the plants are mass structures, not surfaces.
It is very evident from these common characters that the foliage leaf is an organ adapted for the light relation. The value of this conception of the foliage leaf in nature studies can searcely be overestimated. Its application readily and clearly explains peculiarities of form, of position, of lobing, and the great mass of adaptations characteristic of plants growing under differing conditions. It explains in a general way plant outlines, and will be found to render clear many apparently puzzling conditions.

Beiore illustrating the above points specifically, it will be well to consider briefly the work of the leaf. This work may be grouped under four heads:

1. Transpiration, or the interchanges of moisture between the interior of the plant and the external air. The result of transpiration, which is after all apparently little else than evaporation, is to aid in the transfer to the leaves of the nutrient water taken from the soil by the roots.
2. Respiration, or breathing. Those gaseous interchanges between the plant and the air through which oxygen is taken up by the plant and carbon dioxide returned to the air.
3. Carbon fixation, or those processes through which, under the influence of light, carbon dioxide taken from the air is broken down, the carbon being retained and built into the tissues of the plant, while a porsion at least of the oxygen is returned to the sir.
4. Photo-syntax, or those processes through which, under the infuence of the light, the crude food materials derived from soil and air are transformed into substances suited to the needs of the plant.

While for the purposes of this leafiet only one of these uses, that of transpiration, will be considered, the others have been given to show how essential the light relation is to the foliage leaf if it accomplish its assigned work. The ioliage leaf then is not merely an ornamental appendage to the plant, its vaxious peculiarities being considered as the result of chance, but a working organ intimately concerned with the most important duties in the individual life of the plant.

Let us now examine some of the ways in which this light relation is secured. One of the forms, often seen, especially in the early spring, is that known as the "rosette" arrangement. The foliage leaves are apparently arranged radially, lying flat upon the ground, and in the absence of the stem, seeming at first glance quite unlike organs for light relation. Common plants with this arrangement are the mullein and plantain. If the leaves in this arrangement are without
leafstalks, it will be found that in almost every case they are broader at the apex than at the base, a form which in definitional botanies is known as spatulate. The successive circles of leaves as they arise from the center are progressively shorter, the broader portions at the aper fitting into the spaces left between the narrowed bases of the leaves of the preceding circle. If the whole rosette be looked at from above it will be seen that scarcely any portion of the lower leaves is shaded by those above, each leaf, by its peculiar form, and the regularly diminishing size of the leaves of succeeding circles, being brought in to the most perfect light condition.
In the case of the plantain, where leafstalks are present, the same condition is brought about by the progressive shortening of the leafstalk from the lower to the upper circles of leaves. It is very evident, then, that the "rosette" arrangement is a device for securing the light relation on the part of plants with reduced stems.
Material for illastration: Common plantain, earlier leaves of mullein, shepherd's purse, dandelion.

Taking the cases where leaves are found upon a well-developed stem, the most casual examination will show device after device for securing proper light relations. So evident are they that they need not be mentioned in detail, almost every species of plant furnishing its own solution to the problem. If an ordinary erect stem is looked at from above it will be seen that the leaves are arranged in a series of fairly distinct ranks. The number of these ranks is important, since it has a direct relation to leaf form. The greater the number of ranks the narrower the leares. The smaller the number of ranks the broader the leaves. Facts evidently explained by our conception of the leaf as the organ of light relation.

Thus far it has been assumed that the leaf-bearing stem has been erect. If by any chance or by the necessities of growth it should change from the erect to the horizontal position, it is evident that to secure proper light relations the leaf position must also change. Comparisons of leaf positions upon erect and horizontal stems taken from the same plant will prove of great value in emphasizing the fact that, above all other things, the leaf must have light exposure.

Material for illustration: Erect and horizontal stems of elm, maple, linn, oak, apple, peach, cherry, catnip, wild pinks, honeysuckle, or of any plant that may be growing near at hand.

I have considered as yet only cases in which the leaves were entire, or with unbroken margins, since these furnished the simplest illustrations. In the case of lobed or dissected leaves, the conditions are somewhat different. In the simpler forms of lobed leaves, the lobing is evidently a device to prevent the shading of underlying leaves. If you recall the ordinary ivy, with its sharply angled leaves, almost geometrical in their regularity, this fact will be evident. If a growing tip of this plant, as it clings to the wall, be carefully flattened down it will be seen that the leaves fit into each other so accurately by means of these angles that on the one hand there is scarcely any perceptible shading, and on the other there is scarcely any space unoccupied by the leaf. Such accurate fitting of leaves when brought to a common plane produce what is known as leaf "mosaics," which simply serve to agair prore that the leaf is the organ of light relation. Where the leaves are much dissected, as in the case of the common ragweed, there is the same arrangement in ranks, the same arrangement of leaves in different planes as in the case of the entire leaf, but as a rule no marked diminution in the size of the leaves as we pass from the base to the top of the plant, the constant shifting of the parts of the dissected leaf and the possible play of light through the openings between the leaf parts being sufficient to prevent any portion of the underlying leaf from being continuously shaded.

Material for illustration: Ivy, geranium, star cucumber, begonia, common mallow, ragweed, or any plant with lobed or dissected leaves.
It will be seen, then, that leaf form largely determines the outline of the plant,
taken as a whole. Let us return to the mullein for a moment. It will be remernbered that the leaves are entire, the lower ones being the largest and standing nearly at right angles to the stem. As the summit is approached the leaves become gradually smaller, and at the same time more closely appressed to the stem, until at the extreme summit they are much reduces and nearly parallel to the stem. This arrangement, so evidently for the purpose of preventing shading: of lower leaves, serves to give to the whole plant a general pyramidal outhine, a form characteristic of simple plants with entire leaves. In the case of the ragweed, on the other hand, since there is no diminution in size of the upper leaves, the general outline of the plan is cylindrical, a form characteristic of plants with divided or dissected leaves.

It is evident that in genuine nature work the foliage leaf is to be studied from a new riew point. It is not to be used as a fra:ne upon which to hang definitions as to form and margin, apex and blade, but is to be considered as a working organ charged with important duties which can only be successfully performed in the presence of the light. In this view all peculiarities of position and form and structure are but devices for enabling the leaf to properly accomplish its work. The main question in every case concerning the foliage leaf is, "How is the light relation secured?"

Before considering specifically how the view of the foliage leaf as the organ of light relation serves to explain many so called adaptations to meet special conditions, it is necessary to touch very briefly upon the relation of plants to the soil. It is evident that by far the greater part of the food of the plant is derived from the soil. It is also plain from our knowledge of the structure of the plant that this food must be taken up in the form of a watery solution. It follows, therefore, that the amount of water in the soil has a very important bearing upon the food supply of the plant, and serves, perhaps, more than any other one factor to determine its structural features. Indeed, this matter of the available water of the soil is of such great import that it determines largely not merely the external form of the plant, but also modifies in a marked way its minute structure.

Based upon this dependence of plants upon and their relation to water, the plants of any given region may be separated into three groups, each showing adaptive arrangements to fit it for its place in nature:

1. Water-loving plants, or those plants which live either wholly or partly in water, or else grow in very wet soil, where the water percentage is 80 or above. This is an extreme form of vegetation, and the number of species of plants in this class in Indiana is relatively small. Technically such plants are known as Hydrophytes.
2. Dry soil or desert plants, at the opposite extreme from the water-loving plants. These plants grow in dry soil and atmosphere, the water content of the soil being below 10 per cent at its minimum. Such plants are known as Xerophytes.
3. Intermediate plants, or those adapted to medium conditions of moisture in air and soil. Such plants are known as Mesophytes, and constitute the larger portion of our native fiora.

While these differing soil conditions modify the structure of the entire plant, we wish at this time to consider only their effect upon the leaf. It is plain t'at when a plant lives in an extremely dry soil the water lost by transpiration can be replaced with extreme difficulty, and that if no check were placed upon transpiration the available water in the soil would soon be exhansted and the piant wouid die. On the other hand, when plants live in the water or in a soil rich in water, the losses from transpiration, however great, can be easily replaced. As the foliage leaf is the chief organ of transpiration, the most evident adaptations to control the process oscur in it.

Let us consider in what ways transpiration may be checked, and then see if by an application of these facts the foliage leaf will not tell to us the story of the water capacity of the soil:

1. Transpiration may be checked by reducing the size of the foliage leaf. Much less water will be evaporated in a given time from a vessel with ten square inches of exposed surface than from one with a surface exposure of one hundred square inches. So, much less transpiration will take place from a small leaf than from a large one. Think of the leaves of the water lily, of the splatter dock, of the skunk cabbage, indeed of any water or marsh plant with which you are familiar, and compare them as to size with leaves of the golden-rods or the mullein or any familiar plant living in a dry soil. You will see at once a marked contrast. In tropical regions, where water is abundant both in soil and air, the foliage leaves are very large, but as we come into the temperate regions the leaves are reduced in size until finally in desert or arctic regions they are so reduced that they almost lose the semblance of foliage leaves.
2. Transpiration may be checked by reducing the number of leaves. If you can recall any plant, say a wild rose, and compare one growing in moist soil with one growing in dry soil, you will at once see how often nature makes use of this device to prevent damage by excessive transpiration and to fit the plant to meet its conditions. And in this way, also, the leaf tells us of the water content of the soil. You know farmers and gardeners say that in wet weather their plants all run to leaf, which only means that no check need be placed upon transpiration.
3. Transpiration may be checked by thickening the outer wall of the leaf. If you compare a leaf of a plant growing in dry soil with that of one growing in very moist soil, the former will in almost every case have the thicker and tougher outer covering. This is one of nature's favorite devices for checking transpiration, and you can scarcely examine a leaf taken from a plant growing in dry soil which will not show it and at the same time tell to you the character of the soil as to its water capacity.
4. Transpiration may be checked by the leaves having a covering of hairs. This also is of frequent occurrence in nature. The common mullein is a familiar example of this method of controlling transpiration. This of course is not the only use of hairs, as may be shown in some future leafet, but it is one of their important uses.
There are other methods of checking transpiration, but we are only concerned with those which are readily apparent and can be used in nature work.

If we compare, then, the foliage leaves of plants growing under dry conditions with those of water-loving plants, the following facts are apparent:

1. The leaves are relatively small.
2. The leaves are often fewer in number.
3. The outer covering of the leaf is thicker.
4. The leaves are often clothed with hairs, which in water-loving plants are almost always wanting.

The intermediate plants show almost all conceivable variations between these extremes and are extremely sensitive to the slightest changes in soil and air moisture, recording these changes in corresponding leaf modifications. The differences in many cases in plants of the same species growing under differing conditions are so marked as to have led to the formation of distinct species, when the plant was anerely trying to tell us the story of the soil.

It is not wise, in these studies, to press the work upon a single feature too far. Continued application is an acquirement of age. The endeavor has been to call attention to a few points which may suggest to the teacher how to use the foliage leaf in nature work.

Similar studies, using some other one of the leaf functions as a basis, will doubtless suggest themseives to the teacher as this work progresses. Some of these may be treated in future leafiets snould this one prove to be helpful to the teachers of the State.

The teacher in the country school has here the greatest advantage over the teacher in the city, God's laboratories are infinitely more complete and more suggestive than man's, and eamest, honest work in these lines will develop in the pupil habits of observation which will not only be of temporary value but will be a permanent possession.

## METHODS OF PRESENTATION.

1. Develop general characters of leaf ( $p, 2$ ).

This may be done by bringing in abundant material representing different plant forms. Some of the plants should be entire, showing root as well as stem. Have the pupils tell what part of the plant is stem, what part is leaf, and what part is root. This develops easily and naturally the position of the leaf. The color of the leaf can now be considered and this followed by the leaf as a flat organ or surface. Tell the pupil to bring to the school any plants in which the leaves are not upon the stem, are not green, and are not expanded surfaces. Such exceptions will be found, but so rarely that the general characters given will be seen to be the rule.
2. Arrangement of leaves to prevent shading.
(a) Take some simple case, as the maple, the elm, the mulberry, or indeed almost any form with simple and entire leaves, being careful to se'ect erect stems. The specimens should be fresh, or the wilting of the leaves may obscure the real relations. Ask if the successive leaves as you pass from base to top of the twig are directly over each other. Does this arrangement prevent the shading of the lower leaves by those above? By abundant material of these simple forms have the child see the different ways in which this shading is prevented.

In most cases it may be necessary to suggest to the child to look at the specimen from above and not from the side.
(b) Take horizontal stems of the forms studied under (a), and have the child report upon the very apparent differences in arrangement. Ask why this difference occurs. If the answer does not suggest itself to the children, repeat the work under ( $a$ ) and (b), using different forms. Be careful not to suggest the explanation, bat allow the pupil to work it out, even though it seems to take a long time.
(c) Take the earlier leaves of the mullein, the plantain, the shepherl's purse, or the dandelion. Work out first the "rosette" arrangeinent. Then lead up to various arrangements for preventing shading. In the hands of the skillful teacher this should not be a difficult task.
(d) The case of lobed and dissected leaves had perhaps better be illustrated by the teacher. The common ivy, star cucumber, or any convenient plant with lobed or angled leaves will be found suitable.
3. The general form of the plant as determined by the leaf.
(a) To show pyramidal form of simple plants with entire leaves, take the common mullein, the shepherd's purse, or any plant growing in your region having entire leares. Have lines drawn from the tip of top leaf to the tip of bottom leaf. What is the shape of resulting figure?
(b) To show cylindrical form of plants with dissected leaves, take the ragweed, or any form easily obtained, and proceed as in ( $\alpha$ ). In both cases plants of as many kinds as possible should le examined, in order that the plant form as determined by the leaf may be seen to be the rule and not merely a chance outline. Plants in which branching does not occur, or in which it is very simple, should be chosen, as branches complicate the plant outline and render this point more difficult to work out satisfactorily.
4. The leaf as indicating differing soil conditions.
(a) Select any water or marsh plants with entire or nearly entire leaves. Suitable forms are water lily, spatter dock, arrow leaf, skunk cabbage, or marsh marigond. Have them examined with reterence to size, toughness, and thickness of outer covering of leaf, and presence or absence of hairs.
(b) Select forms of plants loving dry ground, such as the golden-rods, mustards, some of the smartweeds, indeed, any form growing in dry soil, whether its name is known or not. Examine as to same points as in (a). Compare conditions found in (a) with those in (b).
(c) Take some single form, such as the wild rose, which you find growing in moist soil, intermediate soil, and dry soil. Note changes in leaf size, leaf number, character of outer covering, and presence or absence of hairs in specimens growing in these different conditions.
5. Experimental work.
(1) To show necessity of light for the development of leaf green.
(a) Take two plants, equally vigororas, and place them in pots. Keep one in the sunlight, the other in the dark. Let all other conditions be identical. At the end of a week or ten days what differences are noticeable in the plants?
(b) Shade a portion of a vigorously growing leaf by covering with a piece of pasteboard. The pasteboard may be held in place by pins passed vertically through it and the leaf, the small wounds made by the pins not producing any injurious effects. At the end of two or three days remove pasteboard and note results. Expose the previously covered portion to the action of light for a few days and note results. In the case of young children, interest may be added by cutting the shading pasteboard into various patterns.
(2) To show that leaf green is necessary to the growth of the plant.

Continue experiment 1 (a) for two or three weeks. Note differences in size and vigor of plants.
(3) To show effect of soil moisture upon plants.

Take vigorous seedlings of Indian corn, beans, peas, or any rapidly growing plant and place in pots. Subject one plant to drought by withholding moisture from it, give to the other abundant water, being careful, however, not to drown the plant. Note the results at the end of one, two, three, and four weeks.

These suggestions are made not as laboratory directions, but merely as indications to the honest teacher of methods by which information may be secured from nature itself without the intervention of text-books. Suggestions which, it is hoped, will lead the teacher to find new meaning in that very common thing, the foliage leaf, and through this to give him the power to advance to a clearer and fuller interpretation of the life about him.

TEACHER'S LEAFLETS.
FOR USE IN THE RURAL SCHOOLS.
PREPARED BY

No. 2.
JAN. 1, 189 .

The Agricultural Experiment Station of Cornell University, Ithaca, N. Y.
[Issued under the auspices of the Experiment Station Eixtension or Nixon law. By L. H. Bailey.]

## HOW A CANDLE BURNS. ${ }^{1}$

[By George W. Cavanaugh.]

## I. Oxygen.

Light the candle and place it upon a piece of blotting paper.
Ques. What do you see burning?
Ans. The candle; or the wick and wax (or tallow).

[^42]Ques. Is anything burning besides the candle?
The answer will probably be "no." Well, let us see. Place the lamp chimney over the lighted candle, and partly cover the top by a piece of stiff paper, as in Fig. 15. Ask the pupils to observe and describe how the flame goes out: i. e.. that it is gradualiy extinguished and does not go out instantly.

Ques. Why did the flame go out?
The probable answer will be, "Because there was no air." (If there was no air within the chimney, some could have entered at the top.) Place a couple of pencils beside the relighted candle and on them the chimney as in Fig. 16.


Fig. 15.-The keginning of the experiment.


Fig. 16.-Supplying air underneath the chimney.
culture, and we therefore look upon the methods as largely experimental. We are endeavoring to determine the best way of interesting children in country life. You can give us many suggestions, and we should like a free expression of your opinions and experiences. It should be borne ia mind that the object of these lessons is not to impart direct and specific information, but to train the child in the powers of seeing and inquiring. The teacher should keep the attention of the pupil closely fixed upon the experiments, asking him to describe everything which he sees. Require that the pupil see all that is specified in this leaflet, and endeavor to lead him on to see things which are not here described. Once the inquiry is started, you will no doubt be able to conduct other similar experiments from time to time. If questions come up which you can not answer, write them to us and we may be able to help you.
We suggest that you ask your pupils to write short compositions upon these lessons and to make sketches of the observations, and that you send us some of these from time to time in order that we may learn how the experiment is working. We do not care for the best essays alone, but simply the average. The suggestions which we obtain from teachers will aid us greatly in the preparation of future leafiets. We should particularly appreciate suggestions as to the most useful subjects to be taken up in these tracts.
The materials neaded for this exercise are, a piece of candle about 2 inches long, a lamp chimney (one with a plane top is best), a piece of white crockery or window glass, a piece of fine wire about 6 inches long, a bit of quick lime about half the size of an egg, and some matches. All of these, with the possible exception of the quick lime, can be obtained in any household. If you perform the experiment requiring the lime, be sure that you start with a fresh piece of quick or stone lime, which can be had of any lime or cement'dealer. During the performance of the following simple experiments ask your pupils to describe to you what they see you do at each step. The questionsinserted in the text are offered merely as suggestions in the developing of the desired ideas. The answers, which are intended only for the teacher, are those which it is desired shall be given by the pupils.

Ques. What is the difference between the way in which the candle burns now and before the chimney was placed over it?

Ans. It flickers or dances about more.
Ques. What makes boys and girls feel like dancing about when they go out from a warm schoolroom?

Ans. The fresh air.
Ques. What makes the flame dance or flicker when the chimney is raised by the pencils?

Ans. Because it gets fresh air under the chimney.
Repeat the first experiment, in which the flame grows gradually smaller till it is extinguished.
Ques. Why now does the flame die out?
Ans. Because it had no fresh air.
Ques. Is it really necessary to have fresh air in order to keep a flame burning:
Ans. Yes; since otherwise the candle would continue to burn until it is all used up.
To prove this further, let the candle be relighted. Place the chimney over it, now having the top completely c'osed by a piece of paper. Have ready a lighted splinter or match, and just as soon as the candle is extinguished remove the paper from the chimney top and thrust in the lighted splinter.

Ques. Why does the light on the splinter go out?
Ans. Because there is no fresh air inside the chimney.
Ques. What became of the freshness that was in the air?
Ans. It was destroyed by the burning candle.
Evidently there is some decided difference between fresh air and air from which the freshness has been burned, since a flame can continue to burn only in air that has the quality known as freshness. This quality in fresh air is due to a gas which nas the name of oxygen, and which is represented by the letter $O$.

Ques. Why was the splinter put out instantly, while the candle flame died out gradually?

Ans. When the splinter was thrust in, the air had no freshness or oxygen at all. while when the candle was placed under the chimney it had whatever oxygen was originally in the air within the chimney.

Endeavor to have this point clearly understood: That the candle did not go out as long as the air had any oxygen and that the splinter was extinguished imnediately because there was no oxygen left. Relight the candle. Our second question may now be repeated:

Ques. Is anything else burning besides the candle?
Ans. Yes; the orygen of the air.
When the subject of the necessity of fresh air, and consequently of oxygen, for the burning of the candle seems to be understood, the following questions, together with any others which suggest themselves, may be asked:

What is the reason that draughts are opened in stoves?
Why is the bottom of a "burner" on a lamp always full of holes?

## II. Carbon.

Let us now observe the blackened end of a burned match or splinter. This black substance is usually known by the name of charcoal, and if handled will blacken the fingers. Try this. The same substance is found on the bottoms of kettles which have been used over a wood fire, only it is a fine powder.

Let us see what was burning when the candle was lighted besides the oxygen in the air. Relight the candle, and hold the porcelain or glass about an inch above the bright part of the flame.

Ques. What happens to it there?
Next lower it directly into the flame (fig. 17).

Ques. What is the black stuff that gets upon the giass?
Look closely and see whether it is not deposited here also as a fine powder.
Ques. Will this deposit from the candle blacken the fingers?
Instead of using the name charcoal for this black subsiance, let us call it carbon (represented by C), the better name, because there are several kinds of carbon, and charcoal is only that kind which is rather light and easily blackens the hands. Some other kinds are the diamond, coal, and black substance in lead pencils. This last kind is called graphite. These are all much harder than charcoal.
The carbon from the candle flame came mostly from the wax or tallow. Only a very small portion came from the wick.
It can not be seen in the tallow, neither can it be seen in unburned wood, and yet it can be found when the wood is partly burned. The condition in which the carbon exists in the tallow or wood may be explained in a later lesson. At present it suffices that it is there.


Fig.17.-The carbon or soot on the glass.

Why, now, is the glass blackened when held in the flame and not when held just directly above it? It is because the carbon from the candle has not been completely burned at the middle of the flame, but it is burned beyond the bright part of the flame. When the glass is held in the flame, the carbon that is not yet completely burned is deposited on it, because it is cooler than that in the surrounding flame.
A fine deposit of carbon can be had from any of the luminous parts of the fiame: and it is these thousands of little particles of carbon, getting white hot, which glow like coals in the stove and make the light. Just as soon as they are completely burned, there is no more light, the same as ccals cease to glow when burned to ashes.

## III. Carbon Dioxid.

Let us now inquire what becomes of the carbon that we find in the bright part of the flame and of the oxygen that was in the air in the lamp chimney. When the candle was extinguished within the chimney, there was no oxygen left, as shown by the lighted splinter, which was put out immediately. Neither could any of the particles of carbon be found except on the wick. Yet they both still exist within the chimney, but in an entirely different condition than before. While the cande was burning, the little particles of carbon that we find ascending in the fame are joining with the oxygen of the air and making an entirely new substance. This new substance is a gas like oxygen, and can not be seen in the air.

Ques. Of what two substances is this new substance made?
Ans. Carbon and oxygen.
What shall we call this substance? Since it is made of carbon and oxygen it ought, if possible, to have a name that will show its composition. Its name is carbon dioxid. The words carbon and oxid show of what it is made, and the prefix $d i$, which means two, shows that it contains twice as much oxygen as carbon. This is represented by the formula $\mathrm{CO}_{2}$.

Place the bit of quicklime in about half a glass of water on the day previons to the experiment. When ready for use there will be a white sediment at the bottem and a thin white scum on the top of the clear lime water. Call the attention of the pupils to this white scum, as a question about it will follow. Make a loop in the end of the piece of wire by turning it around the point of a lead penci!. Remove the scum from the lime water with a piece of paper, and insert the loop into the clear water. When withdrawn the loop ought to hold a film of clear water. Pass the wire through a piece of cardboard or stiff paper, and arrange as shown in fig. 18.

Place the chimney over the lighted candle. Lower the loop into the chimney and cover the top of the chimney with the paper. Withdraw the wire a couple of minutes after the candle goes out. Note the cloudy appearance of the film of water on the wire. The cloudiness was caused by the carbon dioxid formed while the candie was burning.

Omitting the candle, hang the freshly wetted wire in the empty chimney. Let the film of lime water remain within the chimney for the same length of time as when the candle was used. It does not become cloudy now. The cloudiness in clear lime water is a test or indication that carbon dioxid is present.

Ques. What caused the white scum on the lime water which stood over night?

Ans. Some $\mathrm{CO}_{2}$ in the air.
Ques. How does the $\mathrm{CO}_{2}$ get into the air?
Ans. It is formed whenever wood, coal, oil, or gas is burned.
The amount of $\mathrm{CO}_{2}$ in ordinary air is very small, being only three parts in ten thousand. If the lime water in the loop be left long enough in the air it will become cloudy. The reason it clouds so queckly when the candle is being burned is that a large amount of $\mathrm{CO}_{2}$ is formed. Besides being made by real flames, $\mathrm{CO}_{2}$ is formed every time we breathe out air. Renew the film of water in the loop and breathe against it gently for two or three minutes.
The'presence of $\mathrm{CO}_{2}$ in the breath may be shown better by pouring off some of the clear lime water into a clean glass and blowing into it through a straw.

An interesting question to end the lesson with is, Why does water put out a fire? The answer is, not alone because it wets, but because it cools the carbon, which must be hot in order to unite with the oxygen, and prevents the oxygen of the air from getting as near the carbon as before.

TEACHER'S LEAFLETS FOR USE IN THE RURAL SCHOOLS.

PREPARED BY

No. 3. MARCH $1,1897$.

The Agricultural Experiment Station of Cornell University, Ithaca, N. Y.
[Issued under the auspices of the Experiment Station Extension, or Nix on law. By L. H. Bailey.]

## FOUR APPLE TWIGS.

[By L. H. Batley.]
The other day, as I walked through an apple orchard for the first time since the long winter had set in, I was struck by the many different shapes and sizes of the limbs as I saw them against the bluegray of the February sky. I cut four of them in passing, and as I walked back to the house I wondered why the twigs
were all so different, and I found myself guessing whether there would be any apples next summer.

Now, I have had pictures made of these four little apple limbs. Let us look them over and see if they have any story to tell of how they grew and what they have set out to do.

## I.

One of these twigs (fig. 19) was taken from a strong young tree which, I remember, bore its first good crop of apples last year. This simple twig is plainly of two years' growth, for the "ring" between the old and new wood is seen at B. That is, the main stem from the base up to B grew in 1895 and the part from B to the tip grew in 1895. But the buds upon these two parts look very unlike. Let us see what these differences mean.

We must now picture to ourselves how this shoot from B to 10 looked last summer whilst it was growing. The shoot bore leaves. Where? There was one just below each bud; or, to be more exact, one bud developed just above each leaf. These buds did not put out leaves. They simply grew to their present size and then stopped.

What are these buds of the tip shoot proposing to do in 1897? We can answer this question by going back just one year and seeing what the buds on the lower (or older) part of the shoot did in 1896. Upon that part (below B) the buds seem to have increased in size. Therefore they must have grown last year. There were no leaves borne below these buds in 1893, but a cluster of leaves came out of each little bud in the spring. As these leaves expanded and grew, the little bud grew on: that is, each bud grew into a tiny branch, and when fall came each of these branches had a bud on its end to continue the growth in the year to come. What we took to be simple buds at $2,3,4,5,6$ are therefore little branches.

But the strangest part of this wonderful little twig has not yet been seen-the branches are of different sizes, and three of them ( $7,8,9$ ) have so far outstripped the others that they seem to be of a diferent kind. It should be


Fig. 19.-A two-year-old shoot from a young apple tree. Half size. noticed, too, that the very lowermost bud (at 1) never grew at all, but remained perfectly dormant during the entire year 1896 . It will be seen, then, that the dormant bud and the smallest branches are on the lower part of the shoot and the three strong branches are at the very tip of the last year's growth.

If, now, we picture the twig as it looked in the fall of 1895, we will see that it consisted of a single shoot, terminating at $B$. It had a large terminal bud (like those at $7,8,9,10$ ), and this bud pushed on into a branch in 1896, and three other buds near the tip did the same thing.

Why did some of these branches grow to be larger than others? "Simply because they were upon the strongest part of the shoot, or that part where the greatest growth naturally takes place," some one will answer. But this really does not answer the question, for we want to know why this portion of the shoot
is strongest. The real reason is because there is more sunlight and more room on this outward or upward end. In 1897, if this shoot had been spared, each of these four largest twigs ( $(, 8,9,10)$ would have done the same thing as the parent twig did in 1896; each would have pushed on from its end, and one or two or three other strong branches would probably have started from the strong side buds near the tips, the very lowest buds wou!d, no doubt, have remained perfectly inactive or dormant for lack of opportunity, and the intermediate buds would have made short branches like $2,3,4,5,6$. In other words, the tree always tries to grow onward from its tips, and these tip shoots eventually become ştrong branches, unless some of them die in the struggle for existence. What, now, becomes of the little branches lower down?

## II.

From another apple tree I took the twig shown in fig. 20. We see at once that it is rery unlike the other one. It seems to be two years old, one years growth extending from the base up to 7 , and the last year's growth extending from 7 to 8 ; but we shall see upon looking closer that this is not


F1G. 20.-A three-year-old shoot and the fruit spurs. Half size. so. The short branchlets at $3,4,5,7$ are very different from those in fig. 19. They seem to be broken off. The fact is that the broken ends show where apples were borne in 1890. The branchlets that bore them, therefore, must have grown in 1895, and the main branch, from 1 to 7, grew in 1894. It is plain, from the looks of the buds, that the shoot, from 7 to 8, grew last year, 1896.
Starting from the base, then, we have the main twig growing in 1894; the small side branches growing in 1835; these little branches bearing apples in 1890 , and the terminal shoot also growing in 1896. Why was there no terminal shoot growing in 1895? Simply because its tip developed a fruit bud (at 7) and therefore could not $s \in n d$ out a branch; for there are two kinds of buds-the small, pointed leaf bud and the thick, blunt fruit bud. If the branchlets, 3, 4, 5, 7, are two years old, the dormant buds $-1,2-$ must be of the same age. That is, for two long years these little buds have been waiting for some bug to eat off the buds and leaves above, or some accident to break the shoot beyond them, so that they might have a chance to grow; but they have waited in vain.

We have now found, therefore, that the little sideshoots upon apple twigs become fruit branches or fruit spurs, whilst the more ambitious branches above them are making a great display of stem and leaves.

But will these fruit spurs bear fruit again in 1897? No. The bearing of an apple is hard work, and these spurs did not have enough vitality left to make fruit buds for the next year; but they must perpetuate themselves, so that they hare sent out small side buds which will bear a cluster of leaves and grow into another little spur in 1897, and in that year these new spurs will make fruit buds for bearing in 1898. The side bud is plainly seen on spur 5 , also on spur 4 , whilst spur $\boldsymbol{r}$ has sown a seed, so to speak, in the bud at 6 . It is therefore plain why the tree bears every other year.

## III.

There was one tree in the orchard from which the farmer hat not picked his apples. Perhaps the apples were not worth picking. At any rate, the dried apples, shriveled and brown, are still hanging on the twigs, and even the birds do not seem to care for them. I broke off one of these twigs (fig. 21). Let us see how many apples this curious twig has borne. We can tell by the square-cut scars. An apple was once borne at 1 , another at 2 , another at 4, another at 5 , another at 6 , and another at 7 ; and at 7 there will be a scar when the apple falls. Six apples this modest shoot has borne! And I wonder how many of them got ripe, or how many were taken by the worms, or how many were eaten by the little boys and girls on their way to school.

A curious thing happened when the fruit was growing at 2. Two side buds started out, instead of one, and both of them grew the next year. But one of the little branchlets fell sick and died, or a bug nipped. off its end, or it starved to death; and the grave is still marked by the little stick standing up at 3. The other branchlet thrived, and eventually bore apples at 4, 5, 6, and 7.

I have said that these fruit spurs bear only every other year; then, if this branch has borne six apples, it must be tyvelve years old. The truth is that it is


Fig. 21.-A fruit spur which has jorne six apples. Half size.
about twenty years old, for some years it failed to bear; but the age can not be traced out in the picture, although any little boy or girl with bright eyes could soon learn to trace out yearly rings on the shoot itself.

## IV.

The last shoot which I got that day has a whole volume of history in it, and I can not begin to tell its story unless I should write a small book. But we wi?! trace out its birthdays and see how many apples it has borne. It is shown in fig. 22, and because it is so long I have had to break it in two several times to get it on the page. It begins at A , and is continued at $\mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}$, and F .

Let us count the yearly rings and sea how old the whole limb is. These rings are at $28,26, \mathrm{D}, 12$, 1-five of them; and as the shoot grew one year before it mace any ring, and another year made no increase in length-as we shall presently seethe whole branch must be seven years old. That is, the limb probably started in 1890. ${ }^{1}$ Let us begin, then, at A and follow it out.

18:0. Started as a spur from the main branch A, and grew to 1.
1891. Apple borne at 1. This apple did not matare, however, as we can readily

[^43]see by the smallness of the scar. In this year, two side buds developed to continue the spur the next year.
1892. Gave up its desire to be a fruit spur, and made a strong growth on to 12. For some reason it had a good chance to grow. Perhaps the farmer pruned the


Fig. 22.-A seven-year-old apple twig and its curious history. Half size.
tree and thereby gave the shoot an opportunity; or perhaps he plowed and fertilized the land. In the meantime one of the side buds grew to 3 , and the other to 7, and each made a fruit bud at its end.
1893. Shoot grew lustily - on to D. The fruit bud at 3 bore an apple, which probably matured, as shown loy the scar 2. Two side buds were lormed beneath
this apple to continue the spur next year. The fruit bud at 7 blooned, but the apple fell early, as shown by the small scar. Two side buds were formed. The buds upon the main shoot-1 to 12 -all remained dormant.
1894. Shoot grew from $D$ to beyond $E$. Side bud of 2 grew to 4 , and made a fruí bud on its end; the other side bud grew on to 5, and there made a fruit bud. Side bud of 7 grew on to 10 , and the other one to 8 , each ending in a fruit bud. Buds on old shoot-1 to 12 -still remained dormant. Some of the buds on the 1893 growth12 to D -remained dormant, but some of them made fruit spurs- $14,16,1 \tau, 18,19$, 20, 21, 22, 23.
1895. Shoot grew from beyond E to 28 . Flowers were borne at 4 and 5, but at 4 the fruit fell early, for the five or six scars of the flowers can be seen, showing that no one of them developed more strongly than the other; that is, none of the flowers "set." A fairly good fruit was probably borne at 5 . At the base of each a bud started to continue the spur next year. Upon the other spur flowers were borne both at 8 and 10. At 10 none of the flowers set fruit, but a side bud developed. At 8 the fruit partially matured, and a side bud was also developed. The buds upon the old stem from 1 to 12 still remained dormant. Some of the spurs on the 1893 growth-12 to D-developed fruit buds for bearing in 1896. Some of the buds on the 1894 growth-D to beyond E-remained dormant, but others developed into small fruit spurs. One of these buds, near the top of the 1894 growth, threw out a long shoot, starting from E , and the bud at 26 also endeavored to make a long branch, but failed.
1896. Main shoot grew from 28 to the end. The side bud below 4 (where the fruit was borne the year before), barely lived, not elongating, as seen above 3 . This branch of the spur is becoming weak and will never bear again. The side bud of 5 , however, made a fairly good spur, and developed a fruit bud at its end, as seen at 6 . The side bud of 10 grew somewhat, making the very short spur 11. This branchlet is also getting weak. The bud of 8 , however, developed a strong spur at 9. Both 11 and 9 bear fruit buds, but that on 11 is probably too weak ever to bear fruit again. In fact the entire spurs, from 1 to 6 and 1 to 9 , are too weak to be of much account for fruit bearing. This year several of the spurs along the 1893 growth-12 to D-bore flowers. Flowers were borne from two buds on the first one (at 13 and 14), but none of the flowers "set." One of the little apples that died last June still clings to the spur, at 14. A side bud, 15, formed to continue the spur in 1897. Flowers were borne at 16, 20, 21, and 23, but no apples developed. Upon 16 and 20 the flowers died soor after they opened, as seen by the remains of them. Upon 23, one of the flowers set an apple, but the apple soon died. The spurs 17 and 18 are so weak that they have never made fruit buds, and they are now nearly dead. The spurs 19 and 22 have behaved differently. Like the others, they grew in 1894, and would have made terminal fruit buds in 1895, and would have borne fruit in 1890; but the terminal buds were broken off in the fall or winter of 1894, so that two side buds developed in 1895, and each of these developed a fruit bud at its end in 1896 in the spur 19, but only one of them developed such a bud in 22. Upon these spurs, therefore, the bearing year has been changed. Upon the growth of 1894-D to beyond E-only three spurs have developed, Nos. 24, 20, and 26. These started oat in 1895, and two of them-25 and 26 -have made large, fat buds, which are evidently fruit buds. The shoot at E grew on to EE, and all the buds on its lower two-year-old portion remained dormant. On the 1895 growth-from beyond E to 28 -all the buds remained dormant save one, and this one-27-made only a very feeble attempt to grow into a spur.
The buds upon the 1892 growth-1 to 12-are still dormant and waiting for an opportunity to grow.

What an eventful history this apple twig has had! And yet in all the seven years of its life, after having made fifteen efforts to bear fruit, it has not produced
a single good apple! The fault, therefore, does not lie in the shoot. It has done the best it could. The trouble has been that the fammer either did not give the tree enough food to enable it to support the fruits, or he did not prane the tree so as to give the twig light and room, or he allowed apple scab or some other diseass to kill the young apples as they were forming. I am wondering, therefore, if, when trees fail to bear, it is not quite as of ten the fault of the farmer as it is of the trees?

FOR THE USE OE TEACHERS.
No. 4.

## LEAFLET

ON NATURE STUDY.
ESPECIALLY ADAPTED TO THE USE OF CHILDREN IN SCHOOLS IN RURAL DISTRICTS.
[Prepared by the faculty of Purdue University.]

## THE CARE OF DOMESTIC ANIMALS.

## [By Prof. C. S. Plumb.]

The purpose of this litt-e leaflet is to aid in training the powers of observation of children by studying the animal life of their daily surroundings at home. Enough suggestions are given to the teacher in this to enable one to discuss several phases of such life with the children, and inspire them with an ambition to become more familiar with the daily needs and welfare of farm animals.
Once upon a time, over a century ago, there lived in England a little boy by the name of Robert Bakewell. He lived with his parents in a stone house and helped take care of the horses, cattle, sheep, and swine on the farm. He showed an unusual interest in all of the live stock, and was with them much of his time. As he grew in years, so his interest in farm animals increased. He was rather a reticent fellow and lept his thoughts to himself. But he was a great thinker and observer. He saw that the people about him had many animais that were unworthy of their keeping. The stock grew slowly, ate much expensive food, were of ill shape, and were not profitable to their owners. And so after giving this matter much thought, Robert Bakewell began the work of improving the farm animals of his locality, in the county of Leicester. Horses, cattle, and sheep he resolved to improve to a higher standard of̈ excellence. His neighbors laughed at him, but he was not diverted from his self-assumed task. For years he worked at his problems, and finally he placed before the admiring world the improved English cart horse. Ionghorn cattle, and Leicester sheep. Then Bakewell was honored, even beyond the shores of Britain, and in later days he became known as " the father of the improved live-stock husbandry."
Note to the teacher.-You will notice that part of the leaflet is printed leaded, or with the lines far apart, and a part of it not leaded. The teacher shoald uss his discretion in the use of the closely lined matter. In most cases it will be necessary to simplify it to meet the comprehension of the children. The leaded matter may be read to the children or presented orally just as $i t i$ is. It, however, admits of unlimited amplification and discussion. In presenting it the previous knowledge and experience of the children should be drawn upon so far as possible. It is suggested that this leaflet affords material enough for a great many lessons, and that part of it should be used in the summer and part in the winter.

What led to Bakewell's success?
A natural love for animals. The faculty of observation. An ambition to improve that which he thought was inferior. The use of better methods. Persistency of purpose.
Are not all these qualities found to some degree in you? Do not the boys and girls of the farm, more often than not, love the animals with which they come in con-
tact? How can this love be turned to account as a means of education in ono direction and animal betterment in another?

Let us see. Robert Bakewell, as one engaged in caring for and improving farm animals, believed in three things:
(1) Stabling or shelter:
(2) Proper feeding and watering; and
(3) Gentie treatment.

Have you ever thought what a highly developed being the improved farm animal of to-day is? Did he not once run wild and independent? Has not the will of man greatly improved the horse, ox, cow, and pig since the days wheu they roamed wild? Seventy-five years ago the fastest horses could hardly race a mile in three minutes. Do you know what the fastest record is to-day? Where cattle run wild they produce only enough milk to raise their calves on. How much milk has the best cow you have ever heard of given in a year? In some parts of the country where the pigs run wild and have no care they are so thin and have such long legs that they call them "razorbacks," and they can almost outrun the fastest dogs. How do the best looking pigs that you see on our farms and at our fairs look, compared with a "razorback?"

Yes, it is true the farm animal of to day is an artificial one, composed of either nerves, muscle meat, or wool, and over which man has a wonderful power if he but knew it. Once shelter and care would have been an injury; now are more frequently a necessity. And so you should know the real necessity of giving farm animals the care that humanity and economy make desirable.

Would it not be well to look into the necessity of these things? Suppose we cons:der some phases of the lives of farm animals that we might give attention to and thereby add to the comfort of dumb beasts, while adding to our own knowledge of life.

Stobling or shelter.-All animals require protection from the changes of weather or other conditions to a greater or less extent. In the severe cold of winter or the heat of summer what do most animals naturally do? Do they seek for shelter? Is it for this reason in part that sheds or barns are erected? How do cattle look as they stand in the cornfields or barnyard on a cold, cloudy day in January, with a strong wind blowing? On the great prairies cattle seek the protection of groves or windbreaks, where other shelter is not provided. In the cooler northern part of the country in winter, as in Ind:ana, for example, the humane and wise man provides comertable barns or warm sheds in which his stock may be housed.

Is this important? Let us see.
Some years ago the writer conducted an experiment at the Indiana experiment station at Purdue, to see if shelter was desirable for animals in winter. Six cows were used. Three of these were given shelter from all kinds of disagreeable weather, while three were kept out, exposed to all sorts of conditions during the day, the only shelter provided being a sinall shed open on two sides. This experiment showed several things: First, that the exposed cows produced less milk each day than the sheltered; second, the exposed cows lost in weight, while those given shelter gained; third, the exposed cows ate more food than the sheltered ones; fourth, from the financial side, the sheltered cows showed nearly $\$ 13$ more to their credit than d.d the exposed ones.

The animal body is something like the boiler of an engine. The food is the fuel which creates the energy to make the body go. If this body is exposed to severe cold. then more food or fuel is necessary to keep the system up, and so the cost for food is increased.

Another thing should never be lost sight of, and that is that it is cruel to expose animals to intense cold without for hours at a time. Even in summer, when there is no breeze and the heat is excessive, all kinds of farm stock will suffer if they can not secure shelter of some lind from the sun's rays.

Suppose that we make some observations on the subject of shelter. Turn one of the horses or cows out of doors in cold winter weather, and note how it affects the appearance and the appetite. When it is stormy in winter, if possible, compare the condition of wool and skin of a flock of sheep out of doors with those kept in shelter. Ask the man who bays and sells wool what kind of a feece is
most valuable, the one from sheep running in the rain and snow or the one kept in the dry shed. In summer place some pigs in a field exposed to the sun, where they can get no shelter, and compare their appearance and comfort with those lying in the shade. In warm weather, when flies are biting badly, begin to weigh the rinik of four cows morning and night. Now, turn two of these into the pasture and keep two in a darkened stable, and see what is the influence on the milk yield and comfort of the different animals.

Food and feeding. - All true lovers of animals enjoy watching them eat. In the great zoological gardens crowds assemble to see the lions eat and to feed the monkeys peanuts and candy. There is a sense of pleasure in watching our farm animals with hearty appetite eating their grain in the manger. The most successful feeders study the appetites of their stock and enjoy giving changes of diet and noting the relish shown by the animal in eating of it.

Of the foods fed, horses prefer oats or corn. Cattle and sheep relish both of these, as well as bran and oil meal, while pigs enjoy corn or shorts or middlings best. In fact, a large share of the pigs grown in the United States are fed on corn or its products.

All classes of stock, however, enjoy and need herbage in some form, either dry or green. Horses are usually fed timothy hay and catt'e clover and corn fodder, green or dry, while sheep need clover or some kind of fine grass, as, for example, Kentucky blue grass. This last is the best pasture grass we have, though for pigs nothing is better than green clover.

Now that we know what foods are used, how shall the auinals be fed? Shall they be fed at any regular hours? Is there a gcod and a bad way to feed? Suppose we say that the best way to feed horses is to give them water first, then some grain, and last, hay. Is that right? Is that the way you do at home? I think horses should be watered before eating. That is so they will not wash their food down before they have ground it up well in the stomach. Butsuppose you ask a few men you know, who have horses, when they give them water and report on this subject.

Cattie are usually $f \in d$ their grain first, and then the hay, or coarse fodder, or pasture. Horses and cattle must be fed morning, noon, and night, although grain is not usually fed cattle at noon. Much, however, depends upon circumstances, for horses that are hard worked, or cattle that are being fattened or heavily milked, require more nutriment than do others. Sheep and pigs should be fed at morning and night; but if being fattened it is best to feed them three times a day.

It is important that all kinds of stock be fed only such an amount as will be entirely eaten, and with a relish, especially the grain. With some coarse hays or clover there always is necessarily some woody material left uneaten.

Here is a good chanc to make some observations. What do the live stock you are acquainted with eat? How much is fed them of this or that? At what hours of day are they fed? Do you know how fast they grow? There are sheep and pigs on many farms where simple feeding experiments might be conducted. Let us take two lambs about the same size, and feed one corn meal and the other ground oats, and see which will grow the best. We should have scales, and the lambs should be weighed occasionally, say once a week, and an accurate reaord kept of the growth, as well as of the amount of food eaten each week. Then, in a few weeks, it will be interesting to report on the gain in weight, how many pounds of grain were eaten, its value, and which cost the most. Will it not be easy to feed the calves the skim milk for a few weeks, weighing or measuring what they drink of it, and then report on the amount of such food a calf needs each day to grow well? Can you not show how much each 100 pounds of skim milk is worth when fed to calves or pigs? Feed them the milk, weighing what you give daily, and keeping a record of the weights of the pigs or calves. How much grain do some cows eat daily that make large amounts of milk? Will such a cow give less milk if she is fed less grain?

Watering.-Few people realize how important it is that farm animals should be watered properly. In winter they suffer most, from having to drink from icy pools or troughs, so that if they get enough to satisfy thirst, they are frequently chilled all through. With cold air all about the exterior of the body and ice water
within, the temperature of the body is reduced, and then more food (fuel) is required in the furnace to warm up the body to the necessary point again.

Do you think animals prefer warmed water in winter? Mr. Gurler, in his book, American Dairying, tells of a case where some young heifers jumped into is water trough to get where the water was coming warm froin a pipe. He says his cows, when given water slightly warmed, keep in better condition and give more milk. I have seen cows go to a stream of water fiowing along icy shores and drink and then stand humped up and shivering as though suffering from ague. They were chilled through.
A cow will easily drink 50 pounds a day of water at a temperature of 60 degrees, but if at 35 degrees, she will not drink all she needs, and will turn away chilled, yet thirsty. Do you know how a cow looks containing 50 pounds of ice water?
Teach the necessity of giving the farm stock water that is pure and clean, and which in winter has the chill removed from it. Filthy water usually carries disease germs and may cause serious sickness. Thousands, yes millions, of pigs have died from disease through drinking water that was contaminated with cholera germs. The sheep and pig need as pure water to drink as the horse or cow, and they require plenty of it at all times.
Would you not be interested to learn something about this important subject? How much will our farm animals drink at a time? A bucket of water on the scales may be weighed before and after drinking. Will more warm water be drunk than cold? Place a pail of very cold and one of very slightly warm water before the horse on a cold winter day and see which he will drink first. How much water does a sheep drink at a time? How much water will a horse drink in a week? Will a horse that is working hard drink more than one standing in the stable? How much more water will a large horse drink than a small one? Do you know of any men who have heaters in their water troughs in winter, so that their stock may have warm water? If so, ask them how they like these heaters.

Gentleness is a most important thing to observe when among animals if one desires to secure the best results in handling them. The man who has the pigs under his feet whenever he goes into the lot where they are by his quienness and gentleness has taught them that he is their friend. Such a person usually knows how to feed profitably and raise stock successfully. The man who sits by the nervous cow and quietly soothes her with a gentle voice while milking, instead of using harsh measures, secures more milk and enjoys the company of the beast more than would the man who would "teach her a lesson." No dumb animal was ever improved in disposition or made more profitable to the owner by the adoption of brutal or unnecessarily severe measures. The most successful feeders of stock are invariably gentle in handling their animals. The man who succeeds in getting the greatest speed out of a horse on the race track is the one who rules by love, not fear.
[Bulletin 120, Cornell Agricultural Experiment Station.]
THE MOISTURE OF THE SOIL, AND ITS CONSERVATION.
[By L. A. Clinton.]
The conservation of soil moisture is one of the most important problems presented to the farmer and gardener. Hardly a season passes in which some impor $\tan t$ crop is not reduced in yield from twenty-five to seventy-five per cent because of lack of sufficient moisture to bring it to maturity. The soil may have been put in proper condition, plant food may have been supplied in the form of fertilizers, and all other conditions may have been favorable for the development of a full crop, yet with the supply of moisture deficient all this labor and expense count for little or nothing. The questions, therefore, arise, "To what extent can the amount of soil moisture be controlled?" "Is it possible to do anything to save crops from the oft-recurring droughts?"
The insufficient water supply is not due to lack of rainfall, but to its unequal distribution. The average annual rainfall in New York for the last twenty years is 37.52 inches. The lowest rainfall ever recorded in the State was in 1879, when
only 19.24 inches fell. In 1895 there was also a deficiency, only 28.66 inches being recorded. In the arid portions of Kansas a rainfall of 20 inches which is well distributed is reasonally sure of making a good crop. The loss there by surface drainage is, however, very slight, it being estimated at not more than ten per cent, or about 2 inches, leaving 18 inches for crop growth. In New York, with a rainfall of from 34 to 40 inches, nearly one-half passes off by surface drainage and is lost so far as immediate plant growth is concerned. Not only is the water lost to the crops, but it carries with it much of the soluble plant food of the suriace soil. This, then, would suggest one important step in the attempt to store up moisture. This surface flow of water must be prevented and caused to sink into the soil to supply a reservoir from which plants can secure moisture during the period of growth.

## HOW THE SOIL HOLDS ITS WATER.

That a proper understanding of the question may be reached, it is necessary to have a knowledge of the conditions under which water exists in the soil, and of the part it plays in the mysterious operations of plant growth. Water may be in one of three forms-as free, capillary, or hygroscopic water. The free water of the soil is that which flows under the influence of gravity. It is the source of supply for wells and springs. It is not directly used by plants, and its presence in the soil within eighteen inches of the surface is detrimental to the growth of most cultivated crops. It is valuable, however, because it is the supply from which capillary water is drawn.

The capillary water does not flow by gravity. It is the direct source of moisture for plants. It may be either drawn upwards or it may pass downwards, depending upon whether the soil is drier at the surface or below. In time of droughts the capillary action of the soil may be sufficient to raise the water through a distance of five or six feet, its power in this respect depending directly upon its physical condition. If the soil is coarse and cloddy and the particles are not compact, then the water can not rise to take the place of that which is carried off by evaporation or used up by plants in their growth. If, however, the soil is fine, in good condition, and homogeneous, the water passes freeiy and continuously to the surface. Notice the track of the horse on the plowed ground or the footprint of the driver, and see how the moisture comes directly to the surface, because the soil has been compacted and there is intimate capillary relation between its particles. This moist surface shows that the water is passing off from it into the air. This observation shou'd teach a lesson. The soil may be pulverized and made compact, but the capillary pores near the surface must be enlarged by tillage so as to break the capillary connections and stop the water in its upward course, and thus force it to pass off through the tissues of the plant. This loose surface stratum, two or three inches deep, is the "soil mulch" (fig. 1), of which so much has been said in recent writings.

It is the one most important means of preventing the loss of water from the scil. It breaks off the capillary pores in the soil structure and interposes between the lower moist soil and the air a layer so loose that the water cannot rise through it. This mulch may itself dry to dust, but it nevertheless protects the soil below. When soils become baked, the minute capillary pores connect directly with the atmosphere and the evaporation of water is very rapid. Hence it is exceedingly important that the crust be broken after every rain.

The hygroscopic water of the soil fiows neither under the influence of gravity nor capillarity. It is held firmly in place upon the particles of soil, and can only be driven off by a high degree of heat. Just how important this water is in the
growth of plants has not been determined, but it is probable that during severe droughts it may assist in carrying the plant over, enabling it to maintain itself until capillary action is restored.

## THE NEGESSITY OF WATER FOR GROWING PLANTS.

The importance of water to the growing plant can only be understcod. when we apprehend and appreciate how large a part of its structure is composed of water. and that even this large percentage of its composition is but a fraction of the total amount used in its development. The quantity of water entering into the structare of plants varies from sixty to as high as ninety-eight per cent of their total weight. During the entire period of growth there is a constant giving off of moisture by the foliage, and it must be made good by that which is taken up by the roots. By experiments conducted at the Wisconsin Experiment Station it has keen found that in raising oats, for every ton of dry matter produced there were recuired 529.4 tons of water; for every ton of dry matter of fimt com there were required 233.9 tons of water; for dent corn, 309.8 tons of water for every ton of dry matter. On plots atthisstation, 1.8 tons of dry matter of oats per acre represented an expenditure of 940.32 tons of water. Potatoes used $42 . \%$ tons of water per ton of dry matter. The yield of potatoes on the experiment plots of 450 bushels per acre, during the dry season of 1395 , represented an amount of water equal to $1,310.37$ tons.
Just why so much water is required by the growing plant and how it obtains this supply is not usually understood. It has been the subject of considerale research and even now presents interesting problems for further study. The roots of the plant are its feeders, and all the water ordinarily used by it passes in throagh these channels. The particles of soil hold a film of water in firm contact. The roots and rootlets of the plant, in burrowing through the soil, come into intimate relation with these soil particles (fig. 2). The finer the soil, the closer the relation established between it and the roots. The roots are thussurrounded by a thin film of water, a poution of which they are able to absorb. The water


Fig. 2.-A corn plant, showing the intimate relation between the roots and the soil particles. From iife. passes up through the tissues of the plant, carrying with it soluble plant food which is conveyed to the manufacturing or elaborating organs, the leaves. There, in the presence of sunlight, the fixation of carbon from the air takes place, and by means of the movement of the sap the now organized material is carried to all growing parts of the structure. That part of the water no longer required passes off through the breathing pores of the leaf, called stomata. As evaporation is a cooling process, there is no doubt that this loss of water has an important influence in lowering the temperature of foliage and in promoting the fixation of carbon.
As already stated, the plant roots can absorb food only in the soluble form, and the passage of a large quantity of water through their tissues is necessary to furnish the supply of mineral elements required by growth. Not only is a large quantity of moisture demanded for the direct use of the plant, but its presence in the soil is necessary in order that the plant food may be rendered available. Few soils are so lacking in fertility that they would not grow crops could the mineral
plant food which they contain be unlocked and brought into fit condition for use. This important operation, as well as nitrification-or the conversion of nitrogen compounds into the form of nitrates-can proceed only in the presence of moisture. Crops plowed under for green manuring, and barn manures, can be made available only when there is sufficient moisture in the soil to cause breaking down and decomposition. With moisture in the soil, there is a constant movement towards the piant roots to restore the equilibrium, or to make good that used by the plant. This movement of the moisture brings to the roots the soluble plant food. * * * Supply the piant with moisture, and its roots are able to set free from the particles of the soil a part of the mineral elements required for its growth. Supply even our sandy desert plains with abundant moisture, and immediately they change from a desert to a garden.

An acre of soil to the depth of 1 foot weighs approximately 1,800 tons. If 25 per cent of this is moisture, we should have 450 tons of water per acre. An acre of soil to the depth of 8 inches weighs about 1,200 tons. If 25 per cent of moisture were found here it would contain per acre 300 tons of water. Plants can maintain themselves with as low as 5 per cent of water, but their growth seems to go on most rapidly in soils whose water content is from 13 to 25 per cent.

THE CONSERVATION OR SAVING OF MOISTURE.
The means by which moisture may be conserved is as follows: By plowing and tilling, mulches, underdrainage, lessening the influence of winds, applications of lime, salt, etc., rotation of crops to increase humus, adapting the crop to the soil.

Plowing to save moisture.-As already indicated, the first step in the conservation of moisture must be the preparation of the soil so that the rain will sink down and not be carried off by surface drainage. * * *

The improvements in the plow have done much toward accomplishing this, but there is still much ignorance as to the proper use of this implement. As an implement to be used in the preparation of the soil for the reception of moisture it stands preeminent. Good plowing does not consist, as ordinarily supposed, in merely inverting a portion of the earth, but in pulverizing and fining it and burying the sod or refuse which may be on the surface. The amount of water which a soil is capable of holding depends directly upon the fineness of its particles. Then, that plow which will break and pulverize the soil most thoroughly is the one best adapted to fit the soil for holding moisture. * * * King found the rate of percolation from soils of different degrees of fineness to be as follows, the column of soil being 8 feet in height:

Time of percolation.

| Size of <br> grains. | Per cent <br> lost in 1 <br> hour. | Per cent <br> lost in z <br> hours. | Per cent <br> lost in 24 <br> hours. | Per cent <br> lost in 48 <br> hours. |
| :---: | :---: | :---: | :---: | :---: |
| Inch. |  |  |  |  |
| 0.186 | 9.10 | 10.45 | 13.05 | 13.52 |
| .073 | 7.95 | 9.47 | 12.31 | $12.7 \%$ |
| .061 | 6.23 | 9.21 | 11.71 | 11.53 |
| .045 | 1.76 | 2.83 | 7.64 | 8.44 |
| .032 | 1.28 | 1.91 | 5.83 | 6.79 |

Harrowing to save moisture.-The harrow, besides pulverizing and fining the soil for the seed bed, is most efficient in furnishing a soil mulch. The spring-tooth harrow is in reality a cultivator and its action is similar to that of the cultivator. When used as an instrument to conserve moisture, the teeth should penetrate to
the depth of about 3 inches, and to produce the best effect the ridges left by it should be leveled off by a smoother, which can now be purchased as an attachment to the harrow. The tillage of orchards by the harrow is now practiced extensively, and nothing short of irrigation will so nearly meet the demands of trees for moisture, particularly upon the heavier soils.

The Acme harrow is a most excellent implement on soils which are comparatively free from stones and rubbish. The plow-like action of its blades serves to puiverize the surface soil, to spread the loose mulch evenly, and it leaves a most excellent seed bed.

The cutaway or disk harrows may be either beneficial or of absolute injury. If the disks are so set that they cover but a portion of the surface with the mulch, they leave a ridge exposed to the action of the wind and sun and the rate of evaporation is greatly increased. The disks should be set at such an angle that the whole surface shall be stirred or covered. Their chief value lies in their cutting and pulverizing action on clay soils, but as conservers of moisture they are inferior to the Acme or the spring tooth. Soils which need the disk harrow should generally be gone over again with some shallower tool.

The mellower the soil the lighter should be the work done by the harrow. On most heavy orchard soils it will be found necessary to use the heavy tools, like the spring-tooth and disk harrows, in the spring, but if the land is properly handled it should be in such condition as to allow the use of a spike-tooth or smoothing harrow during summer. * * *

Cultivators and conservation of moisture. -The action of cultivators is not materially differens from that of the spring tooth harrow. The size of the teeth should be regulated by the work to be performed, a many-small-toothed imp'ement being preferable to a few large teeth where the object is to conserve moisture. It must be borne in mind that in a dry time the less surface exposed the less will be the evaporation. * * *

The roller in its relation to soil moisture is an impernent whose value depends largely upon local conditions. There is no tool which requires more judgment as to its proper use. On light, loose, sandy, or gravelly soils. where every effort must be made to solidify and pack the particles closely together, the roller must be used repeatedly. The difficulty of such soils is that the space between the grains are so large that the water is permitted to pass through freely and is lost by percolation. The capillary openings are so large, that there is very feeble rise of the water to take the p'ace of that used by plants and lost by evaporation. The roller lessens the size of these pores in solidifying the soil, and the capillary force is then strong enough to draw the water to the surface (fig. 3). If, now, the soil is left in this condition, it has been put in the best possible form for parting with its moisture, and it will take advantage of the opportunity, unless prevented by establishing a surface mulch. In seeding land in a dry time the soil should be rolled, in order to bring sufficient moisture to the seeds to insure germination. Where circumstances will permit, the roller should be followed by a smoothing harrow, that the surface mulch may be restored and the moisture stopped before reaching the atmosphere (fig. 4). On clay lands the roller must be used with much catation. If used immediately after grain is sown and a heavy rain following, there would be danger of the soil becoming so compact on the surface


Fig. 3.-Showing the effect of the roller in compacting the surface layer. that the tender shoots would be unable to get through, and the most direct connection would be established between the soil moisture and the air. A good method of treatment for clay is to roll before the seed is sown, then harrow and make a good seed bed, and then drill in the grain. After the plants are well up the roller may
be used again, which will bring the water to the surface where the growing plants can make use of it before it passes off by evaporation.

Herbage mulches.-The covering of the soil by a mulch of leaves or decaying vegetable matter is nature's way of conserving moisture and of restoring fertility to the soil. Go to any forest where the leares have not been burned annually and notice the mulch which covers the soil (fig. 5). The soil will be found to be moist and loose. Humus has been stored up and the covering of leaves prevents the escape of the moisture by surface evaporation. Many persons conclude that because nature tills by mulching man should do the same, but the conclusion is fallaciovs. Farm areas are too open and too much exposed to searching winds to allow of the good results which nature obtains in the seclusion and coolness of the forest. Even our largest orchards do not give us forest conditions. This herbage mulch also induces shallow rooting of trees, as sod land does. In most farm lands also it is necessary to plow or move the land at least once a year in order to sow the seed and harvest the crop, and this would destroy an herbage mulch. Aside from all this, it is impossible, except in very special cases, to secure sufficient herbage to afford an adequate mulch.

The humus of the soil is the great storehouse for nitrogen and moisture. It is the accumulation of decaying regetable or animal matter, and its presence in the soil, while not absolutely necessary to the growth of plants, is the


Fig. 4.-Showing how the soil mulch should be restored by tillage after the roller has been used. factor which makes the land congenial for the very best development of the crop. The constant use of commercial fertilizers without being supplemented by barn manures or green manuring will so reance the percentage of humus in the soil that its water-holding capacity will be considerably diminished. This humus should be liberally supplied by means of cover crops, rotations, and stable manures.

Underdrainage and how it acts as a conserver of moisture is popularly misunderstood. It is usually supposed that underdrains instead of acting as conservers of moisture, produce exactly the opposite effect. It has already been noticed that water may exist in the soil as free or capillary, and that the presence of the free


Fig. 5.-The loose mulch on forest soils. water within 18 inches of the surface is positively detrimental to the growth of mosi cultivated plants. Not oniy is it necessary that moisture be supplied, but also that the soil shall be in such condition that the air may have access to it, for a supply of oxygen as is necessary to the breaking down and decomposition of organic matter and the making of plant food available. The underdrain removes only the free water which may come too near the surface and it leares the soil above in a porous condition, so that the water of rainfall may sink down instead of being carried off by surface drainage. This rainfall water is not caught and removed by the drains in its downward course, but the drainage flow begins only when, by the accumulation of the rainfall, the level of the free water has been brought up to the level of the drain. Thus the reservoir for the supply of canillary water is kept nearer the surface during a drought and is removed a proper distance from the surface during a wet time to insure a healthy and proper development of the roots of plants.

Mineral substances as conservers of moisture.-Among the materials of commerce which are applied to soils as indirect fertilizers are lime, gypsum, and salt, all of which are thought to act as conservers of soil moisture. The application of quicklime to certain soils has been found to have a most beneficial action. When
used upon heavy clay, it causes a certain adhesion or flocculation, a binding together of the minute particles, and prevents their running at times of rains into a compact hard crust (fig. 6). It causes a more granular condition, making the soil looser and more porous, allowing the water of rainfall to permeate it more readily. As a result of the flocculation, the pores of the soil near the surface are enlarged, and it thus better serves the purpose of a mulch to hold in reserve the moisture underneath.

On sandy soils, the diffculty in conserving moisture arises from the fact that they are so open and porous that the water passes through and is lost to the plant. It would seem that an application of lime here would tend to aggravate the dificulty. On clay, the action of the lime takes place at or near the suriace, the soil being so compact that it is not washed down through the soil. In sand, the pores are so large that the lime sinks readily into the soil, and instead of finding the eliects of its application at the surface we must look for it be'ow. The binding property of lime is well known from its use in the


Fie. G.-The flocculation of the surface of clay soils by the addition of quicklime. trades. In its passage down through the particles of sand it does not proceed far lefore it probably begins to bind the grains together, and there is formed a layer somewhat impervious to water (fig. 7).

Frequent and small applications of lime have been found most beneficial. From 20 to 40 buske's per acre will usually be found to give the best results. On marshy and boggy lands which have recently been drained but


FIG. 7.-The action of lime at a few inches in depth, in sandy soils. still remain sour and full of undecomposed organic matter, the benefit derived from applying lime is very great. It breaks down the vegetable matter, neutralizes the acid, and makes plant food available. In this case its action upon the plant fool in the soil is more important than its agency in the conservation of moisture.

Windbreaks to save moisture. - The drying effects of the wind are well known when it has unbroken sweep over a farm. The loss of moisture from this cause is very great. Windbreaks are not only protection in winter but they serve equally well in summer to protect the fields. The hedgerow around a field is not, then, entirely useless, since it serves i's purpose as a conserver of moistrure. * * *

## SUGGESTIONS FOR DETERMINING THE AMOUNT OF MOISTURE IN SOILS.

It is a very easy matter to determine the amount of moisture in a soil. The only apparatus required is a pair of scales which will weigh to grains and a tube which can be driven into the soil for taking the sample. Such a pair of scales can be purchased for a small sum, and the tube may consist simply of a piece of boiler pipe about $1 \frac{1}{y}$ inches in diameter which has had the outer edge at one end beveled down to enable it ketter to le driven into the soil. Have a mark on the oatside of the tabe indicating 8 inches or 1 foot from the sharpened end, according to the depth to which it is desired to take the sample.

The sampler used by the United States Department oí Agriculture (figs. 8 and 9 ) is described as follows: "The soil-sampling tubes are made out of brazed brass tubing about seven-eighths inch internal diameter and 15 inches long. The tubing' is No. 21 Stubb's gauge. On one end a brass collar about one-fourth of aa inch wide is sweated in. The end of the tube is then turned off in a lathe, giving a rather long taper, but letting the point be the full thickness of the collar. A mark
is cut into the tube 12 inches from this cutting edge." We have used this implement with much satisfaction.

In determining the moisture in a given soil, several samples should be taken and these samples thoroughly mixed and then accurately weighed. Then subject the sample to a heat of 2120 F . for a few hours, then weigh and heat again for


FIg. 8.-The soil sampler.
one hour, then weigh again, and continue this operation until there is no further loss of weight by heating. The difference in weight between the original and the heated sample will indicate the amount of moisture which was present. Divide the difference in the weight by the first weight of the sample to determine the per cent of moisture in the original sample and multiply by 100. The following case will illustrate:

 Per cent of moisture in original sample $=.5 \div 2=.25 . \quad .25 \times 100=25$ per cent.

An interesting line of work for granges and farmers clubs would be the investigation of soil moisture.

The importance of thorough culture to conserve moisture is so great that if its value was fully realized we should experience less trouble from droughts. Far better is a season with a deficiency of rainfall, if continuous surface culture be given, than a season of abundant rains with little culture. Much wiser is he who cultivates a small farm, and cultivates it intensiveiy, than he who attempts to spread over a large area and allows his crops to suffer from droughts because the moisture which they so much need has not been saved by frequent tillage. Neglect the soil-allow the orchard to care for itself-and when the time of harvest comes the reward shall be according to the labor; but treat the soil as a living thing, care for it faithfully and intelligently, study the plants and learn their ways and the conditions under which they thrive, and give them congenial surroundings, and they will respond with a readiness that will abundantly repay the best efforts in their behalf.

## SUMMARY.

1. The average annual rainfall in New York is sufficient for the growth of profitable crops. Owing to its unequal distribution and to the loss of nearly one half of it by surface drainage, crops usually suffer from droughts.
2. The first step toward conserving moisture is to put the soil in such a physical condition that it will be pervious to water or afford a reservoir for it.
3. Water exists in the soil as fres, capillary, or hygroscopic. The free water within eighteen inches of the surface is injurious to the growth of cultivated
plants. The capillary water is the direct source of their supply and should be conserved by all possible means.
4. Capillary action of the soil depends upon the fineness of its particles and the closeness of their relation to each other. In course, loose, sandy, or gravelly soils the action is weak; in fine, well-compacted soi's it is strong.
5. When the capillary interstices or pores in the soil are continuons from the moist undersoil to the surface, the moisture rises uniformly and passes off into the atmosphere by evaporation. If, however, these interstices or pores are made very much larger near the surface, the moisture is arrested in its npward movement a result which is accomplished by light surface cultivation, which produces a "soil mulch." This mulch of loose soil answers much the same purpose as a board or carpet would in cutting off the direct connection of the capillary soil with the atmosphere. As soon as the soil becomes baked or encrusted the capillary connection with the a mosphere is renewed and another tillage is required to reestablish the soil mulch.
6. A large amount of water is necessary for the plant, as its food is in a very dilute solution, and water is aiso used in building plant tissue.
7. Moisture in the soil is necessary that nitrification and decomposition of organic matter may take place. Without is the action by which the roots are able to corrode the solid rock and set tree plant food can not take place.
8. The distribution of rainfall can not be controlled by any known means. Dependence must be placed upon irrigation and the conservation of soil moisture.
9. Irrigation is expensive, and, while entirely practicable in arid regions, yet in our section if flooding by irrigation should te followed by heavy rainfall the effect might be disastrous. Where irrigation is not a common necessity it must be secured by individual enterprise and is therefore expensive. In New York we must depend large'y upon conserving or preventing the loss of the moisture.
10. The means by which moisture may be conserved are: Judicious plowing and tillage, mulches, underdrainage, windbreaks, applications of lime, salt, etc., and adaptation of crop to the soil.
11. The absorbing or capillary power of a soil depends upon the fineness of division of its particles.
12. The plow is a most valuable implement for pulverizing and fining the soil. Fall p? owing is recommended for heavy clays, the surface to be left rough and unharrowed. Fall plowed lands


Fig.9.-The soil sampler. catch and hold the water.
13. Surface tillage should begin early in the spring as every day's delay after the soil is in fit condition means a loss of many tons of water.
14. The harrow is valuable as an implement with which to establish and maintain a surface mulch. Frequent harrowing of an orchard will greatly lessen the evaporation from the surface.
15. Where cultivators are used as conservers of moisture many fine teeth are preferable to a few coarse teeth.
16. Ridge culture is calculated to promote evaporation. To conserve moisture, practice level culture and so reduce the area exposed.
17. The roller brings moisture to the surface by compressing the soil. On luose sandy soils it is useful by compacting the particles. On clay its use may prove injurious if followed by heavy rains. Where possible it is well to follow it with a smoothing harrow to restore the mulch.
18. A surface mulch of leaves and decaying vegetable matter is nature's way of conserving moisture. It also adds humus to the soil, which is the great store house for nitrogen and moisture. An herbage mulch can rarely be used in farm areas, however.
19. Underdrains act beneficially in making soils porous above them and thus increasing their permeability; and in removing the free water and thus allowing the access of air, which is as necessary as moisture.
20. Lime, gypsum, and salt are all used as conservers of moisture. An application of lime seems to have a beneficial effect on heavy clay and on light sand. It also acts favorably on marshy, sour lands.
21. Grasses and grains should be grown on clay and loamy soils, leaving sandy and gravelly lands for cultivated crops. The humus of tilled lands may be kept up by barn manures and by green manuring.
22. The space batween the trees in orchards should be left free for tillage. A growing crop makes such a demand upon the supply of moisture that the trees may be seriously injured.
23. Determinations of soil moisture may be easily male by anyone. The importance of this line of work is called to the attention of granges, farmers' clubs, and horticultural societies.
24. The importance of thorough tillage to conserve moisture can not be made too emphatic. Deficiency in rainfall with intensified agriculture is preferable to abundant rains and neglect by the cultivator. The soil will respond in a large measure according to the treatment it receives. Neglect it and it will fail to bring forth liberal increase, but cultivate intelligently and thoroughly and it responds quickly.

## PROGRESS OF EXTENSION WORK-REPORT OF WORK DONE UNDER THE NIXON LAW OF 1897 OF THE LAWS OF THE STATE OF NEW YORK, CHAPTER $128 .{ }^{1}$

## EDUCATIONAL WORK.

It was decided at the first meeting of the faculty of agriculture to emphasize the educational work, since the Federal experiment station, a department of the College of Agriculture, was able to carry on many investigations, especially those which of necessity must extend through considerable periods of time and which require ample and permanent laboratories, equipment, and investigators, while most of the work contemplated under chapter 128 could best be carried on away from the college.

The problem of how to successfully introduce into the schools of the State a study of the fundamental principles which govern the soil, the plant, and the animal, or the study of agriculture, has been considered most carefully by many distinguished educators. This subject was long and carefully considered by the faculty of agriculture before entering upon the work. The leafiets on Nature Study which were already issued had been so kindly received and so fully appreciated that it was decided to issue others and to employ trained teachers to vis:t the schools and to attend teachers' institutes for the purpose of explaining how the subject-matter of the leaflets, as well as other similar subjects, might be used as texts by the teacher, while the iliustrations could not help but be useful to the teachers of classes in drawing. It was hoped, too, that after the teacher had given instruction on some subject intimately connected with natural objects which attract the attention of the pupil, the object having been used for a drawing in the class room, the description of such object would form a most interesting sub-

[^44]ject for compositions, which are now required in most departments of the public schools. By correlating with composition and drawing worls, the objection of an added study was removed.

It is believed that a study of the more common and familiar objects of nature leads directly to a better understanding of those lavs and phenomena which are the very foundation of improved agriculture. In the hands of the skillful teacher the leafiets may be used to impart valuable lessons in nature history and in the conservation of energy as applied to rural affains, and may, in some cases, serve to interest teacher and pupil in the economics of agriculture. Briefly stated, it is hoped that such instruction will lead logically and naturally to a greater love for rural affairs and a more rational understanding of them among the old and young both in city and in country.

Eight leafets in all have been published, electrotyped, and republished on the following subjects:

No. 1. How a Squash Plant Gets Out of the Seed. (Four editionso)
No. 2. How a Candle Burns. (Three editions.)
No. 3. Four Apple Twigs. (Five editions.)
No. 4. A Children's Garden. (Six editions.)
No. 5. Some Tent-Makers. (Four editions.)
No. 6. What is Nature-Study. (Four editions.)
No. 7. Hints on Making Collections of Insects. (Two editions.)
No. 8. The Leaves and Acorns of Our Common Oaks. (Two editions.)
The demand for these leafets is so great that other editions will be required in the near future. The work in Nature-Study has passed the experimental stage; the demand for it is far beyoud our facilities for carrying it forward.

This elucational work in agriculture divides itself naturally into six divisions: Nature-study; schools of agricuiture and horticulture; dairy instruction: lectures on special sabjects, such as the sugar-beet industry; a course of reading and instruction for farmers; publications,

There are many principles of agriculture which are well understood by the scientist but which are not familiar to the farmer. It is proposed to secure the cooperation of progressive agriculturists in the endeavor to learn how best to fit these principles into practice.

It is impossible to sharply separate these various activities, as one often orerlaps the other. Suffice it to say, that more than seven hundred lessons and lectrares have been given throughout the State by persons selected on account of their special fitness for the work in hand.

Thirty thousand teachers are enrolled on our lists and have received leafiets. and many have attended the lectures explaining the methods of presenting naturestudy work in the schools. Sixteen thousand school children have received those leafets which are especially adapted to their needs. Two thousand five liondred young farmers are enrolled in the agricultural reading course. These are assisted firom time to time by means of printed circulars which give directions and assistance to the farmer in carrying on his studies at home. From time to time question papers are sent out for the purpose of giving opportunity to the farmer to make known his needs that they may be more fully understood and met. The location of nature-study centers is showa in the diagram.

It is believed that the benefits derived from carrying the experimental work keyond the limits of the station grounds are very great. First, the data obtained are valuable. In some cases they are much more valuable than could possibly te obtained from experiments conducted at the station. In corroboration of this statement, reference is made to the bulletin on sugar beets, already mentioned. Second, the station is brought into closer touch with the farmers. Meeting them on their own farms, the station workers become better acquainted with their
peculiar surroundings and needs, and can offer more appropriate assistance than they otherwise could do. On the other hand, the farmers learn better how the station can help them and how to avail themselves of that help. Third, the experiments serve as object lessons to the farmers. As such they impress themselves upon a large class of farmers that would give little heed to a printed description of experiments conducted at the station. Fourth, the experiments have a high educational value for the farmers performing them. Perhaps, at the present

time, this is the most important consideration. There are many questions affected by soil and climate that must be decided for each locality individually, and the greatest hindrance is the want of trained experimenters to take up the work. It is hoped and believed that we shall find in various localities in the State intelligent and public-spirited farmers who, for the benefits to be derived by themselves and their fellows, will be willing to cooperate with the station in this work.

The educational work which had already been done prior to April, 189i, by

Prof. L. H. Bailey, and his associates in horticulture in the western part of the State, made it possible to secure the cooperation of more than 300 farmers in the investigations in sugar-beet culture and 203 farmers in the experiment with fertilizers. The time has come when the help of the farmers must be secured if valuable investigations are to be conducted which shall ba applicable to varied conditions. Climate, soil, environment, and needs are so variel in the State that

comparatively little help can be given unless the investigations can be conducted in the locality where the help is needed.

DAIRY HUSBANDRY.
Observations in the dairy districts led to the conclusion that this branch of agriculture needed assistance. The theory of making butter and cheese is fairly well understood, but the art, in many cases, was found to be lamentably wanting. To bridge over this gap between science and art, two expert dairymen were em-
ployed during the summer, men who not only knew much of the science, but of the art of dairy husbandry as well. These men went from factory to factory, called a few dairymen together, and gave valuabie instruction by first teaching the leading principles and then by practically applying them.

## INSTRUCTION IN AGRICULTURE IN THE RURAL SCHOOLS OF FRANCE.

## THE FRENCI PROGRAMME.

The conception of making agriculture a subject of instruction in the public schools originated in 1791 in the second legislature of the First Repuiblic-that is to say, during the period called in France "The Revolution." ${ }^{1}$ The Second Republic, that of $18 \pm 8$, was unable, in spite of its "good intentions," to do more than the "Revolution" or First Republic had done; its laws were in practice only expressions of good will. During the seventh decade of the present century France experienced an "agriculture crisis" or depression, and in 1807 a great inquiry was made with a view to relieve the situation. Among the questions asked in this effort to obtain a consensus of opinions regarding the deplorable condition of agricuiture, the most important national industry, was one which was expressed in these terms: Is the prablic school course (linstruction primaire) conducted so as to favor agriculture, and what is its influence upon the choice of a profession? As may well be imagined, a great divergency of opinion is to be observed in turning over the 500 or 600 pages of extracts given by Mr. Inspector Pinet in the work which he so diligently compiled for the students of social science, ${ }^{2}$ but Messrs. Prillieux and Schribaux, in an official report, summarize the inquiry thus:

The inquiry bore upon three main points: (1) What instraction [in agriculture] shall be given to male students in the elementary normal schools? (2) What instruction shall be given [in agriculture] in the district [comnunal] schools? (3) What instruction shall be given to adult persons in special courses which are appropriate to improve agriculture?

The samo authorities give, "en résumé," the following conciusions as deducible from the replies:

1. Establish, as soon as convenient, a course of agriculture and of horticulture in all the normal schools for men.
2. In order to make the instruction given in these courses uniform (afin de constituer l'unité de ce professorat), let the agricultural colleges be given the mission officially to train teachers for the normal schools, unless it happens that agricultural instruction has been already regularly organized in that section. These teachers should be selected from among the best students of the third year of our normal schools and sent to a school of agriculture, whence, after two or three years, they are to be drawn out to be especially charged as assistants in normal schools, both with instruction in agriculture and, in part, in the ordinary subjects pursued in those schools.
3. Distinguish between rural schools and other elementary schools, so that the usual rural school instruction in summer will permit some agricultural work (s'accorder avec les travaux des champs). ${ }^{3}$
4. Put the matter to be taught in pedagogic form (une instruction détaillée), so as to point out precisely the way (préciser la voie) which the teacher in the rural schoois jught to follow hereafter, in teaching agriculture and horticulture, and

[^45]further, annornce that, after two or three rears, questions upon agriculture and the practice of horticulture will be an obligatory part of the examination for obtaining a teacher"s certificate.
5. Class the districts (communes) of each county (literally "department") according to the kinds of crops (cultures) which dominate in each, and select, or hare written it necessary, for each of these kinds of culture text-books which shall not only be easily understood (clair), but interesting, and, in addition, recommead that these books be adopted in preference to any others, and that all copy-book models, transeribing and dictations, as well as arithmetical problems, have an agricultural application. Tinally, send the teachers out into the country, that they may know it understandingly.
6. Compare, by a rigid examination, the different elementary manuals upon agricultural instruction and agricultural reading books and adopt the best, subject to such additions, eliminations, etc., as may be thought necessary. If no kook has yet appeared sufficiently good for the purpose, let a prize be offered for one or more of the kind required.
7. Require that a garden or a plat of land (terrain) be annexed to every normal school and every rural elementary school, in order that the teacher may set the elder pupils of the school to experimenting (essayer) with fertilizers, sowing, cultivating (binage, pulverizing the soil), but especially with trimming trees, and choose horticultural operations which have been brought to their attention in their books or written exercises. Further, let the teacher at least once a week take his pupils on an agricultural investigation (promenade), and, finally, place the normal school near a farm, which may or may not belong to the department. but iu any case shall afford the students the best examples possible for their imitation.
8. Order that there shall be immediately established in each chief place of the canton or in ¿ central commune agricnitural and horticultural conferences, upon which all the teachers of the circumscription mustattend. These conferences are to be presided over, both as president and professor. by a man well instructed in agricultural science, and also capabie of imparting his knowledge to others. Any cultivator who requests permission may also be admitted to this conference.
9. Recommend to teachers to bring together during the winter evenings, if only once or twice a week, the grown-up people of their communes and give agricultural readings before them, accompanied with explanations and suggestions.
10. Fix upon a general programme or scheme which will serve as a general plan of campaign, to ke completed by the particular progiamme proposed ly the agricultural society-as the variety of culture in the different parts of France requires-and supplementis with the detailed instructions apon the methods which the teacher ought to employ, as noted in paragraph 4. Also, let there be sent out at the same time a list of practical exercises, etc.
11. Appoint in each department certain commissions whose members belong to the arricultaral society or societies of that department, and, adding to this membership the inspector of schools, let them ascertain the results of the instruction and advise the teachers.
12. Finally, establish annual competitions between the stridents of the elementary schools and those pupils in the adult classes who are worthy to be admitted, and give each teacher an honorarium, gauged according to the number of prizes obtained by his pupils, the prizes to be awarded by the agricultaral committees.

Such is the fundamental p'an upon which the Third Repubic of France has endeavored to introduce agricultural instruction into rural France, for the Second Empire collapsed in 18\%0, before an opportunity was given to it to carry out the ideas regarding agricultural education which it had in its last years found itself compelled to solicit. The essential problem of the plan is, the introduction of agricultural instruction having been decided on, to find the pearagogic form in which such instruction shall be given, peaagogic form in each of its featureswhat shall be taught, or programme; how shall it be taught, or method. The first of these falls within the province of the agricultural scientist; the second within that of the pedagogue, especially of that class whose business it is to systematize or, as the original of the above translation expresses the matter, "to constitute the unity of the professorate," or, in English idiom, teach the same thing in the same way every where, though apparently teaching local agriculture, a programm?, indeed, expedited and enhanced by the intelligent teasher, though held stationary and perhaps deteriorated by mere routine. Let us see how these features of pedagogical form have been handled in France, first confining attention to form
rather than to the agencies fixed upon as proper to introduce a rational agricultural instruction in the public elementary schools.

## 1. Pedagogic Forit, or the Programme and Methods.

We now for a time take leave of Mr. Inspector-General of Agricultural Instruction Prillieux and Professor Schribaux, who, unquestionably, are far better able to speak upon this subject than a foreigner, and go back to the 31st day of December, 1867, when Mr. Victor Duruy, now so well known abroad as an historian and in France as one of the great ministers of public instruction, was at the head of French school affairs. On the 29th of December, 1867, Mr. Duruy had ordered that the departmental educational authority should arrange the school hours in summer so that a portion of the children's time might be utilized at home, hoping thereby to prevent the withdrawal of them by parents during the summer time. On the following day, December 30, he issued a programme both for the elementary and the normal schools, and on the 31st he nominated several departmental professors of agriculture and fixed their duties, and at the same time issued an "instruction" upen the organization of agricultural teaching. But first, as to this "instruction," so far as its second and third divisions are concerned, quoting from Mr. Duruy's circular:
Mr. Préfet: I have already communicated to you the different measures proposed by the commission which was charged with the matter of organizing and developing agricultural instruction in the normal schools, the classes for adult persons, and the rural elementary schools, and I have submitted to the imperial council of public instruction such of its conclusions as I deemed it advisable to have its advice upon before stating them. I now pass in review the propositions of the commission, and notify you of the conclusions which have been arrived at in regard to them. * * *
(2) Fix upon a general programme of agriculturai teaching which shall be appropriate to local conditions of culture. Upon this proposition of the commission it is to be said that one of the principal obstacles which presents itself to the introduction of agricultural instruction in our classes is the want of a definite programme. When we examine the very large number of works which treat upon agriculture, we see very quickly how, in this vast field of agricultural science, the makers of these volumes differ about the principles of the science which it is desirable to place before children and country boys for their study. The matters which are presented by one author as fundamental are scarcely noticed by another, and not at all by a third. This one insists on the cultivation of sugar-producing plants, that one upon mulberry trees, and still another upon the exclusive culture of this or that forage plant more or less unknown. One class are very special in their point of view and their works are of no value except under special conditions or in a certain locality; the other class take such a general view that in wishing to cover everything they are not at all practical.

On the other side, every teacher has not made agriculture a special study with the intent of teaching it, and the actual condition of things in the line of agricultural science offers little inducement for them to engage in a study the principles of which are not yet fixed, as far as it is a matter of instruction. By placing in their hands a body (un ensemble) of verified principles in the form of a programme they will very soon be in a position to make a course of instruction which will produce advantageous results.

How do the schools which are especially organized for technical instruction set to work? They commence by inscribing on their programmes the fundamental laws of the science they desire to teach; then, selecting from anong its applications those which have a direct bearing upon the particular industry, they extend and develop them, and in this way young people are educated, who, by joining subsequent experience to the principles which they had been previously taught, become men who are useful to themselves and to society. ${ }^{1}$

Let us turn now to Mr. Duruy's official progranıme, which is prefaced as follows:
In view of the articles 5 and 35 of the law of March 15, 1850, and the decree of July 2,1855 , the imperial council of public instruction proceeds to determine:

Art. 1. The programme of agricultural instruction in the rural elementary schools and in the elementary normal schools shall be as follows:
(1) Vegetation, soil, climate.-A general view of vegetation, the duration of

[^46]vegetable life of vegetables, different methods of reproduction (seeds, buds, etc.). Soils, their nature and physical properties. Influence of climate and agricultural zones (régions agricoles).
(2) Principal operations in agriculture.-Fertilizing substances, tillage, écobuage (lifting and burning the turf filled with roots, etc.). Instruments of cultivation. Drainage and irrigation and watering. Sowing and transplanting. Harvesting and preservation of crops. Influence of heat and light. Breaking up pasture, etc. Inclosures, councry roads, wagons, and buildings.
(3) Crops and vegetables of interest to France.-Cereals, beans, oil, fabric and color producing plants, forage plants, pasture, curing. Roots to be used as food or in industrial processes (sugar. alcohol). Parasitic plants and animals. Bushes: (végétaux ligneux). Propagation, seed beds, grafting, etc. Fruit trees, elementary forestry.
(4) Domestic animals useful to agriculture.-General principles. Cow, horse ${ }_{2}$ pig, etc. Forvls, silkworms, bees.
(5) Agricultural economy.-Capital, renting, working on shares, proprietorship, buying and locating a farm (domaine). Rotation of crops. Influence of various. circumstances upon agricultural systems. Starting out. Bookkeeping.
(6) Horticulture (culture des jardins). -Division of horticulture in three parts, viz, fruit garden, vegetable garden, flower garden. Parasites of garden crops.

In 1880 the plan of campaign is somewhat changed. The syllabus of instructions in the normal schools is changed to read very like the matter given on page 1010 of the Report of the Commissioner of Edacation for 1889-90, under the head of "Introduction" to an agricultural course in higher elementary schools for boys, and to this the reader is referred. In 1882 instruction in agriculture was made obligatory in the rural elementary schools of France, and in 1895 a new progranme ${ }_{2}$. more specifically chemical and agricultural, was issued. This plan appears as a part of Chapter XXIV of the Commissioner"s Report for the year 1895-96, to which. the reader is referred.

The programme of 1887 is as follows:

## ELEMENTARY PRIMARY.

Elementary course ( $\%-9$ years). First lessons in the garden and school.

Middle course (9-11). Ideas applopriate to what the child has read, object lessons and excursions with the purpose of familiarizing pupil with soils, fertilizers, tillage, and common implements.

Higher course (11-13). More methodical instruction upon tiliage, implements, drainage, fertilizers of all kinds, sowing, harvesting, domestic animals, and bookkeeping. Ideas about horticulture, propagation, tree culture, and grafting.

## SUPERIOR PRIMARY.

Complementary course (boys and girls over 13). Same programme as for following, but less developed.
Higher primary schools (for boys and girls). Practical ideas about vegetation, and the duration of growth, and reproduction (seedss. buds, grafts). Different kinds of land, manures, and their use and rotation. Experience with and use of agricultural implements and machines. Principal operations in agriculture $e_{2}$ such as breaking up land, planting, transplanting, drainage, and irrigation. Principal crops of France and of the locality. Diseases of plants; parasites. Legumes, fruits, flowers; use of sash. Training and pruning fruit trees:care of domestic animals; bee culture.

> II.-SCHOOL GARDENS.
[Instructions of Jules Simon, minister of public instruction of France, dated February 25, 18\%2. I
Land designated for school gardens sometimes requires money for breaking up, manuring, and planting, which comes most frequently out of the pocket of the teacher, who is not always prepared to meet such expenses. In consequence these gardens either are not cultivated as they should be, or the iruit trees are not of the best kinds. In addition, the teacher who owns these trees takes them away with him when he is appointed to another position. This is, of course, proper, but the gardens are thus periodically depleted of trees, and the instruction in fruittree culture is either interrupted or relinquished entirely in the schools to which. the depleted garden is annexed. ${ }^{1}$

[^47]It is desirable to remove these obstacles, and to accomplish an improvement it is essential to include in the appropriation for the school buildings and grounds the cost of preparing the soil for gardening purposes, and under such conditions the trees owned by the district shall be inventoried as fixtures, and the teacher, who necessarily gathers the fruit, shall do so by virtue of his position alone. It is only in this manner that it is possible to create, to maintain, and to develop, an insiruction which tends to increase the well-being of the rural population.

I desire to add, in order to facilitate the organization or this kind of instruction in the rural public schools, that it is necessary to limit expenditures as much as possible, and this may be brought about, I am led to believe, through the normal schools which have nurseries from which scions and cuttings, as also new or useful plants, may be furnished each year; and I am convinced that the directors of these normal schools will second the effort of the minister in this matter. ${ }^{1}$
III.-The Departmental Agricultural Professor and His Course in the Normal Schools for Men.
The National Legislature of France in 1879 created a " departmental professor of agriculture," whose duties embraced the following:

1. The agricultural instruction given in the normal schools of each department and in other public schools where such instruction may be given.
2. Country meetings ("farmers' institutes"), not fewer than 26 annually.
3. Such duties as he may be charged with by the prefect of the department or the minister of agriculture and commerce.

By the law of March 23, 1882, elementary agricultural instruction in the public schools was made to comprehend the elements of the sciences and their application to agriculture, and by the decree of 1887 it was made to comprehend the first ideas about science, principally in its applications to agriculture.

PROGRAMME OF THE COURSE OF AGRICULTURE FOR FRENCH NORMAL SCHOOLS FOR MEN.
Second year of normal-school course devoted to agriculture, zootechnic, and rural economy (two hours a week): (1) Vegetable growing-study of the soil and the means of modifying its chemical composition and physical properties (manure and fertilization, irrigation, drainage, cultivation: special crops, such as cereals, legumins, etc.), and rotation of crops; (2) zootechnic-feeding places of horses, cows, sheep, and swine; and (3) rural economy-property in land, methods of exploitation and capital required, bookkeeping.
The third year of normal-school course, devoted to horticulture (fruit-tree and vegetable growing) (one hour a week): General ideas of culture planting, preparing the soil, the "plantation;" special kinds of culture of fruit trees, grape, peach, cherry, plum, pear, apple, roses, etc.; grafting; and the vegetable garden. The professor must accentuate the methods and productions of the different localities. (Subsequently this programme was changed so as to make the course consist of two lessons a week during winter to the second-year students in one class )
In his special instructions the minister of education of France observes that it is not to be understood that the normal schools are to be turned into " agronomic institutions" because agricultural instruction is given an "honorable place" in their course of study. "What is necessary," said that functionary, "is that the graduates when they become teachers shall carry to the elementary schools an exact knowledge of the soil, the means of improving it, the methods of cultivation, the management of a farm, of a garden, etc. It is sufficient if they can teach in the elementary school the elements of agriculture, give wise counsel in the neighborhood, and, if necessary, combat effectively routine and prejudice. To accomplish this it will suffice if the instruction given by the teacher is sober and clear; if the ideas of the students are rectified by visits to the best farms, by some laboratory work, and by frequent tests in the garden or demonstration field of the school. The object of the course is not to teach the business of farming, but to study the phenomena of life and the conditions of its development, to inspire a love for the country, and to develop the natural tendencies of children to become interested in flowers, birds," etc. (Decree of 1880.)

[^48]The departmental professor should not confine himself [said the French minister of public instruction in 1881] to giving merely oral instruction. He should join example to precept, operate upon the place, reenforce his lessons by demonstrations with machines or instruments, and conduct his pupils abroad to witness the results obtained by advanced methods. I have unceasingly called these facts to the attention of departmental professors each time I have had occasion to inform them of a new fact or discovery or of legislative matters necessary for the rural population to be made acquainted with, and my efiorts have already borne fruit. Several professors, recognizing the utility of these suggestions, have created experimental stations (champs), have nublished interesting reports, and organized practical demonstrations which have been appreciated by the public; but though these examples have been imitated outside of our borders, they are still too infrequently copied at home. * * * There should be no confusion between these demonstration grounds (champs de démonstration) and experimental stations-that is, establishments of experimentation (champs d'expériences ou établissements d'expérimentation). The experimental station is designed to make experiments to test doubtful or misunderstood matters, and such is the function of the agronomic stations of France; but the methods of investigation carried on at such stations require an expenditure of time in the field and laboratory not at the disposal of the departmental professor to give. The demonstration grounds are to show the facts which have been discovered and verified; in short, to disseminate the character and value of such discoveries. (There were said to be, in 1896, nearly 4,000 of these plats.)

> V.-Cause of the Failure to Accomplish the Best Results in Agricultural Instruction in France.

The teachers [say Messrs. Prillieux and Schribaux, in their official report published by the minister of public instruction, 1890] carry away to the elementary school the methods and tendencies of their normal school. If agriculture does not occupy a place of honor in that school, if the general instruction does not testify for agriculture a sympathetic feeling, it is absolutely necessary to renounce all hope of making our teachers the apostles of progress in agriculture, and it would bo wise to remove from our programmes for the rural elementary schools a branch of instruction which is taught without knowledge, without conviction, and without beneint. So far, at least, agricultural instruction in the French elementary schools has given mediocre results.
As early as 1884 the departmental professors as a body addressed the minister of public instruction, who had inaugurated an inquiry, to the following effect:
We deem it proper that the examination for a toacher's certificate should recognize more largely the instruction given by the departmental professors. More than 6 departments have now (1881) a chair of agriculture, and lessons in agriculture are given in almost all the normal schools for men, as far as the students of the second and third years are concerned. This instruction is given according to a general plan everywhere the same, which has been approved by the superior council of public instruction, and it seems right that candidates for the higher grade teachers' certificate should give a special guaranty that they are proficient in agriculture and horticulture. ${ }^{1}$

Though this deliverance has not been ignored, nevertheless it is said that the departmental professors are not satisfied with the situation.
VI.-The Farm or Practical Schools of France.
[From a report prepared by an English Parliamentary commission.]
The farm schools of France (1895) are a class of institations which correspond more or less to the model farms of Ireland, and French experience in this partictlar has not been more fortunate than Irish. In 1848 these were a class of schools greatly favored by French theorists in agricultural education, and 52 of them were established in difierent parts of France. This number has been steadily diminished by the State until there are now only 16 of them. The farm schools

[^49]were intended chiefly for the training of agricultural laborers, farm servants, and the sons of small farmers, but it has been found that the sort of knowledge there received is better acquired by service on well-managed private farms on which young laborers can earn from $\$ 50$ to $\$ 75$ a year while learning all they want to know.
There are in France 6,913,500 farmers, of whom 3,460,000 are proprietors and farmers, the other half being day laborers and servants. Out of the $3,460,000$ proprietors and farmers 8,159 cultivate farms of more than 500 acres, 20,644 between 250 and 500 acres, 115,254 between 100 and 200 acres, 259,800 between 50 and 100 acres, and $3,022,700$ less than 50 acres.
This last class contribute the backbone of the French peasantry, that wonderful race whose thrift, industry, probity, tenacity of purpose, and intelligence have excited universal admiration. This class shrank from sending their children to the farm schools, there to act as a sort of servant and simply to learn what they often could learn just as well at home. Thus it was found necessary to create a new type of school, one whose fees should not be above the means of the small farmer nor require for admission a higher preparation than was given by the elementary schools, and, further, which should receive the pupils not at the age of 17 , like the farm schools, but at 12 or 14. The first school of this kind was founded in 1872 with the aid of the departmental council of the Department of the Meuse (i.e., in English, Meuse County). The General Goverıment resolved to include them in the national system in 1875. There are now 40 of these schools. These "practical" schools are a most interesting combination of the State system with the voluntary system of Government, of Government aid with local and private initiative and support, and of central authority with local responsibility.
The practical school must be established on a farm or an estate belonging to an individual or a county council or a municipality, and must be carried on by one or other of these owners at their own expense and risk, the State supplying only the cost of the teaching and directing staff and some scholarships or bourses by way of assistance to less well-to-do pupils. The implements and other material must be provided by the locality. No encouragement is given to a large outlay on showy buildings, the existing buildings of the chateau or farm offered being almost invariably utilized. When a farm or estate has been selected by the minister of agriculture on the advice of the county council and after inspection by an agent, the proprietor or farmer is usually named director and given control of the school; and it is one of the most noteworthy results of the French system of agricultural education that in most of these cases the proprietor, a farmer, is a highly trained agriculturist possessing the diploma of the National Institute of Agronomy. [The university or post-graduate course of French agricultural instruction, see p. 998 of Report of this Bureau for 1889-90, vol. 2.] The staff usually numbers eight or nine. The director, who, if he be a professor, is paid $\$ 800$ to $\$ 1,200$, one professor at $\$ 480$ to $\$ 600$, one $\$ 400$ to $\$ 480$, one at $\$ 360$ to $\$ 440$, an assistant master and laboratory superintendent of garden work each at $\$ 320$ to $\$ 400$, a visiting veterinary officer at $\$ 120$ to $\$ 160$, and a military instructor $\$ 60$ to $\$ 80$. It is another result of a well-established system of agricultural education that a supply of fully qualified teachers is available to man these agricultural colleges and some of them decorated for services done to the science of agriculture. The aim is to train the pupils in the best forms of cultivation for their own part of the country, but the theoretical course is more uniform, including agriculture, zootechny, rural economy and engineering, physics, chemistry, botany, meteorology, zoology, geology, horticulture, entomology, a popular course in civil law, mathematics, surveying, bookkeeping, and hygiene.

## INSTRUCTION IN AGRICULTURE IN PRUSSIA.

The royal department of agriculture of Prussia in 1897 submitted to the Prussian legislature a course of study in agriculture for rural public schools which had been in successful operation as the course in agriculture for the model schools (Musterschulen) of the circle of Rybnik in Prussia.
In the Pädagogiscke Zeitung, the organ of the German Teachers' Association, this course is described, the journal taking the occasion to speak of the poor pedagogical condition of the rural schools and to ask the question, "What can the agricultural minister of each State of the German Empire do to build up the agricultural continuation schools?" and to answer the question thus: "He should improve the course with strict regard to the requirements of the agricultural calling; should provide a course for the instruction of teachers of rural schools; should supply traveling technical teachers, compile reading books, provide apparatus, and distribute prizes." The curriculum of the model "continuation" schools now being established in Rybnik "Circle" in Prussia, continues the Zeitung, is to be taught by a traveling agricultural teacher and the regular teacher. The programme is as follows:

## NATURAL SCIENCE AND AGRICULTURE.

One hour weekly.
First winter. - (1) Physics, to wit: The general properties of bodies and gravity; the sources of heat and its distribution; the thermometer; water, liquefaction, steam, ebullition, fog, dew, rain, ice, atmospheric heat phenomena. (2) Chemistry: The most important agricultural inorganic comporinds; carbonic acid, sulphuric acid, phosphoric and silicic acids, nitrogen and the air, ammonia and nitric acid, hydrogen, water (in December). Potassium, sodium, magnesium, lime, alumina, iron and its most important combinations (January). (3) Soil formation (February). (4) Fertilizers (March). (5) Agricultural plants, to wit: Useful and objectionable plants; cultivated plants, meadow plants (pasture grasses?); weeds and their destruction; the valne of a forest (die Bedeutung des Waldes) (November). Inner and outer form of plants; increasing by budding (Knospen) and seeds; conditions of germination and growth (December). Nourishment of plants (January). Irrigation and drainage (Be- und Ent-wässerung); rational preparation of the soil (February). Sowing, cultivation, and harvesting; the more important cultivated plants, including kitchen vegetables (March).
Second winter.-(1) Chemistry, the more important organic compounds, to wit: Starch, sugar, fat, albumen (November). Dairying, food, circulation of the blood, and respiration (January). (2) Physics: The lever, inclines, pulleys, specific weight, atmospheric pressure, barometer, pump, hose, siphon (February). The more important agricultural implements and mechanics (March). (3) Zoology and cattle raising, to wit: Useful and harmful animals, bony structure (Novenber). The more important breeds of domestic animals; structure of the teeth (December). Breeding, habits, and care of animals (January). Feedins animals, especially young cattle. (4) Rural economy, to wit: Concurrence of land, capital, and work; relations of grain and forage farming; rotation of crops; mutual cooperative societies and insurance (March).

# CHAPTER XXXIV. 

CONSULAR REPORTS.


#### Abstract

Contents: Gardeners' schools in Russia-School gardens in Russia-Edueational institutions and methods in Corea-Leipsic Commercial University-Commercial education at Gera, Ger-many-Weaving schools in Germany-Education in Russia-School for merchant marine in Russia-Supplemeatary education in Saxony-German studies of malarial disease-Practice of professions in Japan.


## GARDENERS' SCHOOLS IN RUSSIA.

In compliance with a request from a resident of Massachusetts the Department of State sent an instruction to various United States consular officers in Russia to forward information in regard to gardeners' schoois in that Empire. Reports have been received from Odessa, Moscow, and Warsaw. These replies appeared in Advance Sheets of Consular Reports, and are here reproduced. They will serve to supplement an article on "School gardens," Vol. 1 of this Repcrt, p. 224.

ODESSA.
United States Consul Heenan writes, on February 5, 1898:
In compliance with instructions from the Department I have the honor to transmit a report on school gardens and agricultural science in Russia. In this report I have given a brief history of the efforts made to improve the conditions of agriculture in Russia. It seemed advisable to do this, in order that the subject of school gardens should be better understood.

The system of farming in vogue among the peasantry in Russia is primitive in the extreme, the peasant believing that what was good enough for his grandfather is good enough for him. The difficulties and opposition which private and official efforts meet in Russia would scarcely be understood in the United States. It is quite safe to state that the soil which is tilled by the peasantry here, if it were tilled in a proper manner, would yield two and even three times as many bushels per acre as it does at present. How serious a competitor Russia would then be in the grain markets of the world will be easily understood, when it is remembered that its wheat crop alone in 1896 was $322,000,000$ bushels; in 1895, 397,000,000 bushels; in 1894, 445,000,000 bushels; and in 1893, 402,000,000 bushels.

The historic part of this report was taken largely from Prof. N. P. Moskalske's article on agricultural schools in Russia, which was prepared for the Columbian Exposition at Chicago in 1893. The part relating to school gardens was obtained by correspondence with various parties and by visits and conversations with others.

I have confined this report to the school gardens in the government of Ekaterinoslav, because this province is a fair example of what has been done.

The first practical school of agriculture in Russia was founded in the government of St. Petersburg, late in the last century. It was the first attempt to develop the science of agriculture in Russia. Persons of both sexes and of all classes were admitted; the full course was three years. The attempt, however, was a failure and was abandoned in 1803.

In 1822 the Agricultural Society of Moscow, in connection with the Economic Society of St. Petersburg, established at Moscow an agricultural school with an adjoining farm, where, at first, only peasants belonging to landowners were admitted. Later on, in 1835, boys of all classes had free access to the school. The qualifications of entry were that all applicants should be able to read and write and should be not less than 16 years of age. The full course was for five years, and comprised the ordinary sciences, as also geodesy, chemistry, physics, mechanics, agriculture, architecture, and bookkeeping. The aim of the school was to qualify young men to manage estates.

In 1825 a similar school was founded in St. Petersburg by the Countess Strogonov, who gave it over to the Imperial Economic Society and permitted the students to make their practical studies on her estate of 1,200 acres, in the government of Novgorod, about 60 miles from St. Petersburg. Eventually the Russian Government contributed toward the support of this school; nevertheless, as it proved to be too great a financial burden for the Countess, and as it did not show very practical results, it was closed in 1844. The same fate awaited the two agricultural schools fornded near St. Petersburg in the forties-that of Udelnoe, exclusively for peasant boys, and the St. Petersburg school, belonging to the Economic Society, exclusively for boys of the nobility. The peasant students soon left the school and returned to their old ways of farming, while the students of the other school, profiting by the rights given them by the school, entered the Government service. The committee for improving agricalture in Russia, which was founded in 1833, had great influence on the development of the science of agriculture in Russia. It was due to the influence of this organization that Government aid was secured for existing agricultural schools, and also for the establishment of new schools. In 1836 a new school was established in the town of Gorki, in the government of Mojilev, with teachers specially trained for their duties by the professor of rural economy and technology in the University of Jurjev.
The first establishment in Russia for teaching the science of gardening was founded in the Crimea in 1812 and was known as the Nikitsk Garden. The principal aim of this institution was the cultivation and acclimatization in the Crimea of the plants of southern countries. In 1828 the Magarachsk School of Viticulture was joined to the garden. Later on, two garden schools were opened, one in Penza and the other in Ekaterinoslav, and also the Imperial Botanical Garden in St. Petersburg. Of these, the Ekaterinoslav school was closed in 1859, while the others have remained in existence ever since.

The above brief summary gives the history of private effort in Russia to spread the science of agriculture. It is only since the reign of Nicholas I, when the ministry of Crown domains and agriculture was estbatished, that systematic measures for spreading the science of agriculture have been taken by the Russian Government. An agricultural school with an extensive special course, but with very limited instruction in other branches, was opened in the town of Gorki in 1840. It was divided into three sections-a lower, designed principally for peasants; a higher, called the Gorki Agricultural Institute, for furnishing educated agriculturists; and a middle, for preparing land stewards and farn bailiffs. Twenty thousand dollars was annually appropriated for the maintenance of the institution, together with the school and farm.

Young men who had finished their literary studies in a secondary school were admitted to this institution. The course was four years, during which time stu-- dents were trained in natural and agricultural sciences and were given practical lessons in farming. Those who finished the full cou"se in the institute had the same rights as those who graduated from the universities. Ir 1864 this institute
was transferred to St. Petersburg, and in 1869 the teaching of forestry received so much attention that the institute was divided into two sections-agriculture and forestry. In $18 \% 8$ the first section was closed altogether, and the school was changed into a higher school of forestry. From the foundation of the Gorki Agricultural Institute to the year 1865, when it was transferred to St. Petersburg, 499 persons had completed the full course. If the 70 students who finished the higher section le included, the total would be 569 .
The agricultural schools which were afterwards established in the various governments of Russia were chiefly molded on the Gorki Institute. For the lower instruction in agriculture the Government provided eight farms on Crown lands in the different divisions of Russia. These farms were designed for proparing young peasants to be expert farmers and for making experiments to improve the industry. Young men from 16 to 20 years of age, able to read and write, were admitted as pupils on these farms. The teaching was exclusively practical and consisted in working on the farms and in studying the best methods of agriculture. The course was for four years, and corresponded to that of the lower schoo!s, adding thereto the fundamental rules of agriculture and of veterinary surgery by simple means. Schools of these three grades also existed in Russia for teaching gardening. In the fifteen years during which farms and nurseries existed for teaching boys, the number of pupils who had finished their full course was as follows: Up to 1865 there were on the farms 2,410 pupils, and in garden establishments, up to 1869,849 pupils, of whom 518 were in garden schoo's and 331 in nurseries. These pupils, chiefly serfs, were of great use to their inasters. The records show, however, that these schools made but little improvement in the peasants method of farming, as most of the pupils on returning home continued to follow the old systems of farming. The principal reason why the teaching of these schools was not more effective was that the pupils were too little taught to study special branches. There was no elementary instraction in the natural sciences preparatory to the study of special subjects. The boys often attended these institutions not from choice, but under compulsion, and looked upon the whole course in the light of an unpleasant duty. This view was pretty general among the peasant farmers, and even among the landowners.

This brings us down to the reign of Alexander II and the liberation of the serfs in 1861, which freed the Crown peasants from the jurisdiction of the ministry of Crown domains, and resulted in a complete change in the system of developing agricultural industry in Russia. The Government soon discovered that the landowners, as well as the peasants who had been set free, were in great need of instruction in farming, and steps were taken to disseminate the science of agriculture among them. Without going too much into detail, it will suffice to state that the efforts made consisted in still further developing and increasing the number of schools. These schools were classified as higher agricultural schools, middle schools, farm schools, land-surveying schools, and garden schools.

It is not the intention in this report to do more than mention these schools and to add that they have been very successful. It is with the lower agricultural schools and the efforts to reach the peasant class that this report has to do. When the middle agricultural schools had attained a sufficient development, the ministry of Crown domains began to establish lower-grade schools. These were organized one by one, and during the ten years from 1871 to 1881 six were established. The first founded was a dairy school, opened in 1871, in the town of Edimonovo, on the River Volga. The school admitted pupils of both sexes, without any restriction as to age or qualifications. The number of pupils was over 80 per year. There was no theoretical course and no fixed plan for practical studies in the school.

The second lower school was the Goretsk Trade School, founded in 1872, for preparing workmen for making farming machines and implements. A factory and workshops were annexed to the school in which boys learned to make and mend farming implements and machinery, and for that purpose they were instraçed in joinery, wood turning and polishing, locksmith's work, soldering, and smithy work in general. The full course at this school was five years. Besides the ordinary subjects, the following were taught: Physics and general mechanics, metal and wood technology, agricultural mechanics, the construction of agricultural machines and implements, tracing, and geometric and technical drawing. The arerage number of pupils attending this school was about 50 a year, and the number who finished the full course was, on the average, 4 persons a year. The school receives $\$ 2,000$ annually from the Government.

To the category of agricultural schools established according to special regulations belongs the school in Courland, on the estate known as Alt-Saten; also the schools in the governments of Minsk, Kostroma, and Vladimir. As the organization and maintenance of these lower schools were very expensive, the number of pupils finishing the full course rather small, and the demand for expert farmers considerably increased, the ministry of Crown domains arrived at the following conclusions: That it was very important to increase the number of lower agricultural schools; that the cheapest and simplest method would be to establish them on well-organized estates, believing that theoretical teaching could be better combined with practice on such estates than on Crown lands. The law in connection with these lower schools, which was enacted in December, 1883, contains the following provisions:
(1) The aim of the lower agricultural schools is to spread among the population the fundamental principles of farming and of the trades connected therewith, principally by practical studies and work.
(2) The schools are to be founded by private persons, by zemstvos, or by societies on lands pertaining thereto, or granted by the Government for that purpose.
(3) The courses of these schools are divided into two grades, namely, a general, for the teaching of agriculture, and a special, for its different branches, such as apiculture, gardening, wine making, the dairy, etc.
(4) All the pupils are required to work gratis on the farm belonging to the school or to the founder of it, but after one year a small salary may be given them.
(5) The lower schools may be of two categories, inst and second; bet the course in both is the same, and of three years. One or two preparatory classes may be annexed to the school.
(6) Boys not younger than 14 may enter the schools of either category. Those who enter the first category must previotsly finish the course in a two-class village school. To the preparatory classes pupils of very limited education are admitted.
(i) Besides reviewing the general sciences, the pupils are to be tanght natural sciences and given a short course in agriculture.
(8) In winter the pupils study in classes, and the summer is given to practical studies.
(9) After finishing the course, the pupils, before receiving diplomas, must practice for one year on other farms.
(10) The Government contributes from $\$ 750$ to $\$ 1,800$ a year to agricultural schools, according as they belong to the first or second category and to the number of preparatory classes. This sum is given only for the maintenance of the teachers and for books.
(11) In schools supported by the Government a smaller number of pupils are admitted. A special contract is concluded with the department of agriculture
and rural industry, in which are stated the rights and obligations of the founder of the school and of the proprietor of the estate on which it is opened.
(12) Those who serve in the schools are freed from military conscription and enjoy all rights attending the civil service, and at the end of each five years' service receive from the treasury an augmentation to the amount of a fourth of their annual salary, till such time as the originally determined salary shall have been doubled.
(13) Special regulations for dairy schools have been drawn up and perfected by the minister of imperial domains, in mutual agreement with the minister of public instruction. In the regulations for these schoois the following points are noted, in distinction to the regulations of ordinary rural industrial schools:

Dairy schools may be established on all private estates where a regular dairy industry is carried on, where there are not less than 80 milch cows, and where each cow gives not less than $2, \% 00$ pounds of milk annually. The school may be either for boys or girls. The number of pupils in each school must not exceed 12. A treasury subvention is accorded, both for the salaries of tho director or directress and the teachers of the school, as well as for the maintenance of the pupils. The course of studies extends over a period of two years, followed by a supplementary term of six months to one year for practical training in other branches of rural industry.

The number of applications for permission to establish elementary schools in accordance with these requirements was so great that the ministry was not in a position to satisfy them out of the funds assigned for the purpose, notwithstanding that, including the sum of $\$ 6,000$ originally set apart in 1844 , these funds already amount to $\$ 47,000$, independent of the subsidies granted to dairy schools. Out of this sum, up to 1894 , 00 regularly founded schools have been opened. Subventions from the treasury are granted to 34 of these 50 schools, 5 of them having been founded by private contributions. The entire sum given by the Government amounts to $\$ 12,000$, making an average sum of $\$ 1,285$ foreach school, the founders expending on their own account $\$ 33,000$, and on account of the zemstros (county councils) $\$ 16,1(0$, for the maintenance of 8 schools and aid of some of the other 34 schools. Independently of this, out of the funds set apart for the dairy industry $\$ 10,000$ are granted to 5 dairy schools and 3 girls' schools for training in rural industry and domestic economy. Eight high schools are maintained without any subvention whatever from the Government.

In 31 rural and garden industrial schools the average annual number of pupils in attendance is 41 . The maintenance of these 31 schools costs the Government $\$ 33,000$. The sum expended on these schools by their founders and by the local authorities amounts in all to $\$ 64,000$. In general the maintenance and instruction of each pupil in the rural industrial schools costs the Government and the founders $\$ 72$.

The number of pupils received into dairy schocls is purposely limited, in order to secure for them a better and fuller training, both in the care of cattle and in every branch of the dairy industry. In the 5 dairy schools there are not more than 50 scholars, giving the arerage number of 11 for each school, and as $\$ 6,500$ are assigned by the treasury to these schools, it may be reckoned that each scholar costs about $\$ 118$ a year.

Besides the dairy schools already mentioned, in two of which girls are also admitted, a number off schools designea exclusively for giils have been established in different parts of Russia by the aid and with the concurrence of the Government. In these schools are received girls not younger than 16 years, and who must previously have gone through the regular course of studies at one of the national schools. They are instructed in those branches of rural and domestic industry with which women have generally to occupy themselves, namely, the
management of the dairy, bird breeding, gardening, kitchen gardening, cooking, sewing; nursing, etc. The course extends over two years. Thus, under the administration and care of the ministry of imperial domains, there are, in all, 68 rural industrial schools. The sums expended on their maintenance and the number of pupils receiving instruction in these schools are set forth in the following table:

| Class of schools. | Num ber. | Pupils. | Cost off maintenance. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { From } \\ & \text { the Gov- } \\ & \text { ern- } \\ & \text { ment. } \end{aligned}$ | From the zemstvos and founders. | Total. |
| Higher schools. | 1 | 111 | \$71,000 |  | \$71,000 |
| Secondary schools | 8 | 1,186 | 112,509 | \$18,000 | 130,500 |
| Lower schools: <br> On a special footing | 9 | 463 | 41,500 | 7,000 | 48,500 |
| On the normal footing, at work | 40 | 1,39\% | 46,000 | 68,000 | 114,000 |
| On the normal footing, at work, opened in $1893 \ldots$ | 10 |  | 7,500 | 33, 000 | 40,500 |
| Total. | 68 | 3,157 | 277, 500 | 126, 000 | 403,500 |

Besides the secondary schools of rural industry just mentioned, which are under the supervision of the ministry of imperial domains, there are similar schools under the administration of the ministry of public instruction. These are two professional schools-one in the government of Perm and the other in the government of the Taurida (Crimea).

Much attention has lately been directed to the idea that instruction in rural industry, and particularly in the garden and kitchen industry, might with profit be given to the pupils of the national schools. With this purpose in view, special classes for training teachers for the national schools were established. This training was given during the summer in the educational establishments of the ministry, and was supplemented by regular practical training under the immediate direction of the tutors of these establishments. During recent years similar classes have been opened in many of the schools of rural and garden industry.
In all, or nearly all, of the Governments of European Russia efforts are continually being made to show the peasant farmer the importance of tilling his land in a proper manner and under favorable conditions. The government or province of Ekaterinoslav, in southern Russia, is perhaps a fair example of what has been attempted and accomplished in this direction.

The Ekaterinoslav rural administration, with a view to improving peasant agriculture, has established 32 experimental fields in the 8 districts into which the province is divided, making 4 fields in each district. They are always established in the midst of fields owned by peasantry, from whom the land is rented and whose implements are used ini tilling. The fields are sown with local seeds of the best quality and much more thoroughly cleaned than the seeds sown by the peasants. All the other operations incident to gathering the harvest are carried out by hiring the same peasants who had sown the fields as day laborers or by piece work, with the object of proving to the peasants that more can be accomplished on the same soil with the same implements. By tilling it more timely and carefully the peasants may receive twice or thrice as good results as they receive at present.

This will make it possible for the peasants on the one hand to reduce the area of land sown and to allot a part for cattle grazing, and on the other hand to insure to their fields the requisite moisture, proper seasoning, and protection against the detrimental effects of drought.

Another object of the experimental fie'ds is to clearly show the importance of
the fallow strip of land in the striugle against rank weeds, in the accumulation and retention of moisture in the soil, and in the seasoning of the soil.

As it is not possible to recommend a bleak fallow, in view of economic reasons, the experimental fields contemplate usual fallows, merely broken up as early as possible in the spring. When the suminer crops have been sown and the working animals have received from seven to fourteen days' rest, the first plowing of the fallow land begins. The depth of plowing and the number of harrowings and replowings must be entirely regulated by the character of the rank weeds, the amount of moisture, and other local conditions.

Naturally, the object of this is to prepare the peasant population for the transition from a nonsystematic agriculture to a four-field culture, viz, fallow, winter crops, pasture, and summer crops, which is the simplest system, and, as a beginning, is the most suitable one as long as the peasantry complain of having too little land, as well as on account of climatic conditions.
For the management of these fields, teachers are selected in the village schools who enjoy the respect and confidence of the people and-who have either been employed in land culture or in farming for themselves, and who have voluntarily offered their services to conduct these experimental fields.

The sum of $\$ 25$ is allowed by the rural administration for each field. The total harvest return is left to the manager of the field as his remuneration. He must have an experimental field not less than 8 acres in extent, of which one-third must be fallow, the second sown with winter crops, the third with summer crops. He must render an account to the rural administration regarding the quantity of grain, etc., harvested, and that of the neighboring peasant fields, for the purpose of comparison, and must state his relations toward the local residents. All the fields are managed under the instruction and the guidance of the director attached to the rural administration of the province, and the managers of the fields give all requisite explanations to the peasants regarding the preparation of the soil, the importance of the fallow, of good seed, etc., according to the particulars imparted to them by the director.

The annual report for 1895 of the general committee for the installation of school gardens for the province of Ekaterinoslav states that out of the total number of 500 elementary village schools in the province, 227 schools had gardens or kitchen gardens, or both.

The total area under the 227 village schools was $92 \frac{1}{2}$ acres, and the area under the gardens belonging to these schools was 285 acres, making a total of $377 \frac{1}{4}$ acres.

The total number of fruit-bearing trees in these gardens was 14,974; fruit-bearing bushes (currants, gooseberries, etc.), 18,051; young trees (seedlings or saplings) for planting purposes (in nurseries), $77,0 \% 6$; total, 111,001 .

The total number of forest trees was 17,996 ; bushes not bearing fruit, 38,459; seedlings or saplings for transplanting (in nurseries), 181,855; total, 238,290. There were given to peasants for planting: Fruit trees, 13,589; forest trees, 41, 759 ; total, 55,348.

Besides this, 51 schools had apiaries and 10 had silkworm culture.
The sum of $\$ 1,568.35$ was spent by the management of these schools in the effort to promote the gardens during 1895; but it is considered quite inadequate to the actual requirements, and it has been decided to invoke the aid of the Central Government.

Owing to the scarcity of food for silkworms and the difficulty of finding a market for the cocoons, silkworm raising has proved to be totally unprofitable. Out of the 30 schoolmasters who were engaged in it in 1894 ( $1 \frac{1}{2}$ pounds of grains were hatched) only 10 continued in 1895 . At present the mulberry tree is scarce in the South Russian steppes, although it is the intention to plant it extensively for forest purposes. Should this le done, silk culture would probably be very
successful. In a country which is naturally destitute of wild berries the first endeavor should be made to grow such trees as bear them.

Bee culture seems to have a good chance of becoming a permanent success, owing to quick returns therefrom. The honey and wax find ready sale, and, besides, the bees do not require such careful protection as orchards.

Kitchen gardens are still more likely to become important, as they supply daily wants. Berry bushes and cherry trees come next in importance, because they give quicker returns and require less care than apple trees, pear trees, apricots, etc.

Vines, if properìy selected, correctly treated, and planted in suitable sites, may in time become a very important item in these school gardens, and may induce many peasants to engage in the industry.

Forest trees, it is believed, are likely to have a future only along lanes and roads, in churchyards, graveyards, etc., because, as a rule, the peasants have not sufficient land for grain growing or cattle grazing, and are not able to set aside land for forest trees which give no immediate profit.

In accordance with a request made by the director of the primary public schools to the curator of the Odessa district of public instruction, courses of silk growing and orchard culture at Ekaterinoslav and of silk growing in Slavenoserbsk were established, to last from the 13th of June to the 13th of July, 1895. For the maintenance of the teachers who came to attend the lectures during that period, the sum of $\$ 125$ was granted out of the special funds of the ministry of public instruction. In addition to this, the ministry of agriculture and state domains granted the sum of $\$ 150$ for the promotion of this object, while the rural administration of the Ekaterinoslav district gave $\$ 100$ and that of Novomoskovsk and of Slavenoserbsk $\$ 50$ each.

The courses at Ekaterinoslav were attended by 26 male and 3 female teachers and those at Slavenoserbsk by 17 male and 3 female teachers, a total of 49 persons. At the first place forty-two lectures were delivered and at the second place thirty-two. In addition, all the requisite manipulations were demonstrated and gone through. Further, at the village or borough of Ivanovka, district of Slavenoserbsk, practical instruction was given regarding apiculture, which was brougnt to a close by visiting a few model bee raisers in the vicinity. Much difficulty was experienced from the circumstance that many of the teachers, not boing practical men or acquainted with any labor in connection with the soil, are better able to grasp a public lecture than to carry out practical work, and also from the fact that obstructions are often placed in the way by villagers, who look upon this matter of horticulture, etc., as a hobby of the particular teacher and totally foreign to school education, which, in their opinion, should consist of mere kook learning. Much patience on the part of the teachers is required in explaining to such parties the great desirability of spreading practical as well as theoretical knowledge and inculcating a taste for the work in connection with every variety of gardening.

There are 50 teachers who have taken up apiculture, 20 of whom have gone through the regular series of lectures and received practical instruction, while 30 have derived all their knowledge from books. There were altogether in the 51 apiaries, of which 2 belonged to schools and all the others to schoolmasters, 1,040 hives (containing 416 hives of the old pattern, being hollowed-out tree trunks, and 024 new-pattern hives, which can be taken apart, as they are made of boards and panes of glass); 222 new swarms of bees were recorded as having been obtained on 21 bee farms, while 21 such apiaries out of this number showed a return of $3,00 \pm$ pounds of honey and 105 pounds of wax. The total outlay for 30 apiaries is given at $\$ 2,951.32$, while the annual profit is quoted at $\$ 248.25$.

It is of interest to note that some of the teachers have begun to sow small plots of ground with phacelia, reseda, melissa, and other plants of a similar nature, by which means not only more, but better, honey has been obtained than the localities in question produced before.

Instances occur in which it is related that pupils lecome greatly interested in horticulture and in the growth of trees. These avail themselves of the opportunity to plant young trees, which are always given when asked for by the pupils. The traveling inspector saw ten such gardens which he considered sufficiently satisfactory to induce him to maire application for prizes, in the shape of useful books pertaining to gardens, in order to encourage the pupils.

## EXPERIMENT STATIONS.

In conclusion, it may bo of interest to point out, with reference to stations for the experimental study of rural industry, that up to the present there are very few in Russia that will admit of comparison with those in western Europe.

Of the stations devoted to some distinct specialty and founded by the Government, may be mentioned the following:

The Tiflis silkworm rearing station, which was foanded at Tiflis in the year 188\%.
The Kharkov bacteriological station, which was established in $188 \%$ for investigating the question of the prophylactic inoculation of cattle as a remedy and preservative against the Siberian plague and other infections diseases. A sum of $\$ 2,500$ is granted yearly toward the maintenance of this station.

The chemical station for rural industries, attached to the forest corps, is chiefly devoted to investigations concerning the nature and properties of different soils.

The Cancasian experimental station, in the Koutias govermment, has for its main object the cultivation of Amer:can vines and their acclimatization in Russia.

The Government cotton plantations-one in Tashkend, in the Syr Dariensk district, and the other in the Tiflis government, on the Government estate af Karayask-are showing excellent results.

There are also two rural industrial stations, one for investigations, in the Orlov government, on the estate of Count Tolstci; the other, experimental, in the Petersburg government; aliso three establishments, under the administration of the ministry of public instraction, namely, the chemical experimental station for rural industries, attached to the polytechnic schcol at Riga; the agronomical laboratory, attached to the university at Kiev, and the technical laboratory, attached to the Kiev deparment of the Imperial Russian Technical Society.

Among the farms and grounds established by local governments and societies for promoting the experimental study of rural industries, some have either been opened on Goverament lands, of which a free grant had been made for that purpose, or else they receive a money subvention from the Government. Such are the three experimental farms founded by the zemstvos of the Perm government and the Kharkov, Poltava, and Kiev experimental grounds, as well as those established by the Viatka local authorities, the Cdessa experimental station, and the experimental ground under the administration of the Imperial Society for the Furtherance of Rural Industries in Southern Russia.

There are others which receive no Government subsidy, such as the seven stations for seed sowing in the botanical gardensat St. Petersburg, Helsingfors, Kiev, Guriev, Riga, Tver, and Warsaw.

## MOSCOW.

Under dàte of March 24, 1398, United States Consul Smith writes:
There are a number of agricaltural schools in Russia, with departments for sheep breeding, for domestic industries, and for instruction in the distillation of
wines and spirits. The Government appropriates for these schoo's 300,000 rubies $(\$ 154,200)$ annually. They are not sufficient to provide all the instruction required, and special classes for teachers have been formed, principally in the provinces of Viatka, Novozibkoff, and Livnsch; but these seem to be of short duration. In the town of Jizdra there is a yearly class, excellently conducted, for teaching gardening, fruit culture, etc.

## WARSAW.

United Stated Consul Rawicz, under date of November 12, 1897, says:
I have ascertainel that two schools for gardeners, which existed for a number of years at Warsaw and at Czenstochowa, were closed two years ago.

During the present year, however, the educational department has opened at Warsaw, at the pomological garden, a gardeners' school, to prepare instructors for the country gardeners; but, as the institution has existed only a couple of months, it is impossible to say anything about its usefulness or prosperity.

## SCHOOL GARDENS IN RUSSIA.

Under date of July 1i, 1897, United States Consul-General John Karel sends the following report:

In a good many countries of western Europe, especially in Germany, Austria, France, Belgium, Switzerland, and partly in Sweden, the public village schools have sections of land allotted to them, which are either devoted to the use of the teachers, who take the profits therefrom, or serve for the establishment of school gardens. School gardens in western Europe bear in a certain measure a scientific character. Children are made to carry out in them practically what they learn about them theoretically.

In Russia, since the ascension to the throne of Emperor Alexander II, and since the liberation of the serfs in 1861, and of the Crown peasants from the jurisdiction of the ministry of Crown domains, the system of developing agricultural industry has completely changed in everyone of its branches. It was well known that the landowners and peasants were in great need of instruction in farming; consequently schools of all kinds were established by the ministry of agriculture throughout the country. Many schools were endowed with lands, and already in 1843 , according to the regulations for public parish schools in villages of Crown peasants, sections of land for kitchen gardens, taken from the Government lands, were attached to these schools for the benefit of the teacher or his assistant. For the development of the gardening industry, schools were founded first in Penza in Bessarabia, near Kishinev, in the town of Verny of the Semirechinsk district, and in 1869 a school of gardening and viticulture was founded at Nikitsk. The work of the Nikjtsk school was divided as follows: During the winter semester there were three hours of lessons per day and four and one-half hours of practical study in the garden, vineyard, and in the cellar. During the summer semester the lessons in class lasted only one hour, or sometimes two hours, but the practical studies occupied daily six and even eight hours.

In 1875, according to the regulations of the ministry of public instruction, for one and two class schools, the opening of such schools was permitted on condition that the founder would endow any such school with not less than one desiatina ( 2.6997 acres) of land. Many village schools in Riga and Warsaw districts possess lands granted to them by the local laws to insure their maintenance, and the use of the land is given to the teacher as a part of his compensation. By giving
land to schools in those districts, and also to those in the villages of Crown peasants, no scientific aim was in view. The same question is raised now that it is proposed to grant Government lands for school needs in the newly organized villages of emigrants who settled on the free Government lands in Siberia.

The movement for developing a knowledge of gardening began in the seventies, but on account of the small interest taken in agricultural occupations many teachers did not devote their attention to school gardens, which consequently remained uncultivated and were not a source of profit. In 1887 the ministry of agriculture and Crown domains took special steps to encourage and facilitate the establishment of school gardens. They distributed plants and seeds, and to certain provinces sent expert gardeners to instruct teachers how to organize and direct garden operations. In different provinces courses in some one branch of agricultural science were organized for the purpose of acquainting the teachers (male and female) of village primary schools with the work, and to the best and most energetic were given gratis manuals on gardening (by I. I. Meschersky and W. A. Alexandrov), and other books, implements, and seeds. Besides, the ministry gave subsidies to some of the zemstvos ${ }^{1}$ for the organization of similar courses and pecuniary assistance for teaching gardening and farming in seminaries and in some of the lower schools.

For the further encouragement of teachers, the ministry began in 1895 to give, through the ministry of public instruction, to the most successful in the dissemination of agricultural knowledge premiums to the amount of 50 rubles each as a reward. In 185561 teachers received such premiums; moreover, during recent years some teachers have received medals and official acknowledgment of their labors; others, again, medals from different societies and medals at expositions. But the principal inducements for the teacher to occupy himself with gardening are the income derived from the sale of fruit trees, fruit, berries, vegetables, honey, wax, cocoons, hops, etc., and the providing of vegetables enough for himself during winter.

In some cases, and especially at the beginning, the local school administrations were not in favor of teachers occupying themselves with such work, in consequence of which the ministry of public instruction issued a circular in 1894 directing the school councils, directors and inspectors of public schools, and through them the local school administrations, to take such measures as would be found, according to the local conditions, necessary for the organization of school gardens, as well as for sowing cereals and grass where a sufficient amount of land was available, and to invite village and town societies and zemstvos to organize garden societies. The circular required, also, the directors and inspectors of the public schools to state in their reports what schools endowed with land have school gardens and what ones have not; to state the reason why not, and to suggest measures which may be necessary for their establishment.

The above-mentioned course adopted by the ministry of public instruction, and the approval of the teachers' activities in that direction expressed by the Emperor ${ }^{\circ}$ at three different times, gave an impulse to the development of school gardens and of the branches of agricultural industry pursued in the schools. Besides, the desire to add something to the low salaries of the village school-teachers and, on the other hand, to acquaint as much as possible not only children, but also grown-up people, with gardening, sericulture, and apiculture has caused an increase during the last ten years in the number of school gardens, apiaries, and silkworm hatcheries. In 1892 there were about 2,000 school gardens in Russia. At the present

[^50]time there are $\tau, 521$, with 532 apiaries and 372 silkworm hatcheries, which are distributed as follows:

| Inzemstro govermments. | Number of school gardens. | Apiaries. | Silkworm hatcheries. | In zemst vo govermments. | Number of school gardens. | Apiaries. | Silk- <br> worm <br> hateh- <br> eries. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bessarabia | 79 | 2 | 11 | VISTULA REGION-cont'd. |  |  |  |
| Woronezsh | $5 \frac{1}{2}$ |  |  |  |  |  |  |
| Viatka | 65 | 8 |  | Plotsk | - 70 |  |  |
| Ekaterinoslav | 315 | 18 |  | Petrokovsk | 348 | 19 | 5 |
| Kazan. | 105 | 13 |  | Sedlets. | 237 |  |  |
| Kaluga | 9 | 1 |  | Radom. | 50 |  |  |
| Kostroma | 4 | 3 |  | Suvalki | 281 | 2 |  |
| Kursk. | 125 | 13 |  |  |  |  |  |
| Moscow | 64 | 2 | --------- | Total | 2,122 | 28 | 5 |
| Nizshni Novgorod | 92 | 3 |  |  |  |  |  |
| Novgorod - .-. | 87 | 33 |  | BALTIC REGION. |  |  |  |
| Olonetsk | 34 | 1 |  | Lifand |  |  |  |
| Penza | 69 |  |  | Kurland | 436 | 56 11 |  |
| Perm | 153 | 8 | 1 | Estland. | 17 |  |  |
| Poltava | 198 | 3 | 3 |  |  |  |  |
| Pskov | 63 | 2 |  | Total | 688 | 67 | -----..- |
| Riazan | 23 | 1 |  |  |  |  |  |
| Samara | 135 | 5 | 1 | SOUTHEASTERN REGION. |  |  |  |
| Saratov | 78 | 1 |  |  |  |  |  |
| Simbirsk | 200 | 11 |  | Don | 178 | 1 | 2 |
| Smolensk | 62 | 11 |  | Astrakhan | 1 |  | 1 |
| Taulide | 99 | 5 | 9 | Ural --... | 17 |  |  |
| Tambov | 52 | 1 |  | Orenburg | 23 | 6 |  |
| Tver... | +6 | 1 |  | Turgai.. | 6 |  |  |
| Tula | 0 | 10 |  |  |  |  |  |
| Ufa | 57 | 4 |  | Total | 295 | 7 | 3 |
| Kharkov | 134 | 14 | 51 |  |  |  |  |
| Kherson- | 122 | 10 | 5 | CAUCASTAN REGION. |  |  |  |
| Chernigov | 135 | $\stackrel{3}{\sim}$ | 1 |  |  |  |  |
| Jaroslav. - | 19 | 4 |  | Kuban | 213 | 103 | 102 |
| Total | 2,643 | 189 | $8 \%$ | Kutais -- | 144 150 | 128 | 84 80 |
|  |  |  |  | Tific .-. | 123 | $\stackrel{\sim}{9}$ | 16 |
| NORTHWESTERN REGION. |  |  |  | Kars $\qquad$ Elisavetpol | 4 10 |  | 1 |
| Grodno | 200 | 2 |  | Erivan | 12 | 1 | 20 |
| Kovno | 119 |  |  | Baku-Dagestan.-.-- --..-- | 4 | 2 | 6 |
| Vitelosk | 97 |  |  |  |  |  |  |
| Moghilev | 53 | 3 |  | Total | 560 | 131 | 273 |
| Minsk | 65 |  |  |  |  |  |  |
| Vilno | 59 |  |  | TUTEKESTAN REGION. |  |  |  |
| Total | 593 | 5 |  | Turkestan region | 34 | 1 | 2 |
| SOUTHWDSTERN REGION. |  |  |  | SIBERTAN REGION. |  |  |  |
| Kiev | 57 | 8 | 5 | Tomsk | 16 |  |  |
| Volyn | 287 | 24 | 1 | Tobolsk | 7 |  |  |
| Podolia | 275 | 29 |  | Eniseisk <br> Semirechensk | 14 | $\stackrel{3}{1}$ | 1 |
| Total | 619 | 61 | 6 |  |  |  |  |
|  |  |  |  | Tota | 37 | 3 | 1 |
| Warsaw -. .-..... | 397 | 1 |  | Total in European Russia Total in Asiatic Russia. | $\begin{array}{r} 7,450 \\ 71 \end{array}$ | $\begin{array}{r} 528 \\ 4 \end{array}$ | 369 3 |
| Kelets | 75 |  |  |  |  |  |  |
| Lublin | 413 |  |  | Grand total | \%,521 | 532 | $3 \% 2$ |
| Kalish .- | 245 | 6 | ---- |  |  |  |  |

As an experiment, with pecuniary assistance from the ministry of agriculture, at some of the schools of the ministry of public instruction and the holy synod, and also in some of the kindergartens, classes in gardening and farming have been organized. At present this instruction is given in 23 schools, namely, in 7 normal schools, 6 elementary schools, 7 parish schools, in 1 elementary school of the Empress Maria, and in 2 kindergartens.
Besides, in 1897 the department of agriculture provided pecuniary assistance for organizing agricultural classes in three village schools: Beloiarski in the Shadrinsk district, government of Perm, and on estates Zatishie and Kiloshitsy, district of Luga, government of St. Petersburg.

THE OBJECT OF SCHOOL GATRDENS.
Mr. I. I. Mescherski, who is chief of one of the departments of agricuiture, and one of the principal advocates of school gardens in Russia, has stated the object of school gardens and their significance as follows: "School gardens," he says, " which are being organized at present at public schools in many governments of European Russia, are of importance on the following grounds: (1) Hygienic, as being a place for physical labor in the open air, so necessary for the teacher and pupils who have been kept confined in the bad and heated air of public schools; (2) scientific educational, as acquainting children with the life of useful plants, developing their minds by the study of nature, and promoting in the rising generation a regard for labor and a more moral and æsthetic sentiment concerning trees; (3) general economical, as spreading among the people new knowledge relating to gardening, kitchen gardening, and to the farming industry in general, and thereby leading to the production of such food articles as the people of some localities do not now possess; and (4) personal economical, as regards public teachers, who may avail themselves gratis of the products they have grown, such as ifruit, vegetables, etc., and besides get some income from the sale of the superifuity of these products and from the cultivation of plants and seeds. The same refers also to school apiaries, silkworm hatcheries, trial fields, and to school farms in general."

A school garden, to answer the purpose for which it is intended, should include:
(1) An orchard, from which might be procured graifts, and, in the south, also a vineyard.
(2) Berry bushes and stone-fruit trees,
(3) Nurseries of fruit, berry, and forest trees, or an ornamental plot for growing young plants.
(4) A kitchen garden; if possible, with a hothouse.

In addition, it is desirable to have decorative trees and a flower garden. Sometimes hops, mulberry trees, balm mints, melliferous plants, etc., are planted.

The management of the garden must conform absolately to the local conditions.
The size of a school garden depends in part on the amount of land procurable. The normal size of the garden may be considered from three-fourths of an acre to 1 量 acres.

When there is a large area of land connected with a school, the teachers generally utilize it by sowing field crops or growing kitchen-garden and other plants with a view to profit.

At the Nizshni-Novgorod exhibition in 1896 the commission for organizing the educational section for the ministry of public instruction, in constructing a building for the representation of a village elementary school, found it desirable to have a school garden attached to it, which would give visitors an idea of the character of school gardens and of the mutual relations of the different operations which are carried on in them. The forming of the plan was intrusted to W. Pashkewicz, a specialist in gardening at the department of agriculture, with the assistance of I. I. Mescherski, the former secretary of the society, and a secretary and member of the commission.
The model school garden arranged on the exhibition grounds was not large, as it contained only 1,225 square yards. To organize a garden of normal size (from three-fourths of an acre to $1 \frac{1}{8}$ acres) was dificult, and even impossible, owing to lack of space and to the high cost of material and of trees, which had to teo bought fully grown.

The school garden at the exposition consisted of (1) a nursery, (2) a kitchen garden, (3) plots of berry bushes and stone-fruit trees, and (4) fruit trees.

A plan of the above-mentioned model school garden, with explanations, is attached to this report.

With a view to acquainting public-school teachers with horticulture, gardening, and other branches of agriculture, the department of agriculture began to organize in 1891 short courses on these subjects at the agricultural and garden establishments under the control of the department, and in other localities. These classes are held generally in summer, when the public-school teachers have their vacations, and run from one to one and one-half months. Other persons besides the teachers may attend such courses, but only by special permit from the department of agriculture. At these courses there are delivered lectures on the local farming industry and the easiest way to improve it. At the end of the courses the students undergo an examination, and to those who pass satisfactorily certificates are given in which it is only stated how long the student has attended the courses, but nothing is said about his progress in his studies. And to those who have been the most successful in their studies at these courses are given, as rewards, garden instruments, books, seeds, and plants. Such courses were designed to be held at the following institutions in 1897:
(1) At the Goretsk Agricultural School, with one and one-half months' course, from April 20. For admission to this course a certificate from the directory of public schools is required.
(2) At the Uman Agricultural School, from May 15 to July 1, on horticulture, gardening, sericulture, and apiculture. On entering these courses the public school teachers must present a permit from their superiors. The number of students is limited to 60. Preference is given to public-school teachers who have plots of land attached to their schools. The persons attending these courses can hire lodgings with board in the neighboring village at from 10 to 15 rubles ( $\$ 5.14$ to $\$ 7.71$ ) a month.
(3) At the Marinsk Agric ultural School, from the middle of April to June 1, on gardening and apiculture. Persons wishing to enter these courses must present a petition to the director in due season.
(4) At the Kazan Agricultural School, from April 25 to May 25, on gardening, kitchen gardening, and apiculture. Applicants must send in a petition to the director not later than April 15, and also a certificate of their identity. The number of students is limited to 30 .
(5) At the Kharkov Agricultural School, from May 1 to June 1, on gardening, apiculture, and sericulture. Here preference is given to public-school teachers who have land connected with their schools and who have a better scientific education. Thirty students are received to these courses.
(6) At the Bessarabia School of Enology, on viticulture and wine making, in July.
(7) At the Marino-Garsk Agricultural School, on horticulture and gardening, from May 1 to June 15.
(8) At the Uspensk Agricultural School, from June 15 to July 31, on gardening and horticulture. The number of students limited to 20 ; preference given to teackers (male and female) whose schools have land connected with them. Board and lodging can be had at the neighboring village of Smolensk, at 10 rubles ( $\$ 5.14$ ) per month.
(9) At the Burashev School, on gardening and agriculture, from May 15 to July 1.
(10) At the Ekaterinoslav School Garden, from June 1 to July 1, on gardening, apiculture, and sericulture. Public-school teachers wishing to enter those courses must present, together with a permit from their superior, a petition to the committee for the organization of school gardens in the government of Ekaterinoslav, which committee is attached to the Ekaterinoslav section of the Impe-
rial Russian Gardening Society. All other persons must address their petitions to the curator of the school about a month before the beginning of the courses.
(11) At the Kon-Kolodez Agricultural School, in May, on horticulture, gardening, apiculture, agriculture, cattle breeding, and natural history.
(12) At the Kokorozensk Agricultural School, in June, on apiculture, gardening, and entomology, and in September on viticultare, agriculture, and cattle breeding.
(13) At the Lubensk Agricultural School, on apiculture and dairy farming.
(14) At the Odessa School Garden, from June 15 to July 15, on gardening and kitchen gardening.

Similar courses were to be held further at Ostaklov, Menzelinsk, Tiflis, Uralks, and at the Shubin-Wakhtinsk Farming School.

Besides the nineteen foregoing organized courses and lectures, the ministry of agriculture and Crown domains, in compliance with intercession made at the beginning of 1897, found it desirable to assist the establishing of similar courses at six other places.
W. A. Alexandrov, in his last pamphlet on the organization of courses for school gardens in 1896 , says:

School gardens are very desirable institutions at public schools on pedagogical grounds, for emphasizing their scientific and educational features in a direction necessary for farmers' children. In school gardens consisting of nureery, orchard, kitchen garden, apiary, silkworm hatchery (in southern Russia), and an experimental plow field, and also on excursions made for the purpose of studying. natural history and agriculture, the school-teachers could in a short time design a short and practical course of natural history as an introduction to agricultural education. The teacher, leading pupils to the desired end through investigations and experiments at the school garden and during excursions, is in a position to promote the conscious acquirement of knovrledge, and consequently the development of the mind for an independent activity, and to give to the pupil a more serious view of his relations to natural objects and phenomena and to his own observations. For all children, and for peasants' children especially, it is necessary, first of all, to learn to observe, then to note what they observe, to classify their observations, in order to understand why and wherefore this or that happens, to deduce from these observations and experiments natural laws and fundamental principles, and thus to learn to examine deeper the surrounding objects. Besides, school gardens are very desirable for peasants' children from an educational point of view. In working together with the teacher, or separately at their sections in nurseries or kitchen gardens, at the trees in orchards, or at the beehives in apiaries, they get into the habit of̂ working consciously and practicing economy in exploiting the gifts of nature.

In Russia there are 40 gardening organizations, of which 2 receive a permanent subsidy from the department of agriculture, and the majority receive pecuniary assistance from different sources, including gardening expositions. When in 1896 the department of agriculture had under consideration measures for the further deve'opment of fruit and kitchen gardening, it decided to collect from the gardening organizations of Russia their views and suggestions of measures which would be most expedient and well timed for the amelioration and development of this branch of agriculture, and issued requests to that effect addressed to the said organizations.

Up to the present time 35 societies have answered and presented reports containing valuable suggestions on the subject, which have been partly published in Izwiestia (Information), a journal published by the ministry of agriculture and Crown domains.

For much of the foregoing information the writer is under obligation to Mr. E. Kovalevski, a member of the scientific committee in the ministry of public instruction, who takes an interest in school gardens.
PLAN OF MODEL SCHOOL GARDEN

$\mathrm{A}, \mathrm{A}^{\prime}, \mathrm{A}^{\prime \prime}$, paths $\%$ feet wide.
$\mathrm{A}^{\prime \prime \prime}$, paths 6 feet wide.
$P, P^{\prime}$, beds planted with seeds of vegetables, 42 inches wide.
B, bed planted with seeds of fruit trees, holes $1 \frac{8}{1}$ inches apart.
C, D, grassy beds, with seedlings of pear and apple trees planted in checkerboard order, with a distance of 14 inches between the rows and $3_{2}^{2}$ inches between the trees.

The nurser y is divided into six beds, E, F, G, H, J, and K.
E, seedlings transplanted in spring from beds $C$ and $D$, where they have passed the preceding summer after being taken from the seed beds. In summer the apple and pear seedlings are grafted with a leaf bud.

F is allotted for yearlings.
$G$ is allotted for $\stackrel{\sim}{2}$-year-old trees.
$H$ is allotted for 3 -year-old trees.
$J$ is allotted for 4 -year-old trees.
K represents a fallow worked over again, manured with fresh manure in the spring (but which can be done in artumn), and planted generally with cabbages. The following year such a bed is planted with seedlings.

Each of the above-mentioned sir bods has six rows: Three rows of apple trees, one of pear trees, one of plum trees, and one of cherry trees, and the rows are 28 inches apart. In each row are 21 trees, which are 14 inches distant one from the other.
$L, L^{\prime}$, beds planted with berry bushes $3_{2}^{1}$ feet apart, and stone-fruit trees (cherries) $10 \frac{1}{2}$ feet apart. The border along the path is set out with mentha.
R, kitchen garden, divided into three fields, with twenty-one low beds running paraliel with path $A$. The width of the beds is 42 inches, the width of the intermediate furrows 14 inches.

The first section of seven beds, fresh manured, is planted with cabbages; the seven beds of the second section are planted as follows: Three beds with cucumbers, one and one-half beds with carrots, one and one-half beds with radishes, one bed with turnips, rape, and parsnips. The seven beds in the third field, which are manured with ashes, are planted as follows: Three beds with turnips, two beds with beans and peas, and two beds with onions and garlic.
$\mathrm{O}, \mathrm{O}^{\prime}$, furrows between the beds, 14 inches wide.
$Q$, a hedge around the garden.
$N, N^{\prime}$, beds planted with cherry trees $10 \frac{1}{2}$ feet apart, and, in the space between, gooseberry bushes $3 \frac{1}{2}$ feet apart. The border along the path is set out with sage plants.

ORCHARD.
T, pear trees, and V, apple trees, are planted 21 feet apart, and aiternated so as to let the broad-spreading apple trees extend their branches between the pear trees.
U, plum trees, planted 8 feet apart.
W, nut trees, mountain ash, box thorn (amelanchus), and Hippophoe rhamnozides, intermixed, 7 feet apart.

Y , four frame beehives.
S, $\mathrm{S}^{\prime}$, raspberry bushes planted in rows.
Between the trees in the fruit gardens usually potatoos are planted.

## EDUCATIONAL INSTITUTIONS AND METHODS IN COREA.

Horace N. Allen, United States consul-general at Seoul, reports under date of July 12, 1898:

The education of Corean children is usually carried on at home. Several families may unite and employ a teacher, who will instruct the boys in the use of the Chinese character and in the principles of the Chinese classics. Well-to-do fathers usually proviảe their boys with a private tutor. Girls are not usually taught to read. Of late the publication of numerous papers, periodicals, and religious pamphlets in the native character called ernmoun is aiding in the spread of a knowledge of the Corean language, which is much easier to learn and more expressive than the cumbersume Chinese, which latter all officials must know, since the Chinese is used in all official documents.

I inclose a clipping from the Seoul Independent of July 5, relating to the general system of education now being followed in Corea. Throngh the kindness of the various foreign teachers, I am able to give an inteiligent account of the work the foreign schools are doing.

In 1883 an English school was started in Seoul, under the care of an English-man-T. E. Halifax. The school was kept running for a couple of years, but the chief work was done in the eight months prior to the bloody emeute of 1884. Most of the really first-class interpreters now in government employ were pupils in this school and got their knowledge of English during this period of eight months. The Coreans are very quick in acquiring a knowledge of foreign languages.
In 1886 a school was started in Seoul, under the charge of three teachers selected by the Department of the Interior at the request of the State Department of the United States, in accordance with repeated requests from the Corean Government. These gentlemen-Messrs. Gilmore, Hulburt, and Bunker-served in this capacity for varying periods till the school finally closed in 1894. Some of their former pupils now hold positions of trust and importance in the Corean Government. The school did good work in a small way, but did not accomplish what was expected of it, owing to great opposition from certain quarters to anything of the kind at the time.
The present favorable aspect of education in Corea really dates from the JapanChina war, and I shall mention the schools separately, using the information given me by the respective teachers.

## AMERICAN METHODIST SCHOOL.

The mission of the American Metbodist Church maintains a flourishing school, which was originally started in 1886 under the name of Pai Chai "Hall for Rearing Useful Men," a name conferred upon the school by His Majesty. Under an agreement made with the Corean Government in 1896, a certain number of pupils are placed in this school by the Government upon a compensation of $\$ 1$ silver ( 50 cents gold) per month. The Government further pays for a native teacher for every 50 scholars. The course of study, discipline, etc., is entirely in the hands of the mission. Attendance at chapel and at Sunday service is compuisory. Beginning with an attendance of 50 in 1895, the school has now 103 pupils; and 176 were in attendance at the close of last year's term-June, 1897. Japanese and Chinese youths are also received at this school. The school has 2 foreign teachers and 4 native assistants, with 3 instructors in the Chinese character. A very highly appreciated course of lectures has been a prominent feature during the past two years, being delivered by native-born Coreans who have lived long abroad and become thoroughly familiar with matters that interest the outside world, No money is given to any of the pupils of this school except for services rendered. Poor boys are given employment in the mission printing press or bookbindery, and they thus learn a useful trade while helping themselves to a general education. A theological course was at one time furnished at this school, but it has been discontinued. The boys wear a uniform, and they have some drill in gymnastics and military tactics. One prominent feature of this school is the debating society, in which the boys have shown a remarkable aptitude for public speaking. From the course of study sent me by the principal, Rev. H. G. Appenzeller, I find that the preparatory course extendsover three years. Reading, writing, and spelling are taught in the first year; geography, arithmetic, and composition in the second; and history, algebra, drawing, physiology, and a course in the New Testament in the third. This is followed by a regular college course, which is only arranged for, however, through the sophomore year.

NORMAL SCHOOL.
Seoul has another American school, taught by Rev. H. B. Hulburt, one of the three teachers sent from America in 1886. Mr. Hulburt's present school was started in 1897. It is meant to be a normal school for the drilling of native teachers, who may go out and take charge of primary schools for the people. It was the idea of the Governinent, in starting this school, to use the teachers prepared in it for establishing a regular system of public schools throughout the country.

One of $\mathrm{Mr}_{r}$. Hulburt's functions is to prepare text-books for the use of these schools, a work in which he has had considerable experience. It is unfortunate that in connection with this normal school the Government has established a school for the teaching of English to the sons of nobles, thus preventing the teacher from devoting his time to his legitimate work, as he desires to do. There are at present enrolled in the normal school 30 scholars, while the English school, under the same teacher, has 35 students. The principal has 1 native assistant in the English department at a salary of $\$ 20$ silver ( $\$ 10$ gold) per month, and 2 assistants in the normal department who receive $\$ 12(\$ 21)$ and $\$ 20(\$ 10)$, respectively. The last two teach only the Chinese classics. As to the work, Mr. Hulburt says:

My work being, then, of a double nature and the assistance of little value, I found it necessary to confine the curriculum for the first year to arithmetic and general geography. During the first year the men completed and thoroughly reviewed the whole of an intermediate arithmetic, the application of every part of which I adapted to Corean liife and customs. This, in view of the utter lack of text-books, is most encouraging, and shows that the Coreans have good capacity along scientific lines. I found among the whole class three or four men who are exceptional mathematicians, even when judged from the standards of America or Europe. In the study of geography, I found that the interest was sustained, and the men applied themselves vigorously. The difficulty in the pronunciation of foreign naines, and the fact that the Chinese books have transliterated the geographical names in such a grotesque manner, has been something of an obstacle;
but in this branch I have made use of a gazetteer of the world, which I published some years ago in the vernacular, and in this way I have succeeded in weaning them away from the Chinese pronunciation, which is so misleading. During the first year the men have completed the study of Europe, As a, and North America. In addition to ordinary geographical matter, they have been tanght the facts concerning the military and naval strength of the different nations, their foreign policy, their relative power, their educational and religious status, and a large amount of other special matter.

I have quoted Mr. Hulburt thus at length, as he is the only one of the teachers who has given me such an insight into the methods and results of teaching the Corean mind. Mr. Hulburt has a five years' contract with the Corean Government, one year of which has passed. His pay is $\$ 225$ per month for the first year, increasing $\$ 25$ per month during the second, third, and fourth years, to $\$ 300$ per month for the fourth and fifth years (equal to half these sums in gold). The school buildings are not at all suited to the work, but will probably be improved. The normal students are housed and fed by the Government at an expense of $\$ 5$ ( $\$ 2.50$ in gold) per month each. The English students are given their midday meal.

## GOTERNMENT JAPANESE SCHOOL.

The Government Japanese Language School (Nichigo Gakko) was organized in 1891 to teach the Japanese language, geography, history, political economy, and "the popular sciences." It has a course of study extending over three years. There have been 11 graduates from this school, which now has an enrollment of 61. Text-books, stationery, and the midday lunch are provided by the Government. Uniforms are not provided, though there is instruction furnished in military gymnastics. The buildings are foreign adaptations of Corean houses and have 3 class rooms, 1 dining room, 1 office, making a total of 1,440 square feet of space, with a playground of 10,800 square feet. The school has a Japanese head master, an assistant master (Japanese), and two Corean assistant teachers. The assistant teachers get $\$ 300$ and $\$ 240$, silver, per annum. The head master receives a salary of $\$ 1,500$ and the assistant master receives $\$ 480$ per annum (equal in gold to onehalf these sums).

PRIVATE JAPANESE SCHOOL.
The Foreign Education Society of Japan also maintains a school in Seoul, called the "Keijo Gakko." This was organized in April, 1898, "as a token of the sincere sympathy for the lack of a sound educational basis in Corea, with the view of
giving a thorough elementary course of instruction to Corean youths, and thus aiming to form a true foundation of the undisputed independence of that country. Among the active members of the society are Messrs. Oshi-kawa and Hondo, most prominent Christians in Japan, and the teachers in charge of the school are graduates of the Kyoto Doshisha School. It is supported by the voluntary contributions of philanthropists resident in Japan and Corea. It endeavors to teach all popular sciences, both in Japanese and Corean." This school has two ordinary courses-higher and lower-of three years each, and a special course for the teaching of the Japanese language of one year. There are four teachers, who receive only the actual cost of their living. The cost of the maintenance of the school is $\$ 3,000$, silver ( $\$ 1,500$, gold). The school building is a Corean house remodeled, with five class rooms and quarters for the head master. No charge is made upon the pupils, who are also furnished with text-books and stationery free. Three dollars per month is given to meritorious students, and the best scholar is sent to Japan for further education at the expense of the school. The enrollment is 180. with a daily attendance of 100 . No uniforms are supplied or worn.

CHINESE SCHOOL.
On May 1, 1897, the Corean Government engaged a Chinese teacher from Pekin, at a salary of $\$ .0$ per month for the first year, $\$ 80$ per month for the second, and $\$ 20$ per month for the third, to teach a Chinese school, with the object of turning out good Chinese interpreters and giving them a knowledge of the Chinese literature and classics. The school has a daily attendance of 35 . The age of the pupils varies from 15 to 30. A school building and residence for the teacher is furnished, and the cost of maintenance, aside from the teacher's salary, is $\$ 100$ per month. The scholars are given 5 cents per day for lunch. The students are divided into three classes, and school lasts from $9 \mathrm{a} . \mathrm{m}$. to $3 \mathrm{p} . \mathrm{m}$., with one hour for lunch. There is no session on Saturday afternoon or on Sunday.

## RUSSIAN SCHOOL.

From the Russian teacher, Mr. Birukoff, I have the following facts regarding the Russian Language School. This school was established in April, 1890, and numbers at present 88 pupils. These are selected now and then by the educational department, family influence having much to do in the selection. Pupils receive 5 cents per day for a midday iunch. The foreign teacher receives $\$ 180$, silver, per month, with house, and at present he also has $\$ 40$ extra per month for drilling the scholars during recreation hours. He has 3 assistants (natives), 1 especially engaged and 2 who have been selected from the best of the pupils. The first receives $\$ 15$ per month, the second and third $\$ 10$ each. No pupils will be graduated prior to January, 1899. The school has at present four courses, but this number is arbitrary and may depend upon the number of pupils and their progress during the year.

As a rule, the Corean pupils show a special interest in geography and history and very good aptitude for mathematics. They write well, as far as orthography is concerned, but their syntax is rather feeble. The greatest nuisance is the abominable pronunciation of Russian words, which sometimes make the speech of even the best pupils nearly unintelligible.

## FRENCH SCHOOL.

One of the most successful schools in Seoul is the French school under Mr. E. Martel, although it has only been in fair running order since January, 1896. French interpreters are met with at all Government departments and at the homes of many high officials.

At the commencement of this school it only had an enrollment of 17 pupils, none of whom knew any Frencl. The number of pupils has steadily increased, until it now has 100 in attendance, with 4 assistant teachers, chosen from the first
class. The plan of this school is to turn out good interpreters and teachers of the French language, and at the same time to give them a working knowledge of arithmetic, history, geography, and bookkeeping, so that they may be fitted for the posts of clerks and assistants in the Government service. The final examination for this year, which has just been held, covered the following branches: Reading, dictation, arithmetical problems, composition, chartography, oral geography, grammar and parsing, conversation and translation, commercial bookkeeping, and geometry. The cost of maintenance, in silver, is as follows: One assistant teacher, $\$ 20$ per month; 3 assistant teachers, $\$ 15$ per month each; 2 servants, $\$ 4$ per month each, and the scholars are furnished stationery and a midday lunch. The allowance for 1893 was $\$ 800$ ( $\$ 400$, gold); for $1897, \$ 2,026$ ( $\$ 1,013$, gold), and for 1893 it is $\$ 2,200$ ( $\$ 1,100$, gold).

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ENGLISH SCHOOL.
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The most important of the foreign-language schools and the one with the best equipment is the English school. The head master, W. Du Flon Hutchison, is a professional teacher of much experience, and he has as assistant master T. E. Halifax, who taught the first English school in Corea in 1883. Tho school was begron in November, 1894, using as a nucleus some students froin a naval school Mr. Hutchison had been conducting with the aid of some English officers on the island of Kang Wha. The Eritish residents have done a great deal in the way of encouraging the scholars of this school by contributing toward the purchase of neat and appropriate uniforms, teaching them such games as football and other college sports, in which the boys do excellently, and in offering prizes for the winners in the various sports. The boys now buy their own uniforms, which consist of a Norfolk blouse of dark-blue navy serge and well-lined trousers to match for winter, while in summer the same style is used with brown khaki as the material. The boys wear a flat cap, which compels them to cut off the absurd topknot such as has been worn by their fathers for centuries, and their appearance is thereby greatly improved. It is the plan of this school to give the young men an idea of general knowledge, in addition to the use of the English language. The masters desire rather to make manly youths of their boys, hoping that they may be induced to continue their studies, or at least have a desire for knowledge greater than they would have otherwise possessed. The school has had many backsets. A fine new new building was taken away from them for some other purpose just as it was completed. A drill sergeant loaned to the school by the British admiral was allowed to leave, and they complain of having to work under many dificulties. The scholars of this school are from the middle classes, which probably accounts for much of the school's success; since a teacher, however well qualified he might be, would be able to do little with the nobles' sons unless they were made to obey rules. The pupils receive stationery and lunch, and the cost of maintenance, exclusive of the teachers'salaries, is $\$ 4,230(\$ 2,115$, gold) per annum. The teachers recoive pay as follows, per month in silver: Head master, $\$ 300$; assistant master, $\$ 250 ; 1$ native teacher at $\$ 25,1$ at $\$ 20$, and 3 at $\$ 15$ each. There are 120 scholars enrolled in this school, with an average attendance for 1898 of 110.

## CATHOLIC MISSION゙.

Besides the above-named schools, the Catholic mission under the French fachers maintains an important theological seminary here, where men are educated for the ministry. The teaching is in Latin, and a number of native priests of the church have been educated there.

## MISCELLANEOUS.

The Methodist, Presbyterian, Catholic, and other missions support schools for little girls, where the children are taught Corean and useful things. These are rather homes than schools.

There have been many military schools in Corea at various times under the charge of Americans, Japanese, English, and Russians. These have all passed away, and the Coreans liave just organized a military school of their own, with no foreign instructors. I understand it is to be more of a school for drilling new officers than anything else. It is the intention to take the tactics and commands they have received from their previous instructors and combine them into an "improvement of each," which will have the Corean language as a medium of communication. It has been a source of comment heretofore that English and Americans, Russians, and Japanese could hear the officers giving commands each in his own language, much to the bewilderment of the native soldier.

A Gerinan teacher has just arrived from work in Japan to open a school in Seoul for teaching the German language. He is under contract for three years, with $\$ 200$ per month for the first year, $\$ 250$ for the second, and $\$ 300$ for the third (silver). He is to have $\$ 30$ per month also for house rent.

Horace N. Allen, United States Consul-General.
Seoul, July 1, 1898.

Besides the foreign-language institutions there are 10 schools under the care of the department of education. Of these, 1 is a normal school with 30 students, whose curriculum consists of reading, composition, arithmetic, geography, history, and dictation. The institution has 2 Corean teachers, one receiving $\$ 56$ and the other $\$ 15$ a month for monthly salaries. Nine are primary schools, located throughout the city, with the total enrollment for this year of 838 boys. The course of study adopted in all these schools is composed of reading, composition, arithmetic, geography, history, writing, and gymnastics. Teachers are appointed on the ratio of 1 teacher to every 30 pupils. The monthly salary of a teacher ranges from $\$ 15$ to $\$ 25$, according to the term of their service. The annual estimate allowed for these 10 institutions amounts to $\$ 14,416$.

There are 21 local primary schools stationed in principal centers in the country, each receiving from the department of education $\$ 30$ a month.

While this condition of the primary education is better than nothing, we certainly believe that it can and ought to be improved. The department of education we believe to be a farce. All the business it does or pretends to do can be done-and better done, too-by one chief of a bureau and a few able chusas. But if the farce is to be kept up as a kind of necessary evil in the official system of the Government, let the evil be run as economically as possible by dismissing the majority of the secretaries and chusas and runners, who are paid for doing nothing. The money thus saved should be spent in improving the existing schools and in establishing new ones.

## LEIPSIC COMMERCIAL UNIVERSITY.

The merchants of Germany for some time past have recognized the value and necessity of giving young men who intend to follow the commercial industries information in connection therewith. The business men of Leipsic, under the auspices of the Leipsic Chamber of Commerce, with the advice and consent of the royal ministry of the interior and the academical senate of the University of Leipsic, will open on the 23 d of April, 1898, a commercial university, the first of its kind in Germany. There are, of course, many expenses in connection with the establishnent of this institution, which will be paid by the Leipsic Chamber of Commerce. The royal ministry of the interior and the council of the city of Leipsic have, however, promised to contribute something toward defraying the running expenses for the first two years at least.

The establishment of such schools will be found to be most beneficial to commercial careers, and their methods and teachings can not fail to impress upon the minds of the students the great value of these institutions as a means for increas-
ing one's business knowledge, and also for the perpetuation and upbuilding of a country's commerce and industries.
This subject is well worthy of thoughtful and careful consideration, not only by our boards of education, but by the boards of trade of our large cities.
The following is a brief plan of the Leipsic Commercial University:
The management is placed in the hands of 12 men, who are chosen to serve for a period of two years. This body is called the commercial university senate, and is composed of one representative of the Royal Government, one of the city of Leipsic, the president and two members of the Leipsic Chamber of Commerce, three professors of the University of Leipsic, who are appointed by the academical senate thereof, two professors of the commercial university, appointed by the president thereor, and the director of stadies. The president of the chamber of commerce is chairman of this commercial institution until further notice.
The director of studies is appointed by the commercial university senate for a period of two years. His duties are chiefly confined to the supervision of the daily school work. He is required, before the beginning of every school term, to communicate with the different professors whose lectures are included in the term's work to remedy any conflict that may appear in the working schedule.
Admiss:on is granted to students who can present a certificate setting forth that they have attended German schools for nine years, to teachers who have passed their second examination, to merchants who have their one year's voluntary military service papers, or who have finished their apprenticeship, if they can show in a satisfactory way to the board the necessary mental knowledge. In case foreigners ask for admission, the committee will decide whether or not they possess the proper educational qualifications. No person can be a student at the commercial school and at the University of Leipsic at the same time. Upon application for a visiting card, however, permission will be granted students of either institution to attend lectures in the other.

The course of study covers the science of law and political economy (as far as they are necessary and valuable for general education and for the commercial profession), commercial history, commercial geography, knowledge of goods, technology, and foreign languages. Commercial arithmetic, bookkeeping, correspondence, and stenography will also be tanght. Those who desire to educate themselves as commercial school teachers will have an opportunity of attending pedagogical lectures at the seminarium, which is connected with the public commercial school.
The school term begins on the 23d of April and lasts until the end of July. The second term commences the 1st of October and finishes on the 1st of March. Just before the second term-i. e., the last week in September-the time is spent in visiting factories and mills to study the actual workings thereof.
Two years' time is required for the whole course.
The tuition fee is $\$ 10$ per annum, which entitles the student to attend all the lectures of the course. For subjects other than prescribed in the regular course, such as foreign languages, an additional fee will be charged, which, however, will be very small.
The establishment of a state examination commission and the publication of detailed regulations concerning the examinations is reserved. Misconduct is punishable by fines as high as 50 marks ( $\$ 11.90$ ) and, in case of gross misconduct, by dismissal.
The following will be the faculty for the first two years:
Science of general political economy, Prof. Dr. Büchner; commercial and trade politics, Prof. Dr. Büchner; industrial politics, Dr. Pohle; commercial, maritime, and banking laws, Prof. Dr. Friedberg; introduction into the studies of statistics, Professor Hasse; German colonial politics, Professor Hasse; geography and colonial politics of East German Africa, Dr. Hassert; general and chemical technol-
ogy, Dr. Rassaw; elementary insurance mathematics, with practical exercises, Dr. Hausdorff; countries and cities of central Europe, Prof. Dr. Ratzel; general history of modern times, Prof. Dr. Marks; introduction into the knowledge of plastic arts, Prof. Dr. Schmarsow; history of the German literature of the generation of Klopstock and Lessing, Professor Witkowsky; commercial and poiitical arithmetic, Mr. Lambert; bookkeeping, Mr. Lambert; correspondence and office work, Di. Döll: mechanical technology, textile industry, with excursions, Dr. Pritzch.

Lectures in foreign languages and exercises in commercial correspondence in foreign languages will be arranged as they may be needed.

Leipsic, Murch 25, 1893.
B. H. Warner, Jr., Consul.

## COMMERCIAL EDUCATION AT GERA, GERMANY.

Consul Warner send̉s the following from Leipsic, July 28, 1838:
Subsequent to writing my report upon the Leipsic Commercial University my attention was called to another very prominent technical institution.

The Amthor Higher Commercial School at Gera, Reuss, affords young men a most excellent opportunity for acquiring theoretical and practical knowledge of business and business methods. There are now 200 students, and the course of instruction is as follows:

The preparatory course comprises German, French, and English, with correspondence; history and geography (general and commercial), botany and zoology, and caligraphy and arithmetic.

The first commercial course embraces: German language, literature, and correspondence; French and English languages, and correspondence; arithmetic, bookkeeping, commercial science, history, and geography (general and commercial), higher mathematics, physics, caligraphy, and stenography.

The second and third courses take up the same subjects in a more advanced form. The length of each course is one year.
In response to a long-felt want a class has been added to the school course which affords apprentices of the mercantile calling an opportunity to perfect themselves in a theoretical way.

## WEAVING SCHOOLS IN GERMANY.

Under date of August 3, Mr. Warner transmits the following report from Consular Agent Nener, of Gera:

Continnally increased attention is given in Germany to the question of technical and industrial education. The Government as well as mercantile corporations and municipalities are aiding this movement in every possible way. Schools are to be fornd in nearly every large trader-center, where the details entering into the manufacture of various classes of goods are taught, and the latest discoveries of science and practical experience are employed. Of this widely spread system of technical and industrial education the weaving school in Gera forms a branch. Wealthy manufacturers take a deep interest in the institute and have aded it from time to time by donations and bequests. Moreover, the institute is supported by subscriptions, the fees of the students, and an annuity of 2,000 marks ( $\$ 4 \% 6$ ) granted by the Government. It has a principal and seven assistant teachers, who possess special qualifications and are skillful weavers themselves. The board of administration consists of five expert merchants, who watch over the school's progress, examine its work, and report to the city's association of manufacturers.

The pupils are partly young workmen and partly young merchants engaged in weaving mills, and are divided into four classes. The school is open twice a week; on Sundays from $\gamma$ or 8 to half-past 9 or 10 o'clock in the morning, and on Tuesdays or Thursdays from 8 to 9 o'clock in the evening, thus not interfering with the usual working hours of the students.
The course of study lasts four years, and instruction in the single classes comprises the following subjects:

Class 1.-Calculation and pattern designing; origin and development of weaving; mode of sorting and classifying the raw material; method of rating goods by ascertaining the quantity and price of material used, and also cost of labor required in the production of a given length and width of goods, or from given data of values of material and labor.
Class 2.-Weaving in its present state of perfection; weaving and designing of jacquards; nature and properties of the various kinds of wool.

Class 3.-Machine construction, with special regard to the power loom; comparative merits of power looms; consideration of the principal parts which are common to all power looms.

Class 4.-Construction of various kinds of hand looms: weaving by hand looms; technical designing; weaving of fancy articles, etc.

Theoretical instruction is given from various works on weaving, and from a large collection of designs and models. For practical instruction there are in use 13 power and $1 \%$ hand looms adapted to the weaving of various standard fabrics, besides other appliances for demonstrating the processes of preparation and of plain and fancy weaving.

A voluminous library connected with the school proves a most valuable factor in the promotion of technical knowledge.

An exhibition embracing woven articles, sketches, designs, and writings of the pupils on textiles, machine construction, etc., is held every year. The last exhibition, on March ${ }_{2 \%}^{7 \%}$ of this year, was considered an extraordinary success, and showed the great interest taken by all classes of people in the institution.

On the other hand, it made evident the diligence and zeal which both teachers and scholars devote to their task in pursuance of one common object-the advancement of industrial and technical knowledge. Prizes were awarded on this occasion, consisting of books on designing and weaving, cases of mathematical instruments, diplomas, etc.

The fee to be paid monthly by each pupil amounts to only 50 pfennigs ( $12 \frac{1}{3}$ cents), hence enabling the working classes to share the benefits of the training.

I need not take up space in this report to call the attention of our mannfacturers to the advantages derived from technical education, as these are already known and appreciated by many of our educators and manufacturers. My present purpose is simply to call attention to the means that are being applied to generalize and perfect the system of technical education in this country, in order that our people may be advised of the methods adopted to strengthen manufacturing industries.

## EDUCATION IN RUSSIA.

During August this year the first special meeting of school directors was held in St. Petersburg. Invitations were sent to all the schools, both church and otherwise, for their members to take part in the conference. As far as can be gleaned from the somewhat scanty reports, the subjects considered were very interesting.

At one of the meetings it was particularly noticeable that no protests were heard to the effect that matiers to be discussed should be dealt with by the clergy alone, as was the case in previous years, and it was generally agreed that only the
cooperative and friendly work of the ministry for national education and the clergy could give the people proper and thorough education. Provincial and county councils that before were considered incapacitated were this time specially invited to join in the work of the ecclesiastical party.
The head of the church schools at the first meeting announced that provincial and county councils desiring to assist the clergy in educating the people would always be met with assistance and consideration from the local and central church school establishments.

It was then agreed, with the exception of special cases, to admit as guardians over church schools members of another faith. The subject of increasing present resources was then fully discussed. The reporter stated that were it possible for the state exchequer to add in the course of eight years to the school budget 200,000 roubles $(\$ 100,000)$, in ten years it would be possible to open 80,000 properly organized schools, with $4,000,000$ scholars, and 100,000 ungraded national and parochial schools, with $5,000,000$ scholars.

To help increase the state budget, it was proposed to impose a 2 per centlevy on the revenues of all monasteries and churches (excepting those with special appointments), also on insured church capital, and on revenues derived from the manufacture of church candles. On several previous occasions funds were raised by the above plan.

Several other questions were touched upon, among them the matter of teachers, which was pointed out as of great importance.

From the above it is to be seen that at present great interest and activity are being centered on the matter of public education.

Moscow, September 30, 1598.
Thomas Smith, Consul.

## SCHOOL FOR THE MERCHANT MARINE IN RUSSIA.

I transmit a translation of the regulations, established by imperial authority, for the management of an institution recently organized in this city, which has for its object the training of young men in the theory and practice of navigation, in order that they may become competent to take command as masters and mates on Russian merchant vessels.

The studies make of those who successifully pass the course highly educated men, familiar with the English, French, or German languages, physics, mathematics, theoretical mechanics, commerce, political economy, bookkeeping, physical geography, nautical astronomy, shipbuilding, commercial geography, law, hygiene, etc.

I have thought it advisable to bring the knowledge of this establishment to the attention of the Department at this particular time, for the reason that it would in my opinion be highly advantageous to our future commercial and merchantmarine interests if similar institutions could be successfully established throughout the United States, either in connection with educational institutions or as separate establishments.

As we shall furnish the world with food and manufactured goods, both patriotism and profit demand that these products be carried in American ships, and that these ships be manned and officered by competent Americans.

We move quickly in the United States, and it requires but a slight knowledge of our people to predict that in ten years' time we shall have the largest merchant fleet afloat.

I have been told by A mericans who have traveled much in European and Asiatic waters that an American ship is rarely met with, and certainly my own experience as consul at Odessa during the past thirteen years confirms the statement.

I have never on a single occasion seen an American ship in the Odessa harbor, and yet during the year 1897 the official returns show that 1,192 steamers and 34 sailing vessels, having an aggregate tonnage of 1,761,339 registered tons, entered this harbor. Of these, 663 steamers, having a registered tonnage of $1,050,028$ tons, were British.

Under the circumstances, it is not surprising that the Russian Government is now admitting ships for the Russian foreign and domestic trade free of duty, and is also establishing and endowing marine schools for its coming merchant-marine officers,

Thos. E. Heenan, Consul.
Odessa, December 2, 1898.
[Translation.]
STATUTES OF THE CLASSES OF MERCANTILE NAVIGATION AT THE ODESSA COMMERCIAL SCHOOL.
(1) The object of these classes of mercantile navigation at the Odessa Commercial School is to give to young men who are preparing themselves to perform the duties of ship masters and mates on board of trading merchant vessels a corresponding theoretical and practical education.
(2) The classes are under the care of the department of trade and manufacture of the ministry of finance.
(3) The revenue for the support of these classes consists of (a) sums given by the Government for their maintenance according to the statutes; (b) annual subsidies from the municipality of Odessa, out of the sums received from the tax. levied on exports; (c) subsidies from steam navigation and from other companies, and (d) payments by students for their instruction.

Remark.-The sums received by virtue of $b$ and $d$ form the special means of revenue of the classes, and are disbursed for their maintenance in addition to the sums granted by statutes; so that the payment for the instruction is exclusively applied to such expenses in connection with the teaching as have not been provided for by the statutes.
(4) The course of instruction extends over three years, and is subdivided into three classes.
(5) In these classes will be taught: (a) Reliogion; (b) Russian language and literature; (c) English; (d) French or German; (e) physics; ( $f$ ) mathematics (practical calculation, plane and spherical trigonometry); ( $g$ ) theoretical mechanics; ( $h$ ) commerce, with elementary particulars of political economy and bookkeeping; ( $i$ ) physical geography (hydrology and meteorology); ( $j$ ) navigation, with pilotage and fundamental particulars regarding deviation of compasses; (k) nautical astronomy; ( $l$ ) fundamental principles regarding the construction of a ship; ( $m$ ) practical seagoing; ( $n$ ) steamship mechanics; ( $o$ ) commercial geography; ( $p$ ) knowledge of cargo: (q) law, and ( $r$ ) hygiene.

Remark. -The subjects enumerated in $g-r$, as well as spherical trigonometry, are considered special; the remainder relate to general instruction.
(6) During the course of education, in addition to theoretical teaching, practical instruction takes place on vessels. The superintendence of this instruction is intrusted to the captain of the training ship.
(7) Students of all conditions and religions, who are Russian subjects, are received into these classes.
(8) For admission into the classes is required: (a) The presentation of a certificate showing that the applicant has passed through the general course of education given in the commercial schools of the ministry of finance, and must pass an examination in the English language and in mathematics, to the extent of the course of instruction as given in the general classes of the Odessa Commercial School, and (b) the accomplishment of a trial voyage of not less than two months on board of the training ship belonging to the classes.

Remark.-Those who do not present certificates as mentioned in $a$ are subjected to an examination to the extent of the course of instruction as given in the general classes of the Odessa Commercial School-in all subjects excepting chemistry. Those who have passed through five classes of a regular school or of a classical gymnasium are accepted after passing an examination-the first named in mathematics and in the English language, and in the French or German language to the
extent of the course of instrnction as given in the general classes of the Odessa Commercial School, and the last named, in addition to this, in physics.
(9) In connection with these classes of mercantile navigation, there may be established, with the consent of the ministry of finance, a boarding and lodging house for the students at the expense of such students, or on special donations for that purpose, or on the joint revenue derived from these sources.
(10) The general management of the classes of mercantile navigation is vested in the council of wardens of the Odessa Commercial School; the immediate management of the same is intrusted by them to the manager of the classes.
(11) For the purpose of participation in the discussion of matters concerning the classes of mercantile navigation, in addition to the council of wardens of the Odessa Commercial School, are added as members (a) the manager of the classes; (b) a representative from the Odessa municipality, and (c) representatives of the stem navigation companies and of those institutions which subsidize the classes, appointed in rotation and to the number prescribed by the minister of finance.
(12) The manager of the classes must accompany the students during the timo they are pursuing their practical studies on the training ship at sea, for the purpose of watching their progress and morality, as well as for the immediate supervision of their practical studies in steersmanship. The manager of the classes may also be charged in accordance with instructions from the council of wardens, with the command of the training ship; but in that case the immediate guidance and supervision of the practical studies of the students must be intrusted to one of the teachers or to one of the captain's assistants (mates), who is selected by the manager of the classes with the consent of the council of wardens.
(13) As assistant to the manager of the classes in the execution of the duties of inspector and in the supervision of the students, one of the teachers is appointed with the title of instructor. In the event of the illness of the manager of the classes, the instructor takes his place.
(14) The subjects of instruction in these classes of mercantile navigation are distributed among the staff of teachers who are in the Government service and those who are only engaged temporarily. The number of the first named must not exceed six, and they can only be on the following subjects and groups of subjects: (a) Mathematics (practical calculations, plane and spherical trigonometry) and physics; (b) navigation and pilotage and fundamental particulars regarding the deviation of compasses; (c) nautical astronomy; (d) theoretical mechanics and fundamental knowledge of the theory and construction of a ship; (e) steamship mechanics, with other practical studies, and ( $f$ ) English language.

Remark.-The manager of the classes of mercantile navigation, if he so desires, may instruct in one or more subjects of the course, but not more than eight hours a week.
(15) The manager of the classes, as well as the captain of the training ship, is appointed by the council of wardens from among persons who have received a special naval education and who have served either in vessels of the imperial navy or in the merchant marine.
(10) The manager of the classes, as long as he occupies that office, is reckoned as being in the fifth rank, and is confirmed in that rank after serving in the same for nine years. He may, however, be raised to that rank or grade before the expiration of that term by virtue of the general rules established for the civil serrice.
(17) The instructor and teachers are chosen by the manager of the classes after consultation with the council of wardens and are confirmed in their positions by the department of trade and manufactures.
(18). The teacher of religion is selected by the manager of the classes and, after receiving the recommendation of the council of wardens, is confirmed in his position by the department of trade and manufactures, with the consent of the administration of the archdiocese.
(19) As teachers of the subjects of general instruction, such persons may be appointed whose education and training qualify them for posikions in regular schools.
(20) Teachers of the special subjects, other than those relating specially to naval matters, are appointed from among persons who have finished the course of study in the highest educational establishments and have received from the department of trade and manufactures certificates granting the right to teach these subjects in the commercial schools. Teachers of nautical subjects must have passed through the naval-cadet corps of the technical school of the marine department or have taught in mariners' schools of the higher grade for not less than five years. Persons who can not qualify under these conditions may be admitted to act as teachers after reading three trial lectures in the presence of a special committee appointed
by the schools committee. Those who are successful are confirmed in their positions by the department of trade and manufactures after the expiration of one year.
(21) For instruction in the special subjects, payment is fixed at 150 rubles ( $\$ 75$ ) per annum, and in subjects of general education 75 rubles for a weekly lesson. The rate of payment to the teachers may be three times increased by one-fifth, but not previous to the expiration of three separate periods of five years each and on the condition that the highest rate be allowed only to two teachers.
(22) Students who have passed the full theoretical course of the classes of mercantile navigation and who have taken two practical courses are submitted to an examination, according to the programme confirmed by the ministry of finance, before a special committee, under the presidency of a person annually appointed by the minister of finance, composed as follows: The manager of the classes, the director of the commercial school, the teacher of that subject in which the examination takes place, the captain of the training shop (in the stabjects of natutical specialty), a representative of the department of marine, a representative from the municipality of Odessa, a representative from the body of merchants elected by the exchange committeo, and one member of the council of wardens elected by that conncil from the persons described in $c$, paragraph 11.
(23) After passing examinations in the theoretical course of instruction, the teachers must pursue a course of practical navigation for about three months in vessels of the merchant navy and about two months in the training ship of the classes, after which they are submitted to an examination in practical knowledge by a committee, comprising the persons named in the preceding paragraph, with the difference, however, that in matters of practical knowledge the presence of the director of the commercial school is not obligatory.
(24) Students who have successfully finished the examination in the theoretical and practical courses, provided that the aggregate duration of their training in navigation (together with experimental navigation, navigation on board commercial steamers, and the time of practical examinations) amounts to no less than seventeen months, receive a certificate that they hare finished the course of education. The best students are rewarded with gold and silver medals. As regards their entering the Goverument service on duties which demand technical commercial knowledge, and also into higher educational establishments, those who have finished the full course of the classes of mercantile navigation enjoy the rights granted to those who have finished the course of regular schools. With regard to the acquisition of the rank of steersmen (mates) or masters of merchant vessels, they are subject to the regulations existing for that purpose. (Paragraphs 193-201 of Commercial Code; Code of Law, Vol. XI, Part II, edition 1893.)

Remark.-Students who have successiolly passed the examination in the theoretical course, but who were unable to complete their sea service on account of illness, will be granted all the rights enumerated in the preceding paragraph; but, in lieu of an attestation of having passed the full course, they will be given certificates of having passed the said examination, with a statement regarding the causes that prevented their finishing the practical course.
(25) As regards military service, the students who have finished the course enjoy the privileges granted to students of the first category of educational establishments. Those who have not finished the course have the privileges of those who have passed the course in the establishments of the second category. The commencement of military service in the army is postponed for students until the age of $2 t$ years; and those students who, after having finished the course, desire to acquire the rank of mate or of master may be granted, with the consent of the ministers of finance and war, the time necessary for this object.
(26) The classes of mercantile navigation at the Odessa Commercial School are authorized (a) to have a seal of the pattern established for the provincial institutions; (b) to acquire real estate and to accept all kinds of donations; (c) to order from abroad objects and apparatus required in teaching, with the observance of paragraphs 1047 and 1048 of the Customs Code (General Law Code, Paragraph XI, edition 1892), and (d) to send their mails, parcels, and packages up to 1 pood (36 pounds) weight without payment of postage.
Staff of the classes of mercantile navigation attached to the Odessa Commercial School.







 under other paragraphs.

## SUPPLEMENTARY EDUCATION IN SAXONY.

In the following report I have tried to explain the work of the further-developing, or supplementary schools, in Saxony and to impress upon our educators the importance of this branch of training. The supplementary schools are for the people who have to work what Chautanquas, summer schools, and university extensions are for others. These supplementary schools in Germany are quite old, and antedate such efforts in America. I believe they suggested the latter. In 1873 Sarony's supplementary schools were put under a law compeiling attendance. Before that they had had the precarions existence that attends efforts of individuals independent of the State and lacking power to enforce compliance with their rules. Some had been so successful that the State, seeing how well suited they were to extend useful knowledge, adopted them into the state system. At first they found both opposition and favor. Parents and children opposed them bitterly, the former because they had been wont to do what they pleased with their children after they left school at 14 years of age, the latter because they were kept for tivo years longer under restraints that had already grown irksome. Even the towns and communities complained, believing the results would not be worth the expenditure. Petition after petition weat up to Dresden begging the government to abolish them. These were not only refused, but the importance of such schools was pointed out to the petitioners, until they too became convinced. In 1881 a new plan or course of studies was prescribed for these schools which proved very successful. In recent years advocates of the schools are asking to have branch schools opened to girls. Hitherto they have been mostly for boys. From the annual report for 1897 it will be seen that with a population of $3,783,014$, Saxony had 1,953 of these supplementary schools, with 75,358 boys and 1,699 girls in attendance. Besides these, there were 39 industrial schools, with 10,660 scholars; 112 industrial technical schools, with 10,119 scholars; 44 commercial schools, with 4,781 scholars; 11 agricultural schools, with 691 scholars; 7 schools for all kinds of work for girls, with 1,596 scholars, and 18 technical schools for girls, with 2,445 scholars, or a total of 2,170 advanced special schools, with $10 \pi, 3 \pi 6$ scholars. To every 1,743 inhabitants Saxony had one such school. The best results were recorded in those schools where scholars were arranged in classes and where instruction is followed by practical work in the trade or calling followed by the pupil. This has been possible in all the larger towns, villages, and cities. In order to help the small so-called home industries to compete with the big capitalists, a large number of industrial, industrial-art, and technical schools have been estabiished and provided with suitable buildings. These have had State aid and assistance from industrial unions, town governments, and socleties. Besides these schools, the State has supported others for helping handworkers and industrial laborers. The technical schoois that aid industrial laborers to continue or to complete their theoretical, technical, and artistic education liave often helped to increase and advance the cities in which they are situated. From 1,000 scholars in such schools in 1874 the number has gone up to 30,335 . Proud, too, is Saxony of her agricultural schools. They have helped beyond what their most sanguine advocates believed possible. Important information, gained only after years of hard labor on the farm, is put before boys just out of the common school in such practical form as to fix itself in their memories forever. The profitable progress of farming, not only in Saxony, but all over the Empire, bears eloquent witness to the wisdom of these schools. In 1897 Saxony had 8 agricultural schools, with 565 scholars. Of the 44 commercial schools, 4 have high-school branches, opened in the middle of this century, and Saxony's wonderful wealth, her industrial greatness, and the fact that she sends out to other parts of the world millions upon millions of dollars' worth of all kinds of merchandise, toys, textiles, tools, and machines is a proof of their excellence. The diversity of her products is limited only by the demands
of markets. To England alone in 1896 she sent textiles amounting to $\$ 25,000,000$. To us she sends as much, or nearly so.

Of the 34 commercial apprentice schools established and supported by merchant corporations, 20 were established during the last twenty-five years. It is a mistake to say Germany's industrial, industrial art, and technical school system is old. No part of it antedates one hundred years. Under the ægis of its farreaching system of education, especially of such special schools as have been mentioned, its support of all that aids or advances the intelligence and well being of its industrial and laboring classes, its industrial art, commerce, and transportation, Saxony cherishes the hope that its good name, as the nursery of art, industry, commerce, manufactures, etc., will continue to grow in the coming as in the past years.

I may still further supplement all the foregoing by pointing out more particularly what purposes the supplementary schools are intended to serve. Parties in politico-economic circles here found that the system of common-school education under which boys and girls were given an ordinary education in reading, writing, arithmetic, etc., up to their fourteenth year, was inadequate, partially if not wholly, to the ends aimed at in such a system. To supply this defect it was urged, and finally proposed and favorably acted upon, that graduates of the common schools, boys especially, in some few cases girls, too, should continue to get instruction a certain number of hours a week. This was made compulsory. Manufacturers, shopkeepers, and mechanics in whose employ such boys were found, and not the parents, were made responsible for the boys' attendance. In these schools, as indicated in the foregoing, the boys get as good an idea as possible of the trade or branch of business in which they are employed. As a rule, the hours of attendance are early in the morning or a certain number of afternoons in the week. Sunday mornings are not thought too sacred for this work. It seems to be an acknowledgment that the years hitherto given to a boy in which to get an education, viz, from his sixth to his fourteenth year, is not enough to prepare him for the struggle for life that he has to enter upon. Men have told me, successful merchants and agents here, that they owe more to the hours spent in the developing or supplementary schools, from the practical character of the instruction given and the information imparted, than to the many years spent in the common schools. While one is hardly willing to believe this, there can be no doubt of the grod work done and being done by the schools referred to.

Monaghan, United States Consul.
Chemnitz, Saxony, August 31, 1898.

## GERMAN STUDIES OF MALARIAL DISEASE.

The German Colonial Society, one of the most important of several permanent associations at Berlin which are devoted in one way or another to the systematic development of Germany's colonial possessions and the foreign trade of the Empire, has taken up with great energy the suggestions of Professor Koch as to the necessity of more efective measures for studying and mastering the malarial diseases which now so seriously restrict the settlement and impair the value of the colonies in Africa and the East, which have been acquired and maintained at such cost of effort and outlay.

It is recognized that public hygiene, among the climatic conditions which exist in tropical countries, presents diffculties for which special preparation and provision must be made. Medical officers who are sent out for service in such countries must have a special scientific training in the diagnosis, treatment, and prophylaxis of malarial disease. This has now been provided for by a special course of study at the Institute for Infectious Diseases, of which Professor Koch
is the technical chief; and a number of young physicians who are preparing for colonal service are already at work under the direction of the great bacteriologist. When their special studies are finished, these physicians will go to their posts of duty in the colonies, each provided with a special outfit of scientific apparatus devised by Frofessor Koch, and will be thus equipped to take up and continue the observation, record, and study of malarial diseases, upon the result of which so much of the future value of Germany's tropical colonies will depend.

Besides these preparations for prolonged and systematic observation, Professor Koch has appealed to the Prussian ministry of medical affairs, to which he is offcially subordinate, for two fiurther scientife expeditions, to bo organized and conducted under his personal direction, for the purpose of completing thoroughly the preliminary studies which he has made in Italy, Africa, and India. According to the announced plan, one of these commissions will be limited to three months, and be assigned to the study of malaria in Greece and Italy, in which countries the climatic conditions are to some extent influenced by bad drainage and insanitary habits of the people in old and badly constructed cities.
The second expedition is to occupy two years and make an exhaustive study of malaria at the deadliest fever districts of New Guinea, East Africa, and India. The keen interest manifested in this whole subject by the Prussian ministry and imperial foreign office, and the wide attention that has been attracted by Professor Toch's reports of his preliminary studies of malaria in tropical countries, encourage the belief that both the proposed expeditions will be authorized and their respective missions carried out in accordance with Dr. Koch's specifications.
He has recently left Rome, after six weeks of study in the hospitals where are treated cases of Roman and Campagna fevers, and in which he has been aided by the foremost specialists of Italy. As a result of these studies, it is now declared that the malarial fevers of Italy are identical in cause and general character with those of East Africa, and it is believed that science is on the eve of a decisive victory over this whole group of maladies by means of liquid injections of quinine into the pulse vein. The importance of this discovery to Italy will be evident from the fact that of the 69 departments into which that Kingdom is divided, only 6 are absolutely free from malaria, and 1,200 square miles, including some of the most fertile đistricts of Italy, are, like the Fhole soatheastern coast of Corsica and much of Sardinia, practically uninhabitable on account of malarial disease.
Among the other interesting deductions of Professor Koch is his freely expressed opinion that the indiscriminate use of quinine as a prophylactic in malarial countries is attended with great danger, and is in many cases the indirect cause of the pernicious "black-water" fever, one of the most virulent forms of malarial disease. The very general pxactice among persons coming from temperate to tropical latitudes of saturating their systems with quinine, taken in regular and often excessive doses, is vigorously condemned for two reasons: First, because it seriously weakens the action of the heart; and, second, because the system, having become inured to the drug, fails to respond to quinine treatment in case of actual sickness.
The efficiency of the drug having been exhausted as a preventive, it has no longer any importaut value as a remedy; and experience shows that a person debilitated by the excessive use of quinine may take malarial fever and die of it like anyone else. Professor Koch even goes so far as to assert that the increased death rate in certain portions of West Africa, where the conditions of living have been greatly improved during the past ten years, is dus largely to the increased and indiscriminate use of quinine caused by its greater cheapness and the ease with which it can now be obtained. He also states that on the western coast of Africa, where all forms of malarial fever are especially virulent, cases of the intermittent type which have resisted even heroic doses of quinine have been mastered by the use of arsenic. It is well, however, to remember in this connection that a certain
antipathy to quinine and a preference for arsenic as a remedy for certain fevers is a marked and well-known peculiarity of the German school of medicine, in respect to which its opinions are in sharp disagreement with those of physicians in some other countries, notably the United States.

Another fact noticed and mentioned by Professor Koch during his studies in Africa and India is that women withstand exposure to malarial climates far better than men. During the appalling mortality on the Gold Coast within the past four years, says the report, there was hardly a death among the women living out there, while every kind of man was dying-men new to the Tropics, men born in them, men who had been accustomed to them for years, even men who had battled with the ravages of West Africa for upward of ten years.
The attempt to explain this anomaly by the fact that men are, as a rule, more exposed to the hot sun of day and the miasma of night, failed in presence of the fact that the death rate was highest among officials, merchants, and employees who work in offices, banks, and warehouses, where no exposure to weather is involved and where medical attendance, food, and all conditions of living are the best obtainable in that country. The fact that black-water fever, so deadly to male Europeans, almost never attacked women, and that no physician has yet offered any reasonably conclusive explanation of such discrimination, illustrates how far medical science is yet from a full understanding of malarial disease and how long and difficult a road is yet to be traversed before the risks incurred by northern civilization in the effort to reclain and civilize the Tropics will be reduced, through exact knowledge and scientific practice, to a minimum.
The subject is certainly so important as to invest with world-wide interest the efforts that Germany is now making under the lead of her foremost bacteriologist to reach a clear understanding of, and more potent mastery over, the scourge which now makes desert some of the fairest and most fertile portions of the earth.

Frank H. Mason, Consul-General.
Frankfort, October 11, 1898.

## PRACTICE OF PROFESSIONS IN JAPAN.

Consul-General Gowey sends from Yokohama, under date of December 21, 1898, a summary translation of the laws of Japan relative to the practice of the professions of law, veterinary surgery, medicine, and dentistry, together with a list of schools devoted to these subjects.

> LAW YERS.

Anyone who desires to practice law must pass the examination, which is to be held once a year, and must obtain the permission of the minister of state for justice, and then he can practice in the supreme court and other courts. A minor, a bankrupt who has not completed the obligation of compensation, a person convicted of a theft or fraud, an official, or a public or private employee, is debarred from obtaining such permission. A practitioner must join a guild of lawyers where he chooses to locate, and observe its rules and regulations. The registration fee is 20 yen ( $\$ 9.96$ ) and the sum of 10 yen ( $\$ 4.98$ ) is to be paid as a fee at the time of examination. Violation of the provisions to be observed by the members of the bar is punishable by censure, by suspension of avocation for not more than one year, or by a fine of not more than 100 yen ( $\$ 49.80$, or by "jornei," in which case the lawyer's name is expunged from the register, and he is not entitled to continue the profession until three years have elapsed, or is disbarred for life, according to the gravity of his offense. In the case of a graduate of the law college of the Imperial University he is exempted from passing the examination, but is required only to apply for a license for practicing.

## VETERINARY SURGEONS.

This profession can be followed only by one who has obtained license from the minister of state for agriculture and commerce.

The following persons may obtain the license: One who has passed a veterinary examination and holds a certificate; one who holds a diploma of a governmental veterinary school or a certificate that he has passed a special course of the veterinary department of an agricultural college; one who holds a certificate that he has passed a special course of the veterinary department in a public or private school the curriculum of which has had the approval of the minister of state for agriculture and commerce; one who holds a graduation certificate of a governmental or public veterinary school in a foreign country.

A license fee of 1 yen ( 49.8 cents) must be paid. A renewal of license on account of loss can be made upon the payment of 50 sen ( 24 cents).

A suspension of business for not less than five days and not more than fifty days, or entire prohibition of occupation, may be adjudged, if there be any offense with regard to veterinary practice or improper conduct, by the minister of state for agriculture and commerce, according to the circumstances of the case. This prohibition may be rescinded after three years have elapsed if deemed advisable, in which case the practitioner must apply for a fresh license.

A fine of not less than 5 yen ( $\$ 2.49$ ) nor more than 50 yen ( $\$ 24.90$ ) will be imposed upon one who has practiced veterinary medicine or surgery without obtaining a license. A fine of not less than 2 yer ( 98 cents) nor more than 25 yen ( $\$ 12.25$ ) will be imposed upon one who follows the business while he is under suspension.

A penalty of not less than 1 yen nor more than 1.95 yen will be imposed upon a veterinary surgeon who shall have refused to comply with the request of others for professional services without proper reasons therefor.

The minister of state for agriculture and commerce may issue a provisional license to a person who has none of the qualifications enumerated above, but whose antecedents merit such favor, by limiting the area of operation and the period of practice, upon the recommendation of the chief of the Hokkaido Cleo or by a governor of any prefecture where veterinary surgeons are scarce.

MEDICINE.
Any person who desires to practice medicine must pass an examination before a committee annually appointed by the minister of state for home affairs. The fee for a license to practice is 20 yen (\$9.96). The alumni of the medical college of the Tokyo Imperial University and of the medical departments of the first, second, third, fourth, and fifth high schools and one of the medical schools of Osaka, Kioto, and Aichi are entitled to practice without passing the examination, the only requirement being to apply for and obtain license.

A physician who shall have committed an offense, or one who has been guilty of improper conduct in a professional way, may be suspended or prohibited from practice by the minister of state for home affairs after full inquiry has been made by the central sanitary board.

## DENTISTRY.

After study of at least two years, one who desires to practice dentistry can apply for examination, which is held annually. This must be passed before he can procure a license, the fee therefor being 8 yen ( $\$ 3.98$ ).

The penalty clause that applies to physicians is also enforced in the case of dentists.

## PHARMACY.

One must be over 20 years of age, pass the examination, and obtain license from the minister of state for home affairs before he can practice pharmacy. The
license fee for practicing is 3 yen (\$1.49). He can prepare medicine only in accordance with a prescription of a physician, in which the name of the patient, age, name of medicine, quantity, directions for use, quantity to be taken by the patient, date, and name of the physician are described. A prescription for a poisonous or astringent medicine must be signed by a druggist and bo kept for a period of ten years. One who practices the business of pharmacist without obtaining governmental sanction will be punished by a fine of not less than 10 yen ( $\$ 4.98$ ) nor more than 100 yen.

Law and medical schools.

| Name. | Public or private. | Locality. |
| :---: | :---: | :---: |
| Lave schools. |  |  |
| Law College, Tokyo Imperial University | Govermment | Hongo Ku, Tokyo. |
| Third High school | --.do | Kani Kio Ku, Kioto. |
| Wafutsu Law Schoo | Private | Kojimachi Ku, Tokyo. |
| Senshin Gakzo. |  | Kanda Ku, 'Tokyo. |
| Maji Loritsu Gakko |  | Do. |
| Keio Gijiku |  | Shiba ${ }^{\text {K }} 11$, Tokyo. |
| Nippon Horitsu |  | Kanda Ku, Tokyo. |
| Horitsu Kajiku |  | Youezawa City, Yamageta Ku. |
| Hozalxu Koshin |  | Vamagrachic |
| Inan Horei Gakko |  | Yamaguchi City, Yamaguchiku. |
| Medical schoois. |  |  |
| Medical College, Tokyo Imperial University .- | Government. | Kongo Ku, Tokyo. |
| Medical school of the Tokyo Jikei Institute... | Public |  |
| Saisei Gakusha .-................... | Private |  |
| Medical department oî̃ Second High Schooi | do | Sendai City. |
| Medical deprrtment of 'Third High School | do | Okayama City. |
| Medical department of Fourth High School |  | Kanagawa City. |
| Medical department of Firth High School |  | Nagasaki City. |
| Osaka Furitsu Medical Scho | Public | Osaka. |
| Kioto Furitsu Medical School |  | Kioto. |
| Aichi Medical School. | -...do -...-..... | Nagoya City. |
| Dentistry schools. |  |  |
| Tokyo Dentistry Specialty Medical School. | Private | Nihonbashi Ku, Tokyo. |
| Takayama Dentistry School |  | Shiba Ku, Tokyo. |
| Aichi Dentistry School |  |  |
| Veterinary schools. |  |  |
| Agricultural College, Tokyo Imperial University. | Government. | -, Tokyo. |
| Azabu Veterinary School | Private | Azabu Ku, Tokyo. |
| Tokyo Veterinary School | --..do | Ushigome Ku, Tokyo. |
| Niigata Veterinary Scho | Public | Niigata City |
| Kobé Veterinary Schoo | Private | Kobé City. |
| Seiyo Shiko . |  | Gifu City. |
| Veterinary department, Osaka Fu Agriculthral School. | Public | Osaka. |
| Veterinary department, Ishikawa Ken Agri- | do | Komatsu Machi, Ishikaun Ken. |
| Veterinary department, Yamaguchi Ken Ag- | do | Ouchi - Yamaguchi Ken. |
| ricultural School. |  |  |
| Kumasuoto Veterinary School --.............. | Private | Hiyoshi - , Kumasuoto Ken. |
| Veterinary department, Oita Ken Agricultural School. | Public | Usuki Machi, Oita Ken. |
| Miyazaki Kөn Veterinary School | do | Miyazaki City, Miyazaki Ken. |
| Veterinary department, Miyagi Agricultural School. | -.--do .-........ | Shigegasaki - Miyagi Ken. |
| Pharmacy schools. |  |  |
| Medical College, Tokyo Imperial University .- | Government... | Hongo Ku, Tokyo. |
| Medical department, First High School. | ..-do ........... | Chiba City. |
| Medical department, Second High School | do | Sendai City. |
| Medical department, Fourth High School | do | Kanagawa City. |
| Medical department, Fifth High School |  | Nagasaki City. |
| Medical school... | Private | Shitaya, Tokyo. |
| Kioritsu Medical School | do | Kita Ku, Osaka. |
| Aichi Medical School. |  | Nagoya City. |
| Toyama Medical School.Kumasuoto Medical School | $\begin{gathered} \text { Public } \\ \text { - } \end{gathered}$ | Toyama City. <br> Kumasuoto City. |

## CHAPTER XXXV.

## LEGAL PROVISIONS OF THE VARIOUS STATES RELATING TO TEACHERS' EXAMINATIONS AND CERTIFICATES. ${ }^{1}$

[The digest of the laws regulating the administration, character, and finances of the public-school systems of the States of the Union, Report of the Commissioner of Education, 1893-91, pp. 1033-1300, covers legislation as to teachers to that year, though not in a separate form.]

In the early history of pablic education in this country there were general requirements for moral and scholarly qualities in those employed to teach, but the tests of such qualities were leift almost wholly to authorities immediately interested in the school to be taught. In New England, where the town formed the administrative unit for local affairs, the selectmen or the school committees were to be satisfied of the finness of the taacher. In the advance of public education schools were established for the training of toachers, the initiation of which is claimed to have been in Massachusetts in 1839. The conditions as to satisfying the local authorities have not essentially changed in Massachusetts since professional schools were opened, though such authorities may accept the diplomas of normal schools as satisfactory evidence of qualification if they choose. Further details occur under Massachusetts, on a later page.

In New York as early as 1843 the State superintendent of priblic instruction was authorized to issue certificates, valid till revoked, as evidence that the holders were well qualified to teach any common school in the State. These certificates at first appear to hare been issued "on such evidence as may be satisfactory to lim." ${ }^{2}$ In later years it became lawful and customary to issue such certificates upon the recommendation of local superintendents añ school commissioners. ${ }^{3}$ A normal school was opened at Albany December 18, 1844. In 1849 it was enacted that a diploma from the State normal school entitled the possessor to be deemed a qualified teacher anywhere in the State. ${ }^{4}$

Here might be a claim for something like a recognition of a professional standing for a teacher, but the exemption from local examination was not secured by the possession of a State certificate. ${ }^{5}$ This decision affects the precedence which might have been claimed for New York in the recognition of teathing as a profession. The present professional standing in that State appears on a later page under New York.

The reciprocal influence of the United Sťates and Canada has been considerable, and especially between the English-speaking province of Upper Canada, now called Ontario, and the adjacent portions of the United States. Upper Canada in 1844 took a step resulting in the establishment of a normal school in 1846, and an eclectic school system in 1850, avowedly modeled in its machinery or law from New York; in the principle of support (free to all and maintained by taxation), adjusted to a local option, from Massachusetts; in text-books, from the national

[^51]board of education of Ireland; in normal schools, from Germany. The Province has a land survey similar to that in the States formed from the public domain, and its town municipalities have a resemblance to those of the United States where the town of New England has been modified in connection with the national land survey. The example of Upper Canada had such a direct influence in certain States that a brief outline of the professional standing of teachers in that Province is desirable at this point.

The law of 1850 provided for three grades of certificates from county boards of instruction-the first, upon examination in mensuration, elements of surveying, algebra, geometry, general history, vegetable and animal physiology, school management, and improved modes of teaching, was valid throughout the county till revoked; the second, upon examination in common English branches and some knowledge of school organization and classification of pupils, was valid throughout the township till revoked; the third, upon examination kindred to the second, but less rigid, was valid in the school section, a division of the township corresponding to the school district of some States, for one year.

Provision was also made for provincial certificates, as follows:
And be it enacted, That it may, and shall, be lawiul for the chief superintendent of schools, on the recommendation of the teachers in the normal school, to give to any teacher of common schools a certificate of qualification, which shall be valid in any part of Upper Canada until revoked according to law, provided. always, that no such certificate shall be given to any person who shall not have been a student in the normal school. ${ }^{1}$

Certificates issued under the above provision were of three classes, corresponding to those already named for local certificates. The first and second classes were valid till revoked, the third class for one year. The first issue was made June 18, 1853; 16 first class, 29 second class, 27 third class. A similar issue was made at the end of the next half year. ${ }^{2}$

In 1857 Hon. Egerton Ryerson, chief superintendent of schools for Upper Canada, wrote: "I may observe that certificates given by me as provided * * * are valid throughout Upper Canada, the same as a license of a physician." ${ }^{3}$

In June, 18.54, Pennsylvania had the first election of county superintendents, which was by the township directors. In May, 1857, a general lav was passed for the benefit of normal schools.

The tendency and aim in Pennsylvania is to make teaching an independent and honorable profession. * * * The normal school act, by the course and direction of the term of study, the probation to which its professional graduates are subjected and its two classes of State certificates, recognizes this object. * * * The distinction between the acquisition of knowledge and the ability to impart it to others is carefully preserved by requiring not only a theoretical knowledge of the art of teaching and practice in the model school, but two full annual terms of successful taching in the common schools before the teacher's full certificate or diploma can be obtained. ${ }^{*}$

At that time county superintendents issued certificates similar to those now used, except that the professional certificate was often permanent without further care on the part of the teacher. The general provisions for two classes of county certificates and two classes of State certificates have been maintained, as may be seen under Pennsylvania on a later page.

A State normal school was opened in Illinois October 5, 1857. At the meeting of the State Teachers' Association in December of the same year the forms of diplomas used in Upper Canada were exhibited and a committee was appointed to report upon professional certificates. The report was presented at the meeting

[^52]of 185s. In 1881 the legislature anthorized the State superintendent of public instruction to issue certificates of eminent qualifications upon examination by himself or others whom he should appoint, to be of perpetual validity in every school district in the State. The first examination was held July 2, 3, 1881, and five candidates received certificates. Under rules of the superintendent diplomas of State normal schools, with adequate experience, were acceptable in place of a written examination.

A later law makes it obligatory upon local boards to hold supplementary examinations, placing the professional license, like that of the New York State license, under the decision of the State superintendent in 1834, already cited. This is more fully shown on a later page, under Illinois.

In Wisconsin the subject of professional certificates was discussed from time to time-as, for example, at the State Teachers' Association in 18, ${ }^{3} \%$. In his report, as State superintendent of public instruction for the year ending August 31, 1862, Hon. J. L. Pickard said:

Until I had witnessed the workings of the system of State certificates in the State of Illinois I had many douhts as to its expediency. The results manifest in Illinois have removed all my objections and have encouragel me to urge its adoption in this State.

In 1858 a law was passed authorizing the issue of State cerfificates to teachers of eminent qualifications upon examination by a board of three competent persons appointed by the superintendent and acting under rules prescribed by him. The first examination was held August 12-14, 1868. Three candidaڭes were examined, of whom two receiveã certificates.
In West Virginia, by a law of -1863, "in oxder to afford encouragement and incentive to teachers to perfect themselves in their profession," county superintendents were required, on examination, to issue cert:ficates of five grades, valid in the county for one year. When any teacher lad received three No. 1 cerificates he was enticled to a recommendation from the county superintendent to the State superintendent, who, upon examination, would "grant him a professional certificate in proper form. engraved upon parchment, * * * by which certiifcate the bearer shall be held to be legally admitted to the profession of teacher within the State of West Virginia, which certificate shall be valid throughout the State and during the life of the bearer thereof," revocable for immora'ity or disloyalty clearly proven. In 1873 the diploma of the State Normal School was legalized as a certificate of qualifications to teach common schools throughout the State till revolzed by the State superintendent, and provision was made for life certificates upon examination by a State board of examiners. In 1881 the legislature annulled all State certificates and provided for the issue, upon examination, of county certificates, good for four years. Considerable complaint was made of the provision requiring all persons, whether heretofore exempted or not, to pass the annual county examination before they should be employed as teachers in the public schools. ${ }^{1}$

By the law of 1887 provision was made for limited State certificates, essentially as now issued and shown later under West Virginia.

California, by a law of 1883 , had provision for limited State certificates or diplomas, the longest term being six years. By a law of 1873 provision was made for life diplomas, essentially as now provided and shown later under California.

By 1873 the discussion of a professional license had become general, and various States recognized the demand. The present conditions in each State are shown below. In all cases some license, local or otherwise, is necessary to d̄raw public money, excepting a few instances where teachers of special subjects are not required to be examined.

To save many repetitions, it may be stated that testimonials of good moral character are universally required; where experience in teaching is prerequisite, it is successful teaching; "temperance," among subjects for axamination, means "physiology and hygiene, with special reference to the effects of alcoholic drinks, stimu'ants, and narcotics upon the human system," or a like requirement, unless otherwise explained; "elected" indicates chosen by the people; "common English branches" indicates the general group-orthography, reading, writing, arithmetic, English grammar, geography, history of the United States.

The year against each State indicates the latest edition of the law accessible when the synopsis was made.

To indicate the professional relation of State and county superintendents, the manner of their selection has been inserted when clearly shown in the law.

In many States special charters give cities, towns, or independent districts control over their own schools, occasionally with full power over the local licensing of teachers without exemption for county or State licenses. ${ }^{1}$ The conditions vary with individual charters, and therefore can have little notice here beyond the general mention. More special charters have been given for school purposes exclusively than for general purposes. As a rule, counties are subdivisions of̂ the State and cities are subdivisions of counties, each lesser unit continuing to pay taxes and be otherwise subordinate to the greater. Four great cities have become coterminous with counties: Now York, Philadelphia, New Orleans, and San Francisco, as also, practically, Waskington, D. C. The cities of Ealtimore ${ }^{2}$ and St. Louis ${ }^{3}$ have been detached from counties, and the cities of Virginia ${ }^{4}$ are as independent of comnties, except in details expressly defined in individual charters, as one county is of another.

In general, unless otherwise stated, licenses are valid for the town, county, or State of the authority issuing them.

The subject of education for the most part is left to State and local authorities, the National Government exercising littie authority over details in the States.

United States.-No certificate shall be granted to any person to teach in the public schools of the District of Columbia or Territories * * * who has not passed a satisfactory examination in physiology and hygiene, with special reference to the mature and the effects of alcoholic drinks and other narcotics upon the human system. ${ }^{5}$

Alabama, 1895. - Graduates of the State normal schools holding diplomas signed by the State superintendent are exempt from examination or fee and, by the law establishing normal schools, are entitled to teach anywhere in the State without further examination.

An edricational board, consisting of the county superintendent, elected in certain counties, appointed by the State superintendent in others, and two teachers appointed by him (county superintendent), examines candidates.

There are three grades of county certificates: First, examination same as following, with higher algebra, natural philosophy, geometry, theory and practice of teaching; valid three years. Second, examination same as following, with practical arithnetic, history of the United States, English grammar, intermediate geography, elementary algebra; valid two years. Third, examination in orthography, reading, penmanship, practical arithmetic through fractions, primary geography, temperance; valid one year.

[^53]Fee, $\$ 1$, to be divided between the appointive members of the board.
A diploma from any chartered institution of learning entitles the holder to a license without examination on payment of the fee.

Licenses are canceled whenever it appears to the board that the holders have been guilty of intemperance or unworthy or disgraceful conduct.

Arizona, 189i.-The Territorial board of education, consisting of the governor, treasurer, superintendent of public instruction, principal of the Territorial normal school, and chancellor of the University of Arizona, grants educational diplomas, valid six years, and life diplomas and revokes the same for immoral conduct or evident unfitness for teaching. It grants first-grade Territorial certificates to graduates of universities and chartered colleges of a similar rank when in its judgment deemed advisable.

Educational diplomas are issued only to such persons as have held first-grade Territorial or county certificates at least one year, with five years' experience. and have the recommendation of the Territorial board of examiners.

Life diplomas are issued upon the same conditions as educational diplomas, with the added requirement that experience must be of ten years, and examination in pedagogy, history of education, school economy, and school govermment.

Each person receiving a Territorial diploma pays a fee of $\$ 5$ to defray expense of its issue.

The Territorial board of examiners, consisting of the superintendent of public instruction and two competent persons appointed by him, has power to adopt regulations governing the examination of applicants for Territorial certifcates and for the government of county boards of examiners; to prepare questions for the use of county boards of examiners; to grant recommendations for life and educational diplomas; to grant Territorial certificates of the frrst grade, valid four years, and of the second grade, valid three years; to review an order grauting or revoking a county certificate; to revoke, for immoral conduct or unfiness for teaching, any certificates of its own issue; to renew certificates.

Applicants for first-grade Territorial certificates are examined as for second grade, with algebra, physiology, or natural philosophy added; for second grade, in common English branches, history, and Constitution of the United States, hygiene, and the school laws of Arizona. The standing in each study must be indorsed upon the certificate or it is not valid.

Normal school diplomas from any State normal school in the United States and life diplomas issued by any State board must be recognized as prima facie evidence of fitness for teaching, and on application of holders thereof the board may issue Territorial certificates and fix the grade thereof without examination.
Holders of first-grade Territorial certificates are eligible to teach in grammar schools; of second grade, in primary schools and as assistants in graminar sehools, except in the first grades.

The probate judge in each county, ex oficio superintendent of the public schools, and two competent persons appointed by him constitute a county board of examiners. This board examines applicants; grants first-grade certificates, valid four years in grammar schools, and second grade, valid two years in primary schools; revokes, for causes before named, certincates of its own issue; grants, without examination, county certificates, fixing the grade thereof, to lolders of life diplomas and normal-school diplomas, and renews certificates issued in the county; issues temporary certificates, valid to next regular meeting, upon due evidence of experience, but not more than once to the same person. The subjects for examination are those for the corresponding grades of Territorial certificates, and the standing in each must be indorsed on a certificate or it is not valid.

No one is eligible to receive a cerificate to teach who has not reached the age of 18 years.

Arkansas, 1897.-The (elected) State superintendent of public instruction furnishes questions for county examinations, grants State life certificates upon examination in branches required for county certificates and algebra, geometry, mental philosophy, history, Latin, constitutions of the United States and Arkansas, natural history, theory and art of teaching.

In each county the county court appoints one or two examiners, one for each judicial district. The examiners are required to be of high moral character and scholastic attainments and to be examined by the State superintendent, or someone appointed by him, using the current questions for first-grad licenses.

The county examiner is to license no one who does not believe in a Supreme Being.
A fee of $\$ 2$, paid to the county treasurer, is a prerequisite to examination.
Examination.-Common English branches, theory and practice of teaching, physiology and hygiene, method of designating and reading the survey of the lands of the State by ranges, townships, and sections and parts of sections, as surveyed, platted, and designated by the Government of the United States.

According to proficiency shown, certificates are of three grades: First, valid two years; second, valid one year; third, valid six months. They are revocable for immorality or incompetency and for willful failure to teach the method of designating and reading the descriptions of land according to the national land survey.

California, 1895. -The State board of education, consisting of the governor, superintendent of public instruction, principals of the State normal schools, president of the State University and the professor of pedagogy therein, grants educational diplomas of two grades, valid throughout the State for six years-high school, valid in any school where the holder is not required to teach other languages than English; grammar school, valid in any primary or grammar school. The board also issues life diplomas of two grades, corresponding to those above. Candidates must possess valid local certificates corresponding in grade to the diploma sought, have five years' experience for educational diplomas, ten years' for life diplomas, twenty-one months' service in the public schools of California, pay fees of $\$ 2$ each for expense of issuing diplomas.

A county board of education, consisting of the county superintendent and four others appointed by the board of supervisors, two, at least, experienced teachers holding valid certificates as high as grammar grade, may issue (1) high-school certificates and (2) grammar-school certificates corresponding to State diplomas for six years, except in their limitation to the county; (3) primary certificates, valid two years; also special certificates for special branches, valid six years. Fee, $\$ 2$, for teachers' institute and library fund.

The county board prescribes the branches for examination, except that candidates for primary certificates have a prescribed limited list of English studies, including methods of teaching, school law, industrial drawing, physiology, civil government, and vocal music, besides common branches.

The standing in each study and in the class must be indorsed on the certificate to give it validity.

The county superintendent may issue temporary certificates, valid to the next regular meeting of the board, upon like certificates issued by other boards. No fee; not renewable.

The grammar or primary county certificates may be granted without examination to the holders of life diplomas from other States or of educational diplomas of Nevada, Oregon, and Washington, San Francisco normal-class diplomas, California State University diplomas when recommended by the faculty, State normal diplomas of other States, grammar-grade certificates issued elsewhere in the State.

The county high-school grade certificate may be granted without examination
to holders of California State University diplomas, when recommended by the faculty; graduates' diplomas of any other institution in the United States recognized by the State board as of the same rank as the State University of California, when the holders have recommendations from the faculties showing that the holders have had academic and professional training of the required standard.
Certain cities having boards of elucation are authorized to have boards of examiners, consisting in each case of the superintendent and four experienced teachers eected by the board of education.
The powers of the city board of examiners correspond closely to those of the county board, except that the certificates are valid only in the cities where issued and there is a freedom of adjusting requirements to their own needs.
All teachers' certificates and diplomas are revocable for immoral or unprofessional conduct or evident unfitness for teaching.

Colorado, 189\%.-The State board of education, cousisting of the (elected) superintendent of public instruction, secretary of state, and attorney-general, upons recommendation of a board of examiners grants permanent diplomas to teachers. of eminent ability with two years’ experience in the public schools of the State, superseding all other examinations and valid in any locality.
The examinations are prescribed by the superintendent of public instruction and the presidents of the State University, the State Agricultural College, and the State School of Mines. State diplomas may be granted withont examination to those of scholarly attainments who have rendered eminent service in educational work of the State for a period not less than five years.
Diplomas of the normal school are valid licenses on registry in the counties where they are to be used. No fee is allowed for normal diplomas or certificates.
Diplomas are revocable after at least thirty days' notice to appear before the board for refutation of charges.
Kindergartens are authorized. The teachers must have diplomas of reputable kindergarten institutes or pass an examination prescribed by the kindergarters department of the State Normal School.
No certificate is required for teachers of music, drawing, or modern languages only.
The (elected) county superintendent holds a quarterly examination, with questions prepared by the State superintendent, upon common English branches, temperance, elements of the natural sciences, theory and practice of teaching, the school law of the State, and issues certificates of three grades: First, valid two years, renewable and available as the basis of an unrenewable certificate in any county; second, valid eighteen months; third, valid nine months-not issued more than twice to one person.

In case of emergency, county certificates of any State may be made good till the next regular examination by indorsement of the county superintendent.
School boards of districts of the first class (school population over 1,000) upons examination can issue certificates valid while teaching in the district.
The county superintendent may revoke certificates for just cause, with right of appeal to the State board.

Any teacher or school officer failing to provide temperance instruction to all pupils under his jurisdiction is to be removed from office.
Connecticut, 1895.-The State board of education, consisting of the governor, lieutenant-governor, and four persons appointed by the general assembly, one each year, may, on such examination as it may prescribe, grant certificates of qualification to tach in any public school in the State and may revoke the same. Such cert:ficates may be accepted by any board of school visitors or board of education in lieu of any other examination.

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A certificate of approbation signed by a majority of the board of school visitors or by all the committee appointed by them is essential to a teacher in any school recelving any portion of its support from the public money.

Detaware, 1893. -The county superintendent-a person of mental and scholarly attainments appointed.by the governor-hoids examinations, at such times and places as he may appoint, in common English branches, temperance, pedwgogy; also in algebra, geometry, civics, natural philosophy, elements of rhetoric. He issues certificates: Professional, to those answering 90 per cent of the questions upon subjects of the first list above and 75 per cent on the second list, valid four years; first grade, for 90 per cent on the first list, valid two years; second grade, for 75 per cent but less than 90 , valid one year; provisional, for 60 per cent but less than \%rs, valid one year.

Rovocation of certificates by the superintendent must be confirmed by the State boar 1 of education, consisting of the secretary of state and the county superintendents, to be effectral.

District of Columbia, 189\%.-The government is unique. The taxes are paid into the National Treasury. Congress controls appropriations. No one votes for public purposes except as he goes to his legal home from which official residence has separated him. Three Commissioners appointed by the President, by and with consent and advice of the Senate, constitute the executive, and, for many details, a legislative body. They appoint two superintendents of schools, ons being exclusively for colored schools, and a board of education. Under rules of this board the superintendents and persons selected annually by the committee on teachers and janitors, from the corps of supervising principals and principals, constitute a board of examiners, which holds regular examinations, opening on the third Friday of November and not exceeding three days.

Teachers' certificates are issued in four classes, as follows, commencing with the lowest:

The first-class certificate shall be sufficient evidence of the scholastic qualifications required for teaching in any school from the first grade to the third grade, inclusive; the second-class certificate for teaching in any school from the first grade to the filth grade, inclusive; the third-class certificate in any school from the first grade to the seventh grade, inclusive; the fourth-class certificate in any school from the first grade to the eighth grade, inclusive; and for all other positions the examinations and certificates shall be special.

Teachers of schools of any grade must be not less than 18 years of age,
Graduates or the Washington normal school [white] and of the [colored] normal school * * * shall be assigned to duty as teachers in the order of their standing and excellence, as shown by the certificates of the respective principals.

Graduates of other approved normal schools shall stand upon an equal footing with certificate holders, and may be nominated instead of the highest certificate holder, in the discretion of the local committee.

No certificate shall be ralid when the holder thereof has been out of the service of the District for a term of more than one year, unless leave of absence has been granted by the board.

No teacher shall be employed in any higher grade of schools than that for which his certificate was granted.

Fionida, 1894.-The (elected) State superintendent may issue life certificates to holders of State certificates with thirty months experience in a high school in the State when indorsed by three holders of State certificates as possessing eminent teaching ability and experience, without examination. He may issue special iife certificates to eminentiy successfal kindergarten or primary teachers of three years' experience in the State, limited to the class of schools.

The State superintendent issues State certificates to persons holding first-grade certificates with twenty-four months' experience, including eight months in the State, upon examination in geometry, trigonometry, physics, zoology, botany,

Latin, rhetoric, English literature, mental science, general history; general aveznge required, 8 per cent; minimum in any subject, 60; valid five years.

A prerequisite for every applicant for ezamination for any certificate is a fee of \$1. for expenses of a grading committeo and teachers' institutes.

The (elected) county superintendent coadacts examinations with questions prepared by the State superintendent. The answers are dosignated by mumbers, the names of candidates being identified later. They are sulmittel to a gradiag committee of three teachers holding the highest grade certificates in the county, selected by the (elected) connty board of public instrustion bofore the marking of the grading committee. The superintendent issues cerificates of three grades: First, examination same as third, and civil government, bookkeeping, algebra, physical geography; average grade, 80 per cent; minimum in any branch, 60 ; valid three years, and in any comty by indorsement of the local superintendent. Second, examination same as third; average grade, 75 per cent; mininum, 50 ; valid two yeara; not more than two issued to the same person. Third, examination common English branches, theory and practice of teaching; average grade, 60 per cent; minimum, 40 ; valid one year; no teacher to teach more than one year under a third-grade certificate.

Certificates are revocable for canse by the issuing authority.
Georgia, 1897.-The (elected) State school commissioner, upon satisfaction with the quality shown in papers of unusual merit, which county commissioners are required to forward to him, issues permanent teachers' licenses, good in any county, revocable by himself for good and sufficient cause. He prepares the questions for county examinations.

In each county the grand jury selects five freeholders as a board of education. This county board selects a county commissioner, ex officio superintendent of common schools. Candidates for this office are examined by the president of the board, or by someone appointed by him, with questions furnished by the State commissioner upon the subjects taught in the common schools-science and theory of common school teaching and government, and such other subjects as the State school commissioner may deem proner.

The county commissioners examine candidates on a day or days fixed by the State commissiouer, uniform throughont the State, grading paners subreitted by applicants according to instructions of the State commissioner, and submitting the papers with recommendations to the county board, which grants licenses of three grades: First, valid three years; second, valid two years; third, valid one year; according to their rank above the minimum set by the State commissioner. The licenses are valid in other counties by indorsement of local commissioners. As indicated above, papers of musual merit must be forwarded to the State commissioner.

The county commissioner is required to revoke county certificates for incompetency, immoraity, cruelty to pupils, or neglect of duties, with right of appeal to the county board of education.

IDAFO, 1893.-The State board of education, consisting of the superintendent of public instruction, secretary of state. and attorney-general, holds at least two public examinations annually, assisted by one or more persons selected by the board. Upon examination in all branches in the course of study prescribed for the public schools and such other branches as the board directs, and upon satisfactory evidence of "ability to instruct and properly manage any school in the State," the board issues: State diplomas to those of five years' experience, of which two have been in Idaho, valid for life; State certificates, experience, three years, valid five years. The board may issue certificates to persons holding diplomas or certificates from States requiring similar qualifications.

The diplomas and certificates are revocable by the State board, for cause, ariter at least thirty days' notice for opportunity of defense.

The State superintendent prepares questions and prescribes regulations for county examinations. The county superintendent holds one regular public examination and not to exceed three special examinations annually. Candidates must be 18 years of age, pass examination in common English branches, civil government, temperance, theory and practice of teaching, State constitution, and so much of the general school law as relates to teaching. Fee, $\$ 1$, for institute fund.

The county superintendent issues certificates of three grades: First, to those of one year's experience, valid three years throughout the State on filing a copy in the office of any county superintendent where the holder desires to teach; second, valid two years; third, valid one year; also, temporary certificates, valid in a specified district and only to the next public examination. He may revoke county certificates for cause, but not without opportunity for a personal hearing.

Illinois, 1896.-The (elected) State superintendent, upon public examination, on such terms and by such examiners as the superintendent and the principals of the State universities prescribe, grants State certificates valid in every county and every school district in the State, and of two grades-the higher for life; the lower for five years-revocable by the superintendent on proof of immoral or unprofessional conduct. (Compare with local examinations below.)

The (elected) county superintendent, upon examination in common English branches and temperance, issues certificates of two grades: First, valid two years; second, valid one year: also, special certificates limited in validity to the special study named on the certificate. He may renew certificates by indorsement and may revoke them for just cause. Candidates must be: Males, 18 years; females, 17 jears of age.

School districts having a population between 1,000 and 100,000 , not under special charters, elect boards of education required to examine teachers as supplemental to any other examination.

The peculiar requirement of the last-named examination led to a correspondence with S. M. Inglis, the State superintendent, whose statements are best given in extracts from two letters.

Under date of December 6, 189\%, the superintendent wrote the Commissioner of Education:

By Article VI, section 10, of the school law, boards of education in districts exceeding 1,000 in population have the authority to examine teachers as supplemental to any other examination, but such examination does not take the place of the examination required by the county superintendent or the State superintendent.

There are 48 districts in the State acting under special charters. * * * Unless otherwise provided by such charters, every teacher in the State. in order to draw publis money, must possess either the certificate of the county superintendent or that of the State superintendent.

Under date of December 13, 1897, he wrote:
A teacher holding a State certificate or a county certificate is subject to the local examination, under Article VI, section 10, provided the local boards require it.

So far as I know, the local examinations seldom occur, * * * the local authorities seeming to construe these provisions as permissive rather than mandatory.

Indiana, 1895.-The State board of education, consisting of the governor (elected), State superintendent of public instruction, presidents of the State university, Purdue University, and the State normal school, and superintendents of common schools of "the three largest cities in the State," grants State certificates to those possessing eminent scholarship and professional ability, valid to teach in any schools of the State, without further examination, for life.

The examinations are conducted by the county superintendents in February, March, and April. February list: Arithmetic, geography, English grammar, physiology, United States history, reading. March list: Algebra, civil govern-
ment, American literature, science of education, and two of the following threeelements of physics, elements of botany, Latin (grammar, two books of Cæsar, two books of Virgil). April list: Geometry, rhetoric, general history, physical geography, and two of the following three-chemistry, geology, zoology.

Applicants for life State license must have forty-eight months' experience, sixteen in Indiana, and pay a fee of $\$ .5$, in no case to be refunded. A person holding a thirty-six months' license is exempt from the February list.

Applicants for professional license take the March list only and pay no fee. They must have held two thirty-sis months' licenses and taught on them not less than five years immediately preceding the examination. The license is valid eight years throughout the State. A general average of 75 per cent with a minimum of 60 per cent in any subject is required. An applicant failing to pass for liîe State license, but meeting the requirements of a professional certificate, is entitled to it if he reaches the required average for a professional certificate but falls below the standard in one subject. He may be conditioned on such subject and receive a professional license on the same condition as if he had originally applied for a license of this class.

The temperance examination is obligatory for all licenses. The county superintendent, appointed biennially by the township trustees, licenses successful applicants for six, twelve, twenty-four, or thirty-six months, according to the ratio of correct answers and other evidences of qualification given upon examination in branches taught in the common schoo's. In examinations for graded schools the superintendent may consider any special fitness and make on the certificate a statement of the work for which an applicant is specially qualified. A six months' license is regarded as a trial license, not to be issued twice to the same person.
A person who has taught six consecutive years in the common schools of the State, and who has a three years' license, is exempt from examination so long as he teaches in the common schools of the county in which the current three years' license was obtained; but if he suffers a period of a year to pass without teaching a full school year within it his exemption ceases at the option of the county superintendent.
The county superintendent may revoke county certificates for incompetency, immorality, cruelty, or general neglect of the business of the school.

Iowa, 1897.-An educational board of examiners, consisting of the (elected) superintendent of public instruction, president of the State miversity, principal of the State normal school, and two persons, one a woman, appointed by the governor for terms of four years, holds annually at least two pubic examinations and issues-
State diplomus.-Examination as for certificates, and in geometry, trigonometry, chemistry, zoology, astronomy, political economy, rhetoric, English literature, general history, and such other branches as the board may require; valid for life; fee, $\$ 5$.
State certificates.-Examination, common English branches, physiology, algebra, botany, natural philosophy, drawing, civil government, constitution and laws of Iowa, dıdactics; valid, five years; fee, $\$ 3$.

One-half a fee is returned in case of failure. The net moneys are paid into the State treasury.
The board is authorized to issue State certificates to graduates of the State normal school, or of other State normal schools, or to holders of any State cerifificate of equal rank to those of Iowa, with thirty-six weeks' experience; State diplomas to like persons with five years' experience; also to issue State primary teachers' certificates.

All above are revocable on well-founded complaint entered by any county superintendent.

The (elected) county superintendent, holding a first-class or State certificate or diploma conducts examinations monthly on the common English branches and temperance. Special certificates may be issued, covering only the branches named therein.
Fee, 81, for the institute fund.
Certificates are valid for a designated time, not oxceeding one year.
Applicants passing also in didactics, elemontary physics, elemontary algebra, elemontary economics, with thirty-six weeks' experience, have certificates for two years. Fee, \$3, for institute fund.

Certificates are revocable, with opportunity for a hearing. Teachers failing to teach temperance lessons as provided are to have their certificates revoked and be dobarred from teaching one year.

Kavsas, 189\%.-A State board of education, consisting of the State superintendent of public instruction, chancellor of the State university, presidents of the State agricultural college and the State normal school, and three appointed by the governor, with adrice and consent of the senate, from those in school work in the schools of the State, upon critical examination, issues diplomas to those of two years' experience in the State, superseding all other examinations by local boards, valid in every locality during the life of the holder, unless revoked, as well as certificates valid three years.

The State board is authorized, on application, to examine the course of study and the work of any college or institution of like standing, and if approved as equal to the four years' courses of study in the State normal school the board may accept passed subjects by graduates of such institution and of the State institutions in lieu of examination on the same subjects, but the parties are eamined on the professional subjects in the normal-school course and such other subjects prescribed by the board as are not covered by their certified grades from the institutions.
The board issuez three-year cerfificates upon satisfactory examination as above, and at the end of three years, two of which have been spent in teaching, life certificates are issued in lieu of the first.
The bowd is further authorized to issue two grades--three years and five yearsof State certificates of high qualification to such teachers as are found on examination to possess the requisite scholarship, with evidence of good moral character, ability to teach, and skill to govern.
When the papers show a lack of knowledge in common English branches the board is authorized to require a specific examination thereon.

Certificates of other States, secured by an examination equivalent to that of the board, are recognized as a basis to issue like certificates.

All life certificates become void if the holder should not be engaged in school work for three consecutive years, but may be renewed by the board of education.

The board may cancel certificates on satisfactory proof of disqualifying conditions.

A county board of eaminers, consisting of the (elected) county saperintondent and two competent persons, holders of first-grade or State certificates or diplomas of cne of the State institutions, appointed by the county commissioners on nomination of the superintendent, for one year, holds examinations on the last Saturday of January, October, and April, and at the close of the county institute, with questions prepared by the State board of education.

Certificates of three grades are issued: First, age required, 18 years; experience, twelve school months; examination, common English branches, Constitution of the United States, bookkeeping, theory and practice of teaching, elements of natural philosophy, temperance; general average, 90 per cent; minimum, $\% 0$ in any one branch; valid three years and. by indorsement of local superintendent, in any
county. Second, age if years; experience, three school months; examination as above, less bookkeoping and elements of natural philosophy; general average, 80 per cent; minimum, 60 per cent; valid two years. Third, valid one year.
Temporary certificates valid kill next reguiar examination may be issued by the county superintendent upon written request of a district board, upon examination and in case of necessity, but not to one who failed at the last public examination nor twice to the same person.
Examinations are imperative for all county certificates, the temperance examination specifically. The certificates, except temporary, are valid in the comnty, except in cities of the first and second class having their own boards of examination. All are revocable by the board of examiners for cause. The diploma of the State normal school is a legal certificate valid for all common echools of the State, except, by the attorney-general's opinion, in cities of the first and second class.

Kentucky, 1896.-The State board of examiners, consisting of the (elected) superintendent of public instruction and two professional educators appointed by him, upon examination issues certificates of qualification for county superintendents, State diplomas and State certificates to teachers, and prepares questions for examinations by county superintendents, submitting all series of examination questions to the State board of education for their approval. The State board of education consists of superintendent of pablic instruction, secretary of state, and attorney-general.
State diplomas.-Age required, 24 years; experience, two years in the State; examination (personal) at the State capital last Wednesday of June and of August, in common-school branches, science and art of teaching, psychology, English literature, algebra, higher axithmetic, geometry, physics, and elementary Latin; general average, 90 per cent; minimun in any subject, $r 0$ per cent; valid in all schools maintained partly or wholly by the State till revoked or the holder shall fail for two successive years to be engaged in active school work; revocable by the State superintendent or, so far as his county is concerned, by a county superintendent; fee, $\$ 5$, to be paid to the two appointive members of the board of examiners.
State techers' certificates.-Age required, 21 years; experience, two years; examination before county board of examiners in applicant's county, with questions furnished by State board, in subjects as for State diplomas, except geometry, physics, Latin, on the same days in Twne and August as applicants for county certificates: arerage as for State diplomas; valid in common or graded schools of the State for eight years unless revoked or the holder shall fail for two snccessive years to be engaged in active school work; fee, S4, and registration fee for forwarding the answers; revocable as diplomas.
The (elected) county superintendent must hold a valid county certificate of the first class or a State certificate or diploma, which may be granted by examination before the State board or by a special county board consisting of the county judge, county clerk, and a person selected by them, upon questions furnished by the State board.
The county board of examiners, consisting of the superintendent and two strictly moral and well-ecucated persons holding county certificates of the first class or State certificates or dipiomas of literary institutions of high learning, appointed by the county superintendent, examines candidates 18 years of age, with questions prepared by the State hoard of examiners, upon the science and art of teaching, and the subjects in the common-school course including temperance. The papers of applicants for State certificates justifying the recommendation of the county board are transmitted to the State board, and certificates, upon approval by the latter, are issued as indicated previously. Three classes of county certifcates are issued: First, requiring an average grade of 85 per cent on subjects of the common-school course and science and art of teaching: minimum in any subject, 65 per cent;
valid four years. Second, average grade. 75 per cent; minimum, 55 per cent; valid two years. Third, average grade, 65 per cent; minimum, 50 per cent; valid one year. They are revocable by the county superintendent for incompetency, ineffciency, immorality, or unworthiness as a teacher.

Louisiana, 1894.-The governor, (elected) superintendent of public education, attorney-general, and six citizens appointed by the governor, one from each Congressional district, constitute the State board of education. It appoints parish boards of education.

The diplomas of the State normal school and of the Peabody Normal School at Nashville, Tenn., entitle their holders to first-grade teachers' certificates, valid throughout the State for four years, renewable by the State board of education.
In parishes the parish superintendent (of either sex, elected by the parish board) and two competent persons to aid him, selected by the school board of the parish, form an examining board. When two or more teachers apply for the same position a competitive examination is required, the appointment to be given to the most competent.

Fee for examination, $\$ 1$ for institute fund, refunded in case of failure to pass.
All teachers teaching "since three years" are exempt from further examination.
The temperance examination is obligatory.
For a high-school or first-grade certificate the applicant must be found competent to teach common English branches, elocution, rhetoric and literature, botany, philosophy, algebra, geometry, and such other studies of high grade as the local board deems necessary. A special certificate of this grade may be issued for specified branches in any academic department.

For a second-grade certificate the candidate is examined in the common English branches and elements of natural philosophy.

For a third-grade, the common English branches.
The certificates are revocable by the parish superintendent, subject to approval of the board, for incompetency, inefficiency, or unworthiness.

Mane, 180..-The management of schools in every town devolves upon a superintending school committee.

This committee, upon examination in common English branches, temperance, elements of the natural sciences, especially as applied to agriculture, and such other branches as they desire to introduce in the schools, issues certificates valid one year, renewable. By indorsement they may give validity to any graded certificate issued by normal-school principals or by the State superintendent (appointed by the governor, with advice and consent of the council).

Upon examination to test professional and scholastic abilities, the State superintendent issues probationary or permanent certificates indicating the grade of schools which the holder is qualified to teach. These certificates are to be accepted by local anthorities in lieu of the examination by themselves.

Maryland, 1894.-The governor, by and with the advice and consent of the senate, appoints at every session of the general assembly four persons, one from the Eastern Shore, who, with the governor and the principal of the State normal school, constitute the State board of education.

In like manner the governor appoints a board of three county school commissioners for each county (six in each of four named counties), one-third every two years.

The State board, on request of county boards, examines candidates for county examiner and may grant to teachers of long experience and established reputation professional certificates valıd till revoked for cause.

The board of county school commissioners elects a person not of their number secretary, treasurer, and examiner. Upon examination, and subject to sanction
of the board at its next meeting, the examiner issues certificates: First-grade examination, common English branches, bookkeeping, algebra, natural philosophy, with such other as added by the State board; valid five years. Second grade, common English branches; valid six months, to be extended to five years on satisfying the examiner of the proper qualifications.

In the discretion conferred by the law the State board has added: For first grade, general history, including Constitution of the United States and constitution of Maryland; physiology, plane geometry, theory and practice of teaching, laws and by-laws of public school system of Maryland. For second grade, history of Maryland, history of the United States, constitution of Maryland, Constitution of the United States, physiology, algebra to quadratics, geometry, one book of Wentworth or an equivalent, theory and practice of teaching, laws and by-laws of the public-school system of Maryland.

The diploma of the normal school is accepted as a valid certificate.
Any person holding a first-grade certificate or the diploma of a respectable college, or of a State normal schoo?, having taught seven years, five in Maryland, may apply to the State board for a life certificate.

Male applicants must be 19 years; female, 18 years of age.
No examiner is allowed to charge any fees.
All certificates are revocable for cause.
Massachusetts, 1898. -The school committee of the town is to ascertain by personal examination the qualifications of candidates for teaching and their capacity for the government of schools. The diplomas of the State normal schools may be accepted by school committees of towns and cities in lien of personal examination.

By an act of April 28, 1894, provision was made for examination and certification of teachers by the State board of education, consisting of the governor, lieu-tenant-governor, and eight persons appointed by the governor with the advice and consent of the council, to test prosessional as well as scholarly abilities of candidates. Certificates are to be probationary or permanent, and indicate the grades of school to which they apply. School committees may accept the certificates in lieu of local examination. At date of this compilation provision has not been made for carrying the law into effect.

Michigan, 1893.-An (elected) State board of education, having charge of the State normal school, holds at least two meetings annually, at which teachers are examined. It grants certificates entitling the holders to teach in any public school of the State without further examination, valid for life. Two years' experience in the State is prerequisite except for graduates of the literary and scientific departments of the university and of incorporated colleges of the State, who may receive the certificates apon examination. The certificate of comp'etion of an advanced course of study at the normal school, setting forth the studies completed, operates as a life certificate. This document is distinct from a diploma of graduation. The board may grant teachers" certificates without examination to those holding bachelor's or higher degrees and with courses of study of at least a year in the science and art of teaching at an approved college, valid four years, which, upon three years' experience in the State, may be changed for life certificates. Upon comp'etion of the course in the normal school for rural and elementary schools the board issues a certificate valid for schools of the classes named for five years. This may be suspended or revoked by any board of education.

The certificate of the proper factulty of the university to one graduating with a bachelor's or higher degree and completing the pedagogical course is a life certificate, valid anywhere in the State when filed or recorded with the local examiners.

The questions for county examinations are prepared by the Stato superintendent of public instruction.

In each county the board of supervisors appoints two persons as a board of school examiners in comection with the (elected) commissioner of schools, who must be a graduate of a reputable college or equivalent institution, hold a State teacher's certificate, or have held a first-grade certifcate, within two years of election, or been county commissioner under the act, except in certain small counties, where a second-grade certificate suffices.
The board of school examiners at appointed times, twice and not exceeding four times a year, upon examination in common English branches, temperance, and government, issues to persons $1 \%$ years of age certificates of three grades: First, experience required, one year-valid four years thronghout the State by indorsement of the Siate superintendent and filing a copy in the county where used; second, experience, seven months-valid three years in the county; third, Class A, experience, three years in primary departments of graded schools-valid in such departments only; Class B-valid in any school in the county for one year, no more than three times to the same person.
The board of examiners, wilhout examination, may renew certificates of those who attained 85 per cent in all stadies at two previous examinations, since which they have been continuously teaching in the county.
The county commissioner, upon examination, may grant limited certificates for designated districts valid to the next public examination; not twice to the same person nor exempting the teacher from a full examination.
Annual fee, $\$ 1$ for male, 50 cents for female teachers-initial fee collectible by board of examiners, later payments by director or secretary of board employing the teacher--set apart as an institute fund in the hands of the county treasurer.
In general, all licenses are revocable only by the anthority issuing them, but they may be suspended within their jurisdiction by any board after opportunity for a personal hearing.

Minnesota, 189\%.-Permanent teachers of high character and broad scholarship and who have a successful experience may, upon examination by the State superintendent, or by a committee of three competent teachers appointed by him, receive professional State certificates which shall entitle the holders to teach in any public school in the State without further examination: Provided, That no life certificate shall be in force after its holder shall permit a space of three years to lapse without following some educational pursuit, unless his certificate be indorsed by the State superintendent: Provided further, That a graduate of a college or university of good standing io the State who has received a first-grade certificate and has taught with ability and success in any public school at least one year shall be entitled to a professional certificate from the State superintendent without further examination.
The branches required for a professional State certificate are written arithmetic, United States history, reading and elocution, English grammar; common and physical geography, with map drawing; mathematical geography and projection, school economy, physiology, algebra, natural philosophy, chemistry, composition and rhetoric, bookkeeping, plane and solid geometry, plane trigonometry, geology, zoology, botany, English literature, general history, political economy, intellectual philosophy, moral philosophy, logic, astronomy, civil government and school laws, history of education, and the theory and art of teaching.

The diploma of a Minnesota normal school is valid as a State certificate for two years. After two years' experience, by indorsement of the president of the normal school and the State superintendent, the diploma of the elementary course becomes vaid for five years, and that of the advanced course for life.

Combty superintendents, upon examination, issue certificates of three grades: First, a term of three months' experience requisite, valid two years; second, valid one year; third, valid in a specified district six months.

Examination: Common English branches, temperance, and, for first grade, elementary algebra, elementary plane geometry, physical geography, natural philosophy, civil government, theory and practice of teaching.

Any city, town, village, township, or school district with not less than 500 inhabitants, unless consisting in whole or in part of one incorporated city, town, or village, and not above 6 miles square, may be organized as an independent district, with a board of three examiners appointed by the local board of̈ education so that the term of one expires yearly, who may indorse the certificates issuel by ths county superintendent on examination made at their request. These examiners are authorized to conduct independent examinations.

The county superintendent may cite a teacher to reexamination, and on being satisfied of defect in learning, character, or ability, or on refusal or neglect to attend, he is to revoke his certificate. Neglect to provide temperance instruction is to be deemed sufficient catise for annulling a teacher's certificate.

Local superintondents may suspend normal certificates. County superintendents and boards of examiners in independent districts have power to revoke certificates issued by them, subject to appeal to the State superintendent.

Mississippi, 1894.-The board of education, consisting of the secretary of state, attorney-general, and (elected) superintendent of public instruction, appoints a board of three examiners, of whom two are graduates of colleges or teachers with first-grade certificates, to examine all candidates for county superintendent on subjects required for first-class certificates and on the school law. Prerequisite fee, $\$ 5$, cqually divided between memlers of the board of esaminers.

The board of education is empowered to issue professional licenses to teachers of recognized ability upon examination in algebra, geometry, rhetoric, English literature, elements of botany and of chemistry, science of teaching, civil government, Latin (through Cæsar and Virgil).

The State superintendent prepares questions for county examinations.
The county superintendent, appointed by the State board of education, and two first-grade teachers, one appointed by the county school board, the other by the supervisors, constitute a board of examiners. No teacher of a normal or training school is to be on the board.

The county board issues licenses of three grades: First, to those 17 years of ageexamination as below, and history of Irississippi, elements of natural philosophy, civil govermment; those of 85 per cent general average valid two years, those of 90 per cent valid three years, renewable in the county as long as the holder continues to teach, and after five years' teaching under first grade the teacher is exempt from further examination; experience, six months. Second, examination common English branches and temperance, but a certificate is not to be withheld for failure on the latter; general average, is per cent; minimum in any branch, 50 ; valid one year. Third, examination as second; general average, 60 per cent; minimum, 40; valid one year.

The county superintendent may suspend or remove any teacher for disqualifications, and has the same power as a justice of the peace to issue subpenas for witnesses for inquiry or trial. For good cause he may revoke a license, unon trial, after ten days notice to the teacher of the charges, with right of appeal to tho State board of education.

Missouri, 1897.-The (elected) State superintendent of public schools is authorized, on examination, to grant certificates exempting from further examination by any examiners, without any fee, and revocable for incompetency, cruelty. immorality, drunkenness, or neglect of duty:
The normal diploma for the "advanced course" has the force of a permanent State certificate, revocable like preceding.

The normal diploma for the "elementary course," bearing the names of the studies completed and the grade in each, is a valid state certificate for two years, revocab'e as preceding.
The normal diplomas are from the normal schools, the normal department of the State University, and Lincoln Institute.

An institute is required annually in each county. A county institute board of examiners, consisting of the county commissioner and the conductors and instructors of the institute, no minimum being below 50 , issues certificates of three grades: First, examination same as second and the third years' work of the institute course; average, 90 per cent; required experience, one year; valid three years. Second, examinat:on same as third and the second years' work of the institute course; average, 8.5 par cent; valid two years. Third, examination, common English branches, civil government, temperance, first years work of the institute course; average, 80 per cent; valid one year.

The county commissioner on examination, preceded by payment of a fee of $\$ 1.50$, issues certificates of two grades: First, examination same as second, and etymology, algebra, zoology, rhetoric, botany, geometry, physics, literature; average as bolow; valid two years. Second, examination, common English branches, civil government, theory and practice, temperance; average, 80 per cent; minimum, 60 per cent; valid one year.

Certificates are revocable for causes named heretofore, on satisfactory proof furnished the commissioner, all charges to be preferred in writing and signed by the party bringing the accusation.

Montana, 1895.-The State board of education, consisting of the governor (elected), state superintendent of public instruction, attorney-general, and eight others appointed by the governor, by and with the consent of the senate, grants: Life diplomas-Examination, same as State diplomas, and elements of botany, geology, political economy, zoology, general history; experience, ten years. Sate diplomas-Examination, a first-grade county certificate, with English literature, mental philosophy; experience, five years; valid six years.

A State or a life diploma may be granted to any graduate of the State normal school or of the State University after sisteen months' experience in the public schools of the State; also to graduates of other educational institutions in or out of the State, on conditions established by the State board.

The State superintendent may revoke a State or a life diploma for incompetency or immoral conduct, after serving the holder with a written statement of the charges and giving him opportunity for defense before the State board.

The State superintendent prepares all questions for the county superintendent, who must holl a certificate of the highest county grade and have twelve months' experience in the State.

The (elected) county superintendent issues to candidates 18 years of age, who have paid $\$ 1$ fee for institute fund, certificates of three regular grades: First, examination same as second, and American literature, natural philosophy, plane geometry: experience, twelve months; valid three years, and in any county in the State on registry therein and payment of fee. Second, examination same as third, and civics of the United States and of Montana, physical geography, elementary algebra; valid in the county two years. Third, examination, common English lranches, theory and practice; valid one year.

A temponary certificate, good to the next regular examination, not more than once to the same person, is permitted.

Special certificates for penmanship, music, drawing, a modern language, limited to the branches specified, valid three years, are issued on request of district boards.

County certificates are revocable by the county superintendent for causes comprising crime against the State law, incompetency, and neglect of duty.

Nebraska, 189\%.-Upon examination by the State superintendent, or a committee of three competent teachers appointed by him, permanent teachers of high character and broad scholarship, with due experience, receive professional State certificates, valid for any public school in the State, without further examination.
Graduates of collezes and universities of good standing, who have received certificates of the first grade and who have tanght in any high school in the State three years, are entitled to professional certificates without further examination.
The (elected) county superintendent issues certificates of three grades: First, examination same as second, and algebra, geometry, and natural philosophy; experience, one vear; valid two years. Second, examination same as third. and history of the United States, civil government, bookkeeping, blackboard drawing, theory and art of teaching; valid one year. Third, examination, common English branches and physiology; valid in a specified district not more than six months, no person to receive more than three. The temperance examination is required of all teachers.
Any authority conferring certificates may revoke them, but the county superintendent can only report to other authorities regarding certificates issued by them that they ought to be revoked, assigning reasons therefor.
A student of the State normal school, having completed the common-school course, receives a certificate valid throughout the State for two years; with the higher course, completed, receives a diploma, valid three years, and after teaching the equivalent of two annual terms of six months each, duly certified, receives an additional diploma good for life. A graduate in the higher course with three years' previous experience is entitled to a life diploma on graduation.
To be vaid locally, State certificates or diplomas are registered in the county where they are to be used, with a fee of $\$ 1$ for the institute fund.
Life diplomas are void after the holders permit a space of three years to lapse without following some educational pursuit, unless indorsed by the acting State superntendent.

Nevada, 1893.-The State board of edication, consisting of the governor, (elected) superintendent of public instruction, and attorney-general, grants: Life diplomas on same conditions as educational diplomas, except requiring ten years' experience; educational diplomas to such as have held a State certificate or a firstgrade county certificate one year, with five years experience, valid six years; State certificates upon an appeal only after examination by a county superintendent, and on his recommendation renewing a certificate or making it valid thronghout the State.
The State board may grant to the holder of a life certificate of any State, or diploma of any State normal school who has taught continuously since issuance of his diploma or certiticate, a State certificate without examination.
The board grants to graduates of the normal departinent of the State University a first-grade State certificate, valid five years: and to those holding these certificates after four years' experience in any Sta'e life diplomas.
The regents of the university may issue elementary diplomas to those completing at least two-thirds of the normal course upon which the State board is to issue second-grade State certificates, valid for such period as deemed proper, in their discretion.

The State board prepares all questions for county examinations.
A county board of examination, consisting of the (eiected) county superintendent and two competent persons appointed by him, grants to those who have passed examination upon the branches pursued in the respective grades: Certificates of the first grade for unclassified grammar and high schools, valid three years; second grade, for primary schools, valid two years. The hoider of a life cerfificate of any State or a California State Normal Schocl diploma issued within five years receives a county certificate without examination.

New Hampshire, 1895.-The State superintendent of public instruction, appointed by the governor, holds examinations, through such persons and in such manner as he may designate, to test professional and scholastic abilities of applicants. To those passing in branches required to be taught and such other respects as the superintendent requires he issues either probationary or permanent certincates, indicating the grade of school in which the holders are qualified to teach.

Local school boards are required, upon examination, to issue certificates, valid not more than one year, to those passing satisfactorily in branches prescribed by law, inciuding temperance for all schools above the primary. They may accept certificates issued by the State superintendent in lieu of a local examination.

New Jersey, 1895. -The State board of education consists of two membors from each Congressional district, appointed by the governor.

The Stafe superintendent of public instruction, appointed by the governor, is ex officio secretary of the State board of examiners.

The State board of examiners, consisting of the State superintendent and the principal of the State normal school, grants certificates, under regulations proscribed by the State board cif education, valid in any part of the State for schools not higher than the grade specified in the certificate.

The county board of examiners, consisting of the county superintendent (appointed by the State board of education) and a number of teachers, not exceding three, holding State or first-grade county certificates, acts in accordance with regulations prescribed by the state board.

Under the regulations the required minimum average in any subject is 70 per cent.

The diploma of a college in good standing is accepted in lieu of examination in prescribed academic subjects.

The State board may indorse the diploma of any normal school or training college or permanent certificate of another State deemed equivalent in requirements to those in New Jersey, giving the document full force in the State.

Any board of examiners accepts certificates of any grade, except third-grade county, carrying a general average of 85 per cent in lieu of examination on the topiss specified, provided the holder has been continuously teaching since its issue.

Special certificates may be issued valid three years for subjects specified.
The State board of examiners, with two examinations yearly, grants State certincates of three grades: First, age, 25 years; experience, 5 years; examination same as second grade: valid for life for any school in the State. Second, age, 21 years; examination same as third grade, with philosophy of education, principles of manual training, and physical culture; valid ten years in any school, renewable without reexamination. Graduates of the State normal school who have completed the three years' course are entitled to a second-grade State certificate, good for life. Third, age, 20 years; examination same as first-grade county certificate, with psychology, plane and solid geometry, chemistry', geology, botany, freehand drawing; valid seven years, like preceding.

The third-grade State certifcate is deemed to rank next above a first-grade county certificate.

The temperance examination is obligatory for all certificates.
County superintendents issue certificates of three grades: First, age required, 20 years; experience, two years; examination same as second, with algebra, physics, history of education, Constitution of the United States, school law of New Jersey; valid in any school or department in the county for five years; renewable without reexamination. Second, age, 19 years; experience, one year; examination same as third, with English composition, physiology, history of the United States, bookkeeping; valid three years for any school or department not above grammar grade. Third, age, 18 years; examination, common English branches, with theory and
practice and temperance; valid one year in ungraded or primary school; not issued to the same person more than once.

Every county certificate shows the average made in each study.
Any certificate may be revoked for couse by the board issuing it, or by the State board of examiners.

Neiv Mexico, 1895.-Dipiomas of graduates of the normal schools, the Territorial university, the school of mines, the agricultural college, and teachers' graduate diplomas of St. Michael's College are valid first-class certificates in all counties. The (elected) county superintendent, with two competent persons appointed. by the judge of the district court, issues certificates of three years, upon such examination as prescribed by the Territorial superintendent (appointed by the governor).

New York, 1883.-The Stata superintendent of public instruction (elected by joint ballot of the senate and assembly), upon examination, may grant certificates of qualification valid in any public school of the State; without examination, may issue to graduates of colleges and universities, with three years' experience, a so-called "college graduate's certificate;" may indorse nor'mal school diplomas, or State certificates from any other State, giving them the validity of diplomas and certificates issued in the State; may issue temporary licenses, limited to a school commissioner's district or to a school district, for a period not exceeding six months.

The diploma of a State (New York) normal school is a valid certificate for common schools. The following statements are important in this connection: About 3,000 State certifcates, valid for life, were issued previous to $18 \%$, without examination. Since 1875 no such certificates have been issued, oxcept on thorough examimation; 623 certificates have been awarded. Fifteen đistricts, organized by special acts before the adoption of any general standard of qualification in the law, claim the right to ezamine and license teachers employed therein. "In some cities even State certificates and normal-school diplomas are not accepted. This action can not be justified." (Forty-third Annual Report State Superintendent New York, year ending July 31, 1896, pp. xx-xxii.)

The (elected) school commissioner in each commissioner district (from one to three districts in a county), upon examination under regulations prescribed by the State superintendent, issues certificates of qualification.

All candidates must be 18 years of age.
The temperance examination is universally obligatory.
The State superintendent, on cause shown to his satisfaction, may anmul any certificate or normal diploma and may reconsider and reverse his action.

The district commissioner, on eramination of charges, with opportunity anforded the teacher for defense, may annul any certificate and declare the holder unfit to teach if charges are sustained.

From January 1, 1897, it has been required that any person to be licensed to teach primary and grammar schools in any city authorized to employ a superintendent of schools shall have three years' experience or have graduated from a three years' course in a high school or acaderny or equal institution approved by the State superintendent, and also have graduated from a school or class for professional training of not less than thirty-eight weeks, in lieu of which may be accepted a State normal diploma or a State certificate, obtained on examination.

The board of education of any city, except the city of New York, and of any village with a superintendent, is authorized to maintain a normal school or class not less than thirty-eight weeks in any school year.

Boards of education in cities of the first and second class, through a board of examiners, are authorized to issue local high-school, grammar, and primary certificates, valid one year and renewable; temporary certificates, valid to next regular examination, not renewable; special certificates for special branches, all revocable for causes named in previous cases.

North Carolina, 1897. -The State board of examiners-consisting of the State superintendent as chairman and three professional teachers appointed by the State board of education-has power to grant first-grade life certificates. The board furnishes the questions to county supervisors for candidates and grades the answers. Prerequisite to examination is a fee of $\$ 5$ for the general school fund of the county. To be kept valid the certificate must be renewed every five years upon an affidavit of having taught since the last renewal. No fee is required for renewal.

The graduates of Peabody Normal College, Nashville, Tenn., in the degree of licentiate of̂ instruction or higher, are recognized as certified for life as teachers in any and all public schools.

Certificates are revocable for cause. A county board of education-consisting of three men of good business qualifications, known to be in favor of public education, elected by the board of county commissioners-with the clerk of the superior court and the register of deeds elects a county supervisor of schoois, a practical teacher or with at least one year's experience.
The supervisor examines teachers on prepayment of a fee of $\$ 1$ for regular quarterly days and $\$ 1.50$ for any other day, paid into the general school fund of the county. The subjects are the common English branches and temperance.

No certificate is to be issued to an applicant making less than 50 per cent in any one branch.
A general average of 90 per cent and over entitles the applicant to a first-grade certificate; a general average of 80 to 90 per cent, to a second grade.

Certificates are valid for one year.
North Dakota, 1896.-The (elected) superintendent of public instruction, the holder of a State certificate of the highest grade issued in some Staite, or a graduate of a reputable university, college, or normal school prepares or causes to be prepared all questions for examination of teachers, county and State, and prescribes the scale of marking. He may issue a State certificate valid for life, knowa as a professional certificate, on examination, to a candidate of five years experience, or to a gradate of the four years normal college course in the University of North Dakota with three years' experience, without examination.

If the holder of a professional certificate ceases for the space of three years to be engaged in active educational work he is liable to reexamination and to canceilation of his certificate under rules prescribed by the State superintendent.

The State superintendent may issue, with or withont examination in his discretion, to a graduate of a normal school in the State or elsewhere with two years' experience, a normal certificate valid throughout the State for five years. A graduate of the four years' normal course in the University of North Dakota with one year's experience may receive this diploma without examination.
Fee for above certificates, $\$ 5$, to be used for teachers' reading circles.
The (elected) county superintendent issues certificates of three grades: First, age required, 20 years, experience, twelve months; examination, same as second, and physical geography, elements of natural philosophy, physiology, geometry, algebra; valid three years. Second, age required, 18 years; examination, same as third, and theory and practice of teaching; valid two years. Third, age required, 18 years; examination, common English branches, temperance.

Fee, 81, for county institutes.
All certificates are revocable for cause, generally with opportunity for defense. Revocation is mandatory for neglect to teach the temperance lessons.

Оніо, 189\%. - A State board of examiners, consisting of five competent persons appointed by the (elected) State commissioner, upon examination and professional experience, issues three grades of life certificates for different grades of
schools according to branches taught therein, valid without other examination throughout the State. Fee, $\$ 5$.

In each county the probate judge appoints a board of three examiners, including two teachers, using in their option questions prepared by the State commissioner and the secretary of the State board of examiners. This board issues certiticates valid for one, two, or three years in the county outside city and village districts that have boards of examiners; also certificates valid five years, renewable upon examination and three years' recent experience; also special certificates for special studies and for primary departments. Temperance examinations are uniformly required. Fee, 50 cents.

All certificates are revocable for good cause. Revocation is mandatory for willfully refusing or neglecting to teach the temperance lessons. -

Oflafona, 189\%.-A Territorial board of education, consisting of the Territorial superintendent of public instruction (appointed by the governor, with advice and consent of the Territorial council), president of the Territorial normal school, president of the University of Oklahoma, and one county superintendent, appointed by the governor, issues Tervitorial certificates and diplomas and prepares questions for county and city examinations.

In each county is a board of examiners composed of the superintendent and two competent persons, holders of first-grade certificates, Territorial certificates, or graduates of some State university, normal school, or agricultural college, appointed by the county commissioners on nomination of the superintendent.

County certificates are of three grades: First, age required, 20 years; experience, twelve months; examination, same as second, and bookkeeping, natural philosophy; general average, 90 per cent; minimum in any branch, ro; valid three years Second, age required, 18 years; examination, same as third, and civil government; general arerage, 80 per cent; minimum, 60 ; valid two years. Third, age required, 16 years; examination, orthography, reading, writing, English grammar, composition, geography, arithmetic, United States history, physiology and hygiene, theory and practice of teaching; general average, $\% 0$ per cent; minimum 50; valid one year.

Also, temporary certificates, valid till next regular examination in a designated district, only once to the same person.

Fee, $\$ 1$, for institute fund.
Revocable for cause.
OREGON, 1893.-A State hoard of education, consisting of the governor, secretary of state, and (elected) superintendent of public instruction, on examination, grants:

Life diplomas, valid in any public school; fee, $\$ 10$.
State diplomas, valid, as above, for six years; fee, $\$ 6$.
State certificates: First grade, valid, as above, for two years; fee, \$4. Second. grade, valid, as above, for six months; fee, $\$ 2.50$. These are the equivalents of county certificates of like grade, except in area of validity.
The fees constitute a fund to pay expenses of professional teachers invited to act as assistants in the examinations.

The board may issue, in its discretion, without examination, diplomas and certificates to persons presenting diplomas and certificates of like grade and kind from other States.

All the above are revocable for immoral or other unprofessional conduct.
By rules of the State board the requirements are:
For life diplomas, examination same as State diplomas; general average, 90 per cent; minimuin in any branch, 75.

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For State diplomas, examination same as first grade certificates, and Constitution of the United States, general history, plane geometry, English literature, natural philosophy; general average, 85 per cent; minimum, 75.
For first-grade certificates, examination same as second grade, and algebra, bookkeeping, composition, and school law of Oregon; general average, 85 per cent; minimum, 60 .
For second-grade certificates, examination common English branches and theory and practice of teaching; temperance; general average, 75 per cent; minimum, 50.
By the law teachers with first-grade county certificates and three years' experience, fees paid, are enticled to first-grade State certifcates without further examination; those with State certificates and four years' experience, fees paid, and (county) examination in bookkeeping, composition, and physical geography, are entitled to Stats diplomas; those with State diplomas and six years' experience, fees paid, and (county) examination in algebra, English literature, State school law, and general history, are entitled to State life diplomas.

Persons 21 years of age, or, if females, 18 years of age, at least one yoar in normal school, having completed the course and passed examination thereon, with six years' experience, and fees paid, are entitled to life diplomas.

All graduates of the State normal school are authorized to teach in any public school in the State.

A county board of examiners, consisting of the (elected) county superintendent and two competent persons appointed by him, upon examination in the same branches as for State certificates, and marking on the certificates the standing in each branch, issues three grades of certificates, no grade renewable or to be issued to the same person twice, valid only in the county: First, age required, 18 years; experience, twelve months; general average 90 per cent; minimum in any branch, 70; valid three years. Second, age required, 17 years; experience, three months; general average, 80 per cent; minimum, 60; valid two years. Third, general average, 70 per cent; minimum, 40 ; valid one year. Fee, $\$ 1$, for institute fund.

The county superintendent may issue a temporary certificate, in case of necessity, good to next regular examination, not twice to the same person, nor to one who failed at the last regular examination. Fee, $\$ 2.50$, for institute fund.

Pennsylvania, 1896.-The (State) superintendent of problic instruction (appointed by the governor and confirmed by the senate) issues permanent certif. cates to teachers holding professional certificates, with applications duly indorsed by boards of directors in whose employ they have tanght the last three years, and the county superintendent, and by a committee of three practical teachers hold. ing valid certificates, appointed by the State superintendent as examiners, with or without examination, in their discretion, valid locally, with provision for validity for one year in any part of the State, and permanently thereafter. He also, without examination, grants permanent State cerififates to graduates of reputable colleges with courses of study not less than four years, 21 years of age, and with three years' exporience in the public schools of the Commonwealth.

A board of examiners, consisting of the State superintendent, 2 principals of normal schools, and 2 to 6 local superintendents, selected by the State superintendent, examines candidates for graduation in the normal schools, giving normal elementary certificates setting forth expressly the branches in which each is found qualified, including theory but not practice of teaching; also examines teachers of threa years' experience in like manner for practical teachers' State certificates of scholarship; the certincates valid throughout the State without further examination and with the privilege of additional indorsement of the fact when an additional subject has been passed, including practice of teaching, after full graduation and two
years' experience, becoming a master's normal certificate, or three years' experience for those not normal graduates, becoming a full practical teacher's State certificate.

The local superintendent must possess a diploma of a reputable college, a State normal school, a professional certificate, or a certificate of competency from the State superintendent, and have had successful experience in teaching within three years of his election. The county superintendents are elected by the school directors (of the towns).

All certificates show the branches passed and the proficiency in each. The temperance examination is obligatory for all certificates, and any school committees or boards of control failing to provide for instruction in temperance for all prpils in all departments of public schools and for institutions supported wholly or in part by money from the Commonwoalth forfeit their share of the State appropriations.

Local superintendents issue two grades of certificates: Professional, to those with thorough knowledge and successful experience: valid one year after the term of the superintendent issuing it, and renewable without examination. Provisional, to those with fair knowledge of the (elementary) branches and theory and practice of teaching, or to those with thorough knowledge bat litctle or no experience; valid one year.

Certificates are revocable on ten days" notice. "The words of the law, taken literally, confer the arbitrary power without reason assigned or hearing. But no person fit for that responsible office [county superintendent] will attempt to exercise it in such manner." ${ }^{1}$

RHODz IsLand, 1898.-No person shall be employed to teach, as principal or assistant, in any school supported wholly or in part by public money unless such persous shall have a certificate of qualification issued by or under authority of the State board of education.

The State board of education shall hold or cause to be held in such places in different parts of the State, and at such times as they may determine, examinations for the position of teacher in the public schools of this State, and said board of education is hereby authorized to issue certificates of qualification, which shall be valid throughout the State for the grade and time specifed therein.

Said board of education may at any time annul, for cause, any certificate issued by them after due notice to the holder thereof, and an opportunity for a hearing, if desired.

Said State board of education may, in their discretion, issue certificates of qualification, without examination, to persons who have taught in the public schools in this State for three or more years upon their filing with said board a written appiication approved by the school committee of the town where the applicant shall have tanght the greater part of the three years next preceding the date of the application.

South Carolina, 1898.-The State board of education-consisting of the governor, (elected) Stato superintendent of education, and seven persons, one from each Congressional district, appointed by the governor-prescribes rules for the examination of teachers, grants State certificates, and revokes them for immoral or unprofessional conduct, profanity, or evident uncitness for teaching. Graduates of the Memminger Normal School, Charleston, are not required to have certificates except as required by the board for the city of Charleston.

A county board-consisting of the superintendent (elected) of education and two other persons, appointed by the State board and qualified to hold first-grade cer-tificates-examines teachers and gives certificates under regulations of the State

[^54]board. A full diploma from any chartered college or university in the State, or the Memminger Normal School exempts from examination as to qualification.

By the rules of the State board, teachers' State certificates are issued to candidates 20 years of age who pass satisfactory written examination or present full diplomas from some college or university of standing satisfactory to the board; valid throughout the State for two years; renewable. Applicants before county boards are examined in common English branches, history of South Carolina, temperance, theory and practice of teaching, elementary algebra, drawing, English literature, and vocal music, with questions furnished by the State board.
There are two grades of teachers' county certificates. First, general average, 80 per cent; minimum on any branch, 50. Second, Class A-average 80, minimum 50; Class B-average $\% 0$, minimum 40. Candidates must be 18 years of age. Certificates are valid two years. First, renewable; second, renewable only when holder attends a teachers' institute; B, not renewable.
The county board may recognize certificates issued in other counties. Certificates are revocable by the authority issuing them, for immoral or improper conduct or evident unfitness for teaching.
Universities and colleges are authorized to provide a course of study, to be approved by the State board of education, on completion of which the degree of Licentiate of Instruction is to be given the student, and the presentation oî the diploma for this degree to a county board of education will entitle the holder to $a^{\circ}$ first-grade teachers' certificate to teach in the public schools of the county.

South Dakota, 1893.-The State superintendent prepares all questions for examination of teachers by county superintendents, and has power to grant State certificates and State diplomas, with examinations at least twice each year.

A State diploma is valid for life.
Candidates must hare ten years' experience; present the diplomas of the institution of which they are graduates or be examined in branches selected by the State superimtendent; be examined more or less fully in theory and practice, according as they are or are not graduates of reputable normal schools; be examined in two subjects, selected from geometry, trigonometry, astronomy, chemistry, zoology, or geology; also in two from English literature, rhetoric, general history, political economy, or psyschology. Each writes a thesis of 3,000 to 5,000 words upon a topic in one of the branches under examination; submits a thesis on a prefessional subject chosen by the superintendent. Fee, $\$ 10$.

A State certificate is valid ife years in any of the common schools of the State, including those in cities and towns. Candidates must have three years' experience, pass examinations in algebra, geometry, natural philosophy, physiology, and hygiene, drawing, civil government, general history, and American literature. The judgment as to English grammar, orthography, and penmanship is based upon the papers submitted.

The diploma of one of the State normal schools entitles the holder to receive the State certificate free of charge. Usual fee, $\$ 5$.
The fees above are for the State teachers' reading-circle fund.
State certificates and diplomas are revocable by the State board of education.
County superintendents, after examinations, held quarterly, issue certificates of three grades: First, required age, 18 years; examination same as second and current events, bookkeeping, American literature, drawing; valid in every county; issued by the State superintendent on approval of the marking of the county superintendent. Second, required age, 17 years; examination same as third and civil government, didactics; valid one year in the county. Third, examination, common English branches, temperance; valid one year or less in designated schools. Fee, $\$ 1$; for county institute fund.

Revocable, after opportunity for a fair hearing, for causes, including neglect to attend county institute.

In cities and other independent distric ts teachers engaged exclusively in teaching music or other specified special subjects are not required to hold a county certificate.

Tennessee, 1895.-The State superintendent of public instruction-a person of literary and scientific attainments and of skill and experience in the art of teaching, nominated by the governor and confirmed by the Senate-prescribes the mode of examining and licensing teachers and their necessary qualifications.

The county superintendent, of like qualifications as the State superintendent, selected by the county court, examines candidates and issues certificates as indicated by the State superintendent.

The temparance examination, includ ing the effect of cigarette smoking on the human system, is obligatory.

Diplomas of graduation from normal schools of the State are valid as State licenses and exempt the holders from further examination.

Texas, 189\%. -The (elected) State superintendent of public instruction is authorized to appoint a State board of examiners, not less than three competent teachers, to serve during his pleasure.
Teachers holding diplomas from a Texas State normal school, the Peabody Normal School, at Nashville, Tenn., the North Texas Normal College, Denton, Tex., or Coronal Institute, San Marcos, 'Tex., may teach in the schools of the State during good behavior, their diplomas ranking as life certificates.
Teachers holding first-grade certificates from a Texas State normal school may teach four years from the dates; teachers holding similar certificates of second grade may teach two years from dates; teachers holding Texas Summer Normal School certificates may teach four years, exempt from any examination.
Diplomas conferred, by the regents of the University of Texas on students completing some degree course, and also the degree course of the School of Pedagogy, have the force of permanent State certificates.

Certificates issued by the School of Pedagogy to students completing the advanced or speciai professional or graduate course have the force of first-grade State certificates for four years.

Certificates so issued to those completing the junior course have the force of like certificates for one year.
Any teacher of three years' experience in Texas holding a diploma of the degree of bachelor of arts, bachelor of science, bachelor of letters, or a higher degree from any first-class college or university may receive a permanent State certificate.
All the above are good throughout the State and during good behavior where no limitation is specified.
A county superintendent may be elected, as provided, by the commissioners' court; the county judge in a county without a superintendent acts as superintendent.

The county superintendent appoints a county board of examiners of three white teachers holding first-grade certificates to serve during his pleasure.
Previous to examination each candidate must satisfy the county superintendent that he can spealk and understand the English language sufficiently to use it easily in conversation and in giving instruction, and pay a fee of $\$ 3$. The candidate must present a recommendation of the superintendent to the examiners.

The county board of examiners uses questions prescribed by the State superintendent, and on its recommendation the county superintendent issues certificates of four grades: Permanent, Experience required, three years; examination same
as first grade and history of education, general history, psychology, English and American literature, chemistry, solid geometry, plane trigonometry, elementary double-entry bookkeeping; general avarage 85 per cent, minimum on any subject 50; valid during good behavior. First, examination same as second, and physics, algebra, elements of geometry, constitutions of the United States and Texas, elements of mental and moral science; general average 85 per cent, and minimum 50; valid four years, but void if the holder withdraws two years or more from school work; with general average 75, minimum 50, valid two years. Secund, examination same as third, and United States history, elementary principles of civil government, physical geography; with general average 75 per cent, minimum 50, valid two years; with general average 85, minimum 50, valid four years. Third, examination common English branches except United States history, Texas history, elementary physiology, and hygiene and the laws of health with special reference to narcotics, school management and methods of teaching; general average 70 per cent, minimum 50; valid one year, in no case out of the county of issue.

A city or town of 500 scholastic population-that is, an independent district with a local tax for education, a system of free schools nine months yearly, and a superintendent-may have a city board of examiners, consisting of the local superintendentand two teachers appointod by him, authorized to issue certificatesvalid in the city, but rendered valid for any other city by due indorsement of local authorities-permanent and temporary, three classes of each: Figh school, intermediate, primary. Teachers of special branches not in the list required for State certificates need no certificates.

There is provision for making county certificates valid throughout the State through cooperation of the county superintendent, the State superintendent, and the State board of examiners with the county board of examiners, in which case $\$ 1$ of the fee is forwarded to the State superintendent. The balances of fees, after paying expenses of examination and any deduction for transmission to the State superintendent, are divided among the examiners.

Any certificate may bo canceled by the authority issuing it, provided the holder shall have opportunity to be heard, with right of appeal to the State superintendent and to the State board of education.

Utari, 1880.-The State board of education, consisting of the (elected) State superintendent of public instruction, the presidents of the University of Utah and of the Agricultural College, and two other persons of large experience and eminent professional standing, appointed by the governor, by and with the consent of the senate, issues diplomas of two grades: State high school, State grammar; also State grammar certificates valid in any county, city, fown, or school district. The high-school grade State dipioma is valid for any department; the grammar grade and the State certificate are valid in grammar and primary departments; diplomas, for life; certificates, for five years. All candidates must bo 20 years of age with two years' experience in the State. They are required to show by examination or other evidence high scholarship in common English branches, political and physical geography, physiology, algebra, physics, rhetoric, drawing, plane geometry, botany, English literature, general history, civil government, history and science of education, psychology. The grammar-grade candidates are also tested in nature studies; the high-school grade in solid geometry and any three of the following: French, German, Latin, Greek, trigonometry, zoology, biology, mineralogy.

Normal certificates and normal diplomas issued by the University of Utah subsequent to Narch 10, 1892, have the validity of State certificates, and the holder after two years' experience in the State is entitled to a State diploma of highschool grade.

Life diplomas issued in other States and shown to be of equal rank to those of

Utah may be given full validity by countersignature by the State superintendent under direction of the State board, after two years' experience in the State.

Any professional diploma or certificate becomes void if the holder allows a space of five years to elapse without following somo educational pursuit.

The expense of State examinations is paid out of the State school fund.
The State board is required to revoke, for immoral or unprofessional conduct or evident unfitness for teaching, State diplomas and State certificates.

Veruont, 1893.-The superintendent of education (elected by the general assembly), and the governor appoint one man in each county as examiner of teachers. The superintendent prepares the questions and prescribes rules for examinations.

A graduate from the higher course of a nomal school in the State has a diploma valid as a State hicense for ten years. By concurrent action of the State superintendent and the examiner for the county rhere the holder last taught, he may receive without examination a certificate valid till revoked by like authority.

A person who has held examiner's certificate of the first grade for ten successive years, and has had in that time two hundred weeks experience, may be granted a certificate as above.

A certificate of graduation from the lower course of a normal school in the State is a valid State license for five years.

The county examiners issue, uponexamination, certificates of three grades: First, experience required, forty weeks; valid five years. Second, experience twelve weeks; valid two years. Third, may be limited to a school; valid for a specified time not exceeding one year; not issued a second time to one of twenty-four weeks' experience.

An examiner may issue certificates, valid in his county, to those holaing diplomas of the highest course in normal schools of other States.

Certilicates held by teachers continuously employed in union and graded schools are valid while the teachers continue in the same.

A graduate of any college approved by the State superintendent, with twentyfour weeks' experience in public schools of the State, may receive from the examiner of the county where he last taught, withoat examination, a certificate of the first grade.

Town superintendents may issue permits to teach particular schools, valid one term, not renewable more than three times.

Virginia, 1892.-The State board of education-consisting of the governor, the superintendent of public instruction (elected by the general assembly), and the attorney-general-appoints and removes county and city superintendents, subject to confirmation by the senate.

The superintendent of public instruction issues two grades of State certificates:
Life diplomas: Experience required, two years; examination the same as for first-class county certificates, and such other branches as the State superintendent may direct.

Professional: Examination and experience as life diplomas; valid seven years.
If the holder of a life diploma ceases for a space of three years to be engaged in active educational work he is liable to reexamination and cancellation of his certificate. The State certificates are valid in every city and every comnty without further examination.

All certificates are revocable for good canse.
County and city superintendents issue certificates stating the branches upon which the holders have been examined, and of three grades: First, age required, 20 years; experience, ten months; examination same as third, and theory and practice of teaching; valid three years, and, by indorsement of the local superintendent
in any county or city, renewable for a period not exceeding two years. Second, age required, 18 years; examination same as first; valid two years in the city or county where issued. Third, age required, 18 years; examination, common English branches, with physiology and hygiene; valid one year where issued.

In Virginia cities are not parts of counties; their residents pay no county tazes on property lying in the cities, and in cheir relation to the State cities are like counties, except in particulars specifically stated in individual charters.

Washingron, 1893.-The State board of education, consisting of the (elected) State superintendent of public instruction and four suitable persons, two at least from those teaching in the common schools, appointed by the governor, by and with the advice and consent of the senate, sits as a board of examination, and also prepares a uniform series of questions for county boards of examiners.

The State board, issues certificates of two forms, revocable for cause deemed sufficient by the board.

Life diplomas.-Experience requirel, ten years, one year in the common schools of the State; examination, as for State certificates; valid in any common school.
State certificates.-Experience required, twenty-seven months, nine in public schools of the State; examination, same as first-grade county certificates and pedagogy, plane geometry, geology, natural history, civil government, psychology, bookkeeping, composition, English literature, and general history, or file a certified copy of a diploma from some State normal school, or of a State or Territorial certificate from any State or Territory, based on requirements not less than those of Washington; valid five years in any common school; renewable without examination.
A county board of examiners, consisting of the superintendent and two persons hoding the highest grade certificate in the county appointed by him, under rules, and only with questions prescribed by the State board, issues certificates of three grades to candidates 15 years of age who have attended a teachers' institute: First, experience required, one school year of nine months; examination, same as third, and natural piilosophy, English literature, algelora; valid five years. Second, examination, same as third; valid two years. Third, examination, common English branches, physiology and hygiene, Constitution of the United States, school law and constitution of Washington, theory and art of teaching.
In their discretion, without examination, the board may issue certificates to graduates of the normal department of the State University, of any State normal school, or to holders of State certificates, or life diplomas of any State or Territory.
The county superintendent, in certain cases of necessity, issues a temporary certificate, valid till the next regular examination, to a teacher holding an equal certificate from any other county or State, any normal school, or the normal department of the State University.

All certificates are revocable for cause, inciuding neglect to attend the annual cornty institute.

West Virginis, 1893.-A State board of examiners of four competent persons, one from each Congressional district, appointed by the (elected) State superintendent, a person "of literary acquirements and skill and experience in the art of teaching," may issue: First-class certificates, valid twelve years, renewable without examination to those who have taught eight of the twelve years. Second class, examination requirements as for county certificates and at least four other branches determined by the board; issued on application to graduates of the State Normal School and the State University after three years' teaching experience under a No. 1 county certificate.

Teachers who have taught four years under second-class certificates are entitled to receive, without examination, first-ciass certificates at the expiration of the second class.

All certificates issued by the State board are equivalent to No. 1 county certificates and valid in any district in the State.
Fee, \$5. The board of examiners is compensated, but in no case beyond the amount of fees.
Certificates are revocable for cause.
The temperance examination is universally obligatory.
In every county is a board of examiners, composed of the county superintendent and two experienced teachers holding State certificates or No. 1 county certificates, or graduates of reputable schools, appointed by the superintendent and confirmed in a mosting of the presidents of the district boards of education; compensated ( $\$ 3$ per day) from fees of applicants ( $\$ 1$ each), not to exceed the fees.

No applicant is to be examined unless 16 years of age.
No diploma or recommendation from any institution or its officers is to supersede a careful examination on each branch and the art of teaching, the grade in each to be stated.

First-grade certifcates.-Examination upon lower grade branches, with general history and bookkeeping; general average, 90 per cent; minimum in any branch, 75; valid four years, renewable once, in discretion of board, provided the holder has taught two years on the certificate.
Second grade. - Examination upon branches required to be taught in the primary - free schools, with civil govermment and the theory and art of teaching; general average, 80 per cent; minimum, 70 ; valid two years; reissued only on reexamination.

Third grade.-Examination subjects as above; general average, $\% 0$ per cent; minimum, 60; valid one year; reissued only on examination, and not more than twice.

Failure to attend the county teachers' institute, unless excused by law, is a cause for revoking a certificate.

Wisconsin, 1893.-The (elected) State superintendent appoints annually a board of three competent persons to examine candidates for State certificates, and prescribes regulations for examination. Upon report of the board that a candidate has the qualifications of a first-grade county certificate, and has passed in mental philosophy, English literature, and such other branches as may have been prescribed, the superintendent issues an unlimited State certificate, valid, without further examination, in any public school of the State.

Upon a kindred report on the above subjects through English literature, a limited certificate is issued, vaiid, as above, for five years.

No fee is charged.
The normal school board diplomas, granted in testimony of scholarship and ability to teach, and indorsed by the State superintendent, after one year's experience in the schools of the State; diplomas of graduates of the State University or of any incorporated institution in the State with courses of study equivalent to the corresponding courses in the university, similarly indorsed after sixteen months' like experience; diplomas of graduates of the State University, with indorsement showing completion of the full course of podagogy, similarly indorsed, after eight months' like experience-have the force of unlimited state certificates.

A normal certificate of completion of the elementary course and qualifications to teach, countersigned by the State superintendent, has the force of a limited State certificate.

The State certificates are subject to be annulled by the State superintendent after the accused have written copies of charges and opportunity for defense.
The county superintendent issues certificates of three grades: First, examination same as second, and higher algebra, natural philosophy, geometry; valid four years, but may be limited to one year. Second, examination same as third, and gram-
matical analysis, physical geography, elementåry algebra; valid two years. Third, examination, common English branches, constitutions of the United States and Wisconsin, temperance, theory and art of teaching; valid not more than one year, and may be restricted to a town or a school.

Graduates of free high schools with diplomas showing their standing in each branch of study, a first-class certificate from the superintendent of the county of residence or graduation, and one year"s experience may have four years' validity given to the certificate in any county by the countersignature of the superintendent thereof.
The county superintendent may annul certificates after at least ten days' written notice, including statement of charges and opportunity for defense.

Wyoming, 1895.-The (elected) superintendent of pubic instruction has power to grant certificates of qualification to teachers of proper learning and ability to teach in any public school and to regulate the grade of county certificates.

County superintendents are authorized to grant certificates to persons of the requisite ability and qualifications for two years or during their terms of offce, or may renew a certificate previously given withont reexamination.

Cerfain peculiarities are recapitulated below without comment on their value:
A careful reading will show where the temperance examination is obligatory.
The effect of cigarettes is specifically a subject of examination in Tennessee, and that of tobacco in Texas.

Licenses are invalid after an interval not spent in school work:
In the District of Columbia, aiter an interval of one year out of service of the board, unless under leave of absence.

In Indiana, a permanent county cerificate after failing to teach a full school year in any year.

In Kansas, Nebraska, North Daikota, and Virginia, life license after three years.
In Kentucky, life license after two years.
In Texas, permanent county certificates after three years; first grade, after two years.

In Utah, iife license after five years.
In Arkansas belief in a Supreme Being is a prerequisite for a license.
In Arkansas, one of the States where all rural land titles are in terms of the national survey, ability to read the land descriptions according to that survey is a subject of examination, and a teacher failing to teach the same is mader penalty of revocation of his license.

Failure to teach the temperance lessons is specifically punishable:
In Colorado by removal from office of any officer or teacher under whose jurisdiction it occurs.
In Iowa by revocation of the license of the teacher and debarment from teaching for one year.

In North Dakota and in Ohio by revocation of license.
In Pennsylvania any school committee or board of control for any institution wholly or in part maintained by public funds forfeits its share of appropriations from the Commonwealth.

In New Hampshire primary schools are exempt from the obligatory temperance lessons.

The town committee in Connecticut, Maine, Massachusetts, and New Hampshire satisfies itself of the qualifications of teachers, accepting, in its option, State certificates or normal diplomas in lien of examination.

In Illinois the law requires districts of a thousand population to hold supple mental examinations, but there is no penalty for failure, and in practice the county or the state certificate, necessary for drawing public money, is accepted as adequate.

In Michigan the fee for county examinations of women is one-half as much as that for men.

In Oregon the fee for temporary emergency certificates is two and one-halr times that of regular public examinations.

In Mississippi the county superintendent has the power of a justice of the peace to issue subpernas for witnesses for inquiry or trial.

In Missouri charges against teachers must be submitted in writing, signed by the accuser.

In New York the authorization of normal classes in all cities employing superintendents and the requirements for appointment as teachers in such schoois deserve close attention as bringing all schools of the considerable towns or cities of the State under the influence of a plan not before of more than a temporary or local operation elsewhere in the country.

# CHAPTER XXXVI. 

## CURRENT QUESTIONS.


#### Abstract

Contents.-Coeducation-Higher commercial education in Europe-Compulsory atteudanceThe conveyance of children to school-Corporal pumishment-Foreigners in universities of Europe-Superintendents and teacher's' salaries-Sunday-school statistics-Supplementary and industrial education in Germany-Teachers' pensions and mutual aid societies-Temperance instruction.


## COEDUCATION.

Coeducation, or the education of boys and girls in the same classes, is the general practice in the elementary schools of the United States. Exceptions to this rule are found in a few cities-less, apparently, than 6 per cent of the total number. In the majority of these cities the separation of boys and girls has arisen from the position or original arrangement of buildings, and is likely to be discontinued under more farorable conditions. Of the 50 principal cities enumerated by the census of 1890, 4-namely, Philadelphia, Pa.; Newark, N. J.; Providence, R. I., and Atlanta, Ga, -report separation of the sexes in the high schools only; 2 cities of this class-San Francisco. Cal., and Wilmington, Del.-reported, in 1892, separation in all grades above the primary. In 6 cities-New York and Brooklyn, N. Y.; Boston, Mass.; Baltimore, Md.; Washington, D. C., and Louisville, Ky.both separate and mixed classes are found in all grades. Five cities of the second class laving a population of 8,000 or more report separation of the sexes in the high schools, and 10 cities of the same group separate classes in other grades. Of cities whose population is less than $8,000,9$ report separate classes for boys and girls in some grades.

Coeducation is the policy in about two-thirds of the total number of private schools reporting to this Burean and in 65 per cent of the colleges and universities.

Since the issue of the last Report Cumberland University, Lebanon, Tenn., has opened its classes to women, and the University of North Carolina has admitted women to its graduate courses on the same conditions as men. Women are now admitted to all the higher courses of this university, and may be enrolled in the regular junior and senior classes as candidates for undergraduate degrees.

Foreign countries. -In England 65 per cent on the departments into which the elementary schools are dirided have boys and girls in the same classes; in Scotland, 97 per cent. Statistics for Ireland show that 51 per cent of the national schools have a mixed attendance of boys and girls.

Separate education is the general policy in English schools of secondary grade, and where both sexes are admitted to the same school it is generally to separate departments. It is noticeable that the royal commission on secondary education adrocate the extension of the coeducational policy, and since the publication of their report experiments in this direction have noticeably increased.

In the British colonies, with very few exceptions, both mixed and separate schools are found. In Ontario all the schools are mixed. In Quebec the schools for English childres are, as a rule, mixed, but in those for the French the sexes are separated. In the Australasian colonies the tendency to separate departments for boys and ginls is noticeable in cities. In Cape Colony, while nearly all schools are mixed, sepasate schools for girls are encouraged.
In France custom and sentiment favor the separate education of boys and girls and the law requices every commune having above 500 inhabitants to establish a separate school for girls unless specially authorized to substitute therefor a mixed school. The attendance upon mixed schools slightly increased during the last decade, but not enorgh to indicate any decided change of sentiment in this respect. The mixed schools are seldom found in cities.

The department of the Seine, which is occupied by Paris and its, environs, reported in 1891-92 for public schools only 0.2 per cent of the pupils errolled in mixed schools and for private schools 9.2 per cent.

In secondary schools, public and private, separate education is the universal rule.

Germany.-Separate oducation is the preferred policy in the German States, but is not practicable in the rural primary schools. According to statistics of 1801, in Prussia two-thirds of the children in the common schools were in mixed classes, but in the cities the proportion was only three-tenths. In Saxony only the two lowest classes are mixed, so that separation occurs generally at the tenth year of age-always by the twelfth.
Other continental countries.-Similar conditions prevail in the remaining countries of Europe, the tendency toward separation being most strongly marked in the Catholic countries. In Italy the law calls for separate schools for boys and girls, and if they attend at the same building it must be in separate departments, each provided with its own entrance door. The lowest classes, however, may be, and often are, mixed.
In Norway, and to a less extent in Denmark, girls are securing admission to secondary schools formerly reserved for boys.
The South American republics follow the precedent of the Latin States of Europe. Brazil, like Italy, requires separate schools for the two sexes. In 1883 the experiment of admitting boys and girls to the same class rooms was made in a few schools, but they were seated in different rooms outside of recitation hours.

Cooducation in the miversitios of Europe. -The adverse vote of the senate of Cambridge University upon the proposition to admit women to the university degrees fixes for the present the status of women with respect to the two great English universities. The vote, which was taken May 21, 1807, stood 1, 70 ragainst to 661 for the resolntion.
The university colleges established in England since 1888 are open to men and women. By the "universities act" of 1889 the Scotch universities were authorized to open their doors to women. Edinburgh admits them to the classes with men. Glasgow has affliated Queen Margaret College for women, and more recently (1895) opened all lectures in the faculty of arts to women. The University College of Dundee, affiliated to St. Andrews, is coeducational.
In France women have never been legally deprived of university privileges, and since 1868 , when the first woman was enrolled in the Paris faculties, the number of women matriculates has been gradually increasing.
The universities and secondary schools of Italy admit students of both sexes to the same class, a policy at variance with that pursued in the elementary schools.
Women have recently been admitted to courses in the universities of Germany, Ausiria, and Hungary, special authorization being required in each individual case.
The University of Athens was open to women in 1890.

## HIGHER COMMERCIAL EDUCATION IN EUROPE.

The very great progress the natural sciences, technology, and transwortation have made in recent years has given to the commercial profession an importance which could not be foreseen in former years. More than over before has it become the merchant's duty to act as middleman between producer and consumer. In ever widening circles he has to bring the products of agriculture and industry to their proper markets. By means of increased tasation to which commercial enterprises are subject they support ever more strongly the State in the discharge of its civilizing efforts. Direct exchange between producer and consumer has almost wholly ceased, and the percentage of the population devoted to commercial pursuits has increased considerably in every civilized country.
It seems worthy of mention that at present the governments everywhere in Europe are urged strongly by commercial men to establish more higher commercial schools and support them exclusively from state funds. It is argued that the state provides higher technological, industrial, agricultural, forestry, and mining academies for leaders in technical pursuits, agriculture, etc., while for the mercantile branch no state institution exists. The merchants feol that the education of their assistants is not of such a high order as that of the members of other callings, and they attribute it to the want of institutions of a high order. At present the commercial branch is entirely dependent for the best preparation of its members upon higher schools established by local authority or private enter-prise-institutions which charge high tuition fees, hence are attended by wealthy young men only. This opinion has fornd expression in legislatures and parliaments, where it was urged that much greater demands are made now than
formerly, owing to freer commercial movement all over the civilized world, and it would therefore seem wise if the state authorities paid more attention to proper preparation of men who might become leaders in commerce, as the state prepares leaders in every other field of human exertion.
Moved by these considerations, several European govermments have of late years bestowed much attention upon commercial training of young men, and the results thus far obtained give assurance that the further development of schools for that purpose will be commensurate with the demands of the times.

In Germany particularly the commercial secondary schools have developed, with the aid of provincial and state support, till at last io university has opened its doors for higher commercial education. On February 92,1898 , the University of Leipsic received an addition to its various courses in the shape of a higher commercial course. The particulars may be found on page 1493 of the Annual Report of the Commissioner of Education, 1896-97. Another independent commercial university is to be opened in Rhenish Prussia, and still another at Magdeburg. These higher seats of learning are to be distinguished from other commercial schools by their making knowledge of commercial practice a condition of admission and confining themselves to the domain of commercial sciences exclusively. It is intended to require professional consuls to be graduates of such commercial universities in future. In Italy the state subsidizes the higher commercial school at Venice, reserving the privilege of having its consuls and consular agents prepared at that school. In Belgium the Government chooses its consuls from the graduates of the higher commerciai schools at Antwerp.
The Department of State has received the following from the Italian embassy, dated Washington, January 2, 1899:
"The international congress for commercial instruction will meet at Venice and will remain in session from the 4th to the Sth of May next, at the palace of the Royal Commercial High School. Its object will be to continue the studies inifiated atits preceding meetings held at Bordeaux (1885-86), London (1897), and Antwerp (1898).
"In the next congress, of which the minister of foreign afiairs, the minister of commerce, and the minister of public instruction of the Kingdom have been made honorary presidents by the committee of arrangements, the most prominent foreigners who make a special study of commercial matters will take part, and many gentlemen of high repute in trade and manufactures have already consented to participate.
"It is now desired to secure the adhesion to the congress of foreign governments and the participation of their representatives, in order that the work of the preceding meetings may, in that of nex仑 year, yield the furuts that are expected of it and reach those authoritative conclusions which progress in this wide ield roquires.
"In pursuance of the instructions which I have received from my Government, I have the honor to invite the United States Govermment to take part in the aforesaid congress, and to send, as its representatives, such special delegates as, owing to their competency, may contribute to the success of the labors of that body."

## COMPULSORY ATTENDANCE.

The enforcement of compulsory laws is widely variable. The law of Ohio is expressly inoperative where seating accommodations at́ school are inadequate, and, without formal expression, a similar condition practically prevails where population is in advance of school accommodations. In general, the laws are most fully enforced in the older, well-established communities, v-hile partially settled States, rapidly growing cities, and what may be called the frontier parts of old States, find occasion for freedom from rigid rules. Thus in Massachusetts the four counties formed of Cape Cot, the large coast islands, and the hilly west end of the State are exempt from the requirement upon all other counties to support county truant schools, singly or jointly.

Thirty States, one Territory, and the District of Columbia have laws making attendance at school obligatory in prescribed conditions. The table following shows the general outline of designated ages, time of required attendance, and penalties upon parents or those in their stead for neglect. Some of the variations from absolute requirements are explained in notes upon the table; others, inconvenient for such brief explanation, are indicated here.
Ages for aftendance under penalty for failure will be seen to vary from a minimum of 7 years to a maximum of 16 years. The prevalent limits are 8 to 14 years. The minimum period of attendance varies from eight weeks in Kentucky to the
full term taught in the year in Massachusetts and Connecticut. There are conditional requirements involving years of age or periods at school, according to attainments or occupation of the child, as explained below.

It may be seen by the table that the possible penalties upon the parent for neglect to send the child to school vary from a minimum of $\$ 1$ in New Mexico to a maximum of $\$ 900$ for repeated neglect in Nevada.

In some cases imprisonment is an alternative, or as an additional penalty, from two days to three months, or in the indefinite form of committal till fine is paid. There are also penalties upon parents for false statements as to age or attendance of children: Massachusets, as to a minor over 5 years of age, not exceeding $\$ 50$; Kentucky, $\$ 5$ to $\$ 20$; Illinois, $\$ 3$ to $\$ 20$ and costs.

Besides penalties upon the parent, there are penalties upon the child and penalties upon an officer, including, in certain cases, the teacher. States are mamed so far as necessary in this text, without tabulation in the general order of the table to follow.

Ultimate penalty upon a child.-Maine, sent to reform school, if 10 to 15 years of age; New Hampshire, sent to industriai school; Massachusetts, boy, 7 to 16 years of age, to county truant school, or, if idle in public places, to the Lyman School for Boys; girl, to State Industrial School for Girls, at cost of parent or of county, as determined by the committing magistrate; Rhode Island, to any institution designated or provided under authority given town and city councils; Connecticut, to local or State reformatory; New York, to a truant school provided under authority given any school board, if guilty of truancy only; New Jersey, to juvenile reformatory, if over 9 years of age, reaching also habitual truants till 15 years of age if wandering in public places; Pennsylvania, to local truant school provided under authority given any school board; Ohio, to local or other reformatory; Indiana, to parental home, provided under authority given any school board, if under 12 years of age; Michigan, to ungraded school provided under authority given any board maintaining graded schools if crdinary truant, to industrial home if persistent truant; Utah, to reform school.

Penalty upon neglectful officer. - Maine, $\$ 10$ to $\$ 50$, as also upon a town neglecting to elect a truant officer; Vermont, not exceeding $\$ 100$; Pennsylvania, principal teacher, $\$ 2$ to $\$ 25$; West Virginia, trustee and teacher for not informing, $\$ 5$; Kentucky, trustee or president of board neglecting to prosecute within ten days after written notice by a taxpayer, $\$ 10$ to $\$ 50$; Ohio, officer, teacher, person neglecting duty, $\$ 25$ to $\$ 50$, and in addition, for subsequent offense, imprisonment ten to thirty days; Wisconsin, director, president of board, or trwant officer neglecting to prosecute within fifteen days after written notice by local elector or taxpayer, $\$ 10$ to $\$ 20$; Minnesota, director or president of board neglecting to prosecute within ten days after written notice by a taxpayer, $\$ 20$ to $\$ 50$; North Dakota, president of board neglecting to prosecute within fifteen days after written notice by a taxpayer, $\$ 5$ to $\$ 20$; South Dakota, school officer failing in duty, $\$ 10$ to $\$ 20$; Kansas, same as Minnesota; Montana, district clerk failing to furnish the school board with a list of all children 8 to 14 years of age in attendance at school within twenty days of the opening of each school term, $\$ 5$ to $\$ 25$; trustee neglecting to prosecute within ten days of receiving the lists, $\$ 10$ to $\$ 50$; California, clerk of board failing to prosecute within ten days of written notice by a taxpayer, 820 to 850 ; any person failing in duty, first, $\$ 20$; subsequently, $\$ 20$ to $\$ 50$.

While there is a general uniformity in excusing children from attendance for mental or physical conditions, certain States explicitly inake compulsory regulations for attendance at special institutions by those for whom such institutions have been established.

It will be seen that some States require children to be instracted without rigid stress upon the mode of instruction, while others require attendance at a public school, to be excused only by local officers.

It will be seen that in certain States the provision for reaching delinquents seems to reach those only who have come within the teacher's view, while in other States provision is made to bring the name of every resident child before the authorities, with his record.

There is a penalty, not exceeding \$50, in Massachusetts upon anyone who attempts to induce a child to absent himself, or who harbors or employs him while school is in session.

The compulsory law applies to special classes as follows:
Ohio.-Children entitled to attend school at the institution for the deaf and dumb or that for the blind. Truant officers report those 8 to 18 years of age to the respective probate judges, who set times for hearings to decide upon disposition of the cases.

North Dakota.-Any deaf child 7 to 21 years of age must be sent to the school for the deaf at Devils Lake at least eight months in each year, subject to the same excuses as a normal child, except distance.

Washington.-Deaf-mute, blind, or feeble-minded 6 to 21 years of age must all be sent to Washington school for defective youth at county expense when parents are unable to bear expense, under penalty of $\$ 50$ to $\$ 20$, adjudged by any justice of the peace or superior court if failure is without "a proper cause."
California.- All resident d•af, dumb, or blind 6 to 21 years of age inust be sent to the State institution for grataitous instruction for a period of not less than five years.

The requirements are to attend-
School: W yoming, Washington.
A public school: Maine, New Hampshire, Massachusetts (day), Rhode Island (day), Connecticut (day), New Jersey (day), West Virginia, California.
A day school where common branches are taught in English: Pennsylvania.
Public or private school: Wisconsin, Nebraska, New Mexico, Utah (in the district where one resides), Minnesota (taught by competent instructor), Kansas, Montana, Colorado (the last three with the same proviso as Minnesota).
Public or private day or night school: Kentucky.
Public or private or parochial school: Ohio.
Excuses, to a degree, develop as defenses upon prosecution, but excuses guard against action as follows:
Excuse of local board: New Jersey. Pennsylvania, Kentucky, Michigan, Minnesota, Nebraska, Montana, Wyoming, Colorado, Utah, Nevada, Idaho, California. Excuse of superintendent, clerk of board, principal of public, private, or parochial school: Ohio.
Prescribed exemptions are:
Distance from school: California, 1 mile; Pennsylvania, Kentracky, West Virginia, Indiana, Michigan, Wisconsin, Minnesota, Kansas, Colorado, Nevada, Oregon, 2 miles; North Dakota, Montana, Utah, $2 \frac{1}{2}$ miles; Idaho, 3 miles,
For bodily or mental conditions requiring exemptions: All except Washington, in which defective children must be sent to State institutions, and Indiana. North Dakota, Montana, Wyoming, New Mexico, Utah, each requiring a physician's certificate regularly or at will.
For other instruction, like period and like quality: Maine, Vermont, Nassachusetts, Rhode Island, Connecticut (requiring hours, terms, and stradies of public school, no school acceptable unless open to usual public inspection and making public reports, except as to expense3), Now York, New Jersey (at school or at home by competent instructor), Pennsylvania, Kentucky (subject to such examination as other children of the district), West Virginia, Ohio (at home by competent instructor), Illinois, Michigan, Wisconsin, Minnesota, Kansas (subject to examination as in Kentucky), Montana, Colorado (subject to examination as in Kentucky), Utah (times and studies of public school), Nevada, Idaho, Oregon, California.
For instruction at private school: Nev Hampshire, Rhode Island (school approved by board), North Dakota (like Rhode Island), South Dakota (like Rhode Island), Utah.
For instruction at any other school: District of Columbia.
For acquirements: Vermont, Massachusetts, Rhode Island, West Virginia, Kentricky, Indiana (eight years' work of common schools and certificate of gradnation therefrom), Michigan, Wisconsin, Minnesota, North Dakota, South Dakota, Nebraska, Kansds, Montana, Utah, Nevada, Idaho, Oregon, California.
Inability to send: District of Columbia.
Poverty and inability to send: Nebraska.
Poverty and lack of suitable ciothing: Rhode Island, Kentucky, Minnesota, Kansas, Montana.
Parents extremely poor or sick: California.
Service necessary to support of mother or invalid father: Utah.
Service necessary to support of aged or infirm relative: Ininois.
Urgent reasons: Pennsylvania.
When attendance would work great hardship: Wyoming.
Decision of court of record: Illinois, Wisconsin.
Decision of probate judge on appeal: Ohio.
Clothing is furnished in case of poverty to enable children to attend school as follows: Vermont, by the town: Indiana, by the county; Colorado, by the district.
There are truant officers: Maine-one or more elected in a town or a city; New Hampshire-optional, elected by school board; Vermont-two in each town or city
appointed by selectmen or mayor; Massachrsetts-one or more appointed by the school committee in every town or ciry; Rhode Island-one or more special constables appointed by each town council or board of aldermen; Connecticut-police, sheriffs, and constables, and, when appointed by selectmen as special constables, school committee and janitors of school buildings; New York-one or more, called attendance officers, appointed by school authorities of each city or school district; New Jersey-in each city one or more detailed by police authorities, in each district without police one or more constables detailed by school authorities; Penn-sylvania-one or more, called attendance officers, employed by school boards in each city, at option in each borough and township; Ohio-one or more employed by board of education in each city, in each other district a constable or other person appointed by board of education; Indiana-not exceeding five for each county appointed for districts composed of townships by the county superintendent, one or more for each city and incorporated town appointed by the school superintendent together with the secretary of the State board of charities, and one member of the State board of education designated by that board; Minois-one or more appointed by each school board; Michigan-similar to New Jersey; Wisconsinoptional, one or more appointed in each city and district by the local school board; South Dakota-the president or chairman of each school board is charged with the duties; Montana-optional, for every district of 2,000 population one appointed by school board; Wyoming-sherifis, constables, police officers.
In Pennsylvania the assessor at the spring registration of voters makes a list of all children of school age, which ho gives to the school board; the secretary of the school board gives a list to the principal teacher of each school; the teacher reports monthiy the names of those absent in the past month five days unexcused.

In Ohio the principal of each public, private, and parochial school reports in the first week of each September, December, February, April, the names, ages, and residences of all pupils in attendance at their schools to the clerk of the school board, and reports cases of truancy or incorrigibility as soon as practicable after occurrence to the truant officer.
In Montana the district clerla must furnish the school board with a list of all children 8 to 14 years of age in attendance at school within twenty days of the commencement of the term.

In Nevada the school board must furnish the principal teacher of each public school, by the first Monday of each September, with a list of all resident children 8 to 14 years of age, taken from the report of the school census marshal. At the beginning of each succeeding school month the teacher must report to the board the names of all attending during the past month. At the expiration of four school months the board shall make demand upon a delinquent parent for the prescribed penalty, and, in case of neglect for five days to pay it, to institute suit for its recovery.

In Idaho provisions are like those just cited for Nevada, except that the period before demanding penalty is three months.
The actionable offense is variously defined. In some States, particularly where there are truant officers, procedure is peremptory when children are found absent from school and unemployed. In Connecticnt each week's failure to comply with the law, and in West Virginia a failure to send for five consecutive days is a distinct offense. In Nevada upon the expiration of four months without duly sending the child to school demand is made upon the parent for the penalty. In Idaho a like demand is made after three months of neglect.

CHILD-LABOR LAWS AND TACTORY LAWS.
Child labor laws and factory laws, as variously designated, are closely related to compulsory education laws, and in general provide against the employment of childien of specified ages with or without a proviso as to the amount of their school attendance.

In New Hampshire no child under 10 years of age must be employed in a manufacturing establishment, nor anyone under 16, who can not read and write, during the time school is in session, nor without a certificate of attendance in the past year of twelve weels if 14 to 16 ; of six months if 12 to 14: of the whole term if 10 to 12 years of age. Penalty on owner or agent employing, not exceeding $\$ 50$.
In Vermont no child under 14 years of age is to be employed in a mill or factory unless with a certificate from the teacher of attendance at public school for twenty weeks during the preceding year. Nor shall anyone employ a child under 14 who can not read or write, but is capable of receiving such instruction during the time when the public school which he should attend is in session. Penalty on parent, guardian, or master violating the law, $\$ 5$ to $\$ 25$.

In Massachusetts no child under 14 years of age must be employed in any factory, workshop, or mercantile establishment. No such child must be employed for wages at any employment during the hours of public school in the city or town, nor at any work before 6 o'clock in the morning nor after 7 o'clock in the evening. No child under 16 must be employed without cortificate of age and school attendance, nor any minor over 14, who can not read and write English, while a local evening school is maintained unless he attends the same. Penalties upon employers and parents offending or neglecting the law or making false statements, various, between $\$ 5$ and $\$ 50$.
In Mhode Island no child under 12 years of age is to be employed in any factory, manufacturing, or mercantile establishment. No child 12 to 15 years of age is to be employed as above or by any telegraph or telephone company ezcept during vacations of the local public schools, unless during the next preceding twelve months he has attended school eighty fall days or acquired the prescribed branches or been excused by the committee and supplied with a certificate. Employers or parents offending or permitting the offense are fned not exceeding \$20.

In Comecticut no child under 14 years of age is to be employed in any mechanical, mercantile, or manufacturing establishment. No child under 14 resident for nine months in the United States shall be employed to labor without a certificate of attendance in the public schools for at least sixty days in the twelve months preceding. Penalty on employer or on parent making false certificate of age not more than $\$ 30$. Any parent making false statement as to age of child shall be fined not exceeding $\$ \%$ or imprisoned not exceeding thirty days.
In New York it is unlawful for any person, firm, or corporation to employ any child 8 to 12 years of age in any business or service whatever during any part of the term during which the local public schools are in session, nor any child 12 to 14 without a certificate of attendance of eighty days in the current year, under penalty of $\$ 50$.
In New Jersey no child under 15 years of age is to be omployed by any person, company, or corporation to labor in any business whatever unless he has attended some public day or night school or some well-recognized private school at least five days or evenings every week for at least twelve consecutive weeks or two terms of six consecutive weels each, under penalty, upon any parent or other person offendiag, of $\$ 10$ to $\$ 35$, or imprisonment one to three months.

In Ohio no child under 14 years of age is to be employed by any person, company, or corporation during the school term and while the local public schools are in session without certificate of twenty or sixteen weeks' attendance at school (the greater number for town or city districts) in the year, under penalty of $\$ 25$ to $\$ 50$.

In Illinois no perscn, firm, or corporation shall employ any child under the age of 13 years in any store, shop, factory, or manufacturing establishment by the day or for any period of time greater than one day without a certificate authorizing employment for dependence of an aged or infirm relative issued by the school board. No child is to be permitted to work in one's empley, as above, without the certificate. The law seems to contemplate liberty to work on Saturday, and yet a strict interpretation of the pronibition to allow the service without the certificate would prevent work on that day. Penalty upon the employer and upon any father who permits the employment, $\$ 10$ to $\$ 50$. Every day of such employment is to be counted as a separate offense.
In Michigan no child under 14 years of age is to be employed by any person, company, or corporation to labor in any business without attendance at some public or private day school under a qualified teacher at least four of the twelve months preceding the month of employment. Penalty on parent or other offender, $\$ 5$ to $\$ 10$ for first offonse; not less than $\$ 10$ for each subse quent offense.
In North Dakota no child 8 to 14 years of age may be employed in any mine, factory, workshop, or mercantile establishment or, except by his parents or guardians. in any other manner during the hours when the local public schools are in session without a certificate of attendance of twelve weeks during the year or of due excuse. The employer will incur penalty of $\$ 30$ to $\$ 50$ and costs. A like penalty is upon any person authorized to sign the required certificate if ho certifies to a materially false statement.
In South Dakota the law is like that of North Dakota, except that the penaltiez are $\$ 10$ to $\$ 20$.

Compulsory education-Requirements.

| States. | Edition of law. | Age. | Annual period. | Penalty cn parents. ci |
| :---: | :---: | :---: | :---: | :---: |
| North Atlantic Division: <br> Maine $\qquad$ | 1893 1895 | 8-15 | 16 weeks; 2 terms of 8 weeks each, if practicable. | Not exceeding $\$ 25$. |
| New Hampshire | 1895 | 8-16 | 12 weeks, 6 consecutive. 20 weeks | First, $\$ 10$; subsequent. $\$ 20$. 85 to 595 |
| Massachusetts | 1898 | b 7-14 | Full term | Not exceeding \$20. |
| Rhode Island | 1596 | 7-15 | 80 days and when unemployed. | Do. |
| Connectieû̂ | 1898 | c 8-16 | Full term .-...............- | Not exceeding \$5. |
| New York | 1896 | 8-16 | 14 to 16 unemployed, and 8 to 12 full term, Oct. 1 to June 1,12 to 14,80 days. | First, not exceeding 55 ; subsequent, not exceeding $\$ 50$, or 30 days, or both fine and ing <br> arison, or both fime |
| New Jersey | 1885 | a 7-12 | 20 weeks, 8 consecutive. | ¢10 to $\$ 25$, or imprisonment 1 |
| Pennsylvania | 1897 | d 8-18 | 70 per cent of the term. | First, not exceeding 32 ; subse- |
| South Atlantic Division: <br> Dist. of Columbia | $18 \% 3$ | 8-14 | 12 wee |  |
| West Virgmia | 1897 | 8-14 | 16 | First, \$2; subsequ |
| South Central Divi. sion: <br> Kentucky | 1896 | 7-14 | 8 consecutive weeks | First, 85 to \$20; subsequent, $\$ 10$ |
| North Central Dirision: |  |  |  |  |
| Ohio -......... | 1897 | e S-14 | 20 weeks, 10 consecutive, city; 16 weeks. 8 consecutive, other districts. | $\begin{aligned} & \$ 5 \text { to } \$ 20 \text {, or penal bond of } \$ 109 ; \\ & \text { on } 1 \text { refusal, imprisonment } 10 \\ & \text { to } 30 \text { days. } \end{aligned}$ |
| Indiana. | 1897 | 8-14 | 12 consecutive weeks. | $\$ 10$ to $\$ 50$ and, in discretion of court, imprisonment : 2 to 90 days. |
| Illinois | 1897 | 7-14 | 16 weeks, 12 consecutive.. | $\$ 1$ to $\$ 5$ and costs, and stand committed till paid. |
| Michigan | 1893 | f8-1t | 15 weeiss, 6 consecutive. | First, 85 to $\$ 10$; subsequent, not less than $\$ 10$; incorrigible, $\$ 10$ to $\$ \$ 0$, or penal bond of $\$ 100$. |
| Wisconsin. | 1898 | 7-13 | 12 weeks | $\$ 3$ to $\$ 20$. |
| Minnesota | 1597 | 8-15 | 12 weeks, 6 consecutive | First. $\$ 25$; subsequent, $\$ 25$ to $\$ 50$. |
| North Dakota | 1896 | 8-14 |  | First, $\$ 5$ to $\$ 90$; subsequent, ${ }^{\text {c }} 10$ |
| South Dakota | 1897 | 8-14 |  | $\$ 10$ to $\$ 20$ and costs, and stand |
| Nebraska | 1897 | 8-14 | 12 weeks | \$10 to \$50. |
| Kansas | 1837 | 8-14 | 12 weeks, 6 consecutive. | First, $\$ 5$ to $\$ 10$; subsequent, $\$ 10$ to $\$ 20$. |
| Western Division: Montana - ..... | 1895 | 8-14 |  |  |
| Wyomil | 1895 | 96 6-21 | 12 weeirs | Not exceeding \$25. |
| Colorado | 1893 | $8-14$ | 12 weeks, 8 consecntive | $\$ 5$ to $\mathrm{S}^{2} \mathrm{~J}$. |
| New Mexico | 1895 | 16 | 12 weeks | \$1 to \$2.5, or imprisonment not |
| Utah | 1896 | 8-14 | 20 weeks, 10 consecutive.. | First, not exceeding $\$ 10$; suibsequent, not exceeding $\$ 30$, with costs. |
| Nevada. | 1897 | 8-1t | 16 weeks, 8 consecutive. | First, $\$ 50$ to $\$ 100 ;$ subsequent, $\$ 100$ to $\$ 200$, with costs. |
| Idah | 1897 | 8-14 | 12 weeks, 8 consecu | First, not less than 55 ; subse- |
| Washington | 1883 | a 8-15 | 12 weeks | $\$ 10$ to $\$ ; 5$; defective children, |
| Oregon | 1593 | 8-14 | 12 weeks, 12 consecutive | First, 8.5 to $8^{2}$; subsequent, 825 |
| California | 1895 | 8-14 | Two-thirds of full term, 12 weelss consecutive. | First, not exceeding ${ }^{*} 0$ : subsequent, $\$ 20$ to $\$ 50$, with costs. |

[^55]The official publication of laws in any State is usually delayed beyond the adjournment of the legislature, so that complete accuracy to the date of publication of the above table can not be assured.

The co'umn entitle " Edition of Jaw used" has its value in fixing the time at which the law is known by the Bureau of Education to have been published. In some States annual editions, in others biennial editions, in others editions at irregu ar intervals, as required by convenience and by changes in legislation, are issued, while in the extreme case of the District of Columbia no compilation of school laws is published, the provisions being distributed through varions volunes of United States Revised Statutes, or legalized by recogaition in current appropriation bills.

## THE CONVEYANCE OF CHILDREN TO SCHOOL.

The following States have made legal provision for transporting children to school at the public expense: Maine, New Hampshire. Vermont, Massachusetts, Connecticut, New York, New Jersey, Iowa, North Dakota, and Nebraska.

The State superintendents of Rhode Island and Wisconsin have declared that the existing provisions of the school laws of their respective States are sufficient to authorize the conveyance of pupils at the public expense. Certain counties of Ohio are authorized by special laws to establish central schools and convey pupils to and from them, and exceilent results have followed the adoption of this policy.
Some progress has also been made in this direction in Pennsylvania and South Dakota, and perhaps in other States, where there aiready exists, as in Pennsylvania. " law enough to cover the case."

For discussions of this subject, statements of advantages and disadrantages, results of experience, etc.. see Reports of this office, for 1894-9.5, volume 2, pages 1459-1482; 1835-96, volume ${ }^{2}$, pages 1353-1358.

Amount expended in Massachusetis for transporting children to school for the past nine years.

| Year. | Percentage of inciease. | Sum experided. | Year. | Percentage of increase. | Sum expended. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1838-89. |  | Q22, 118.38 | 1893-91 | 0.20 | \$63,617.68 |
| 1889-90 | 0.09 | 21, 14.5.12 | 1894-95 | . 19 | 76. 608.29 |
| 1890)-91. | . 27 | 30,648.68 | 1895-96 | . 16 | 91, 136.11 |
| 1891-92. | . 26 | 38,706. 07 | 189307 | .13 | 105,817.13 |
| 1892-93. | .31 | $50,590.41$ | 1897-98 |  |  |

CORPORAL PUNISHMENT.
There is littie change in legal conditions as to corporal punishment since the summary last printed (p. 1537, Report of 1896-97).

Arizona has dropped the enactment expressly aathorizing corporal punishment. Suspension by the teacher, expulsion by the board of trustees, with liabilities of parents for damage to property, are the extreme measures expressed in the edition of its school law for $18 \% \%$.

The following extract from the penal code of New York is given in the consolidated school law, edition of 1898: "To use or attempt or offer to use force or violence upon or toward the person of another is not unlawfinin the following cases:
"4. When committed by a parent or the authorized agent of any parent or by any guardian, master, or teacher in the exercise of a lawful authority to restrain or convict his child, ward, apprentice, or scholar, and the fore or violence used is reasonable in amount and moderate in degree;"

In one entire State (New Jersey) the teacher is forbidden by law to inflict corporal punishment. No other State goes to this length, but Illinois, Kansas, Mississippi, Montana, Pennsylvania, South Dakota, Washington, and West Virginia specifically prescribe a penalty for excess amounting to cruelty. Legal punishment would be metel out to a brutal teacher in the other States just as surely as in these, but resort would be had to the common law and not to a statute. Corporal punishment, in some form of whipping, has been the common mode of discipline in school from time immemorial; custom legalizes it, and unless forbidden in express terms the teacher does not need the authority of a special permissive law. Judicial decisions to this effect have been made in Alabama, Arkansas, Con-
necticut, Indiana, Iowa, Maine, Minnesota, North Carolina, Pennsylvania, Wisconsin, and probably in other States.
Local school boards have always the implied power to make regulations for the order and discipline of their respective schools, and thre3 States, viz, Michigan, New York, and Pennsylvania, expressly grant them this power. Acting under this power, expressed or implied, several cities, notably New York City, Chicago, and Albany, have prohibited absolutely the use of the rod. The same is true of Providence, P , I., except in the primary grades, and in them whipping must not be inflicted unless the written consent of the parent or guardian has been previously filod with the city superintendent.
Corporal panishment may be used as a last resort and under rigid regulations as to reports, etc., in a great many cities, among them being Batimore, Detroit, Indianapolis, Louisville, Minneapolis, New Orieans, Pittsburg, Rochester, St. Louis, San Francisco, and Worcester. In some cities where there is no formal prohibition, such a strong sentiment has grown up against corporal panishment that it is rarely or never inflicted. Philadelphia is a conspicuous example of this.

## FOREIGNERS IN UNIVERSITIES OF EUROPE.

The number of foreigners studying in Germany is considerable. It must bo borne in mind, however, that the numbers given below represent only those of matriculated studente, for those are the only ones who can bs considered in oficial reporis. The number of foreigners who visit German institutions as hearers for some length of time, and, without being matriculated, attend clinics, workin laboratories, and listen to private lectures is very large, but can not be stated with accuracy; it is estimated that the numbor of these encoeds the matriculated foreigners. Especially Americans are found among these "hearers," chiefly because their preparatory schools are not patterned after the model of the Germen classical high school, hence their graduation diploma does not entitle them to matriculation in German universities. Americanstudents preferably attend Jena, Leipsic, Heidelberg, and Berlin, owing to the pedagogical seminaries at these universities. In the summer of 1895 the universities and other institutions of learning in Germany had upon their rolls the names of 3,332 foreigners, that is, 8.43 per cent of the total number of matriculated students. Of these 8,302 Ioreigners the universities proper had 2,015 ( 7 percent), the polytechnica 1,041 (13.1 per cent), the veterinary schools 15 ( 1.53 per cent), the agricultural academies 101 ( 9.37 per cent), the forestry academies 53 ( 18.6 per cent), and the mining academies 132 ( 32.4 par cent). Of the 3,362 foreigners 966 were Russians, 514 Americans, 467 Austrians and Hungarians, 346 Swiss, 180 Englishmen, 153 Hollanders, 142 Bulgarians, 113 Swedes and Norwegians. 83 Roumanians, 69 Italians, 57 Asiatic, 53 Frenchmen, 37 , Servians, 30 Belgians, 36 Turks, 27 Greeks, 26 Danes, 20 Africans, 14 Australians, 3 Spaniards, 4 Portuguese, and 2 Montenegrins.

In the Austrian universities and other instiontions there were matriculated 1,106 foreigners in the summer of 1895 among a total of 13,031 students, or 6.14 per cent. Of these 1,106 foreigners there were 937 ( 6.53 per cent) students of universities, the polytechnica had 84 ( 3.1 per cent), the mining academies 16 ( 7 per cent), and the agricultural academy in Vienna had 19 ( 7.63 per cent). The 1,103 foreigners consisted of 233 Germans, 236 Russians, 115 Servians, 111 Italians, 103 Americans, ${ }_{76}$ Roumanians, 71 Bulgariaas, 33 Turks, 31 Englishinen, 25 Swiss, 11 Greeks, 10 Frenchmen, 9 Hollanders, 9 Swedes and Norwegians, 8 Africans, 6 Belgians, 6 Asiatics, 3 Spaniards, and 1 Montenegrin.

The Swiss higher seats of learning matriculated no less than $1,60^{7}$ foreigners among a total of 3,903 students. The percentage of foreigners here was 49.6 . The universities alone enrolled 1,341, or 42.2 per cent, and the polytechnical school in Zürich 326, or 43 per cent, of a total number of the matriculated students. Of the 1,657 foreigners Germany had sent 549, Russia 339, Austria-Hungary 143, Buigaria 137, Roumania 86, Italy 68, America 65, France 63, Asia 26, Holland 25, Turkey 22, England 20, Greece 19, Servia 17, Sweden and Norway 15, Denmark 5, Eelgium 3, Portugal 2, Africa 2, Spain 1.

From these summaries it is seen that as far as attendance of foreigners is concerned, Switzerland ranks first with 42.6 per cent of the total number; then follows Germany, with 8.48 per cent, and lastly Austria, with 6.14 per cent. This does not, as has been said before, include the so-called free lances who attend these higher seats of learning only for a time and who, being without proper preparation, can not matriculate, hence can not be counted as students by the officers of the institutions. They have, as a matter of fact, most of the privileges of the students by becoming the privatestudents of renowned professors, and have access to the libraries, laboratories, experimental stations, and other accessories which are
open to those who can pay the fees. In Germany it is the mining academies which are, comparatively, attended most frequently by foreigners ( 32.4 per cent), and the veterinary schools are attended least by foreigners ( 1.53 per cent). The proportion of foreigners in German universities has risen from 5.16 per cent in the year 1880 to 8.48 per cent in 1895. In Austria, the school of agriculture in Vienna has the greatest proportion of foreigners, namely, 7.63 per cent, while the polytechnica have only 3.1 per cent. In Switzerlaad universities and the polytechnical school are attended by foreigners at about an equal ratio.

In France efforts are being made to invite foreign students, especially from America, to attend the higher institutions of learning. Admission to these institutions has been made easier, and the academic degrees, which formerly were only given to French students, have been made accessible. A communication of the United States ambassador to France, Gen. Horace Porter, to the State Department, dated January 11, 1898, in answer to an inquiry in rezard to the admission of a student from the United States into the School of Mines, contains statements which are applicable to other higher seats of learning also. He aays:
"No foreign student can enter any of the schoois of France-medicine, pharmacy, dentistry, veterinary, painting, design, architecture, inusic, declamation, engineoring, etc. - without the formal application of the diplomatic representative of this country. In most cases two letters sulfice, one making aplication, the other expressing thanks when the request is granted. Sometimes more correspondence is necessary, for the reason that those proposing to enter any of the highgrade schools have to produce certain certificates of studies or diplomas, which the authorities accept only when they core through the embassy. These rules, says GeneralPorter, apply to all foreign students. No discrimination is made against Americans; on the contrary, the authorities extend all possible facilities to them. There is a large number of American students in Paris, and, as a rule, they are much liked by the teachers in Frenchinstitutions.
"As forthe School of Mines," he continues, "ioreigners can be admitted there either as foreign prilis, in which case they have to stand an examination, or as free auditors, in which case there is no examination. The courses, however, are not all open to that class of students, and no diploma is granted them. In both cases they have to pay 50 irmes ( $\$ 9.65$ ) for matriculation. If the school is full, as occasionally happens, the application for admission is pur off until the next year." ${ }^{1}$

Students from the United States in the University of Paris, 18S\%-1898. ${ }^{2}$

| Year. | Faculty of Protestant theology. | Faculty of law. | Faculty of medicine. | Faculty of sciences. | Faculty of letters. | School or suprior phaxmacy. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1887-88. | 1 | 2 | 2 |  | 6 |  | 11 |
| 1838-89 | 1 | 4 | 7 |  | 8 |  | 20 |
| 1889-90 | 1 | 8 | 7 | 7 | 8 |  | 31 |
| 1890-91 |  | 10 | $\%$ | 2 | 9 |  | 23 |
| 1891-92 |  | 14 |  | 2 | 8 |  | 24 |
| 189:-93. |  | 13 | 4 | 4 | 24 |  | 45 |
| 1893-94- |  | 2 | 1 |  | 20 |  | 23 |
| 1891-95 |  | 3 | 4 | 4 | 23 | 1 | 32 |
| 1895-96. |  | 4 |  |  | 33 | 1 | 38 |
| 1890-97 |  | 4 | 10 | 4 | 32 | 1 | 51 |
| 1897-98. |  | 3 | 6 | 6 | 23 | 1 | 44 |
| Total | 3 | 67 | 43 | 27 | 193 | 4 | 312 |

${ }^{1}$ For further information, see article "Admission of foreign stadents to the French universities," Vol. 1 of this Report, pp. 749-759.
${ }^{2}$ Statistics furnished by Dr. Bonet-Maury, professor of ecclesiastical history in the faculty of Protestant theology in the University of Paris.
SUPERINTENDENTS' AND TEACHERS' SALAFIES.


Salaries of principals and teachers in certain cities.

| City. | Date. | Normal or training school. |  |  | Kigh schools. |  |  | Graminar schools. |  |  |  | Primary schools. |  |  |  | Kindergartens. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 2 | 3 | 4 | 5 | 6 | 9 | 8 | 9 | 109 | 既县 | 12: | 188 |  | $1{ }^{15}$ | 16 | 18 | 18 |
| New York City: <br> Boroughs of Manhattan and the Bronx <br> Borough of Brooklyn............. | 1898 1898 | $8_{84}^{(b)} 000$ | (b) | (b) | \$5,000 | $\begin{gathered} 83,000 \\ (b) \end{gathered}$ | $\begin{aligned} & \$ 900 \\ & (b) \end{aligned}$ |  | $\begin{array}{r} 83,500 \\ 3,060 \end{array}$ | $\begin{array}{r} 92,160 \\ 1,200 \end{array}$ | $\begin{gathered} 5004 \\ 600 \end{gathered}$ | \$1,800 | $\$ 700$ | $\$ 504$ 400 |  | $\$ 1, \% 60$ | $\$ 600$ 350 |
| Chicago, Ill . | 1838-99 | 5,000 | \$3,000 | \$350 | 3,000) | 2,000 | 850 |  | 2,500 | 1,1\%5 | 500 |  | 1,000 | 500 |  | 1,000 | 500 |
| Philadelphia, P | 1898 | 4,000 | 3,000 | 470 | 3, 4,0008 | 3,000 | 500 | ¢2,065 | 1,365 | 820 | 520 | 795 |  | 470 | $c$ \$6\%0 | 6.20 | 470 |
| St. Louis, Mo | 1808 | (d) |  |  | d 3,500 | \%,000 | 650 |  | 2,000 | 850 |  |  |  | 400 |  | 700 | 375 |
| Boston, Mass Baltimore, Md | 1898-99 | 3, ${ }^{2} 80$ | 3,030 | 1,140 | 3,780 <br> 3,400 | 3,060 $\stackrel{3}{2}, 100$ | ${ }^{972}$ |  | 3,180 | 2,349 | 55\% |  | 1,030 | 55\% |  | 792 | $43 \%$ |
| San Francisco, | 1893-99 | -2,409 |  |  | 3,090 | I, 260 | 1,200 |  | 2,400 | .995 | 600 | 1,920 | 1,200 | 600 | 996 |  |  |
| Uincinnati, Ohio | 1897-98 | 2,000 | 1,400 | 1,000 | 2, 6.00 | 2, 109 | -900 |  | e2,100 | e1,500 | e6ind | f1,900 | f1,300 | f440 | 5 |  |  |
| Cleveland, Ohio | $1897-98$ | 1,800 | 1,100 | ${ }^{900}$ | 3,309 | 1,800 | 890 |  | 1,200 | 750 | 400 |  |  | 400 | \%00 |  |  |
| Waffalo, N. Y | 189\%-98 | 1,800 | \% 700 | 700 450 | 2,500 | 1,600 | 500 |  | 2,0\% | 700 | 400 |  |  | 400 | 600 | 600 |  |
| Washington, D. | 1897-98 | 1,500 | 1,200 | 450 | 1,500 | 1,500 | 550 | 2,000 | 1,50) | 950 |  |  |  | 400 |  | (b) | (b) |
| Newark, N. J | ${ }^{1896-97}$ | 2,300 | 1,300 | 525 | 2,500 | 1,700 | 880 |  | 1,700 | 060 | 400 | 1,300 | 800 | 409 |  | ${ }_{6}^{600}$ | 4.00 475 |
| Minneapolis, Mind | 1896-9\% | (b) | 1,000 | 5.5 | (b) | ~,000 | 8 O |  | 1, 450 | 1,200 | 461 400 | 2,000 | 700 | 400 |  | 650 | 470 |
| Jersey City, N. J | 1895 | 2,400 | 1,500 | 500 | 2,500 | 1,800 | 300 |  | 1,900 | 800 | 400 | 1,020 | 760 | 400 |  |  |  |
| Louisville, Ky | 1886-97 | 2,250 | 1,100 | 850 | 2,500 | 1, 860 | 960 |  | 1,759 | 625 | 425 | ${ }^{1} 750$ | 6:5 | 425 |  |  |  |
| Omaha, Nebr | 1897-43 |  |  |  | 2,400 | 1,300 | 810 |  | 1,460 | 750 |  |  |  | 400 | 700 | 700 | 400 |
| Kansas City, Mo | 1886-37 |  |  |  | 2, 760 | (6) | (b) |  | (b) | (b) | (b) | (b) | (b) | 300 |  |  |  |
| Providence, R. I-..---.-...-- | $1897-98$ |  |  |  | 2.500 | \%,000 | 600 |  | 2,000 | 750 | 3 30 | 6 6\% | ¢00 | 350 |  | 625 | 300 |
| Denver, Colo. (District No.1).- | 1897-93 |  |  |  | 3,600 | 1,590 | 635 |  | 2, 040 | 805 | 630 |  |  | 635 |  | 500 | 275 |
| Indianapolis, Ind | 1898-99 | (b) | 1,000 | 700 | 1,800 | 1.200 | 700 | 1,500 | 1, 1,800 | 800 709 | 440 |  | 650 | 400 | 650 650 |  |  |
| Albany, N. Y | 1897-93 | 1,000 | 700 | 650 | 3,004 | 2,5(1) | $\% 00$ |  | 1,000 | 700 | 400 |  | 600 | 400 |  | 60 | 400 |
| Syracuse, N - | 1897 -98 | 1,000 |  |  | 3,000 | 2, 200 | 50 |  | 1, 6 , 010 | 550 |  |  |  | 300 |  |  | 300 |
| Worcester, Mass | 1898 |  |  |  | 3,000 | 2,300 | 650 | 2,000 | 1., 50 | 625 | 450 |  |  | 450 |  | 550 | 450 |
| New Haven, Conn | 1898 | 91,000 | 6.0 | 040 | (b) |  | (b) | (b) | (b) | 780 |  |  | 23.2 | 300 | ) |  |  |
| Lowell, Mass...... | 1898 | 2,000 | 900 | 800 | 2,500 | 2,240 | (6)0 |  | 2,000 | 600 | 450 | 650 | 600 | 450 |  | 500 | 350 |


|  | $\begin{aligned} & 1898 \\ & 1896 \end{aligned}$ | 2,500 | 800 | 620 | 3,000 <br> 1 <br> 1,600 <br> 1000 | 2,000 1,600 | 700 700 | 2,000 1,600 | 1,000 600 | 400 | 685 | 630 | 400 <br> 350 | 600 | 620 | 400 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dayton, Ohio | 1897-98 | 1,400 | 1,100 | 750 | 2,000 | 1,6in | 1,000 | 1,400 | 800 |  |  |  | 400 |  |  |  |
| Grand Papids, Mich | 1897-97 | 1,003 | 800 | 50 | 2, 200 | 1,100 | 500 | 1,003 | ${ }_{600}^{600}$ | $\begin{aligned} & 350 \\ & 320 \end{aligned}$ | 1,20 |  | 520 |  | (b) | (b) |
| Reading, Pa-- ----- | 1896-9\% |  |  |  | 1,600 | 1,300 | $4(0)$ | ${ }^{1} 600$ | 450 |  | 1,20 | 400 | 265 |  |  |  |
| Camden, N. J. | 1898-39 |  |  |  | (b) | (b) | (b) | 1,200 | 650 | 450 | 150 | 5 | 3:0 |  |  |  |


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ADDENDA－STATISTICAL．
＊Accurate reports made by State，Provincial，or Territorial association to the Eighth International ronvention，Boston，Mass．，June 23－26．1896．（28．j Reports made to the Seventh International Convention，St．Louis，Mo．，August 31－September 2，1893．（1\％）
1，339，520

| 132， 697 | 1，394，630 | 10，893，5：3 |
| :---: | :---: | :---: |
| 70 | 300 | 3，000 |
| 143 | 1，080 | 9，980 |
| 503 | 3，569 | 29，265 |
| 974 | 6，699 | 49， 259 |
| $1.3 \% 6$ | 9，619 | 72， 915 |
| 5，019 | 49，610 | 423,6403 |
| 203 | 1，078 | 10，196 |
| 810 | 5，532 | 45，68\％ |
| 9，09\％ | 77，487 | 643，348 |
| 353 | 2，374 | 22， 766 |
| 142，147 | 1，474，491 | 11，560，237 |
| 10，299 | 96， 756 | 1，242，765 |

Total United States．
CANADA．
＊Pennsylvania－－
＊RHODE ISLAND
＋South Carolina．
South Dakota
＊Tennessee
＋Utan－．．．．．．．
Virginia－．．．．．．
West Virginia
West Virginia
Wisconsin．．．．

| 132,697 | $1,394,630$ | $10,893,523$ | $12,288,153$ |
| :--- | :--- | :--- | :--- |


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202,435
25,140
$\frac{13,034,728}{1,339,520}$
 W．H．Irwin，Brandon，Manitoba， Rev．Aquilla Lucas，Sussex，N．B Alfred Day，Deerpariz，Ontario． D．Torrance Fraser，Montreal，Q． Chas．P．Ayre，St．Johns，Nfd， Chas．
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56 organized Scates，Provinces，and Territories（United States and Canada），printed in roman． 4 unorganizeditates，provinces，and werritories，prization is thorough，printed in SMALL CAPS ${ }_{22}$ States，Territories，and Provinces，where organization is partial，printed in small roman．

## SUPPLEMENTARY AND INDUSTRIAL EDUCATION IN GERMANY.

Continuation or supplementary schools (Fortbildungsschulen) in Germany are either day or evening schools; few are secular Sunday schools. Their object is to supplement the elementary education acquired in the common schools, and to bridge over the time from the fourteenth to the seventeenth year of age of boys who do not attend a high school or a secondary industrial or technological school, the law prohibiting factory or shop labor of children under 17 years. The continuation schools are essentially elementary schoo's, for as a rule they teach no foreign languages and no higher mathematics, hence can not be classed among secondary institutions.

There is very little, if any, uniformity in the courses of study in these schools. They adapt themselves readily to local needs, some beng designed to aid agricultural others industrial, communities. Nor are the educationalauthorities desirous of subjecting these schools to a uniformity such as is necessary for common schools, because, if anywhere, it is in these supplomentary agencies of the people's education that the individuality of the pupils should be fostered and attempts be made to meet local needs.

There were in 1897 altogether 18,065 of such supplementary schools in the German Empire, attended by 48i,644 pupils. The Kingdom of Prussia alone had 2,989 such schools, with 219,490 pupils. The necessity of maintaining supplementary schools varies in the different States. Thus, for instance, in Bavaria, where the school age is from 6 to 13 years, such supplementary schools are more necessary than in other States which keep the children in school a whole year longer. The number of papils in supplementary schools to every 1,000 inhabitants varies from 57 in Bavaria and 50 in Wutremberg to 2 in S haumburg-Lippe.

Several communities in German minor States have decreed compulsory attendance for pupils of continuation schools, which is enforced only where children are employed in factory and shop labor.

There has grown out of this system of supplomentary schools a system of industrial and trade schools which is exerting a most beneficial infuence upon the industrial development of the Empire. They are chiety schools for the building trades, the weaving and dyeing trades, schools for metal workers, and all are more or less schools of design as well as schools for practical work. The State of Frussia has increased its appropriations for the maintenance of these trade schools from $\$ 213,484$ in 1892 to $\$ 340,050$ in 1897. Besides these sums the communities pay equal amounts, and private donations and contributions from trade unions swell the income to fully $\$ 1,000,000$ a year.

Austria also maintains a large number of special schools of industrial character, as does Switzerland; but while in Austria and Germany the State governments support trade schools, the Federal Government in Switzerland can not do so, being prohibited by the Federal Government, which reserves education to the cantons.

## TEACHERS' PENSIONS AND MUTUAL AID SOCIETIES.

In European countries in which the State supervises and directs the common schools and regrulates the appointment of teachers, laws are in existence which provide for the teachers' support in old age, and even offer reliof in cases of breakdown. But while in former years the pensions paid were to a large extent the resuit of premiums contributed annually by the teachers themselves, recent legislation in most States has done away with the teachers' contributions and laid the burden of paying pensions entirely upon the State. The argument advanced was that teachers, as servants or officers of the State, are entitled to pensions the same as allother civil or military officers. Furthermore, that teachers, among all the State's officers, are the ones who desorve the highest consideration, being the best of the State's agencies of conservation and the ones who are more likely to sacrifice their health in the discharge of their duties. Mutual aid societies and annuity funds established by teachers are therefore declining. The following summary gives the facts as far as known to this office:

Pensions paid to teachers of elementary schools in Europe.

$a$ In Bararia the dues paid by teachers vary considerably in the different parts of the King-dom-i. e., between $\$ 1.25$ in central Franconia and $\$ 5$ in lower Palatinate. Also initiation fees are paid.
b Lovest amount of salary.
$c$ At pleasure of the Crown.
d In some crown lands of Austria dues are paid by teachers.
e In Switzerland the cantonal sovernments are, as a rule, opposed to pensioning teachers. Where it is done, it is the result of local agreement. The teachers themselves maintain annuity funds.
fIn Norway pensions are paid to all teachers, but each case is individually decided by Pariament.
gIn litaly the Strite pension fund is not large. Hence private annuity funds are numerous.
$h$ See iast coltum.
General notes.-The foregoing statements have reference to men teachers. Women teachers are retired, on an average, ten years earlior, and their pensions amount to about 10 to 20 per cent less than those of the men.

In most German States the commanities (or the State) make a single relief payment it a teacher is disabled before he reaches the end of the tenth year of servicei. e., the lower age limit. The same partice prevails in Austria and a few other countries.

Pensions paid to teachers of secondary schools in Europe．

| Country or State． | Paid by State or commu－ nity． | Dues paid by teachers， per cent of salary． | $\begin{gathered} \text { Pen- } \\ \text { sion } \\ \text { begins } \\ \text { after- } \end{gathered}$ | $\begin{array}{\|} \text { Mini- } \\ \text { mum } \\ \text { mount } \\ \text { paid, } \\ \text { per cent } \\ \text { of last } \\ \text { salary. } \end{array}$ | Retire ment takes place after－ | $\begin{gathered} \text { Maximum } \\ \text { amount paid, } \\ \text { per cent of } \\ \text { last salary. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| German Empire： Prussia． | Both | None． | $\begin{array}{r} \text { Years. } \\ 10 \end{array}$ | 25 | Years． | 75 per cent． |
| Bavaria | Both | None． | 10 | 70 | （？） | 100 per cent． |
| Saxony | Both | None | 10 | 30 | 40 | 80 per cent． |
| Würtember | Both | None－．．．．．．． | 10 | 40 | （a） |  |
| Baden | Both | None－．．．．．． | 10 | 30 40 | 40 | 75 per cent． |
| Hessia－．．．．．－－．．．．．．．．．． | Both | None．．．．．．．． | 5 | 40 | 50 | 100 per cent． |
| Mecklenburg－Schwerin | Both Both | None． | 20 | 50 40 | $50$ | 90 per cent． |
| Saxe－W eimar－－－－．．．．．．－－ | Both | None－－．．．．－ | 1 | 40 |  | 80 per cent． |
| Oldenburg | Both | None－－．．．－． | 1 | ${ }_{50}^{53}$ | 50 50 | 90 per cent． |
| Srunswick ${ }^{\text {Brax }}$ | Both | None． | 3 | ${ }_{45}{ }^{33}$ | 40 | 750 per cent． |
| Saxe－Aitenburg | Both | 3 per cent | 1 | 25 | 40 | 80 per cent． |
| Saxe Coburg－G | Both | 1 per cent | 1 | 40 | 40 | 100 per cent． |
| Anhalt | Both | None． | 1 | 3313 | 49 | 100 per cent． |
| Schwarzburg－Rudolst | Both | None | 1 | 40 | 36 | 80 per cent． |
| Schwarzburg－Soudersh | Both | None | 1 | 40 | 37 | 80 per cent． |
| Waldeck ．－．．． | Both | None | 1 | 333 | 26 | $6^{6 \times 3}$ per cent． |
| Renss，sen．line | Both | None | 1 | 40 | 37 | 80 per cent． |
| R－uss，jr line | Both | INone | ， | 40 | 45 | 80 per cent． |
| Schaumburg－Lipp | Both | None | 10 | 30 | 37 | 80 per cent． |
| Lippe－Detmolt． | Both | None | 1 | 40 | 37 | 80 per cent． |
| Lüleck． | Both | None | 10 | $33 \frac{1}{3}$ | 35 | 75 per cent． |
| Bramen | Both | None． | 1 | 40 | 30 | 80 per cent． |
| Hamburg | Both | None | 1 | 40 | 50 | 103 per cent． |
| Alsace－Lorraine | Both | None | 10 |  | 40 | 75 per cent． |
| Austria． | Both | None |  | （？） | 30 | 100 per cent． |
| Hungary | Both | None | 10 |  | 30 | 100 per cent． |
| Switzerland |  | （？） | （？） | （？） 10 | （？）${ }^{\text {a }}$ |  |
| Denmark | （c） | （？） |  | （？） 10 |  | $65^{2}$ per cent． （？） |
| Sweden | State | None． | 10 | （？） | 30 | 8900. |
| Netherlands | Both |  | （？） | （？） | 30 | 66⿳亠丷厂犬 per cent． |
| Belgium． | State | None | （？） | （？） | 30 | ${ }^{66} 6_{\frac{2}{2}} \mathrm{per}$ cent． |
| France | State | 10 per cent． | （？） | （？） | 30 | $66_{8}^{2}$ per cent． |
| Spain ．．．． | $\text { Both }(f)$ |  |  |  |  |  |
| Portugal | Both（g） | $10 \text { per cent. }$ | $(g)^{10}$ | $(g)^{33 \frac{1}{2}}$ | （g）${ }^{25}$ | $100 \underset{(g)}{\underset{\sim}{r}} \text { cent. }$ |
| Greece $h$ | State | it per cent | （？） | （？） | （i） | 40 per cent． |
| $\underset{\text { Qussia }}{\substack{\text { Great } \\ \\ \text { Sritaiz }}}$ |  | （i） | $(i)$ | $(i)$ | $\begin{gathered} (i) \\ (k) \end{gathered}$ | $\left(\begin{array}{l} (i) \\ \hline \end{array}\right.$ |

a In Würtemberg the pensions may reach $92 \frac{1}{2}$ per cent in cases where the salary is not higher than $\$ 500$ ．The rate of increase is $1 \frac{1}{2}$ ner cent；as high as 85 per cent with salaries over $\$ 600$ ．No pension can exceed $\$ 1,500$ ．
$b$ The population is not favorably inclined to paying pensions to teachers or other civil officers． Where it is done，it is the result of local agreement．
$c$ In Denmark each case is decided by the minister of education，but rastially according to the scheme indicated in the table
d Each case is decided by Parliament．
$e$ In the Netherlands the teacher pays one year＂s salary into the pension fund within the first five years of service．
$f$ In Spain the State pays two－fifths of salary for two years after twenty years of service； three－fifths of salary after twenty－five years，and four－fifths of salary after thirty－five years of service，but only for two years．
$g$ In Italy teachers may retire from service on account of ill health，and still draw one－half or three－fourths of their salaries，according to the length of service．
$h$ In Greece an addition of one fiftieth of the salary is paid for each additional year of service， over and above the 40 per cent paid after twenty years．
$i$ In Russia the pensions are not uniform；they range between 300 and 400 rubles after twenty－ five years of service．
$k$ In Great Britain a few distinguished schools，such as Eton，pay pensions；the majority of secondar＇y schools being private institutions do not pay pensions to teachers．

In the United States no teachers are pensioned from public funds．Voluntary beneficial associations bave been formed in some cities，and in other localities specified below．State laws provide for similar ends in a similar way，the essen－ tial difierence being that in the latter case participation is enforced upon all teach－ ers．The following paragraph shows the varieties of organization，etc．：

Volmatary mutual benefit associations for temporary aid only exist in Baltimore， St．Lonis，Cincinnati，Cleveland，Detroit，Chicago，Buffalo，San Francisco， St．Paul，and one interstate association．These call for $\$ 1$ to $\$ 2$ initiation fee：$\$ 1$ to $\$ 5$ annual dues．Special assessments of $\$ 1$ are made in some cases．Benefits in
sickness range from 50 cents a day to $\$ 10$ a week; at death funeral expenses only are paid in some instances, and in others a sum equal to $\$ 1$ from each member of the association.

Associations for anuuity, or retirement fund only, are in New York, Boston, and Baltimore, and there is an annuity guild in Massachusetts. The initiation fees reported are $\$ 3$ to $\$ 5$. The annual dues are 1 to $1 \frac{1}{2}$ per cent of salary up to $\$ 18$ or $\$ 20$. The annuity is from 60 per cent of salary to $\$ 600$ a year. Time of service required for retirement is from two to five years with disability, or from thirtyfive to forty years without disability.

Associations for both temporary aid and annuity exist in Hamilton County (Cincinnati), Philadelphia, Brooklyn, and District of Columbia. Initiation fees, $\$ 1$ to $\$ 10$; annual dues $\$ 5$ to $\$ 40$. Annuity, $\$ 5$ per week to $\$ 600$ per year, and $\$ 100$ for funeral expenses in case of death. Temporary aid, during illness, $\$ 5$ or $\$ 6$ per week. Time of service required for retirement is two to five years with disability, or thirty-five to forty years without disability.

Pension or retirement funds are authorized by State legislatures for St. Louis, all cities in California, Brooklyn. New York City, Detroit, Chicago, all cities in New Jersey, Cincinnati, and Buffalo. Dues vary little: they are generally 1 per cent of salary. Annuity, $\$ 250$ to one-half of salary; maximum, $\$ 1,200$. Minimum length of service with disability, twenty to thirty years; without disablity, twenty-five to thirty-five years.

There are no new establishments of annuity funds to be reported for 1893-99, but the existing ones report progress, though some fears are expressed that the annual dues are generally too low, a fact which may lead to financial difficulties in the future unless special efforts are made to increase the funds by holding bazaars and securing donations.

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## CHAPTER XXXVII.

## MISCELLANEOUS EDUCATIONAL TOPICS.


#### Abstract

Contents: Athletic gymnastics, by A. Mosso-The artificial production of nitrates for agricultural purposes, from an address by Sir William Crookes-The use of pictures in public libraries, by Samuel Sweet Green.


## ATHLETIC GYMNASTICS.

[From "The Physical Education of the Young." By A. Mosso, professor in the University of Turin.]

## I.

I asked one of the most celebrated physicians in Italy what he thought of gymnastics. His answer was that many of the best gymnasts whom he had known died of consumption. That is equivalent to saying that vigor and force are two distinct things.

Galen, ${ }^{1}$ who was the greatest physiologist of antiquity, treated the subject in his works more than sixteen centuries ago. During the time that he was physician of the gladiatorial school, and at Rome where he was the most illustrious physician at the end of the second century, Galen had occasion to make observations on athletic gymnastics as no one could make them to-day. In one paragraph, spaaking of the diseases of athletes and in order to show that vast development of muscle obtained by constant exercise is not an indication of health, Galen said "Gymnastics is dangerous to health."
It seems strange to one who is not a physician that an athlete, with every appearance of extreme robustness which the extraordinary development of his muscular system gives him, should not be for that reason more healthy than others, and that the excess of his force should itself be a cause of weakness. Every physician knows hundreds of persons more agile and of greater force than himself, as acrobats, famous gymnasiarchs, with whom he would not be willing to exchange either lungs or digestive mechanism or any other organism of the body.
"You strangely impose mpon our credulity" some readers will say; " this crowns all; after hearing gymnastics preached, to see so much ranting againstit." Listen to me. I do not say that gymuastics ought to be suppressed. I am making a criticism of it from a physiological standpoint in the hope of advancing its evolution toward a method more natural and more efficacious in the exercises of the body.

The gymnastics to which the people of Rome devoted themselves was not military, but merely civil and recreative. Of this we have numerous proofs among Roman writers. In a letter to Calvisius, Pliny the younger said that he would take as a model the aged Spirinna, who was admired by everybody for his vigor. He mentioned the endless walks taken by him every day, how he went about entirely naked in the sun before taking his bath, and he spoke of his passion for ball playing. ${ }^{2}$

In Martial's Epigrams there is a ludicrous portrait of a sycophant who, after taking his bath, ran to the thermæ to gather up the balls, and ran with them to

[^56]rich and influential players, hoping to get some reward from them. Martial also, in another celebrated verse, tell us that everybody, young and old, played at ball. Folle decet pueros ludere, folle senes. "Follis" was a large ball filled with air.

That the Romans did not have fondness for gymnastics, athletic or histrionic, as Mercurial calls it, can be inferred from the fact that athletes in greater part were foreigners. People admired them, they paid them, they applauded them in the thermæ and the circus, but they did not hold them in any honor. We have at Rome monuments in which we see types as though they were alive. The bronze statue in the Museum of the Thermæ which was found in the Via Nazionale represents a characteristic figure of an athlete. Whoever has seen can never forget the stupid, brutal face of the pugilist. The statue is perhaps one of the very best which has been brought to light in our times. It has a natural grandeur, and is executed with such exactitude of detail that one takes it to be an intended portrait of a celebrated pugilist whom the artist represents at the moment when he has come forth victorious from the combat. Thus, as a man in repose, he rests his forearms on his thighs, his body slightly inclined. What gives to him a barbarous aspect is the vast dimension of his jaws. His face on one side is somewhat swoilen. His ears are torn, his hair matted with blood, drops of which are seen on different parts of his body.

Yet, among all the monuments of ancient Rome, that which gives in the clearest fashion the history of athletic gymnastics is the mosaic in the upper story of the Lateran Museum. It formed the floor of the east and west expedræ in the baths of Caracalla. The fragments found were readjusted so as to make that grand picture. The anatomical execution, although exaggerating the protuberances of the muscles, is perfect, even in the most minute details. One feels that these figures are portraits of the celebrated gymmasiarchs of the epoch. But it is evident at first view that they are foreigners, for in their physiognomy there is something, I can not say what, of the beastly. The neck is shortened by the vast development of the muscles of the shoulders and the neck, especially the deltoid and the trapezoid. The arms and the legs are in a state of slight flexion. There also the artist represented faithfully the state of partial contraction which we notice in the muscles of those who exercise to excess certain portions of the body, as we see among acrobats performing on the trapeze and among celebrated wrestlers.

The collection of figures represents an athletic school. Some beardless youths are there ready for the course; others hold in hand the discus; others yet, with ferocious eyes and legs firmly planted, await the moment of wrestling. Some have their arms wrapped with the cestus, or the paims of the hands opened in sign of defiance. All around are objects which serve as ornaments in athletic schoolsemblems, chaplets, and palms.

## II.

By exercise muscular force increases rapidly and steadily continues. Whoever is not a physiologist and a physician studies the effects of gymnastics possibly innbued with the mistake of supposing that extraordinary development of muscles is attended by like effects on the other organs of the lody. Touching this error I will mention some experiments made in my laboratory by Dr. Manca.

He , or one of his attendants, took in hand two dumb-bells, each of the weight of 5 kilos. He placed himself before a clock sounding the minute and the second, and by movement of the arms began to raise the dumb-beils upward. At the next second he returned to the point of departure by lowering the arms. At the third the arms were again raised. He repeated these movements of lifting these weights every two seconds until he became fatigued to the point of not being able to continue in the same rhythm.

An assistant standing behind wrote down every day the number of times the
dumb-bells were lifted withont exhaustion of force. He made the exercise only once a day; but as he continued it for weeks and months, it was observed that his force increased daily with surprising regularity. It was then that by these experiments Dr. Manca gradually pushed the number of times of lifting the dumb-bells from 28, which he made on an average during the first week, to 95, the average in the ninth week of exercises. ${ }^{1}$

Two reasons explain that continued regular progression. First, the muscles gradually accustomed themselves to the more intense exertion. Second, their structure, little by little, was modified and increased in volume. Upon that growth of the muscles I also have made experiments in my laboratory. Professor Aducco, with great precision, photographed the arms and the backs of 5 students; he also made accurate measurements around their chests and arms. These began to exercise every day at the trapeze and parallel bars, and he kept them at it several months, in order to fix the rate of increase which, at the end of four weeks, had already become visible in the muscles of the shoulders, the thorax, and the arms.

The problem is very complex. We become stronger by the practice of gymnastics becanse, as I have shown in my book on Fatigue, we habituate ourse ves to the products of fatigue, and to the poisons which are secreted during the work of the inuscles (if I may use that term). But we become stronger also because the muscles, excited by exercise, dilate and increase in volume. The researches made by me tend to divide these two factors. But, in the meantime, it is easy to observe that we become stronger by exercise before enlargement of the inuscles becomes apparent. We attain in training a maximum of intensity, and we keep ourselves not for an instant only at the culminant point of physical force, but, even when the muscles have returned to their natural size after long rest, even for months, the beneficial effect of exercise remains.

## III.

In the time while I was a surgeon in the Army I became convinced that the most muscular men are not always those who best resist fatigue of military life and infectious diseases.

Prof. Birch Hirschfeld said, in effect, that predominance of the muscular system among athletes leads to a state of tension of all the other organs which, in nourishing the muscles and providing for their motive action, end by exhausting themselves easily and becoming more sensitive to infectious influences.

Let us rapidly examine this problem. From it we shall become convinced that the rapid development of the muscles obtained from athletic gymnastics is not in itself an essential condition of vigor, and that we must distinguish in their operation between their aptitude to produce a maximum effort and that of producing long series of ordinary contractions without fatiguing ourselves too much. \% * *

The increase of volume of muscles gained by exercise is so obvious to everybody, that physicians and gymnasts are considered by that fact as having in their hands a means highly efficacious for the reconstruction of the organic system. In order to convince the reader that muscles of moderate volume can do as much work and perform their functions as well as those of greater, I call attention to the leg of Abyssinians.

All officers who have been with companies of native soldiers in the Erythrean country speak in praise of the prodigious rapidity and endurance which Abyssinians exhibit on the march, the faciiity with which they ascend mountains and hills and reach the top, where our soldiers arrive languid and much worn. Now, Abyssinians and Arabs are well known for the nimbleness of their legs.

Some persons suppose that inferior races endure the fatigue of march better than we because their heei bone is more elongated. It would thus allow the
muscles which serve to lift up the body more easily to adapt themselves to it. (These are the ones which form the calt of the leg and which are inserted in the heel by the tendon of Achilles.) Others say that Abyssinians and Arabs have muscles less fleshy but longer than ours. In a series of experiments made by me in concert with Dr. Patrizi at a time when a delegation of Abyssinians and Arabs passed through Turin, I discovered that neither of these suppositions was true. Therefore I still insist that, even while continuing slender, a muscle can acquire aptitude for enduring exertion better than one of greater volume.

Among the Alps I have seen famous guides the muscles of whose legs were less developed than those of some of my companions who were easily fatigued in walking.

Straining the muscles is a thing entirely different from their physiological exertion. Even the work of muscular contractions follows this or that rule according as those contractions are extreme or of moderate intensity. Straining excites the formative function of the muscle more than normal exertion. Straining is a phenomenon ultraphysiological, and almost morbid, which excites the muscle and provokes distension and multiplication of muscular fibers. To make this understood by example, I will call attention to the callosity of the hands and the feet. Pressure continued on one portion of the skin excites in its coatings formative action that makes it thicker and harder. When prsssure ceases callosity disappears. In the same manner the muscles become finer when exercise is discontinued.
Increase in the muscles, however, does not change the general conditions of health. Even the fact of the appearance or absence of muscular development according to existence or default of exercise proves that the matter is a phenomenon entirely local, and not even necessary to life.

We see, by the example of the heart, that physiological contractions of the muscles have no great effect upon the nutrition of the muscles themselves nor upon their development. Of all the muscles of the human body it is the strongest and periorms the greatest amount of work. The heart is the first to put itself in motion when we are yet in a state of embryo, and it is the last to rest in death. If the volume of its muscles were to grow continually from exercise, that organ would be distended to the point where it could no longer perform its functions.

The proof that growth of the volume of the muscles is not due to physiological contractions, but rather to straining, is that, when any malady contracts the opening of the valves of the heart, and when, consequently, the blood can no longer course freely into the systole, the volume of the heart constantly increases. Then hypertrophy of the cardiac muscle manifests itself, known under the name of cæur de bœuf (beef's heart) because of the dimensions it acquires.

Contraction of the muscles does not increase their volume so long as it is purely physiological. We observe this by the muscles of respiration, in the diaphragm and intercostal muscles, which are very slender although at continual work throughout life. We may therefore afirm that, in gymnastics, that which augments their volume is not physiological excitation of contraction, but that of straining, which is an irritation ultraphysiological. The dilatation of the muscles effected by athletic gymnastics is a hypertrophy and a phenomenon almost pathological. In thus exaggerating, I wish to give clearer expression to the idea that extreme size of a muscle is a thing entirely distinct from its aptitude to perform, during an extended period, a great amount of mechanical work.
When the section of a muscle becomes larger, it allows lifting of a greater weight, but not the lifting of a moderate weight a greater number of times. Often predominant development of the muscles of the arms is hurtful in the ordinary conditions of life. We shall see further on that masters in gymnastics are those who are least capable of enduring marches and the fatigue of military life.

When we analyze a gymnastic movement we should consider, first, the brain and the spinal marrow where the nervous action which produces contraction begins; second, the muscles which transform chemical energy into mechanical work; third, the waste proceeding from the destruction of one part of the nervous system and of the muscles consequent upon the performance of mechanical work.
Endurance consists in the aptitude we gain in producing from contraction of the muscles a greater effect with the help of exercise, and in the habit which the nervous system slowly acquires of being less sensible of perturbations in the organism caused by waste and blood pollution produced by fatigue. Another important factor is increase of volume in the muscles by exercise which renders them capable of lifting greater weights.
Already knowing that on the cessation of exercise the muscles gradually shrink to their natural volume, and that the effects of training cease also, I asked myself which one of these results continnes longest, greater endurance of fatigue or larger volume of muscles.

For an example of those researches on the physiology of gymnastics I will cite one of the experiments made by Professor Aducco. We had arranged in the laboratory some gymnastic equipments, in order to be more easily in reach of the physiological apparatus serving for the study of man when in exercise. Having leaped up to grasp the bar of the trapeze, Professor Aducco made the maneuver of bending his arms and lifting his body so as to put his chin on a level with the bar. Each of these movements lasted about five seconds. Then he let his body down to the full length of his arms and immediately lifted himself again.

When he began, Professor Aducco accomplished eleven or twelve of these feats before fatigue forced him to stop. He progressed day by day to twenty-one and twenty-two. Meanwhile the muscles of the arm gradually grew larger. At the end of a year of rest they had returned to their primitive volume, but when he procoeded to a new series of these exercises he accomplished at the first trial fourteen feats. I hope to find before long others having enough of Professor Aducco's good will to continne these studies. For the present it appears from that first trial that the effect of exercise upon the nervous system-the internal effect, if I may express it-endures longer than the peripheric or muscular effect.

I maintain that gymnastics ought to avoid the efforts which are morbid ezcitations and apply itself, above all, to act interiorly on the nervous system, in accustorning it to influence the muscles little by little in order to obtain the maximum of beneficial result with the least expense of energy. Scientific gymnastics should not allow itself to be seduced by the development of the muscles produced by means of athletic exercises.
Strainings engender hypertrophy. But this result is fundamentally different from the endurance of woriz, the most important quality of muscles in common life. In fine, in doing so that the period of inaction may not be too long, we ought by exercise to conserve in the organism that tolerance of the poisons and wastes of fatigue which is one of the essential conditions of being able to perform longcontinued work.

## V.

The increase of the perimeter of the thoracic frame is one of the most notable efiects of gymnastic exercises. Some researches upon that subject have been made by Abel Chassagne and Dally, ${ }^{1}$ Marey, Hillairet, Démeny, and others. One may

[^57]say, in general, that among 100 persons who practice gymnastics for five months, 76 will show increase of thoracic circumference, 16 a bending of the lower chest and the others will be neither better off nor worse. These figures suffice to show that the benefit of gymnastic apparatus, such as parallel bars, fixed bar,trapeze, rings, and dumb-bells, has been much exaggerated when it is maintained that they develop the muscles which take their insertion over the thoracic cavity, and that the result is useful in facilitating ordinary respiration.

Enlargement of the circumference of the thorax of itself alone is not, in fact, capable of ameliorating the conditions of the organism. Except acute and chronic affections of the luncs and serious deformities in the vertebral column, no physician las ever found a malady, a condition of uncomfortableness and debility producedi by insufficiency of the air respired. Double organs, as the lungs, kidneys, cerebral hemispheres, etc., can compensate among themselves, and only one-half is suificient for living. If one can not affirm positively nor say that that is the case with everybody, I have demonstrated, nevertheless, in a work of mine on respiration ${ }^{1}$ that all of us inspire a much greater quantity of air than we have need. and I have marked the quantity habitually inspired beyond what is necessary under the name of respiration de luxe (superituous respiration). The researches of Dr. Roblot demonstrated besides that even in the exercises of walking one obtains dilatation of the thoracic cavity and consequent increase of vital faculty, * *

## VI.

I bave carefully studied the modifications produced in the heart during muscular efforts while exercising on the trapeze and paraliel bars. Irregularities of rhythm in the beatings of the heart are those most apparent. In the course of a prolonged muscular effort the blood does not circulate freely. I have noticed this in an enlargement of the veins of the neck, congestion in the face, and the purp'e color of the skin. The cause of this is that we can not concentrate nervous action upon only one group of muscles. When the thing is to make an intense effort, almost all of the muscles of the body, especially those of the thorax, contract themselves, they make venous circulation difficult, we feel ourselves weakened, and are obliged to interrupt an effort, more on account of the constraint of circulation and respiration than weakening of muscular force.
Prolonged muscular contractions. such as often occur in exercises on parallel bars, have in physiology a special name. They are called "tetanic." Besides, everybody knows that tetanus is specially characterized by extended violent contractions. The heart does not beat with usual regularity during intense efforts, and irregularity contiuues several minutes after one has withdrawn from them.
I will cite an example. Professor Aducco in feats on the parallels went through the exercise of passage of position from arms extended to that of arms bent. After a minute or so of this movement small spots arpeared on the surface of his arms like extravasations or petechiæ of a bluish color, such as are produced by slightly asphyxiated blood which remains accumulated by the slackening of venous circulation. These spots sometimes continue for five minutes after exercise on parallels, especially during the first days. When Professor Aducco became somewhat fatigued the trouble of surface circulation became less evident and the spots disappeared sooner.

The enormous difference among various individuals as to aptitude in gymnastic exercises is noticed when we observe the exercises practiced on the horizontal bar by young men of the same class entering the gymnasium for the first time. The simple operation of lifting one's self by the arms shows how much we differ one from another from our birth, and it is to such a degree that while some do not

[^58]climb trees except with difficulty, others move among them as easily as cats. In gymnasia they correct somewhat of the inequalities in development of the muscles and make them more fit for work. But when the exercise is left off, the muscles tend to return to their primitive force and proportions. So it is that, after we have been raised by exercise above the original character limits of the race, by inaction we return to the specific type which marks retrogradation resulting from inaction.

The differences in our being at birth do not depend upon the conditions of social life, for they exist equally pronounced among beasts.

Mullendorf has remarked that birds, even those of the same species, show differences in the weight of the pectoral muscles even in the savage state. Domestic birds which do little flying have these muscles less developed than the wild of the same species. Everybody knows that blacksmiths have very large arms. Moreover, some physicians counsel against the practice of fencing as much as gymuastics, because it alters the symmetry of the shoulders; in fact, the right shoulder becomes higher and larger. All physicians are agreed that when a person becomes lame the leg which is alone to support his weight takes on speedy and abnormal development.

In The Banquet, Chapter II, paragraph 17, Xenophon relates what Socrates said about gymnatics:
"Do you laugh because in taking gymnastic exercise I expect to enjoy better health, or to eat and sleep with better relish, or because I seek that sort of exercise to enable me to avoid undue size of the legs and narrowness of the shoulders, as is the case with those who run long distances, or else great breadth of the shoulders and thinness of the legs, which pugilists have; to the end that, rather than fatiguing the whole body, I may keep it in a state of perfect equilibrium?"

## THE ARTIFICIAL PRODUCTION OF NITRATES UPON A WORLD SCALE FOR AGRICULTURAL PURPOSES. ${ }^{1}$

The world's demand for wheat-the leading breadstuff-increases in a crescendo ratio year by year. Gradually all the wheat-bearing land on the globe is appropriated to wheat growing, until we are within measurable distance of using the last available acre. We must then rely on nitrogenous manures to increase the fertility of the land under wheat, so as to raise the yield from the world's low average, 12.7 bushels per acre, to a higher average. To do this efficiently and feed the bread eaters for a few years will exhaust all the available store of nitrate of soda. For years past we have be?n spending fixed nitrogen at a culpably txtravagant rate, heedless of the fact that it is fixed with extreme slowness and difficulty, while its liberation in the free state takes place al ways with rapidity and sometimes with explosive violence.

Some years ago Mr. Stanley Jevons attered a note of waming as to the near exhaustion of our British coal fields. But the exhanstion of the worlds stock of fixed nitrogen is a matter of far greater importance. It means not only a catastrophe little short of starvation for the wheat eaters, but, indirectly, scarcity for those who exist on inferior grains, together with a lower standard of living for meat eaters, scarcity of mutton and beef, and even the extinction of gunpowder. \% \% *

I have said that starvation may be averted through the laboratory. Before we are in the grip of actual dearth the chemist will step in and postpone the day of famine to so distant a period that we, and our sons and grandsons, may legitimately live without undue solicitude for the future.

[^59]It is now recognized that all crops require what is cailed a "dominant" manure. Some need nitrogen, some potash, others phosphates. Wheat preeminently demands nitrogen, fixed in the form of ammonia or nitric acid. All other necessary constituents exist in the soil; but nitrogen is mainly of atmospheric origin, and is rendered 'fixed" by a slow and precarious process which requires a combination of rare meteorological and geographical conditions to enable it to advance at a sufficiently rapid rate to become of commercial importance.
There are several sources of available nitrogen. The distillation of coal in the process of gas making yields a certain amount of its nitrogen in the form of ammonia, and this product, as sulphate of ammonia, is a substance of considerable commercial value to gas companies. But the quantity produced is comparatively small; all Europe does not yield more than 400,000 annual tons, and, in view of the unlimited nitrogen required to substantially increase the world's wheat crop, this slight amount of coal ammonia is not of much s:gnificance. For a long time guano has been one of the most important sources of nitrogenous manures, but guano deposits are so near exhaustion that they may be dismissed from consideration.

Much has been said of late years, and many hopes raised by the discovery of Hellriegel and Wilfarth that leguminous plants bear on their roots nodosities abounding in bacteria endowed with the property of fixing atmospheric nitrogen; and it is proposed that the necessary amount of nitrogen demanded by grain crops should be supplied to the soil by cropping it with clover and plowing in the plant when its nitrogen assimilation is complete. But it is questionable whether such a mode of procedure will lead to the lucrative stimulation of crops. It must be admitted that practice has long been ahead of science, and for ages farmers have valued and cultivated leguminous crops. The four-course rotation is turnips, barley, clover, wheat, a sequence popular more than two thousand years ago. On the continent in certain localities there has been some extension of microbe cultivation; at home we have not reached even the experimental stage. Our present knowledge leads to the conclusion that the much more frequent growth of clover on the same land, even with successful microbe seeding and proper mineral supplies, would be attended with uncertainty and difficulties. The land soon becomes what is called "clover sick" and turns barren.

There is still another and invaluable source of fixed nitrogen. I mean the treasure locked up in the sewage and drainage of our towns. Individually the amount so lost is triffing, but multiply the loss by the number of inhabitants and we have the startling fact that, in the United Kingdom, we are content to hurry down our drains and water courses into the sea fixed nitrogen to the value of no less than $£ 16,000,000$ per annum. This unspeakable waste continues, and no effective and universal method is yet contrived of converting sewage into corn. Of this barbaric waste of manurial constituents Liebig, nearly half a century ago, wrote in these prophetic words: "Nothing will more certainly consummate the ruin of England than a scarcity of fertilizers-it means a scarcity of food. It is impossible that such a sinful violation of the divine laws of nature should forever remain umpunished; and the time will probably come for England sooner than for any other country when, with all her wealth in gold, iron, and coal, she will le unable to bry one-thousandth part of the food which she has, during hundreds of years, thrown recklessly away."

The more widely this wasteful system is extended, recklessly returning to the sea what we have taken from the land, the more surely and quickly will the finite stocks of nitrogen locked up in the soils of the world become exhausted. Let us remember that the plant creates nothing; there is nothing in bread which is not absorbed from the soil, and unless the abstracted nitrogen is returned to the soil, its fertility must ultimately be exhausted. When we apply to the land
nitrate of soda, sulphate of ammonia, or guano, we are drawing on the earth's capital, and our drafts will not perpetually be honored. Already we see that a virgin soil cropped for several years loses its productive powers, and without artificial aid becomes infertile. Thus the strain to meet demands is increasingly great. Witness the yield of 40 bushels of wheat per acre under favorable conditions dwindling through exhaustion of soil to less than seven bushels of poor grain, and the urgency of husbanding the limited store of fixed nitrogen becomes apparent. The store of nitrogen in the atmosphere is practically unlimited, but it is fixed and rendered assimilable by plants only by cosmic processes of extreme slowness. The nitrogen which with a light heart we liberate in a battleship broadside has taken millions of minute organisms patiently working for centuries to win from the atmosphere.
The only available compound containing sufficient fixed nitrogen to be used on a world-wide scale as a nitrogenous manure is nitrate of soda, or Chile saltpeter. This substance occurs native over a narrow band of the plain of Tamarugal, in the northern provinces of Chile between the Andes and the coast hills. In this rainless district for conntless ages the continuous fixation of atmospheric nitrogen by the soil, its conversion into nitrate by the slow transformation of billions of nitrifying organisms, its combination with soda, and the crystallization of the nitrate have been steadily proceeding, until the nitric fields of Chile have become of vast commercial importance, and promise to be of inestimably greater value in the future. The growing exports of nitrate from Chile at present amount to about $1,200,000$ tons.

The present acreage devoted to the world's growth of wheat is about $163,000,000$ acres. At the average of 12.7 bushels per acre this gives $2,070,000,000$ bushels. But thirty years hence the demand will be $3,260,000,000$ bushels, and there will be difficulty in finding the necessary acreage on which to grow the additional amount required. By increasing the present yield per acre from 12.7 to 20 bushels we should with our present acreage secure a crop of the requisite amount. Now from 12.7 to 20 basbels per acre is amodexate increase of productiveness, and there is no doubt that a dressing with nitrate of soda will give this increase and more.
The action of nitrate of soda in improving the yield of wheat has been studied practically by Sir John Lawes and Sir Henry Gilbert on their experimental field at Rothamsted. This field was sown with wheat for thirteen consecutive years without manure, and yielding an average of 11.9 bushels to the acre. For the next thirteen years it was sown with wheat, and dressed with five hundredweight of nitrate of soda per acre, other mineral constituents also being present. The average yield for these years was 36.4 bushels per acre-an increase of̃ 24.5 bushels. In other words, 22.86 pounds of nitrate of soda produce an increase of one bushel of wheat.
At this rate, to increase the world 's crop of wheat by 7.3 bushels, about $1 \frac{1}{2}$ hundredweight of nitrate of soda must annually be applied to each acre. The amount required to raise the world's crop on $163,000,000$ acres from the present supply of $2,070,000,000$ bushels to the required $3,200,000,000$ bushels will be $12,000,000$ tons, distributed in varying amounts over the wheat-growing countries of the world. The countrics which produce more than the average of 12.7 bushels will require less, and those below the average will require more; but, broadly speaking, about $12,000,000$ tons annually of nitrate of soda will be required, in addition to the $1,250,000$ tons already absorbed by the world.
It is difficult to get trustworthy estimates of the amount of nitrate surviving in the niter beds. Common rumor declares the supply to be inexhaustible, but cautious local authorities state that at the present rate of expor乞, of $1,000,000$ tons per annum, the raw material "caliche," containing from 25 to 50 per cent nitrate, will be exhausted in from twenty to thirty years.

Dr. Newton, who has spent years on the nitrate fields, tells me there is a lower-ciass material, containing a small proportion of nitrate, which can not at present be used, but which may ultimately be manufactured at a profit. Apart from a few of the more scientific manufacturers, no one is sanguine enough to think this debatable material will ever be worth working. If we assume a liberal estimate for nitrate obtained from the lower-grade deposit, and say that it will equal in quantity that from the richer quality, the supply may last possibly fifty years, at the rate of a million tons a year; but at the rate required to augment the worlds supply of wheat to the point demanded thirty years hence, it will not last more than four years. * * *
There is a gleam of light amid this darkness of despondency. In its free state nitrogen is one of the most abundant and pervading bodies on the face of the earth. Every square yard of the earth's surface has nitrogen gas pressing down on it to the extent of about 7 tons-but this is in the free state, and wheat demands it fixed. To convey this idea in an object lesson, I may tell you that, previous to its destruction by fire, Colston Hall, measuring 146 feet by 80 feet by 70 feet, contained 27 tons weight of nitrogen in its atmosphere; it also contained one-third of a ton of argon. In the free gaseous state this nitrogen is worthless: combined in the form of nitrate of soda it would be worth about $\mathfrak{£}^{2}, 000$.
For years past attempts have been made to effect the fixation of atmospheric nitrogen, and some of the processes have met with sufficient partial success to warrant experimentalists in pushing their trials still further; but I think I am right in saying that no process has yet been brought to the notice of scientific or commercial men which can be considered successful either as regards cost or yield of product. It is possible, by several methods, to fix a certain amount of atmospheric nitrogen; but, to the best of my knowledge, no process has hitherto converted more than a small amount, and this at a cost largely in excess of the present market value of fixed nitrogen.
The fixation of atmospheric nitrogen therefore is one of the great discoveries awaiting the ingenuity of chemists. It is certainly deeply important in its practical bearings on the future welfare and happiness of the civilized races of mankind. This unfulfilled problem, which so far has eluded the strenuous attempts of those who have tried to wrest the secret from nature, differs materially from other chemical discoveries which are in the air, so to speak, but are not yet matured. The fixation of nitrogen is vital to the progress of civilized humanity. Other discoveries minister to our increased intellectual coinfort, luxury, or convenience; they serve to make life easier, to hasten the acquisition of wealth, or to save time, health, or worry. The fixation of nitrogen is a question of the not far distant future. Unless we can class it among certainties to come the great Caucasian race will cease to be foremost in the world, and will be squeezed out of existence by races to whom wheaten bread is not the staff of life.
Let ine see if it is not possible even now to solve the momentous problem. As far back as 1892 I exhibited, at one of the soirées of the Royal Society, an experiment on "The Flame of Burning Nitrogen." I showed that nitrogen is a combustible gas, and the reason why when once ignited the flame does not spread through the atmosphere and deluge the world in a sea of nitric acid is that its igniting point is higher than the temperature of its fame-not, therefore, hot enough to set fire to the adjacent mixture But by passing a strong induction current between terminals the air takes fire and continues to burn with a powerful flame, producing nitrous and nitric acids. This inconsiderable experiment may not unlikely lead to the development of a mighty industry destined to solve the great food problem. With the object of burning out nitrogen from air so as to leave argon behind Lord Rayleigh fitted up apparatus for performing the operation on a larger scale, and succeeded in effecting the union of 29.4 grams of mixed nitrogen and oxygen at an expenditure of one horsepower. Following
these figures, it would require one board of trade unit to form 74 grams of nitrate of soda, and therefore 14,000 units to form one ton. To generate electricity in the ordinary way with steam engines and dynamos, it is now possible with a steady load night and day, and engines working at maximum efficiency, to produce current at a cost of one-third of a penny per board of trade unit. At this rate one ton of nitrate of soda would cost $£ 26$. But electricity from coal and steam engines is too costly for large industrial purposes; at Niagara, where water power is used, electricity can be sold at a profit for one-seventeenth of a penny per board of trade unit. At this rate nitrate of soda would cost not more than $£ 5$ per ton. But the limit of cost is not yet reached, and it must be remembered that the initial data are derived from small-scale experiments, in which the object was not economy, but rather to demonstrate the practicability of the combustion method and to utilize it for isolating argon. Even now electric nitrate at £5 a ton compares favorably with Chile nitrate at $£ \% 10$ s. a ton; and all experience shows that when the road has been pointed out by a small laboratory experiment, the industrial operations that may follow are always conducted at a cost considerably lower than could be anticipated from the laboratory figures.
Before we decide that electric nitrate is a commercial possibility a final question must be mooted. We are dealing with wholesale figures, and must take care that we are not simply shifting difficulties a little farther back without really diminishing them. We start with a shortage of wheat, and the natural remedy is to put more land under cultivation. As the land can not be stretched, and there is so much of it and no more, the object is to render the available area more productive by a dressing with nitrate of soda. But nitrate of soda is limited in quantity, and will soon be exhausted. Human ingenuity can contend even with these apparently hopeless difficulties. Nitrate can be produced artificially by the combustion of the atmosphere. Here we come to finality in one direction; our stores are inexhaustible. But how about electricity? Can we generate enough energy to produce $12,000,000$ tons of nitrate of soda amually? A preliminary calculation shows that there need be no fear on that score; Niagara alone is capable of supplying the required electric energy without much lessening its mighty Cow.

The future can take care of itself. The artificial production of nitrate is clearly within view, and by its aid the land devoted to wheat can be brought up to the 30 bushels per acre standard. In days to come, when the demand may again overtake supply, we may safely leave our successors to grapple with the stupendous food problem.

## THE USE OF PICTURES IN PUBLIC LIBRARIES. ${ }^{1}$

By Samuel Sweti Green.
In Great Britain, in 1845, was enacted a law entitled "An act for encouraging the establishment of museums in large towns."
The well-known law of 1850 is entitled "An act to enable town councils to establish libraries and museums." These museums are defined in a section of the law to be "museums of art and science." Towns in Great Britain may use public money to establish and maintain museums of art and science as well as libraries. These are not provided for in Massachusetts by existing library laws. Arrangements are made in some towns, however, by which art galleries may be housed in the same building as a public library and be under the control of the library board.

[^60]In Fitchburg, for example, the Hon. Rodney Wallace, in 1885, gave to the city a building to be used for "a free public library, reading rooms, and art gallery, and for no other purposes," on condition that the city government accept it and agree to bear the current expenses. There is a collection of oil paintings in the upper story of that building.
Many public libraries are owners of works of art which have been given to them.
As early as 1869 the Boston Public Library acquired, by gift, the Tosti collection of engravings.

The City Library Association of Springfield has a museum of natural history connected with it, as well as an extensive art collection. This is not a public library, however, controlled and supported by the city, but a private institution, to which the city gives liberal assistance annually, in consideration of the fact that its privileges are extended to the general public without cost.

While it would be out of place to spend money appropriated by a town for a library for buying oil paintings and statuary to form an art museum, it is considered proper to buy photographs and plates, not only bound in volumes, but detached, for the purpose of illustrating subjects treated of in books in the library.

In so far as the writer knows, the Free Public Library in Worcester was the first public library ia the country to make a deliberate and large expenditure for photographs, engravings, and other kinds of plates, to use for the purpose of popular education in connection with the daily work of the library. The present librarian became connected with it as a director January 1, 1867, and as librarian January 15, 1871. Soon after his connection with the institution he introduced the plan of buying freely pictures separate from books. These have been bought mainly from the income of a fund established by the will of Dr. John Green, the founder of the reference department, but to a considerable extent also from the city appropriation.

Since 18\%0 interest in art instruction has grown apace. Instruction in drawing has been given in the public schools. In July, 18i1, Mr. Walter Smith, who had been brought here from abroad, was nade art director in this Commonwealth. A growing and large interest in making all objects beautiful and in having everywhere tasteful surroundings showed itself in the community generally.

It became very evident to the librarian in Worcester that pictures must be provided if the library was to do the work which might properly be expected of it in fostering the art spirit and in giving it material by means of which it might get exercise. A suficiently large number of copies of Jones's Grammar of Ornament in its larger form, a copy of L'Ornement Polychrome, and other similar works, were bought, and collections of plates, mainly large photographs representing the work of masters in art, were bought from time to time. This library also became a pioneer in the work of bringing about a close conuection between libraries and schools. When these relations were established, it soon became obvious that not only in providing for the newly awakening interest in art, but also affording necessary aid in geography, history, and other studies, large collections of pictures must be acquired. The value of the illustrations in books was recognized, as well as their rapid increase in number and excellence. But here, as we'l as in instruction in art, more, larger, and better pictures were needed, and these had to be bought as separate plates, and kept in portfolios so that they could be kung on walls.

Not only was the pictorial matter acquired by the library placed at the disposal of teachers, scholars, and the general public in meeting their daily needs, but not infrequently exhibitions were given. Thus early a large collection of good-sized photographs, illustrating the work of Raphael and the development of his genius, was shown. Then followed other exhibitions of photographs of pictures of artists of different Italian and German schools of painting. The experiment was successfully tried of having members of the Worcester Art Society make themselves
acquainted with groups of pictures which they undertook to explain to visitors. A lady well acquainted with pictures was hired to come from Boston to be present at one of the exhibitions and enter into conversation with persons interested about the pictures and artists. This plan gave much satisfaction.

When the new library building was added to the older one, in 1890, new facilities were provided for exhibitions. The interior of the new building was planned by the librarian, and arrangements for a hall and art galleries were made. Many exhibitions have been given for the benefit of pupils in the schools. For example, when scholars in the high schools have been studying essays from the Spectator, classes are brought to the library, and photographs of old buildings in London, colored pictures of the exteriors of buildings and of scenes within buildings in the times represented in the writings and other illustrations of London in the time of Addison and of the manners and occupations of its inhabitants are shown to them. If they have been engaged in studying plays of Shakespeare, the plates of the work known as the Homes and Haunts of Shakespeare, in colors and in black and white, are hung on the walls of a hall, together with the illustrations of scenes in the plays of Shakespeare by Darley; and facsimiles of the quartos and folios and works giving representations of the exterior and interior architecture and of the costumes of the time of the dramatist are brought together, and classes, with their teachers, invited to examine and study them.

For pupils in the grammar schools exhibitions have been provided. Thns, when in the school course the civil war of 1861-1885 has been studied, one hundred photographs of bridges, houses, roads, and battlefields (with the dead lying unburied) are placed on the walls of a hall, with Forbes's etchings descriptive of life in the camp during the war, battle pictures in color, and a set of Confederate etchings. All are carefully inscribed with names of places, scenes, etc. (with which the memories of the children are at that time filled); and the principals of the grammar schools are notified that the exhibition is open, and that such boys and girls as desire may come to it between the hours of 4 and 6 o'clock in the afternoon.

Last winter a more elaborate exhibition was held. The colored plates of Catlin, illustrating life among the North American Indians during his residence among: them; Thomas Moran's beautiful and striking representations of the scenery in the Yellowstone Park; a set of chromolithographs, such as are used in German schools in teaching physical geography; and Trouvelot's plates, showing how the heavenly bodies look through a telescope, were hung on the walls of a hall. By arrangement with the superintendent of schools, teachers registered their names at his ofice, and placed after them the dates when they would like to bring scholars to the library. It was annonnced to the librarian every day, by telephone, what school was coming. Such pupils in a school as desired came to the library, accompanied by teachers, after school in the afternoon, and spent an hour in examining the pictures and in listening to a lecture about them. This exhibition was peculiarly successful, and was very entertaining and instructive to the children.

Another exhibition of a similar character has been planned for the present winter. A course of lectures was given by Dr. G. Stanley Hall to the teachers of Worcester last winter. Some of these were illustrated at the library by bringing together into a room pictorial and literary matter likely to prove useful in teaching the subjects which he was showing them how to teach.

Classes go to the library from the high schools and from grammar schools to look over, in a room by themselves, photographs of classical remains, illustrations of armor, or pictures interesting in connection with other subjects.

Twenty years or so ago geography was tanght in the Worcester Normal School by means of lantern slides. The principal of one of the grammar schools in Worcester has 1,500 slides which he uses in giving instruction in his school. For example, he has a series of pictures which he has taken, showing the various points of interest in Concord, Mass. These pictures are shown and the connection of the
place with the Revolution and the town's distinguished residents are mentioned and talked about. Interest is thus excited that may lead to extended studies in history and literature. The teacher spoken of has been doing work of this kind for ten years. The superintendent of schools in Worcester has become much interested in the matter, and isendeavoring to have instruction given by slides in other, if not in all, the public schools. Many of the slides are prepared from material in the public library. That institution has skylights and a dark closet for the use of photographers, and large numbers of pictures which teachers desire to copy.

Prof. William M. Davis, of Harvard University, has of late years been very much interested in having instruction given by means of lantern slides; and in No. II of Papers from the Physical Geography Laboratory of Harvard University may be found a list of geographical lantern slides, of great interest, prepared for use in Cambridge public.schools by Professor Davis (Cambridge, Mass., Harvard Printing Company ).

The first of next month (February, 1898) an eahibition is to be given at the library in Worcester, of especial interest to schoo!s. The Public School Art League, having raised $\$ 300$ or $\$ 400$ in small subscriptions by residents of Worcester, has lately been brying objects to be used in decoration of schoolrooms in different portions of the city. Before they are put in the places they are to occupy, they are all of them to be brought to the library for a public exhibition. The library will add a collection of photographs, selected from its stores with particular reference to their desirability for purposes of school decoration; and it is expected that a new interest will be awakened in the community by the display, in providing additional means to be used in furtherance of the good plans of the School Art League.

There has just been hung in a room in the Worcester Library a collection of photographs illustrative of Greek sculpture. There is a large class of ladies studying this subject. It began the study last winter, and is continuing it the present season. The members of the class call at such hours as they please to examine the photographs, and once a week several ladies come and study them for two or three hours. Societies connected with churches that are making fireside travels, Chautauqua circles, clubs for the suburbs of the city, teachers with classes to which instruction is being given in the history of painting, come to the library; they have rooms assigned them and are provided with illustrative matter on such subjects as they have an interest in at the time.

A large number of exhibitions is provided for the general public. Such as have been given in the last few years are described in the annual reports of the library. Examples are: The antiquities of Russia; the remains of Pompeii; Moorish art in Cairo; English, French, and Spanish painting; classical antiquities. Occasionally a deserving local artist is discovered, and is allowed, in connection with an exhibition, to fill a room with his pictures. Several exhibitions have been given in the Worcester Library in conjunction with the Worcester Art Society. Thus, when the new library building was opened, the art society filled the galleries with portrats gathered mainly from homes in the city. As the earlier artists of the country and later painters, as well as the most distinguished living portrait painters, were represented in the exhibition, it gave, to some extent, a history of American portraiture. At another time the art society gave an exhibition of china, and winter before last kept up a continuous exhibition of oil paintings and bric-a-brac for four months. The library assisted by filling a room with photographs of English and Continental cathedrals of large size, and afterwards with representations of the frescoes of Michael Angelo in the Sistine Chapel. The art society spent froin $\$ 300$ to $\$ 700$ on each of these exhibitions. In connection with the exhibition of china, prizes were given by the art society for ceramic decorations by local amateurs.

A very large use of pictures is being made in the new Forbes Library at Northampton. That institution was opened to the public July 1, 1895, under the care of an experienced librarian, Mr. Charles A. Cutter, who was for twenty-four years librarian of the Boston Atheneum. The Forbes Library had accumulated a considerable sum which could be spent at the start in buying books, photographs, and objects of art, and is provided with an income which will enable it to make valuable additions from year to year. From the second annual report of the library, for the year ending November 30, 1896, it appears that several successful exhibitions were given in that year. One of great interest consisted of mountain photographs owned by the Appalachian Club, giving views of the Alps, the Tyrol,不tna, and the Caucasus. This was followed by a loan exhibition of photographs taken in India, Japan, and Siam. These belonged to a resident of Northampton, who made the display more attractive by lending to the library a "case finll of oriental curiosities-idols, swords and daggers, palm-leaf books, pipes, and the betel-nut apparatus." Besides other exhibitions of material owned by the library and borrowed, it had two furnished by a representative of a large dealer in photographs.

Recently an interesting exhibition has been given in the Forbes Library building of the work of amateur photographers.
"These exhibitions," the librarian states, " have not only given pleasure, which in itself would be sufficient justification, but have broadened their visitors' minds, have supplied some of the advantages of travel to those who could not leave home, have renewed the impressions of those who had been abroad, have increased the knowledge of art, and educated the taste of all who saw them." The library has been invited to join a league of 20 Massachusetts libraries, who will prepare a traveling exhibition, stopping two weeks at each library.

The Boston Public Library, under its present management, is showing a very marked interest in the cause of popular entertainment and education, and is using its great resources and wide and powerful influence efficiently to these ends. In trying to show what use this library is making of pictures, I can not do better than to incorporate here the following letter, just received from Mr. Otto Fleischner, the head of the art department:

## The Public Library of the City of Boston, Jamuary 1, 1898.

Samuel S. Green, Esq.,
Librarian, Worcester Public Library, Worcester, Mass.
Dear Mr. Green: In answer to your letter of December 19, I give below a partial list of exhibitions of pictures in this library, which I hope will serve your purpose.

We now keep a regular record of all the exhibitions, but have no lists of the first year after the opening of this department.

Our aim is to have it known that students and casual visitors will find something new and interesting, and at the same time instructive, to see on every successive visit to the library. When the walls of the Barton Library, which is mainly used for this purpose, are not occupied by special exhibits, a selection of photographs is put up without a set programme, although a certain order is followed. For instance, the artists of a certain school are shown in sequence, or a collection of landscapes or genre pictures or portraits, interior decoration, etc.

The special exhibitions are arranged with a view to illustrate special events, lectures, courses in the public schools or the Institute of Technology, anniversaries, national and other holidays. For Christmas just past a collection of Nativities of different schools was exhibited, while Easter will be a good season for a collection of Madonnas. For Washington's birthday last year a very interesting loan collection of Washington portraits was put up, and will be repeated this year. Decoration Day is celebrated by a display of a large collection of Brady's war photograph's. Patriot's Day, Bunker Hill Day, Fourth of July, are illustrated by maps, views of battles, portraits of generals, etc.
Among the special exhibitions may also be mentioned those in connection with-
Professor Weir's Lowell Institute lectures on Italian art.
Professor Homer's Lowell lectures on Romanesque architecture.
Hopkins's lectures on the history of art to the teachers of the Boston schools, which will be continued this winter.
Industrial arts in connection with the.Arts and Crafts Exhibition.

## Collection (loan) of book plates by Boston artists.

 Collection (loan) of historical and rich modern bindings.Loan collection of original drawings, engravings, and reproductions, showing the methods of book illustration, in connection with the Library Club meeting.
Holbein portraits and other pictures, on the four hundredth anniversary of the artist's birth.

Cabot Centennial; portraits, maps, views, portraits, etc.
Bradford Manuscript; autographs, views, portrait's, etc.
The Constitution, Cuba, Alaska, etc.
Loan collection of original drawings and paintings for book illustrations, etc.
Of course all special exhibitions are amounced in the newspapers.
To these exhibitions must be added the permanent display of the Arundel prints in the fine arts room, the collection of solar prints suitable for school decoration, and the Howard Pyle paintings illustrating American historical subjects, both in the juvenile room.
Since last fall these exhibitions have been extended, with gratifying results, to the 10 branches, and several special collections are sent in rotation to the various branches and exhibited for two weeks. The schools in the respective districts are notified, and visit the branch in classes, under the supervision of teachers.
The regular collections of photographs are not used for this purpose, but the library purchased within the last six months a collection of about 2,500 half-tone reproductions from paintings and sculpture (classical picture and sculpture galleries) and about 1,00 gelatine prints (European architecture), which are exclusively used for branches and schools.

The "Classical Picture Gallery " and "Classical Sculpture Gallery," published by H. Grevell \& Co., of London, and "European Architecture," published in Chicago, are monthly serials, and are still continued.
A portfolio of a selection of these pictures is sent regularly on the first Tuesday of every month to each branch, where they are either displayed on the walls or used on the tables. These portfolios are also issued to teachers for use in the schoolroom, the portfolios being so arranged that they may serve as easels to show the pictures from the teacher's desk.
An experiment will be made during January to hold a lecture in connection with the exhibitions. This will be done under the auspices of one of the art clubs, who will supply a competent lecturer.
In case the experiment proves feasible, a regular course of lectures will be arranged for the winter.

Very truly, yours,
Otto Fleischiner.
Can libraries in small towns avail themselves of advantages which come from ready access to generous collections of pictures?
It will be noticed that the Forbes Library borrowed the pictures for the exhibition of mountain views from the Appalachian Club. Now, this club, it is announced, is ready to lend its photographs to any library that will pay freight and attend to the cost of hanging the pictures. There are persons interested in small towns who have collections of plates and objects of art and other interesting material which they would be willing to lend to libraries. Among others, there are persons born and perhaps brought up in little towns who would be glad to lend collections which they own, or to influence others to lend collections, for the instruction and entertainment of the present residents in the places of their birth. It is understood that the Century Company has sometimes lent the drawings and paintings from which the illustrations in its magazines have been prepared. Other publishers have similar collections which they could perhaps be induced to lend. Arrangements could undoubtedly sometimes be made with dealers to send small lots of pictures to little towns.

Mr. John Cotton Dana, now the librarian of the City Library Association of Springfield, in this State, but until recently the librarian of the Public Library of Denver, Colo., did some inexpensive work while living in the latter city in bringing together and distributing collections of pictures. He had illustrations cut out from illustrated papers and magazines and mounted on stiff paper, distributed them under heads, and arranged them in catalogue drawers. Teachers and others could go to these drawers and select such pictures as they wanted to take to schools or homes. This work of Mr. Dana is described in a recent volume of the "Library Journal."

It is often said that any town, no matter how small it is, may have a unique library. All that is necessary is to start and maintain a movement to bring together every book, pamphlet, broadside, or newspaper that will in any way throw light on the history of the town or the lives of its residents or past inhabitants. It may not only have a mass of local literature, but may add to this a museum of antiquities and other objects which illustrate the history or show the present products and interests of the town. Both of these things have been done in a most admirable manner in the public library of the beautiful little town of Lancaster, in Worcester County. But every town library may have a unique art collection. Poor indeed is a town without amateur photographers among its permanent or summer residents. With little trouble and at no great expense any town library may secure a valuable collection of local plotographs. Preserve the remembrance of beautiful trees or groups of trees. The landscape changes from time to time as wood is cut or as alterations are made for utilitarim purposes. Have pictures taken to show how the town looks to-day. Get photographs of all prominent residents and, so far as possible, likenesses of former residents and of persons born in the town who have been important factors in adding to the prosperity of larger places. Take pictures of old houses. If a library, even in a very small town, should do this kind of work systematically and do a good deal of it every year, it would not be long before it would have a valuable and, as stated before, unique collection.

A town library may join a league like the one which the Forbes Library was asked to attach itself to.

Finally, traveling libraries of pictures are available. The Woman's Education Association of Boston has done excellent work in sending to small towns traveling libraries of books. It is now entering on the work of sending loxes of pictures to places where they are desired. It has already done work of this kind.

I will only add that considerable work of this kind is being done in the State of Wisconsin. Attention has for some time been attracted to that State by the ezcellence of the work which it has been doing by seading boxes of books to sparsely settled portions of the state. In a report recently issued by the Wisconsin Free Library Commission on "Free Traveling Libraries in Wisconsin" there is a very interesting account of good work that is being done by traveling boxes of pictures in Portage County.

## CHAPTER XXXVIII.

# THE TPANS-MISSISSIPPI AND INTERNATIONAL EXPOSITION, HELD IN OMAHA, NEBR., JUNE 1 TO OCTOBER 31, 1898. 

Report of J. C. Boykin, Agent of the Burean of Education, and Chief Special Agent of the Interior Department.

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\text { Wasmington, D. C., February 1. } 1899 .
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Sir: In making a report of the participation of this Bureau in the TransMississippi and International Exposition, it may be well to give a brief history of the enterprise and a statement of its general features. Without this the bearings and surroundings of our own exhibit can not be well appreciated.

The credit of first effectively proposing an exposition to be held in Omaha is said to belong to Mr. Edward Rosewater, the editor of the Omaha Bee. He had been impressed by the success of the World's Fair at Chicago and by its advantages to that city, and his belief that a similar exposition would have a like effect upon Omaha had been strengthened by the experience of Atlanta, Ga., with its exposition of 1895 . A convention had been called in 1895 to consider the commercial condition of the Trans-Mississippi States, and it was expected that steps would then be taken to extend the commercial importance of that section. The time seemed ripe to Mr. Rosewater for advancing his ideas as to an exposition, and he accordingly broached the subject to a number of influential men of the city, and published (November 25,1895 ) an editorial in his paper earnestly advocating the idea. The proposition was taken up by the Trans-Mississippi Commercial Congress almost immediately afterwards, and the actual initiation of the exposition was the most important work accomplished by that gathering, its president, Hon. W. J. Bryan, introducing the following resolution:

Whereas we believe that an exposition of all the products, industries, and civilization of the States west of the Mississippi River, made at some central gateway where the world can behold the wonderful capabilities of these great wealthproducing States, would be of great value not only to the Trans-Mississippi States, but to all the home seekers in the world: Therefore,
Resolved. That the United States Congress be requested to take such steps as may be necessary to hold a Trans-Mississippi Exposition at Omaha in the year 1898, and that the Representatives of such States and Territories in Congress be requested to favor such an appropriation as is usual in such cases to assist in carrying out this enterprise.

After the adjournment of the congress, active steps were taken to make the suggestion an accomplished fact. In January, 1896, the Trans-Mississippi Exposition Association was formally organized and incorporated. Its capital stock was fixed at $\$ 1,000,000$, issued in shares of $\$ 10$ each. Efforts were begun for securing Congressional and State recognition and, incidentally, appropriations. The sundry civil hill passed by Congress and approved June 10, 1896, carried an appropriation of $\$ 200,000$ for a Government exhibit, and contained the usual provisions as to notification and invitation to foreign govermments to participate and as to the admission of exhibits free of duty. Of the appropriation as it finally stood, $\$ 62,500$
were to be used for the erection of a building and the remainder was to be for the preparation and care of exhibits. The Government exhibit was to be controlled by a board of management consisting of one representative of each of the Executive Departments and one each from the Smithsonian Institution and the Fish Commission.

The passage of this bill made the exposition a certainty. In a few months stock subscriptions were secured in sufficient amount to meet the provisos in the appropriation bill and in the articles of incorporation, and December 1, 1890, a meeting of the stockholders was held and a board of fifty directors was elected. These, in turn, formulated the permanent organization of the association and elected the following officers: Gurdon W. Wattles, president: Alvin Saunders, resident vicepresident; Herman Kountze, treasurer; John A. Waikefield, secretary; Z. T. Lindsey, manager department of ways and means; Edward Rosewater, manager department of publicity and promotion; F. P. Kirkendall, manager department of buildings and grounds; E. E. Bruce, manager department of exhibits; A. L. Reed, manager department of concessions and privileges; W. N. Babcock, manager department of transportation.

The final decision as to the location of the exposition was reached March 17, 1897, and the corner stone was laid with elaborate ceremony April 22.

THE GROUNDS AND BUILDINGS.
The site was an eligible one, about 2 miles from the center of the city. It was composed of three distinct "tracts," but these were so situated, and the arrangement was such, that each had its individuality. All were connected by streets and viaducts, and what might have been the cause of inconvenience and lack of̃ harmony under less skillful management, was turned into a positive advantage.

What was known as the Kountze tract was a rectangular piece of ground $6 \mathrm{ra}_{0}$ feet wide and about a half mile iong, extending from Sherman avenue (Sixteenth street extended) to Twenty-fourth street. Here was situated the "grand court." A long, narrow lagoon, spread out at one end in the form of a trefoil, was surrounded by the principal exhibit buildings, recalling the court of honor at the World's Fair, the likeness being increased by the extensive use of white staff in construction and decoration. At the head of the lagoon stood the Government building with its gilded dome and impressive columns and sculptured groups. On the south were the buildings devoted to fine arts, liberal arts, and raines and mining, and on the north were those of agriculture, manufactures, and machinery and electricity. All these were connected by colonnades, which added much to the completeness of the plan and proved a positive boon in inclement weather.

THE EXHIBITS.
The exhibits in the Government building were materially different in most respects from those at previous expositions, the plan of the officials being to present fresh collections as far as possible at each succeeding exposition. Where it was necessary to use the same articles the difference in arrangement and decoration was such as to give them an entirely different aspect. If this were not kept constantly in mind the Government exhibits, after a few expositions, might become monotonous. But since the same departments, the same bureaus, and the same functions are to be exhibited every time, the task is not an easy one.

A partial enumeration of the articles shown filled 45 closely printed octavo pages in the official catalogue. From this the scope of the exhibits may be judged.

The Fine Arts Building, or more properly buildings, for it was a double structure, contained a creditable collection of pictures. A feature which added greatly to its usefulness was a series of lectures by the director, Mr. A. H. Griffth, of Detroit, Mich., who in his talks passed from picture to picture and explained their
characteristics and those of the schools of art which they respectively represented. In lieu of the usual medals and diplomas, a fund of $\$ 5,000$ was expended in the purchase of meritorious pictures, the idea being that artists would prefer a sale to any other form of award.
The Liberal Arts Building and the Manufactures Building faced each other from opposite sides of the lagoon. In the former among the most conspicuous exhibits were typewriters, pianos, billiard tables, artificial limbs, gramophones, writing papers, photographs, furs, and jewelry. Prominent exhibits in the manufactures building were of meats, pork and beef products, salt, shoes, whiskies and beer, oils, hats, clothing, watches, stoves, sewing machines, house furnishings, chocolate, etc.
The Mines and Mining Building was filled almost entirely with collective State exhibits of minerals. South Dakota, Missouri, Colorado, Monfana, Minnesota, Utah, New Mexico, Wyoming, Oregon, and Nevada made extensive exhibits in this department.
The building devoted to Machinery and Electricity occupied the position on the lagoon opposite to that of the Mines and Mining Building. The display of electrical machines and devices was excellent, but not extensive, and the exhibits of historical telephone and telegraph apparatus were noteworthy. In machinery other than electric the display was meager.

The Agriculture Building presented the appearance that has come to be considered inseparable from a building so named. With the exception of three or four eacellent exhibits made by railroads, all the extensive displays were collective State exhibits. Naturally Nebraska and the neighboring States of Iowa, Kansas, and Missouri made the largest exhibits here, but New Mexico, Utah, Texas, Minnesota, Oregon, Oklahoma, North Dakota, Montana, and even Hawaii, were well represented. There was a good deal of sameness in these exhibits, since the States in that section all boast of similariproducts; but the lamber of Oregon, the flour of Nebraska, the forestry of Montana, the photographs of Hawaii, the wools of Minnesota, and the ingenious pictures and lay figures of the Burlington Railway served to give variety to the building and relief from the profusion of corn and grain.

The Horticulture Building and the Transportation and Agricultural Implement Building were very inconvenieatly placed, the former beyond the State buildings on the Bluff tract, and the latter almost at the extreme northern limits of the grounds. Neither building, therefore, received its just proportion of visitors on ordinary occasions. As in the Mining and the Agriculture Building, the exhibits of horticulture were largely those of the State commissions. In the department of transportation the railroads naturally occupied the chief space. Powerful engines of the latest type, an elegant Pullman passenger train, refrigerator cars, and a historical engine and passenger car attracted probably the most attention in this section.

The most striking feature of western farming to an eastern man is the extensive use of machinery. So far as the work of the field goes, hand work is practically eliminated in western farming, and it is a fact that the old familiar hand tools are rarely seen. Naturally the display of agricultural machinery at this exposition was, as compared with either Atlanta or Nashville, very extensive, and many articles were exhibited with prospects of profitable sale which would be merely objects of curiosity in most parts of the East and South.

## THE INDIAN CONGRESS.

The Indian act of July 1, 1898, carried an appropriation of $\$ 40,000$ to enable the Secretary of the Interior to assemble representatives of different Indian tribes as a part of the Trans-Mississippi and International Exposition. The purpose of this
assembly was declared to be "to illustrate the past and present conditions of the various Indian tribes and the progress made by education, and such other matters as will fully illustrate Indian advancement in civilization:"
In pursuance of this provision, an army officer who had been acting as Indian agent at one of the near-by reservations was designated to take charge of the "congress." About 700 Indians, representing 41 tribes, were gathered, and were located on the north tract. They were lodged in "tepees" and "wickiups" of their own construction, and until the close of the exposition were maintained there from the fund named in the appropriation. It was widely advertised that this assemblage would present an opportunity to see the American Indian as a savage, and, as far as possible, primitive conditions were imitated in the encampment, both in dress and in mode of living, though it was apparent that camp life was a novelty to many of the Indians participating. One young Indian came one day to my space in the Government Building and asked to see a certain book of photographs in the Indian Office exhibit. He looked through the book with interest, and finally showed me a photograph of himself. It represented him as standing in front of a neat frame cottage, by the side of a two-horse plow, all his own. In the picture he was clothed in the orthodox civilized garb, but as he stood before me he wore a suit of fringed and beaded buckskin and an elaborate feather bonnet. I asked which of the two was his usual costume, and he replied that he had never worn paint and feathers before, and he only did it then "to show people what it was like." This man had been a Carlisle student, and in the encampment were a number of other pupils and former pupils of the various Government schools. For this occasion, however, they were all "blanket Indians."
From time to time exhibitions were given of primitive dancing, but the sham battles were the great feature of the "congress." As spectacles these were very striking. The performance always bagan by marching the bands from the different tribes up to the grand stand, where they were introduced to the spectators by an announcer. Then all were massed at the rear of the exhibition space and marched in a solid body over the hundred yards intervening to the grand stand. That march was one of the most impressive scenes of the exposition. The highly colored blankets, the gaudy trappings of the horses, the hideously painted faces and bodies of the men, and the fanciful dress of the women combined to make the sight a memorable one. Such a large number of Indians will probably never be collected in one body again.
At the end of their march across the grounds they dispersed with a volley of musketry and a wild yell, and prepared for the sham battle that was the climax of each entertainment. The "braves " were divided into two parties, and a plan of battle of the familiar dime-novel variety was carried out. The befeathered Indians dashed about the field on their painted ponies, yelling and shouting, now and then ambushing an enemy and depriving him of an artificial scalp lock provided for the occasion, and then, by way of diversion, they would catch a prisoner and burn him at the stake-or, to be more exact, at the electric-light post. The show was very exciting, and the Indians entered into it with the greatest gusto; their own enjoyment was the most entertaining feature.

THE GENERAL EDUCATIONAL DISPLAY.
There was no distinct woman's department at this exposition, as at many of its predecessors, but instead the department of education was confined to a "board of education" composed wholly of women. It was expected that they would have charge of all congresses of philosophic and scientific societies as well as of educational exhibits. The officers of the board were: President, Mrs. Winona Sawyer, Lincoln, Nebr.; vice-presidents, Mrs. Thomas L. Kimball, Omaha; Mrs. Kittie L. Dutton, Hastings, and Mrs. Frank Johnson, Crete; secretary, Mrs. Frances M. Ford, Omaha.

The Boys and Girls* Building was erected by the board of education from funds contributed by school children. This was a small structure, with an audience room as its main feature. A series of lectures on cooking was given here, and was the principal use to which the room was put. On one side of this chamber was a room in which needlework and similar articles were sold, and on the other side was a " model schoolroom," which was not a schoolroom at all, but a room containing the exhibits of several schoolbook and supply concerns. In this build$\operatorname{lng}$, too, was a crêche for the accommodation of young children whose mothers were seeing the exposition.
The educational exhibits proper were scattered. The Nebraska schools and institutions occupied the gallery of the Manufactures Building; the schools of other States were in the gallery of the Liberal Arts Building, while a few technical schools had their material in the gallery of the Mines and Mining Building. It will be seen that no favoritism was shown. All of these exhibits were put upstairs. The galleries were wide and commodious, and save for their inaccessibility were well suited for the purpose. But that inaccessibility was a serious matter, and the same old story of a paucity of visitors must be repeated, though the gallery exhibits in Omaha did fare somewhat better than those in Atlanta or Nashville.
The most attractive of the educational displays was that of manual training from the Omaha High School. Every afternoon during the latter part of the season the manual training teacher, Mr. J. E. Wigman, was there with a class of boys and carried on the regular work of the school for the benefit of visitors. He had a good equipment of lathes and tools necessary for the simpler kinds of woodwork and parquetry, and the work was confined to that. Mr. Wigman is a practical mechanic and insists upon careful and accurate work from his pupils. Many of the "projects" exhibited, particularly the zithers, checkerboards, and Indian clubs, would have been considered excellent work even as coming from journeymen workmen. In fact, the noticeable accuracy of some of the pieces might have been criticised by those manual-training people who hold that such attention to the finished product is out of place in a school of this kind. But the models used and the different principles tanght were those usually found, and it did not appear that anything was lost on the educational side because of the constant thought of good workmanship.
The greater popularity of this exhibit than of those around it was due to its recognition of the facts that all experienced exposition men have observed, namely, that visitors demand exhibits in motion, and that persons as well as things are necessary to a successful exhibit.
The Nebraska school exhibit was installed in a series of alcoves and was almost wholly a wall exhibit of class-room work. The general impression conveyed was that the schools of the State are well taught and by approved methods. It is certain that those who selected the material were well acquainted with modern ideas, and that there is enough work done in the State in accordance with such ideas to make a rather extensive and very satisfactory exhibit. The plan of installation was good without being expensive. The monotonous succession of alcoves containing similar work and presenting the same general appearance, and the undue height at which much of the work was placed, probably came from the necessities of the case. The University of Nebraska occupied the greater part of the west end of the gallery with a well-selected and well-arranged exhibit. Schools for the defective classes and private institutions were allotted space in the south gallery.

The collective exhibits of the schools of Missouri, Montana, Oregon, Kansas, and Colorado, and of Los Angeles County, California, were in the gallery of the Liberal Arts Building. None of these exhibits was as extensive as that of Nebraska, and none showed evidence of the expenditure of as much money. The Art Institute of Chicago occupied a small section of this gallery with an exhibit which in
arrangement and material was worthy of the institution. The Massachusetts Institute of Technology was represented by a collection of photographs, designs, etc., in the gallery of the Mines and Mining Building.

One of the features of the educational exhibit was the attention given to exhibits of individual pupils. Goid, silver, and bronze medals were offered for individual work in composition, history, penmanship, drawing, industrial training, and nature study. Exhibitors were divided into six classes, according to age, and prizes were given in each class for all the subjects named.

## THE TRANS-MISSISSIPPI EDUCATIONAL CONVENTION.

Teachers' conventions in connection with expositions have not often been successful. A crowded city with a single thought-the exposition-is not the place which one would select for the reposeful thought necessary to consideration of weighty questions.
Teachers who come are not in the frame of mind to calmly sit for hours and listen to the reading of solid papers on professional topics. The distractions are too many, and the trend of the surroundings prompt one to active seeing rather than to quiet listening and reflecting. The attendance, therefore, at such conventions in the past has been disappointing. Furthermore, with the public mind fully occupied with one all-absorbing topic it has been difficult to rouse the local interest necessary to a successful convention of more than modest pretensions.

With the full knowlodge of all these drawbacks an educational convention was planned early in the history of the exposition. So assiduonsly and intelligently was it worked up that it is safe to say that in comparison with the extent of the exposition with which it was connected the Trans-Mississippi Educational Convention was the most successful one of the kind that has yet been held. The attendance was satisfactory and the average character of the papers presented was of a high order. The sessions covered three days, June 28, 29, and 30. Those dates were selected because they came just after the close of the schools, before the teachers had gone off on their vacations, and it was reasonable to expect that many might be induced to make Omaha the end of their annual summer trips, and that still others might stop on their way to the National Educational Association in Washington early in July. The result justified these expectations.

The plan of the convention was modeled after that of the National Educational Association meetings. General sessions were held each morning at Boyd's Theater, in the city, and each evening at the Auditorium at the exposition, the entrances of which were so arranged that persons from ontside the grounds might attend without passing through the exposition gates. In addition to the general meetings, conferences on special subjects were held in the afternoons at various places in the city. The attendance at some of these was not as great as they deserved, but, on the whole, it was better than could have been reasonably expected. Altogether the convention might be pronounced a distinct success, and that success was due principally to the efforts of the local executive committee, namely: C. G. Pearse, superintendent of city schools, Omaha, chairman; J. M. Gillan, secretary of the board of education, Omaha, secretary; J. H. Dumont, treasurer; W. R. Jackson, State superintendent of public instruction; Victor Rosewater, managing editor Omaha Bee; J. E. Utt, secretary of the Commercial Club.

THE EXHIBIT OF THE BUREAU OF EDUCATION.
The Bureau of Education was originally established for the collection and diffusion of educational information; but it has also been charged by Congress with the administration of the schools of Alaska, and with a limited supervision of the expenditures for land-grant colleges under the Morrill act of 1830 . While the first of these is the most important and far-reaching, it is the most difficult to show in an exhibit; the last, while important in itself, is but a small part of the Bureau's
work, and does not require very extensive illustration. The work which relates to Alaska has within it the germs of wide development; but up to this time the school system of Alaska can not be said to be comparable in extent or importance with that of either of the States, or with the other work of the Office itself. Nevertheless, the peculiar conditions of education in that Territory, and its population by races so entirely different in habits, customs, and dress from our own, make the Alaskan side of the Bureau's work peculiarly useful for exhibition purposes. About half of the space allotted to this Office, therefore, was devoted to material illustrating the conditions of life and of education in Alaska, while the remaining half was nearly equally divided between the exhibits of land-grant colleges and the statistical and other material intended to "diffuse educational information" of a general character.
The most conspicuons statistical feature of the exhibit was a large wall chart 4 feet wide and 10 feet high, on which was set forth the progress of education in twenty years in the north central division of the United States. In a series of wing frames, near by, were 40 smaller charts showing educational statistics of a miscellaneous character. These were all done in bright colors, with graphic diagrams in great variety, so that the striking appearance of the charts themselves might attract attention to the statistics presented. Many of the charts were of special local interest, though such as could not be easily prepared except in the Bureau of Education. The local sheets were placed conspicuously, in order to strize the attention of the visitor and lead him to examine the others. Two map cases, on the wall, contained eight maps, which showed the distribution of educational agencies and conditions in the United States. They were devoted, respectively, to public schools, secondary schools, colleges and universities, schools of medicine, of dentistry, and of pkarmacy, schools of theology and of law, normal schools, public libraries, and illiteracy. The cases used for these maps, as well as the maps thenselves, were those used at the two previous expositions, and have been already described in my reports. The remaining wall space was filled with pictures of historical school punishments and of school buildings. The first series of these comprised 20 water colors, by Mr. Felix E. Mahoney, and illustrated spanking, shaking, horsing, the Eton block, standing on one fcot, the dunce cap, the bastinado, etc. The other series were also in water color, and were ezecuted by Mr. Spencer B. Nicholls. They showed the development of school architecture, and included the log-cabin school, the interior of the same, a prairie "dugout," the hittle red schoolhouse, a city school of thirty years ago, and a modern school building.
A set of the publications of the Bureau was placed in a revolving bookease in a prominent place, and not only showed to casual visitors the variety and extent of the work of the office, but they were frequently used for reference.
The data intended to be read in the exhibit itself were supplemented by a $10-$ page folder containing facts relating to education, which was gratuitonsly distributed. The information in this folder was of the sort most likely to be appreciated by general readers, and its distribution was, in my opinion, the most substantial and satisfactory innovation in this exhibit. Eleven thousand fire hundred of the circulars were distributed, and though a great many of them were wasted, as might have been expected, I saw repeated evidences of valuable results from the distribution.

The presentation of land-grant colleges consisted of a collection of publications of those institutions and a series of cabinets containing photographs, charts, and drawings illustrating them. There were 12 of the cabinets, and the colleges represented in them were:

The Universities of Arizona, Illinois, Maine, Minnesota, Missouri, Nebraska, Nevada, Tennessee, and Wyoming; Maryland Agricultural College, Massachusetts Agricultural College, Massachusetts Institute of Technology, Michigan

Agricultural College, Montana Agricultural College, New Hampshire College of Agriculture and Mechanic Arts, Rutgers Scientific School, Agricultural and Mechanical College of Texas, Agricultural College of Utah, Alabama Normal and Industrial College for Colored Students, Southern University and Agricultural and Mechanical College, North Carolina Agricultural and Mechanical College for the Colored Race, South Carolina Agricultural College for Colored Students, Hampton Normal and Agricultural Institute, and Florida Normal and Industrial College.
As I have said, the Alaskan collection comprised half of the space of the exhibit. In attractiveness and in the number of visitors who were impressed by it, it comprised far more than half. The specimens were collected by Dr. Sheldon Jackson, the general agent of education in Alaska, and a large proportion of them were his own property, which he kindly loaned for the exhibit.

A unique feature of the educational effort in behalf of Alaska is the introduction of reindeer, by means of which it is hoped to transform the natives from a migratory to a pastoral people, and thus make their civilization and education easier. In illustration of this work, a large reindeer with a sled and a lay figure of a native driver were mounted in the most conspicuous position in the exhibit. Near it was a large case containing six lay figures clothed with typical Alaskan costumes, made of fur, fishskin, bird skins, buckskin, etc. Another case showed a collection of birds from Bering Sea mounted on an imitation of Alaskan rocks. A miscellaneous collection of ethnological specimens, consisting of bows, arrows, harpoons, implements, carvings, masks, fish traps, boats, houses, etc., filled four other cases and formed the body of the Alaskan exhibit. The formal work of education was illustrated by photographs of buildings, classes, and teachers, specimens of drawing, penmanship, etc., and by statistics. These articles were shown in wing frames.
In the manner of installation, it can not be said that any specially new devices were adopted. Furniture already on hand was used for the statistical charts, the pictures of Alaskan schools, and for the photographs of land-grant colleges. Three of the cases used for Alaskan specimens had been made for previous exhibits and four were made for this occasion, being designed for the special purposes which they served.

I am, sir, very respectfully,
The Commissioner of Education.

J. C. Boykin, Special Agent.

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## CHAPTER XXXIX.

## FOREIGN UNIVERSITIES AND OTHER INSTITUTIONS OF HIGHER EDUCATION.

I. Arranged according to date of founding.<br>II. Arranged according to number of students. III. Arranged alphabetically.<br>IV. Arranged according to countries.<br>V. List of polytechnica.<br>VI. List of agricultural, forestry, and mining schools.<br>VII. List of veterinary schools.

## INTRODUCTION.

The authors of "Minerva, Jahrbuch der Universitäten der" Welt" (K. Trübner), which is the chief source of information offered in the following lists, say that they have submitted their work at various stages of completion to different professors of the countries mentioned, so that they are assured that their decision as to which of the learned institutions of the world should be regarded as universities is upheld by the most trustworthy authority. They describe their Jahrbuch as a collection of names of teaching bodies, of universities, or similar institutions of the world.

Since this Report of the Buxeau of Education contains direct information concerning the higher institutions of learning in the United States, they have been omitted from the following lists, which are devoted exclusively to foreign institutions.
I. Foreign universities arranyed according to age.

| Date of foundation. | Locality. | Date of foundation. | Locality. |
| :---: | :---: | :---: | :---: |
|  | Teuth century. |  | Fourteen century-Continued. |
| 988 | Cairo, Egypt. | 1365 | Vienna, Austria. |
|  |  | 1367 | Fünfkirchen, Hungary, |
|  | Touelfth century. | $\begin{aligned} & 1386 \\ & 1391 \end{aligned}$ | Heidelberg, Baden, Germany. <br> Ferrara Italy |
| 1119 | Bologna. Italy. |  |  |
| 1181 | Montpellier, France. |  | Fifteenth century. |
| 1200 | Paris, France. |  |  |
| 1200 | Oxford, England. | $\begin{aligned} & 1402 \\ & 1409 \end{aligned}$ | Würzburg, Bavaria, Germany. |
|  | Thirteenth century. | 1409 | Leipsic, Saxony, Germany. Aix, France. |
|  | Val | 1411 | St. Andrews, Scotland. |
| 1209 | Valencia, Spain. | 1412 | Turin, Italy. |
| 1229 | Padua, Italy. | 1419 | Rostock, Mecklenburg, Germany. |
| 12\%4 | Naples, Italy. | 14\% | Parma, Italy. |
| 1233 | Toulouse, France. | $14 \%$ | Besançon, France. |
| 1243 | Salamanca, Spain. | 1486 | Louvain, Belgium. |
| 1257 | Cambridge, England. | 1431 | Poitiers, France. |
| 1266 | Perugia, Italy. | 1437 | Caen, France. |
| 1288 | Coimbra, Portugal. | 1144 | Catania, Sicily, Italy. |
|  | Fourteenth century. | 1450 | Barcelona, Spain. Glasgow, Scotland. |
|  |  | 1456 | Greifswald, Prussia, Germany. |
| 1303 | Rome, Italy. | $145 \%$ | Freiburg, Baden, Germany. |
| 1339 | Grenoble, France. | 1460 | Basel, Switzerland. |
| 1343 | Pisa, Italy. | 1463 | Nantes, France. |
| 1346 | Valladolid, Spain. | 1465 | Budapesth, Hungary. |
| 1348 | Prague, Bohemia, Austria. | $147 \%$ | Bordeaux, France (1441). |
| 1349 | Florence, Italy. | 1472 | Munich, Bavaria, Germany, |
| 1361 1364 | Pavia, Italy ${ }^{\text {a }}$, | 1474 | Saragossa, Spain. |
| 1364 | Cracow, Galicia, Austria. | 1477 | Upsala, Sweden. |

I. Foreign universities arranged according to age-Continued.

| Date of foundation | Locality. | Date of foundation. | Locality. |
| :---: | :---: | :---: | :---: |
|  | Fifteenth century-Continued. |  | Nineteenth century-Continued. |
| $14 \% 7$ | Tübingen, Würtemberg, Germany. | 1808 | Lille, France |
| 1478 1494 | Copenhagen, Denmark. | 1808 | Lyons, France. |
| 1494 | Aberdeen, Scotland. | $\begin{aligned} & 1808 \\ & 1809 \end{aligned}$ | Rennes, France. <br> Berlin, Prussia, Germany. |
|  | Sixteenth century. | 1811 | Christiania, Norway. |
| 1501 | Valencia, Spain. | 1816 | Genoa, Italy. |
| 1503 | Halle-Wittenberg, Prussia, Germany. | 1815 | Warsaw, Poland, Russia. |
| 1502 | Seville, Spain. | 1817 | Liege (Lüttich), Belgium. |
| 1504 | Santiago, Spain. | 1818 | Bonn, Prussia, Germany. |
| 1506 | Breslan, Prussia, Germany. | 1819 | St. Petersburg, Russia. |
| 1508 | Madrid, Spain. | 1821 | Montreal, Canada. |
| 15.71 | Marburg, Prussia, Germany. | 1820 | London (University College), Eng. |
| 1531 | Granada, Spain. |  | land. |
| 1531 | Sarospatak, Hungary. | 18.87 | Toronto, Canada. |
| 1537 | Lausanne, Switzerland. | 1887 | Sheffield (Medical College), England. |
| 154) | Macerata, Italy. | 1828 | Lampeter (St. David's College), Wales. |
| 154. | Königsberg, Prussia, Germany. | 1832 | Durnam, England. |
| 1548 | Messina, Sicily, Italy. | 1832 | Zurich, Switzerland. |
| 1556 | Sassari, Italy. | 1834 | Brussels, Belgium |
| 1578 | Jena, Thuringia, Germany. | 1834 | Berne, Switzerland. |
| 1559 | Genera, Switzerland. | 1835 | London (University), England. |
| 1566 | Olmütz, Moravia, Austria. | 1837 | Athens, Greece. |
| 1557 | Strasburg, Alsace, Geimany. | 1833 | Messina, Italy. |
| 1568 | Braunsberg, Pr'ussia, Germany. | 1845 | Cork, Ireland. |
| 157\% | Nancy, France. | 1845 | Belfast, Ireland. |
| 1575 | Leyden, Holland. | 1845 | Galway, Ireland. |
| 1589 | Oriedo, Spain. | 1849 | Algiers, Algeria. |
| 1583 | Edinburgh, Scotland. | 1850 | Sydney, Australia. |
| 1583 | Grätz, Styria, Austria. | 1851 | Manchester (Victoria University), |
| 1588 | Kiev, Russia. | 1851 | Newcastle, England. |
| 1550 | Cagliari, Italy.Seventeenth century. | 1853 | Melbourne, Victoria, Australia. |
|  |  | 1857 | Calcutta, India. |
|  |  | 1857 | Madras, India. |
|  |  | 1887 | Bombay, India. |
| 1605 | Manila, Philippine Islands. | 1860 | Jassy, Roumania. |
| 1507 | Giessen, Hessia, Germany. | 1868 | Kecskemet, Hungary. |
| 1614 | Groningen, Holland. | 1864 | Bucharest, Roumania. |
| 163.3 | Salzburg, Austria. | 1865 | Odessa, Russia. |
| 163 | Amsterdam, Holland. | 1865 | Nenchâtel, Switzerland. |
| 1632 | Dorjat, Russia. | 1863 | Tokio, Japan. |
| 1636 | Utrecht, Holland. | 1870 | New Zealand, New Zealand. |
| 1640 | Helsingfors, Finland, Russia. | 187\% | Aberystwith, Wales. |
| 165 | Kaschau, Hungary. | 187\% | Adelaide, Australia. |
| 1665 | Kiel, Prussia, Germany. | 1873 | Cape City, South Africa. |
| 1663 | Lund, Sweden. | 187\% | Agram, Croatia, Hungary. |
| 1611 | Urbino, Italy. | $18 \% 5$ | Angers, France. |
| 1673 | Innspruck, Tyrol, Austria. | 1875 | Tille (Faculté Libre), France. |
| 1676 | Eperies, Hungary. | 1875 | Lyons (Faculté Libre). France. |
| 1683 | Modena, Italy.Eighteenth century. | 1875 | Czernowitz, Bukowina, Austria. |
|  |  | 1875 1876 | Birmingham, England. |
|  |  | 1886 | Bristol. England. |
|  |  | 18877 | Leeds, England. |
| 1710 | Barbados (Codrington College), West Indies. | 1888 | Liverpool, England. Stockholm, Sweden. |
| 1722 | Dijon, France. | 1879 | Sheffield (Firth College), England. |
| 1727 |  | 1880 | Havana, Cuba. |
| ${ }_{1}^{1737}$ | Göttingen, Prussia, Germany. | 1880 | Dublin, University of Ireland. |
| 1710 | Erlau, Hungary. | 1880 | Dundee, Scotland. |
| 1743 1743 | Erlangen, Bavaria, Germany. | 1880 | Nottingham, England. |
| 1743 1748 | Santiago, Chile. | 1889 | Prague (Bohemian University), Aus- |
| 1755 | Moscow, Russia. | 1883 | Cardiff, Wales. |
| 1771 | Münster, Pı ussia, Germany. | 1888 | Tomsk, Siberia, Russia. |
| $17 \% 2$ | Klausenburg, Hungary. | 1888 | Sophia, Bulgaria. |
| $17 \%$ | Siena, Italy | 1889 | Freiburg, Switzerland. |
| 1779 | Palermo, Sicily, Italy. | 1891 | Gothenburg, Sweden. |
| 1784 | Lemberg, Galicia, Austria. |  |  |
| 1785 1788 | Pressburg, Hungary. |  | Date not known. |
| 1788 | Grosswardein, Hungary. <br> Nineteenth century. |  |  |
|  |  |  | Allahabad, India. |
|  |  |  | Limoges, France. |
| 1804 | Kasan, Russia. |  | Marseilles, France. |
| 1804 | Kharkov, Russia. |  | Montevideo, Uruguay. |
| 1808 | Clermont, France. |  | Bangor, Wales. |

II. Foreign universities, etc., arranged according to number of students.
[The attendance stated is that of 189\%.]
A. UNIVERSITIES.

| $\begin{aligned} & \text { Or- } \\ & \text { der. } \end{aligned}$ | Locality. | $\left\lvert\, \begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { students. } \end{aligned}\right.$ | $\begin{aligned} & \text { Or- } \\ & \text { der. } \end{aligned}$ | Locality. | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { students. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Paris. | 12,047 | 65 | Erlangen | 1,085 |
| 2 | Berlin | 10,306 | 66 | Pisa--..- | 1,066 |
| 3 | Madrid | 6,143 | 67 | Manchester (Owens Coll.) | 1,093 |
| 4 | Vienna | ¢, 710 | 68 | Rennes ---------.-.-. | 1,003 |
| 5 | Naples | 5, 103 | 69 | Rome (Univ. Pont.) | 1,019 |
| 6 | Moscow | S ${ }^{4}, 461$ | 70 | Genoa --.--------- | 1,010 |
| 7 | Budzpesth | 4,407 | 71 | Nancy | 1,01\% |
| 8 | Munich | 4,185 | 72 | Santiago (Chile), about | 1,009 |
| 9 | St. Petersburg | 3,615 | 73 | Marburg | 905 |
| 10 | Athens. | 3,556 | 74 | Innspruck | 915 |
| 11 | Ozford | 3, 408 | 75 | Catania -- | $81 \% 3$ |
| 12 | Leipsic. | 3,277 | 76 | Zurich | 876 |
| 13 | Manchester (abont) | 3,000 | 77 | Utrecht | $8 \%$ |
| 14 | Cambridge ------ | 2,829 | 78 | Kasan | 859 |
| 15 | Prague (Bohemian) | 2,873 | 79 | Aix-en-Provence | 819 |
| 16 | Edinbargh.--.-.-.-- | 2,850 | 80 | Klausenburg | 883 |
| 17 | Kiev | 2,565 | 81 | Berne. | 819 |
| 18 | Turin | 2,551 | 82 | Leyden | 819 |
| 19 | Lyons. | 2,198 | 83 | Genova | $81 \%$ |
| 20 | Bordeaax | 2,144 | 84 | Aberdeen | 798 |
| 21 | Helsingfors | 2,135 | 85 | Greifswald | 784 |
| 22 | Copenhagen | 2,000 | 86 | Giessen | 761 |
| 23 | Rome (Royal Univ.) | 1,914 | 87 | Poitiers | 764 |
| 21 | Tokio ----. - - -- -- | 1,895 | 88 | Valencia | 926 |
| 25 | Barcelona | 1,887 | 89 | Melbourne | 714 |
| 26 | Toulouse. | 1,885 | 90 | Jena | r0\% |
| 27 | Glasgow | 1,820 | 91 | Ghent | 675 |
| 28 | Grätz | 1,771 | 92 | Königsberg | 671 |
| 29 | Halle. | 1, 764 | 93 | Kiel_-.---- | 670 |
| 30 | Bonm | 1,743 | 94 | Lund | 685 |
| 31 | Bucharest | 1,736 | 95 | Dijon | 601 |
| 32 | Louvain | 1,669 | 96 | Messina | 60 |
| 33 | Freiburg (Germany) | 1,641 | 97 | Caen.. | 598 |
| 34 | Bologna. .............. | 1,590 | 98 | Kingston | 589 |
| 35 | Padua. | 1,587 | 99 | Odessa... | 581 |
| 36 | Kharkov | 1,50.6 | 100 | Agram | 505 |
| 37 | Lemberg | - 1,507 | 161 | Parma. | 551 |
| 38 | Upsala | 1,504 | $10 \%$ | Lausanne | 539 |
| 39 | Montpellier | 1,496 | 103 | Basel | 5:9 |
| 40 | Breslau. - | 1,488 | 104 | Grenoble | 476 |
| 41 | Coimbra | 1,429 | 105 | Belgrade | 471 |
| 42 | Cracow | 1,427 | 106 | Postock. | 469 |
| 43 | Würzburg | 1,425 | 107 | Sydney | 455 |
| 44 | Liége. | 1,424 | 108 | Groningen | 428 |
| 45 | Palermo | 1,395 | 109 | Jassy .-. | 420 |
| 46 | Lille...-. | 1,554 | 110 | Modena | 41: |
| 47 | Urbana | 1,337 | 111 | Czernowitz ----.-- | 890 |
| 48 | Prague (German) | 1,336 | 112 | Freiburg (Switzerland) | 381 |
| 49 | Dorpat (Jurjew). | 1,334 | 113 | Adelaide --...- --......... | 320 |
| 50 | Pavia --------- | 1,325 | 114 | Perugia | $2: 3$ |
| 51 | Toronto | 1,322 | 115 | Clermont | 257 |
| 52 | Brussels | 1,316 | 116 | Macerata | 23.3 |
| 53 | Göttingen | 1,280 | 117 | Durham.------.- | 250 |
| 54 | Tübingen | 1,25\% | 118 | Toronto (Victoria Univ.) | 250 |
| 55 | Salamanca | 1,247 | 119 | Cagliari | 213 |
| 59 | Warsaw | 1,242 | 120 | St. Andrews | 236 |
| 57 | Havana | 1,206 | 121 | Camerino .-- | 231 |
| 58 | Heidelberg | 1,202 | 122 | Siena | 231 |
| 59 | Christiania. | 1,2¢0 | 123 | Besançon | 197 |
| 60 | Strasburg | 1,159 | 124 | Sassari | 166 |
| 61 | Manila -- | 1,144 | 125 | Amsterdam. | 109 |
| 6 | Dublin -.... | 1,128 | 126 | Urbino | 93 |
| 63 | Amsterdam | $\Rightarrow 1,124$ | 127 | Ferrara | 77 |
| 64 | Montreal. | $1,097$ |  |  |  |

B. COLLEGES, INDEPENDENT FACULTIES, AND SCHOOLS FOR ORIENTAL LANGUAGES.

| 1 | Nottingham Coll | 1,902 | 9 | St. Petersburg Military Med. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | London Univ. Coll | 1,500 |  |  | 50 |
| 3 | Edinburgh Schl. of Med | 1,200 | 10 | Sheffield College | 750 |
| 4 | Leeds College | 1,110 | 11 | Florence Univ. | 623 |
| 5 | Northampton, Smith Coll | 979 | 12 | London, Guy's Hosp. Schl.-.-- | 600 |
| ${ }_{7}^{6}$ | Birmingham Coll.--- | 960 | 13 | Rome, Coll. Urb de Prop ...... | 569 |
| 7 | London, St. Barthol. Hosp | 950 | 14 | Munster Academy -...... | 434 |
| 8 | Algiers...........---......- | \%63 | 15 | Gothenburg Univ | 534 |

## II.-Foreign universities, etc.-Continned.

B. COLLEGES. INDEPENDENT FACULTIES, AND SCHOOLS FOR ORIENTAL LANGUAGES-Continued.

| $\begin{aligned} & \text { Or- } \\ & \text { der. } \end{aligned}$ | Locality. | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { students. } \end{aligned}$ | $\begin{aligned} & \text { Or- } \\ & \text { der. } \end{aligned}$ | Locality. | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { students. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 16 | Bristol College --................ | $5: 21$ | 41 | Neuchâtel Acad .-. | 149 |
| 17 | Rome, Semin. Rom .-..........- | 485 | 42 | Santiago, Inst. of Pedag | 141 |
| 18 | Aberystwith Coll ............... | 440 | 43 |  | 135 |
| 19 | Newcastle Coll .-...-............ | 401 | 44 | Vienna, schl.f. Orient. Lang | 128 |
| 20 | Sophia Univ......-.-............ | 354 | 45 | Florence. Univ. f. Women. | 127 |
| 21 | Stockholm Univ......----.....- | 337 | 46 | Lampeter College .... | 125 |
| 22 | Tomsk Univ | 336 | 47 | Sarospatak, Law Acad | 116 |
| 23 | St. Petersburg Law | 330 | 48 | Fünfikirchen, Law Acad | 115 |
| 24 | Stockholm Med. Inst. | 307 | 49 | Milan Academy | 97 |
| 45 | Rome, Coll. di S. Tom........... | 296 | 50 |  | \% |
| 20 | Kasan, Theol. Acad . .-........... | 280 | 51 | Rome, Univ. f. Women | 94 |
| 27 | Jaroslaw Lyceum. | 269 | 52 | Nezin, Hist. Inst - .-...... |  |
| 28 | Macerata Univ - Theol. Acad .-....... | ${ }_{239}^{205}$ | 53 | St. Petersburg, Hist. Inst | 6 |
| 29 30 | St. Petersburg, Theol. Acad .-- | 239 | 54 | Erlau, Law Acad | 81 |
| $\begin{aligned} & 30 \\ & 31 \end{aligned}$ | Oviedo Univ --...... <br> Olmütz Theol. Acad | 235 | 5 | Salzburg, Theol. Faculty | 74 |
| 32 | Cork College........ | 212 | 57 | Rome, Coll. di S. Ansel | 68 |
| 33 | Kiev, Theol. Acad | 206 | 58 | Naples, Orient.Inst.. | 63 |
| 34 | Dundee College | 181 | 59 | Madrid, Diplom. Schl | 56 |
| 35 | Recife, Law Faculty | 180 | 60 | Montauban, Theol. Faculty | 43 |
| 36 | Grosswardein, Law Acad | 176 | 61 | Budapesth, Theol. Faculty | 39 |
| 37 | Cardiff College | 170 | 68 | Moscow. Lazarev Inst. | 25 |
| 38 | Pressburg, Law Acad - .i....- |  | 63 64 | Vienna, Orient. Acad | 25 |
| 39 40 | London, Med. Schl. for Women Eperies, Law Acad.. | $\begin{aligned} & 163 \\ & 149 \end{aligned}$ | 64 | Vienna, Theol. Faculty | ¢2 |

C. EXAMINING UNIVERSITIES IN HINDOSTAN.

| 1 | Calcutta | $\begin{aligned} & 3,4 \pi 5 \\ & (?) \\ & 1,2,2 \% 8 \end{aligned}$ | 4 | Lahore <br> Allahabad | 1,135 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | Madras |  |  |  |  |
| 3 | Bombay |  |  |  |  |

D. TECHNOLOGICAL INSTITUTES.

| 1 | Berlin | 3,207 | 19 | Lemberg | $4 \% 0$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | Munich | 1,928 | 20 | Turin. | 466 |
| 3 | Vienna | 1,682 | 21 | Milan | 441 |
| 4 | Budapesth | 1,454 | 22 | Aachen | 398 |
| 5 | Riga | 1,370 | 23 | Braunschweig | 330 |
| 6 | Zurich | 1,336 | 24 | St. Petersburg (Inst. f. Civ. |  |
| 7 | Darmstadt | 1,332 |  | Eng.) -...................- | 370 |
| 8 | Hanover | 1,247 | 25 | Stockholm | 348 |
| 9 | Carlsruhe | 1,071 | 26 | Brünn | 34 |
| 10 | Dresden | 1,001 | 27 | Grätz | 324 |
| 11 | Prague (Bohemian) | 976 | 28 | Oporto | 32\% |
| 12 | Stuttgart - .-..--....--- | 947 | 29 | Prague (German) | 321 |
| 13 | St. Petersburg (Inst. f. Road. |  | 30 | London City Techn. Inst. | 238 |
|  | Eng.) .-....................-...- | 860 | 31 | Madrid Archit. Schl..... | 235 |
| 14 | St. Petersburg (Techn. Inst.) -- | 779 | 32 | Helsingfors --.-- | 220 |
| 15 | Sheffield | \%50 | 33 | Paris, Ecole Poly tech. | 220 |
| 16 | Moscow. | \%18 | 34 | Naples -.---- | 198 |
| 17 | Kharkov | 641 | 35 | Paris, Ponts et Chaussée | 117 |
| 18 | Delft | 581 | 36 | Paris, Ecole d'Electr . .-. | 40 |

## E. AGRICULTURAL, FORESTRY, AND MINING ACADEMIES.

| 1 | Berlin, Agricult | 588 | 15 | Beauvais, Agriculture. | 103 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | St. Petersburg, Forestry ...... | 467 | 16 | Hohenheim, Agriculture | 101 |
| 3 | St. Petersburg, Mining .-....... | 459 | 17 | Kolozsmonostor, Agriculture. | 100 |
| 4 | Poppelsdorf, Agriculture | 347 | 18 | Tharandt, Forestry | 100 |
| 5 | Vienna, Agriculture | $35 \%$ | 19 | Debreczin, Agriculture | 98 |
| 6 | Freiberg, Mining | 276 | 20 | Keszthely, Agriculture. | 91 |
| 8 | Nowaja-Alexandria, Forestry - | ${ }^{262}$ | 21 | Eberswalde, Forestry | 62 |
| 8 | Leoben, Mining -......-.....-.-- | $22 \%$ | 22 | Münden, Forestry - | 48 |
| 9 | Paris, Mining | 203 | 23 | Douai, Agriculture | 30 |
| 10 | Clausthal, Mining - | 200 | 24 | Nancy, Forestry... | 27 |
| 11 | Moscow, Agriculture .... | 182 | 25 | Eisenach, Forestry | 24 |
| 1 | Aschaffenburg, Forestry -.....- |  | $\stackrel{26}{27}$ | St. Etienne, Mining | 18 |
| 14 | Ung. Altenburg, Agriculture - | 119 | $2 \sim$ | Evois, Forestry | 16 |

## III.-Foreign universities, etc.-Continued.

## F. VETERINARY SCHOOLS

| $\begin{aligned} & \text { Or- } \\ & \text { der. } \end{aligned}$ | Locaily. | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { students. } \end{aligned}$ | Order. | Locality. | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { students. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Madrid. | \%อ0 | 10 | Naples. | 230 |
| 2 | Vienna | 635 | 11 | Hanover | 230 |
| 3 | Berlin.- | 486 | 12 |  | 219 |
| 4 | Kasan | 399 | 13 | Milan --- | 128 |
| 5 | Budapesth | 380 | 14 | Leon. | 99 |
| ${ }_{7}^{6}$ | Copenhagen | 370 | 15 | Turin | 91 |
| 8 | Alfort- | 281 | 17 | Stuttgart | 90 |
| 9 | Morpat (Jurjew) | 280 260 | 17 | Utrecht. | 56 |

Note.-The number of students in universities and schools not mentioned has not been ascertained.
III. Foreign universities, etc., arranged alphabetically, with faculties and number of students.

1. Aberdeen, Scotland: University of Aberdeen, 798 students. Philosophical, theological, law, and medical faculties; library.
2. Aberystwith, Wales: University College of Wales, with college at Bangor, 440 students.
3. Adelaide, Australia: University of Adelaide, $3 \geqslant 0$ students. Observatory.
4. Agram, Croatia, Hungary: Königl. Universität Agram, 56t students. Theological, law, and philosophical faculties; library.
5. Aix-en-Provence, France: Facultés d'Aix, 849 students. Law and philosophical faculties; library.
6. Algiers, Algeria, Africa: Académie d'Alger, 763 students. Law, medical, scientific, and philosophical faculties; library, observatory.
7. Allahabad, India: University of Allahabad. Examining board, 3,423 candidates.
8. Amsterdam, Netherlands: Universiteit te Amsterdam, 1,124 students. Law, medical, scientific, philosophical, and theological faculties; library and several institutes.
9. St. Andrew's, Scotland: University of St. Andrew's, 236 students. St. Salvador, St. Leonard's, and St. Mary's College.
10. Angers, France: Facultes Catholique Libres. Law, scientific, theological, and philosophical faculties; library.
11. Athens, Greece: National University, 3,556 students. Theological, law, medical, and philosophical faculties; public library.
12. Bangor, Wales: University College of North Wales.
13. Barcelona, Spain: Universidad de Barcelona, 1,887 students. Philosophical, law, scientific, medical, and pharmaceutical faculties; library.
14. Basel, Switzerland: Universität Basel, 523 students. Theological, law, medical, and philosophical faculties; public library.
15. Belfast, Ireland: Queen's College.
16. Belgrade, Servia: Serpska Kraljevska Velika Skola, 471 students. Philosophical, law, and technological faculties; library.
17. Berlin, Prussia, Germany: Königl. Friedr.-Wilhelms-Universität, 10,306 students. Theological, law, medical, and philosophical faculties; seminary for oriental languages, and eleven other seminaries; library and thirty-six university institutes and museums.
18. Berne, Switzerland: Universität Bern, 819 students. Catholic and Protestant theology, law, medical, and philosophical faculties; city libraries.
19. Besançon, France: Facultés de Besançon, 19' students. Scientific, philosophical, and medical facrlties; library.
20. Birmingham, England: Mason College, 960 students. Arts and science, medical and dental faculties; library.
21. Bologna, Italy: Regia Università di Bologna, 1,469 students. Philosophical, scientific, law, medical, and pharmaceutical faculties; veterinary and engineers' schools; library.
22. Bombay, India: University of Bombay. Examining board, 1,228 candidates; five preparatory colleges.
23. Bonn, Prussia, Germany: Rheinische Friedr.-Wilhelms-Universität, 1,743 students. Protestant and Catholic theological, law, medical, and philosophical faculties; library and many institutes.
2土. Bordeaux, France: Facultés de Bordeaux, 2,144 students. Law, medical, scientific, and philosophical faculties; library.
24. Braunsberg, Prussia, Germany: Königl. Lyceum Hosianum, 70 students. Theological and philosophical faculties; library.
25. Breslau, Prussia. Germany: Königl. Universität Breslau, 1,488 students. Catholic and Protestant theological, law, medical, and philosophical faculties; library
26. Bristol, England: University College, $5: 21$ students ( 210 women). College faculty and medical school; library.
27. Brussels, Belgium: Université libre de Bruxelles, 1,316 students. Philosophical, law, scientific, medical, and pharmaceutical faculties; also polytechnical school; library
28. Bucharest, Roumania: Universitatea din Bucuresti, 1,736 students. Scientific, philosophical, law, medical, and theological faculties; library.
29. Budapesth, Hungary: Királyi Magyar Tudomány-Egyetum, 4,407 students. Theological, law, medical, and philosophical faculties; library.
30. Cadiz, Spain: Facultad de Medicina (belonging to Seville). Medical faculty; library
31. Caen, France: Facultés de Caen, 598 students. Law, scientific, and philosophical faculties; library.
32. Cagliari, Sardinia, Italy: Regia Università di Cagliari, 243 students. Law, medical, and scientific faculties; library.
33. Ciiro, Egypt: Azhar University, about 7,900 students and hearers.
34. Ca cutta, India: University of Calcutta, 7,210 candidates, of whom 3,4\%5 passed. Examining bozrd; libiary.
35. Cambridge, England: University of Cambridge, 2,999 students. Schools of theology, law, oricntal, classical, and modern philology, music, moral science, history and arehæology, astronomy, physics, chemistry, mineralogy, biology, geology, and medicine; library.
3\%. Camerino, Italy: Libera Universita degli Studi di Camerino, 23上 students. Law, medical, and pharmaceutical faculties, and veterinary school; communal library.
36. Cape Town, South Africa: University of the Cape of Good Hope.
37. Caidiff, Wales: University of South Wales, 170 students. Philosophical and scientific faculties and department of engineering; library.
38. Catunia, Sicily, Italy: Regia Universita degli Studi di Catania, 902 students. Law, medical, scientific, and philosophical faculties; library.
39. Christiania, Norway: Kongəlige Freaeriks Universitet, 1,200 siudents. Theological, law, medical, philosophical, and scientific faculties; library.
4.. Clermont-Ferrand, Fiance: Facultés de Clermont, 2כ7 students. Scientinic and philosophical faculties; library.
40. Coimbra, Portugal: Universidade de Coimbra, 1,499 students. Theological, law, and scientific faculties; librarv.
Copenhagen. (See Kiøbenhavn.)
41. Cordoba, Argentine: Universidad Nacional. Las, scientinc, and medical faculties; observatory.
42. Cork, Ireland: Queen's College, 212 students.

Cracou. (See Krakau.)
46. Czemowitz, Buhowiua, Austria: K. k. Franz-Josephs-Universität, 390 students. Theological, law, and philosophical facalties; library.
4\%. Dijon, ffouce: Facultés de Dijon, $60 \pm$ students. Law, scientific, and philosophical faculties; liorary.
48. Dorpat (Jujjew), Russia: Kaiserliche Universität, 1,334 students. Law, theological, medical, and philosophical faculties.
48. Dublin, IVeland: University of Dublin, 1,198 students.
50. Dublin, Ireland: Royal University of Ireland, about 600 candidates. Examining board.
51. Dundee, Scotland: University College, 181 students.

5\%. Durham, England: Durham University, 250 students. To this university belong the Codrington College, on the island of Barbadoes, and the Fourah Bay College, in Sierra Leone; also the College of ścience, at Newcastle-on Tyne, which has an enrollment of 1,500 students.
53. Edinbuigh, Scotiand: University of Edinburgh, 2, 850 students. Philosophical, theological, law, and medical faculties; library.
54. Eperies, Hungary: Evangelische Rechtsakademie, 149 students. Law school.
55. Eilangen, Bavaria, Germany: K. Bayerische Friedr.-Alexander-Universitat, 1,085 students. Theological, law, medical, and philosophical faculties: libraly.
55. Erlau, Hungary: Erzbischöfiche Rechtsakademie, 81 students. Law school.
57. Ferrara, Italy: Libera Universita di Ferrara, 77 students. Law, scientific, and medical faculties; library.
58. Florence, Italy: R. Institato di Studi Superiori Practici e di Perfezionamento, 6a3 students. Philosophical, scientific, medical, and pharmaceutical faculties; library.
59. Freiburg, Baden, Germany: Badische Albert-Ludwigs-Universität, 1,641 students. Law, theological, medical, and philosophical factlties; library.
60. Freiburg, Switzerland: Katholische Universität, 334 students. Theological, law, and philosophical faculties; library.
61. Fürfkirchen, Hungary: Bischöfische Rechtsakademie. Law school, 115 students.

6:. Galway, lreland: Queen's College.
63. Geneva, Switzerland: Université de Genève, 863 students. Theolugical, law, medical, philosophical, and scientific faculties; five libraries.
64. Genoa, Italy: R. Università degli Studi di Genova, 1,010 students. Law, medical, scientific, and philosophical faculties, and schools of engineering and pharmaceutics: library.
65. Ghent, belgium: Université de Gand, 676 students. Philosophical, law, scientific, and medical faculties; library.
66. Giessen, Hessia, Germany: Hessische Ludwigs Universität, 764 students. Theological, linw, medical, and philosophical faculties; library.
67. Glasgow, Scotland: University of Glasgow, $1,8: \%$ students.
63. Gothenburg, Swedcn: Göteborgs Högskola, 457 hearers.
69. Göttingen, Prussia, Germany: Georg-Augusts-Universität, 1,280 students. Theological, law, medical, and philosophical faculties; library.
\%0. Granada, Spain: Universidad de Granada, 1,531 students. Philosoplical, law, scientific, medical, and pharmaceutical faculties; library.
71. Grätz, Styria, Austria: K. K. Karl-Franzens-Universität, 1,\%71 students. Theological, law, medical, ma philosophical faculties; library.
72. Gieifswald, Prussia, Germany: Universität, 879 students. Theological, law, medical, and philosophical faculties; library.
73. Grenoble, Firance: Facaltés de Grenoble, 476 students. Law, scientific, and philosophical faculties; library.
74. Groningen, Netherlands: Rijks Universiteit te Groningen, 428 students. Theological, law modical, scientific, and philosophical faculties; library.
75. Grosswardein, Hungary: Jógakademia, 176 students. Law school.
76. Halle, Prussia, Germany: Friedr.-Universität Halle-Wittenberg, 1,700 students. Theological, law, medical, and philosophical faculties; library.
7\%. Fiarana, Cuba: Universidad de la Babana, 671 alumos and 555 under private tutors. Philosophical, scientific, medical, and law faculties; library.
78. Heidelberg, Baden, Germany: Ruprecht-Karls-Universitait, 1,202 students. Theological, lav, medical, philosophical, and scientific faculties; librarv.
79. Helsingfors, Finland, Russia: Kejserliga Alexanders Universitet i Finland, 2,135 stadents. Theological, law, medical, and philosophical faculties; public library.
80. Innspruck, Tyrol, Austria: K. k. Leopold-Franzens-Universität, 1,009 students. Theological, law, medical, and philosophical 1aculties; library.
81. Jaroslaw (or Yaroslav), Russia: Demidovskij juridiceskij Licej, 269 students. Law school.

8\%. Jassy, Rommania: Universitatea din Jasi, 4:0 students. Law, philosophical, scientific, and medical faculties; library.

83．Jena，Thuringia，Germany：Sächsischo Gesammt－Universität，Slo students．Theological， law，medical，and philosophical faculties；library．
Jurjew．（See Dorpat．）
84．Kasan，Russia：Imperatorskij Kazanskij Universitet， 859 students．Philosophical，scientific， law，and medical faculties；library．
85．Kaschau，Hungary：Rechts－Akademie， 135 stuđents．Law sehool．
86．Kecskemet，Hungcry：Rechts－Akademie， 93 students．Law school．
8\％．Kharkov，Russia：Imperatorskij Charkowskij Universitet，1，5̈6 students．Philosophical， scientific，law，and medical faculties；library．
88．Kicl，Pussia，Germany：K．Christian－Albrechts－Universität， 861 students．Theological，law， medical，and philosophical faculties；library．
89．Kiev，Russia：Imperatorskij Universitet，2，565 students．Medical，law，and philosophical facuities；institutes and library．
90．Kingston，Ontario，Canada：University of Queen＇s College， 589 students．Theological，arts， law，and medical faculties；museum．
91．Kjöbenhavn（Copenhregen），Deumark：Kjöbenhavns Universitet，about 2，000students．Theo－ logical，law，medical，philosophical，and scientific faculties and polytechnic institute； library．
99．Klausenburg，Siebenbürgen，Hungary：K．k．Klausenburger Universitat， 833 stadents．Law， medical，philosophical，and scientific faculties；libraly．
93．Königsberg，Prussia，Germany：K．Albertus Universität， 733 students．Theological，law， medical，and philosophical faculties；royal and university library
94．Kralau，Galicia，Austria：Jagellonische Universität，1，ia7 students．Theological，law，med－ ical，and philosophical facuities；library．
95．Lahore，India：The Punjab University， 1,135 candidates，of whom 863 passed．Oriental lan－ guages，arts，law，medicine，science，and engineering departments．
96．Lampeter，Wales：St．David＇s College，1⿳亠口冋口 students．
97．Lausrnne，Switzeriand：Université de Lausanne， 581 students．Theolosical，law，medical， philosophical，and scientific faculties．
98．Leeds（see Manchester），England：Yorkshire College，1，110 students．
99．Leyden，Netherlands：Rijks－Universiteit， 816 students．Medical，sciontific，philosophical， theological，and law faculties；library．
100．Leipsic，Saxony，Germany：Universitiat， 3,277 students．Theological，law，medical，and philo－ sophical faculties；library．
101．Lemberg，Galicia，Austria：K．k．Franzen＇s Universität in Lemberg， $1,00 \%$ students．Theo－ logical，law and philosophical faculties；library．
Liége．（See Littich．）
102．Lille，France：Facultés de Lille， 1 ，354 students．Law，medical，scientific，and philosophical faculties；library．
103．Lille，France：Facultés Libres．Theological，lav，medical，scientific，and philosophical faculties；library．
104．Lima，Peru：Universidad Mayor de San Marcos．Theological，law，medical，and philosoph－ ical facuities．
105．Limoges，France：Écolo de Médécine et de Plıarmacie．Medical and pharmaceutical courses．
106．Liverpool（see Manchester）．England：University College，about 1,00 students．
107．London，England：University of London，about 5，000 candidates．Examining board；library． To the university belong：
（1）University College，with philosophical，law，scientific，and medical faculties；library； about 1.500 students．
（2）King＇s College，with theological，philosophical，and medical faculties；library．
（3）School of Moderin Oriental Languages．
（4）College of Preceptors．
（5）Seven medical schools，connected with hospitals．
108．Louvain，Belgium：Université Catholique de Louvain， 1,689 students．Theological，law，med－ ical，philosophical，and scientific faculties；library．
109．Lund，Sweden：Kongl，Universitet i Lund，6ös students．Theological，law，medical，and philosophical faculties；library．
110．Lüttich（ö̃ Liége），Belgium：Université de Iiége，1，42t students．Philosophical，law，scien－ tiflc，and medical faculties；library．
111．Lyons，France：Facultés Libres，1，5it students．Theological，law，scientific，and philosoph－ ical faculties．
11．．Lyons，France：Facultés de Lyon， 2,199 students．Law，mectical，scientific，and philosopl－ ical faculties；two libraries．
113．Macercta，Ftaly：Regia Universita di Macerata， 255 students．Lavv faculty．
114．Madras，India：University of Madras，about 4，000 candidates．Examining board．
115．Madrid，Spain：Universidad Central de España， 6,143 candidates．Philcsophical，law，scien－ tific，medical，and pharmacentical facultios；libraries．
113．Manchester，Liverpool，and Leeds，England：Viccoria University，about 3，000 studento．This institution consists of：
（1）Owens College，Manchester， 1,063 students．
（2）University College，Liverpool，about 1，000 students．
（3）Yorkshire College，Leeds， 1,110 students．
11\％．Manila，Philippine Islands：Real y Pontificia Universidad de Santo Tomás de Manila，1，144 students．Theological，law，medical，and pharmaceutical faculties；library．
118．Marburg，Hessia，Germany：Universität Marburg，1，1\％students．Theological，law，medical， philosophical，and scientific faculties；library．
119．Marseilles，France：Belongs to Facultés d＇Aix．Scientific，medical，and law faculties；libiary．
120．Melbourne，Victoria，Australia：University of Melbourne， 714 stadents．
121．Messina，Italy：Regia Universitá degli Studi di Messina，60：students．Law，medical，scien－ tific，philosophical，and pharmaceutical faculties；library．
122．Mexico，Mexico：Instituto Médico Nacional．Medical faculty．
123．Modena，Italy：Regia Universitá degli Studi di Modena，412 students．Law，medical，scien－ tific，and pharmaceutical faculties；library．
124．Montauban，France：Belongs to Facultés de Toulouse， 43 students．Law，medical，scientific， and philosophical faculties：library．
12כ．Montevideo，Urugucoy：University，132 students．Medical，law，and mathematical faculties； libraly．
126．Montpellier，France：Facultés de Montpellier， 1,496 students．Law，medical，scientifc，and philosophical faculties；library．
127. Montreal, Canada: McGill College and University, 1,097 students.
128. Moscow, Russia: Imperatorskij Moskowskij Universitet, 4,461 students. Philosophical, scientific, law, and medical faculties; library.
129. Moscow, Russia: Duchovnaja Akademija. Theological faculty; library.
130. Munich, Bavaria, Germany: K. Bayerische Ludwig-Maximilians Universität, 4,185 students. Theological, law, medical, and philosophical faculties; library.
131. Münster, Prussia, Germany: K. Preussische Theologische und Philosophische Akademie, 544 students. Theological and philosophical faculties; library.
132. Nancy, France: Facultés de Nancy, 1,001 students. Law, medical, scientific, and philosophical faculties, and pharmaceutical school; library.
133. Nantes, France: École de Médecine de Nantes.
134. Nantes, France: École Libie de Droit:
135. Naples, Itaiy: Regia Università degli Studi di Napoli, 5,103 students. Philosophical, law, mathematical, scientific, and medical faculties, and pharmaceutical school; library.
136. Neuchâtel, Switzerland: Académie de Neuchâtel, 149 students. Philosophical, scientific, theological, and law faculties; library.
137. Newcastle, England: The colleges belong to Durham University.
(1) College of Medicine, 201 students.
(2) Durham College of Science, 200 students.
138. New Zealand: University, consisting of four colleges.
139. Nottingham, England: University College, 1,90; students. Philology, law, and scientific faculties, and school of engineering; free public libraries.
140. Odessa, Russia: Noworossijskij Universitet, 581 students. Philosophical, scientific, and law faculties; library.
141. Olmütz, Moravia, Austria: Theologische Facultät, 29 students.
14. Oviedo, Spain: Universidad Literaria, 235 students. Law faculty; library.
143. Oxford, England: University, 3,408 students. Theological, law, medical, scientific, and philophical faculties; Bodleian library.
144. Padua, Italy: Regia Univer'sità degli Studi di Padua, $1,58 \%$ students. Law, medical, scientific, and philosphical faculties, and schools of engineering and pharmacy; library.
145. Palermo, Sicily, Italy: Rogia Università degli Studi di Palermo, 1,395 students. Law, medical, scientific, and philosophical faculties, and schools of engineering and pharmacy; library.
146. Paris, France: (1) Université de Paris, 12,04\% students. Protestant theological, law, medical, scientific, and philosophical faculties, and schools of engineering and pharmacy; libraries.
147. Paris, France: (2) Facultés libres. Law and philosophical faculties; library.
148. Paris, France: (3) Collége de France.
149. Paris, France: (4) École Libre de Sciences Politiques.
150. Paris, France: (5) École pratique des hautes études en Sorbonne, 233 students. Philosophical and theological faculties; library.
151. Paris, France: (6) École nationale des beaux-arts.
152. Paris, France: (7) École nationale de chartes.
153. Paris, France: (8) École du Louvre.

155. Parma, Italy: Regia Univer'sità degli Studi di Parma, 5ゴ4 students. Law, medical, and sci entific faculties, and veterinary and pharmaceutical schools.
156. Pavia, Italy: Regia Università degli Studi di Pavia, 1,325 students. Law, medical, scientific, and philosopliical faculties; pharmaceutical school and library.
157. Perugia, Italy: Università Libera degli Studi di Perugia, 298 students. Law and medical faculties, and pharmaceutical and veterinary schools; library.
158. St. Petersburg, Russia: Imperatorskij. Universitet, $3, \% 00$ students. Philosophical, scientific, law, and oriental languages faculties; library.
159. St. Petersburg, Russia: Imperatorskij Wozensio-Medicineskaja Akademja, 750 students. Medical faculty; library.
160. St. Petersburg, Russia: Theological Academy, 239 students; also a law school, 300 students, independent of the university.
161. St. Petersburg, Russia: Military medical school, 750 students.
162. St. Petersburg, Russia: Law Academy, 330 students, and several other special schools.
163. Pisa, Italy: Regia Università degli Studi di Pisa, 1,069 students. Law, philosophical, medical, and scientific faculties, and engineering, pharmaceutical, veterinary, and agricultural schools; library.
164. Poitiers, France: Facultés de Poitiers, 64 students. Law, scientific, and philosophical faculties; library.
165. Prague, Bohemia, Austria: K.k. Deutsche Carl-Ferdinands Universität, 1,336 students. Theological, law, medical, and philosophical faculties; library.
166. Prague, Bohemia, Austria: C. k. česk UniversitetKarlo-Ferdinandovij, 2,858 students. Theological, law, medical, and philosophical faculties; library.
167. Pressburg, Hungary: Jógakademia, 170 students. Law and philosophical faculties; library.
168. Quebec, Canada: Úniversité Laval, 231 students. Theological, law, medical, and arts faculties; librar'y and museum.
169. Recife, Brazil: Faculdade de direito, 180 students. Law faculty.
170. Rennes, France: Facultés de Rennes, 1,063 students. Law, scientific, and philosophical faculties; library.
171. Rome, Italy: Regia Università degli Studi di Roma, 1,914 students. Philosophical, scientific, law, and medical faculties; engineering and pharmaceutical schools; library,
17\%. Rome, italy: A number of colleges supported by the church; also a woman's university with 94 students.
173. Rostock, Mechlenburg, Germany: Grossherzogliche Universität, 469 students. Theological, law, medical, and philosophical faculties; Iibrary.
174. Salamanca, Spain: Universidad de Salamanca, 1,247 students. Philosophical and law faculties; library.
175. Salzburg, Austria: Theologische Fakultät, 74 students.
176. Santiago, Chile: University with 4 faculties and 1,000 students.

17\%. Santiago, Spam: Universidad de Santiago. Law, medical, and pharmaceutical faculties; library.
178. Saragossa, Spain: Universidad de Zaragoza, 966 students. Philosophical, law, medical, and scientific faculties; provincial library.
179. Sarospatak, Hungary: Theologische und Rechtsschule, 116 students.
180. Sassari, Italy: Regia Universitá degli Studi di Sassari, 165 students. Law, medical, and scientific faculties; library.
181. Seville, Spain: Universidad de Sevilla. Philosophical, law, and scientific faculties; library.

18:. Sheffield, England: University College (belongs to Oxford University), 450 students; also a medical scbool.
183. Siena, Italy: Regia Università degli Studi di Siena, 231 students. Law and medical faculties and pharmaceutical school; library.
184. Sopkia, Bulgaria: Wische utschilische w Sophia, 354 students.
185. Stockholm, Sweden: Stockholms Högs Kola, 337 students.
186. Stockholm, Sweden: Medical Institute, 307 students.
187. Strasburg, Alsace, Germany: Kaiser Wilhelms Universität, 1,159 students. Theological, law, medical, philosophical, and scientific faculties; provincial library.
188. Sydney, New South Wales, Australia: University of Sydvey, 455 students.
189. Tokio, Japan: Teikoku, Daigaku, 1,895 students. Law, medical, philosophical, and scientific faculties and school of engineering; library
190 Tomsk, Siberia: Imperatorskij Tomkij Universitet, 336 students. Theological and medical faculties; library.
191. Toronto, Canada: University of Toronto, $1,3 \%$ students. Philosophical, law, and medical faculties; library.
192. Toronto, Canada: Victoria University, 250 students. Arts and theology; library.
193. Toronto, Canada: Two medical schouls.
194. Toulouse, France: Facultés de Toulouse, 1,885 students. Law, philosophical, scientific, and medical faculties; library.
195. Toulouse, France: Facultés Libres Catholiques. Theological and philosophical faculties; library.
196. Tübingen, Würtemberg, Germany: K. Eberhard Karls Universität, 1,2ä7 students. Theological, law, medical, philosophical, and scientific faculties; library.
197. Turin, İ̀aly: Regia Università degli Studi di Torino, 2,5 ãl students. Law, medical, philosophical, and scientific faculties and pharmaceutical school; library.
198. Upsala, Sweden: Kongl. Universitet i Upsala, 1,504 students. Theological, law, medical, and philosophical faculties; library.
199. Urbino, Italy: Libera Università degli Studi di Urbino, 93 stadents. Law and mathematical faculties and pharmaceutical and surgical schools; library.
200. Utrecht, Netherlands: Rijks Universität te Utrecht, $87 \%$ students. Philosophical, medical, theological, lav, and scientific faculties; library.
201. Valencia, Spain: Universidad de Valencia, 726 students. Law, scientific, and medical faculties; library.
202. Valladolid, Spain: Universidad de Valladolid. Law and medical faculties; library.
203. Vienna, Austria: K. k. Universität, $5, \% 10$ students. Law, theological, medical, and philosophical faculties; library and numerous university institutes.
204. Vienna, Austria: Protestantische Theologische Fakultät, 2; students.
205. Vienna, Austria: K. k. Orientalische Akademie, 2 students; also Lehranstalt für Orientalische Sprachen, 128 students.
206. Warsaw, Poland, Russia: Imperatorskij Warschawskij Universitet, 1,242 students. Philosophical, scientific, law, and medical faculties; library.
207. Würzburg, Bavaria, Germany: K.Julins-Maximilians Universität, 1,42J students. Theological, law, medical, and philosophical faculties; library.
208. Zurich, Switzerland: Schweizerische Hochshule, 876 stndents. Theological, law, medical, and philosophical faculties; cantonal and city libraries.

## IV. Foreign universities arranged according to countries.

Argentina: Cordoba.
Australia: Adelaide, Melbourne, Sydney.
Austria: Czernowitż, Grätz, Innspruck, Cracow, Lemberg, Olmütz, Prague (German), Prague (Bohemian), Salzburg, Vienna.
Belgium: Brussels, Grent, Liège, Louvain.
Bolivia: (Universities not mentioned in "Mnerva.")
Brazil: Recife.
Bulyaria: Sopbia.
Canada: Kingston, Montreal, Quebec, Toronto.
Cape Colony: Cape City.
Chile: Santiago.
China: (College of Foreign Knowledge.)
Colombia: (Universities not mentioned in "Minerva.")
Corea: (None.)
Costa Rica: (None.)
Cuba: Havana.
Denmark: Copenhagen.
Ecrudor: Quito.
Egypt: Cairo.
England: (See also Ireland, Scotland, and Wales below.) Birmingham, Bristol, Cambridge, Durham, Leeds, Liverpool, London, Manchester, Newcastle, Nottingham, Oxford, Sheffield.
France: Aix, Algiers, Angers, Besançon, Bordeaux, Caen, Clermont, Dijon, Grenoble, Lille, Limoges, Lyons, Marseilles, Montauban, Montpellier, Nancy, Nantes, Paris, Poitiers, Rennes, Toulouse.
Germany: Berlin, Bonn, Braunsberg, Breslau, Erlangen, Freiburg, Giessen, Göttingen, Greifswald, Halle, Heidelberg, Jena, Kiel, Königsberg, Leipsic, Marburg, Munich, Mïnster, Rostock, Strasburg, Tübingen, Würzburg.
Greece: Athens.
Guatemala: (None.)
Haiti: (None.)
Hawaii: (None.)
Honduras: (None.)
Hungary: Agram, Budapesth, Eperies, Erlau, Fünfkirchen, Grosswardein, Kaschau, Kecskemet, Klausenburg, Pressburg. Sarospatak.
India: Allahabad, Bombay, Calcutta, Lahore, Madras.
Freland: Belfast, Cork, Dublin, Galway.

Italy: Bologna, Cagliari, Camerino, Catania, Ferrara, Florence, Genoa, Macerata, Messina, Modena, Naples, Padua, Palermo, Parma, Pavia, Perugia, Pisa, Rome, Sassari, Siena, Turin, Urbino.
Japan: Tokio.
Mexico: (Schools of law, medicine, engineering, etc.)
Montenegro: (Theological seminary, not mentioned in "Minerva.")
Morocco: (None.)
Netherlands: Amsterdam, Groningen, Leyden, Utrecht.
New Zealand: One university.
Nicaragua: (None.)
Noruay: Christiania.
Orunge Free State: (None.)
Paraguay: (National college, not mentioned in "Minerva.")
Persia: (Several colleges, not mentioned in "Minerva.")
Peru: Lima.
Philippine Islands: Manila.
Portugal: Coimbra.
Roumania: Bucharest, Jassy
Russia: Kharkov, Dorpat, Helsingfors, Yaroslav, Kasan, Kiev, Moscow, Odessa, St. Petersłurg, Warsaw.
Salvador: (One university, not mentioned in "Minerva.")
Santo Domingo: (None.)
Scotland: Aberdeen, St. Andrews, Dundlee, Edinburgh, Glasgow.
Servia: Belgrade.
Siam: (None.)
Siberia: 'Tomsk.
South African Republic: (None.)
Spain: Barcelona, Cadiz, Granada, Madrid, Oviedo, Salamanca, Santiago, Saragossa, Sevillo, Valencia, Valladolid.
Sueden: Gothenburg, Lind, Stockholm, Upsala.
Switzerland: Basel, Berne, Freiburg, Geneva, Lausanne, Neuchâtel, Zurich.
Turkey: (Several colleges, not mentioned in "Minerva.")
Uruguay: Montevideo.
Venezuela: (Universities not mentioned in "Minerva.")
Wales: Aberystwith, Bangor, Cardiff, Lampeter.

## V. Technological schools.

Aachen (Aix-la-Chapelie), Prussia, Germany, founded 18\%; 398 students.
Berlin, Prussia, Germany, founded 1779; 3,207 students.
Braunschweig, Germany, founded 1745; 390 students.
Brïnn, Austria, founded 1800; 342 students.
Budapesth, Hungary, founded 1856: 1,454 students.
Copenhagen, Denmark, founded 1829; 431 students.
Darmstadt, Hessia, Germany, founded 1868; 1,23? students.
Delft, Netherlands, founded 1864; 428 students.
Dresden, Saxony, Germany, founded 1828; 1,011 students.
Grätz, Styria, Austria, founded 1811; 324 students.
Hanover, Prussia, Germany, founded 1879; 1,247 students.
Helsingfors, Finland, Russia, founded 1847; 2220 students.
Karlsruhe, Baden, Germany, founded 1885; 1,071 students.
Kharkov, Russia, founded 1884; 641 students.
Lemberg, Galicia, Austria, founded 184; 335 students.
Lisbon, Portugal, founded $183 \%$.
London, England, founded 1884; 238 students.
Madrid, Spain, founded 1835; 235 students.
Milan, Italy, founded 1863; 441 students.
Moscow, Russia, founded 1832; 621 students.
Munich, Bavaria, Germany, founded 1827; 1,9:3 students.
Naples, Italy, founded $1863 \% 198$ students.
Paris, France, founded 1794; threes schools, with $3 \%$ students.
Oporto, Portugal, founded 1877; 323 students
Prague, Bohemia, Austria, founded 1806 and $1858 ; 2$ schools, with 1,297 students.
Riga, Russia, founded 1832; 1,370 students.
St. Petersburg, Russia, founded 1828; 4 schools, with 2,1:2 students.
São Paulo, Brazil, founded 1894; students.
Sheffield, England, founded 1885; 750 students.
Stockholm, Sweden, founded 1798; 348 students.
Stuttgart, Würtemberg, Germany, founded 18:9; 947 students.
Turin, italy, founded -; 380 students.
Vienna, Austria, founded 1815; 1,682 students.
Zusich, Switzerland, founded $1851 ; 1,336$ students.
Note.--Several noted technological schools in Italy and in other countries are connected with universities, hence are not mentioned separately in this list.

## VI. Higher agricultural, forestry, and mining schools.

## [Figures in brackets signify date of founding.]

[^61]Debreczin, Hungary [1865], Agricultural Academy; 98 students.
Eberswalde, Prussia, Germany [1820], Forestry Academy; tiv students.
Eisenach. Saxe-Weimar, Germany [1859], Forestl'y Academy; 24 students.
Evois, Finland, Russia [1859], Forestry Academy; 16 students.
Freiberg, Saxony, Germany [1r65], Mining Academy; 2iti students.
Gembloux. Belgivem [1860], Agricuitural Academy.
Grignon, France [18i8), Agricultural Academy.
Hohenheim, Würtemberg, Germany [1818], Agricultural Academy; 101 students.
Keszthely, Hungary [1865], Agricultural Academy; 94 students.
Kolozsmonostor, Hungary [1869], Agricultural Academy; lou students.
Leoben, Styria, Austria [1894], Mining Acadeny; \%2v strudents.
Madrid, Spain [?], Schools of Engineering, Agriculture, and Veterinary Science,
Moscow, Russia [?], Agricultural and Forestry Academy; 18\% studenes.
Mïnden, Prussia, Germany [1868], Forestry Academy; 43 students.
Noncy, France [1824], Forestry Academy; 27 students.
Nowaja-Alexandria, Poland, Russia [1890], Agricultural and Forestry Academy; 232 stucents.
Paris, France [?], Agricultural and Mining Academies; 413 students.
Poppelsdorf, Prussia, Germany [1846], Agricultural Academy; 317 students.
Pribram, Bohemia, Austria [1819], Mining Academy; 109 students.
Schemnitz, Hungary [?], Forestry and Mining Academy; \&ut students.
St. Etienne, France [1815], Mining Academy; 20 students.
Stockiholm, Sweden [1823], Forestry School; also Agricultural Academy [1811].
St. Petersburg, Russia [1783], Mining Institute; 450 students.
St. Petersburg, Russia [1880], Foresiry Institute; 467 students.
Tharandt, Saxony, Gerimany [1811], Forestry Academy; 100 students.
Vienna, Austria [1872], Agricultural Academy; 352. students.
Note.-Other similar higher institutions of learning are connected with universities; hence they are not mentioned in this list of separate institutions.

VII. Veterinary schools.

Alfort, France [1766]; 281 students. Berlin, Germany [1790]; 486 students. Budapesth, Hungary [1786]; 380 students.
Copenhagen, Denmark [1850]; 370 students
Cordoba, Spain [1802]; - students.
Dorpat, Russia [?]; 2\% students.
Dresden, Gernany [1774]: 219 students.
Hanover, Germany [?]; 230 students.
Kasan, Russia [?]; 399 students.
Leon, Spain [?]; 99 students.
Madrid, Spain [?]; 750 students.
Milan, Italy [1791]; 128 students.
Afunich, Germany $[1790]$; 280 students.
Naples, Italy [?]; 230 students.
Stockholm, sweden [18:1]; students.
Stutigart, Germany [1821]: 90 students.
Turin, Itcly [?]; 91 students.
Utrecht, Netherlands [?]; 56 students.
Vienna, Austria [?]; 635 students.

## CHAPTER XL.

## REPORT ON EDUCATION IN ALASKA.

> Departient of the Interior, Bureau of Education, Alaska Division, Washington, D. C. June $30,1898$.

SIR: I have the honor to submit the thirteenth annual report of the United States general agent of education in Alaska, for the fiscal year ending June 30, 1898.
There is in Alaska a school population of from 8,000 to 10,000; of these 1,250 were enrolled in the 18 Government schools in operation during the fiscal year.
Point Barrow.-H. R. Marsh, M. D., teacher; enrollment, 68; population, Eskimo. In September, 1897, eight vessels of the Arctic whaling fleet were canght in the ice near Point Barrow. The quartering in the schoolroom of men from the imprisoned ships and the frequent calls upon Dr. Marsh for professional services interfered with the routine of school work. Dr. Marshreports: "School opened on September 13 with a good attendance, but before the end of the month the crews of the Orca and the Freeman were here, and nearly hali the village people were sent inland to hunt in order to provide food for the whalers, taking their families with them. In October Captain Mason of the Jeanie sent for me to see a sick man, and I was out a week there. I observed the usual Thanksgiving and Christmas intermissions, though tempted to keep school every day. As I had been holding a night school for the sailors during October, November, an December, I felt that I needed the rest and so did not keep school during the holidays. On January 31 such a blizzard raged that not a person came near the house. The next day the whaler Navarui drifted in with the ice, and for three days not a child old enough to carry anything was seen in thevillage. Every one-men, women, and children-went out to the vessel and carried to shore on sleds or on their backs everything on the vessel that was movable. During February the rest of the villagers went inland to hunt. Only six school children remained. I kept school for a few days with them, but soon the boys left to join the parents, and I closed the school."

St. Lawrence Ísland.-In July, 1894, Mr. V. C. Gambell, of Wapello, Iowa, was appointed to open a Government school on St. Lawrence Island. For three years Mr. and Mrs. Gambell did faithful, efficient work among the half-civilized natives of this barren island, with no communication with the outside world during eight months of the year. In August, 189'/, they returned to Iowa in order that Mirs. Gambell might receive necessary medical treatment. Mrs. Gambell's heaith having been restored, they decided to return to their work on St. Lawrence Island, leaving Seattle May 19 on the sailing vessel Jane Grey. Off Cape Flattery a gale was encountered, and at $2 o^{\circ}$ clock of the morning of the $22 d$ the alarm was given that the vessel had sprung a leak and was sinking. Twenty-six persons succeeded in embarking in a launch and subsequently reached Vancouver Island and were saved. In ten minutes after the alarm was given the Jone Grey sank, taking with her Mr. and Mrs. Gambell and about thirty other passengers. By the death of Mr. and Mrs. Gambell educational work in Alaska has suffered a great loss.

Port Clarence (Teller Reindeer Station.)-T. L. Brevig, teacher; enrollment, 50; population, Eskimo. The scarcity of food in the vicinity of the station and the consequent migration of many of the families to summer hunting grounds earlier than usual caused the school to be closed on April 1. On the return of the revenue cutter Bear from its Arctic cruise, Captain Tuttle, at the request of Dr. Sheldon Jackson, kindly received on board for passage to Seattle five of the best pupils of this school. Dr. Jackson subsequently took these Eskimo children to Carlisle, Pa., where they were received into the well-known industrial school under the superintendence of Maj. R. H. Pratt, U. S. A.

Unalaska:-Miss M. E. Mellor, teacher, and Miss Ada Mellor, assistant; enrollment, 68; population, Aleut. The following is Miss Mellor's report: "During the summer vacation I took five of our more advanced pupils to the Indian school at Carlisle, Pa., and one to Chicago, to be educated by Mr. P. B. Weare, of that city. During my absence in the States the bishop of the Russian church, who had visited Unalaska, authorized the priest to request me to teach English in the Russian school for one hour each day at the close of my own school hours. This I declined to do for lack of time and strength, and suggested that the priest send the Russian children to the Government school for the afternoon sassion. After some deliberation this was done. The Russian children were, however, subseçuently removed. I called on the priest in regard to the matter, and the only reason he gave for his action was the fact that the teachers of the schools boarded at the Jesse Lee Home-hardly a good excuse, as there is no official connection whatever between the Government school and the Home. The Home is the only place in the village where the teachers can board with comfort. It seems a pity that these 34 children, most of whom are boys, should thes be deprived of the benefits of an English education. Now that the fur trade is diminishing, most of the native men of Unalaska are employed in loading and unloading vessels for the various commercial companies, and a knowledge of English is very essential. It would seem that a law making an education in English compulsory would be of great benefit to the people of Unalaska.
"Various public exercises were held during the year under the auspices of the school, resulting very beneficially to the children, affording pleasure to a large number of persons, and greatly increasing public interest in the work of the school. The first of these was a flag raising, November 6, at the Jesse Lee Home. The school was assisted by the Unalaska brass band, under the leadership of Mr. N. Gray, agent for the Alaska Commercial Company, to whom we were indebted for this inspiring addition to our programme. The arrival of the Bear, December 9, while en route to the Arctic with the overland relief expedition to the whalers of Point Barrow, made an unusually bright Christmas possible for the children of Unalaska. Captain Tuttle brought two large Christmas trees from Seattle for the Government school, besides a large donation of Christmas gifts. The latter came from the school children and others in Seattle, collected through the kindly interest of Captain Tuttle and the manager of the Post-Intelligencer. The entertaimment was held on Christmas Eve, and was a very happy and successful occasion. The Russian school attended in a body, and after our festivities were over the Christmas trees were given to them to be used in their celebration. On Christmas day, accompanied by one of the girls as interpreter, I visited every house in the village, distributing presents to all the children who could not attend the entertainment on the previous evening. So this year, for the first time, every child in Unalaska was remembered at Christmas. February 22 was celebrated by an appropriate entertainment, the school being assisted by Captain Tuttle and the officers of the Bear. The chapel of the Jesse Lee Home, in which the entertainment was held for lack of room in the schoolhouse, was beautifully decorated with flags of all nations, kindly loaned by Captain Tuttle, while a large crayon portrait of Washington, the work of Mr. James C. Blaine, United States deputy
marshal, occupied a prominent place above the platform. Captain Tuttle presided, and addresses were made by Captain Tuttle, Lieutenant Berry, and Captain Ferguson. National songs, quotations from Americans of note, incidents in the life of Washington (including a short biography), were some of the numbers rendered by the school children. Instrumental music was given by the orchestra of the Bear. Over 200 persons were present, including the priest and the Russian school. Admission was by invitation.
"The closing exercises of the school were held in the evening of June 20, and were very largely attended. Forty-eight dollars and seventy-five cents were contributed for the purchase of books for a school library.
"Of the studies pursued during the year, special attention has been given to English, phonetics, reading, and the reproduction by recital or writing of short stories read and explained to the class by the teacher, also to letter-writing. Interest in the latter has been stimulated by the exchange of letters between the pupils in the school and those who went to Carlisle last summer. Once a week copies of the Youth's Companion, St. Nicholas, or Black and White (a London illustrated paper) were distributed among the older pupils for an hours independent reading, and invariably the teacher spent the larger part of the time in answering questions. The pupils enjoyed this hour so much that the depriving of individuals of it became a successful modo of punishment for misconduct. Very good progress has been made in arithmetic also. The highest class at the close of the term was working in denominate numbers. One afternoon of each week was devoted to sewing, and, in addition to practicing plain sewing, 30 sleeveless aprons and several boys' shirts were made, the boys being taught sewing at their cwn request. The introduction of the kindergarten system into the primaxy department of the school pleased the children and was productive of good results. Taking all things into consideration, this has been the most prosperous year that the school has had since I came to Unalaska, largely due to the fact that my assistant teacher, Miss Ada Mellor, proved herself a tireless worker and a very capable assistant in all the branches of activity for which I had occasion to call upon her. I trust that in the near future the Russian children will become regular attendants of the Government school and enjoy the privileges of the English education which it affords and which they so much need."

Unga.-O. R. McKinney, teacher; enrollment, 40; population, white. Mr. McKinney reports: "On January 4 I organized an evening school which met once a week for literary work. On Washington's birthday the school gave an exhibition which was the most successful in its history. During the ontire term the condition of the school has been very satisfactory; there has been no sickness, and our pupils have consequently kept together better than ever before. Our school is very similar to a rural district school in New York or Pennsylvania, about the only difference being that there is never any contention over the affairs of the school. My patrons seem to hava perfect confidence in me and have not during the seven years that I have been with them raised any objection or taken exception to anything that I have found it necessary to do. This, porhaps, would not be remarkable ir they were ignorant Indians or Aleuts, but considering the fact that they are nearly all intelligent white people it is at least worthy of mention."
Kadiak.-C. C. Solter, teacher; enrollment, 72 ; population, Russian creoles. Mr. Solter writes: "Most of my pupils have been industrious and have made satisfactory progress. They have done work in drawing and writing of which any school might be proud. A few have made commendable progress in language, history, and geography. We had a Christmas festival, as usual. The house was crowded with visitors; all spent a very pleasant evening and went home happy. It was the only exercise we had to remind us of the meaning of the day. The Russian Church has Christmas services, but their Christmas comes twelve days later than ours. We organized a literary society during the winter, in which all
the Aməricans in the village as well as most of the pupils took part. The exercises consisted of recitations, readings, and music, both vocal and instrumental. The object of the society was principally that the pupils might have opportunities of appearing before an audience and gaining self-confidence thereby. All the meetingswere crowded. Many of the Russians who could not understand English came to listen to the music, which was highly appreciated. Our last meeting was held on Washington's birthday, and was the most interesting programme of the season. Our meetings were discontinued later, partly on account of the Russian holidays. Although no exercises of a religious or political character were allowed in our meetings, yet the priest looked with disfavor upon our work, started a society of his own, and in other ways tried to discourage his members from taking part in the exercises. These meetings did much to relieve the monotony of the long winter evenings.

Afognak.-Miss Matrona Salamatoff, teacher; enrollment, 59; population, Russian creoles. This school was unavoidably closed from August, 1896, to September, 1897, during which time the children ran wild; consequently when it was reopened considerable strict discipline was necessary. Miss Salanıatoff writes: "The many Russian Church holy days are very detrimental to school attendance. When services were held in the morning I had school in the afternoon and on Saturday mornings in order to make up for lost time. On February 22 we had a patriotic entertainment. I spoke to the pupils about Washington; what the Stars and Stripes mean to us; impressed them with the fact that we are all Americans, and that the President is our ruler.
"I first spoke in English, then in Russian, for the benefit of those who did not understand English. My remarks seemed to make an impression."

Sitka, No. 1.-Miss Cassia Patton, teacher; enrollment, 42; population, white, American and Russian. Miss Patton reports as follows: "The white children of Sitka lead lives more isolated than those of the natives; the water is not to them the highway that it is to the canoe paddlers. There being no roads into the surrounding country, many of the white children have never been out of sight of the village. They have heard of mines all their lives, as the fathers of the majority of them own ledges, yet not half a dozen of them have ever seen a mine, as a mountain trip is no childs play. The great Alaskan industry of salmon canning is known to them only by hearsay, as the nearest cannery is 40 miles distant. A few of the children have come to Sitka from the States, and have acquired much knowledge froin observation. How to combine these differences in grades is a problem. Very few of the children have anything to read at home, so I have a small circulating library, which I find of much use. As a preventive of tardiness I read from some interesting book. Our present story is 'Beautiful Joe,' and has caused many of the little ones to hurry to school so as not to miss any of him. Many of the children speak Russian in their homes, and through their religious observances they are connected with the foreign mation whose flag their parents saw lowered from Baranoff Castle. In the schoolroom on every possible occasion we do honor to the Stars and Stripes. We observe Transfer Day in October and Treaty Day in March. I wish that every school in Alaska had a picture of Secretary Seward; then the men and women of the future State of Alaska-the boys and girls of to-day-will see that the father of Alaska is duly honored."
Sitka, No. 2.-Miss Flora Campbell, teacher; enrollment, 170; population, Thiinget. The following is Miss Campbell's report: "All through the winter the people have been constantly going and coming, taking their children with them, in their visits to neighboring villages, so that regularity of attendance has been very much interfered with. In April the Russian New Year festivals are celebrated, during which season there are a number of church festivals. Many of the pupils are members of the Russian Church, and do not come to school during these holy days. During the first part of the year the Russians had school for the
natives and built a schoolhouse near ours, expecting to run it in opposition to ours. Another interference with regularity of attendance was the herring industry, in the latter part of April. At that season millions of herring swim along this coast and deposit their eggs, which are not larger than turnip seed. The natives spread branches of hemlock in their course, leaving them in the water one or two days. Then they take up the branches covered with eggs and dry them. Afterwards the dry clusters of eggs are sold or exchanged for furs with natives from the interior.
"The native boys do not have as easy times as do the white boys. The former do all the work about the house, even the cooking. Those who come to school regularly are doing excellent work. I often visit the homes of the pupils. The parents seem to realize the benefit to be obtained from having a knowledge of the English language, yet they are very careless about compelling their children to attend school. Generally speaking, I know that the children are anxious to learn, and seem to be interested in their studies. They have ability and are willing workers. They memorize quickly, but do not like to do mental work. We have many amusing conversations, and there is busy work in sewing, netting, weaving, paper folding, and other kindergarten exercises. They are very backward in using what English they know, especially before strangers. Eight adults aitended school. Their progress is slower than that of the children. They are, however, doing well and are interested in their books. The natives are naturally very fond of music, and the pupils derive great pleasure from the songs they learn in school."

Haines.-Miss Frances Willard, teacher; enrollment, 46; population, Thlinget. Haines is near the head of Lynn Canal, and during the greater part of the year thousands upon thousands of men poured through the village on their way to the gold fields of the Yukon Valley. Every able-bodied man and boy, and many women and girls also, left home and spent many months carrying supplies for the miners. Consequently the school was badly interfered with, only the very small children being in attendance. The English learned in the schools stood the natives in good stead in their dealings with the miners.

Hoonah.-Mrs. J. W. McFarland, teacher; enrollment, 141; population, Thlinget. Mrs. McFarland writes: "Our people were later getting settled last fall, owing to the gold excitement, and many tarried at the new mining towns of Dyea and Skagway packing for miners and doing other work. I did not notice, upon their return, that their morals were corrupted in any way. I have not seen an intoxicated native in our village this winter. I am sure that by working for the miners the natives gained a great deal financially, and many came home the proud owners of sloops, schooners, and Columbia River boats. Give the natives of Alaska a chance and they will do work equal to that of the white men. Before Christmas the storekeeper here told me that he had received $\$ 2,000$ in cash from the natives.
"School opened September 6, and the attendance gradually increased to 141. I anticipated the early rush to the mines, which I knew would come in spring, and toward the close of the term kept school on Saturdays, with a very good attendance. Some of the older boys begged to be allowed the privilege of taking their books with them during the vacation so that they would not forget what they had learned. I am glad to report encouraging progress on the part of those who attended regularly. Little ones of 6 learned to read quite well in Collard's Beginners' Reader, a most excellent book, which I heartily recommend to teachers in Alaska. Our native policeman, Moses, rendered valuable assistance in gathering in the children, especially the boys, who were more interested in coasting than in coming to school.
"On February 14 the man-of-war Wheeling, Captain Sebree in command, steamed into the harbor. Governor Brady, Commissioner Tuttle, and Deputy Marshal Kostrometinoff were on board. They visited the school and the governor kindly addressed the school. In speaking to the parents he tried to impress them
with the importance of making the children attend regularly. Give us a compulsory law for Alaska and the teachers will see encouraging results from their labors and the children of the coming generation will be, in the fullest sense of the word, stronger morally, mentaily, and physically."
Juncau, No. 1.-Miss Lizzie H. Harte and V. C. Gambell, teachers; enrollment, 72; population, white. During the first part of the year this school was in charge of Miss Harte. Owing to failing health Miss Harte resigned her position in Jan* uary. Until April her place was taken by Mr. V. C. Gambell, who left Juneau for his former position on St. Lawrence Island. It is to be regretted that the exceedingly limited funds at the disposal of this Bureau render it impossible at present to organize at Juneau the high school grade that is desired.
Juneau, No. 2.-Miss Elizabeth Saxman, teacher; enrollment, 40; population, Thlinget. Miss Saxman writes: "My work has been so pleasant that it seems scarcely possible that I have closed my fifth term in Juneau. My school was not as large last term as I would have liked. This is accounted for by the fact that the mission children have had such a siege of sickness. Very few of the village children attended. Although we feel very much discouraged by the closing of the home, as we considered that the link between the village and the school, yet the public school may now mean more to them than it ever has before. There has always been a slight feeling of estrangement between the mission children and the village children, and the latter may now feel that the school is for them and care more about it. I have noticed that the full-blooded native children excel in writing, music, and drawing."

Douglas, No. 1.-Miss Kate Spiers, teacher; enrollment, 46; population, white. Miss Spiers reports as follows: "I find the pupils bright and interested in their work. The progress has been marked and rapid, especially in reading, drawing, and language. The parents are helpful and very willing to render any assistance possible. I am sorry to say that the school does not reach the older pupils. The room is small, and it is impossible to accommodate more than thirty pupils. There is great need of a new building centrally located. Were it not for the parochial school it would be impossible to accommodate the pupils who should be in school. A movement has been made by this school and School No. 2 to establish a school library. An entertainment was given on April 15, and a sufficient sum was realized to assure us a small library for next year."

Douglas, No. 2.-Miss Gertrude H. Spiers, teacher; enrollment, 20; population, white. The following is Miss Spiers's report: "I have just closed my first year"s work in Douglas and ain glad to be able to report a very successful year. I enjoy comfortable and commodious quarters, but the grounds should be improved and a playground arranged. In the daily work the most successful features have been reading, drawing, and German. Each class has read four or five books, including the Johonnot series, the Seaside and Wayside series, Old Greek stories, and Kipling's Jungle Book. The drawing, in addition to its supplementary use in physiology and geography, has included two lessons per week in sketching from objects. The German class, a fifth grade, has completed the Chicago German Reader, Book I. No attempt was made to teach the grammatical construction, except incidentally. The children enjoyed the work, and insisted on buying their own texts. The patrons and citizens are very loyal to the school and have cooperated very heartily in our library and Christmas entertainments. The only damage to the school property has been done by storms and the heary blasting. Not even a window has been broken by any of the pupils."

Juckson.-Miss C. Baker, teacher; enrollment, 121; population, Thlinget. Miss Baker reports: "The majority of the natives of Jackson do not return from their summer fishing grounds until late in the season. Accordingly, I went to them, and during the month of September school was held at Hunter's Bay. We used
a large boathouse for a schoolhouse, and were quite comfortable. Soon the fish ceased to run; I returned to Jackson and opened school there, thinking that all the people would soon be at home. However, they were unusually slow about returning; the village did not fill up much before the middle of November. Soon after they seemed settled for the winter the Klinquan people invited them to a great 'potiatch.' The majority accepted the invitation and were absent several weoks. Very few children were left in the village. When they returned the Klinquaus came with them. Then there were plenty of children, but an epidemic of measles broke out and many children died. After a time the measles ran their course and my schoolroom was full for a short time. In the early spring family after family went to the fishing grounds, until at the end of April I had no children at ail. I heard that there was a large number of them at Klinquan, so I followed them and had a very interesting school there during the month of may. Had it not been for the neighboring cannery, I would have had a large school; all who could get employment went to work there. Never since I have had charge of the school have the people been so continualiy on the move as they have been this year; but they must make their living, and they must go where it can be obtained. I have very little trouble to get the children into school when they are in the village. They are bright, obedient, teachable boys and girls and make very good progress in reading, writing, and arithmetic. Some of the young men told. me this spring when they left that if I had the school next year all the young married people were coming to school. I like to see the married natives ambitious, and shall, of course, do all that I can to help them, but I prefer children in school to grown men and women with families."

Saxman.-Mr. J. W. Young and Mrs. M. J. Wakefield, teachers; enrollment, 63; population, Thlinget. Mr. Young writes: "In presenting my annual report I have nothing unusual or sensational to report. Wo have had a quiet year of work and have made fair progress. I was afraid that after the novelty of the school had worn off that the interest of the natives would diminish, but it seems to be as strong as it was at first. Several things have occurred to draw the natives away from Saxman, the chief of which is the Klondike gold excitement. While the natives from this place did not go into the interior, a large number of them went to Dyea and other points to pack and do other work for the miners. The jealousy between the chiefs of the two tribes that we have been trying to gather here cansed some trouble and may result in the withdrawal of the entire Tongass tribe. Our people have been remarkably healthly during the past winter. While other towns had epidemics of measles and the grip, we have been entirely free from them. On the whole, the year has been one of progress in education and civilization, and the future looks bright."

Fort Wrangell.-Miss Anna R. Kelsey, teacher; enrollment, r1; population, Thlinget. Fort Wrangell is situated near the mouth of the Stikeen River and was the disembarking point of those who wished to take that route into the interior. School work was rendered dificult by reason of the inevitable confusion and distraction resulting from the tide of immigration that swept through the hitherto quiet village.

## SCROOLS NEEDED IN THE YUKON VALLEY.

During the past two years, the development of gold mining has attracteä into the interior of Alaska thousands of miners, many of them bringing their families with them. In the vast region drained by the Yukon and its tributaries there is not a single school for white children, nor is it possible with the present appropriation of $\$ 30,000$ to make any addition to the school system. As a result of the infinx of population, towns have sprung up at St. Michael, Circle, Rampart, Peavy, Weare, and Eagle, and schools are urgently needed at these points.

Statistics of public schools in Alaska from 1892 to 1898.

| Public schoois. | Length of school term and enrollment of pupils. |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1892-93. |  | 1893-94. |  | 1894-95. |  | 1895-96. |  | 1896-97. |  | 1897-98. |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Afognak. | 8 | 40 | 9 | 38 | 9 | 38 | 9 | 39 |  | (a) | 9 | 59 |
| Douglas City, No. | 8 | 13 | 9 | 30 | 9 | 42 | 9 | 57 | 7 | ${ }^{7} 7$ | 9 | 46 |
| Douglas City, No. | 9 | 108 | 9 | 87 | 7 | 26 |  | (a) | 8 | 32 | 9 | 25 |
| Fort Wrangell .. | 9 | 49 | 9 | 54 | 8 | 61 | 9 | 82 | 9 | 64 | 9 | 71 |
| Haines.. | 9 | 54 | 9 | ${ }_{90}^{41}$ | 9 | 64 | 8 | 60 | 9 | 68 | 7 | 46 |
| Jackson | 9 | 82 | 8 | 90 | 7 | 80 | 8 | 64 | 9 | 84 | 9 | 121 |
| Juneau, No. 1 | 9 | 23 | 9 | 25 | 9 | 54 | 9 | 70 | 9 | 86 | 9 | 72 |
| Juneau, No. 2 | 9 | 61 | 9 | 65 | 9 | 50 | 9 | 67 | 9 | 70 | 9 | 40 |
| Kadiak | 9 | 74 | 9 | 59 | 9 | 56 | 8 | 49 | 9 | 52 | 9 | 72 |
| Karluk |  | (a) |  | ( $\alpha$ ) |  | (a) | 9 | 27 | 9 | 28 | (a) |  |
| Killisnoo | 9 | 137 | 5 | 75 |  | (a) |  | (a) |  | (a) | (a) |  |
| Klawock |  | (a) |  | (a) | $\stackrel{2}{9}$ | 50 |  | (a) |  | (a) | (a) |  |
| Sitka, No. | 9 | 50 | 7 | 43 | 9 | 57 | 9 | 40 | 9 | 39 | 9 | 42 |
| Sitka, No. | 9 | 48 | 9 | 110 | 9 | 180 | 9 | 156 | 9 | 154 | 9 | 170 |
| Unga | 8 | 35 | 9 | 36 | 9 | 40 | 9 | 44 | 9 | 40 | 9 | 40 |
| Unalaska |  |  | 9 | 24 | 9 | 39 | 9 | 39 | 9 | 48 | 9 | 68 |
| Port Clarence | 5 | 20 | 7 | 30 | 8 | 56 | 9 | 56 | 9 | 53 | 7 | 50 |
| Metlakahtla- |  |  |  |  | 7 | 105 |  | (a) |  | (a) | (a) |  |
| St. Lawrence Island |  |  |  |  | 7 | 52 | ${ }_{7}^{9}$ | 68 | 9 | 66 | (a) |  |
| Saxman |  |  |  |  |  |  | 7 | 31 | 8 | 75 |  | 63 |
| Hoonah |  |  |  |  |  |  | 8 | 144 | 5 | 120 | 9 | 141 |
| Cape Prince of Wale |  |  |  |  |  |  | 9 | 104 | 8 | 13\% |  |  |
| Circle City -...--- |  |  |  |  |  |  |  | (a) | 8 | 43 |  |  |
| Point Barrow Wood Island |  |  |  |  |  |  |  |  | 6 | 66 | ${ }_{2}^{6}$ | - $\begin{array}{r}68 \\ 56\end{array}$ |
| Total |  | 794 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 1,197 |  | 1,390 |  | 1,200 |

$a$ No school.
Note.--In addition to sapporting the above public schools, the Bureau of Education pays the salaries of five industrial teachers in the Sitka Industrial School, which has an enrollment of 150

## Appropriations for education in Alaska.



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## PERSONNEL

Dr. Sheldon Jackson, general agent of educatiou in Alaska; William Hamilton, assistant agent of education in Alaska; William A. Kelly, superintendent of schools for the southeastern district of Alaska.

## LOCAE SCHOOL COMMITTEES.

Sitka, John G. Brady, Edward de Groff; Juneau, Johı G. Heid, Karl Koehler; Douglas, P. H. Fox, Albert Anderson; Douglas (Treadwell), Robert Duncan, j1.; Fort Wrangell, Thomas Wilson, Finis Cagle; Kadiak, F. Sargent, N. Kashevaroff, H. P. Cope; Unga, C. M. Dederick, Michael Dowd, George Levitt.

TEACHERS IN PUBLIC SCHOOLS.


TEACHERS AND EMPLOYEES IN CHURCH MISSION SCHOOLS AND STATIONS.
Episcopalians.
Sitka.-Bishop Peter Trimble Rowe, Rev. W. M. Partridge.
Juneau.-Rev. H. Beer.
Skagway.-Rev. I. J. H. Wooden, Miss L. Heywood, Miss Dickey.
Copper River Country.-Rev. H. J. Gurr.
Rampart City.-Rev. and Mrs. J. L. Prevost.
Circle City.-J. L. Watt, M. D.; Mrs. Watt, Miss E. M. Deane; J. Kwulwull (native), assistant.
Anvik.-Rev. J. W. Chapman, Mrs. Chapman, Miss B. W. Sabine, Miss L. Proebstel, I. Fisher (native).
Fort Yukon.-Rev. J. W, Hawksley, W. Loola (native), assistant.
Fort Adams.-A. A. Selden, Mrs. Selden.
Ketclikan.-Miss A. Edmonds.
Point Hope.-John B. Driggs, M. D.
Nuklukayet.-P. Bolah (native), assistant.
Nowikakat.-Stephen (native), assistant.

## Congregational.

Cape Prince of Wales.-Mr. and Mrs. W. T. Lopp.

## Roman Catholic.

Dawson, Northwest Territory.-Rev. William Judge, S. J., chaplain of the hospital and of the Sisters of St. Ann; Brother Bernard Cunningham, lay brother.
Koserefski (Holy Cross Mission).-Rev. R. J. Crimont, S. J. (superior); Rev. John Lucas, S. J.; Rev. A. Robaut, S. J.; Rev. F. Monroe, S. J.; Rev. J. B. Post, S. J.; Brothers V. O'Hare, S. J.; B. Marchisio, S. J.; J. Twohig, S. J.; P. Brancoli, S. J.
Nulato.-Rev. J. Jetté, S. J. (superior); Rev. A. Ragaru, S. J.; Rev. J. Perron, S. J.; Brothers C. Giordano, S. J., and J. Negro, S. J.

Dawson Hospital.-Sisters of St. Ann: Mary Zephirine (superior), Mary of the Cross, Mary Pauline, Mary Joseph, Mary John Damascene, Mary Prudentia.

Koserefshi (Holy Cross Mission, girls' school). -Sister Mary Stephen (superior), Mary Prudence, Mary Seraphine, Mary Winifred, Mary Benedict, Mary Antonia, Mary of the Passion, Mary Magdalen.

## Moravians.

Bethel.-Rev. and Mrs. John H. Kilbuck, Mr. and Mrs. Benjamin Helmick, Miss Míary Mack, Mr. and Mis. J. H. Romig, M. D.
Carme?-Rev. and Mrs. John Schochert, Rev. and Mrs. S. H. Rock, Miss Mary Huber, Miss P. C. King.

Quiegatutk.-Mr. Ivan Harrison (Eskimo).
Tulaksagamute.-Mr. and Mrs. David Shuviule (Eskimo).
Kalchiachagamute.-Mr. and Mrs. George Nukachluk (Eskimo).
Akaigamiut.-Mr. Neck (Eskimo).
Quinehahc.-Mr. L. Kawagleg and Mr. and Mrs. Harvey Suruka (Eskimo).
Methodist Episcopal.
Unalaskc.-Miss Agnes Sowle, Miss Sarah J. Rinch.
Frieuds.
Douglas City.-Mr. and Mrs. C. N. Replogle.
Kake.-Mr. and Mrs. S. R. Moon.
Kotzebue Sond.-Mr. and Mrs. Robert Samms, Miss Anna Hunnicutt.

## Baptists.

Wood Island.-Rev, and Mrs. Curtis P. Coe, Misz Alico Thompson.
Piesbyteriaizs.
Sitka.-Rev. and Mrs. A. E. Austin, Mr. Wilham A. Kelly, B. K. Wilbur, M. D.; Miss Esther Gibson, Mrs. S. A. Wallace, Miss Anna M. Sheets, Mrs. A. H. Carter, Mrs. M. K. Paul, Mr. John E. Gamble.
Saxman-Rev. Edward Marsden.
Haines Mission.-Rev. W. W. Warne, Miss A. J. Manning.
Hoonah.-Rev. A. C. Austin.
Jaclason.-Rev. M. D. McClelland.
Juneau.-Rev. J. H. Condit, Rev. L. F. Jones, Miss Susan Davis, Miss M. E. Gould.
Point Barrow.-Dr. and Mrs. H. R. Marsh.

## Swedish Evangelical Mission Covenant.

Golovin Bay-N. O. Hulberg, Mrs. N. O. Hultberg, P. H. Anderson, Gabriel Adamson.
Unatalkik.-A. E. Karlsen, Mrs. A. E. Karlsen, August Anderson, Miss Malvina Johnson, David Johnson, Miss Alice Omekejook (Eskimo).

Yakutat.-K. J. Hendrikson, Albin Johnson, Mrs. Albin Johnson.
Kangel:ososk.-Stephan Ivanoff (assistant).
Kotzebue Sornd.-Rock (Eskimo).

## PRESBYTERIAN MISSIONS.

The Rev. George F. McAfee, superintendent of school work, Presbyterian Board of Home Missions, has kindly prepared the following sketch of the boards work in Alaska:
Fort Wrangell.--Missionary work was undertaken in Alaska in 18\%\%. Rev. Sheldon Jackson that year visited Alaska and opened a mission school at Fort Wrangell, with Mrs. A. R. McFarland as teacher. Land was secured, buildings were erected, and in addition to the day-sohool work a limited number of girls were received into the teacher's home and taught domestic industries. This feature was suspended in 1895. Rev. Clarence Thwing, M. M., is in charge of the station. The native church has a communicant roll of 85 and a Sabbath-school membership of 100. A church composed of white settlers was organized in March, 1893, with $2: 3$ members.

Chilkat Mission (Haines).-The mission to the Chilkats at Haines was established in 1881, Rev. Eugene S. Willard and wife being the first missionaries. Under their efficient management the work soon became very encouraging. Rev.
W. W. Warne and wife now have charge of the mission. The Govermment school is taught in the mission building. An efficient matron has charge of the home, and 16 boys and girls are there taught the industries. The church membership numbers 23 , and the Sabbati-school scholars number 75.

Hoonah Mission.-The mission to the Hoonahs was undertaken in 1881, Rev. and Mrs. J. W. McFarland being in charge. A day school was maintained for a number of years, until the Government assumed control. Upon the death of Mr. MoParland, the widow continued the work until Rev. Alvin C. Austin arrived. The charch shows 50 communicants and a Sabbath-school membership of 59.

Jackson.-The Hydah Mission was established in 1881. Rev. J. Loomis Gould was the missionary in charge for fifteen years. A boarding home was maintained for a number of years, both boys and girls being received. This department of the work was closed in 1897 and the pupils sent to the Sitka Training School, where they could have better advantages and be educated at less cost to the board. Miss Christina Baker, the matron, was continued as Government day-school teacher, and Rev, M. D. McClelland relieved Mr. Gould as missionary.

Junear.-Rev. Eugene S. Willard and wife removed from Haines to Juneau in 1880 and opened a mission. Rev. L. F. Jones is nov in charge. The church reports 78 communicants and 62 members in the Sabbath school. During the five years of Mr. Jones's incumbency he has received into the church $\% 2$ adult members on confession, baptized 61 children, and celebrated 38 Christian marriages, The work in the boarding home has been very successful, there being 32 boys and girls receiving instruction in various industries.

The white church numbers 31 members, and is under the care of Rev. James II. Condit. The people are moving in the direction of building a new house of worship to take the place of the former "Log Cabin Church," in which thoy now worship, and a manse will follow.

Point Bariow. -The woard opened a mission to the Eskimos at Point Barrow in 1890. Prof. I. M. Stevenson was the first missionary. He was followed in 1897 by Rev. H. R. Marsh, M. D., and wife. The people received the missionaries' instruction readily. The home of Dr. and Mrs. Marsh is the first Christian home ever seen by the natives, and they are quick to imitate the missionaries in all Christian ways. A church organization is soon to be effected and a house of worship built. This is noted as the most northerly mission in the world, being within the Aretic Circle.

Saxman.-The latest mission to be established is Saxman. It is in charge of Rev. Edward Marsden, a native, the first to receive a thorough college and theological course and be fully ordained to Gospel ministry. The wori is very promising.
St. Lawrence Istand.-Mr, and Mrs. V. C. Gambell were sent to St. Lawrence Island in 1894. They were joyfully received by the natives. Their work for three years accomplished much good, but on account of Mrs. Gambell's health it became necessary for them to return to the States in 189\%, Mrs. Gambell's health having been restored, they decided to return to St. Lawrence Island, leaving Seattle May 19 on the sailing vessel Jane Grey. Off Cape Flattery a gale was encountered, and at $20^{\circ}$ clock of the morning of the 20 d the alarm was given that the ressel had sprung a leak and was sinking. In ten minutes after the alarm was given the Jane Grey sank, taking with her Mr. and Mrs. Gambell and 30 other passengers. This is a sad blow to the work on St. Lawrence Island.

Sitia.-By far the largest, best equipped, and most successful mission conducted by the board in Alaska is the Sicka Mission. It was established in 1880. Boys and girls flocked into the building temporarily provided for the school until it was crowded to suffocation. The school is a training and industrial school for both sexes. From 100 to 200 pupils have been taught there anmally since its organization. The boys are instructed in carpentry, blacksmithing, boat-building, shoe-
making, and gardening, and show great proficiency as practical workers in these trades. The girls are taught cooking, sewing, laundry work, and how to care for their rooms. So successful are they in acquiring a knowledge of these domestic industries that they are sought after by white íamilies as house servants. The boys and girls come to Sitka Training School from almost the entire region of southeastern Alaska, something like 15 tribes being represented in the school. In order to show how practical is the work and how efficient are the workers, it may be stated that the shoe shop is under the direct supervision of a native who learned all he knows about the trade in the school, and with his helpers, all of whom are pupils, he makes all the shoes worn by the 153 pupils, besides doing a considerable amount of work for outside parties, which provides a small income to the school.

Out of the school work grew the church. Under the wise and faithful administration of Rev. A. E. Austin, so long pastor (and at intervals superintendent of the school), the church reached an enrollment this year of 384 communicants.

A white church numbering 10 members is also ministered to by the pastor of the native church.

Sithe Hospital.-Connected with the mission is a hospital, which is under the direction of Dr. B. K. Wilbur. Dr. Wilbur treated last year 107 in-patients and 119 out-patients, and performed 53 operations. Total of prescriptions made during the year, 3,435 . This is one of the most important factors in the work at Sitka.

The enrollment in the Sitka school for 1897-98 was 153, about equally divided between boys and giris.

## MISSIONS OF THE PROTESTANT EPISCOPAL CHURCH IN ALASKA.

The Rev. Joshua Kimber, D. D., associate secretary of the Domestic and Foreign Missionary Society of the Protestant Episcopal Church, sends the following statement:

In the Territory of Alaska this church has established missions among the whites at Sitka, Juneau, Douglas, Copper River Country, Numook, Skagway, and Circle City; and among the Indians at Anvik, Circle City, Fort Adams, Ketchikan, Numook; and among the Eskimo of Arctic Alaska at Point Hope.

The whole work is under the supervision of the Right Rev. P. T. Rowe, D. D., assisted by the Rev. Messrs. Campbell, Chapman, Gurr, Prevost, and Wooden; Drs. Driggs and Watt, missionary physicians; and the following ladies: Mrs. Chapman, Mrs. Prevost, Mrs. Selden, Mrs. Watt, and Misses Deane and Sabine, and Miss Proebstel, Miss Edmonds, and Miss Heywood, trained nurses.

In the last report from Bishop Rowe he states that many changes have occurred in the population of Douglas Island, owing to the great attraction of the Yukon. There are, however, nearly 1,000 men employed in the mines, and a splendid opportunity for missionary work presents itself at that place. At Ketchikan the Rev. A. J. Camplbell, M. D., established a new station. Four acres of ground were given on condition that a mission and school should be built. The doctor purchased a cabin for $\$ 200$, and improved it at an expenditure of $\$ 175$ more, thus providing a commodious, neat, and suitable building for school and church purposes. In January last this missionary baptized 27 Indians, and presented 9 for confirmation by the bishop. In the school there have been gathered 47 children, Thlinkets and Hydahs, who have made wonderful progress in their studies. A few inonths ago they were heathens, not knowing a word of English; to-day they can sing several hymns, recite the Lord's prayer and creed, and read fairly well. Miss Edmonds is in charge of this school.

At Skagway the bishop, with the assistance of Dr. Campbell, opened a mission some twelve months ago and founded a hospital with the aid furnished by the settlers and others. The building, a log one, contains two rooms-a kitchen below
and a ward above-and cost about $\$ 2,000$. The capacity of the building was soon overtavel with patients, and an addition had to be built. Bishop Rowe, in his report, stated that for some time he visited the hospital daily, and it was pitiful to see strong men, far from home and dear ones, sick and dying. "As I bent over one man," the bishop wrote, " who died shortly after I lifted his head, he took my cross in his hands, kissed it, and sank back with a look of resignation and peace glowing upon his face."
Dyea, a place of 4.000 people, was visited by Bishop Rowe, and some services held. Leaving that place April 26,1898 , the bishop, accompanied by Mir. Selden, started on the trail to the interior, passing, en route, Sheep Camp, Chilkoot Pass, Lake Lindeman, Lake Bennett, and Rink Rapids, reaching Dawson Saturday afternoon, May 30. Here the bishop, after resting five days, held two services and preached.
At Point Hope Dr. Driggs missionary physician, is carrying on successful work. The mission services are well attended. There are over 60 children under instruction in the Sunday school.

At Auvik, 600 miles from the mouth of the Yukon, the Rev. Mr. Chapman, with his devoted wife and Miss Sabine and Miss Proebstel, are maintaining, with commendable diligence and fidelity, the arduous duties of that mission. The mission buildings at Anvik consist of a church valued at $\$ 1,250$, a dwelling house valued at $\$ 900$, and a schoolhouse valued at $\$ 800$. In addition to these buildings the mission also owns a schoolhouse occupied by 6 girls of the boarding school, under Miss Sabine; a sawmill worth about $\$ 2,000$; a storehouse worth $\$ 200$; a laundry valued at $\$ 300$, and two small cabins. Mr. Chapman reports that the new schoolroom was opened November 22 , and that during the whole winter it was used for daily service as well as for the school. On November 29 the forindation of the new chapel at St. Paul, on the Chageluk Slough, was laid and the walls put up as high as the eaves. The work was done by the volunteered labor of the people of the village and its vicinity. The total attendance at school for the year ending May, 1898, was 4,531 , an average of about 24.
At Circle City services and religious instruction among the whites and Indians have been maintained throughout the winter. A very good honse and lot ad oining the mission have been purchased and a hospital has been built, the cost of the land being $\$ 900$, which was paid by the miners. Mrs. Prevost and Miss Deane have earned the good will and hearty praises of all by their services rendered to the sick during the winter. The Rev. Mr. Prevost has charge of the station and Dr. Watt is the medical missionary.

## MORAVIAN MISSIONS.

Bethel.-Owing to the scarcity of food in the vicinity of Bethel, the school was closed early in the winter. However, a normal class, consisting of the most promising of the natives, was continued throughout the year.

This station has sustained a great loss in the death of Mr. and Mrs. Weber, who were drowned in the Kuskokwim while returning to Bethel after a winter in the States. In order to reach their post as quickly as possible, and at the same time save expense, Mr. and Mrs. Weber accepted the proposition of a party of prospectors to give them free transportation up the Kuskokwim in return for Mr. Weber's services as interpreter and as pilct. At Good News Bay, south of the mouth of the Kuskokwim, the party transferred from the steamship Lakme to the little stern-wheel river steamer. Their supplies were stored in two barges, which were towed astern. While the transfer from the larger ship was being made. Mr. Weber made a hurried trip to the mouth of the river, where he met several of the missionaries, who were waiting for the arrival of their supplies. He handed them their mail, and spent twelve hours in their company, returning to the river steamer on June 26. The start was made on June 2\%. Soon after their departure
the wind increased in violeuce, blowing a gale from the southeast, making a nasty sea at the mouth of the river. The wreck of the barge containing the supplies was discovered by the natives a few days later. Of the steamer and her passengers not a trace has since been seen.
Carme!. -School was in session for a term of one hundred and seventy-five days, the attendance averaging 28 per day. Several white families have settled in the vicinity of the station in order that their children may attend the school. Carmel was visited by several travelers during the winter; among them were Mr. G. F. Tilton, third officer of the whaler Belvedere, wrecked at Point Barrow, and his guide, Mr. Koltchoff, en route to the south. They stayed five days at Carmel and attended the weduing of Mr. and Mrs. Rock.

## BAPTIST MISSIONS.

The Rev. C. P. Coe, superintendent of the Orphanage on Wood Island, supported by the Woman's American Baptist Home Mission Society, sends the following report:

Six years ago the Woman's American Paptist Home Mission Society, which has its headquarters at 510 Tremont Temple, Boston, established the only Baptist mission that is now supported in Alaska designed to reach the needs of the natives of̂ that district. The site chosen was Wood Island, a small wooded dot of land in the Pacific, 4 miles long by 2 miles wide. Wood Island is but 2 miles from Kadiak, the largest island in that part of the country. It is located about the middle of the portion of Alaska assigned to the Baptist denomination, which begins at Mount St. Elias, and extends for 1,000 miles or more to the west, ending at the Slumagin Islandis.

The workers at present are Rev. Curtis P. Coe, superintendent, and wife; Mr. and Mrs, G. A. Hill, and Miss Hattie Denniston. There are at present 26 children in the home, and at least 50 have received care, attention, and training for a shorter or a longer time since the beginning of the work. These children are collected from extremes of about 1,400 miles, 5 being from Kayak Island and 2 being natives of the Seal Islands.
The children are docile and tractable, and most of them have confessed privately their faith in Jesus, but they have been as timid as other children in making a public confession and asking for baptism. That a large proportion of them are really Christians can not be doubted by those who come in contact with them daily.

Several improvements have been made since the last report that have lessened the labor and added value to the plant. Waterworks were devised so that now there is hot and cold water in the kitchen and cold water in other parts of the house. The water comes from a well on top of a hill and is siphoned to the socond story of the mission. A large wood furnace has been constructed which warms several of the rooms; hundreds of rods of fence have been built, and a silo that will hold 50 tons of ensilage, with which to feed our three cows, two calves, and a horse, has been constructed. In all the building, as well as in the ordinary work, the boys have had a large part and have shown their usefuluess. The giris have been very helpfal in all kinds of housework.

Last spring the Government established a school on the island, which was a cause of rejoicing, and very recently comes the report that we are to have a monthly mail throughout the year instead of being deprived of mail service for five months.

At this location is the only Baptist church and chapel in Alaska, and the only building west of Sitka erected especially as a house of worship by any other denomination than the Greek Catholic.
Mr. and Mrs. Coe left the field in October for the winter for a needed rest. In the month of January the former visited New England and presented to those who have been in the past supporting the work there a detailed account of the
past, the present, and the prospects for the future. Much enthusiasm was manifested by the people and almost all of the special needs that were presented were supplied, and an increased interest was awakened in the minds of the people from whom the support must come.
The Woman's Society is asking from its constituency $\$ 5,000$ annually for the continuance of the work of this the only Baptist work in Baptist ground in Alaska.

THE SWEDISL MISSION COVENANT'S MISSIONS.
The Rev. D. Nyvall sends the following account of aifairs at Unalaklik, Golovin Bay, Yakatat, and Kotzebue Sound:

Unalaklik. -At Unalakiik last autumn and winter la grip prevailed. Miss Alice Omekitjook mentions in her letter that 14 died at Unalaklik during October.

During Christmas week the missionaries had the pleasure of entertaining Lieutenant Jarvis and his men. They brought letters from the United States, the first winter mail our m:ssionaries ever received in Alaska. At Unalaklik Mr. Jarvis was met by the reindeer sent him from Port Clarence.

The latest report from Unalakilk is a letter from Karlson, of Septernber 23, 1898, telling that the school at Unalaklik for the winter had commenced with a good attendance. Mr. Ivanoff, from Kangekosook, has been transferred to Unalaklik to teach the school at the last-mentioned place, and Kangekosook at present left.

All our workers at Unalaklik are in great need of rest.
Golovin Bag.-Last winter (1897-98) was hard on the natives, not only through sickness but lack of food. Mr. P. H. Anderson, of Golovin Bay, tells us that he often saw natives chew their skin boats and their shoes in want of food. Most of the school children were more or less supported at the station.

In April Mr. Anderson made a journey with dogs from Golovin Bay to Unalaklik, 125 miles. It took four days, and was a grim adventure in every respect. The home journey was made by reindeer, and proved to be, in comparison, very delightful and pleasant. A greater part of July Mr. Anderson was obliged to spend in St. Michael waiting for the mail, as he expected news regarding his betrothed and her coming.

At a great bargain Mr. Hultberg and Mr. Anderson came in possession of a lot of lumber and other building materials, with which Mr. Anderson has erected a new school building, so much needed. It is 24 feet by 16 feet and 10 feet high. In his latest report Mr. Anderson hoped to get the building ready October 17, so that the school could then commence. We are under obligation to Dr. Jackson for a stove which he bought in St. Michael and presented to the school at Golovin Bay.

Yakutat.-Our missionaries at present at Yakutat are Mr. Aibin Johnson and his wife, and Mr. K. Hendrikson, who last summer tried hard to find a shorter and better route over the icebergs to the interior, but after heroic efforts ho was obliged to return defeated.
The last reports from Yakutat were letters from Albin Johnson and from K. Hendrikson, dated October 21 and 29, respectively. In his letter Mr. Johnson tells of the baptism of a native woman, and adds that several others were awaiting baptism. We are also told that the natives last summer were unusually successful in their fishing, and consequently were looking forward to the coming cold season with minds free from care. Liko reports come also from northern Alasiza.
A new building was erected at the station last spring, prior to Mr. Hendrikson's journey inland. The lumber used for that purpose was sawed by the missionaries themselves at our sawmill. In regard to the right of occupancy and use, for the mission, of the land around the station, the missionaries recommend that the said land be surveyed and mapped out by proper officers. The land is recorded in the land office at Sitiza in the name of the Swedish mission.

Miss Selma Peterson, one of our missionaries of Yakutat, is at present in Chicago, where she has, through the courtesy of the board of directors of the Augustana Hospital, been taking a practical course of training as a nurse at the said hospital free of charge. At present she is at our college preparing herself for examination as a teacher, her intention being to return to Yakutat early next summer and take up the school work at that place.

FRIENDS' MISSION.
Kotzebue Sound.-The following paragraphs are taken from the report of Mr. Robert Samms. one of the missionaries at Kotzebue, which was kindly forwarded by Mr. I. H. Cammack, of the California Yearly Meeting of Friends, which supports the mission in Kotzebue Sound:

After finding it impossible to ascend the river, it was necessary to make a hasty preparation for the winter; this was begun on faith coupled with works. Some boards were on hand, and tools, the ground frozen from 2 feet below the surface to unknown depths, and not enough wood in sight to cook a meal's victuals. The natives were given to understand we would trade for all the logs they would bring; so men, women, and children were soon busy catching driftwood, which was being borne down by the inland freshets. Trading for wood and fish took a good deal of time, as each stick of wood had to be traded for separately, and the fish had to be cleaned. We used our own boat in gathering wood until we could no longer force our way through the mushy ice; we gathered the wood for about 4 miles from our house. We were thus occupied until the ever-increasing cold and shortening days made out-of-door work impossible. The water supply for the mission has made considerable work. For about seven months of the year all the water is procured by melting ice. This has been hauled on sleds from about one-half mile distance, being first dug from under 3 feet of snow and blocked out with an ax.
To keep reasonably free from vermin and disease has required a good deal of washing and bathing. The drifting snow has given tus considerable trouble by stopping door and windows, also covering our wood to a depth of 10 feet. Cutting wood for two stoves has been no small task, considering the wood we have to use. The white men that have been here during the winter required some attention, as they were generally worn out and supplies exhausted by the time they reached our mission. Two of the Government relief expeditions to the whalers at Point Barrow reached our house about midnight, and almost fell into the door, exhausted by exposure and hunger. To all these we rendered every assistance in our power. We have made four trips with sled and dogs for wood, going about 10 miles across the sound.
I think the poverty of the natives will always be a source of trouble to the missionaries. So far as we can see at present, the only hope of improving the temporal condition of the Eskimo is in the success of the reindeer project as promulgated by Dr. Jackson. There have been two births and six deaths for the eight months past. At this rate the Eskimo will soon belong to the past. Physically, the Eskimo is well appearing, of the Mongolian cast, about 5 to 5 feet 10 inches in height, with small hands and feet, broad face and high forehead. Doubtless this has been a hardy race, but, like the Indian, the demoralizing infuences of bad white people have made them wrecks, both physically and morally. The older generation do not show this deterioration so much as the younger class, whose blood seems to be inoculated with the worst of blood diseases. Intellectually, they are quite promising. They learn rapidly, especially such knowledge as they can turn to some practical account; have considerable liking and talent for music, and are naturally cheerful. Their mode of living prevents their attending school regularly, but seems to add intensity to their efforts in improving what opportunities they have.

If the Eskimo has any standard of morals, it is only of the lowest character. Religion he has none, but he is superstitions about everything. and takes without question any absurdities the shamans may choose to make up. The chief business of the shamans is to see that all the superstitions are properly observed, also to appease any evil-disposed spirit that is troubling his people, and last, but not least, to charge well for his services. The Eskimo seems to have no conscience; no such word is found in his vocabulary. He steals, lies, cheats, and murders apparently without a shadow of remorse. His idea of a good man is one who is a successiful hunter.
In manner of life, the Eskimo is seminomadic. He has a village where is located his burying ground and winter house. Here he spends the short cold days of winter, repairing his implements and planning for his food campaign. The women find plenty to do dressing skins and making clothing, trade goods, etc. As the days lengthen he carries on more or less hunting until signs of returning summer appear. He then abandons his winter home and goes to the fishing place or trading post.
The main dependence for food at this place is the salmon. All the other fish and the seal taken, though helping out a good deal, would not be sufficient to make up for the loss of the sa!mon if they should fail to come. Hence the importance of the deer being introduced as soon as possible. The peopie are generally insufficiently clothed; this the reindeer would remedy.

CONGREGATIONAL MISSIONG IN ALASKA.
[Report for United States Bureau of Education, by Rev. C. J. Ryder, D. D., corresponding secretary of the American Missionary Association for the Congregational churches.]
This mission at Cape Prince of Wales is in western Alaska. The work extends inland from Bering Strait, covering the whole of the peninsula upon which Cape Prince of Wales is the most western point. The American Missionary Association has maintained missionary work since 1890 in this portion of Alaska, which was assigned to the Congregational care in the division of the Alaskan territory among the Christian denominations. Carefully observing the conditions of interdenominational comity and good fellowship, the work has not been pushed beyond the limits of the territory originally agreed upon in conference of the various societies when entering the Alaskan field. The point held by our Congregational mission is a very strategic one. The Eskimo who touch at this point and come in contact with the Christian influence of the mission are scattered widely along the coast, and so carry the impressions of the work to many hundred people out of the reach of any other mission work. So from the interior many Eskimo come to Cape Prince of Wales when hunting and fishing, as this is a natural point of sailing. This gives the missionaries of the American Missionary Association, W. T. Lopp and his faithíul wife, large opportunity for reaching those not immediately in the territory of their mission field. Many of the young Eskimo have been reached, and the report of their growth in Christian manhood and womanhood is very encouraging. There was some opposition on the part of the parents and "Un-utkoots," or magic doctors, but this has been gradually overcome. By the kindly and charitable treatment of these experienced missionaries their work is better understood and gaining a larger influence each year. The practice of medicine in the administration of a few simple remedies during the summer and fall relieved a good many sufferers and wonderfully increased the infuence and power of the missionaries. The winter has been a hard one along the coast. The season, with abundant wind and ice, has been very unfavorable for hunting. Mrs. Lopp relieved some of the settlements north of Cape Prince of Wales as long as her supply of flour lasted, which she exchanged for driftwood, which the Eskimo haul down in dog sleds. The living for these poor people was very limited, being confined to an occasional grouse or a few frost fish. Only two small whales were
killed during the winter. The walruses furnished considerable food, and the walrus skins were of value. The Eskimo gathered at Cape Prince of Wales are careful observers of the Lords Day and do not hunt during its hours. Notwithstanding this they have been unusually successful, having killed eight large walruses.

Mr. Lopp has just completed a large cold-storage cellar, or pit, under the storehouse to preserve meat during the summer. He writes: "We are trying to induce the natives to make better cold-storage cellars, so that they will not be compelled to eat half-decayed meat during the summer and fall, and even in the following winter should seals at any time so scarce. It would be eatremely nauseating to a "tenderfoot' to witness natives eating protrid meat."

The Fourth of July was celebrated with enthusiasm at Cape Prince of Wales, under the care of the missionaries. The Eskimo greatly enjoyed it. The weather was splendid, and certainly the lesson of Christian patriotism impresssd upon the natives of this far-away territory must prove useful. The general comment of those who have seen the people at Cape Prince of Wales is that they are of the very best class of natives. The work of the mission school is very marked. The result already obtained is very hopefnl.

The little paper published there, called The Eskimo Bulletin, has attracted general attention. A copy will soon appear in the Strand Magazine, of London, as one of the remarkable newspapers of the world.

The great event in the history of the mission at Cape Prince of Wales since it was last reported was the remarkable effort of Mr. Lopp to relieve the whalers who were imprisoned by the ice off Point Barrow. The heroism of the undertaking on the part of Mr. Lopp and his noble wife, who remained at the mission almost alone during his absence, can not be overstated. Lieutenant Berry, who reported the trip of Mr. Lopp, closes in the following words: "Mr. Lopp reached Point Barrow on Maych 30 with 400 reindeer, which he had driven over the icy wastes as fast as the others could do alone in the dog sleds. His journey shows he had the deer on the run most of the time. Shortly after picking up Lieutenant Bertholf, 34 deer stampeded and were lost, but when the three herders were sent back they found them, and took them a! linto Point Hope. Mr. Lopp left Point Barrow on his return trip on April 5, and got home to Cape Prince of Waies in thirty-one days, only twenty of which were traveling days, for he met some weather in which he could not travel, and he would not travel on Sunday when he was proceeding on his own account. The lowest temperature that he experienced was 43 degrees below zero; bat he told me that was not half so cold as one day when the thermometer was at 40 degrees below zero and it was blowing a blizzard."

From Mr. Lopps own report to the American Missionary Association we gather the following:
"After a sleepless night Mrs. Lopp and I decided that it was necessary to carry this relief to the whalers and that I must myself go. You can imagine at what cost this decision was made. Separation of family from three to six months, loss of deer, breaking our plans for this year and next; but it was an errand of mercy, and we were glad to have opportunity to show these people that our Government cared for her people and would go to great expense to save a few in distress.

Mrs. Lopp's work.-Mrs. Lopp preferred to remain instead of going to Port Clarence, as was planned at Washington. Netaxite, the herder, and his wife and child lived in the herder's house, near ours, and assisted her in every way possible. She taught a class of more advanced pupils daily and Netaxite taught the primary school, doing fairly well. Our two girls of last year and Sokweena's wife were with Mrs. Lopp. So you see she had a more diffcult position, remaining here alone, than those of us who were in the expedition. It was a great trial of our faith, but we have to trust for so many things up here that it seemed
natural. While out on the trip we knew we should be remembered by the weekly prayer meeting of our Eskimo Christians here, and I think they feel that their prayers were not unheard.

In the wilderness.-The weather farored us wonderfully. Lieut. D. H. Jarvis, who planned and commanded the expedition, was an ideal, unselish commander in every respect. The managing of the deer he intrusted to tis. It was a new experience for our five herders and two from adjoining settlements and a very doubtiful undertaking to attempt to drive 436 deer a distance of rou miles to reach Point Barrow. All the old Eskimo said we would never reach Point Earrow. Two days after leaving Kotzebue Sound a howling blizzard scattered our deer. We found all but 34 after the storm had subsided and moved on. These 34 wore found by the natives and driven in and delivered to us afterwards.

The practical value of a Christian mission at Cape Prince of Wales and the sensible method of conducting such a mission have been abundantly illustrated in this expedition of Mr. Lopp.

Missionary visits.-Mir. Lopp has carried on missionary visits among cther stations and reached the Eskimo in their settlements. He has learned the language of the people and speaks somewhat fiuently to the Eskimo in their own tongue. Justsouth of Point Hope service has been held at a whaling station, where several families gathered from up and down the coast to receive the message of good news.

It was certainly a reasonable act of the United States Congress in voting an appropriation to Mr. Lopp and those who went with him in this heroic and hazardous journey for the rescue of these ice-bound whalers. The value of the mission at Cape Prince of Wales has received practical demonstrations in every way possible during this year.

I have the honor to be, sir, very respectfully, your obedient servant, Shembon Jicisono
Hon. W. T. Harris, LL. D., Commissioner of Education.

## CHAPTER XLI.

## EIGHTH ANNUAL REPORT OF THE INTRODUCTION OF DOMESTIC REINDEER INTO ALASKA.

Department of the Interior, Bureau of Education, Alaska Division, Washington, D. C., December 31, 1898.

Sir: I have the honor to submit to you my eighth annual report on "The introduction of domestic reindeer into Alaska."

The year just closed has been one of more than usual interest. It opened with the Government relief expedition, in charge of Lieut. D. H. Jarvis, of the United States Revenue-Cutter Service, to the whalers in the neighborhood of Point Barrow, Alaska, and with a Government commission to Lapland, Norway, for the procuring of a colony of Laplanders and the purchase of a herd of reindeer trained to harness, to be used in transporting relief to the destitute people in the mining regions of Alaska: also, the establishment of a new reindeer station in the neighborhood of Unalaklik, 60 miles noith of St . Michael. It being necessary to send Mr. William A. Kjellmann, the superintendent of the reindeer stations in Alaska, to Norway in charge of four families of Lapps, whose term of service had expired and who according to contract were to be returned to Lapland, Dr. A. N. Kittilsen, the physician and assistant superintendent, was placed in charge of the herd at the Teller Reindeer Station, with Mr. T. L. Brevig as his assistant. Mr. Frederik Larsen (Lapp) was kept with the herd as overseer, and Messrs. John Tornensis and Mikkel Nakkila (Lapps) were kept at the station during the fall of 1897, repairing and making sleds and harness, preparatory to the removal of a portion of the herd to the new station near Unalaklik.

On the last of October Dr. Kittilsen made a trip to Cape Nome, where he received from Antisarlook 53 male, 65 female, and 3 fawn reindeer for the Government, which had previously been loaned and were now being returned. He also secured 4 females and 3 fawns belonging to Tatpan, of Golovin Bay.

In the middle of November a trip was made to Cape Prince of Wales, returning November 28 with 3 head of deer belonging to the Government.

As Tautook, Sekeoglook, and Wocksock (Eskimo) had served their apprenticeship of five years, it was proposed to establish them at the Teller Station with a herd of their own when the Goverument herd should be taken to the new Eaton Station. Accordingly on December 3 each of the three received, according to contract, 20 females, 3 males, and 2 sled deer. These, together with those previously owned by them and since born in their herds, gave Tautook $7 \%$ head, Selkeoglook 59, and Wocksock 50, making a herd of 186 between them. The apprentice Ojello, being quite siciz, was left with his family at the Teller Station.

On December 19, leaving Mr. Brevig in charge of the Teller Station, Dr. Kittilsen, in charge of the Lapps and apprentices other than those mentioned as having been left at the Teller Station, started across the country for Unalaklik with 450 reindeer and 40 sleds, arriving at Golovin Bay on the 29th of December. There were 17 in the party, counting women and children. The 7 deer brought from Cape Nome for Tatpan, an apprentice above mentioned, were transferred to the herd at Golovin Bay, and 17 deer belonging to Martin, an apprentice at Unalaklik, were lassoed and taken into the Government herd to be driven to the Eaton Station.

On January 3 the journey was resumed, but two days later a snowstorm of unusual severity was encountered, and the party went into camp, the deer being returned to the neighborhood of Golovin Bay, where the pasturage was more accessible. While in camp, January 10, Lieutenant Jarvis and Dr. Call, of the relief party for the whalers, arrived from the south and asked for reindeer transportation to Port Clarence. Accordingly, on January 12, Dr. Kittilsen, taking itwo
of the apprentices, drove back with Lieutenant Jarvis and Dr. Call to the Teller Reindeer Station, where they arrived on the 19th. Leaving Lieutenant Jarvis to push on to Cape Prizce of Wales and Dr. Call to Cape Nome, Dr. Kittilsen, with the apprentices. on January 26, started on their return to Golovin Bay, reaching there February 9. During Dr. Kittilsen's absence Lieutenant Bertholf, also of the Point Barrow relief expedition, had arrived at the reindeer camp near Golovin Bay and induced Frederik Larsen to take five deer and sleds to help him across Kotzebue Sound with provisions for the relier̃ party, claiming that it was impossible to get the goods across the country with dog teans. After arriving at Rotzebne Sound, Lieutenant Bertholf retained the reindeer teams for his further trip to Point Hope, returning Frederik Larsen to Golovin Bay.
On the 13 th of March camp was broken and a start made for Unalaklik, which place was reached on the 21st. The spring was utilized in cutting and hauling several hundred logs for the erection of houses at the new station, located near Unalaklik and named "Eaton," in honor of Gen. John Raton, ex-Commissioner of Education. After the logs had been hauled to their dessination, the herd was moved to the foot of the mourtains southeast of Unalaklik, where a good fawning place was found.
In April an expedition was made to Golovin Bay to return some provisions which had been borrowed from the Swedish Mission Station during the detention of the herd is that neighborhood the previous winter.

PERSONNEL.
Mr. William A. Kjellmann was continued as superintendent of the stations in Alaska, but being detailed for special duty in returning Lapps to their native country and in procuring a new colony, he was absent from the field until July. Returning from Norway and reaching Eaton Station, he immediately utilized the temporary presence of the large colony of Lapps by dividing them into three parties, one to have charge of the herd, a second party to freight the suppies from the landing place on the coast to the station, and the third party to erect the necessary buildings. This enabled him to make rapid progress in getting the new station in order for winter. When the station was last heard from, arrangements were in progress. by whichit was expected that a large number of the Lapps would be distributed along the Yukon Piver for the purpose of carrying the United States mail, and the smaller number kept in the service of the reindeer stations. During the absence of Mr. Kjellmann, Dr. A. N. Kittilsen was in charge at the Teller Station until December, when he went with the herd and took charge of the new station on the Unalakik River until the arrival of Mr. Kjellmann. On the arrival of Mr. Kjellmann. Dr. Kittilsen resigned and leff for the mines, his place as physician being taken by F. H. Gambell, M. D., of Iowa. Upon the departure of Dr. Kittilsen from the Teller Station, Rev. T. L. Brevig was placed in charge.

With the increase of stations and enlargement of the work, Mr. Hedley E. Redmeyer was also made an assistant superinterdent.

Herders.-Messrs. Tornensis, Nakkila, and Larsen, the Lapps that remained in Alaska, continue in the service of the Government. During the trip of myself and Mr. Kjelmann to Norway we secured 113 Lapp, Norwegian, and Finn men, women, and children, who were removed to the Eaton Station, from which they are to be distributed to various localities where most needed.
At the closing of this report it has not been determined how many of them will remain in the service of this Burean and how many will go into the postal service of the country.

Apprentices.-During the year three of the apprentices, namely, Tautook, Sekeoglook, and Wocksock, of the Teller Reindeer Station, have gone into business for themselves, having served as apprentices for five years (the finil term), locating their herd in theneighborhood of the Teller Station. Electoona and Ahlook, from Point Hope, and Ojello, from Point Barrow, with their families, were sent to Points Hope and Barrow to take charge of the herd driven up for the relief of the whalers, or of such portion as was not slanghtered for that purpose. To assist the Eskimo apprentices, Jacob Larsen Hatta, wife, and two children, and Mr. Lars Larsen Hatta (Lapps) were also sent.
This herd was to be divided into two equal portions, one of which was to be loaned to the Presbyterian Mission at Point Barrow, and the other to the Episcopal Mission at Point Hope. Ten of the former Eskimo apprentices have now herds of their own, and are careful and diligent in increasing them. Their herds aggregate nearly 500 head.

## BUILDINGS.

The Rev. T. L. Brevig, who arrived at the Teller Reindeer Station in 1394 as teacher, needing a year's vacation, returned to the States last fall. The care of the public buildings thus vacated was given to Dr. Brandon, who in return for the same agreed to care for the buildings and also counsel with the Eskimo herders in the neighborhood.

Af Eaton Station substantial log builaings were erected for the superintendent, physician, and herders' families; also for the necessary storehouses.

## THE ITRRD.

The Government herd was driven during the winter from the Teller to the Eaton Station, a distance of about 300 miles.

The 120 reindeer that had been loaned by the Government to Antisarlook in Jannary, 1895, were returned by him last winter, he retaining 160 , the same being the increase during the three years that the herd had been in his possession. Seventy-five deer were given by the Government to Tautook, Sekeoglook, and Wocksock, who had finished their term of apprenticeship, and in accordance with the terins of their contract, to enable them to commence an independent lierd. One hundred and sixty deer lelonging to Antisarlook's herd at Cape Nome and 301 deer belonging to the missionary and Eskimo herd at Cape Prince of Wales were borrowed by the Government, making a total of 461 reindeer for the relief of the ice-imprisoned whalers at Point Barrow. Of these, 180 males were slaughtered for food, the females being kept as a nucleus of a permanent herd at Point Barrow.

At Golovin Bay the union herd, belonging jointly to the Swedish Evangelical Union Mission and Episcopalians, was increased during the year by 99 fawns born. It is expected this winter that the herd will be divided, and the portion belonging to the Episcopalians will be driven across the country to Weare, at the month of the Tanana River.

Instructions were leftat the Eaton Station to loan 100 head of reindeer to the Roman Catholic Missions on the Yukon River, and send with the herd an experienced Lapp to take the oversight of the herd and instruct the native apprentices in its care and management.

Number and distribution of domestic reindeer in Alaska, 1898.


Increase from 1892 to 1898.

|  | 189. | 1893. | 1894. | 1895. | 1896. | 1897. | 1898. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total from previous year | .... | 143 | 323 | 492 | ${ }_{74} 4$ | 1,000 | 1,132 |
| Fawns surviving ........... | 171 | 79 124 | 145 | 1276 | 357 | 466 | ${ }_{6}^{625}$ |
| Imported from Lapland ... |  |  |  |  |  |  | 141 |
| Total October 1 | 171 | 346 | 588 | 891 | 1,100 | 1.466 | 2,062 |
| Loss. | 28 | 23 | 86 | 148 | 100 | a 334 |  |
| Carried forward | 143 | 323 | 492 | 743 | 1,000 | 1,132 | - ----... |

a One hundred and eighty deer killed at Point Barrow for food; 66 lost or killed en route.
Of the above, the following are the property of the Government: At Unalaklik, 623; at Teller Station, 11; at Golovin Bay, 100; at Point Barrow, 118; at Point Hope, 48; at Circle City, 144, making a total of 1,044.

Expenditure of reindeer fund, 189\%-98.
Amount appropriated.-..........-.......................................................... $\$ 12,500.00$



Freight on supplies and barter goods ............................................................. 2,497.13
Reprinting of report, 1,000 copies, at 29.9 cents ................................... 299.01
Copies of 38 electrotype illustrations, at 94.8 cents ................................. 36.00
Traveling expenses ...........-.-....................................................................
Balance ................................................................................................... 2.86
$12,500.00$

## PURCHASING STATION IN SIBERIA.

From the commencement of the introduction of reindeer into Alaska in 1892, it has been my constant study to devise some method for procuring larger numbers of reindeer during the season. During the experimental trip of 1891, two months were spent on the revenue cutter Bear in procuring 16 head. The following year 167 were secured, being the largest number purchased within any one year in Siberia. During 1893, 1894, and 1895 the very best that we were able to accomplish in a season was the purchase of from $1: 0$ to 125 head. In 1896 a partial agreement was effected with a private party to procure and bring over from Siberia to Alaska reindeer at a fixed price per head, which resulted in a total failure, not one being secured. In 1897, in continuation of the policy of trying dirfferent methods for procuring the reindeer, Mr. John W. Kelly, Mr. Conrad Siem, and Mr. A. St. Leger were sent to Siberia to remain during the winter. A small, cheap frame house was erected, and they were furnished with necessary barter goods required for the purchase of reindeer. During the fall their success was such as to encourage the hope that a practicable method had been found of procuring the reindeer in large numbers, several hundred of the deer being purchased and either delivered or placed in herds where they could be reached the following summer during the few weeks that the ice allows the access of ships to the coast, when a vessel would be sent to transport them to Alaska. It appears, however, from the statements of the purchasing agents that during the winter jealousies and feuds broke out among the different native villages which precluded any further trading, and so endangered their lives that the following July they felt compelled to go on board a whaler and leave the station.

- Upon my visit to the place early in August I was able to trace and secure but 100 head of the several hundred which had been bought. After the employees had abandoned the station the natives seemed to have appropriated whatever they could lay their hands on, including the deer in the herd. Under the circumstances it was not thought expedient to carry this experiment further, and the station was closed. It is probable that the next method will be to try and arrange with some Siberian firm of standing and character to purchase deer for the Government. Possibly Russians will succeed better in bartering with the natives for deer than Americans. The 161 head of reindeer which 1 brought from Siberia in August were turned over to Mr. W. T. Lopp, to replace in part those that the Government had borrowed for the Point Barrow relief expedition.


## PRIVATE REINDEER ENTERPRISES.

The sudden influx of large numbers of miners into central Alaska, and the difficulty of procuring supplies and provisions at the mining camps, cailed public attention to the necessity of introducing the reindeer as a factor in freighting and transportation. During the years when the natives had occasion to travel from village to village, their journeys were comparatively short and time was no object, consequently it made no difference whether they were a week or a month on the road, and dog teams served a useful purpose. So during the days of the fur trade the few fur traders in the country, with their homes on the river supplied with provisions by an annual trip of a steamer, could mauage to get along comfortably with dog transportation. But in the increased and more rapid development of the country the need of better transportation facilities was recognized. The experiments of the Government had already demonstrated the value of the reindeer, and three or four private enterprises were at once started, the details of which have been difficult to obtain. From newspaper reports I glean that a Mr. G. Lewis, of Montreal, acting in the interest of the Reindeer Transportation Company of Vancouver, shipped 42 reindeer from Norway on the steamship Hecia, reaching New York February 1, 1898. They were consigned to a Mr. J. G. Scroggs. Seven died on the trip across the ocean, and 29 in crossing the continent. But 6 lived to reach Skagway, and of those but 2 reached Dawson.

At Skagway I was informed thatin ivovember last Mr. David O'Neil an Arizona miner, before going into the Yukon, visited Norway to procure a herd of reindeer for use at the mines. Not finding in eastern Lapland as large deer as he wanted, he continued up the coast to Tromsoe, then traveled into the interior across Norway and Sweden to Archangel, Russia, on the White Sea; from thence 480 miles northeast to Petchora Bay, Arctic Russia, where he is said to have found reindeer weighing from 500 to 600 pounds, trained both in hauling and packing. He purchased a herd of 2,000 head, costing about $\$ 12$ apiece. With 34 selected deer he started for Hamburg, Germany, a journey of 1,800 miles across the country. Twenty-three days were consumed in crossing the Atlantic, during which time a number of them died; others died in crossing the continent, so that when Skagway was reached only 1 deer out of the 34 was left, and that one died before he could be gotten off the wharf.

The poor success in transporting the 34 deer so discouraged him that he telegraphed to Russia to sell the remainder of the 2,000 that he had purchased. It is to be regretted that these enterprises were not more successiul, as the deer are so greatly needed in Alaska. The failure, however, was not due to any insuperable difficulties in the way of transporting them from Lapland, or to any inability of the reindeer to endure long voyages, as was proven when, a month later than Mr. O'Neil's expedition, the United States commission to Lapland transported 539 reindeer from Lapland, twenty-six days at sea and across the continent to Seattle, with the loss of but 1 .

I have been informed that in the above private expeditions sufficient moss was not brought with the deer, but an attempt was made to accustom them to live on hay and grain while en route.

## NO DOMESTIC REINDEER IN CANADA.

Last winter, while the Government and private parties were looking to Lapland for reindeer, a report was started, and found credence in some quarters, that it was unnecessary to go to Lapland, as the reindeer could be purchased becter in Canada. Not having heard that there were any domestic reindeer in Canada, a letter was addressed to the Hon. George M. Dawson, LL. D., director of the geological survey of Canada, which elicited the following reply:

> Geological Survey of Canada,
> Ottara, May $21,1898$.

My Dear Sir: I have your ncte of May 17, asking about supposed settlement of Lapps and domesticated reindeer in the vicinity of Hudson Bay. The report which has reached you is, however, quite erroneous, as nothing of the kind exists either there or on the Labrador coast, not even in connection with the Moravian missions of the last-named locality.

I am much obliged for the copy of your interesting report on the reindeer, duly received. Yours, truly,

George M. Dawson.
Rev. Sheldon Jackson,
Alaskan Division, Bureau of Education,
Washington, D. C., U. S. A.

The following quotation, which is a clear and concise statement of the value and extent of reindeer transportation, is from a circular prepared by Hon. W. T. Harris, Commissioner of́ Education. Dr. Harris writes:
Whatever may be the development of transportation by river or by railroad in Alaska, the reindeer wili prove a useful auxiliary by rendering possible a ready distribution, even for long cistances from the terminus. For instance, the steamers that visit the Upper Yukon unload their goods at the terminal points. From these terminal points in the winter the reindeer can convey provisions and other supplies to the miners 20,40 , or 100 miles or 100 ore, as the case may be. If a railroad should be made from Skagway, or fron Prince William Sound, or any otiner point, ino the interior, at its terminal point various reindeer expresses make possilule the distribation of the freight from the railroad to distant points in various directions from the terminus. They would likewise collect freight for the terminus. Meanwhile the reindeer can not be used as a substitute for the river or the lailroad in the carrying of freight, any more than horses or oxen can be used for that purpose, because, while the amount of freight carried by the reindeer in the winter time is considerable, it would take 10,000 reindeer to carry 1,090 tons, While one freight train or one large steamboat might carry the entire amount. It is in the distribution from terminal points and the collection for terminal points that the reindeer will be usefal.
Another point of great usefulness is the light work of carrying the mail. Great speed for small loads is the favorable condition. With relays of 25 miles each, the possible speed in winter time of reindeer expresses, carrying a light load of mail, is 209 miles a day, If a route can be found, such es the Dalton trail is said to be, from Haines to Fort Selkirk or Circle City, the relays of reindeer could carry the mail in three days to Dawson City and in four days to Circle Cioy. Feturn mail should be brought back in the same period. Supposing arailrad should be bnit to Dawson City or Circle City, the reindeer would not be useful in traversing the country over whicin the railroad passed, bat he would be very useful in connecting the terminus of the railroad in the winter time with places down the Yukon River. Even the military camp at Weare, near the mouth of the Tanana, could be brought into communication with the War Departinent by reindeer express to Circle City, taking two days for round trip, and from tho military camp near the mouth of the Tanana once a month to Point Barrow, requiring four days ont and four days back, would keep the whole country in possession of the news regarding the fate or sailors caught in the Aretic seas and the missionaries who live in that remoteregion. A similar four-days express twice a month would bring the same news from Cape prince of Wales and the missionary stations north and east of that point, and also those on the lines south and vest and those on the Yukon. Another one three days out from the new military post at Weare would give the same information regarding St. Nichael and numerous missionary posts south and southoast of that point. During the summer time the boats on the Yakon will bring the great buik of freight up to the difierent distributing points.

ESILMATES AND SUGGESTIONS FOR DISTRIBUTING REINDEER IN ALASKA, AND INDUCEMENT FOR LAPLANDERS TO BECOME SETTLERS AND HERD OWNERS.

The Lapus brought over from Lapland as teachers for the Eskimo appientices, and aiso as the basis of the reindeer development in Alaska, are inquiring in what way they, as well as the Eskimo, can secure herds of their own. From the commencement of the instruction of the native men in the management of reindeer, the Bureau of Elucation has recognized the importance of securing the cooperation of the various missionary societies at work in Arctic and sub-Aretic Alaska. Again I quote the Commissioner of Education:
It is evident that the missionary stations furnish the only safe centers for the location of herds and the establishment oshools of instruction in the rearing of the reindeer and in the training of them to harness.

As alpeady mentioned, the missions ascertain the capable and teachable youth among the natives. They are able at any time to furnish a list of the natives in their vicinities noted for good character. At each of these stations 20 or 30 youth, selected from a village population of 300 o more, can be put in training as herdsmen and teamsters. No matter how large the Government appropriation should be, therefore, it would be necessary to connect the reindeer instruetion and the establishment of permanent herds in northwest Alaska with these missionary sitations.

Let small herds be loaned to each missionary station as a Government aid in the nature of an outfit of industrial apparatus. The report of the Indian Burean shows that the United Siates Govermment finraished 10,000 head of stock for the period of $1890-1896$ for one Indian agency (the Slackfeet), and that seeds, implement, stock, wagons, harness, in large amounts, have been furnished to other agencies. These donations are certainly more justifiable than donations made to prevent the savage people from starving, for they are given, in the form of apparatus, for the instruction of these peoples in the industrial arits and in the practice of thritt. All these things prevent starvation. Just as in the agricultural colleges of the several States the Government money is used to pay for the stock of the model farm. which is used as the apparatus for the instruction of the pupils, so the reindeer herd is used as apparatus loaned to the missionary stations for the purpose of instruction of the natives. But an average of five years' apprenticeship is needed for the full training of apprentices in the management of reindeer.

Persons who have been brought up to the care of neat cattle and horses or sheep only have not thereby accuired the art oi managing reindeer, for this requires special apprenticeship. With the frst herd (that of 1892) Siberian herdsmen were procured to give instructions in these arts; but the degree of success was so small that in 1894 five families of Laplanders were obtained to take their place. The Laplanders, being a civilized people and devoid of the superstitions which embariass the Siberian natives, have attained a higher degree of skill in the mavagement of this animal, and also show greater ability in teaching others what they know. Next atter the obtaining of the reindeer the most important point, therefore, is the procurement of skilled herdsmen and teamsters fiom Norway and Sweden. It is of little use to give aherd of reindeer to a missionary station unless a skilled teacher goes with it.

The frurnishing of the properly trained Laplander is one of the chief items of expense in the introduction of reindeer into northwestern Alaska. A salary of 500 a year is necessary for each, and the distribution of the herd at the diferent points on the seacoast and in the interior is possible only in so far as the Government is able to send these experienced hordsmen and teamsters. In the course of eight or ten years there will grow up a supply of thoroughly educated natives, who will render it unnecessary to depend any longer upon Lapland and Finlaud for teachers. But it is hoped in the meanwhile that there will be some migration from Scandinavia of families oí herdsmen and teamsters.

To best accomplish the above, I would respectinlly recommend the following general plan, which embodies the suggestions made by Mr. William A. Kjellmanin from his own personal experience in the work, both in Alaska and in Lapland, in the latter of which he was born and brought up.
Loan each mission association 100 deex for five years on condition (1) that two Lapp families are kept in charge of the herd, the mission furnishing food, clothing, ete., and the Government paying the salaries for the Laplanders; (3) that at least four native men ore kept and trained to the work; (3) that the mission receive 80 per ceat of the net increase of the herd and the two Laplanders in charge 20 per coat, this 20 per cent to be held back by the Government in case the Laplanders should not become herders or teamsters; (4) that one of the Laplanders at each station occupied be appointed manager so far as herding and breaking in and the movement of the herd is concerned, the Lapp manager to report yearly to the Government inspector on his visit abont the increase and general condition, etc., the mission station also reporting to the inspector.

Estimate of increase from 100 deer in five years.


RELIEF OF THE WHALERS IMPRISONED IN THE ICE NEAR POINT BARROW.
The relief of the whalers imprisoned in the ice at Point Barrow last winter was conducted under the auspices of the Treasury Department, yet as the principal means of relief were the reindeer herds taken from Prince of Wales and Cape Nome and driven over to Point Barrow, and as those herds were a part of the fruit of the work of the Interior Department in introducing domestic reinteer into Alaska, it seems proper that some account of that expedition should have a place in this report.
Through the courtesy of the Secretary of the Treasury and Capt. C. F. Shoemaker, chief of division of Revenue-Cutter Service, I have received copies of the original reports of the officers in command of the relief expedition. From these reports and from other reliable sources I have secured the following account of the situation of the whalers and their relief by the Government expedition in charge of Lieut. David H. Jarvis, of the Revenue-Cutter Service.

On the 8th of September, 1897, the steam whalers Orca, Capt. A. C. Sherman; Jesse H. Freeman, Captain Humphreys; Belvedere, Capt. M. B. V. Millard, and the schooner Rosario, Capt. Edwin Coffin, were caught in the slush ice to the eastward of Point Barrow, the northernmost point of the North American Continent.

Early on the morning of the sth the danger was so great that the captains of the four ships had a consultation as to the best method of working their vessels out of the ice. The young ice was forming fast and a heavy ridge of old ice remained along the coast. The only method of escape seemed to be by blasting a canal
through the ice ridge a distance of about a mile and a half. A portion of the crew was at once set at work making cartridges weighing 5 pounds each, of blasting powder, gunpowder, and tonite powder, the latter of which was taken from the darting and shoulder bombs. These cartridges were placed on the ends of long poles, shoved under the ice, and exploded. A thousand pounds of powder were used and three days and nights consumed in making the canal. The remaining men of the crews were employed in sawing and poling the ice out of the canal. The fresh ice, however, formed so rapidly that the steamer Orca, in forcing its way through the canal, broke its rudder, and, becoming unmanageable, was taken in tow by the steamer Freeman. The captain of the schooner Rosario was afraid to attempt the passage through the canal, and hoped that the ice inight open and afford the vessel a safe refuge in a lagoon near by. This hope, however, was not realized.
After getting through the canal the three steamers lay to until the Orca had repaired its rudder, and then steamed south 45 miles through increasing heavy ice to the neighborhood of Sea Horse Islands, which were reached September 22. On that date the steamer Orca, which was in the lead during the breaking and forcing of the ice, was caught between two immense ice floes, which wrenched the sternpost and steering gear completely out of place and hurled the wheel through the pilot bouse, the officers and crew taking to the ice for safety. Many of the officers and crew passed over the ice to the steamer Freeman. Shortly after the Freeman herself was caught in the ice jam and all on board took refuge on the ice. The steanner Belvedere, which had reached open water, immediately steamed back into the ice and rescued the officers and crew of both vessel. The wind blowing a gale from the westward forced both the old and young ice landward, and nothing was left for the Belvedere but to move with it. doing which the ship succeeded in getting into Pearl Bay, the heavy ice grounding outside and making a refuge behind it.

The Belvedere now had its own crew of 45 men, the 43 men from the Orca, and the 49 from the Freeman. Abandoning all hope of getting out of the ice, on the 23 d of September the sailors commenced sledding provisions from the ship over the ice to the Sea Horse Islands, a distance of 3 miles. The water was pumped out of the casks to lighten the ship and the bulkheads were tom down for the purpose of making houses on shore. The blacksmith commenced making cooking stoves from the coal-oil drums, and others were set to work cutting a canal through the ice to enable the ship to get in behind the islands for greater saiety, all the arrangements being made to winter at that spot. While these arrangements for camping on shore were going on, Mr. Charles H. Walker, fifth mate of the steam whaler Orca, volunteered, with a couple of natives, to go across the ice to the steamer Orca and save all the provisions they could, agreeing to make a signal upon his safe arrival at the vessel. The Orca was.lying 12 miles away, with the ice between the two ships full of holes and the pressure of the heavy ice constantly making large cracks in the new ice.

On the 28th of September, failing to see any signals from the Orca, Mr. George F. Tilton, with four natives, was sent to learn the fate of Mr. Walker and his companions. After six hours' hard work the ship was reached and Mr. Walker and his men were found well and busy saving provisions. The ship was nearly full of water, and the provis:ons had to be fished out with long-handled bow hooks. In the meantime both ship and ice were drifting all the time. While engaged in securing the provisious a peculiar tremor was felt, the ship careened slowly over on its side and gradually slid under the ice floe and was soon completely hidden from sight. The men, having escaped to the ice, at once commenced sledding the provisions they had saved to the south send spit of the Sea Horse Islands, which were about 3 miles to the westward. The moving of the provisions consumed two days. Some Eskimo were secured in the neighborhood with two teams of dogs, and on the sixth day all the food saved from the Orca was safely put on the steamer Betredere. While the work of saving provisions from the steamer Orca was going on, some Eskimos boarded the steamer Freeman to help themselves to the provisions which had been left in that vessel when the sailors took to the ice. While engaged in looting the ship they accidentally dropped a lighted lamp, which set fire to the vessel, and it burned to the water's edge.

On the $3 d$ of October Captains Millard, Porter, and Sherman, after consultation, determined to send to Point Barrow for help. Stephen Cottle, second mate of the Betvedere, and the four or five men of the steamer Frceman volunteered to go. It was a trip of 65 miles on foot, and it took three nights and two days to make it.

Mr. Charles D. Brower, superintendent of the Liebes Whaling Station, at once dispatched his assistant, Alfred Hopson, with six dog teams, to the rescue of the whalers, arriving at the steamer Belvedere on October 7. Forty men with provisions were immediately sent to Point Barrow, some of the men being so sick and feeble that they had to ride the entire distance. The trip was made in fout days.

Returning to the Belvedere on Octobar 13, Mr. Hopson made the trip in twentytwo hours. On the second trip he took 64 men and some provisions to Point Barrow. On the 15 th of October the captains reached Point Barrow for a consultation.

Inventories of all the provisions on the Belvedere, at Point Barrow, and on the four whalers which were in the ice to the eastward of Point Barrow were made and placed before them. These were carefully gone over, and it was decided that by allowing each man two scant meals a day the provisions could be made to hold out until the 1st of July following. At Point Barrow the officers of the firstnamed vessels learned that the stcamers Fearless, Capt. James McKenna, and Newport, Capt. G. B. Leabett, were in heavy ice, 5 miles off shore and about 60 miles to the eastward of the point. The steam tender Jeanie, Capt. P. H. Mason, was about 75 miles east of the point, and the barik Wanderer was about 360 miles east of the point, being within 90 miles of Herschel Island.

During the conference at Point Barrow it was decided to make an effort to send word to San Francisco, and volunteers were called for. Mr. George F. Tilton, third mate of the steam whaler Belvedere, and Mr. Charles F. Walker, fifth mate of the steam whaler Orca, were accepted for the trip. After every provision was made for their comfort, at noon on October 22 both expeditions left for the States, Mir. Tilton following the coast south of St. Michael and Shelikoff Straits, and Mr. Walker by the way of Herschel Island and up the Mackenzie River by way of the Hudson Bay Fur Company's posts to Edmonton, on the Canadian Pacific Railway, from whence he reached civilization.

Mr. Tilton was accompanied by two Eskimorunners, who had agreed to accompayy him as far as Point Hope, which place they expected to reach in about fifteen days. It was on the $3 d$ of January, when between Unalaklik and St. Michael, on Norton Sound, that Mr. Tilton met Lieutenant Jarvis and party on their way north to relieve the whalers, the news of the disaster to the fleet having been previcusly communicated to them. St. Michael was reached on January 6. Leaving St. Michael on the 16 th , a trip of 320 miles, crossing mountain ranges, through a storm that destroyed some of their dogs, brought the party to Andreafski, on the Yukon River. In the winter of 1896-1897 William A. Kjellmann, superintendent of the Government reindeer stations. had made the same trip over the same mountains in the same kind of a storm with reindeer without any loss.

Securing fresh dogs at Andreafski, the journey was continued 180 miles across the portage to the Kuskokwim River. At that point, needing a fresh team of dogs, the fraders at the place asked Mr. Tilton $\$ 1,000$ for them. This would have prevented any further progress of the expedition had not the Rev. John H. Kilbuck, Moravian missionary at that place, loaned Mr. Tilton 13 dogs, provided provisions, and accompanied him as guide for 350 miles on his way to the next Moravian station, which was at Carmel, on the Nushagak River, arriving there on the 22 d of February. At this point Rev. John Schoechert, missionary, supplied a fresh team of dogs and accompanied him as guide to Katmai, on Shelikoff Strait, a distance of 400 miles. These unpaid services of the missionaries are instances of the ready help extended to people in similar extremity everywhere by the missionaries. At Katmai an old dory was secured and mended up, in which a passage was made across the dangerous Shelikoff Straits to Kadiak Island. From Kadiak Island passage was secured on the steamer Albion, reaching Portland, Oreg., April 8.

While these events were transpiring in the far North it began to be noised abroad that a portion of the whale fleet had been caught and imprisoned in the arctic ice.

On the 3d of November Captain Tilton, of the steam whaler Alexander, reached San Francisco and reported that eight whalers were fast in the ice east and west of Point Barrow. and not being provisioned for so long a stay, the crews were in danger of starvation. This news was confirmed on November 5 by the arrival of the whaling vessels Jeannette, Karluk, Gayhead, and Alice Kuowles. The attention of the President was called to the danger of the whalers, and at a Cabinet meeting held on the 8th of November it was decided to send a relief party at once, and the revenue cutter Bear, that had just returned from its usual summer arctic cruise, was ordered to make the necessary preparations and proceed as socn as possible to Bering Sea. It was the purpose that the Bear should proceed north until it reached the ice, and then land a party that should go to Point Barrow and take control of the whalers. As no practical plan could be devised to enable the relief party to take provisions with them, it was determined to borrow a herd of reindeer owned by the Eskimo at Cape Nome and a second herd owned by the American Missionary Association at Bering Straits. These reindeer were to be tarsen by the relief expedition to Point Barrow and, so far as needed, slanghtered for food. The trip being one of great hardship and danger, the Department called for volunteers to man the ship, and finally selected the following officers: Capt. Francis Tuttle, in command of the Bear; First Lieuts. D. H. Jarvis and J. H. Brown; Second Lieuts. E. P. Bertholf, C. S. Cochrane, J. G. Berry, B. H.

Camden, and H. G. Hamlet; Chief Engineer H. W. Spear; First Asst. Engineer H. N. Wood; Second Asst. Engineers H. R. Spencer and J. I. Bryan, and Surgeons S. J. Call and E. H. Woodruif. Lientenants Jarvis and Bertholf and Dr. Call were designated for the overland trip. Lieutenant Jar vis, who had made eight trips into the Arctic Ocean and was acquainted with the native population along the whole coast, was placed in command.

On the 29th of November the Bear, bidding adieu to civilization, steamed out of the harbor of Port Townsend in a blinding snowstorm on its perilous voyage. After a rongh passage Unalaska was reached, in a thick snowstorm, December 9 . The extra supplies for the whalers that would not be needed until the following summer were sent ashore. Taking on coal and water at Dutch Harbor at $1.35 \mathrm{a} . \mathrm{m}$. December 11, the Bear headed north into Bering Sea, in a storm of hail, rain, and snow, its objective point being Sledge Island, where it was hoped the overland party could be put ashore. On the morning of the 13th St. Lawrence Island was passed, but soon after the ship entered mush ice and a hittle later the floe ice, Which was so rapidly solidifying under the infuence of the severe cold that at $5 \mathrm{p} . \mathrm{m}$., when within 75 miles of Sledge Island, fearing the vessel would become permanently fast in the ice, the effort to reach Sledge Island was given up and the vessel headed toward Nunivals Island, with a hope of being able to reach Cape Vancouver. This wonld increase the length of the overland journey 800 miles, but it seemed to be the oniy point where a landing could be made. Cape Vancouver came in sight on the morning of the 15 th, but was surrounded with young ice as far as the eye could see from the crow's-nest of the ship. After working slowly through the ice until the midale of the afternoon it was found that the village shown on the chart did not exist. It was rapidly growing dark, and just as the attempt was abont to be given up for the day a village was dimly made out farther up the bay. On the morning of the 1eth the ship got undervay and made an anchorage near the village of Tununok. The local trader, Alexis Kalenin, and a party of natives were soon on board. They informed Lientenant Jarvis that they expected to siart soon themselves for St. Wichael and would pilot his party. Accordingly arrangements were immediately made for landing the expedition and then supplies, This was accomplished with great difficulty, as the ice was runaing heavily between the ship and shore. Having landed the party, the Bear returned to Dutch Harbor, Unalaska, for the winter.

The expedition consisted of Lieutenants Jarvis and Bertholf, Dr. Call, and Mr. F. Koltchoff. The latter was engaged as a guide and to drive the dog teams. Upon reaching the house of the trader it was decided not to start for St. Michael until the 18th, the intervening time being employed in geting everything ready. The start was made early on Saturday morning, the 18th, with four teams and Alexis for guide.

On the evening of the 20th they arrived at Kiyiligamute. At that point, two of the dog teams having given out, the party was divided, Lieutenant Jarvis and Dr. Call pressing ahead, while Lientenant Bertholf and Alexis and Koitchofa were to wait until chey could get fresh teams. Lieutenant Jarvis reached Andreafski on the 24th and St. Michael on the 30th. The second party left on the 22d and reached St. Michael on New Years' Day, two hours after Lieutenant Jarvis had left for the north. Before leaving, Lieutenant Jarvis leit instructions for Lieutenant Bertholf to proceed to the head of Norton Sound and transport the provisions across to Kotzebue Sound, while he and Dr. Call went to Cape Nome and Cape Prince of Wales to procure the herds of reindeer at those places. At Sit. Michael Mr. Koltchoff was discharged, and soon after engaged as guide for Mate Tilton on his return to the States. Great difficulty was met in procuring a sufficient number of sled dogs to enable the party to reach the reindeer. After many hardships, on January 10 Lieutenant Jarvis reached the Government herd en route between Port Clarence and Unalaklik. The next morning arrangements were completed and the party started with reindeer teams from the Government herd for Tsuynok, where Antisarlook and his friends had a herd of domestic deer. After refreshments and rest, Lieutenant Jarvis commenced negotiating for the herd of reindeer at that point. The herd represented to the Eskimo the living of a whole village, and it the herd departed it might mean starvation to themselves before spring, so that there was much point as well as pathos in the answer of Antisarlook's wife when she sad d : "Tell Mr. Jarvis we are sorry for the people at Point Parrow and wo want to help them, but we hate to see our deer go, because we are poor and our people in the village are poor, and in the winter when we can not get seals we kill a deer, and this helps us through the hard times. If we let our deer go what are we to do? Antisarlook and I have not enough without them to live upon."

It seemed like reducing these people to starvation in order to save others, and in giving up their herd of deer for the sake of others it was like giving up their own
lives; yet, after consultation among themselves, it was finally agreed to, and Antisarlook was employed to go with his herd. At this place were 133 deer, 22 belonging to the herders. In making the arrangements, as there were 100 cows, Antisarlook was allowed an increase of 85 , so that it would raquire 220 deer to lo delivered to him next year to make good the promise of the United States Government to return him a herd of equal size, three having been killed for food for Antisarlook's family.

Having given Antisarlook's wife an order on neighboring stores for food supplies, and leaving Dr. Call to take charge of Antisarlook's herd and drive thom up to the Teller Reindeer Station, Lieutenant Jarvis pushed forward to Cape Prince of Wales to get the second herd. While Dr. Call and his party were on their way to the Teller Station they encountered a blizzard so severe that the deer, blinded by tho flying snow, turned and trampled over the drivers-however, without serions damage. They were compelled to retreat for three hours, when they found an old fishing hut and climbed in at the window. There they mere held by the storm for three days, with only food suniciont for two days, and a loug trip still before them.

On the 23 th they made another start and reached the station on 级e 2 ath, justas a fresh blizzard was commencing. Lientenant Jaryis reached Cape Prince of Wales on the 24 th of January. On delivering to Mr. Lopp his mail, and explainlug to him the necessity and object of the expedition, he had no difficulty in securing the herd of 301 deer at that place, with the agreement that 432 dear shoald bo returned to them by the Government the following season. It was also agreed that Mr. Lopp and his herders should accompany the expedition, in charge of the reindeer. Arrangements had been made, and it was proposed that Mrs. Mopp and the children shonld go to the Teller Reindeer Station, from 60 to 75 miles distant, to remain with the Rev. and Mrs. Brevig; but the discomforts of the trip wereso great, and she had such entire confidence in the affection of the Eskimos, that ghe concluded to remain at home, being with her chidren the only English-speaking persons in a community of 500 Eskimos.

On the 2gth of January Dr. Call and party left the Teller Station and crossed the mountains, where they expected to form a junction with Lieatenant Jarvis and the reindeer herd from Cape Prince of Wales. The weather was thick and unpleasant, the barometer sinking rapidly, but, being in need of haste, the party pressed on through the storm and the mountains es best they conld. Passing orer the mountain range they were met by a storm so severe that they had to go into camp, aizd no sooner was the tent erected and covered with s? eds to hold down the canvas, than it was drifted over with snow so deep that the following day it took them two hours to dig their way out. In the meantime the deer were scattered by the storm, and it was noon of February 1 before they were able to gather the herd together again. In the afternoon of February 2 a junction was made with Lieutenant Jarvis and the herd. The following day a start was made with 435 reindeer, of which 18 were broken to harness and reserved for transportation purposes.

On February 6 Lieatenant Jarvis and Dr. Call pashed on ahead for Sineraget, a village on the coast, en route for Point Hope, leaving instructions for Mr. Lopp to follow with the herd and meet him at Pitmegea, just north of Cape Lisbon. The route lay along the northern part of Cape Prince of Wales peniasula, about 15 miles from the coast, where deer moss was plentiful, to Cape Espenburg.

On the 12 th of Febrary Lientenant Jarvis and Dr. Call reached Cape Espenburg, and although the ice on Kotzebue Sound was broken and piled up in a manner to deter an efiort to cross it, they concluded to make the attempt and succeeded in crossing the sound to Cape Blossom, 50 miles away. Near Cape Blossom was the missionary station of the Friends, occupied by Mr. and Mrs. Robert Samms and Miss Hunnicutt. Here Lieutenant Jarvis mat Lientenant Bertholf, who had crossed from Norton Sound with 1,000 pounds of provisions, reaching the mission station on the 10 th of February. After resting a few days, Lientenant Jarvis and Dr. Call left on the 10 th for Point Hope, leaving Lieutenant Bertholf to await the arrival of Mr. Lopp and the herd and then to follow northward.

On Eebruary 16, Mr. Lopp, with the deer, reached Cape Espenburg and held a consuitation with reference to the possibility of driving the deer and taking the sleds across thie broken ice covering an arm of the Aretic Ocean from Cape Espenburg 40 miles to Cape Krusenstern. After much hesitation it was decided to make the attempt. During the first day the reindeer made 30 miles; in many places the attendants had to sut a road over hummocks of broken ice. The second day food gave out for the drivers, and of course there was no moss for the deer on the ice. The reindeer, remembering that they had left fields of moss behind them, continually broke loose to return over the ice. This made it very difficult driving, and they were out the second day and all the second night, without food,
before reaching land again at Cape Krusenstern. There, receiving a letter from Lieutenant Jarvis informing him that Lieutenant Bertholf with supplies was at Cape Blossom, Mr. Lopp, leaving the herd, went to meet Lieutenant Bertholf.
Loading the supplies on reindeer and dog teams, a start was made for the herd at Aneyok village, which was reached on the 19th. The deer having rested, a start was made on the 21st, following along the coast as far as the mouth of the Kevuleek River, where Mr. Lopp, with the deer, was to proceed injand, leaving Point Hope to the westward. Lieutenant Bertholf, taling a team, proceeded direct to Point Hope, reaching there on March 2. Finding a considerable store of provisions at Point Hope, Lieutenant Jarvis instructed Lieutenant Bertholf to remain there and take charge of any whalers that might be sent down during the winter. Lieutenant Jarvis and Dr. Call, having made all necessary arrangements at Point Hope, left on March 4 for Point Barrow. Lieutenant Jarvis had instructed Mr. Lopp to meet him at Petmegia, just north of Cape Lisbon. When Lieutenant Jarvis reached the place of meeting, all that was visible above the snow was a wooden cross, with this inscription: "Letter between boards; arrived here March 7; look out for the train." Just below the board, stuck in the snow, was a second board, on which was written: "Deer meat here."

On the 13th of March they reached the camp vacated by the herd that morning, and on another cross found a note reading: ' Will try to find better moss on the inside of the lagoon. Leave here March 13." During the 14th a storm of unusual severity raged, thermometer registering 40 degrees below zero. The same storm continued through the 15 th and was worse on the 16 th . To add to the distress and danger of Lieutenant Jarvis, his dog teams had nothing to eat. About noon on the 17th a party of natives were discovered, who brought a note from Mr. Lopp stating that he had left there that morning, and soon after the herd was seen on the horizon, moving over the rolling white hills. Lieutenant Jarvis pushed his team ahead to overtake the deer 10 miles away. Arrangements were made to meet Mr. Lopp at Icy Cape. Arriving there on the $2 \%$ in a fearful storm, nothing was seen of the herd, which during the storm had passed within a mile of the camp. On the next day a board was found with the message: "Arrived here 1 p. m. Tuesday, March 22. Think we are passing" Icy Cape. Find meat in the month of the cache. Think sledge deer will hold out. Find better moss on the inside of the lagoon." This was welcome news to Lieutenant Jarvis, for it meant that he could save his dog teams from starvation.
At noon on March 26 Lieutenant Jarvis, looking over' the ice, exclaimed: "There is the first of the imprisoned fleet," as he caught sight of the tall mast of the Belvedere, 12 miles away.

Point Barrow was reached by Lieutenant Jarvis on March 29, and the herd of reindeer arrived on the 30th, safe and sound.

Thus successfully ended a trip of $2,000 \mathrm{miles}$ through the desolations of an arctic wilderness in midwinter, over an unknown region, and among many wild tribes. The narrative of the trip is a story of bravery, good generalship, heroic endurance, and interpositions of Divine Providence-a trip only equaled by that of Mates Tilton and Walker, who went out with the news, and the return trip of Mr. Lopp to his home at Bering Straits.

Turning over the herd to Lieutenant Jarvis at Point Barrow, Mr. W. T. Lopp, taking a dog team, started on his return trip to his own home at Cape Prince of Wales. As provisions had been left for himself and the dogs in caches along the way, he was able to travel light. On his return trip he reached Point Hope April 19, left on the 23d, and reached Cape Prince of Wales on May 5, thus having, together with his herders, driven a herd of reindeer over the bad roads of snow and ice, through a country but little known, in the middle of winter, dragging all his provisions with him, a distance of $\gamma 00$ miles, and returning to his home the same distance, in the remarkably short time of three months and two days.

It has frequently been said during the efforts to introduce domestic reindeer into Alaska that the Eskimos could not be taught their care and management, and that they would never take to herding reindeer, but on this remarkable trip it must be remembered that the herders and drivers were all Eskimos who had learned their business as apprentices at the Government training station for reindeer, and that without this herd of reindeer food could not have been taken to the whalers, and without the trained Eskimo the reindeer could not have been driven across the country. This striking object lesson should forever set at rest the assertion that the Eskimos will not take to the raising of reindeer if a chance is given them.

From Cape Prince of Wales to Point Barrow the expedition found abundant pasturage for the reindeer. It passed through numerous villages of natives, who were greatly interested in the herd of reindeer, not only as a matter of curiosity, but because they appreciated the benefit that a herd of domestic reindeer would
be to them and their people. Wherever they went the natives questioned Lientenant Jarvis with regard to the possibility of their securing some reindeer for themselves and their children. If the deer were to be had in sufficient numbers, hundreds of the Eskimo men would gladly serve an apprenticeship of five years in order to get a start in reindeer raising.

In this connection it is appropriate to call public attention to the influence of the mission schools in making arctic Alaska safe for the transit of white men. In 1890, when the Congregational Mission was established at Cape Prince of Wales, no whaler had dared drop anchor in the neighborhood of that village for ten years; and the placing of missionaries there was considered by the captains of the whalers as a foolhardy undertaking. The missionaries were placed there, and now ships can anchor and their crews go on shore with safety.
'Nhen, in 1881-1883, Lieutenant Ray, United States Army, was placed in charge of the international polar expedition at Point Barrow, a turret was built at one comer of his house and armed with cannon to protect his party from the natives. Now the Presbyterian Mission has so civilized the natives that no fortified habitation is necessary. Under the influence of the Presbyterian missionary the natives not only provided the shipwrecked sailors with food from their own scanty supply, but also with necessary fur clothing. The infuence of the missions made possible Lieutenant Jarvis's heroic trip unarmed.

Aiter the departure of Mr. George F. Tilton, October 22, to carry the news to the States, Dr. H. R. Marsh, Presbyterian missionary at Point Barrow; Mr. Charles D. Brower, agent of the Liधbes Whaling Company, and Mr. Mcilhenny, a scientist making an arctic collection, the three leading white residents of the point, inmediately set themselves to provide for the welfare of the shipwrecked whalers that had been thrown upon their hands. Mr. Brower at once arranged to issue rations from his stores to the men: the Eskimos were sent into the surrounding country to get wild game, both for themselves and the suffering whalers; Dr. Marsh gave his time and medical services to saving the men from scurvy and other diseases that would otherwise have caused the loss of many lives; all the houses in the place were put at the disposal of the wrecked men, each one taking into his own home all that could be accommodated.

During the latter part of November, when it seemed that starvation awaited them, small herds of wild deer were seen on the rolling hills to the south of the village, a thing that had not been known for many yearis. so that the natives were able to procure for the use of the community 12,604 pounds of deer meat, 8,692 pounds of fish, and 2,506 pounds of wild fowl, with some 2.500 to 3,000 pounds or more of meat in the country, which was afterwards brought in by the deer men and sledges, wader the direction of Lieutenant Jarvis. Some of this meat was hauled a distance of 230 miles. This unusual and providential supply of deer meat kept the party alive until the arrival of Lieuterant Jarvis with his herd of domestic reindeer. During the remainder of the winter 180 deer were killed from the domestic herd.

On the 29th of July, 1897, the steam whaler Navarch was caught in the ice about 2 miles west of Point Barrow and carried by the ice pack to the northwestward. On August 3 the ship was abandoned, the crew taking to the three boats, which were dragged for three days over the ice and then abandoned, each man taking such bread as he could carry. After going a little farther they met with open water, and were finally compelled to return to the ship, 18 miles distant.

On the 11th of August 29 of the crew deserted the vessel for the shore. On the evening of the eighth day from the ship coming to the pack they got upon a small cake of ice. which drifted them inshore for three days, and on the 220 of August they were seen and picked up by the steamer Thrasher, having had nothing to eat for eight days but ice and boot soles, only 16 of the 29 living to be rescued.

On the 14 th of Augnst Captain Whitesides and his wife and six of the crew left the vessel, dragging a small canvas canoe with them. After many dangers and great hardships they succeeded in reaching the shore, and three days later were discovered and picked up by the revenae cutter Bear. Nine of the vessel's crew refused to leave the whaler, deeming it safer to remain on board than to risk the journey over the ice; seven of these, however, later made the attempt to reach the shore and were saved. Two of the sailors refused to leave the vessel and have never been heard from. Very strangely, however, the Nararch, which had been caught in the ice in July and abandoned, after making a trip by itself into the far north drifted back into the neighborhood of Point Barrow four different times, the last time to within $2 \frac{1}{2}$ miles of the shore and was caught and held firmly by the ice. Each time that she approached the village, wrecking parties were sent across the ice to secure the coal and provisions which had been left on the steaner when she was abandoned six montws previously. This coal was of the utmost service during the winter, as the drifttrood along the shore had been used up and
the coal supply was very short. After all the provisions and nearly all the coal had been removed, about 4 o'clock on the evening of September 3 the vessel was seen to be in flames and burned to the water's edge, the fire having been started by two of the sailors, who received their punishment later, when during the winter there was not fuel enough to keep them comfortable.

Upon his arrival Lieutenant Jarvis made a tour of inspection and found that there were 100 men quartered at the village, 70 of whom were crowded in the old building formerly occupied by the Pacific Steam Whaling Company. At the request of Lieutenant Jarvis, Dr. Marsh, Professor Mcilhenny, and Mr. Brower consented to an increase of the number already quariered upon them; in the meantime a storeroom had been sufficiently emptied of provisions so that a number of them could be placed in that. This made them more comfortable. There being much suffering on account of scanty and insufficient clothing, Lientenant Jarvis secured a large amount of fur clothing from the Eskimos, which was freely contributed from their stores for the use of the men. Lieutenant Jarvis took command of the station, iseued rations, commonicated with the various ships, sent out parties of native hunters, which brought in supplies of wild meat, and so controlled matters that when the Bear was finally able to reach the place and take of the men they were found in much more comfortable circumstances and healthier condition than could have been expected.

The schooner Rosario, after wintering safely, was crushed in the ice July 2. Captain Neuth, of the Jeannette, who was sick, was brought down on the Bear. A petty officer of the Orca had committed suicide by drowning early in the spring. In June Phil Mann, of the whaler Jessie Freeman, had dropped dead of heart failwre. Gray, of the steamer Jeonie, had died of the dropsy. A Siberian and a Japanese attached to the fleet had also died.

There being indications that the ice was breaking up in Boring Sea, the cutter Bear left its winter quarters at Unalaska and Dutch Harbor on the $14 t h$ of June, and sailed north for Point Barrow.

On the 19 th , to the north of St. Lawrence Island, heavy ice was encountered, slowly working its way through which the ship reached St. Lawrence Bay, Siberia, on the 22d, and the following day reached Cape Prince of Wales, where an interview was had with the missionary, W. T. Lopp, who gave the captain a full account of the condition at Point Barrow while he was there. Learning that there was a scarcity of clothing among the whelers, Captain Tuttle turned back and steamed over to St. Michael, where a supply was laid in. Returning to Bering Straits and passing into the Arctic Ocean, Point Hope was reached July 15 and Point Lay on the evening of the 18th. Off lcy Cape the heavy drift ice prevented further progress northward, and compelled the Bear to anchor off Point Lay. Another fruitless effort was made on the $22 d$, and also on the 29d, to force the vessel through the ice. On the 25th, the ico opening a little, an effort was made to reach Wainwright Inlet, but before doing so the fog shut down so thick as to compel the ship to anchor.

On the 2 th another start was made, and by pushing through the heavy drift out to sea they were able to reach the station at Cape Smyth on the morning of the 28th. On the 296 h 93 oficers and sailors were taken on board.

While waiting for the crew of the Rosario, which was 8 miles away, the Bear was subjected to a terrible ice jam and nearly crushed. There was a high ridge of shore ice between the cutter and the shore, behind which, in open waters, the three whaling vessels-Fearless, Newport, and Jeanie-were safely at anchor, but all access to which was closed by the ice, so that the Bear could not get in. A strong southwester had set in, drifting the ice floes with great force against the Beur, which was caught between them and the ridge of shore ice, and the staunch vessel came near being cut to pieces. A sharp ledge of ice under water abreast the engine room pashed in the sides of the vessel unitil the floor of the engine room was bent up fully 6 inches. In this jam the cutter was kept for two weeks, until Augrast 17, when it got out by blasting through two ship's lengths of ice.

Getting afoat, sufficient coal and provisions were given the whalers to enable them to reach other supplies, and the Bear started on its retrurn to civilization. A stop was made ai Point Hope on the 20th, where it was found that the schooner Louise. J. Kenney had been forced on the beach by the ice on the previond day. Her officers and crew were taken on board.

Aiter making several stops the Becur arrived at St. Michael on the 25th of August, and reached Seattle on the 13th of September, where a congratulatory telegram was received from the Secretary of the Treasnry extending thanks to the officers and crew for the successful issue or the work of the overland expedition for the relief of the ice-bound whalers.

It remains for a grateful contry, that rewarded the heroes of Manila and Santiago with promotions, to see that Lieutenant Jarvis be not forgotten. Had not
the events of the Cuban war distracted the attention of the nation, this wonderful trip of 2,000 miles overiand, north of the Arctic Circle, in midwinter, woald have filled the columns of the newspapers on this continent and in Europe. Occurring at a time when other events claimed the attention of the public, it is no less deserving of its reward.

## COMMISSION TO LAPLAND.

On the 28d of December, 1837, I was directed by the Secretary of the Interior to report to the Secretary of War for temporary duty in connection with the duties en, ined by the act of Congress approved the 18th of December, entitied "An act authorizing the Secretary of War, in his discretion. to purchase subsistence stores, supplies, and materials for the relief of people who are in the Yukon River country, to provide means for their transportation and distribution, and making an appropriation therefor;" and on the same date (December 23) I received written instructions from the Secretary of War to proceed at once to Norway and Sweden and purchase 500 reindeer, broken to harness, with sleds, harmess, and drivers for hauling supplies into the Yukon Valley and transport the same to the Uuited States.

Lieut. D. B. Devore, U. S. A., was appointed to accompany me as disbursing officer.
On the evening on the same day I left $\frac{10 r}{}$ New York, and on the following day held conferences with the managers of the several trans-Atlantic steamship companies centering in that city with reference to the transpoitation of the reindeer and Lapps to the United States.
In the spring of 1894, acting for the Bureau of Education, I had brought to the United States seven Lapp families to take charge of the domestic reindeer that the Government had commenced introducing into Alaska from Siberia and to teach the natives the management of the same. These families came under a three years' contract, at the expiration of which they were to be returned to Lapland, if they so desired. The limit having been reached in 1837, four famijies asked to be returned to their homes, which was done, and Mr. William A. Ejellmann, superintendent of the reindeer stations in Alaska, was sent in charge of them, with the donble purpose of not only conveying them safely to their native country, but also to procure a number of Lapps who would come to the United States with the expeetation of making it their permanent home and engage in the raising and training of reindeer in Alaska. Consequently, when this unexpected demand of the Government for reinderr and Lapps arose, in accordance with the directions of the Secretary of War, I telegraphed Mr. Kjellmann from New York of the changed conditions and instructed him to engage and send out all the assistants he could use to expedite the purchase of reindeer and the securing of Lapp colonists.
On the evening of December 24. Lieutenant Derore and myselt took passage on the steamship Lucania, of the Cunard Line, and eanly Christmas morning were on our way to Liverpool, which we reached at noon December 31. Upon the arrival of the steamer we were met by representatives of the White Star Line, who wished to bid for the transportation of the reindeer. After a conference with them we took the train to London. On New Year's morning I received a telegram from Mr. William A. Kjellmann, agent of the Department of the interior, who had reached Norway, asking for funds. This was in answer to the telegrams from the Secretary of War to proceed at once to purchase reindeer.
The Lapps, who alone have the reindeer for sale, are a semicivilized people, unaccustomed to commercial methods. They have no confidence in a "promise to pay." A would-be buyer must show his money, and at least make a partial payment at the time of purchase. Hence Mr. Kjellmann could accomplish but little until he had funds in hand.

Although it was New Year's Day, we found that the banks would be open during the forenoon, and Lieutenant Devore and myself proceeded to visit the leading bankers and telegraph companies of London, but, strangely, no one could suggest any method of getting money to Mr. Kjellmann sooner than by sending a check by mail. As there was a prospect of considerable delay in chartering a steamship, we decided in the afternoon that Lieutenant Devore should remain in London and secure a steamer and that I should push on to Lapland with money for Mr. Kjellmann.
January 3 I learned at the office of the Atlantic Transport Steanship Company that the department of agriculture of the English Government, to protect English cattle from the foot-rot which had broken out in southern Sweden among some of the cattle, had recently issued a circular forbidding the introduction into England of any stock from Norway and Sweden. Not only was stock of all kinds forbidden
to land in England, but ships carrying such stock to other countries were to be quarantined twenty-one days before being allowed to load other cattle to return to England. As this threatened to greatly increase the expense and the difficulty of chartering a ship, I proceeded to the American embassy, where it was suggested that I visit the British department of agriculture and talk over the matter unofficially with the officer in charge, and find out if any official action would be necessary. I found that the officer wanted was the first assistant secretary of agriculture. He tools much interest in the proposal to procure reindeer to relieve the destitute miners in the Yukon, and suggested that we secure a steamer not engaged in the cattle trade and take the reindeer direct from Lapland to America, which suggestion was afterwards carried out.
Leaving London on the evening of January 3, I reached Christiania, Norway, on the morning of the 6 th.

At $10 \mathrm{a} . \mathrm{m}$. I presented the American consul, Mr. Henry Bordewich, of Minnesota, a letter from Secretary Sherman to American officials in Sweden, Norway, and Denmark, to render all possible aid in securing reindeer. In company with the consul, a call was made upon the secretary of the interior of the Norwegian Government, who gave me a circular letter to the Norwegian officials in Lapland requesting them to exiend all assistance in the enterprise.
On the morning of January 7 I took the train for Trondhjem. After leaving Hamar the train crosses over from the vicinity of Lake Mjosen to the valley of the celebrated River Glommen, along whose winding banks it gradually ascends until the high mountain levels are reached in the neighborhood of Roros, on a dreary and inclement plauteau, 2,060 feet above the water. This is a famous region for reindeer moss.
At midnight I reached Trondhjem, and taking an omnibus was soon settled at the Grand Hotel. On January 8, as soon as the banks were opened, I made a deposit of $\$ 1,000$ for Mr. Kjellmann, which was telegraphed to Alten, Lapland, to his credit.
Owing to its nearness and accessibility by rail with the mountain plateaus, Trondhjem is one of the best markets in Norway for procuring reindeer moss. A few weeks previously Mr. Kjellmann, while en route to Lapiand, visited the traders and farmers in the neighborhood and arranged for several hundred tons of moss to be delivered at Trondhjem. I now completed that purchase of moss, and arranged with Mr. E. A. Tönseth's commission house for its reception and shipment upon the steamer that was to be chartered to carry the reindeer, and which would call at that harbor for the moss.

At miadnight, upon the arrival of the train and mail from Christiania, the steamer Vestercalen sailed for Tromsoe.
At $5 \mathrm{a} . \mathrm{m}$. January 11 I reached Tromsoe, and, transferring from the steamer Vesteraalen to the Sigurd Jarl, at $7 \mathrm{a} . \mathrm{m}$. the steamer was on its way to Hammerfest, which place we expected to reach the same evening, but the sea was so rough and the snow squalls so blinding that we did not get there until 2 o'clock the following day.

About $20^{\circ} \mathrm{clock}$ in the afternoon of January 12 we dropped anchor in the harbor of Hammerfest, the most northern city in the world. At this season of the year the sun is not visible from November 18 to January 23. The city is lighted with electric lights. It carries on a busy trade with Russia and also with Spitzbergen.

As soon as the ship dropped anchor I was transferred by rowboat directly to the steamer Nor. This was one of the small steamers which makes side trips up the fiords, the special route of the Nor being the Alten Fiord, at the head of which lies the village of Boselop, which was my destination.

Soon after my arrival I was handed a number of telegrams with reference to the work in hand.

On Sunday morning, January 16, Mr. Kjellmann arrived from the interior, ha ing been delayed two days on the mountains, where he was lost in a blizzard, riding nearly all Friday and Saturday nights and the intervening day without sleep. He reported the welcome information that the 500 trained reindeer that had been ordered, together with sleds, harness, and 50 drivers, had been secured. He had sailed from New York December 1, 1897, and reached Bosekop, Lapland, on the $23 d$.

While passing through Washington, November 30, he had a conference with the Cominissioner of Education and the general agent of education for Alaska, at which time he was informed that possibly Congress would make an appropriation for the relief of the miners in the Yukon Valley, and if so he might be called upon to purchase reindeer and procure drivers for the same; in view of which he was directed while en ronte to make such inquiries that if telegwaphed to procure deer he could do so with but little delay. Therefore, on his arrival, December 12, at Aalesund, the first port reached in Norway, he telegraphed to various centers
where it was thought reindeer moss could be had in quantity, the replies to be sent to him at Trondhjem, which place he reached the next day. Arriving at Trondhjem, he found that the only place where the moss could be had in abundance was at Roros. Accordingly, on the 14th he took the train to Roros, and on the 15 th went around among the farmers investigating the supply. Finding that a sufficient quantity of moss could be had, he arranged with Mr. A. Sikjerdingstad, a local merchant, to procure and ship 2.50 tons, if it shonld be wanted. On the 16th he returned to Trondhjem, and on the 18th took the mail steamer Vesteraclen for Tromsoe, where he arrived on the 21st. Transferring to the connecting steamer, Hammerfest was reached on the 22d. At Hammerfest he received a cablegram of December 22 , from the Secretary of War, asking if 600 reindeer could be purchased. Leaving Hammerfest on the morning of the 23 d of December, that evening brought him to Bosekop, at the head of Alten Fiord, which was to be his headquarters.
Upon arriving at Bosekop he received the cablegram of December 23 from the Secretary of War, directing him to purchase 500 reindeer, etc. On the morning of December 25, before leaving New York, according to instructions from the Secretary of War, I cabled him to hire all the help he needed to expedite matters and to send out in different directions. Consequently. borrowing 1,000 kroners, on December 29 he hired Mr. Per Rist and sent him to Kautokeino, 112 miles over the mountains, and on the 31st Mir. Samuel Kemi (both Lapps, returned from Alaska), who was sent to Enare, Finland, 265 miles distant, and Mr. Carl Suhr to Sjus Javre, 101 miles, to bargain for trained reindeer, sleds, and harness. The same day he wrote Mr. A. Paulsen, a merchant at Karasjok, and arranged with Mr. O. Kjeldsberg, another merchant, to advance money for the purchase of moss. Having set matters in motion, he was compelled to wait at Bosekop for funds. While thus waiting he closed by telegraph a contract with Mr. A. Sikjerdingstad to deliver 900 horse loads of reindeer moss at the Roros depot- 500 loads at 7 kroner per load and 400 loads at 8 kroner per load-to be delivered to me or to my order.
Upon arriving at Trondhjem, January 8, I arranged that the moss should be shipped to Mr. E. A. Tönseth, commission merchant, at Trondhjem. I have already referred to the unsuccessful efforts made in London to forward money to Mr. Kjellmann, and that it was not until I reached Trondhjem, January 8, that I succeeded. Receiving this money on the morning of January 9, Mr. Kjellmann left the same forenoon with reindeer team for Kautokeino to meet and receive the reports of the several men that had been sent in advance to make contracts. Reaching Kautokeino on the 11th, he found his lieutenants waiting fior him with the welcome news that the whole number of reindeer, sleds, and harness were secured. On the 12th Mr. Kjellmann signed contracts with 23 Laplanders as drivers and on the 13th started on his return to Bosekop to report progess to me and secure additional funds for further payments. Encountering a blizzard in crossing the mountains and losing his way, he did not reach Bosekop until the 16th. Securing firom me additional funds, on the 18th Mr. M. Kjeldsberg, and Mr. Per Rist were sent to Maci and Kantokeino to complete payments and bring the reindeer, sleds, and harness, with the drivers and their families, to Bosekop for shipment. On the 19 th Mr. Kjellmann left for Sjus Javre to do the same thing for that section, On the 21st Mr. Carl Suhr was dispatched from Sjus Javre to Bautajok, 162 miles, and Mr. Samuel Kemi to Enare, to assemble and move to Bosekup the reindeer, drivers, etc., procured at those places.
Having started his lieutenants, Mr. Kjellmann himself left Sjus Javre on the 21st for Karasjok, where, on the 24th, he contracted with the drivers and paid for the reindeer which had been secured by Mr. A. Paulsen.
Final settlements having been completed, Mr. Kjellmann started on the 25th to return to the coast, reaching Bosekop on the 28th, in the midst of a furious storm, the most severe of the winter. That storm, which had been raging almost without cessation for three weeks, piling the snow in great banks along the fences, filling lanes full above the fence tops, and obliterating all evidences of roads or tracks in the open country, had been gradually increasing in severity until, on the 26th, 20th, and 28th of January, it had turned into a blizzard, culminating on the 28th in the worst day of the season. The hotel at Bosekop, a strong log building with a substantial stone foundation, in a sheltered spot, trembled under the furious blasts of wind and snow. At midday houses a block away could not be seen through the driving snow. All trafic was suspended in the street; and yet on the mountains, where the cold was much greater and the wind swept with the force of a hurricane, were four herds of reindeer, and between one and two hundred men, women, and children in open sleds, facing the blizzard as, on different roads and widely senarated sections, they were centering into Bosekop. While anxious lest they should be detained by the storm and perhaps some of the children perish, I received a call from the mayor (landsman) of the village. Inquiring what were the pros-
pects of the Lapps getting through, he shook his head, saying that nothing could face that storm for any length of time and live. And I doubt whether any other pace than the Lapp, that was cradled in the snow and inured from childhood to havaship, could have done so, or any other animal than the reindeer have brought them sately over the storm-swept and trackless mountains.

About noon, going to a window and with a knife scraping off the frost in order to get sight of a thermometer hanging outside, I saw faintly through the whirling snow a solitary reindeer coming up the street, and soon after could make out a sled with a man incased in ice and snow. It was MIr. Kjellmann, his great fur coat covered with snow and his face and whiskers incased in a mask of ice.
Toward evening a Lapp arrived, announcing that Mr. Mathis Rira, with a band of 90 deer, had arrived from Maci and gone into camp in the mountains back of the village. And on the afternoon of January 31 we were cheered by the safe arrival of the other three bands. Driving out with reindeer teams 7 miles to the crossing of Alten River, we met Mr. Carl Suhr and Mr. Samuel Kemi, with 4 men and 114 head of deer, from Bautajok, 165 miles distant. They were sent into camp on the east side of Alten River. Returning to Bosekop, we were met by a messenger announcing that Mr. M. Kjeldsberg and Mr. Per Rist, from Kautokeino, with 44 Lapps and 252 head of deer, had arrived and gone into camp.

While we were rejoicing in their safe arrival another messenger came with the news that Mr. A. Paulsen, with 29 Lapps and 90 deer from Karasjok, had also arrived and gone into camp outside of the village. The three parties, starting from places a hundred miles apart and journeying by difiorent routes, had reached the rendezvous within a few hours of one another.

On February 1 the little village of Bosekop awoke from its Arctic night to untrsuai stir and activity as the Lapps and deer came pouring in long lines over the hill into the village, filling up Market square. The hundreds of Lapps, in their bright-colored, picturesque national dress, those that were going away and those that had come to see them off, greeting old friends and meeting new ones, the unpacking of sleds and preparations for embarkation, all made a picture never to be forgoten. All was bustle and excitement. By night everything was ready for the arrival of the steamship, and the first part of the expedition-the purchase of reindeer, sleds, and harness, together with the securing of competent dirivers-was an accomplished success. The greatness and extent of this success is heightened by the environment.

First. If we had not needed deer trained to harness we could have bought a whole herd, and thus secured over 500 head in one transaction; btit needing only trained ones, they had to be picked up in small lots of three and four out of a herd-perhans four from the first herd visited, then five or six out of the second herd, 15 or 20 miles away, and then two or three from a third herd located on an almost inaccessible mountain off the usual line of travel. The seven men that had been out buying ranged from the ocean eastward across northern Norway to the edge of Russian Finiand. Th's aggregated 3,000 miles of reindeer travel.

Second. This 3,000 miles of reindeer sledding had been made in a region from 3 to 4 degrees oil latitude north of the arctic circle and during the arctic night, when the sun does not appear above the horizon from November 18 to January 23: 3,000 miles of sledding through long reaches of unsettled forests, over stormswept mountains, and aloag the edge of dizzy precipices in the darkness of night.

Third. This 3,000 miles of travel had been made in the middle of the arctic winter, when fearful storms are of frequent occurrence. The mountain passes crossed and recrossed during January are as difficult and dangerous as the Chilcat Pass of Alaska.
Fourth. The hindrance arising from heredity and the custom of centuries was great. If we had gone into wide-awake and intelligent New England and proposed to a laboring man to break up his home, settle his affairs, and start in two weeks with his family to travel in midwinter, in an open sled, from 100 to 200 miles to take a railroad to Alaska, he would have said to us "the time is too short." Much more, then, is the time considered too short when we come to the nonprogressive Eapps, whose ancestors have occupied the same country from the beginning of their history, whose young people have never been found among the emigrants flocking from all nations to America, who beyond all other nationalities have clung to their ancestral homes, and ask them to break up their homes, dispose of their property, settle their affairs, visit parents or other near relatives perhaps for the last time on earth, and be ready in two weeks to start for the ond of the earth. And all this was accomplished within a month from the time the appropriation was made by Congress.

In the meantime Lieut. D. B. Devore had chartered the transport steamer Manitoban, of the Allan Line, Glasgow. Sailing from Greenock, Scotland, January 16, she arrived at Trondhjem Jannary 23 for the purpose of loading up the moss
which had been gathered there for the use of the reindeer herd. A severe storm detained the vessel at Trondhjem until the 29th, when she sailed, reaching Bosekop on February 2. Learning that the steamship had arrived, I went on board, and arrangements were quickly consummated for loading the Lapland reindeer. A large barge was taken over to the ship, upon which was built a platiorm, from which a gangway was erected to the ship. The reindeer were brought over from the shore to the barge in rowboats, and irom the rowboats led up the gang plank directly in to the ship. That the deer might be loade 1 more compactly and to prevent their being injured during the trip, their horns were sawed off within an inch of the flesh. During the first day 300 deer, 200 sleds, and considerable baled moss were loaded on the steamer. The work was pushed vigorously all day until 7 p. m., when the tired men refused to work longer, even for extra pay.

On the morning of February 3 work was reswned at $9.300^{\circ}$ chock. The day was bitter cold, with a light wind blowing from the mountains. By 10 o'clock all the deer that were in the place had been sent off to the ship, but there was still a herd of 140 that had not come in from the mountains, where it was awaiting the arrival of the ship. Fixtra men were sent to assist in lassoing them, and as fast as they were broaght to the barge their horns were sawed off, and they were rushed aboard the ship. By $6 \mathrm{p}, \mathrm{m}$, the deer were all cn board, the bolance of the sleds were sent aboard, and also the harness packed in large casks. The drivers and their families went on board during the evening. About milnight l removed from the hotel to the ship, and at 4 a. in. on Friday, February 4 , the anchor was hoisted and we were off for New York.

The officers of the steamship Manitoban were Capt. Andrew E. Braes. Chief Officer James Buchanan, Second Oficer Charies S. Cheeper, Third Oficer Robert M. MoMaster, Fourth Officer D. O. Hagan, Chief Engineer Joln Steft, Second Engineer Mr. Day, Surgeou Wolf. We had on board 539 reindeer, that cost on an average $\$ 10$ each; 418 sleds, at $\$ 3.69$ each; 511 sets of harness, at 82.50 each. There were also on board 43 men, 13 women, and 19 children, Lapps; 15 men, 3 women, and 7 children, Norwegians; and 10 men, Finns; making 78 Lapps, 2J Norwegians, and 10 Fins, or 113 emigrants. Of the women, 16 were married, 6 of them recently. Among the Lapp men was a Mr. Samuel Johannesen Balto, who accompanied Nansen in his famous trip across Greenland, for which he reeeived a silver medal from Oscar II, King of Sweden and Norway. There was also in the company Johan Petter Stalogargo, a Finn, who has the distinction of being the northermost mail carrier in the world, hoving for eight years carried the mail on his back to North Cape, Norway, traveling on skis (Norwegiau snowshoes). Among the 68 men were 13 who had had experience in carrying the mail with reindeer teams across the mountains and canyons and plains of arctic Lapland. (For a detailed list of colonists see Appendix, pp. 10a, 103.)

Mr. Kjellmanu and myself $\mathbf{W}$ were the only cabin passengers. Lieutenant Devore returned to the United States by way of Trondhjem and London. The first two days cut we had a fair wind and smooth sea, but on February 8 , when off the coast of Ireland, we encountered a heavy head wind. which lasted for nine days, increasing in violence from day to day until on February 15 it had reached the proportions of a gale. On the 14th one of the lifeboats was wrenched from the davits and so badly stove in on deck that it had to be broken up. Some of the 2-inch plank boited together around the cattle pens on the harricane deck were wrenched apart and broken in pieces, and the 130 reindeer in pens on that deck were drenched with the seas that broke over them, and for nine days and nights they were not dry onee.

On the 15 th the ship's figurehead was tom from the iron prow and swept ont to sea, and heavy iron stanchions were broken off, while sea after sea swept the deck, The danger of being washed overboard was so great that the men were not allowed on deck, and the reindeer were of necessity left without food. Toward evening, there being alull in the storm, the dear were fed. Captain Braes, who has been at sea for forty-two years, and his first officer, twenty-four years, testify that in all their experience they never encountered anything worse. The deer proved to be good sea travelers, learning to balance themselves with the rolling of the ship, and to rest by lying down the same as if they had been on their native pasture. The loss of one deer by death out of 539 was a very small thing: that death, however, was not due to the sea royage, but to injuries received in fighting. The sarrie might have occurred if they had been running at large on land. Whenever during the journey we encountered a snowstorm, the snow was carefully gathered from the decks by the Lapps in pails and carried to the pens for the use of the reindeer, and they ate it with avidity. The men were organized into gangs, with overseers, for the feeding and care of the deer upon the trip.
On February 27 our eyes were sladdened with the welcome sight of land off New England, anl that evening we diopped anchor inside oí Sandy Hook.

February 28, after the visit of the quarantine officers, the ship slowly steamed up to the cattle yards of the Pennsylvania Railroad in Jersey City, where the deer were immediately unloaded from the ship, and the following day loaded into cars that were waiting for them, and on the afternoon of March 1, in two sections, were started across the continent by way of the Pennsylvania, Wisconsin Central, and Great Northern railways to Seattle. At New York they were placed in charge of Lieutenant Devore, U. S. A., who accompanied them to Seattle, while I returned to Washington, D. C.

On the 10th of March I was detailed by the Commissioner of Education, under instructions from the Secretary of the Interior, to proceed to the Pacific coast and resume charge of the Lapps and the reindeer, which would be turned over to me by the officers of the Army in charge.
Leaving Washington on March 11, I overtook the reindeer herd at Seattle, Wash., on the 16th of March, where they were being loaded, under direction of Maj. W. R. Abercrombie, U. S. A., on the bark Seminole. They had been in Seattle nine days, while awaiting transportation to Alaska. To save the moss brought over from Lapland for the sea voyage from Seattle to Alaska the deer were taken to one of the city parks of Seattle and placed on the grass. As the result of the change of diet four died while there and eight others after leaving Seattle.
In accordance with a telegram from the Secretary of War to Brigadier-General Merriam of March 16, 1898, 40 of the Lapps, mainly women and children, were leitt at the Fort Townsend Barracks, to be sent later by sea to Alaska via the Aleutian Islands and St. Michael. Mr. Regnor Dahl, a Norwegian, acquainted with the Lapp language, was placed in charge of this colony, subject to the authority of Capt. William W. Robinson, jr., U. S. A. Mrs. Dahl was made matron and Dr. F. H. Gambell physician. The remaining 57 men, in charge of Mr. William A. Kjellmann, superintendent of the Government reindeer stations in Alaska, were sent on the Seminole with the reindeer, to drive the portion of the herd, turned over by the Secretary of War to the Secretary of the Interior, overland from Haines Mission into the Yukon Valley. As sickness in his family would prevent Mr. Kjellmann from accompanying the party longer than to see them started from Haines Mission inland, Mr. Hedley E. Redmeyer was appointed superintendent of the overland party. As some of the Lapps were sick with measles, Dr. Hermon F. Titus, a physician of Seattle, was employed to accompany the party as far as Haines, Alaska, at an expense of $\$ 300$.
The Seminole left Seattle at midnight, March 10, in tow of the steam tug Sea Lion, and reached Haines Mission on the afternoon of the 27th. There were no barges at that place, and Captain Brainard, U. S. A., went to Dyea and returned with a barge. upon which the reindeer, sleds, and moss were landed on the beach during the 2sth. Brigadier-General Merriam, commanding the Department of the Columbia, had sent instructions to the commanding officer at Dyea for tents and camping outfit, to be in readiness for the Lapp drivers, who were expected to proceed from Haines, on the coast, to Circle City, on the Yukon, a distance of over 1,000 miles, the longer portion of the way through an unknown region. Owing to the irregularity and unreliability of the mails in that section, the instructions, which were mailed at Skagway, did not reach the officer at Dyea, 6 miles distant, for nearly a week after they were due. This compelled the holding of the reindeer at Haines Mission for a week, and as there was no moss at that point, they were fed on dried alfalfa (the only forage to be had), which weakened them.

On March 29, two days after the arrival of the herd at Haines, an unusually early thaw set in, taking the ice out of the Chilkat River, rendering the trail to the moss fields on the head waters of the Thleheena (a tributary of the Chilkat River), where it was proposed to pasture the reindeer preparatory to driving them across the country to the Yukon Valley, for the time being impracticable. If transportation had been ready at Seattle as expected, thus saving the nine days' time lostat that point, and the necessary provisions for the Lapp drivers had been waiting their arrival at Haines, the reindeer herd could have been driven without any great loss either to Dawson or Circle City. But the above delays were disastrous. With unsuitable food, the deer grew weaker and weaker, until on March 31 , three days after the arrival, they commenced dying. On March 31 two died; April 1 four, April 2 three, and April 4 three.

On the $3 d$ of April the Lapp attendants found some moss above timber line on a mountain on the peninsula 12 miles south of Haires, and on April 15 the whole herd was driven to pasturage, reaching it on the 6th, ten days after their arrival at Haines. Eight died on the road, being five on the 5th and three on the 6th.

On the 4 th of April, in accordance with instructions from the Secretary of War to the commanding general of the Department of the Columbia, Capt. B. Eldridge, U. S. A., divided the herd, reserving 200 head for the War Department, and turn-
ing over 326 head to the Interior Department. The herd, however, was by this time in such a weakened condition that it was not separated, and later on so many died that the 140 head that survived were left in charge of the Interior Department.

After driving the herd to temporary pasturage on the mountain the Lapps returned to Haines and proceeded to make up their rations and supplies-which had at length been received-into bundles of the proper size for packing, it being the plan to remove the camp from the beach 50 miles inland to the commencement of the moss pastures of the interior.

On the 8th of April, with a portion of the supplies loaded into native canoes and the balance strapped to the backs of the Lapps, they started up the Chilkat River, reaching Klukwan village at 110 oclock Saturday night, where they remained in camp over Easter Sunday. On Monday morning, the 11th, they took up their march for the mouth of the Thleheena River, where the supplies were left in a temporary camp.

As many of the reindeer had died and more were dying from the effects of the starvation at Haines, it was concluded to be unnecessary to send as many men as was originally intended to Circle City. Accordingly 15 were detailed for the overland trip and left with their supplies at the camp on the Thleheena. The remainder returned with Mr. Kjellmann down the Chilkat River to Haines, arriving at noon on the 12th. They were immediately sent to round-up the herd and start them for the Chilkat Valley to the moss pasturage at the head of Thleheena River.

While on pasture 1 deer died on the 7 th of April, 6 each on the 8 th and 9th, and 5 on the 10th. As the small pasture that had been found soon gave out, the death rate increased to 10 on the 11th.

On the 12 th the herd was gathered together and an effort made to drive them slowly north up the Chilkat Valley toward the abundant and permanent moss fields at the head of the river. They were so weak, however, that many lagged behind, and the herd became scattered along the 12 miles between the camp and Haines.

On the 13th the strongest deer reached camp opposite Haines, and Mr. Kjellmann received instructions from Captain Eldridge and Captain Abercrombie to keep the whole herd there until it should be determined whether any portion of the herd was in condition to accompany the military expeditions. Accordingly they were detained at that point until the 15 th, during which days $1 t$ died on the $12 \mathrm{th}, 22$ on the 13 th, 26 on the 14 th, 28 on the 15 th, and 34 on the 16 th. On the night of the 15th the military expeditions sailed from Haines for Prince William Sound without waiting further on the reindeer.

Permission being granted, on the 16th of April the Lapps commenced collecting the herd and driving them northwari. During the day a second band of deer overtook the first. Uniting the bands, the Lapps with the second band were returned to gather up more of the straggling deer.

On the morning of the 18th, while en route, a little moss was found on a steep mountain side. Camp was immediately made and all hands sent to pack the moss down in sacks to the deer.
On the 19th Mr. Kjellmann returned to the peninsula south of Haines, where the balance of the herd left on the 15 th had remained. Finding that they were still too weak to besmored, he took a few of the stronger ones and on the 20th he overtook the first party on the Chilkat River. Joining the two parts of the herd into one, he sent back to the peninsula five men to care for the weak animals that had been left there and to try to move them slowly to the top of the mountain. The balance of the men were employed in cutting trees, gathering moss from the trees and rocks and carrying it to the main herd on the Chilkat River.

On the 24th, taking an Indian guide and 80 of the men, each pulling a sled loaded with rations, Mr. Kjellmann proceeded up the Thleheena Valley. He found the snow soft and deep and the weather rainy, so that very slow progress was made.

On the 27th he reached the moss fields on the north summit of the Chilkat or Thleheena Pass, about 50 miles from Haines. The moss was in great abundance and of the best quality. The rations were soon unloaded, the sleds reloaded with moss, and a start was made to return to the herd. When about 10 miles from the summit the moss was unloaded and a man sent down the valley to start the herd at once to the moss, the sleds returning to the summit for a second load. The men were now divided into two gangs. one drawing moss for the herd and the other pulling the sleds loaded with the rations for the men that were to make the overland journey.

On the 6th of May the 185 reindeer reached the north summit and were turned loose in the moss field to recover their strength. Forty-three deer were still left in the Chilkat Peninsula, making 223 alive at that date, out of 526 that were loaded at Haines.

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The death roll from starvation was as follows:

| Date. | Number. | Date. | Number. | Date. | Number. | Date. | Number. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mar. 31 | 2 | Apr. 10.. | 5 | Apr. 20. | 8 | Apr. 30. |  |
| Apr. 1. | 4 | Apr.. | 10 | A1.- | 9 | May 1. |  |
|  | 3 | 12. | 14 | 22 | 11 | ${ }_{2}$ |  |
|  | 0 3 |  | 22 26 |  | 9 5 |  |  |
| 5. | 5 | 15. | 28 |  | 3 |  |  |
| 6. | 3 |  | 34 |  | 2 |  |  |
|  | 1 |  | $\stackrel{25}{28}$ |  | 3 |  |  |
| 9. | ${ }_{6}^{6}$ | 19. | 10 | 29. | 3 | Hotal | 95 |

As the berd would need to remain for some time at that point, and the care of the same was assumed by Mr. Redmeyer, Mr. Kjellmann, taking 43 of the men. returned to Haines, where he securely stored the sleds, and on the 15 th of May embarked for Port Townsend, reaching that point on the evening of the 1sth. Telegraphing to Vancouver Barracks for orders, he received instructions from Assistant Adjutant-General Davis to take his party to Fort Townsend, which he did, and left them in charge of Mr. Regnor Dahl.

After the departure of the men on the 8th of April for the Chilkat Pass, there being nothing further that I could do at that end of the line, I took boat on April 10 at Skagwey, Alaska, reaching Seattle on the 15th, and Washington, D. C., on the 23d of April.
After the departure of Mr. Kjellmann from Mountain Camp, May 6, Mr. Redmeyer attempted to move the herd, but upon going 3 miles found they were too weak to travel any farther, when he again went into camp, which he named "Camp Pleasant," and where he remained until May 22. He then had 164 reindeer, which were all that had survived of the 185 that had reached Mountain Camp May 6 ; and of these a number were so weak that they could not digest the food, which was abundant around them. This still ifurther reduced the number, until on September 1 there were 144 leift, all of which, except three, had recovered their strength and health and were in good condition.
On May 22 Camp Pleasant, 53 miles from Haines, was left for the north. The snow was melting and was very soft, so that they could only travel at night when there was a crust. This necessitated so many delays that Mr. Redmeyer was forced to the conclusion that he would be unable to reach Circle City until late in the fall, and that the rations which he had with him would not suffice for the whole party for so long a time. He therefore again divided his men, sending eight of them, in charge of Mr. O. Paulsen, south to Seattle to join the others at Fort Townsend and be sent by steamer around by sea to St. Michael. He retained six with himself. The overland party then consisted of Hedley E. Redmayer, Per Johannessen Hatta, Per Nilsen Siri, Klemet Persen Boini, Anders Alasken Bahr, Hans Andersen Siri, Emil Kjeldberg.

On September 27 the herd had reached the neighborhood of Hutchie Valley, at which time there was probably sufficient snow to enable them to again use seds, after which Mr. Redmeyer expected to make more rapid progress on their way to Circle City. At Circle City Mr. P. C. Richardson, the contractor for carrying the United States mails up and down the Yukon Valley, expected to purchase the deer and employ them for carrying the mail.
On May 17 I left Washington on my return to the Pacific coast to look after the transportation of the Lapps from Fort Townsend to the reindeer headquarters near Unalaklik, Alaska, reaching Seattle, Wash., J une 3.
On the 20th of May, 1898, the Secretary of War advised the commanding general of subsistence, at Vancouver Barracks, Wash., that, under instructions from the Secretary of the Interior, I would take charge of the reindeer recently bought in Lapland and turned over to the Department of the Interior by the War Department, conduct them to Alaska, and receipt for transportation and supplies for the herders, and supervise the payment of the salaries of the latter from the relief fund through the War Department. Accordingly, upon my arrival in Seattle, my first attention was given to securing transportation for the Lapps and their supplies. There was so great a demand for vessels to carry the large number of miners wishing to go to Alaska, together with the unusual quantities of freight, necessitated by the large emigration, that much difficulty was encountered in securing transportation.

However, on the 7 th of June, after receiving bids as low as $\$ 9.55$ per ton for freight on sailing vessels, an agreement was made with Mr. T. F. Townsley by which the rations for the Lapps were to be taken from Seattle to Unculakiik,

Alaska, on the steamship Del Norte, at the rate of $\$ 16$ per ton, ship measurement, the usual rate for the same on well-established lines being from $\$ 30$ to 860 per ton. Previous to signing the agreement I ascertained from the marine insurance agencies that the steamer was seaworthy. The steaner was to have sailed June 17, but, owing to various complications in which the Government was not interested, did not finally get away until June 28. It being necessary to take a few of the Lapps to a part of the coast of Alaska only reached by the Del Norte, 12 of them, including the 8 who had arrived from Haines Mission, were taken on board the steamer with a passage rate to Alaska of $\$ 40$ each.

On June 8 I received word from Mr. Dahl, in charge of the Lapps at Fort Townsend, accompanied by the certificate of the visiting physician, that the two children oí Johan Olesen Pulk, who were among those who had been sick with the measles while crossing the Atlantic, had developed a scrofulous affection that would zery soon necessitate their being lept separate from the rest of the party, thereby destroying the service that their parents might otherwise render the Government. Under the circumstances it seemed best to return them to Lapland, and arrangements were made by which they started on the 10ch of June on their return trip.
On the 12 th of June, in compliance with telegraphic instructions from MajorGeneral Merriam, dated June 5, 1898, Lieut. Henry C. Cabell, first lieatenant, Fourteenth United States Infantry, shipped to me from Dyea, Alaska, per steamship Utopia, all the relief supplies remaining unsold. The larger portion of these supplies was used by Major-General Merrian in rationing the Lapps to the 31st of January, 1899, and the excess of butter and bacon from the relief supplies over and above the amount required for the rations was subsequently (July 8), by direction of the War Department, turned over to the Interior Department for the use of the Lapps. The Dalton sleds belonging to the relief expedition not being needed, were not received by me, but were retained by General Merriam.

Arrangements were made with the Seattle Hardware Company for shipping the remainder of the Lapps on the schooner Louise J. Kenney, at the rate of $\$ 30$ each for second-cabin passage, the Lapps furnishing their own provisions.

On the 21st of June the Laplanders were loaded on the schooner, when it was found that, unknown to me, the purser had taken on board 35 miners, which overcrowded the vessel and rendered it liable to seizure by the United States authorities for disregard of the emigration laws.

Going over to Port Townsend from Seattle, I removed from the vessel 30 Lapps with 6 children, and brought them to Seatcle, where I secured as $\$ 30$ rate (the same as paid on the Kenney) for them on the steamship Navarro, leaving 27 Lapps and 8 children on board of the schooner Kenney, which sailed on the evening of Jtune 22 for Alaska.

Cn the Nararro Dr. C. P. Dolan was engaged as physician for the Lapps for the trip, at a cost of $\$ 43$, and on the steamer Del Norte Dr. William J. Toussant was employed as physician for the Lapps during the trip, at an expense of \$5. On the schooner Louise J. Kenney medical attention was given the Lapps by Dr. F. H. Gambell, their regular physician.

The steamship Navurro reached St. Michael on July 27. A day or two afterwards the same place was reached by the steamer Del Norte. The Lapps on the Navarro were transferred to the Del Norte, and on July 30 were landed at Unalaklik in the immediate vicinity of the reindeer station, the schooner Louise J. Kenney, with the first party of Lapps, having arrived on the 29th. Arrangements are in progress with the United States mail contractor for the Yukon Valley by which it is hoped the larger number of the Lapps will be distributed along the Yukon Valley as they shall be needed, for the purpose of carrying the United States mail.

## NATURALIZATION OF THE LAPPS.

As an evidence of the purpose of the Norwegians and Lapps recently brought over from Lapland to become permanent citizens, the following persons have taken out their first naturalization papers: Magnusi Kjeldsberg, Johan Eira, Wilhelm Basi, Lauritz Stephansen, Johan Hilmar Hansen, Karl Johan Sacariasen, Ole M. Rapp, Alfred Hermansen, Ole Olsen Bar, Jeremias Abrahamsen, Isak Johannesen Hatta, Isak Salamonsen Nakkila, Per Andersen, Samuel Johannesen Balto, Nils Persen Sara, Nils Klemetsen, Lauritz Larsen, Otto M. Leinan, Hans Samuelsen, Ole G. Berg, Thoralf Kjeldberg, Peder Berg, Ole Johansen Stenfjeld, Karl Ove Suhr, Japeth Lindeberg, Ole Krogh, and Johan Petter Stalogargo.

The Lapps are well satisfied with their new home, and promise to make a very valuable and important addition to the population of Alaska and the development of its resources.

In my estimation, next to the discovery of gold the most important event commercially in the history of Alaska during this year is the importation of this
colony of Lapps. Experience is rapidly demonstrating that the only possible efficient transportation service in Alaska must be through the use of reindeer, and this necessitates the trained and expert drivers of reindeer found among the civilized Lapps and Finns. The 68 men that were brought over by this expedition are all picked men and expect to be permanent settlers of Alaska. They hope ultimately to have herds of their own and raise and train reindeer to sell to the transportation companies. Their success will naturally attract others of their people and render permanent the establishment of the reindeer industry in Alaska.

In this connection I make acknowledgments of the assistance rendered in the movement of the Lapps and reindeer by Brig. Gen. Henry C. Merriam, U. S. A., commanding the Department of the Columbia; also to Capt. W. W. Robinson, jr., U. S. A., at Seattle; Capt. B. Elỏridge, U. S. A.; Capt. D. L. Brainard, U. S. A. Capt. William R. Abercrombie, U. S. A.; Lieut. W. S. Graves, U. S. A., and especially to my associate, Capt. D. B. Devore, U. S. A., who shared with me in the perplexities, difficulties, and hardships encountered in Lapland.

TRIP TO SIBERIA.
Having landed the Laplanders with their rations on the beach a mile and a half below the village of Unalaklik, the steamer Del Norte raised anchor and sailed for Golovin Bay on the evening of August 1. Entering the bay on the morning of the $2 d$ about 8 o'clock, the steamer went aground. Here we remained for twentyfour hours. Taking a small boat, a visit was made to the village and Swede mission station, and arrangements were made for landing the supplies for the mission and reindeer stations, which was successtully accomplished that afternoon.
Getting afloat about midday on the 3d, a start was made for the Teller reindeer station, which was reached on the morning of the 4th. The station was visited and inspected and we pushed on to St. Lawrence Bay, Siberia, which was reached on the morning of the 6th. Going ashore, I found that the station had been abandoned by the party in charge on the 3d of July. A conference was had with the natives and notice was sent to the owners of reindeer herds to drive their animals to tise coast convenient for the ship. Then taking up anchor, we sailed out of St. Lawrence Bay around to the south side of South Cape. On Sunday, the floating ice coming in so thickly as to endanger the safety of the vessel, the captain shifted his anchorage inside of the bay. The following days were consumed in securing 100 reindeer, which had been previously purchased by the party in charge, and 61, which were purchased on the spot.
Having secured all the deer that was possible at the time and taken on board the furniture from the station and placed the houses in charge of one of the natives, the sbip sailed for Cape Prince of Wales, reaching there on the night of the 10th of August. The surf being too rough for landing the deer, the vessel continned on her course into Port Clarence, where they were landed on the 11th at Teller reindeer station and placed in charge of Frederik Larsen, a Lapp herder, who was directed to drive them across the country and turn them over to Mr. W. T. Lopp, in charge of the American Missionary Association station at Cape Prince of Wales. These deer were for the purpose of returning in part those which had been previonsly borrowed from that station by the Government and sent overland to Point Barrow, to be slaughtered for food for the whalers that were imprisoned in the ice and out of provisions. The Rev. T. L. Brevig, who was in charge of the buildings, being desirons of spending the winter in the States, the custody of the buildings was given to Dr. Brandon, a physician and miner, who intended wintering at that place. Mr. Brevig and family coming on board of the steamer, we sailed on the night of the 12 th for St. Lawrence Island, reaching there on the night of the 13th. The fog was so dense, however, that we were unable to find the village until the following morning.
On the 14th Mr. W. F. Doty, who had agreed to take for one year the school previously taught by Mr. V. C. Gambell (who was lost at sea while returning to his station in May), together with his annual supplies, was landed on the beach, and in the evening the steamer sailed for Unalaklik, which was reached on the 16th. Two days were spent in anloading supplies and arranging the affairs of the Eaton reindeer station. On the night of the 18 th the Del Norte sailed for St. Michael, reaching there early in the morning of the 19 th . On the 21st I was able to go on board the steamer Roanoke $e^{-\lambda}$ sfart for Seattle, reaching there August 30 . Leaving next day on the railway, Washington was reached on the 6th of September, 1898, thus closing a travel of 31,801 miles since the 23 d of December, 1897.

Very respectfully, yours,

## CHAPTER XLII.

## InSTITUTIONS FOR HIGHER EDUCATION.

## GENERAL STATEMENT.

The year under consideration, it is generally conceded, has been a prosperous one for the universities and colleges of the country, although the latter part of the school year was attended with considerable excitement and a loss of students caused by the war with Spain. The reports of the presidents of some of the institutions show that quite a number of students left college before the close of the year to render service in their country's behalf. Notwithstanding the general prosperity of the higher institutions as a class, it is necessary to record the suspension of the following institutions for women: Synodical Female College, Florence, Ala.; Elizabeth Aull Female Seminary, Lexington, Mo.; Evelyn College, Princeton, N. J.; Mary Sharp College, Winchester, Tenn.; and Staunton Femaie Seminary, Staunton, Va. Pierre University, East Pierre, S. Dak., has been moved to Huron, S. Dak., and its name changed to Huron College. Three other institutions. formerly doing college work are now classed as secondary schools.

## NEW HOME OF COLUMBIA UNIVERSITY.

One of the noteworthy events of the year was the removal of Columbia Univer. sity from its former home in the heart of New York City to its new home. On the 4th of October, 1897, the university formally began its work of education in the new buildings which had been in course of preparation for it since the purchase of the site on Morningside Heights in March, 1892. In order to give some idea of the cost of the material equipment of a modern institution for higher education the following statement concerning the cost of the land, buildings, equipment, etc., of Columbia University on Morningside Heights is taken from the report of President Low, made to the trustees on October 3, 1898:

| Cost of land. | \$2,000, 000.00 |  |
| :---: | :---: | :---: |
| Legal expenses. | 3,63\%.95 |  |
| Library: |  | \$2, 003, 637.95 |
| Construction | 1,100,542.09 |  |
| Equipment | 97, $03 \% .38$ |  |
| Schermerhorn Hall: |  | , 519.48 |
| Construction | 457,658.17 |  |
| Equipment | 35, 788.35 |  |
| Fayerweather Hall: |  | 493,444.52 |
| Construction | 274, 113. 67 |  |
| Equipment | 14, 645. 43 |  |

## Havemeyer Hall:


Equipment
53, 474.86

| Engineering building: |  |  |
| :---: | :---: | :---: |
| Construction | \$284,075.50 |  |
| Equipment | 20,325. 47 |  |
| University building: |  |  |
| Construction | $842,887.85$ |  |
| Equipment of power house and connections | 115, 578. 52 |  |
| Equipment of gymnasium. | 30, 399.21 |  |
| Vaults: |  |  |
| East. | 30, 389.79 |  |
| West | 37, 216.40 |  |
| Cld buildings-repairs and equipment: |  |  |
| West building | 10,252.67 |  |
| College Hall | 5, 113.34 |  |
| Insurance |  | $\begin{array}{r} 15,368.01 \\ 3,754.40 \end{array}$ |
| Outside street work |  | 133, 367.81 |
| Improvement of grounds and incidentals |  | 403, 873. 50 |
| Total.. | ---- | 6,479,212.26 |

Even with this large expenditure of funds the university still needs dormitories, a chapel, a building for the college, a dining hall, an academic theater, and a building that shall be the headquarters of the social life of the students.

COLLEGE DORMITORIES.
While the larger number of institutions for higher education provide homes for their students, there are still a few of the universities that have not yet met this need. In these cases the students are compelled to seek rooms among the private homes or boarding houses of the cities in which such institutions are located. The University of Pennsylvania is one of the institutions which has but recently provided these facilities. The dormitory system, opened in 1896 and costing nearly $\$ 100,000$, provides accommodations for nearly 400 students, and in 1897-98 all of the rooms were occupied. Concerning the advantages of the dormitory system, the provost, in his last report, says:

The transformation which your board has made during the past four years has brought about an entirely new life, hitherto unknown at the university. F'or the first time there is a community of student life which has not become selfish or personal, and which, I believe, runs no risk of becoming either; indeed, that life is a robust one, and will more and more make itself felt. This identification of the student body with the University of Pennsylvania, of which they are more and more proud, is becoming contagious. It is observable in every throb of the great heart of the whole university. That it is due largely to the influence of Houston Hall, and to the establishment of the dormitories, with their individual "home" system and self-government, is evident to us all.

The provost pleads for the means of extending the dormitory system.
Columbia University, on moving into its magnificent new home, still finds itself without the means of offering homes to its students. President Low in his last report says:

The time is at hand when the trustees must determine their policy in regard to dormitories upon the new site. The demand for them, as the sentiment reaches me, is almost universal, both among young and old. Some want them for the sake of what they call college life; others for the sake of securing that effect in education that is born of the community of scholars. * * * The wants of the student are few and simple. He is well content with a small room if it be clean. Neither does he need costly finish nor luxuriousness of furniture in any building which he is to occupy. What he does want is convenience to the university, a clean and well-kept room, plain but good food, and surroundings that lend themselyes to study.

President Schurman, of Cornell University, emphasizes the need of dormitories by that institution. In his report for $189 \%-98$ he says:

No provision is made by Cornell University for the social life of the men students. The women have a beautiful home in Sage College. But for the men there is nothing. In the absence of halls of residence for students Greek letter fraternities have sprung up; but, cordially as these are to be welcomed, they can not take the place of university halls, for they rest on an entively different, and indeed antagonistic, principle. A residential hall is open to every student; a fraternity house is closed to all except the few who are invited to become members. The one is democratic, the other selective. Hence, if one looks deep enough, it will be apparent that the more fully developed the system of Greek letter fraternities at a miversity, the greater is the need of residential halls. And if, in addition to such halls, there were a dining hall in which the men from the fraternity houses and men from the public halls took their meals together, the arrangement would make for democracy and fraternity and tend to eliminate cliquishness and social sectarianism. If, furthermore, there were a club or commen room contiguous to the dining hall, to which students might resort after meals, and in which they might associate during the intervals of relaxation. enjoying together the amenities of social intercourse, the plan would be a well-nigh ideal one. And how much education and culture-social, intellectral, moral, and political-the students would derive from one another, created, as it were, from the mere circumsईance of their coming together! This inexhaustible potency is at present entirely lost at Cornell University, though it is of the highest value in the education of young men.
The president states that while the university has many other needs, he desires at this time "to accentuate the importance, for the spirit of the university as well as for the life and culture of its students, of a great system of halls of residence, with the conjoined features of a dining hall and clubhouse." The alumni have already taken steps to raise $\$ 150,000 \frac{1}{1} 0$ an alumni hall to be used as a clubhouse.

## CONTINUOUS SESSIONS.

WestVirginia University, at Morgantown, W. Va., has followed the example of the University of Chicago and has abolished the three months vacation in summer. The scholastic year is divided into four quarters of twelve weeks each, with recesses of one week between quarters.

## NEW COURSES OF STUDY.

The University of Chicago and the University of California have established colleges of commerce, whose organization and courses of study are described elsewhere in this report.
The Graduate School of Railway Mechanical Engineering was authorized by the board of trustees of Cornell University, in June, 1896, and was organized in February, 1898. The courses in this school will have special relation to the design, the construction, the operation, and the test trials of locomotives and other kinds of machinery employed in railroad operation.

The New York State College of Forestry, at Cornell University, established by an act of the legislature of the State of New York, approved March 26, 1898, was opened for instruction in September, 1898. The legislative act provides for the purchase and use of 30,000 acres of land in the Adirondack forests as a demonstration area, and that the College of Forestry "shall conduct upon said land such experiments in forestry as it may deem most advantageous to the interests of the State and the advancement of scientific forestry, and may plant, raise, cut, and sell timber at such times, of such species and quantities and in such manner, as it may deem best with a view to obtaining and imparting knowledge concerning the scientific management and use of forests, their regulation and administration, the production, harvesting, and reproduction of wood crops and earning a revenue therefrom." The college was organized by the appointment of Dr. B. E. Fernow, chief of the Division of Forestry of the United States Department of Agriculture, as director and professor of forestry, and of Filibert Roth, B. S., of the same division, as assistant professor of forestry and forest manager. There have been
arranged a full four-year course leading to a degree of Bachelor of the Science of Forestry, a one-year special course, and a one-term synoptical course. The fouryear course is planned to give a thorough knowledge of all branches of the profession and to prepare men to manage and administer forest estates for private owners, or for the State or National Government, and also to teach the profession in the colleges which are likely in the near future to establish chairs of forestry science and practice. This course comprises in its first two years the basal or preparatory studies of mathematics, natural science, engineering, political economy, etc., its last two years being devoted to the purely professional subjects. The oneyear special course is planned for farmers, lumbermen, and others not desiring a general scientifc training, but wishing to acquire such technical and practical knowledge of forestry as will enable them to manage more intelligently and economically their own woodlands. Finally, the one-term synoptical course will meet the requirements of students of political economy and others wishing to make a brief survey of the subject of forestry as a niatter of general education. ${ }^{1}$
The School of Library Science, which had been conducted at Armour Institute of Technology, Chicago, H1., since September, 1893, was transferred to the University of Mllinois in September, 1897, and offers a four years' course of study leading to the degree of Bachelor of Library Science. Two years of the course are devoted to general university studies, and the last two years to technical library work.

## RATIO OF STUDENTS TO POPULATION, 1872-1898.

The following tabular statement, giving the number of students in higher education to each $1,000,000$ persons in the United States from 180 to 1898 , shows a very substantial increase for each class of students represented. As would naturally be expected, by far the greatest increase is shown in the column devoted to graduate students, the ratio having increased from 5 students in 1872 to 74 in 1898. The first column of students includes all undergraduate, collegiate, and technical students in universities and colleges for men and for both sexes, in colleges for women, Division A, and in schools of technology:
Number of students in higher education to each 1,000,000 persons from 1872 to 1897-98 (based on the number of students in the colleges of the United States).

| Year. | Under gradu. ate col legiate and tech nical stiu dents. | Gradu-atestudents. | Lawstudents. | Medical students. | Theological students. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18\%2. | 573 | 5 | 49 | 142 | 83 | 852 |
| 1873 | 739 | 5 | 52 | 176 | 93 | 1,065 |
| 1874. | 749 | 7 | 61 | 182 | 102 | 1,101 |
| 1875. | 736 | 8 | 61 | 196 | 120 | 1,121 |
| 1876 | 706 | 9 | 59 | 194 | 95 | 1,063 |
| $187 \%$ | 701 | 8 | 61 | 209 | 86 | 1,069 |
| 1878 | 781 | 9 | 64 | 210 | 91 | 1,155 |
| 1879 | 775 | 10 | 62 | 231 | 97 | 1,175 |
| 1880 | 770 | 8 | 62 | 238 | 105 | 1,183 |
| 1881 | 755 | 9 | 63 | 242 | 93 | 1,162 |
| 188:-83 | 731 | 10 | 57 | 237 | 92 | 1,127 |
| 1883-84. | 741 | 14 | 49 | 230 | 96 | 1,130 |
| 1884-85 | 742 | 15 | 49 | $19 \%$ | 103 | 1,106 |
| 1885-86. | $68{ }^{7}$ | 16 | 53 | 221 | 110 | 1,087 |
| 1886-57. | 690 | 21 | 54 | 208 | 107 | 1,080 |
| 1887-88. | 688 | 22 | 61 | 231 | 109 | 1,111 |
| 1888-89 | 729 | 22 | 64 | 245 | 114 | 1,174 |
| 1889-90 | 850 | 27 | 72 | 266 | 112 | 1,327 |
| 1890-91. | 901 | 33 | 82 | 284 | 115 | 1,415 |
| 1891-9\% | 980 | 39 | 94 | 281 | 115 | 1,512 |
| 1892-93. | 1,037 | 43 | 105 | 298 | 118 | 1,601 |
| 1893-94. | 1,087 | 51 | 107 | 320 | 113 | 1,678 |
| 1891-95. | 1,128 | 58 | 130 | 331 | 116 | 1,763 |
| 1895-96. | 1,158 | 62 | 139 | 346 | 114 | 1,819 |
| 1896-97-- | 1,142 | 69 | 146 | 342 | 115 | 1,814 |
| 1897-48.. | 1,193 | 74 | 163 | 328 | 117 | 1,875 |

## STATISTICAL REVIEW, 1897-98.

Students.-The total number of students reported in collegiate, graduate, and professional departments of institutions for higher education and in professional schools for the year $189 \%-98$ is $144,4 \%$, of which number 43,419 were enrolled as professional students pursuing studies in law, medicine, and theology, leaving 101,058 students reported as pursuing studies in the liberal arts and in technology. In this number are 5,514 graduate students, not including graduate students in professional departments, who remained at the various institutions for advanced study and research, an increase of almost 600 students over the number for the preceding year. The number of resident graduate students at certain institutions during the year was as follows:

| Institutions. | Students in graduate departments. | Graduates in professional departments. | Total number of graduate students. |
| :---: | :---: | :---: | :---: |
| University of California | 165 | 84 | $2 \pm 9$ |
| Leland Stanford Junior University | 106 |  | 106 |
| University of Colorado ---- | 21 |  | 21 |
| Yale University | 240 | 180 | a 438 |
| Catholic University of | $5: 3$ |  | 136 |
| Columbian University | 68 | 33 | 101 |
| Georgetown University | 41 | 58 | 99 |
| University of Illinois. | 31 | 74 | 105 |
| University of Chicago | 875 | 238 | 1,113 |
| Northwestern University | 32 | 188 | $2: 0$ |
| Indiana University State | $\begin{array}{r}73 \\ 49 \\ \hline\end{array}$ | 61 | 81 110 |
| University of Kansas. | 42 |  | 42 |
| Tulane University. | 73 |  | 73 |
| Johns Hopkins University | 215 |  | 383 |
| Boston University | 112 | 201 |  |
| Harvard University | 272 | 758 | 61,089 |
| Clark University | 44 |  | 44 |
| University of Michigan | 71 | 162 | $c 246$ |
| University of Mimnesota | 184 | 12 | 196 |
| University of Missouri | 23 |  | d 2 |
| St. Louis University | 67 |  | 67 |
| University of Nebraska | 140 | 21 | 161 |
| Princeton University | 123 |  | ) 123 |
| Cornell University | 163 | 32 | e250 |
| Columbia University | 249 | 5.2 | f813 |
| New York University | 123 | 168 | 290 |
| St. Xavier College (Ohio) | 42 |  | 42 |
| University of Cincinnati | 39 |  |  |
| Western Reserve University | 26 | 48 | 74 |
| Ohio State University |  |  | 29 |
| Central High School (Phila de ${ }^{\text {a }}$ ia, Pa.) | 32 |  | 2 |
| University of Pennsylvania-.....-...... | 154 | $3 \overline{s i}^{-}$ | 535 |
| Brown University. | 53 |  | 53 |
| Vanderbilt University | 37 | 49 | 86 |
| University of Virginia | 20 | 45 | 65 |
| University of Wisconsin | 106 |  | 106 |
| Radcliffe College- | 61 |  | 61 |
| Wellesley College | 32 |  | 32 |
| Bryn Mawr College | 17 |  |  |
| Alabama Agricultural and Mechanical | 23 |  | 23 |
| Purdue University. | 42 |  | 42 |
| Kansas Agricultural College | 52 |  | 52 |
| Massachusetts Institute of Technology | 70 |  | 70 |
| Virginia Agriculiural and Mechanical Cold | 39 |  | 39 |

[^63]The continued increase in the number of graduate students is one of the most encouraging features in the system of higher education．An examination of the catalogues of the varions universities and colleges shows that a considerable num－ ber of professors and instructors obtain leaves of absence for the purpose of pur－ suing advanced studies and thus become better qualined for their teaching duties． That a very large proportion of the persons who obtain advanced degrees enter the teaching profession is shown by the occupations of persons who have received their degrees from the institutions which furnish such data．

During the year 1898 there was published a catalogue of the Graduate School of Harvard University from 1873 to 1898，containing the names，addresses，and occu－ pations of 1,011 different persons who have received degrees from the school．The information contained therein has been carefully summarized in the report of the dean of the Graduate School to the president of Harvard University for the year \｛89\％－98，from which the following extracts are taken：

Recipients of higher nonprofessional degrees from Harvard University（on exami－ nation），1878－1898．

| Year． | Doctors of phi－ losopiny． |  |  | Doctors of sci－ ence． |  |  | Masters of arts． |  |  | Masters of sci－ ence． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { 良 } \\ & \text { 等 } \\ & \text { ó } \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  | $\begin{aligned} & \text { é } \\ & \text { E } \\ & \text { H } \end{aligned}$ |  |  | $\begin{aligned} & \text { 畀 } \\ & \text { 品 } \end{aligned}$ | $\begin{aligned} & \text { Whole num- } \\ & \text { ber. } \end{aligned}$ |  | 年 |  |  | 告 |
| $18 \% 0$ |  |  |  |  |  |  | a 1 |  | 1 |  |  |  |
| 1873 | 2 | 1 | 1 | 1 |  | 1 |  |  |  |  |  |  |
| $1844$ | 3 |  | 3 | 1 |  | 1 | 1888888 | 1 | 11 | ．．．．．．． |  |  |
| 1876 | 5 |  | 3 |  |  | 1 | 7 | 2 | 5 |  |  |  |
| 1877 | 4 | 1 | 3 |  |  |  | 9 | 1 | 8 | ．．． |  |  |
| 1878 | 4 |  | 4 | 3 |  | 3 | 13 | 2 | 11 | －．．．．． |  |  |
| 1879. | 2 |  | 2 | 1 | ．－．． | 1 | 9 |  | 9 | － |  |  |
| 18881. | $\stackrel{5}{2}$ | 1 | 1 | 1 |  | 1 | $1{ }_{7}^{1}$ | －－ | 14 | －．．．． |  |  |
| 1882. |  |  |  | 1 |  | 1 | 7 |  | 7 |  |  |  |
| 1883. | 5 |  | 4 |  |  |  | 12 | 9 | 10 |  |  |  |
| 1884 | 5 | 1 | 4 | 1 |  | 1 | 15 | 3 | 12 | －－．．．． |  |  |
| 1885. | 4 |  | 4 |  |  |  | 12 | 1 | 11 |  |  |  |
| 1886 | 4 |  | 4 |  |  | 2 | 17 | 2 | 15 | －－－ |  |  |
| 1887 | 1 | ．．．．． | 1 | 1 |  | 1 | 18 | 1 | 17 | －．．．．－ |  |  |
| 1888. | 7 | －．．．．． | 7 |  |  |  |  |  | 32 23 |  |  |  |
| 1889 | 4 | －－－．－－ | 4 | 2 |  | 2 | $\stackrel{23}{31}$ | －－．．－3 | 23 |  |  |  |
| 1891 | 7 |  | 7 | 1 |  | 1 | 45 | $\stackrel{3}{2}$ | 43 |  |  |  |
| 1892. | 5 |  | 5 | 1 | 1 |  | 78 | 2 | 76 |  |  |  |
| 1893 | 12 |  | 12 | 1 |  | 1 | 70 | 1 | 69 |  |  |  |
| 1894 | 16 | 1 | 15 | 2 |  | 2 | 93 | 2 | 91 |  |  |  |
| 1895 | 16 |  | 16 | 2 |  | 2 | 81 | 4 | 89 |  |  |  |
| 1896 | 18 |  | 18 |  |  |  | 98 | 1 | 97 |  |  |  |
| 1897 | 25 | 2 | 23 | 1 |  | 1 | 112 | 1 | 111 |  |  |  |
| 1898 | 26 |  | 26 |  |  |  | 10. |  | 10： | 5 |  | 5 |
| Total $b$ ． | 190 | 11 | 179 | 22 | 1 | 21 | 930 | 33 | 897 | 5 |  | 5 |

$a$ Voted in 1894.
$b$ One hundred and thirty－six names duplicated．

Doctors of philosophy and science classified according to the subjects in which the degrees have been conferred, 18\% 3-1898.

|  | Ph. D. | S. D. | Total. |
| :---: | :---: | :---: | :---: |
| Philology ...... | 69 |  | 69 |
|  |  |  |  |
|  |  |  |  |
| Romance ${ }_{\text {Comparative - }}$ |  |  |  |
|  |  |  |  |
|  |  |  |  |
| History - --.-.-. | 2 |  | 18 |
| Political scienco.. | 10 |  | 1 |
| Phsics ${ }^{\text {Premist.... }}$ | 9 | 3 | 19 |
| Chemistry --.-... | 14 | ${ }_{12}^{5}$ | 19 |
| American archrology and ethnology |  |  | 0 |
| Total. | 190 | 22 | 21. |

Of the 212 men who received the doctorate 171 are or have been teachers, chieffy in colleges. Sixteen are classified as scientists; 6 are clergymen, but 5 of them are or have been also professors in colleges or theological seminaries; 6 are lawyers or are in public life, and 7 are still continuing their studies, as a rule, in Europe.

Of the A. M.'s who are not also Ph. D.'s it is found that 72 are lawyers, 13 physicians, 61 clergymen, 12 journalists or authors, 7 librarians, 19 scientists, 28 in business, and 316 teachers.

The catalogue shows-not counting private tutors, assistants in college work, and a few doubtful cases- 331 teachers in colleges ( 211 professors and 120 instructors) and 103 teachers in secondary schools.

The catalogue of Johns Hopkins University for 1897-98 contains the names of 439 persons who have received the Ph . D. degree. Of this number 382, or about 87 per cent, are or have been engaged in teaching, and 4 are still pursuing their studies.

The reports for 1897 and 1898 of Dr. Nicholas Murray Butler, dean of the School of Philosophy of Columbia University, contain the names of 51 recipients of higher degrees who are engaged in teaching. This list is very incomplete and does not include any of the graduates from the other graduate schools. In the report for 1897 Dr. Butler states that a majority of the candidates for higher degrees under the faculty of philosophy look forward to the teaching profession.

Residence of college siudents.-Tables 3 to 11 show the number of students from the several States attending the colleges of the United States, and the States and geographical divisions in which they artend college. From these tables it may be seen that of the 90,488 students included in this investigation, 33 are from Cuba, 17 from Hawaii, 5 from Porto Rico, and 751 from other foreign countries. In Table 4 are given the number and proportion of students attending college in the States and geographical divisions in which they reside. This table shows that a larger proportion of California students attend the colleges of their own State than do the students from any other State in the Union, and that the North Atlantic division leads all other divisions in holding the students from their respective sections of the country. Table 5 shows the number and proportion of students attending the colleges of the several States who are drawn from the localities in which such colleges are situated.

Degrees.-The number of degrees, excluding degrees in law, medicine, theology, dentistry, pharmacy, and veterinary medicine conferred in 1897-98 may be found in Tables $20,21,22,28,33,39$, and 40 of this chapter. There were conferred 12,150 bachelor degrees, of which number 8,256 were received by men and 3,894 by women.

Of the total number, 6,557 were A. B. degrees. The Ph. D. degree, on examination, was conferred on 267 men and 37 women. The number of honorary degrees reported as having been conferred during the year is 632 , being 159 less than the number for the preceding year. The protests against the practice of conferring the degree of ${ }^{\circ} \mathrm{Ph}$. D. as an honorary degree seem to be having some effect, as the number of such degrees reported in 1897-98 is but 15, which is 50 per cent less than the number granted in 1896-97.

Property.-The total amount of money invested in universities, colleges, and schools of technology, as reported by the institutions, is $\$ 311,842,428$, which is about $\$ 16,000,000$ more than the amount reported in 1896-97. The endowment funds amount to $\$ 133,576,967$, and the remainder represents the value of grounds, buildings, machinery, apparatus, and libraries used for instruction and research.

Income. - The total income of these institutions is reported as $\$ 25,963,242$. Of this amount, $\$ 9,738,718$ was derived from tuition fees, $\$ 6,414,363$ from endowment funds, $\$ 6,499,338$ was appropriated by the General Government and the various States and municipalities, and the remainder was received from miscellaneous sources. The receipts from endowment funds amount to an income of 4.8 per cent on the amount invested.

Benefactions.-The amount of gifts and bequests reported as having been received during the year is $\$ 8,204,281$.

The summarized and detailed statistics concerning the institutions for higher education are given in the following pages:

Table 1.-Whole number of students receiving higher education (inclucting students in undergraduate and graduate departments of universities and colleges, colleges for women, schools of technology, and in professional schools and departments).

| State or Territory. | Universities and colleges for both sexes. |  |  |  | Schools of technology |  | Professional schools and departments cine, and theology). |  | Total number of students in higher educa tion. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male. | $\begin{gathered} \mathrm{Fe}- \\ \text { male. } \end{gathered}$ |  |  | Male. | $\begin{gathered} \mathrm{Fe}- \\ \text { male. } \end{gathered}$ | Male. | $\begin{gathered} \mathrm{Fe} . \\ \text { male } \end{gathered}$ | Male | $\begin{aligned} & \mathrm{Fe}- \\ & \text { male. } \end{aligned}$ |
| United States | 58,407 | 17, \%65 | 4,416 | 10,5\%0 | 8,611 | 1,259 | 41,677 | 1,742 | 108,695 | 35,782 |
| North Atlantic Division South Atlantic Division Nouth Central Division Western Division...... |  | $\begin{aligned} & 2,505 \\ & 2,588 \\ & 2,189 \\ & 9,999 \\ & 2,054 \end{aligned}$ | $\begin{array}{r} \hline 3,879 \\ 472 \\ -\quad 43 \\ \hline 82 \\ \hline 23 \end{array}$ | $\begin{aligned} & 902 \\ & 4,396 \\ & 3,800 \\ & 3,420 \\ & 1,428 \end{aligned}$ | $\begin{aligned} & 2,532 \\ & 1,611 \\ & 2.696 \\ & 2,865 \\ & 8060 \\ & 804 \end{aligned}$ | $\begin{gathered} 174 \\ 12 \\ 49 \\ 669 \\ 665 \end{gathered}$ | $\begin{gathered} 13,507 \\ 5,609 \\ 5,009 \\ 1,6,200 \\ 1,320 \end{gathered}$ | $\begin{array}{r} 542 \\ 90 \\ 9.3 \\ 591 \\ 914 \pi \end{array}$ |  | $\begin{array}{r} 8,002 \\ 5,788 \\ 6,789 \\ 13,070 \\ 2,632 \end{array}$ |
| NorthAtlantic Division <br> Naine -............. <br> Vermont <br> Massachusetts <br> Rhode Island <br> Connecticut <br> New Jersey |  | $\begin{gathered} 189 \\ 0 \\ 99 \\ 417 \\ 478 \\ 95 \\ \hline 683 \\ \hline 63 \\ 0 \\ 864 \end{gathered}$ | 2,467 <br> $1,0-080$ |  | $\begin{array}{r} 1,491 \\ 101 \\ 84 \\ 395 \\ 391 \end{array}$ | $\begin{array}{r} 72 \\ 50 \\ 24 \\ 0 \\ 0 \\ 14 \end{array}$ | $\begin{array}{r} 246 \\ 1.20 \\ 2.48 \\ 2.473 \end{array}$ | $\begin{array}{r} 7 \\ 0 \\ 0 \\ 148 \end{array}$ |  | 228 14 99 3,244 228 288 2128 129 16 1,916 |
| South Atlantic Divi |  |  |  |  |  |  |  |  | -105 |  |
| Delaware | 1,054 |  |  |  | 26 |  |  |  |  |  |
| District of C | 1,054 | 139 | 239 | 324 | 26.2 | 0 | 1, 12 |  |  | 63 |
| Virginia-- | 1,147 | 58 | 233 | 1,003 | 5 | 0 | 830 |  | 2, 631 | 1,294 |
| North Caro | 1,3 | 141 |  | 75 | 293 | 12 | 292 |  | 1,938 | ${ }_{9} 12.8$ |
| South Carolin |  |  |  |  | ${ }^{335}$ | 0 | 164 |  | 1,235 | 1,061 |
| Floorida |  | 108 |  | 1,295 | 107 | 0 | $6 \pm 2$ |  | 1,789 169 | 108 |
| South Central D |  |  |  |  |  |  |  |  |  | 1,135 |
| Kentucky |  | 3, 9 |  | ${ }_{959}^{800}$ |  |  |  |  |  |  |
| Alabama | 703 | 172 |  | 670 | 29. | 20 |  |  | 1,257 |  |
| Mississippi | 19 | 54 |  | ${ }_{85} 9$ | 216 | 9 | ${ }^{52}$ |  | ${ }_{1}^{657}$ | 23 |
| Texas. | 1,2\% 26 | 530 |  | 296 | 337 | 0 | 535 | 10 | 2,098 |  |
| Arkansas | ${ }_{4}^{431}$ | 264 |  |  |  |  | 164 | 1 |  | 32.5 |
| Indian Terr |  | 18 |  |  |  | , |  |  | S | 18 |
| Ohio |  | $\begin{aligned} & 1,792 \\ & 7 \\ & 7 \end{aligned}$ |  | 27 | $\begin{aligned} & 240 \\ & \begin{array}{c} 39 \\ 143 \\ \hline 443 \end{array} \end{aligned}$ | 079718 | 2,330 | 11444384 | 6,0733,5428.798 |  |
| Indiana |  |  |  |  |  |  |  |  |  |  |
| Inichig |  | 2,057 | 43 | 31 |  |  | 1,727 | $\begin{array}{r}386 \\ 127 \\ \hline\end{array}$ | 退3,854 | - 1,111 |
| Wisconsi |  | 517 |  |  |  |  |  |  |  |  |
| Minnesota |  | 814 |  | 10 |  |  | $\begin{aligned} & 1,069 \\ & 1,192 \\ & 2,870 \end{aligned}$ | $\begin{aligned} & 31 \\ & 86 \\ & 63 \\ & 63 \end{aligned}$ | 2,817 3,235 3,218 | +125 |
| Missour |  | 729 |  | 74 |  |  |  |  | $\begin{array}{r} 4,6 \% 2 \\ 118 \\ 386 \\ 1,356 \end{array}$ |  |
| North Dak |  |  |  |  | $\begin{aligned} & 35 \\ & 244 \end{aligned}$ | $\begin{gathered} 20 \\ 123 \end{gathered}$ |  |  |  |  |
| Nebrask |  | 20 |  | 60 |  |  |  | $\stackrel{22}{35}$ |  |  |
| Kansas. |  | 685 |  |  | 456 | 265 | 300 |  | 1,976 | 1,045 |
| Montana |  |  |  |  | 1333 | 5 | --...-- | 29 | $\begin{gathered} 47 \\ 37 \\ 931 \\ 58 \end{gathered}$ | ( $\begin{gathered}54 \\ 24 \\ 302 \\ 28 \\ 28 \\ 16\end{gathered}$ |
| Wyoming | $\begin{array}{r} 3 士 \\ 37 \\ 269 \end{array}$ | $\begin{array}{r} 49 \\ 24 \\ 213 \end{array}$ |  |  |  |  |  |  |  |  |
| Colorado |  |  |  |  |  | 28 |  |  |  |  |
| Arizona | $\begin{array}{r} 42 \\ 52 \\ 108 \\ 56 \\ 3+3 \\ 3+6 \\ 2,429 \end{array}$ | $\begin{array}{r} 16 \\ 57 \\ 59 \\ 31 \\ 142 \\ 185 \\ 1,278 \end{array}$ |  |  | 104 | 64 |  |  | 156103103 | $\begin{array}{r}161 \\ \begin{array}{c}129 \\ 31\end{array} \\ \hline 18\end{array}$ |
| Nevad |  |  |  |  |  |  |  |  |  |  |
| Idaho |  |  |  |  |  |  |  |  | 56 |  |
| Washing |  |  |  |  | $\begin{gathered} 1 i 1 \\ 184 \\ \hline \end{gathered}$ | $\begin{gathered} 56 \\ 152 \end{gathered}$ | $\begin{gathered} 159 \\ 838 \\ \hline 159 \end{gathered}$ | $\begin{gathered} 19 \\ 99 \\ \hline \end{gathered}$ | $\begin{array}{r} 00 \\ 451 \\ 549 \\ 3,267 \end{array}$ |  |
| California |  |  | - 22 | 44 |  |  |  |  |  |  |

TABLE 2．－Number of undergraduate and graduate students in public universi－ ties，colleges，and schoois of technology．

| State or Territory． | Collegiate depart－ ments． |  |  | Graduate departments． |  |  |  |  |  | Total number of undergraduate and graduate students． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Resident． |  |  | Nonresident． |  |  |  |  |  |
|  |  | $\begin{aligned} & \text { ë } \\ & \text { g̈y } \\ & 0 \\ & \text { un } \end{aligned}$ | $\begin{aligned} & \text { సై } \\ & \text { సi } \\ & \text { En } \end{aligned}$ | $\begin{aligned} & \text { 追 } \\ & \text { ت゙ } \end{aligned}$ |  |  | $\begin{aligned} & \text { 由゙ } \\ & \text { 㝝 } \end{aligned}$ |  | $\begin{aligned} & \text { 莍 } \\ & \stackrel{0}{0} \end{aligned}$ | 䔍 |  | $\begin{gathered} \text { ت⿹\zh26灬 } \\ \text { ¢ } \end{gathered}$ |
| United States | 21， 805 | 6，415 | 28,20 | 1，033 | 415 | 1，508 | 18.2 | 48 | 230 | 23，080 | 6，8i8 | 29，958 |
| N．Atlantic Division | 4． 693 | 242 | 4，935 | 131 | 6 | 187 | 2 | 0 | 2 | 4，826 | 48 | 5，074 |
| S．Atlantic Division． | 3，395 | 23 | 3．553 | 125 | 10 | 135 | 24 | 1 | 23 | 3.474 | 3 | 3， 713 |
| S．Central Division．． | 2，201 | 531 | 2，735 | 68 | 12 | 80 | 1 1t | 4 | 18 | 2，236 | 547 | 2，833 |
| N．Central Division | 9，297 | 3，969 | 13．266 | 688 | 290 | 918 | 123 | 37 | 168 | 10，0土8 | 4，2\％ | 14，344 |
| Western Division ．． | 2，296 | 1，445 | 3， 731 | 141 | ${ }^{97}$ | 238 | 19 | 6 | 25 | 2，445 | 1，5ı3 | 3， 994 |
| N．Atlantic Division： Maine | 307 | 10 | 317 |  | 0 |  | 0 | 0 | 0 | 314 | 10 | 324 |
| New Hampshire | 65 | 14 | 79 | 1 | 0 | 2 | 0 | 0 | 0 | 67 | 14 | 81 |
| Vermont－－．－．．． | 245 | 51 | 295 | 1 | 0 | 1 | 1 | 0 | ， | 247 | 51 | 298 |
| Massachusetts ．－ | 1，193 | 69 | 1，265 | 83 | 3 | 85 | 1 | 0 |  | 1，279 | \％ | 1，351 |
| Rhode Island．－－－ | 96 | 48 | 144 | 5 | 2 | 7 | 0 | 0 | 0 | 101 | 50 | 121 |
| Counecticut． | 84 | 24 | 108 | 0 | 0 | 0 | 0 | 0 | 0 | 84 | 24 | 108 |
| New York．－． | 1，110 | 0 | 1，110 | 0 | 0 | 0 | 0 | 0 | 0 | 1，110 | 0 | 1，110 |
| New Jersey | 161 | 14 | 175 | 0 | 0 | 0 | 0 | 0 | 0 | ， 161 | 14 | 125 |
| Sennsylvaria ．．． | 1，429 | 12 | 1，441 | 34 | 1 | 35 | 0 | 0 | 0 | 1， 463 | 13 | 1，4\％ |
| S．Atlantic Division： | 10\％ | 5 | 107 | 3 | 0 | 3 | 0 | 0 | 0 | 105 | 5 | 110 |
| Maryland． | 310 | 0 | 340 | $\stackrel{3}{3}$ | 0 | 3 | 1 | 0 | 1 | 344 | 0 | 344 |
| Dist．Columbia | 80 | 33 | 103 | 3 | $\stackrel{2}{2}$ | 5 | 0 | 0 | 0 | 73 | 35 | 108 |
| Virginia．．．． | 797 | 93 | 797 | 59 | 0 | 59 | 10 | 0 | 10 | 860 | 0 | 866 |
| West Virginia | 259 | 63 | $3 \%$ | 5 | 6 | 11 | 10 | 1 | 11 | 234 | 70 | 3.4 |
| North Carolina | 635 | 16 | 651 | 27 | 1 | 23 | 3 | 0 | 3 | 665 | 17 | $6{ }^{682}$ |
| South Carolina．－ | 507 | 17 | 584 | 13 | 0 | 13 | 0 | 0 | 0 | 590 | 17 | 537 |
| Georgia | 510 | 14 | 524 | 8 | 0 | 8 | 0 | 0 | 0 | 518 | 14 | 532 |
| Florida ．．．－．．．． | 105 | 80 | 185 | 4 | 1 | 5 | 0 | 0 | 0 | 109 | 81 | 190 |
| S．Central Division： | 190 | 58 | 948 | 5 | 1 | 6 | 0 | 0 | 0 | 195 | 59 |  |
| Tennessee． | 193 | 59 | 251 | 12 | 2 | 14 | 0 | 0 | 0 | 204 | 61 | 55 |
| Alabama | 438 | 35 | 473 | 27 | 0 | $2 \%$ | 0 | 0 | 0 | 465 | 35 | 500 |
| Mississippi | 389 | 160 | 349 | 4 | 0 | 4 | 14 |  | 18 | 407 | 164 | 571 |
| Louisiana | 158 | 0 | 158 | 4 | 0 | 4 | 0 | 0 | 0 | 162 | 0 | 162 |
| ＇resas．．． | 613 | 129 | 712 | 14 | 7 | 21 | 0 | 0 | 0 | 627 | 136 | 763 |
| Arkansas． | 151 | ${ }^{63}$ | 217 | 1 | 2 | 3 | 0 | 0 | 0 | 155 | 65 | $2: 3$ |
| Oklahoma | 70 | 27 | 97 | 1 | 0 | 1 | 0 | 0 | 0 | 31 | 27 | 98 |
| N．Central Division： Ohio | 1． 004 | 413 | 1，41\％ | 41 | 34 | 5 | 10 | 4 | 14 | 1，055 | 451 | 1，506 |
| Indiana． | 1，251 | 376 | 1， 637 | 81 | 35 | 115 | 15 | 0 | 15 | 1，353 | 411 | 1， 767 |
| Illinois | ， 539 | 158 | 1,696 | 30 | 1 | 31 | 36 | 11 | 47 | 1，604 | $1 \% 0$ | ${ }^{\text {1）}}$ \％${ }^{\text {\％}}$ |
| Michigan | 1，407 | 648 | 2.055 | 52 | 24 | 76 | 2 | 1 | 3 | 1，461 | $6 \%$ | 2，134 |
| Wisconsin | 1994 | 335 | 1，329 | 78 | 28 | 106 | 17 | 5 | 22 | 1，089 | 368 | 1， $45 \%$ |
| Minnesota | 1，014 | 577 | 1，531 | 138 | 46 | 184 | 0 | 0 | 0 | 1，15； | 6\％3 | 1， 775 |
| Iowa．－ | 867 | 278 | 1， 145 | 32 | 22 | 51 | 29 | 10 | 39 | 928 | 310 | 1，238 |
| Missouri | 439 | 102 | 541 | 19 | 4 | 23 |  | 0 | 0 | 458 | 103 | 564 |
| North Dakota． | 80 | 52 | 133 | 4 | ${ }_{\sim}^{0}$ | 4 | 3 | 0 | 3 | 87 | 5. | 139 |
| South Dakota | $2{ }^{2}$ | 153 | 425 | 9 | 7 | 16 | 3 | 3 | 6 | 234 | 163 | 447 |
| Nebraska ．．．． | 583 | 392 | 975 | 87 | 53 | 140 | 3 | 1 | 4 | 673 | 416 | 1，119 |
| Kansas－ | 838 | 485 | 1，323 | 58 | 36 | 94 | 5 | 2 | 7 | 901 | $5: 3$ | 1，424 |
| Western Division： Montana | 38 | 49 | 78 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 40 | 78 |
| Wyoming | 33 | 23 | 55 | ＋ | \％ | 6 | ， | 0 | 2 | 39 | 24 | 63 |
| Colorado | $45 \pm$ | 171 | 625 | 21 | 8 | 29 | 11 | 1 | $1: 3$ | 486 | 180 | 656 |
| New Mexico | 57 | 28 | 85 | 1 | 0 | 1 | 0 | 0 | 0 | 58 | 28 | 86 |
| Arizona | 42 | 16 | 58 | ， | 0 | 0 | 0 | 0 | 0 | 42 | 16 | 58 |
| Utah． | 152 | 117 | 239 | 3 | 4 | 7 | 0 | 0 | 0 | 155 | 121 | 276 |
| Nevada | 105 | 58 | 163 | 3 | 1 | 4 |  | 0 | 0 | 108 | 59 | 157 |
| Idaho． | 53 | 31 | 84 | 3 | 0 | 3 | 0 | 0 | 0 | $5{ }^{\circ}$ | 31 | 87 |
| Washington．．．．．－ | 239 | 147 | 386 | 3 | 2 | 5 | 0 | 0 | 0 | 242 | 149 | 391 |
| Oregon－－．－．．．．－ | 244 | 185 | 4.929 | 8 | 10 | 18 | 0 | ${ }_{5}$ | ${ }^{0}$ | 20\％ | 195 | 447 |
| California．．．．．．．－ | 869 | 630 | 1，493 | 95 | 70 | 165 | 6 | 5 | 11 | 970 | 705 | 1，675 |

Table 3．－Proportion of population to college students（based on the number of students from the several States in the colleges of the United States）．

| State or Territory． | 1896－9\％． |  |  | 1897－88． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of stu－ dents from the several States attend． ing col－ lege． | Estimated popilation （1896）． | Number of people to each college student． | Number of stu－ dents from the several States attend． ing col lege． | $\begin{gathered} \text { Estimated } \\ \text { population } \\ (189 \%) . \end{gathered}$ | Number of people to each college student． |
| United States ．．．．．．．．．North Atlantic Division．．．．Scuth Atlantic Division．－．South Central Division．－．．North Central Division．－．．．Western Division．．．．．．．．．．． | 84， 055 | $70,595,391$ | $83 i$ | 89，649 | \％1，3\％1 14.2 | 796 |
|  | 26，472 | 19，5：20， 400 | $\% 37$ | 27,956 | 19，947，800 | 714 |
|  | 9，064 | 9．667，000 | 1，069 | 9，451 | 9， 332,882 | 1，030 |
|  | 10，23： | 12，747，200 | 1，246 | 10，382 | 12，84，606 | 1，237 |
|  | 32，581 | 24，827，541 | 762 | 34，800 | 21，933， 500 | 716 |
|  | 6，606 | 3，833，180 | 580 | 7，030 | 3，915，360 | 552 |
| North Atlantic Division： |  |  |  |  | 657，300 | 515 |
| New Hampshire． | 569 | a 389， 000 | 684 | 613 | 398，700 | 650 |
| Vermont ．．．－．．． | 646 | 332， 500 | 515 | 690 | 333， 000 | 483 |
| Massachusett | 5，416 | 2，547，000 | $4 \% 1$ | 5，785 | 2，6：3 5 ，000 | 455 |
| Phode Istand | $77 \%$ | 393，400 | 506 | 759 | 395， 700 | 521 |
| Connecticut | 1，399 | 817，900 | 583 | 1，467 | 810,106 | 513 |
| New York | 7，873 | 6，722，000 | 851 | 8，209 | 6，851，000 | 835 |
| New Jersey | 1，641 | 1．716，000 | 1，046 | 1，790 | 1，768，000 | 988 |
| Pennsylvania ．－．．．．． | 6，87． | 5，917，000 | 865 | \％，368 | 6，070，000 | 82 |
| South A tlantic Division： |  |  |  |  |  |  |
| Maryland | 1，257 | 1，159，（0） | 923 | 1，$\stackrel{213}{2}$ | 1．179，000 | 949 |
| District of Columbia | 497 | 273，600 | 551 | 523 | 277， 288 | $5 \% 8$ |
| Virginia | 1，641 | 1，697，00i） | 1，034 | 1，835 | 1，704，00j | 099 |
| West Virginia | ． 563 | 849，300 | 1，511 | ， 624 | d849．309 | 1，361 |
| North Carolina | 1.838 | 1，763，004 | 959 | 1，826 | d 11，763，000 | 955 |
| South Carolina | 1，251 | 1．256，00\％ | 1，004 | 1，31\％ | 1． 234,000 | 967 |
| Georgia | 1，444 | 2，015，0010 | 1，395 | 1，481 | dこ，015，00」 | 1，358 |
| Florida－－－－－－－－－．－－ | 369 | 48：， 900 | 1，303 | 384 | 497， 600 | 1，296 |
| South Central Division： |  |  |  |  |  |  |
| Tennessee | 1，969 | c $1,857,000$ | ， 943 | 1，941 | d1 8\％7， 000 | 1．907 |
| Alabama | 1，207 | 1，709．000 | 1，416 | 1，255 | 1，741，000 | 1．387 |
| BIississippi | 1，071 | c 1， 431.000 | 1，332 | 894 | $c 1,431,000$ | 1．601 |
| Louisiana | 1，200 | 1，234，000 | 1，028 | 1，107 | 1，253，000 | 1.138 |
| T＇ezas． | 2，251 | 2，979，000 | 1，3\％3 | 2，446 | d2，979，（000 | 1．218 |
| Arkansas | 823 | 1，270，000 | 1，53． | 848 | 1，200，000 | 1， 521 |
| Oklahoma | 101 | 274，200 | 2，715 | 131 | 280，600 | 2，091 |
| Indian Territory． | 65 |  |  | 66 |  |  |
| North Central Division： |  |  |  |  |  |  |
| Ohio ．．．．． | 5， 754 | 3．83̃จ， 000 | 670 | 5，895 | 3，832，000 | 650 |
| Indiana | 2，831 | 2．289，000 | 809 | 3，404 | 4， 594,000 | 653 |
| Michigan | 2，8：9 | c2，241，641 | 792 | 2，824 | 2．246，000 | 795 |
| Wisconsin | 1，93－t | 2，054，000 | 1，052 | 2，229 | 2，072，000 | 930 |
| Minnesota | 2，412 | 1，8！1，000 | 680 | 2，585 | 1，76，000 | 6 6） |
| Iowa． | 3，618 | 2，088，000 | $57 \%$ | 3，741 | 2，101，000 | $56 \%$ |
| Missouri | 2，771 | 3，005，000 | 1，08！ | 2，890 | 3，036，060 | 1，051 |
| North Dakota | 217 | 303，600 | 1，339 | 288 | ci 303，600 | 1.054 |
| South Dakota | ${ }^{606}$ | a 401.300 | 662 | 715 | d 34：，c00 | 480 |
| Nebraska | 1， 488 | 1，111，000 | 747. | 1．65\％ | 1，131，000 | 683 |
| Kansas | 2，422 | 1，3\％9，000 | 549 | 2，680 | $1,3 \geqslant 9,000$ | 49\％ |
| Western Division： 105 |  |  |  |  |  |  |
| Montana ．－－．－ | 165 | 209， 800 | 1，272 | 193 | 229，400 | 1，189 |
| Wyoming | 112 | 99， 700 | 890 | 89 | d99． 700 | 1，118 |
| Colorado | 784 | 544．209 | 6994 | 904 | 564， 8004 | 635 |
| New Mexico． | 88 | 177，200 | 2，014 | 113 | 1\％土．900 | 1，548 |
| Arizolla | 58 | 78，380 | 1，351 | 76 | 80，65 4 | 1.047 |
| Utah． | 327 | 258，500 | 791 | 285 | 200.700 | 915 |
| Nevada | 155 | 41，500 | 268 | 155 | 41，610 | 268 |
| Idaho． | 128 | 143， 400 | 1，1：0 | 176 | 138， 109 | 785 |
| Washington | 701 | 479，700 | 1，681 | $72 \%$ | d 479， 700 | 664 |
| Oregon | 741 | 378,800 | $\cdot 511$ | 875 | （3）8，80） | 433 |
| California | 3，347 | 1，422，000 | 425 | 3，501 | 1，467，000 | 419 |

Table 4.-Students attending college in the State and in the geographical division in which they reside.

| State or Territory. | 1896-97. |  |  |  |  | 1897-98. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Scudents attending college in the State in which they reside. |  | Students attending college in the geographical division in which they reside. |  |  | Students attending college in the State in which they reside. |  | Students attending college in the geographical division in which they reside. |  |
|  |  | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | $\begin{aligned} & \text { Pro- } \\ & \text { por- } \\ & \text { tion. } \end{aligned}$ | Number. | Pro-portion. |  | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | Pro-portion. | Num- ber. | $\begin{aligned} & \text { Pro- } \\ & \text { por- } \\ & \text { tion. } \end{aligned}$ |
| United | 84,855 |  | Perct. |  | Perct. | 89,679 |  | Per ct. |  | Perct. |
| rth Atlantic Division | 26. |  |  |  | 94. | 27,956 |  |  | 3 |  |
| South Atlantic Livision | 9,061 |  |  | 7,5 | 83.00 | 9,451 |  |  | 7,907 | 83.66 |
| South Central Division. | 10,232 |  |  | 9,151 | 89.44 | 10,382 |  |  | 9,112 | 87. 77 |
| North Central Division. | 32,581 |  |  | 29,353 | 90.09 | 34,800 |  |  | 31,485 | 90.47 |
| Western Division......- | 6,606 |  |  | 5,91: | 89.49 | 7,090 |  |  | 6,392 | 90.16 |
| NorthAtlantic Division: <br> Maine |  |  |  |  |  |  |  |  |  |  |
| New Ham | 1, 2769 | 884 | 68.44 41.12 | 1,235 | ${ }_{97.17}^{96.71}$ | 1,275 613 | $\begin{array}{r}893 \\ 260 \\ \hline\end{array}$ | 70.04 42.41 | 1,237 | 9. 62 |
| Vermont | 646 | 335 | 51.86 | 621 | 95.13 | 690 | $3{ }^{212}$ | 53.91 | 661 | 95.80 |
| Massachusett | 5,416 | 4,463 | 82.40 | 5,263 | 97.18 | 5,785 | 4,744 | 8.. 01 | 5,623 | 97. 29 |
| Rhode Island | 777 | 587 | 75.55 | 750 | 96. 53 | 759 | 555 | 73. 25 | 739 | 97.36 |
| Connecticut | 1,399 | 797 | 56.97 | 1,319 | 94.28 | 1,467 | 882 | 56. 03 | 1,391 | 94.82 |
| New York | 7,873 | 5,235 | 66.49 | 7,380 | ${ }^{93.74}$ | 8,209 | 5,589 | 68.08 | 7,689 | ${ }_{93}^{93.65}$ |
| New Jerse | 1,611 | ${ }_{5} 97$ | ${ }^{45.52}$ | 1,560 | 95.06 92.12 | 1,790 7,368 | 755 5,676 | 42. 18 \%\%. 04 | 1,680 6,776 | 93.85 91.97 |
| South Atlantic Division: |  |  |  |  |  |  |  |  |  |  |
| Delaware | 205 | 77 | 37.56 | 100 | 48.83 | 212 | 90 | 42.45 | 116 | 72 |
| Maryland | 1,25\% | 858 | 68.26 | 959 | 76.29 | 1,243 | 827 | 64. 53 | 947 | 76. 19 |
| District of | 497 | 232 | 46. 68 | 274 | 55.13 | 52.6 | 243 | ${ }^{46.20}$ | 302 | 57.41 |
| Virginia. | 1,641 | 1,276 | 77. 76 | 1,431 | 87.20 | 1,835 | 1,454 | 79.24 | 1,616 | 88.07 |
| West Virginia | 562 | 326 | 58. 01 | 405 | 78.06 | 624 | 399 | 63.94 | 480 | 75. 92 |
| North Carolin | 1,838 | 1,580 | 85.96 | 1,698 | 92.38 | 1,826 | 1,556 | 85.21 | 1,691 | 92.61 |
| South Cay | 1,231 | 987 | 78.80 | 1,131 | 90.41 | 1,317 | 1,034 | ${ }^{78} 8.51$ | 1,203 | 91. 34 |
| Georgia | 1,444 | 1,165 | 80.68 | 1,24t | 86.15 | 1,484 | 1,157 | 77.06 | 1,247 | 84.03 |
| Florida | 369 | 232 | 62. 87 | 281 | 76.15 | 384 | 250 | 65.10 | 305 | 79.43 |
| Kentucky | 1,537 | 1,182 | 76.90 | 1,257 | 81.78 | 1,691 | 1,311 | 77.53 | 1,382 | 1.73 |
| Tennessee | 1,959 | 1,701 | 86.39 | 1,783 | 90. 55 | 1,941 | 1,660 | 85.53 | 1,730 | 89.13 |
| Alabama | 1,207 | 1,007 | 83.43 | 1,113 | 92.21 | 1,255 | 1,037 | 82. 63 | 1,145 | 91.24 |
| Mississipp | 1,074 | 823 | 75.63 | 988 | 91.99 | 894 | 648 | 72.48 | 802 | 89.71 |
| Louisiana | 1,200 | 965 | 80.42 | 1,118 | 93.17 | 1,107 | 896 | 80.94 | 1,005 | 90. 79 |
| Texas | 2,251 | 1,873 | 83.21 | 2,014 | 89.47 | 2,446 | 2,027 | 83.87 | 2,162 | 88. 39 |
| Arkans | $8 \%$ | 679 | 82. 00 | 753 | 90.94 | 848 | 657 | 77.48 | 742 | 87.50 |
| Oklahoma | 101 | 71 | 70.30 | 78 | 77.23 | 134 | 96 | 71. 64 | 99 | 73.88 |
| Indian Territory | 65 | 21 | 32.31 | 47 | 72.31 | 66 | 32 | 48.48 | 45 | 68.18 |
| North Central Division: <br> Ohio | 5,754 | 4,513 | 78.43 | 4,910 | 85.33 | 5,895 | 4,625 | 78.46 | 5,061 |  |
| Indiana | 2,831 | 2,280 | 80.54 | 2,609 | 92. 16 | 3,434 | 2,767 | 80.58 | 3,178 | 92.55 |
| Illinois | 5,699 | 4,141 | 72. 66 | 4,900 | 85.98 | 5,862 | 4,129 | 70.44 | 5, 065 | 86.42 |
| Michigan | 2,829 | 2,398 | 84. 76 | 2,611 | 92.29 | 2,824 | 2,339 | 82. 83 | 2.589 | 91.68 |
| Wisconsin | 1,934 | 1,526 | 78.90 | 1,776 | 91.83 | 2,229 | 1,788 | 80.22 | 2,085 | 93.54 |
| Minneso | 2,412 | 2,0\%2 | 85.90 | 2,269 | 94.07 | 2,585 | 2,228 | 86.19 | 2,432 | 94.08 |
| Iowa. | 3, 618 | 2,802 | 77.45 | 3, 395 | 93. 84 | 3,741 | 2,791 | 74.61 | 3, 501 | 93.58 |
| Missouri | 2,7\%1 | 1,978 | 71.38 | 2,379 | 85.85 | 2,890 | 2,069 | 71.59 | 2,470 | 85.47 |
| North Dak | 217 | 122 | 56.28 | 205 | ${ }^{94.47}$ | 288 | 162 | ${ }^{56} 5125$ | ${ }^{274}$ | 95. 14 |
| South bak | 606 | 475 | 78.38 | 587 | 96.86 | 715 | 554 | 77.48 | ${ }^{692}$ | 96.78 |
| Nebrask | 1,488 | 1,269 | 85.28 | 1,417 | 95.23 | 1,657 | 1,394 | ${ }^{84.13}$ | 1,581 | ${ }_{95}^{95} 41$ |
| Kansas -- | 2,422 | 2,092 | 86.37 | 2,295 | 94.76 | 2,680 | 2,340 | 87.31 | 2,556 | 95.37 |
| Western Division: Montana ....... | 165 | 86 | 52.12 | 111 | 67.27 | 193 | 95 | 49.22 | 125 | 4.77 |
| Wyoming | 112 | 75 | 66.96 | 84 | 75.09 | 89 | 48 | 53.93 | 61 | 68.54 |
| Colorado | 784 | 603 | 76.91 | 626 | 79.85 | 904 | 708 | 78.32 | 735 | 81.31 |
| New Mex | 88 | 54 | 61.36 | 67 | 76.14 | 113 | 74 | 65.49 | 91 | 80.53 |
| Arizona | 58 | 32 | 55.17 | 41 | 70.69 | 77 | 49 | 63.64 | 65 | 84.42 |
| Utah | 327 | 266 | 81.35 | 281 | 85.93 | 285 | 211 | 74.00 | 233 | 81.75 |
| Nevada | 155 | 134 | 86.45 | 147 | 94.84 | 155 | 134 | 86.45 | 148 | ${ }_{9}^{95.48}$ |
| Idaho | 128 | 57 | 44.53 | 105 | 82.03 | 176 | 81 | 46.02 | 162 | ${ }_{90}^{93.05}$ |
| Washing | 701 | 588 | 83.88 | 641 | 91.44 | 722 | 586 | 81.16 | 656 | 90.86 94.06 |
| Oregon ${ }_{\text {California }}$ | 741 3,347 | 629 3,094 | 83.67 92.44 | - ${ }^{692}$ | 93.39 93.13 | 875 3,501 | 737 3,253 | 84.23 | 823 3,293 | 94.06 94.06 |
| Calitorn | 3,347 | 3,094 | 92.44 | 3,117 | 93.13 | 3,501 | 3,253 | 92.92 | 3,293 | 94.06 |

Table 5.-Number and proportion of students attending college in the severat States who are drawn (1) from the State and (2) from the geographical division in which the colleges are located.


Table 6.-Residence of coilege students.

| Residence of students. | Students attending college in- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | North Atlantic Division. | South Atlantic Division. | South Central Division | North Central Division. | Western Division. | United States. |
| Cuba <br> Hawai <br> Porto Rico <br> Other foreign countries <br> United States. | 24 | 6 | 2 | 1 |  | 33 |
|  | 11 |  |  | 3 | 3 | 17 |
|  | 324 | 50 | 49 | 265 | 65 | \% 51 |
|  | 30,476 | 9,394 | 9, 759 | 33,257 | 6, 793 | 89, 679 |
| North Atlantic Division South Atlantic Division. South Central Division North Central Division. Western Division. | 26,393 | 635 | 25 | 800 | 103 | 27,956 |
|  | 891 | 7,907 | 403 | 227 | 20 | 9,451 |
|  | 361 | 405 | 9,112 | ${ }^{470}$ | - 34 | 10,382 |
|  | 2, 477 | 389 | 205 | 31,485 | ${ }_{2} 24$ | 34, 800 |
|  | 351 | 58 | 14 | 275 | 6,392 | 7,090 |
| North Atlantic Division: |  |  |  |  |  |  |
| New Hampshire |  |  | 1 | 10 | 5 | 1,275 |
| Vermont... | 661 | 5 |  | 20 | 4 | 690 |
| Massachusetts | 5, 628 | 73 | 5 | 62 | 17 | 5,785 |
| Rhode Island. | 1,391 | 13 |  | 41 | 4 | 1759 |
| New York. | 7,689 | 161 | 7 | 328 | 24 | 8,209 |
| Now Jersey. | 1,680 | 67 | , | 30 | 9 | 1,790 |
| Pennsylvania | 6,776 | 267 | 7 | 285 | 32 | 7,368 |
| South Atlantic Division: |  |  |  |  |  |  |
| Deiaware | 95 |  |  | 1 |  | -212 |
| District of Columbi | 252, | 947 392 | 5 6 |  | 11 | 1,243 |
| Vistrict of Columbin | ${ }^{13}$ | 1,616 | 83 | 42 | 1 | 1,885 |
| West Virginia | 54 | 480 | 24 | 62 | 4 | 62 2 |
| North Carolina | 81 | 1,691 | 45 | 9 |  | 1,8\%6 |
| South Carolina | 48 | 1,203 | 53 | 13 |  | 1,317 |
| Georgia | 63 | 1,247 | 140 | 31 | 3 | 1,484 |
| Florida ..s------..... | 26 | 305 | 4.7 | 5 | 1 | 384 |
| South Central Division: |  |  |  |  |  |  |
| Tennessee | 66 | 103 | 1, 730 | 39 | 3 | 1,941 |
| Alabama | 24 | 66 | 1,145 | 20 |  | 1,255 |
| Mississippi | 18 | 40 | 1802 | 34 |  | 1894 |
| Louisiana | 38 | 37 | 1.005 | 24 | 3 | 1,107 |
| Texas ... | 8.3 | 77 | 2,163 | 104 | 21 | 2,446 |
| Arkansas | 24 | 17 | \%42 | 64 | 1 | 848 |
| Oklahoma. | 3 | 2 | 99 | 30 |  | 134 |
| Indian Territory |  | 3 | 45 | 17 | 1 | 65 |
| North Central Division: |  |  |  |  |  |  |
| Ohio -..-- | ${ }^{632}$ | 115 | 48 | 5,061 | 39 | 5, 295 |
| Indiana. | 1759 | 30 | 45 | -178 | 3 | ${ }_{5}^{3,434}$ |
| Michigan | 184 | 93 | - | 2,589 | 25 | $\stackrel{2}{2} 8.24$ |
| Wisconsin | 112 | 18 | 2 | 2,085 | 14 | 2, 229 |
| Minnesota | 119 | 84 | 1 | 2,43; | 9 | 2,585 |
| Iowa.... | 166 | 38 | 2 | 3,501 | 34 | 3. 741 |
| Missouri | 290 | 51 | 66 | 2,470 | 13 | $\stackrel{2}{2} 890$ |
| North Dakota | 12 | 1 |  | 274 | 1 | 288 |
| South Dakota | 16 | 3 |  | 692 | 4 | 715 |
| Nebraska | ${ }_{2}$ | 10 | 1 | 1,581 | 23 | 1,657 |
| Kansas------ | 71 | 16 | 14 | 2,556 | 23 | $\stackrel{2}{2}, 680$ |
| Western Division: |  |  |  |  |  |  |
| W yoming - | ${ }_{6} 6$ | 3 | 1 | 18 | 61 | 89 |
| Colorado | 82 | 10 | 3 | 71 | 735 | 504 |
| New Mexico | 7 |  | 4 | 11 | ${ }^{91}$ | 113 |
| Arizona | 7 | 1 | 1 | 3 | 65 | \% 7 |
| Utah | 28 | 5 |  | 19 | 148 | 200 |
| Idaho.- | 3 | 2 |  | 9 | 162 | 176 |
| Washingto | 29 | 1 | 1 | 35 | 656 | \%22 |
| Oregon-- | 121 | 4 |  | 16 | ${ }^{823}$ | ${ }_{8} 875$ |
| Calitornia | 121 | 26 | 3 | 58 | 3,293 | 3,501 |
| Alaska. |  |  |  |  | 3 | 3 |

Table 7.-Residence of students attending college in the States of the North Atlantic Division.


Table 8.-Residence of students attending college in the States of the South Atlantic Division.

| Residence of students. | Students attending college in- |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | \% |  |  |  | - | 先 |
| Cuba |  |  | 1 |  |  |  |  |  | 5 |
| Hawaii Porto |  |  |  |  |  |  |  |  |  |
| Other foreign countries .- |  | $17^{\circ}$ | 13 | 10 | 3 | 3 | 2 | 1 | 1 |
| United States | 110 | 1,643 | 750 | 1,982 | 484 | 1,796 | 1,18\% | 1,226 | 271 |
| North Atlantic Division .. South Atlantic Division .. | 105 | 351 1,037 | 173 364 | 27 1,693 | 49 405 | 1, $\begin{array}{r}25 \\ 487\end{array}$ | ${ }_{1,101}^{1}$ |  | - $\quad \begin{array}{r}4 \\ 4\end{array}$ |
| South Central Division ..- |  | -65 | 50 | 1, 207 | 4 | 1, 21 | 1, 30 | 1, 26 |  |
| North Central Division... |  | 168 | 139 | 44 | 26 | $\stackrel{2}{1}$ |  |  | 10 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| New Hampshire......... |  | 1 | ${ }_{3}^{8}$ | 1 |  |  |  |  |  |
| Vermont.-....... |  | 2 | 3 |  |  |  |  |  |  |
| Massachusetts |  | 42 | 26 | 3 |  | 1 |  |  | 1 |
| Rhode Island. |  | 10 | 2 |  |  | 1 |  |  |  |
| Connecticut |  | 19 | 9 51 | 10 | $\frac{1}{5}$ | 3 | 1 |  |  |
| New Jersey |  | 48 | 13 | 10 |  | 3 |  |  | 1 |
| Pennsylvania. | 5 | 133 | 58 | 6 | 43 | 20 |  |  | 2 |
|  |  |  |  |  |  |  |  |  |  |
| Delaware --............. | 90 | 21 | $\underset{4}{2}$ | 3 |  |  |  |  |  |
| Maryland ............- | 15 | 827 | 45 | 54 | 3 | 1 |  | 2 |  |
| District of Columbia - |  | 41 | 243 | 14 |  | 2 | 1 | 1 |  |
| West Virginia |  | 66 16 | 4 | 1,454 60 | 399 | ${ }_{1}^{46}$ | 2 |  |  |
| North Carolma |  | 34 | 10 | 44 |  | 1,556 | 40 | 7 |  |
| South Carolina |  | 15 | 8 | 29 |  | 106 | 1,03t | 11 |  |
| Georgia .-................ |  | 15 | 3 | 24 |  | 24 | ${ }^{19}$ | 1,157 | 5 |
| Florida |  | 2 | 4 | 11 |  | 11 | 5 | 22 | 250 |
| South Central Division: |  | 14 |  | 37 | 3 |  |  | 2 |  |
| Tennessee .-...--- |  | 11 | 11 | 56 |  | 9 | 8 | 8 |  |
| Alabama. |  | 8 | 8 | 17 | 1 | 5 | 13 | 12 | 2 |
| Mississippi-.............. |  | 9 | 3 | 23 |  | 1 | 2 | 2 |  |
| Louisiana. |  | 9 | 7 | 19 |  | $\stackrel{2}{2}$ |  |  |  |
| Texas..... |  | 10 4 | 14 4 | 46 |  | ${ }_{1}^{2}$ | $\stackrel{4}{2}$ | 1 |  |
| Arkansas .-...........-. |  | 4 |  | 1 |  |  |  | $1-$ |  |
| Indian Territory......- |  |  | 1 | 2 |  |  |  |  |  |
| North Central Division. |  |  |  |  |  |  |  |  |  |
| Indiana......... |  | 12 | 14 | 6 | 3 |  |  |  |  |
| Illinots.. |  | 27 | 20 | 4 | 1 |  |  |  | 5 |
| Michegan Wisconsin |  | 8 | 10 |  | 2 |  |  |  | 3 |
| Minnesota |  | 15 | 9 |  |  |  |  |  |  |
| Iowa---- |  | 11 | 25 |  | 1 |  |  |  |  |
| Missouri - .-... |  | 12 | 20 | 17 | 1 | 1 |  |  |  |
| North Dakota |  | 1 |  |  |  |  |  |  |  |
| South Dakota |  | ${ }_{7}^{2}$ | 3 |  |  | 1 |  |  |  |
| Kansas....... |  | 11 | 4 | 1 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Utah |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Calitornia. |  | 10 | 12 | 3 |  | 1 |  |  |  |

Table 9.-Residence of students attending college in the States of the South Central Division.


Table 10．－Residence of students attending college in the States of the North Central Division．

| Residence of students． | Students attending college in－ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text {. } \\ & \text { 合 } \\ & \text { 吕 } \end{aligned}$ |  |  |  | $\begin{aligned} & \text { ®i } \\ & \stackrel{y}{0} \end{aligned}$ | $\begin{aligned} & \text { B } \\ & \text { 흘 } \\ & \text { 券 } \end{aligned}$ |  |  |  | 第 |
| Cuba |  | 1 |  |  |  |  |  |  |  |  |  |  |
| Hawai |  |  | 1 |  |  |  |  |  |  |  | 1 |  |
| Porto Rico ．．． | 7 | 25 | 48 | 27 | 11 | 14 | 10 | 38 | 1 | 1 | 4 | 10 |
| United | 5，4i1 | 3，473 | 6，006 | 3，084 | 2，224 | 2， 578 | 3，075 | 2，443 | 178 | 597 | 1，572 | 2，616 |
| North Atlantic Division． | 287 | 100 | 197 | 95 | 30 | 25 | 3 | 33 | 3 | 5 | 10 | 2 |
| South Atlantic Division－ | 90 | 20 | 69 | 9 | 12 | 5 | 5 | 10 |  | 2 | 5 |  |
| South Central Division－－ | 60 4,950 | 3，268 | 5，${ }^{185}$ | 2， 918 | 2，167 | 2，528 | 3，049 | 2， 294 | 175 | 581 | 1，533 | 2，554 |
| Western Division．．．．．．．－ | ， 24 | －2 22 | $\begin{array}{r}5,413 \\ 8.2 \\ \hline\end{array}$ | 2， 45 | 2，107 | － 19 | ${ }^{3,11}$ | 22 | 18 | ${ }^{58} 5$ | 1， 21 | 2， 12 |
| North Atlantic Divisi |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine－．．．．．．．．．． | 1 |  | $\stackrel{3}{5}$ | 1 | 2 | 1 |  | 1 |  |  | 1 |  |
| New Hampshire | 1 |  | 5 3 | 3 | 2 | 3 |  |  | 1 |  | 1 |  |
| Massachusetts | 13 | 8 | 21 | 9 | 3 | 3 | 1 | 1 | 1 |  |  | 2 |
| Rhode Island． |  | 1 | 3 |  |  | 1 |  |  |  |  |  |  |
| Connecticut． | 16 | $\stackrel{6}{7}$ | 11 | 1 | 3 |  |  |  |  | 1 | 2 | 1 |
| Ne：York－ | 91 | 47 | 88 | 49 | 15 | 13 |  | 12 |  | 4 | 4 |  |
| New Jersey． | ${ }^{9}$ | 7 | ${ }^{6}$ | 3 | 1 |  |  |  | 1 |  |  |  |
| Pennisylvania <br> South Atrantic Division： | 144 | 20 | 57 | 26 | 4 | 4 |  | 19 |  |  | 2 | 1 |
| Delaware－．．．． | 1 |  |  |  |  |  |  |  |  |  |  |  |
| Maryland． |  | 5 | 11 | 3 | 4 | 3 |  | 2 |  | 1 |  |  |
| District of Columbia－ | 6 | 3 | 6 | 3 | 4 |  |  |  |  |  | 2 |  |
| Virginia－．．．．．．．．． | 16 | ${ }_{2}^{4}$ | 15 | 2 |  | 1 | 1 | 5 |  | 1 |  |  |
| North Carolina | 2 | 3 | 2 |  |  | 1 |  | 1 |  |  |  |  |
| South Carolina． | 2 |  | 8 |  | 2 |  |  |  |  |  | 1 |  |
| Georgia－－ | ， | 3 | 2 | 1 |  |  |  | 2 |  |  |  |  |
| Florida－．．．．－－－－．．－－ | 1 |  | 1 |  | 2 |  | 1 |  |  |  |  |  |
| South Central Division： Kentucky | 27 | 43 | 47 | 8 |  |  |  | 7 |  |  | 2 | 4 |
| Tennessee | 5 | 3 | 20 | 3 | 1 |  | 1 | 6 |  |  |  |  |
| Alabama | 6 |  | 10 | 1 | 1 |  |  |  |  |  |  |  |
| Mississippi |  | －－．．．． | 21 | 1 | 1 |  |  | 3 |  |  |  | 1 |
| Louisiana | ， |  | 14 |  |  |  | 1 | 3 |  |  |  |  |
| Texas．．．．．． | 7 |  | 47 |  | 3 |  | 4 1 | $\stackrel{21}{21}$ |  | 1 | 1 |  |
| Arkansas－ | $\stackrel{3}{2}$ | 8 | 24 | 2 |  |  | 1 | 21 |  |  |  | 15 |
| Indian Territory |  |  |  |  |  |  | 1 | 12 |  |  |  |  |
| North Central Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio Indiana | 4，625 | －124 | ${ }_{2}^{155}$ | 102 49 | 17 | $\stackrel{2}{2}$ |  | 15 | 1 |  | 9 |  |
| inlinois | 90 | ${ }^{2}, 205$ | 4，1：9 | 277 | 180 | 23 | 50 | 73 |  | 3 | 14 | 22 |
| Michigan | 40 | 45 | －109 | 2，339 | 25 | 10 | 1 | 5 | 1 | 3 | $\stackrel{2}{2}$ | 9 |
| Wisconsin | 12 | 13 | $1{ }^{17}$ | 23 | 1，788 | $\begin{array}{r}64 \\ \hline 0\end{array}$ | 23 | 5 |  | 6 | $\stackrel{2}{5}$ |  |
| Minnesot | 4 |  | ${ }^{71}$ | 20 |  | 2，288 | －${ }_{2}^{46}$ | 5 | 10 | $\stackrel{5}{5}$ | 5 | 3 |
| Iowa．．． | 51 | 36 | 305 | 56 | 5 | 73 | 2，791 | － 42 |  | 5 | 54 | 33 |
| Missouri | 29 | 36 | 142 | 31 | 19 | 1 | 24 | 2，0＜9 |  | 1 |  | 10 |
| North Dakota | 2 |  | 19 19 |  | 3 | 78 |  |  | $\begin{array}{r} 162 \\ 1 \end{array}$ | $5{ }^{1}$ | 18 |  |
| South Dakota | ， | 11 | 19 55 | $\stackrel{2}{8}$ | $\stackrel{20}{17}$ | 42 | 20 40 |  | $1$ | 554 | 1，18 | 2 |
| Nebraska ．．．． <br> Kansas | 9 | －${ }^{5}$ | 55 86 | 88 | 17 7 | $\stackrel{2}{3}$ | ${ }_{27}^{40}$ | $4{ }_{4}^{27}$ |  |  | 1， 14 | 2，840 |
| Kansas <br> Western Division： | 9 | 14 | 85 | 10 | 7 |  | 2 | 46 |  |  | 14 | 2，340 |
| Montana ．－．．． | 3 | 3 | 6 | 8 |  | 3 |  | 3 |  | 2 | 3 |  |
| Wyoming | 1 |  | ${ }^{6}$ | 4 |  |  |  |  |  | 1 | 4 |  |
| Colorado | 3 |  | 19 | 13 |  | 1 |  | 13 |  |  | 8 |  |
| New Mexic <br> Arizona | 2 |  |  | 2 |  |  |  |  |  |  | 1 |  |
| Utah | 1 | 2 | 4 |  | 1 | 1 |  | 3 |  |  | 1 |  |
| Nevada |  |  | 1 |  |  |  |  |  |  |  |  |  |
| Idaho | 3 | 2 | 2 |  |  |  |  | 1 |  |  | 1 |  |
| Washingt | 4 |  | 15 | ${ }_{3}$ |  |  | 2 |  |  |  |  |  |
| Oregon－ <br> California | 6 | 3 6 | 22 | 2 6 | 1 3 | $\stackrel{2}{2}$ |  | 3 |  | － | 3 | ． |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

Table 11．－Residence of students attending college in the States of the Western Division．

| Residence of students． | Students attending college in－ |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { on } \\ & \text { 萌 } \\ & \text { D } \\ & \end{aligned}$ |  | $\begin{aligned} & \dot{0} \\ & \text { 0. } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 4 \end{aligned}$ | 烒 | 需 |  | 嵒 |  | g 0 －0 0 0 |  |
| Cuba |  |  |  |  |  |  |  |  |  |  |  |
| Hawaii |  |  |  |  |  |  |  |  |  |  |  |
| Othor foreign countri United States ．－ | 2 |  | 3 |  | 1 | 1 |  | 1 | 11 | 1 | 45 |
|  | 99 | 61 | 876 | 86 | 57 | 276 | 167 | 86 | 638 | 766 | 3，681 |
| North Atlantic Division ．．．．．． <br> South Atlantic Division <br> South Central Division <br> North Central Division ．－．．．．．． <br> Westerm Division |  |  | 27 |  | 3 |  | 1 |  | 1 |  | 71 |
|  |  |  | ${ }_{6}^{6}$ |  |  |  | 1 |  |  | 1 | 12 |
|  | $\frac{1}{3}$ |  | ${ }_{8}^{8} 8$ | $\stackrel{9}{2}$ | 1 | 1 | $\frac{1}{3}$ |  | 1 |  | 12 |
|  | 95 | 51 |  | 75 | 51 | $2 \pi 5$ | 161 | 86 |  | ${ }_{763}$ | ${ }^{125}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |
| North Atlantic Division： |  |  |  |  |  |  |  |  |  |  |  |
| Maine－－－．－．－．－－－ |  |  | 3 |  |  |  |  |  | 1 |  |  |
| New Hampshire |  |  | 1 | －－－－ |  |  |  |  |  |  | ${ }_{1}$ |
| Massachusetts |  |  | 3 | ．．． |  |  |  |  |  |  |  |
| Rhode Island |  |  | 1 |  |  |  |  |  |  |  | 1 |
| Connecticut |  |  | 1 | ．．．． |  |  |  |  |  |  | 3 |
| New York． |  |  | 8 | ．．．．－ | 3 |  | 1 |  |  |  | 12 |
| New Jersey |  |  | 1 |  |  |  |  |  |  |  |  |
| Pemnsylvania－－．－．．．．． |  |  | 6 |  |  |  |  |  |  |  |  |
| South Atlantic Dirision： District of Columbia |  |  |  |  |  |  |  |  |  |  |  |
| Virginia－－－－－ |  |  | 1 |  |  |  |  |  |  |  |  |
| West Virginia |  |  |  |  |  |  |  |  |  | 1 | 3 |
| Georgia |  |  | 2 |  |  |  |  |  |  |  | 1 |
| South Central Division： |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Tennessee | 1 |  | 2 |  |  |  |  |  |  |  |  |
| Louisiana． |  |  | 1 |  |  | 1 |  |  |  |  |  |
| Aexas－－．．－ |  |  | 5 | 1 |  |  |  |  |  |  |  |
| Indian Territory |  |  |  |  |  |  |  |  |  |  |  |
| North Central Division： 13 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  |
| Wisconsin |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| North Dakota ．．．．．．．．．．．．．．． |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Montana－－ | 95 |  | 3 |  |  | 1 |  |  | 10 | 3 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  |
| Washington ．．．．．．．．．．．．．．．－ |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| California |  |  | 9 |  | 1 |  |  |  |  | 3 | 3，253 |
| Alaska |  |  |  |  |  |  |  |  | 3 |  |  |

Table 12.-Number of universities and colleges for men and for both sexes, con students in undergraduate collegiate departments,

trolled by the several religious denominations, with the number of professors and and the total amount of endowment funds.


Table 12.-Number of universities and colleges for men and for both

| State or Territory. | United Brethren. |  |  |  | Protestant Episcopal. |  |  |  | Lutheran. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States. | 8 | 65 | 426 | \$139, 000 | 5 | 60 | 503 | \$1,645, 467 | 24 | 189 | 1,854 | 9917,168 |
| North Atlantic Division South Atlantic Division. | 1 | 16 | 94 | 60, 000 | 3 | 41 | $28 \%$ | 1,214,96\% | 4 | 37 23 | 405 | $\begin{array}{r} 46 \%, 060 \\ 87,000 \end{array}$ |
| South Central Division.. North Central Division Western Division | 6 |  | ${ }^{241}$ | 74,009 5,000 | 1 | 10 | 127 89 | 160,009 200,500 | 18 | 129 | 1,15t | 343, 168 |
| North Atlantic Division:Massachusetts_...... |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Connecticut........-. |  |  |  |  | 1 | 23 | 134 | 200,000 |  |  |  |  |
| New York .... Pemncylvania | -1 | 16 | 9.1 | 60, 000 | 2 | 18 | 153 | 514, 967 | 4 | 3 | 105 | 487, (290) |
| South Atlantic Division: Maryland |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| North Carolina |  |  |  |  |  |  |  |  | 2 |  | 5 | 15 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Wisconsin |  |  | Michigan |  |  |  |  |  |  | 14 | 210 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 3 |  |  | 055 |
| Oregon................... | 1 | 8 | 91 | 5,000 |  |  |  |  |  |  |  |  |
|  | 1 |  |  |  |  |  |  |  |  |  |  |  |

sexes, controlled by the several religious denominations, etc.-Continued.


Table 12．－Number of universities and colleges for men and for both sexes，con－ trolled by the several religious denominations，etc．－Continued．

| State or Territory． | Seventh－Day Adven－ tist． |  |  |  | Reformed． |  |  |  | Other． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{aligned} & \text { 蔦 } \\ & \text { 品 } \\ & \text { 㻤 } \\ & \text { 岛 } \end{aligned}$ |  | $\begin{aligned} & \text { in } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & م \end{aligned}$ |  |  |  |  |  |  |
| United States | 3 | 31 | 223 | 0 | 8 | 98 | 706 | 81，407， 830 | 4 | 23 | 147 | 13346， 427 |
| Nor th Alantic Division．．． |  |  |  |  | 3 | 57 9 | 424 | 1， $0: 7,500$ | 1 | 4 | 28 | 115， 000 |
| North Central Division．－ | 2 | 21 | 193 | 0 | 1 | 32 | 238 | 365， 330 | 2 | 11 | 118 | 135，000 |
| Western Division．－．－．．．．－ | 1 | 10 | 25 | 0 |  |  |  |  | 1 | 7 | 1 | 96， 427 |
| North Atlantic Division： <br> New Jersey <br> Pennsylvania |  |  |  |  | 1 | $\begin{aligned} & 27 \\ & 30 \end{aligned}$ | ${ }_{2 \pi 5}^{150}$ | $\begin{array}{r} a 500,000 \\ 5: 7,500 \end{array}$ | $b 1$ | 4 | 28 | 115， 000 |
| South Atlantic Division： North Carolina． |  |  |  |  | 1 | 9 | 24 | 15，000 |  |  |  |  |
| North Central Division： |  |  |  |  | 2 |  |  |  |  |  |  |  |
| Ohio <br> Illinois |  |  |  |  | 2 | 11 | 114 | 135， 000 | $\begin{aligned} & c 1 \\ & c 1 \end{aligned}$ | 3 <br> 8 | $\begin{aligned} & 46 \\ & 72 \end{aligned}$ | $\begin{array}{r} 30,000 \\ 105,000 \end{array}$ |
| Michigan | 1 | 12 | $16 \overline{3}$ | 0 | 1 | 13 | 91 | 206.830 |  |  |  |  |
| Wisconsin－．－．－．．．．．．．．． |  |  |  |  | 1 | 8 | 53 | 24，000 |  |  |  |  |
| Nebraska－－．．．．．．．．．．． | 1 | 9 | 35 | 0 |  |  |  |  |  |  |  |  |
| Western Division： Utah |  |  |  |  |  |  |  |  | e 1 | 7 | 1 | 96， 427 |
| Washington． | 1 | 10 | 25 | 0 | －－－ | －－ |  |  |  |  |  |  |
| $a$ Estimated． bMoravian． | $c$ Church of God．$d$ Evangelical Association．$\quad e$ Latter－Day Sain |  |  |  |  |  |  |  |  |  |  |  |

Table 13.-Classification of universities and colleges for men and for both sexes according to the number of undergraduate students.

| State or Territors. | Institutions having- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} -4 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{gathered}$ |  | $\begin{aligned} & i+1 \\ & i+ \\ & i \\ & i 0 \\ & i 0 \end{aligned}$ | $\begin{gathered} 8 \\ 8 \\ 0 \\ 0 \\ 10 \\ 10 \end{gathered}$ | $\begin{aligned} & \stackrel{9}{4} \\ & \underset{\sim}{9} \\ & 0 \\ & \stackrel{\rightharpoonup}{8} \\ & \hline \end{aligned}$ |  | $\begin{aligned} & \text { o } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 8 \\ & 8 \\ & 8 \end{aligned}$ |  | $\begin{aligned} & \text { © } \\ & \text { 成 } \\ & \hline \\ & 8 \\ & 8 \\ & \hline 0 \end{aligned}$ | $\begin{aligned} & \dot{9} \\ & \stackrel{\rightharpoonup}{4} \\ & 0 \\ & 0 \\ & 8 \\ & \hline \end{aligned}$ | $\begin{aligned} & \dot{8} \\ & \stackrel{8}{2} \\ & \stackrel{1}{\circ} \\ & \stackrel{8}{8} \\ & \hline 8 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 8 \\ & \hline 8 \end{aligned}$ |  |  | $\left\|\begin{array}{c} 8 \\ 8 \\ e \\ 0 \\ + \\ 8 \\ 8 \end{array}\right\|$ |  |  | $\begin{gathered} 8 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{gathered}$ |
| United States | 17 | 45 | 87 | 72 | 71 | 70 | 34 | 30 | 1: | 11 | 4 | 6 | 3 | 2 | 1 | 5 | 2 | 4 | 4 |
| North Atlantic Division . South Atlantic Division South Central Division ... North Central Division... Western Division | $\begin{aligned} & 3 \\ & 5 \\ & 4 \\ & 4 \\ & 4 \end{aligned}$ | $\begin{array}{r} 1 \\ 13 \\ 9 \\ 17 \\ 5 \end{array}$ | $\begin{array}{r} 3 \\ 13 \\ 18 \\ 41 \\ 12 \end{array}$ | $\begin{gathered} 10 \\ 7 \\ 11 \\ 29 \\ 5 \end{gathered}$ | 12 <br> 10 <br> 11 <br> 34 <br> 4 <br> 4 | $\begin{array}{r} 9 \\ 12 \\ 14 \\ 30 \\ 5 \\ \hline \end{array}$ | 13 6 6 6 2 2 | $\begin{array}{\|r\|} \hline 10 \\ 5 \\ 6 \\ 6 \\ 3 \\ \hline \end{array}$ | $\begin{aligned} & 5 \\ & 1 \\ & 4 \\ & 2 \end{aligned}$ | $\begin{gathered} 5 \\ 3 \\ -\quad- \\ \hline 3 \end{gathered}$ | 1 | 2 1 3 | 3 | 2 | 1 | 2 | 1 $\cdots$ -1 -1 | 1 <br> $\cdots$ <br> 2 <br> 1 | 2 2 2 |
| North Atlantic Division: <br> Maine <br> New Hampshire-.............. <br> Vermont <br> Massachusetts. <br> Rhode Island $\qquad$ <br> Connecticut $\qquad$ <br> New York <br> New Jersey <br> Pennsylvania |  |  |  |  |  |  |  | 2 | 1 | 1 |  | 1 |  |  |  |  |  |  |  |
|  |  |  |  | 1 |  | 1 |  |  | 1 |  |  | 1 |  |  |  |  |  |  |  |
|  | 1 | 1 |  |  |  |  | 1 | 1 | 1 | 2 | 1 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 1 |  |  |  | $1-$ |  |  |  | 1 |  |  |  |  |  |
|  |  |  | 2 | 2 | 6 | 3 | 4 | 2 |  |  |  | 1 |  | 1 | 1 |  |  | 1 |  |
|  |  |  | 1 | $\stackrel{2}{4}$ | 6 | 4 | 1 | 5 | 2 | 1 |  |  |  |  |  | 1 | 1 |  |  |
| South Atlantic Division: Delaware $\qquad$ |  | 1 | 1 |  | 6 | 4 |  | 5 | 2 | 1 |  |  |  |  |  |  | 1 |  |  |
| Maryland --..-..........- |  | 1 | 3 | 1 | 3 | 1 | 2 |  |  |  |  |  |  |  |  |  |  |  |  |
| District of Columbia-- | 1 | 1 | 1 | 1 |  | 4 |  |  |  | 1 |  |  |  |  |  |  |  |  |  |
| Virginia West Virginia |  | 1 | 1 | 1 | ${ }_{1}^{2}$ | 4 |  | 2 |  | 1 |  |  |  |  |  |  |  |  |  |
| North Carolina |  | 3 | 3 | 3 | 1 | 1 | $\stackrel{2}{2}$ | 1 |  | 1 | - |  |  |  |  |  |  |  |  |
| South Carolina | 1 | 1 | 1 | 1 |  | 3 | 2 |  |  |  |  |  |  |  |  | $\therefore$ |  |  |  |
| Georgia <br> Florida | 1 | $\stackrel{2}{3}$ | $\begin{aligned} & 3 \\ & 1 \end{aligned}$ |  | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ |  | 2 | 1 |  | - | -- |  |  |  |  |  |  |  |
| South Central Division: Kentucky |  |  | 1 | 1 | 1 | 3 | 1 | 3 |  |  |  |  |  |  |  |  |  |  |  |
| Tennessee ------------ |  | 3 | 5 | 4 | 4 | 5 |  |  | 2 |  |  | 1 |  |  |  |  |  |  |  |
| Alabama. | 1 |  | 1 | 1 | 2 | 3 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Mississippi |  | 1 |  |  | 1. | 1 |  | 1 |  |  |  |  |  |  |  |  |  |  |  |
| Texas | 1 | $\stackrel{1}{2}$ | 5 | 2 |  | 2 | 1 | 1 | 1 |  | 1 |  |  |  |  |  |  |  |  |
| Arkansas - | 1 | 1 |  | 2 | 2 |  | , | 1 |  |  |  |  |  |  |  |  |  |  |  |
| Oklahoma - --...- | - |  | $1$ |  |  |  |  |  |  |  | -- |  |  |  |  |  |  |  |  |
| North Central Division: <br> Ohio |  |  |  |  |  |  |  |  | 1 |  |  |  | 1 |  |  |  |  |  |  |
| Indiana.... | 1 |  | 2 | 1 | $\stackrel{8}{8}$ | 4 | 1 | $\ddot{1}$ | 1 | 1. | 1 |  | 1 |  |  | 1 |  |  |  |
| Illinois |  | 1 | 7 | 8 | 5 | 6 |  |  |  | 1 |  | 1 | 1 |  |  |  |  | 1 |  |
| Michigan ${ }^{\text {Wisconsin }}$ |  | 1 |  | 5 | 3 | ${ }^{1}$ | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |
| Wisconsin Minnesota |  |  | 1 | 5 1 |  | 2 | 2 | 1 |  |  |  |  |  |  |  |  |  | 1 |  |
| Iowa --.. | 1 | $\stackrel{1}{2}$ | 4 | 3 | 5 |  |  |  | $1-$ | 1 |  | 1 |  |  |  |  |  |  |  |
| Missouri -..... |  | - | 4 | 8 | 4 | 5 | 1 |  |  |  |  | 1 |  |  |  |  |  |  |  |
| North Dakota |  | , | 1 |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South Dakota Nebraska. |  | $\stackrel{3}{2}$ | $\frac{1}{5}$ |  | 2 |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |
| Kansas --- |  | 1 | 8 | 3 | 2 | 3 | 1 |  |  |  |  |  | 1 |  |  |  |  |  |  |
| Western Division: Montana | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| W yoming |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Colorado. <br> Arizona |  |  | 1 | 1 |  | 1 |  | 1 |  |  |  |  |  |  |  |  |  |  |  |
| Utah | 1 |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nevada |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Idaho .-. |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Washingt <br> Oregon | 1 | 2 | 4 |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |
| California | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 |  |  |  |  |  |  |  |  | 1 | 1 |  |

Table 14.-Classification of universities and colleges for men and for both sexes according to the amount of endoument funds.

| State or Territory. | Institutions having- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { 惑 } \\ & \stackrel{9}{2} \\ & 0 \\ & 0 \\ & 8 \\ & 8 \\ & 8 \end{aligned}$ |  | B. <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 3 |  |  |  |  |  |  | $\begin{aligned} & \text { 8. } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 8 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 8 \\ & 8 \\ & 8 \\ & 8 \\ & 8 \\ & 8 \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
| United States | 159 | 7 | 16 | 5 | 15 | 39 | 49 | 51 | 35 | 13 | 12 | 8 | 6 | 3 | 3 | 2 | 12 | 3 | 4 | 4 |  |
| North Atlantic Division. South Atlantic Division_ South Central Division. Norti Central Division. Western Division ......... | $\begin{aligned} & 21 \\ & 28 \\ & 46 \\ & 71 \\ & 20 \end{aligned}$ | $\begin{aligned} & 1 \\ & 2 \\ & 2 \\ & 1 \\ & 2 \\ & 1 \end{aligned}$ | $\begin{aligned} & 3 \\ & 3 \\ & 5 \\ & 5 \\ & 3 \end{aligned}$ | -2 | $\begin{aligned} & \hline 1 \\ & 4 \\ & 2 \\ & 8 \\ & 8 \end{aligned}$ | $\begin{array}{r} 2 \\ 7 \\ 5 \\ 21 \\ 24 \\ \hline \end{array}$ | 2 <br> 5 <br> 7 <br> 30 <br> 5 | $\begin{array}{r}6 \\ 10 \\ 8 \\ 21 \\ 6 \\ \hline\end{array}$ | 8 7 4 16 | $\begin{aligned} & 8 \\ & 1 \\ & 1 \\ & 2 \\ & 1 \\ & 1 \end{aligned}$ | 4 1 1 6 | 2 <br>  <br> 1 <br> 5 | 2 1 1 1 2 | 3 | $\begin{aligned} & 2 \\ & 1 \end{aligned}$ | 2 | 6 <br> 2 <br> 4 | 3 | 2 <br> - <br> 1 <br> 1 | 2 1 1 1 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine -....-----......... |  |  |  |  |  |  |  |  | 1 | 1 | 1 |  | 1 |  |  |  |  |  |  |  |  |
| New Hampshire..... Vermont | 1 |  |  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  | 1 |  |  |  |
| Neimont-............... | 3 | 1 |  |  |  |  |  |  |  | 2 |  |  | 1 |  | 1 |  | 3 |  |  |  |  |
| Rhode Island |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |
| Connecticut |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  | 1 |  |  | 1 |  |
| Kew York | 9 |  |  |  |  | 1 |  | 2 | 1 | 2 | 1 |  |  | 1 |  |  | 2 | 2 |  |  |  |
| New Jersey | $\stackrel{2}{9}$ |  |  |  | 1 | 1 | 2 | 4 | 6 | 3 | 2 | 1 |  | 1 |  |  |  |  | , | 1 |  |
| South Atlantic Division: <br> Delaware $\qquad$ 1 <br> 1 $\qquad$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maryland .-.-...--... | 6 | 1 |  |  | 1 | 1 |  | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |  |
| District of Columbia | $\stackrel{2}{1}$ |  |  |  |  | 1 |  | 1 | 1 |  |  |  |  |  | 1 |  |  |  |  |  |  |
| Virginia --...- |  |  |  | 2 |  | 1 |  | 3 | 1 |  | 1 |  | 1 |  |  |  |  |  |  |  |  |
| West Virginia .- |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| North Carolina. | 5 | 1 |  |  | 2 |  |  | 2 | 2 |  |  |  |  |  |  |  |  |  |  |  |  |
| South Carolina Georgia -.-. |  |  | 1 |  | 1 | 1 | 3 | 1 | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |
|  | 2 |  | 1 |  |  |  | 1 | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| South Central Division: Kentucky |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Alabama | 1 | 1 | 2 | 1 | 1 |  | 1 |  |  | 1 |  |  |  |  |  |  | 1 |  |  |  |  |
| Mississippi | 1 |  |  |  |  | 1 |  | 1 |  |  |  | 1 |  |  |  |  |  |  |  |  |  |
| Louisiana. | 4 |  | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |  | 1 |  |  |  |  |
| Texas .- | 13 |  |  |  |  | 1 | 1 |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |
| Arransas |  |  | 1 |  | 1 |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Indian Territory | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| North Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio. | 9 |  |  |  |  |  | 7 | 3 | 3 | 1 | 1 | 2 | 1 |  |  | 1 | 2 |  |  |  |  |
| Indiana | 5 |  |  |  | 1 | 1 |  | 2 | 3 |  | 1 |  | 1 |  |  |  |  |  |  |  |  |
| Tlinois .- | 19 | 1 |  |  | 1 | 3 |  | ${ }^{6}$ |  |  | 1 | 1 |  |  |  |  |  |  | 1 |  |  |
| Michigan | 3 3 | 1 |  |  | 1 |  | 1 | 1 | 3 |  | 1 | 1 |  |  |  |  |  |  |  |  |  |
| Minnesota | 3 |  |  |  |  | 1 | 1 | 1 | 1 |  |  |  |  |  |  |  | 1 |  |  |  |  |
| Iowa .-. | 4 |  | 2 |  | 1 | 5 | 5 | 3 | 1 |  | 1 |  |  |  |  |  |  |  |  |  |  |
| Missouri -..... | 11 |  | 1 | 2 | 1 |  | 3 | 2 | 3 |  | 1 |  |  |  |  | 1 | 1 |  |  |  |  |
| North Dakota | 2 |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South Dakota |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nebraska <br> Kansas... | ${ }_{12}^{6}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Idaho - .-.................- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Washington $\qquad$ 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Table 15.-Undergraduate stadents in colleges for men and in coeducational colleges.

| State or Territory. | Colleges for men. |  | Coeducationel colleges. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Institutions. | Undergraduate students. | Institutions. | Undergraduate students. |  |
|  |  |  |  | Male. | Female. |
| United States | 136 | 22,226 | 341 | 32,512 | 15,708 |
| North Atlantic Division | 47 | 13,843 | 31 | 6,389 | 2,311 |
| South Atlantic Division | 30 | 3,221 | 43 | 2,872 | 795 |
| South Central Division - | 20 | 1,700 | 66 | 4, 669 | 2,297 |
| North Central Division | 33 | 2,817 | 165 | 15, 805 | 9,374 |
| Western Division .....-- | 6 | $6 \pm 2$ | 36 | 2,77\% | 1,931 |
| North Atlantic Division: |  |  |  |  |  |
| Maine.-.....- | 1 | 243 | 3 | 600 | 159 |
| New Hampshire | ${ }_{1}^{2}$ |  |  |  | 99 |
| Massachusetts | 6 | 3,853 | ${ }_{3}^{2}$ | 321 | 380 |
| Rhode Island |  |  | 1 | 610 | 14.9 |
| Connecticut. | 2 | 1,858 | 1. | 257 | 58 |
| New York .-. | 17 | 3,409 | 6 | 1,781 | $60 \%$ |
| New Jersey | 4 | 1,202 |  |  |  |
| Pennsylvania-........ | 14 | 3,161 | 18 | 2,015 | 829 |
| Delaware -...--...... | 1 | 88 | 1 | 14 |  |
| Maryland | 7 | 689 | 4 | 148 | 193 |
| District of Columbia | 3 | 147 | 3 | $3: 5$ | $1: \%$ |
| Virginia ---- | 7 | 933 | 3 | 179 | 58 |
| West Virginia |  |  |  | 308 |  |
| North Carolina | 5 | 570 | 10 | 70 | 140 |
| South Carolina | ${ }^{\circ}$ | 35 |  | ${ }^{697}$ | 6.8 |
| Florida. | ${ }^{5}$ | - 25 | 5 | 139 | 106 |
| South Central Division: |  |  |  |  |  |
| Kentucky - | 4 | 345 | 9 | 845 | 320 |
| Tennessee | 4 | 363 | 20 | 1,358 | 783 |
| Alabama | 2 | 103 | 7 | 596 | 172 |
| Mississippi | 2 | 2n |  | 190 | $3 \pm$ |
| Texas...- | 4 | 223 | 12 | 936 | 1519 |
| Arkansas |  |  | 8 | 430 | 262 |
| Oklahoma |  |  | 1 | 20 |  |
| Indiaz Territory -... |  |  | 2 | 16 | 18 |
| North Central Division: |  |  |  |  |  |
| Ohio --... | 5 | 329 437 | 30 9 | 2,995 1,368 | 1,765 |
| Inlinois .- | 7 | 689 | 24 | 2,465 | 1,734 |
| Michigan | 1 | 73 | 10 | 1,558 | 876 |
| Wisconsizi | 3 | 254 | 7 | 1,346 | 517 |
| Minnesota | 2 | 291 | 7 | 1,349 | 765 |
| Iowa --- | 2 | 134 |  | 1,406 | 915 |
| Missouri - -.... | 5 | 421 | 21 | 1,244 | 723 |
| North Dakota |  |  | 3 | $8{ }^{8.2}$ | 44 |
| South Dakota |  |  | ${ }^{6}$ | 139 | 87 |
| Nebraska | 1 | 50 | 11 | 814 | 567 |
| Wansas-...-..- | 2 | 139 | 17 | 1,045 | 670 |
| Montana. .-..-- |  |  |  | 34 |  |
| Wyoming. |  |  | 1 | 33 | 23 |
| Colorado. | 1 | 28 | 3 | 227 | 205 |
| Arizona- |  |  | 1 | 42 | 16 |
| Utah -- |  |  | 2 | 50 | 56 |
| Nevada |  |  | 1 | 105 | 51 |
| W ashington | 2 | 123 | 7 | 214 | 141 |
| Oregon---- |  |  | 8 | 245 | 183 |
| California | 3 | 491 | 9 | 1,7\%4 | 1,170 |

Table 10．－Professors and instructors in universities and colleges for men and for both sexes．

| State or Territory． |  | Preparatory departments． |  | Collegiate departments． |  | Professional departments． |  | Total number （excluding duplicates）． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 边 |  | $\begin{aligned} & \dot{9} \\ & \text { 霛 } \end{aligned}$ | $\begin{aligned} & \text { © } \\ & \text { デ } \\ & \text { む̃ } \\ & \text { In } \end{aligned}$ | 祳 |  | 込 | $\begin{aligned} & \stackrel{( }{\tilde{m}} \\ & \text { ت̈ } \\ & \text { E. } \end{aligned}$ |
| United States． | 480 | 2，094 | 831 | 6，750 | $80 \%$ | 3， 783 | 53 | 11，571 | 1，577 |
| North Atlantic Division | 81 | 331 | 51 | 2，207 | 59 | 1，151 | 6 | 3，619 | 122 |
| South Atlantic Division | 73 | 217 | 78 | 782 | 64 | 381 | 0 | 1，252 | 133 |
| South Central Division | 86 | 254 | 179 | 666 | 139 | 426 | 2 | 1，241 | 298 |
| North Central Division | 198 | 1，080 | 439 | 2，487 | 452 | 1，397 | 42 | 4，337 | 863 |
| Western Division | 43 | 212 | 84 | 588 | 88 | 425 | 3 | 1，122 | 161 |
| North Atlantic Division： |  |  |  |  |  |  |  |  |  |
| Naine | 4 | 0 | 0 | 88 | 1 | 21 | 0 | 107 | 0 |
| New Hampshire． | $\stackrel{3}{3}$ | 3 | 0 | 47 | 0 | 14 | 0 | 64 | 0 |
| Vermont．．．． | 3 | ${ }^{0}$ | 0 | 59\％ | 0 | 210 | 0 | 81 743 | 0 |
| Rhode Island | 1 | 0 | 0 | 71 | 1 | 0 | 0 | 71 | 1 |
| Connecticat | 3 | 0 | 0 | 206 | 0 | 94 | 0 | 301 | 0 |
| New York | 23 | 181 | 20 | 687 | 25 | 390 | 1 | 1，230 | 58 |
| New Jersey | 4 | 14 | 4 | 129 | 0 | 0 | 0 | 141 | 4 |
| Pemnsylvania | 33 | 100 | 24 | 551 | 27 | 291 | 0 | 881 | 48 |
| South Atlantic Division： |  |  |  |  |  |  |  |  |  |
| Delaware－－－－－－－－－－．－ | 2 | 6 | 1 | 19 | 1 | 0 | 0 | 19 | 1 |
| Maryland | 11 | 66 | 8 | 173 | 13 | 54 | 0 | 254 | 16 |
| District of Columbia | 6 | 22 | 1 | 114 | 2 | 233 | 0 | 403 | 10 |
| Virginia | 10 | 12 | 3 | 108 | 0 | 31 | 0 | 128 | 3 |
| West Virginia | 3 | － 6 | 1 | 41 | 11 | 4 | 0 | 51 | 12 |
| North Carolina | 15 | 28 | 19 | 194 | 11 | 29 | 0 | 153 | 28 |
| South Carolina | 9 | 20 | 6 | 67 | 2 | 4 | 0 | 84 | 8 |
| Georgia | 11 | 28 | 17 | 71 | 16 | 29 | 0 | 109 | 26 |
| Florida | 6 | 89 | 22 | 30 | 8 | 0 | 0 | 51 | 29 |
| South Central Division： |  |  |  |  |  |  |  |  |  |
| Kentucky－－－－－－－－－－ | 13 | 44 | 35 | 100 | 17 | － 56 | 0 | 190 | 51 |
| Tennessee | 24 | 87 | 54 | 199 | 46 | 219 | 1 | 452 | 97 |
| Alabama． | 9 | 19 | 6 | 63 | 5 | 25 | 0 | 102 | 12 |
| Mississippi | 4 | 5 | 3 | 32 | 3 | 9 | 0 | 46 | 6 |
| Louisiañ ． | 9 | 22 | 17 | 85 | 22 | 41 | 0 | 138 | 28 |
| Texas ．－． | 16 | 59 | 35 | 127 | 21 | 57 | 1 | 220 | 59 |
| Arkansas | 8 | 24 | 20 | 47 | 16 | 19 | 0 | 78 | 30 |
| Oklahoma． | 1 | 1 | 2 | 7 | 0 |  |  | 8 | $\stackrel{2}{3}$ |
| Indian Territory | 2 | 3 | 7 | 6 | 9 | 0 | 0 | 7 | 13 |
| North Central Division： |  |  |  |  |  |  |  |  |  |
| Ohio．－．－ | 35 | 902 | 69 | 413 | 56 | 229 | 2 | 787 | 139 |
| Indiana | 14 | 83 | 17 | 203 | 21 | 34 | 1 | 269 | 29 |
| Illinois | 31 | 187 | 76 | 550 | 71 | 389 | 23 | 1，035 | 171 |
| Michigan | 11 | 49 | 32 | 197 | 48 | 109 | 2 | 299 | 68 |
| Wisconsin | 10 | 48 | 11 | 181 | 23 | 47 | 0 | 2：3 | 29 |
| Minnesota | 9 | 33 | 10 | 170 | 32 | 193 | 0 | 341 | 40 |
| Iowa－－． | 22 | 107 | 51 | 200 | 53 | 113 | 2 | 332 | 99 |
| Missouri | 26 | 122 | 76 | 228 | 47 | 88 | 2 | 402 | 114 |
| North Dakota | 3 | 16 | 7 | 21 | 7 | 0 | 0 | 22 | 9 |
| South Dakota． | 6 | 26 | 19 | 32 | 13 | 0 | 0 | 46 | 30 |
| Nebraska | 12 | 81 | 33 | 123 | 45 | 116 | 1 | 273 | 65 |
| Kansas． | 19 | $1 \because 6$ | 38 | 175 | 36 | 79 | 5 | 306 | 70 |
| Western Division： |  |  |  |  |  |  |  |  |  |
| Montana | 3 | 13 | 10 | 14 | 7 | － 0 | 0 | 19 | 12 |
| Wyoming | 1 | 11 | 3 | 11 | 3 | 0 | 0 | 11 | 3 |
| Colorado． | 4 | 38 | 6 | 71 | 8 | 113 | 1 | 204 | 21 |
| Arizona | 1 | 5 | 3 | 10 | 0 | 0 | 0 | 11 | 3 |
| Utah | 2 | 26 | 5 | 21 | 2 | 0 | 0 | 32 | 5 |
| Nevada | 1 | 6 | 3 | 14 | 2 | 0 | 0 | 16 | 3 |
| Idaho． | 1 | 4 | 4 | 12 | 4 | 0 | 0 | 15 | 6 |
| Washington | 9 | 21 | 11 | 73 | 11 | 0 | 0 | 84 | 22 |
| Oregon ．．．－ | 8 | 32 | 14 | 56 | 20 | 48 | 0 | 125 | 30 |
| California． | 12 | 56 | 25 | 306 | 31 | 264 | 2 | 605 | 56 |

Table 17.-Students in universities and colleges for men and for both sexes.

| State or Territory. | Preparatol'y departments. |  | Collegiate departments. |  | Graduate departments. |  |  |  | Professional departments. |  | Total number (excluding duplicates). |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Resident. | Nonresident. |  |  |  |  |  |
|  | Male. | Fe- |  |  | Male | $\begin{gathered} \text { Fe- } \\ \text { male } \end{gathered}$ | Male. | $\begin{gathered} \text { Fe- } \\ \text { male } \end{gathered}$ | Male | Female. | Male | Female. | Male. | Fe male. |
| United State | 31,647 | 14,292 | 54, 738 | 16, 708 | 3,669 | 1,05i | 749 | 116 | 26,3\%8 | 983 | 118, 820 | 35, 236 |
| North Atlantic Division | 5, 714 | : | 20,235 | 2,311 | 1,512 | 194 | 204 | 2t | 8.476 | 168 | 36, 427 | 3,590 |
| South Atlantic Division | 2,756 | 858 | 6,093 | 795 | $44 \pm$ | 23 | 39 |  | 2,697 | 63 | 12,236 | 2,265 |
| South Central Division- | 5,844 | 3,440 | 6,369 | 2, 287 | 107 | 92 | 48 |  | 4,050 | 80 | 16,443 | 5, 991 |
| North Central Division. | 14,946 | 7, 781 | 18,622 | 9,374 | 1,409 | 625 | 430 |  | 10, 191 | 571 | 46,425 | 19,238 |
| Western Division | 2,387 | 1,526 | 3,419 | 1,931 | 197 | 123 | 28 | 10 | 96 | 101 | 7.289 | 4,15® |
| North Atlantic Division: Maine | 0 | 0 | 843 | 189 |  | 0 | 0 |  | 183 |  | 1,033 | 194 |
| New Hamp | 12 | 0 | 564 |  | 0 | 0 | - 0 |  |  | 0 |  |  |
| Vermont. | 0 | 0 | 361 | 99 | 1 | 0 | 1 |  | 283 | 0 | 646 | 99 |
| Massachuset | 477 | 19 | 3,6zu | 380 | 405 | 37 | 34 | 0 | 2,246 | 123 | 6,969 | 558 |
| Rhode Island | 0 |  | 610 | 149 | 24 | 29 | 37 | 11 | 0 | 0 | ${ }^{671}$ | 189 |
| Connecticut |  | 0 | 2,115 | 58 | 217 | $3 \hat{}$ | 21 |  | 428 |  | 2,79s | 165 |
| New York | 3,486 | 217 | 5,190 | 607 | 547 | 56 | 30 |  | 2,68\% | 31 | 11,984 | 1,023 |
| New Jersey | 203 | 39 | 1,202 | , | 125 | 0 | - ${ }^{2}$ | 0 | 30 |  | 1,563 |  |
| Pennsylvania | 1,536 | 412 | 5,6\% 6 | 829 | 186 | 35 | \% 9 |  | 2,509 | 6 | 10,0\%3 | 1,323 |
| South Atlantic Division: Delaware | 19 |  | 102 |  |  | 0 | 0 |  |  | 0 | 2 | 14 |
| Maryland | 475 | 73 | 837 | 105 | 217 | - | , |  | 241 | 41 | 1,7\%1 | 219 |
| District of Columbia | 385 | 27 | 472 | 126 | 153 | 13 | © |  | 1,374 | 18 | 2,443 | 280 |
| Virginia - | 279 | 85 | 1,112 | 58 | 35 | 0 | 1 | 0 | 35 | 0 | 1, 760 | 149 |
| West Virginia | 163 | 21 | 363 | 113 | 5 | 6 | 10 |  | 123 |  | 664 | 141 |
| North Carolin | 559 | 26. | 1,340 | 140 | 13 |  | 18 |  | 298 |  | 2,289 | 588 |
| South Carolin | 180 | 51 | 73 | 62 | 3 | 1 | 8 |  | 30 |  | 954 | 115 |
| Georgia | 442 | 169 | 970 | 80 | 10 | 0 |  |  | 281 |  | 1,73: | 44.5 |
| Florida | 254 | 161 | 164 | 106 |  | - | 0 | 1 | 0 | 0 | 499 | 311 |
| South Central I | 1,213 |  |  |  | 12 |  | , |  | 588 | . | 2,993 | 1,079 |
| Tennessee | 1,546 | 959 | 1,721 | \%83 | 60 | 10 | 26 |  | 1,971 | 24 | 5,325 | 1,813 |
| Alabama | 468 | 292 | 699 | 172 | 4 | 0 | 0 | 0 | 159 | 0 | 1,359 | 464 |
| Mississipp | 155 | 85 | 415 | 34 | 4 | 0 | 20 |  | 72 |  | 1646 | 123 |
| Louisiana | 320 | 126 | ${ }_{1}^{669}$ | 182 | ${ }^{9}$ | 68 | 0 |  | 454 | ${ }^{6}$ | 1,535 | ,38\% |
| Texas | 1,428 | 787 | 1,209 | 519 | 17 | 11 | 0 |  | 630 | 47 | 3,231 | 1,346 |
| Arkansas | 475 | 290 | 430 | 262 | 1 | - | , |  | 170 | 0 | 1,072 | 564 |
| Oklahoma | 186 | 145 | 20 |  |  | 0 | 0 |  | 6 |  | 212 | 155 |
| Indian Territory | 53 | 1 | 16 | 18 | 0 | 0 | 0 |  | 0 | 0 | 69 | 65 |
| North Central Divis | 2,748 | 1,271 |  | 72 |  |  |  | 13 | 1,239 | 0 |  |  |
| Indiana | 1.068 | 358 | 1,799 | 751 | 86 | 28 | 5 | 5 | 319 | 12 | 3,190 | 1,154 |
| Illinois | 2, 705 | 1,352 | 3,154 | 1,734 | $65 \%$ | $3 \% 3$ | 83 | 15 | 3,593 | 201 | 10,300 | 3,48\% |
| Michigan | 798 | 399 | 1,631 | 876 | 53 | 25 | 10 | 10 | 1,496 | 11. | 3,968 | 1,426 |
| Wisconsin | 641 | 97 | 1,600 | 517 | 88 | 30 | 24 | 5 | 259 |  | 2,649 |  |
| Minnesot | 436 | 175 | 1,640 | 765 | 138 | 49 | 5 |  | 961 | 32 | 3,335 | 1,229 |
| Iowa. | 1,678 | 1,017 | 1,540 | 915 | 38 | 27 | 44 | 17 | 916 | 82 | 4,267 | 2,160 |
| Missouri | 2,059 | 1,04\% | 1,665 | 723 | 87 | 6 | 11 |  | 637 | 7 | 4, 714 | 1,799 |
| North Dako | 236 | 245 | 82 | 44 | 1 | 0 |  | 0 | 0 | 0 | 322 | 289 |
| South Dak | 271 | 274 | 139 | 87 | $\bigcirc$ | , |  |  | 0 | 0 | ${ }^{493}$ | ${ }^{454}$ |
| Nebraska | 850 | 650 | 864 | 567 | 93 | 53 | 8 |  | 423 | 22 | 2,241 | 1,349 |
| Kansas -...-.-... | 1,456 | 896 | 1,184 | 670 | 36 | 15 | 9 | 0 | 355 | 27 | 3,161 | 1,789 |
| Western Division: Montana |  |  |  |  | 0 | 0 | 0 |  | 0 | 0 | 112 | 14 |
| W yoming | 50 | 50, | 33 | 22 | 4 | 2 | 2 |  | 0 | 0 | 88 | 80 |
| Colorado. | 382 | 25. | 255 | 205 | 11 | 8 | 19 | 5 | 256 | 21 | 926 | 491 |
| Arizona | 58 | 41 | 42 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 58 |
| Utah | 25. | 169 | 50 | 56 | $\stackrel{2}{2}$ | 1 | 0 | 0 | 0 | 0 | 449 | 456 |
| Nevad | 0 | $3 \pm$ | 105 | 58 | $3^{3}$ | 1 | 0 | 0 | 0 | 0 | 166 | 161 |
| Idaho | 92 | 69 | 53 | 31 | 3 | 0 | 0 | . 0 | 0 | 0 | 148 | 100 |
| Washing | 402 | 214 | 337 | 141 | 6 | 1 |  |  | 0 | 0 | 746 | 356 |
| Oregon | 384 | 338 | 245 | 183 | 1 | - ${ }^{2}$ | 0 | 0 | 150 | 12 | 780 | ${ }^{537}$ |
| California | 631 | 261 | 2,265 | 1,170 | 164 | 108 | 6 | 5 | 558 | 68 | 3,774 | 1,7\% |

Table 18.-Students pursuing rarious courses of study in universities and colleges for men and for both sexes.

| State or Territory. | Undergraduate students. | Students reported as pursuing courses leading to- |  |  |  |  |  |  |  | Students in pedagogy. |  | Students in com. mercial courses. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | B. C.E. degree. |  |  |  | $\begin{aligned} & \dot{\text { ® }} \\ & \text { تِ } \end{aligned}$ | 稛 |  |  |  |
| United S | \%1,446 | 33, 245 5 | 5, 664 | 4,378 | 12,14! | 1,196 | 1,148 | 教 |  | 3,361 | 4,267 | 4,6:1 | 1,059 | 13, 136 |
| N. Atlantic Division | 22,546 | 12,4011 | 1,731 | 350 | 3,853 | 786 |  | 31495 | 5128 | 5 | 387 | 306 |  | 3,227 |
| S. Atlantic Divisio | 6,888 | 4,351 | $\because 81$ | 224 | 646 | 65 |  | 11 | 415 | 424 | 554 | 4.04 | 71 | 1,136 |
| S. Central Division | 8,666 | 3,608 |  |  | 1, 736 | 44 |  |  |  |  |  | 781 | 134 | 1,900 |
| N. Central Division |  | 10.664 | 3, 002 | 2, 464 | 4, 125 | 280 |  | 38617 | 844 | 1,482 |  | 2,821 | 789 | 5,493 |
| Western Division | 5, 350 | 2,221 | 232 | 851 | 1,18t | 21 |  | 22 | 3102 | 544 | 1,1\%8 | 219 | $5:$ | 1.380 |
| N. Atlantic Division: <br> Maine | 1,03: | 698 | 26 |  | 63 | 59 | 121 |  |  |  |  |  |  | $2 \pi$ |
| New Hampshire. | $\begin{aligned} & 561 \\ & 4661 \end{aligned}$ | 29\% | ---5 | 106 | 111 |  |  | 25 |  |  |  |  |  |  |
| Massachusetts | 4,054 | 3, 3ra | 30 |  | $5: 9$ | 12 |  | 2811 |  | 6 |  |  |  | 67 |
| Rhode Island | \%59 | 1335 | 291 |  | \% | 28 | 23 |  |  | 23 | 2 |  |  | 0 |
| Connecticut | 2, 173 | 1,499 | 560 |  |  |  |  |  |  |  |  |  |  | . 220 |
| New York New Jersey | 5, 797 | 2,885 | 381 | $\%$ | 954 | 316 |  | 1468 | 1 |  | 3 | 233 |  | 1,330 |
| New Jersey | 1,202 | 2 2 2 | 364 | 164 | 1,630 |  |  | $\begin{array}{r} 6 \\ 109 \end{array}$ | 3: |  | 1.1 | 19 153 | 23 | 194 715 |
| S. Atlantic Division: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Delaware | $10 \%$ | 10 |  |  | 6 | 10 |  | 11 |  |  |  |  |  | 01 |
| Maryland | 942 | 810 |  |  | 66 |  |  |  |  |  | 30 | 30 |  | 201 |
| Dist. of Columbia | 598 | 185 |  |  |  |  |  |  |  |  | 16 | 30 | 0 | 180 |
| Virginia | 1,140 | 998 |  | 21 | 32 | 16 |  |  |  | 128 | 7 | 36 | 12 |  |
| West Virginia |  | $1 \%$ | 13 | 24 | 27 | 24 | 17 |  |  | 17 | 21 | 37 |  | 113 |
| North Carolina | 1,480 | ${ }_{561}^{981}$ | 160 | 50 | 15.2 |  |  |  |  | $11 \%$ | 148 | 128 | 2 | 138 |
| South Carolina | 795 | 561 | . |  | 121 |  |  |  |  |  | 42 |  |  |  |
| Georgia | 1,050 | 473 | 95 | $4{ }_{4}^{4}$ | 203 | 12 |  |  |  | 90 | 202 | 31 | 0 | 237 |
| S. Centridal Division: | $22_{0}$ | 111 | 3 | \% | 42 |  |  |  |  | 13 | 25 | 108 | 0 | 209 |
| S. Central Division: | 1.510 | 349 | 25 |  | $2 \% 3$ |  | 68 |  | 5 |  |  |  |  | 561 |
| Tennessee | 2,504 | 1,211 | 58 | 82 | 468 | , |  |  | - 23 | 115 | 130 | 106 | 13 | 251 |
| Alabama | $8 \% 1$ | $3: 1$ | 49 |  | 274 |  |  |  | 35 | 18 | 11 | 123 | 30 | 2 |
| Mississippi | 449 | 241 | 5 | 7 | 128 |  |  |  |  | 25 | 15 | 80 |  | 40 |
| Louisiana | 851 | 4.1 |  |  | 1.1 |  |  |  |  | 6 | 8 | 60 | 34 | 186 |
| Texas ... | 1,768 | 791 | 59 | 259 | 312 |  |  |  |  | ${ }^{66}$ | 88 | 335 | 35 | 289 |
| Arkansas | 692 | 206 | 73 |  | 40 | 8 |  | 14 |  | 27 | 43 | 15 |  | 347 |
| Oklahoma Indian Territory-. | 27 | 14 |  |  | 13 |  |  |  |  |  |  |  |  |  |
| N. Central Division | 31 | 10 |  |  | 2 |  |  |  |  |  |  |  |  |  |
| Ohio | 5,049 | 2,042 | 841 | 604 | 569 | ¢ั |  | 91 4: | 9304 | 250 | 250 | 314 | 129 | 667 |
| Indiana | 2, 550 | 1,549 | 100 | 107 | :63 | 18 | 25 | 20 |  | 170 | 108 | 91 | 17 | 448 |
| Illinois . | 4, 888 | 1,518 | 538 | 233 | 1,018 |  |  |  |  | 157 | 159 | 576 | 138 | 745 |
| Michigan | 2, 50 | \% 28 | $4{ }^{2}$. | 312 | 442 |  |  |  |  | $7 \%$ | $92$ | 49 | 20 | 125 |
| Wisconsin | 2,11 | $6 \% 0$ | 162 | 493 | 265 | 76 | 65 |  | 85 | 54 | 25 | 147 | 35 | 563 |
| Minnes | 2,405 | 442 | 142 | 348 | 445 | 19 |  | 6011 | 454 | 50 | 113 | 123 | 6 | 650 |
| Iowa | 2,455 | $67 \%$ | 685 | 5 | 593 | $1{ }^{17}$ |  |  |  | 273 | 361 | 287 | 87 | 799 |
| Missouri | 2, 388 | 1,004 | 98 | 244 | 403 | 40 |  | 27101 |  | 131 | 124 | 440 | 95 | 582 |
| North Dak | 126 |  |  | 3 | 14 |  |  |  |  | 19 | 61 | 48 | 20 | 114 |
| South Dako | $\stackrel{23}{6}$ |  | 11 | 24 | 50 |  |  |  |  | 33 | 70 | 95 | 38 | 144 |
| Nebrask | 1,431 | ${ }^{1} 1$ | 43 | 31 | 429 | 21 |  | 486 |  | 88 | 164 | 62 | 17 | 509 |
| Western Division: | 1,854 | 1,180 | 110 |  | 234 | 31 |  | T2 |  | $1 \% 5$ | 209 | 559 | $18 \%$ | 147 |
| Western Division: Montana | 83 |  | 11 |  |  |  |  |  |  |  |  |  | 1 |  |
| Wyoming | 55 |  |  |  | 12 |  |  |  |  | 3 | 26 | 0 | 0 |  |
| Colorado | 460 | $15 \%$ | 108 | 9 | 57 | 13 |  | 22 |  | 17 | 40 |  |  |  |
| Arizona | 58 |  |  |  | 58 |  |  |  |  | ${ }^{2}$ |  | 11 |  | 90 |
| Utah | 106 | 35 |  |  | 68 |  |  |  |  | 165 |  |  |  |  |
| Nerada | 163 84 |  |  |  | ${ }_{19}^{93}$ |  |  |  |  | 5 | 43 | 16 | 11 | 168 |
| $\begin{aligned} & \text { Idaho.-. } \\ & \text { Washing } \end{aligned}$ | $\begin{array}{r}84 \\ 4 \% \\ \hline\end{array}$ | 105 | \% | 33 | 19 88 | 5 3 |  |  |  | 16 | 19 | 81 | 20 | 148 201 |
| Oregon |  |  | , | W4 | 129 |  |  |  |  | 41 | 126 | 17 | 3 |  |
| California | 3,435 | 1,568 |  | 765 | 658 |  |  |  |  | 292 | 649 | 93 | 8 | 681 |

Table 19.-Preparation of freshmen of universities and colleges for men and for both sexes.

| State or Territory. | $\begin{aligned} & \text { Number of institu- } \\ & \text { tions reporting. } \end{aligned}$ | $\begin{gathered} \text { Number of freshmen } \\ \text { included. } \end{gathered}$ | Freshmen prepared by- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Preparatory departments of colleges. |  | Private preparatory schools. |  | Public high schools. |  | Private study. |  |
|  |  |  |  |  |  |  | $\begin{aligned} & \dot{\Delta} \\ & \text { on } \\ & \text { 㤟 } \\ & \underset{7}{7} \end{aligned}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{7} \\ & 8 \\ & 0 \\ & \dot{0} \\ & \text {-1 } \end{aligned}$ |  |  |
| United States | 288 | 14, 181 | 4, 65\% | 32. 83 | 2,843 | 20.04 | 6,285 | 44.32 | 399 | 2.81 |
| North Atlantic Divisio | 56 | 4,110 | 1,091 | 26.55 | 1,205 | 30.53 | 1,638 | 39.85 | 126 | 3.07 |
| South Atlantic Division | 41 | 1,913 | 492 | 25. 72 | 1, 761 | 39.78 | , 579 | 30.87 | 81 | 4.23 |
| South Central Division. | 41 | 1,53\% | 514 | 33.55 | 404 | 26.37 | $49 \%$ | 32. 12 | 122 | \%.96 |
| North Central Division. | 125 | 5,686 | 2,275 | 40.01 | 336 | 5.91 | 3,013 | 53. 99 | 62 | 1.09 |
| Western Division.---.- | 25 | 943 | 285 | 30.22 | 87 | 9.23 | 563 | 59.70 | 8 | 0.85 |
| North Atlantic Division: Maine | 4 | 291 | 43 | 14. 78 | 86 | 29.55 | 156 | 53.61 | 6 | 2.06 |
| New Hampshire | 1 | 9 | 9 | 100.00 | 0 | 0 | 0 |  | 0 | 0 |
| Vermont.---- | 3 | $18 \%$ | 0 | 0 | 44 | 23.53 | 185 | \%2. 19 | 8 | 4.28 |
| Massachusetts | 4 | 634 | 28 | 4.48 | 309 | 48.74 | 269 | 42.43 | 28 | 4.41 |
| Connecticut. | 1 | 102 | 0 | 0 | 60 | 58.82 | 40 | 39.22 | 2 | 1.96 |
| New York. | 20 | 1,172 | 627 | 53.50 | 258 | 22. 01 | 260 | 2.2. 19 | 27 | 2.30 |
| New Jersey | 3 | 340 | 26 | 7.65 | 195 | 57.85 | 119 | 35. 00 | 0 | 0 |
| Pennsylvania ----.... | 20 | 1,3\%5 | 358 | 26.03 | 303 | 22. 04 | 659 | 47.93 | 55 | 4.00 |
| South Atlantic Division: <br> Delaware | 2 | $3 \pi$ | 3 | 8.11 | 8 | 21.62 | 25 | 67.57 | 1 | 2.70 |
| Maryland | 7 | 247 | 37 | 14.98 | 26 | 10.53 | 172 | 69.63 | 12 | 4.86 |
| District of Columbia | 2 | 26 | 24 | 92.31 | 0 | 0 | 2 | 7.69 | 0 | 0 |
| Virginia - | 5 | 363 | 57 | 15. 70 | 205 | 56.47 | 76 | 20.94 | 25 | 6.89 |
| North Carolina | 10 | 556 | 150 | 26.98 | 317 | 57.01 | 76 | 13.67 | 13 | 2.34 |
| South Carolina | 7 | 180 | 75 | 41.67 | 66 | 36.67 | 33 | 18.33 | 6 | 3.33 |
| Georgia | \% | 481 | 126 | 26.19 | 139 | 28.90 | 192 | 39.98 | 24 | 4.99 |
| Florida ---.-.---- | 1 | 23 | 20 | 86.95 | 0 | 0 | 3 | 13.04 | 0 | 0 |
| South Central Division: |  |  |  |  |  |  |  |  |  |  |
| Kentucky | 129 | 327 | 87 76 | 26.61 21.63 | 178 | 23.85 <br> 48.32 | 142 | 43.42 26.12 | 30 | 6.12 3.93 |
| Alabama | 4 | 211 | 80 | 37.91 | 63 | 29.86 | $6 \pm$ | 30.33 | 4 | 1.90 |
| Mississipp | 2 | 66 | 46 | 69.70 | 0 | - 0 | 20 | 30.30 | 0 | ${ }^{0}$ |
| Louisiana | 3 | 93 | 36 | 33.71 | $3 \%$ | 34.41 | 23 | 24.73 | 2 | 2. 15 |
| Texas..- | 9 | 347 | 109 | 31.41 | 51 | 14. 70 | 108 | 31.13 | 79 | 22. 77 |
| Arkansas... | 3 | 116 | 63 | 51.31 | 8 | 6.90 | 42 | 36.21 | 3 | 2.58 |
| Indian Territory | 2 | 16 | 16 | 100.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| North Central Division: Ohio | 22 |  | 470 | 58.17 | 24 | 2.97 | 307 | 3\%. 99 | $\uparrow$ |  |
| Indiana | 11 | 698 | 150 | 21.49 | 20 | 2.87 | 503 | - ${ }^{\text {3. }}$ | 25 | 3.88 |
| Illinois | 14 | 649 | 252 | 38.83 | 39 | 6.01 | 352 | 54.24 | 6 | 0.92 |
| Michigan | \% | 239 | 126 | 52.72 | 9 | 3.77 | 101 | 42.26 | 3 | 1.25 |
| Wisconsin | 8 | 512 | 140 | 27.34 | 35 | $6.8 \pm$ | 336 | 65.62 | 1 | 0.20 |
| Minnesota | 6 | 516 | 93 | 18.02 | 27 | 5.23 | 396 | \%6. 75 | 0 | 0 |
| Iowa. | 13 | 5 5 8 | 201 | 36.0\% | 28 | 12.90 | $\because 83$ | 50.72 | 2 | 0.36 |
| Missouri- | 14 | \% 23 | 355 | 49.10 | 65 | 8.99 | 291 | 40.25 | 12 | 1.66 |
| North Dakota | 3 | 81 | 52 | 64.20 | 0 | 0 | 29 | 35.80 | 0 | 0 |
| South Dakota | 5 | 74 | 57 | 77.03 | 3 | 4.05 | 14 | 18.92 | 0 | 0 |
| Nebraska | 8 | 199 | 108 | 54.27 | 2 | 1. 01 | 87 | 43.71 | 2 | 1.01 |
| Kansas | 14 | 629 | $2 \% 1$ | 43.08 | 40 | 6.36 | 314 | 49.92 | 4 | 0.64 |
| Western Division: |  |  |  |  |  |  |  |  |  |  |
| Montana | 1 | 7 | 7 | 100.00 | 0 | - 0 | 0 | 0 | 0 | 0 |
| Wyoming | 1 | 20 | 11 | 55.00 | 1 | 5.00 | 8 | 49.00 | 0 | 0 |
| Colorado | 2 | 98 | 38 | 38.78 | 1 | 1.02 | 59 | 60.20 | 0 | 0 |
| Arizona | 1 | 13 | 7 | 53.85 | 0 | 0 | 6 | 46.15 | 0 | 0 |
| Utah. | 1 | 1 | 1 | 100.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nevada | 1 | 21 | 5 | 23.81 | 0 | 0 | 16 | 76.19 | 0 | 0 |
| Idaho | 1 | 35 | 21 | 60.00 | 2 | 5.71 | 12 | 34.29 | 0 | 0 |
| Washington | ${ }_{6}^{6}$ | 97 | 58 | 59.79 | 17 | 17.53 | 17 | 17.53 | 5 | 5.15 |
| Oregon --- | 5 | 100 | 65 | 65.00 | 0 | - 0 | 35 | 35.09 | 0 | 0 |
| California | 6 | 551 | 72 | 13.07 | 66 | 11.98 | 410 | 74.41 | 3 | 0.54 |

Table 20．－Degrees conferred on men by universities and colleges for men and for both sexes．

| State or Territory． |  | $\dot{\dot{\infty}} \dot{\dot{\infty}}$ | $\begin{aligned} & \text { mi } \\ & \dot{\sharp} \end{aligned}$ | $\stackrel{\text { н }}{\dot{\sim}}$ | $\begin{aligned} & \text { 该 } \\ & \dot{0} \\ & \dot{\sim} \end{aligned}$ | $\begin{aligned} & \text { 五 } \\ & \text { 官 } \\ & \dot{\sim} \end{aligned}$ |  | $\begin{aligned} & \dot{1} \\ & \dot{n} \end{aligned}$ |  | 药 | $\begin{aligned} & \dot{\infty} \\ & \dot{\dot{\Delta}} \dot{\vec{y}} \end{aligned}$ | $\begin{aligned} & \text { 玉் } \\ & \text { © } \\ & \dot{\infty} \end{aligned}$ | $\begin{aligned} & \dot{0} \\ & \dot{\infty} \end{aligned}$ |  | vi |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States | 4，677 | 1，631 | 723 | 274 | 24 | 28 | 19 | 13 | 11 | 19 | 10 | 31 | 1 | 4 | 2 | 1 |
| North Atlantic Divisio | 2，118 | 578 | 295 | 27 | 21 | 22 | 16 |  | 11 | 9 | 3 |  |  | 4 |  |  |
| South Atlantic Division | 583 | ${ }^{92}$ | 26 | 17 | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ |  | 3 | $12$ |  | 6 | 1 |  |  |  |  |  |
| South Central Division． | 1，354 | ${ }_{6}^{180}$ | 23 | 164 |  |  |  |  |  |  | 4 | $\underset{1 \underset{5}{2}}{ }$ |  |  | 2 | 1 |
| Western Division．．．．． | 204 | 123 | 46 | 34 | 1 |  |  |  |  |  | $\stackrel{ }{2}$ | 1 | 1 |  |  |  |
| North Atlantic Division Maine | 104 | 11 | 1 |  | 8 | 20 |  |  |  |  |  |  |  |  |  |  |
| New Hampshire－－ | 43 | 13 |  | 13 |  |  |  |  |  |  |  |  |  |  |  |  |
| Vermont－－－ | 30 | 31 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Massachusett | 614 | 47 | 38 |  | 7 | －－－ | 8 |  |  |  |  |  |  |  |  |  |
| Connecticut． | 318 | 15 | 123 | 1 |  |  |  |  |  |  |  |  |  | 4 |  |  |
| New York | 330 | 156 | 67 | 9 |  |  |  |  | 11 | 9 | 1 |  |  |  |  |  |
| New Jersey | 157 | 57 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pennsylvania | 430 | 248 | 60 | 4 | 6 | 2 | 8 |  |  |  | 2 |  |  |  |  |  |
| South Atlantic Division <br> Delaware | 8 |  |  |  | 1 |  | 3 |  |  |  |  |  |  |  |  |  |
| Maryland | 140 | 8 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| District of Colu | 48 | 14 |  |  |  |  | －－ |  |  |  |  |  |  |  |  |  |
| West Virginia | 10 | $\begin{aligned} & 3 \\ & 6 \end{aligned}$ | 1 | ${ }_{6}$ |  |  |  |  |  | 5 | 1 | 12 |  |  |  |  |
| Nor＇th Carolin | 125 | 19 | 15 |  | － |  |  |  |  |  |  |  |  |  |  |  |
| South Carolin | 67 | 12 | 1 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |
| Georsia | 73 | 24 | 8 |  |  |  |  | 2 |  | 1 |  |  |  |  |  |  |
| Florida－．．．．．．．－．．．．． | 8 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South Central Division： Kentucky | 80 | 31 |  | 15 |  | 6 |  |  |  | 1 |  |  |  |  |  |  |
| Tennessee | 136 | 49 | 7 | 8 |  |  | ．－－ | 1 |  |  |  | 2 |  |  |  |  |
| Alabama | 41 | 41 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mississippi | 43 | 9 | 9 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Louisiana | 31 | 18 |  |  |  |  |  | 10 |  |  |  |  |  |  |  |  |
| ＇Texas．．．． | 55 | 27 | 1 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |
| Arkansas－ | 30 | 1 | 5 | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |
| Oklahoma－－．－．－． | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Indian Territory |  | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio | 291 | 85 | 77 | 24 |  |  |  |  |  |  | 3 | 3 |  |  |  |  |
| Indiana | 163 | 28 | 63 | 12 |  |  |  |  |  |  |  |  |  |  |  |  |
| Illinois． | 213 | 138 | 52 | 20 |  |  |  |  |  |  |  |  |  |  | 2 |  |
| Michigan | 100 | 99 | 46 | 30 | －－－ | $\cdots$ |  |  |  |  | 1 | 6 |  |  |  |  |
| Wisconsin | 92 | 68 | 8 | 47 |  |  |  |  |  |  |  |  |  |  |  |  |
| Minneso | ${ }^{64}$ | 48 | 14 | 7 |  |  |  |  |  | 1 |  | 5 |  |  |  |  |
| Missouri | $1: 24$ | 45 | 4 | 20 |  |  |  |  |  | 2 |  |  |  |  |  | 1 |
| North Dakot | 7 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South Dakota | 9， | 3 | 1 |  |  |  |  |  |  |  |  | 1 |  |  |  |  |
| Nebraska | 66 | 50 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kansas－－．．．．．． | 116 | 42 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Western Division： Montana |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |
| Wyoming | 3 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Colorado | 17 | 9 | 4 |  |  |  |  |  |  |  |  |  | 1 |  |  |  |
| Arizona |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Utah |  | 5 |  | －．． |  |  |  |  |  |  |  |  |  |  |  |  |
| Nevada |  | 6 |  | ．．． |  |  |  |  |  |  |  |  |  |  |  |  |
| Idaho | 1 | 1 | 1 |  | 1 |  |  |  |  |  |  |  |  |  |  |  |
| Washingt | 13 | 11 | $\stackrel{2}{2}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oregon | 2 | 15 | 3 | 2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Calitorni | 143 | 73 | 36 | 32 |  |  |  |  |  |  | 2 |  |  |  |  |  |

Table 20．－Degrees conferred on men by universities and colleges for mon and for both sexes－Continued．

| State or Territory． | $\begin{aligned} & \text { Bi } \\ & \dot{4} \end{aligned}$ | $\begin{aligned} & \dot{x} \\ & \dot{B} \\ & \dot{X} \end{aligned}$ | $\begin{aligned} & \dot{\theta} \\ & \dot{0} \end{aligned}$ | $\begin{aligned} & \text { 住 } \\ & \text { 品 } \end{aligned}$ | $\begin{aligned} & \text { 白 } \\ & \text { 寝 } \end{aligned}$ | i |  |  |  |  |  | $\begin{aligned} & \text { 场 } \\ & \dot{0} \\ & \dot{B H} \end{aligned}$ | $\begin{aligned} & \text { 住 } \\ & \text { 品 } \\ & \text { 邑 } \end{aligned}$ | $\begin{aligned} & 0 \\ & \dot{4} \end{aligned}$ | A | A 号 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States | 965 | 134 | 150 | 136 | 63 | 11 | 30 | 15 | 7 | 1 | 2 | 3 | 2 | 2 | 5 | 267 |
| North Atlantic Division South Atlantic Division South Central Division North Central Division Western Division． | $\begin{aligned} & 524 \\ & 107 \\ & 57 \\ & 260 \\ & 17 \end{aligned}$ | $\begin{array}{r} 53 \\ 6 \\ 4 \\ 41 \\ 10 \\ \hline \end{array}$ | 119 8 3 20 | $\begin{array}{r}114 \\ 1 \\ -\quad 1 \\ \hline 1\end{array}$ | $\begin{array}{r} 49 \\ 1 \\ \hdashline 12 \\ 1 \end{array}$ | 4 | $\begin{gathered} \hline 21 \\ \hdashline \cdots \\ \hdashline 8 \\ \hline 1 \end{gathered}$ | 15 | 6 | 1 | 2 | 3 | 2 | 2 | 5 | 145 40 2 76 4 |
| North Atlantic Division： <br> Maine | 17 | 2 | 3 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| New Hampshire．．－．．．－ | 2 |  | 5 |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Vermont．．．．．．．． | 9 | 8 | 4 |  |  | －－ | －．．． |  |  |  |  |  |  |  |  |  |
| Massachusetts | 124 | 6 | 2 |  |  |  |  |  |  |  |  |  |  |  |  | 42 |
| Rhode Island． | 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Connecticut． <br> New York | ${ }^{27} 16$ | 12 | $\stackrel{2}{20}^{2}$ | ${ }^{1} 7$ | 25 | 2 | 19 | 15 |  |  | 2 | 3 | 2 |  | 5 | 25 45 |
| New Jersey | 60 | 1 | 25 |  | 6 |  |  |  |  |  |  |  |  |  |  |  |
| Pennsylvania | 113 | 21 | 28 | 19 | 18 |  | 2 |  | 1 |  |  |  |  | 2 |  | 3 i |
| South Atiantic Division： Delaware． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maryland－－－－－－－－－－－－－－－ | 2 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  | 37 |
| District of Columbia | 34 | 3 |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |
| West Virginia | 1 | 1 | $\widetilde{5}$ | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| North Carolina | 19 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | I |
| South Carolina | 3 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Georgia | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Florida ${ }^{\text {South Central Division：－}}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tennessee． | 17 | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Alabama | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mississippi | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Louisiana | 9 | 1 | 2 |  |  | 4 |  |  |  |  |  |  |  |  |  | 2 |
| Arkansas． | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OLlahoma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Indian Territory ．－．． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| North Central Division： <br> Ohio | 45 | 4 | 8 | 15 |  |  | 2 |  | 1 |  |  |  |  |  |  |  |
| Indiana． | 97 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Illinois－ | 51 | 18 | 1 | 1 |  |  | －－ |  | $\stackrel{2}{2}$ | 1 |  |  |  |  |  | 39 |
| Michigan | 16 | 10 | 2 |  |  | 1 |  |  | 3 |  |  |  | －－ |  |  | $\stackrel{4}{9}$ |
| Wisconsin | 118 | ${ }_{5}^{6}$ | $\gamma$ | 5 | 8 | $\stackrel{2}{2}$ | 6 |  |  |  |  |  |  |  |  | 1 |
| Iowa．．． | 23 | 11 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Missouri | $3:$ | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| North Dakota |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South Dakota |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kansas | 17 | 3 | 1 |  |  |  |  |  |  |  |  |  |  |  |  | ${ }_{2}$ |
| Western Division： |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |
| Colorado | $\frac{1}{5}$ | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Arizona |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Utah． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nevad |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Idaho－．．．－ |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Washingt |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| California | 8 | 7 |  |  | 1 |  |  |  |  |  |  |  |  |  |  | 3 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Table 21.-Degrees conferred on women by coeducational colleges.


Table 22.-Honorary degrees conferred by miversities and colleges for men and for both sexes.


Table 23.-Property of universities and colleges for men and for both sexes.

| State or Territory. |  |  | Libraries. |  |  | Value of scientific apparatus. | Value of grounds and build. ings. | Productive funds |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Bound volumes. | Pamphlets. | Value. |  |  |  |
| United States. | 417 | 7,0\%\% | 7,096, 325 | 1,854,966 | \$9, 098,50: | \$11, 004, 532 | \$126,211,099 | \$119, 632, 651 |
| N.Atlantic Dirision. | 17\% | 4,041 | 3,215,855 | 972, 618 | 4,131, 5\%7 | 5, 472,755 | 54, 209, 825 | 63,230,216 |
| S. Atlantic Division. | 39 | 824 | 797,215 | 200, 9\%\% | 967,040 | 598, 377 | 13, 55, 126 | 9,265, 485 |
| S. Central Division.- | 31 | 720 | 516,211 | 128, 024 | 626,575 | 713,540 | 10, 404, 700 | 7,654, 724 |
| N. Central Division. | 158 | 1,1\%9 | $2,225,133$ | 435, 930 | 2, 815, 296 | 3, 359,122 | 38, 867,653 | 31, 434, 468 |
| Western Divisioll..- | 12 | 311 | 340,911 | 117,469 | 558, 064 | 860,738 | 9, 176, 795 | 8,047,758 |
| N. Atlantic Division: |  |  |  |  |  |  |  |  |
| Maipe | ${ }_{0}^{8}$ | 200 | 80,000 | 22,000 | 80, 000 | 14. | 1,051,500 | $1,661,512$ $1,500,000$ |
| Vermont | 0 | 188 | 88,268 | 11, 400 | 112, 500 | 105, 000 | 725, 000 | 755, 000 |
| Massachusetts | 51 | 862 | 719,959 | 525,310 | 686, 000 | 1, 313,450 | 8,142,425 | 15, 421, 277 |
| Rhode Island | 1 | 100 | 100,000 | 20,000 | 220,000 | 340, 000 | $1,177,967$ | -807,481 |
| Connecticut | 14 | 494 | 323, 000 | 6,000 | 270,000 | 400, 755 | 6,743, 030 | 5, 919,771 |
| New York. | 55 | 1,52\% | 949,342 | 182,283 | 1,802, 397 | 1, 413,727 | 20, 891, 155 | 24, 199,969 |
| New Jersey | 12 | 105 | 186, 76\% | 1,000 | 176, 200 | 570,000 | 2,525,000 | 3,500, 000 |
| Pennsylvania ... | 36 | 412 | 638, $84^{2}$ | 177,625 | 6:31,880 | 1,084,198 | 12,263, 682 | 9, 4655, 206 |
| S. Atlantic Division: <br> Delaware | 0 | 0 | 10,500 | 8,700 | 21,500 | 23,000 | 101,500 | 83, 000 |
| Maryland | 24 | 259 | 185, 310 | 66, 230 | 239, 840 | 182, 377 | 2,017, 626 | 3, 407,500 |
| Dist. Colum | 3 | 169 | 138,700 | 53, 500 | 120, 000 | 96,500 | 4, 377,500 | 1,279,075 |
| Virginia | 9 | 107 | 160, 425 | 14,800 | 173, 700 | 95,200 | 2,159,000 | 1,779,000 |
| West Virgin | 2 | 0 | 18, 600 | 3,200 | 18,500 | 51, 090 | 5:0,000 | 114, 750 |
| North Carolina | 0 | 198 | 110, 100 | 30, 150 | 204, 000 | 33, 550 | 1,523,500 | 7\%0,942 |
| South Carolina | 0 | $\%$ | 71, 300 | 7,000 | 93, 000 | 22, 300 | 845, 000 | 550, 800 |
| Georgia | 1 | 8 | 83, 410 | 10,545 | 72, 500 | 75, 450 | 1,569,000 | 855, 618 |
| Florida | 0 | 6 | 18,8\%0 | 6, 800 | 24,090 | 19,000 | 439,000 | 424, 800 |
| S. Central Division: |  |  |  |  |  |  |  |  |
| Kentucky | 18 | 136 | 82, 187 | 23,180 | 86, 000 | 68,940 | 1,265, 500 | 1,372,495 |
| Tennessee | 18 | 333 | 169, 997 | 56, 770 | 242, 100 | $276,0 \% 5$ | 3, 414, 700 | 2,406, 200 |
| Alabama | 0 | 38 | 61, 250 | 2,875 | 78, 5\%5 | 70,350 | 865,000 | 365, 000 |
| Mississippi | 4 | 10 | 30,000 | 5,500 | 34,000 | 38, 800 | 440,000 | 692,500 |
| Louisiana | 0 | 194 | 71, 700 | 10, 500 | 69,500 | 126,250 | 1,845, 000 | 1,947,313 |
| Texas. | 7 | 3 | 74,569 | 14,900 | 88, 750 | 93, 075 | 1,959,500 | 720,716 |
| Arkans | 0 | 8 | 2), \%08 | 13, 699 | 23,100 | 33,500 | 495, 000 | 150, 500 |
| Oklahoma | 0 | 0 | $\because, 200$ | 600 | 3,000 | 6,000 | 60,000 |  |
| Indian Territory | 0 | 0 | 1,600 |  | 1,600 | 600 | 60,000 | 0 |
| N. Central Division: |  |  |  |  |  |  |  |  |
| Ohio ... | 13 | 346 | 434, 641 | 109, 650 | 589,248 | 442, 800 | 8, 072,056 | \%, 8 \% 43,200 |
| Indiana | 1 | 0 | 200,905 | 10, 700 | 293, 300 | 185, 750 | 3,710, 000 | 2, ${ }_{1041,283}$ |
| Illinois | 81 | 295 | 601, 049 | 57,965 | 533, 720 | 565, 580 | 8,073, 235 | 10,499, 217 |
| Michigan | 3 | 51 | 296,661 | 70,613 | 290, 662 | 612,212 | 2, 333, 704 | 1,609,983 |
| Wisconsin | 18 | 58 | 131, 142 | 35, 710 | 151, 500 | 382, 500 | 2,596,000 | 1,482, 479 |
| Minneso | 3 | 12 | 92, 000 | 3,300 | 119, $2 \downarrow 1$ | 132, 900 | 2,747,560 | 1,662, 091 |
| Iowa | 8 | $17 \%$ | 130,506 | 15, 650 | 145, 600 | 287, 850 | 2,173,798 | 1,556, 769 |
| Missouri | 7 | 174 | 195,495 | 75, 18\% | 378, 425 | 319,105 | 4,884,000 | 3, 771,839 |
| North Dak | 0 | 0 | 10, 500 | 6,000 | 25, 500 | 12,850 | 230, 000 | 34, 000 |
| South Dako | 0 | 40 | 17,857 | 5,100 | 21,700 | 6, 750 | 390, 500 | 82, 500 |
| Nebraska | 25 | 19 | 77, 5\%0 | 9,060 | 135, 800 | 225, 650 | $1,844,400$ | 453.952 |
| Kansas .-........- | 0 | 7 | 107,857 | 37,000 | 130, 600 | 185, 175 | 1, 811, 500 | 397,155 |
| Western Division: |  |  |  |  |  |  |  |  |
| Montana | 1 | 1 | 6, \%00 | 4,100 | 9, 700 | 8,800 | 225, 000 |  |
| Wyoming | 0 | 0 | 5,750 | 4,000 | 8,000 | 60,000 | 111,540 | 0 |
| Colorado | 0 | 55 | 55,25\% | 27, 750 | 77,000 | 69,100 | 1,406,400 | 616,910 |
| Arizona | 0 | 0 | 3,400 |  | 3,500 | 40, 000 | 85,000 |  |
| Utah | 0 | 100 | 19,000 | 10,600 | 42,000 | 20,500 | 325, 000 | 196, 427 |
| Nevad | 0 | 3 | 6,457 | 4,430 | 10,649 | 17,030 | 156, 184 | 95,000 |
| Idaho | 0 | 0 | 6,100 | 9,500 | 5,000 | 35, 000 | 130, 000 | 7,472 |
| Washington..... | 0 | 8 | 27,146 | 14, 841 | 45, 600 | 23,958 | 644, 000 | 150, 000 |
| Oregon | 0 | 27 | 27, 413 | 13,112 | 59,415 | 23, 650 | 832,000 | 342,000 |
| California | 11 | 117 | 183, 688 | 29,136 | 297,200 | 56; , 700 | 5,261, 671 | 6,639, 949 |

Table 24. -Income of universities and colleges for men and for both sexes.

| State or Territory. | Tuition fees. | From prodactive funds. | State or municipal <br> appropriations. | United States Government appro-priations. | From other sources. | Total income. | Benefactions. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States | \$7,139,952 | \$5, 653, 683 | 33, 288, 907 | 8954,001 | Sn, 166,828 | \$19, 213, 3\%1 | 57, 53, 239 |
| North Atlantic Division. | 3,259,410 | 2,802, 886 | 642,059 | 173, 743 | 1,04\%,198 | 7,926, 196 | 3, 859, 243 |
| South Atlantic Division. | 6\%8, 003 | 391, 174 | 219,390 | 246,951 | 1,206,276 | 1,691,804 | 728,213 |
| South Central Division.- | 628,631 | 492, 583 | 193, 376 | 130,530 | 154, 03? | 1,599,152 | 320,3\%2 |
| North Central Division. | 2,356, 093 | 1,580, 198 | 1,535,565 | 21: 767 | 672,514 | 6,367,137 | 2,309,916 |
| Western Division .-..... | 257,815 | 386, 842 | 697,61\% | 190, 000 | 96,808 | 1,629,08~ | 314,495 |
| North Atlantic Division: |  |  |  |  |  |  |  |
| Mai | 67, | 71,978 | 20,000 | 38,100 | 16, 188 | 213, 196 | 0 |
| Verm | 15, 992 | 34, 619 | 83 | 23,000 | 19, 495 | 104, 489 | 34, 640 |
| Massachus | 821.365 | 695, 747 | 0 | 0 | 192.20t | 1, 712, 316 | 1,559, 355 |
| Rhode Island | 101, 721 | 28,661 | 0 | 0 | 1,9\%0 | 181, 752 | 13, 800 |
| Connecticut | 521,293. | 293, 263 | 0 | 0 | 32,864 | 847,420 | 127,500 |
| New York | 813,046 | 1,082,580 | 236,361 | 30, 743 | 576, 114 | 2,744, 844 | 1,190, 861 |
| New Jersey | 158,499 | 171,000 | 0 | 38.000 | 109,000 | 489,499 | 4, 000 |
| Pennsylvania | 780, 464 | 350,038 | 3\%0,215 | 38,000 | 86,963 | 1,5゙\%5, 680 | 658,387 |
| South Atlantic Division: <br> Delaware | 300 | 4,980 | 0 | 38,000 | 1,589 | 44,869 | 0 |
| Maryland | 199, 045 | 80, 395 | 41, 100 | 38,000 | 34. 759 | 393, 299 | 72,958 |
| District of Columbia - | 161,835 | 2 64.949 | 0 | 111,198 | 5t, 698 | 322, 610 | 43,073 |
| Virginia | 102, 803 | 93, 405 | 62,500 | - 0 | 15,056 | 2\%3, 769 | 155,381 |
| West Virginia | 7,836 | 6,408 | 36, 5 ¢0 | 33,000 | \%,042 | 90, 836 |  |
| North Carolina | 80,693 | 45,218 | 25,000 | 0 | 26, 293 | 177, 204 | 151,573 |
| South Carolina | 25,000 | 27, 5\%: | 27,000 | 0 | 20,300 | 99,8\% | 31,514 |
| Georgia | 36, 636 | 47,970 | 20, 740 | 15,333 | 26, 246 | 148, 925 | 59, 749 |
| Florida | 13, 850 | 20,27\% | 4,500 | 11, 500 | 20,293 | \%0, 420 | 213,765 |
| South Central Division: |  |  |  |  |  |  |  |
| Kentucky | 78,689 | 96, $53 \%$ | 31,676 | 34, 665 | 12,956 | 254, 523 | 36, 881 |
| Tennessee | 178,286 | 129,019 | $\because 3,200$ | 38,000 | 87.118 | 455, 623 | 180,461 |
| Alabama | 81,639 | 29,200 | 350 | 0 | 3,933 | 115.115 | \% 300 |
| Mississipp | 14, 200 | 42, 043 | 5.000 | 0 | 6.000 | 64.243 | 7,000 |
| Louisiana | 55, 914 | 100, 5 5ั6 | 14,000 | 26, 138 | 18.366 | 214, 974 | \%, 800 |
| Texas | 178,587 | 76,022 | 72, 500 | $\stackrel{0}{ }$ | 17,0\%4 | 344,183 | 83,500 |
| Arkansas | 30, 451 | 11,206 | 34,650 | 31, $72 \%$ | 4,557 | 112,591 | 4,430 |
| Oklahoma |  | 8,000 | 12,000 | 0 | 1,109 | 21, 100 |  |
| Indian Territory .-. | 10, 8\% | 0 | 0 | 0 | 2,9:8 | 13, 800 |  |
| North Central Division: |  |  |  |  |  |  |  |
| Indian | $329,6 \% 1$ 270,506 | 375.500 $115.97 \%$ | 311,981 | 23,000 | ${ }_{21} 1,780$ | 1, 121,824 | 71,550 |
| Illinois | 6\%2, 940 | 486, 706 | 210,000 | 38,000 | 205,539 | 1,613,185 | 553,204 |
| Michigan | 252, 993 | 97,042 | 213,000 | 0 | 86,026 | 649,001 | 25;2,851 |
| Wisconsin | 51,140 | 80, 887 | 255, 000 | 38,000 | \%2, 876 | 49\%, 903 | 80, 129 |
| Minnesota | 133, 049 | 82, 94, | 88,905 | 39,000 | 56,618 | 400,514 | 36, 421 |
| Iowa | 201,5\%6 | 98, 671 | 72, 979 | 0 | 18,219 | 391,395 | 153,356 |
| Missouri | 250,339 | 191,390 | 35, 017 | 39, \%67 | 67, $45 \%$ | 580,970 | 360,207 |
| North Dak | 3,099 | 4,059 | 30, 060 | 0 | 7,142 | 44, 300 | 14,203 |
| South Dak | 21,575 | 3,309 | 23,959 | 0 | 13,390 | 62,215 | 22, 800 |
| Nebraska | 58, 564 | 17,497 | 126,250 | 38,000 | 4,750 | 245, 061 | 33,007 |
| Kansas ........ | 120,691 | 26,227 | 88, 510 | 0 | 34, 175 | 269,633 | 123,874 |
| Western Division: <br> Montana...-- . | 10,500 | 11,000 | 19,000 | 0 | 1,000 | 41,500 | 2,000 |
| Wyoming | 1,610 | 11,000 | 8, 10\% $^{2}$ | 38,000 | 1, 557 | 47, 243 | $\sim 2$ |
| Colorado | $3 \%, 0 \frac{10}{0}$ | 32,548 | 126, 100 | 0 | 40,479 | 236, 067 | 67,075 |
| Arizon |  |  | 10, 200 | 38,000 |  | 48, 700 |  |
| Utah | 8,180 | 7,193 | 60, 000 |  | 7,575 | 82, 918 | 300 |
| Neva | 0 | 3, 800 | 12,450 | 38,000 | 628 | 54,8\%8 |  |
| Idaho | 518 | $41 \%$ | 6,090 | 3s, 000 | 750 | 45, 680 | 500 |
| Washingt | 40, 208 | 8,000 | 40,250 | 0 | 23,230 | 111, 688 | 32,250 |
| Oregon. | 23,580 | 20,992 | 30,007 | 0 | 4,160 | 78, 732 | 11, 600 |
| Calitornia | 137,179 | 302,897 | 385, 141 | 33,000 | 18,429 | 881,616 | 200, 770 |

Table 2̃.-Professors and students in colleges for women, Division A.

| State. |  | Professors and instructors. |  |  |  |  |  | Students. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Preparatory departments. |  | Collegiate departments. |  | Total num ber (excluding du plicates). |  |  | $\begin{aligned} & \dot{9} \\ & \stackrel{0}{80} \\ & \stackrel{0}{0} \\ & =0 \\ & 0 \end{aligned}$ |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| United States | 13 | 2 | 29 | 235 | 291 | 235 | 308 | 190 | 4,191 | 225 | 4,606 |
| North Atiantic Division | 9 | 0 | 0 | 212 | 236 | 212 | 236 | 0 | 3,657 | $22 \% 2$ | 3,879 |
| South Atlantic Division | ${ }_{2}^{2}$ | 0 | ${ }_{5}^{0}$ | 21 | 31 | 21 | 31 | 0 | 470 | ${ }_{1}^{2}$ | ${ }^{472}$ |
| North Central Division | 1 | ${ }_{0}$ | ${ }^{5}$ | ${ }_{0}$ | 12 | ${ }^{0}$ | ${ }^{17}$ | ${ }^{70}$ | 42 | 1 | 113 |
| Western Division |  | 2 | 24 | 2 | 12 | 2 | 24 | 120 | 22 | 0 | 142 |
| North Atlantic Division: Massachusetts |  |  |  |  | 150 | 127 | 150 | 0 |  | 100 |  |
| New York .-......... | 4 | 0 | 0 | ${ }_{61}$ | 69 | 61 | 69 | 0 | 1,015 | ${ }^{1} 7$ | 1,090 |
| Pennsylvania | 4 | 0 | 0 | 24 | 17 | 24 | 17 | 0 | ${ }_{2 \%}$ | 47 | ${ }^{1} \mathbf{3 2 2}$ |
| South Atlantic Division: |  |  |  |  |  |  |  |  |  |  |  |
| Maryland. | 1 | 0 0 | 0 0 | 11 10 | 15 | 11 10 | 16 15 | 0 | ${ }_{23}^{237}$ | $\stackrel{2}{0}$ | $\stackrel{239}{233}$ |
| North Central Division: |  |  |  |  |  |  |  |  |  |  |  |
| Illinois ..--............ | 1 | 0 | 5 | 0 | 12 | 0 | 17 | 70 | 42 | 1 | 113 |
| Western Division: California-...... | 1 | 2 | 24 | 2 | 12 | 2 | 24 | 120 | 22 | 0 | 142 |

Table 26.-Students pursuing various courses of study in colleges for women, Division A.

| State. | ```Number of un- der gradu- ate stu- dents.``` | Students pursuing courses leading to- |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | A. B. degree. | B. L. degree. | B. S . degree. |  |
| United States | 4,191 | 2,69\% | 739 | 70 | 111 |
| North Atlantic Division | 3,6an | 2,415 | 725 | $\%$ | 91 |
| South Atlantic Division | $\begin{array}{r}470 \\ 42 \\ \hline\end{array}$ | 233 |  |  |  |
| Western Division.... | 22 | 8 | 14 |  |  |
| North Atlantic Division: |  |  |  |  |  |
| Massachusetts <br> New York | 2,367 1,015 | 1,366 |  | 5 | 91 |
| Pennsylvania | 1,075 | 264 |  |  |  |
| South Atlantic Division: |  |  |  |  |  |
| Virginia... | 238 | 23 |  |  | 20 |
| North Central Division: |  |  |  |  |  |
| Western Division: |  | 1 |  |  |  |
| California -.- | 22 | 8 | 14 |  |  |

Table 27.-Preparation of freshmen of colleges for women, Division A.

| State. |  |  | Freshmen prepared by- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Preparatory departments of colleges. |  | Private preparatory schools. |  | Public high schools. |  | Private study. |  |
|  |  |  | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | Per cent. | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | $\begin{gathered} \text { Per } \\ \text { cent. } \end{gathered}$ | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | Per cent. | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | Per cent. |
| United States. | 10 | 850 | 75 | 8.82 | 334 | 39.29 | 409 | 48.12 | 32 | 3.7\% |
| North Atlantic Division South Atlantic Division North Central Division Western Division......... | 7 1 1 1 | $\begin{array}{r} 729 \\ 88 \\ 11 \\ 22 \end{array}$ | $\begin{array}{r}15 \\ 47 \\ 4 \\ 9 \\ \hline\end{array}$ | $\begin{array}{r} 2.06 \\ 53.41 \\ 366.36 \\ 40.91 \\ \hline \end{array}$ | $\begin{array}{r} 312 \\ 22 \\ 0 \\ 0 \end{array}$ | $\begin{array}{r} 42.80 \\ 25.00 \\ 0 \\ 0 \\ \hline \hline \end{array}$ | $\begin{array}{r} 3 \pi 4 \\ 18 \\ 7 \\ 10 \end{array}$ | $\begin{aligned} & 51.30 \\ & 20.45 \\ & 63.64 \\ & 45.45 \end{aligned}$ | 28 1 0 3 | $\begin{array}{r} 3.84 \\ 1.14 \\ 0 \\ 13.64 \end{array}$ |
| North Atlantic Division: <br> Massachusetts <br> New York <br> Pennsylvania | 2 4 1 | $\begin{array}{r} 256 \\ 385 \\ 88 \\ 88 \end{array}$ | 4 11 0 | 1.56 2.85 0 | 96 156 60 | $\begin{aligned} & 37.50 \\ & 40.52 \\ & 68.18 \end{aligned}$ | 150 206 18 | $\begin{aligned} & 53.60 \\ & 53.51 \\ & 20.45 \end{aligned}$ | 6 12 10 | 2.34 3.11 11.37 |
| South A tlantic Division: Maryland | 1 | 88 | $4 \sim$ | 53.41 | 22 | 25.00 | 18 | 20.45 | 1 1 | 1.14 |
| North Central Division: Illinois | 1 | 11 | 4 | 36.33 | 0 | 0 | 7 | 63.64 | 0 | 0 |
| Western Division: California-.... | 1 | 22 | 9 | 40.91 | 0 | 0 | 10 | 45.45 | 3 | 13.64 |

Table 23.-Degrees conferred by colleges for women, Division $A$.


Table 29.-Property of colleges for women, Division $A$.

| State. | $\begin{aligned} & \text { Fel- } \\ & \text { fow- } \\ & \text { ships. } \end{aligned}$ | $\begin{aligned} & \text { Scho- } \\ & \text { lar- } \\ & \text { ships. } \end{aligned}$ | Libraries. |  |  | Value of scientific appara tus. | Value of grounds and buildings | Productive funds. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Volumes. | Pamphlets. | Value. |  |  |  |
| United States | 17 | 254 | 17\%,129 | 14,238 | \$286, 025 | \$329,204 | \$6,390, 308 | \$4,122, 473 |
| North Atlantic Division | 15 | 204 | 156,379 | 11,918 | 249,825 | 278,794 | 5, 178,398 | 3,561,593 |
| South Atlantic Division.- | 1 | $\stackrel{33}{2}$ | 8,600 6,150 | 1,600 2200 0 | 11,200 15,000 | 47,500 1,000 | 812,000 150,000 | 439,000 46,880 |
| Western Division...... | 1 | 15 | 6,000 | 500 | 10, 000 | 2,000 | 250, 000 | \%5, 000 |
| North Atlantic Division: Tiassachusetts | 0 | 135 | 85, 919 | 2,868 | 123,300 | 134,000 | 2,407,533 | 1,329,389 |
| New York | 1 | 35 | 42,500 | 2,050 | 76,525 | -94, 794 | 1,970,865 | $1,232,204$ |
| Pennsylvania -....... | 14 | 34 | 27, 960 | 7,000 | 50,000 | 50,000 | 800,000 | 1,000,000 |
| South Atlantic Division: Maryland | 1 | 21 | 7,400 | 1,660 | 10,000 | 45, 000 | 680,000 | 337, 000 |
| Virginia --.-.-......- | 0 | 12 | 1,200 |  | 1,200 | 2,500 | 132,000 | 102, 000 |
| North Central Division: Illinois | 1 | 2 | 6,150 | $2 \sim 0$ | 15, 000 | 1,009 | 150, 000 | 46,880 |
| Western Division California | 0 | 15 | 6,000 | 500 | 10,000 | 2,000 | 250,070 | \% 5 , 000 |

Table 30. -Thcome of colleges for women, Division -1.

| State. | Tuition fees. | From productive funds. | From other sources. | Total income. | Benefactions. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| United States | 8736, 123 | \$220,448 | \$287, 780 | 81,244,350 | \$180, 481 |
| North Atlantic Division | 599, 736 | 190,593 | 3\%7, 039 | 1,067,368 | 460,081 |
| South Atlantic Division. | 59, $58 \%$ | 24, 684 | 10,000 | 94, 271 | 10,250 |
| North Central Division | 29, 499 | 2,066 | 741 | 25,306 | 10,150 |
| Western Division | 51,300 | 3,105 | 0 | 57,405 |  |
| North Atlantic Division: |  |  |  |  |  |
| Massachusetts. | 46\%, 036 | 74, 855 | 38, 233 | 580, 144 |  |
| New York --. Pennsylvania | 105,700 27,000 | 65,738 50,000 | 238,786 | 410,224 | 211,499 |
| Pennsylvania ${ }^{\text {Patiol. }}$ South Atlantic Division: | 27,000 |  | 0 | 1,,000 |  |
| Maryland. | 24, 287 | 19,284 | 10,000 | 53, 871 | 10,000 |
| Virginia | 35, 000 | 5, 400 | 0 | 40,400 | 250 |
| North Central Division: Illinois | 22,499 | 2,066 | 741 | 25,300 | 10,150 |
| Western Division: California. | 54,300 | 3,105 | 0 | 57, 405 |  |

Table 31.-Professors and students in colleges for women, Division B.


TABLE 32.-Students in various courses of study in colleges for women, Division $B$.

| State. | Students reported in collegiate de-partments. | Students pursuing courses leading to- |  |  |  | Students in- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { A. B. } \\ \text { de- } \\ \text { gree. } \end{gathered}$ | M.E.L. <br> Or <br> B. L. degree. | B. S. degree. | Other <br> first degrees. | Pedagogy. | Music. | Art. |
| United States. | 10,365 | 3, 5\%9 | 1,384 | 90\% | 105 | 53: | 8,3:3 | 1,808 |
| North Atlantic Division | 880 | 306 | 65 | $\% 6$ | 14 | 65 | 763 | 198 |
| South Atlantic Division | 4,319 | 1,861 | 250 | 318 | 33 | 121 | 3,121 | 799 |
| South Central Division.. | 6,720 | 1,081 | 855 | 401 | 19 | 306 | 2,948 | 531 |
| North Central Division | 1,404 | 269 | 194 | 73 | 39 | 20 | 1,400 | 247 |
| Western Division......- | 42 | 12 | 20 | 9 |  | 20 | 97 | 33 |
| North Atlantic Division: <br> Maine | $2 \%$ | 13 |  |  | 14 | ®コั | 92 | 56 |
| Massachusetts. | 139 |  |  |  |  |  | 95 | 14 |
| New York | 153 |  |  |  |  |  |  |  |
| New Jersey | 2 | 2 |  |  |  | 40 | 20 | 8 |
| Pennsylvania | 559 | 291 | 65 | 76 | - |  | 556 | 130 |
| South Atlantic Division: |  |  |  |  |  |  |  |  |
| Maryland......... | 320 | 51 | $5{ }^{\sim}$ | 81 |  | 16 | 249 | 59 |
| Virginia | 908 | $3 \pm 0$ | 17 | .... |  | 2 | $4 \%$ | 146 |
| West Vixginia | 2 |  |  |  |  |  | 40 | 5 |
| North Carolina | 764 | $8{ }^{3} 6$ | 34 | 35 | 23 | 31 | 684 | 148 |
| South Carolina | 984 | 642 | 43 | 60 | 10 | 57 | 644 | 139 |
| Georgia. | 1,85\% | 45\% | 99 | $1 \%$ |  | 15 | 1,0\%\% | $30 \%$ |
| South Central Dirision: |  |  |  |  |  |  |  |  |
| Kentucky -..........- | 789 | $13 \%$ | 165 | 86 | 1 | ${ }^{6}$ | 643 | 108 |
| Tennessee. | $93 \%$ | 204 | 212 | ${ }_{6} 1$ | 13 | $11 \%$ | 540 | 75 |
| Alabama | 650 | 350 | 165 | 21 | 5 | 15 | 460 | 135 |
| Mississippi | 911 | 284 | 816 | 1:3 |  | 163 | 824 | 125 |
| Louisiana | 85 | 15 | 18 | 20 |  |  | 68 | $2 \%$ |
| Texas. | 283 | 85 | 49 | 80 |  | 5 | 313 | 53 |
| Arkansas | 60 |  |  |  |  |  | 100 | 13 |
| North Central Division: |  |  |  |  |  |  |  |  |
| Ohio | 317 | 10. | 34 | 13 |  |  | 174 | 23 |
| Illinois .... | 238 | 51 |  |  |  | 15 | 148 | 39 |
| Wisconsin | 26 | $\underset{\sim}{2}$ | 18 |  |  |  | 40 | 1" |
| Minnesota | 10 | 7 | 2 | 1 |  |  | 14 | 1 |
| Missouri | 769 | 78 | 140 | 59 | 39 | 5 | 899 | 137 |
| Kansas | 60 | 30 |  |  |  |  | 185 | 33 |
| Western Division: <br> California...... | 42 | 12 | 20 | 9 |  | 20 | 97 | 33 |

Table 33.-Degrees conferred by colleges for women, Division $B$.


Table 34.-Property of colleges for women, Division B.

| State. |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |

Table 35.-Income of colleges for women, Division B.

| State. | From produc tive funds | Tuition fees. | State or municipal approp ations. | $\begin{aligned} & \text { From } \\ & \text { other } \\ & \text { sources. } \end{aligned}$ | Total income. | Benefactions. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States | \$39,540 | \$1, 429,986 | \$21,490 | \$.59, 895 | \$2,080,911 | \$100.675 |
| North Atlantic Division | 9,179 | 283,655 | 100 | 159,983 | 452, 917 | 26.600 |
| South Atlantic Division | 7,535 | 433, 867 | 900 | 183, 159 | 625. 461 | 20,509 |
| South Central Division | 5,106 | 360, 075 | 20, 490 | 139,690 | 525, 361 | 4,700 |
| North Central Division | 17,720 | 328,389 | 0 | 81,063 | 427,172 | 45,875 |
| Western Division |  | 24,000 | 0 | 26,000 | 50, 090 | 3.000 |
| North Atlantic Division: |  |  |  |  |  |  |
| Maine | 7,150 | 10,375 | 0 | 800 | 18,325 | 5,600 |
| Massachusetts |  | 15,000 | ${ }_{0}^{0}$ | 60, 000 | 75, 000 | ( |
| New York. | 2,029 | 74, 986 | 100 | 1,883 | 78,998 | 0 |
| New Jersey |  | 12,000 | 0 | 0 | 12,000 |  |
| Pennsylvania | 0 | 171,294 | 0 | 97, 300 | 268,594 | 21,000 |
| South Atlantic Division: Maryland | 1,1\% | 38,000 | 0 | 9,000 | 48,175 | 3,000 |
| Virginia. |  | 103, 79: | 0 | 32, 894 | 136, 686. | 2.000 |
| West Virginia | 0 | 4. 500 | 0 |  | 4,500 |  |
| North Carolina | 860 | 93,775 | 0 | 20,465 | 115, 100 | 1.500 |
| South Carolin |  | 67,240 | 0 | 56,000 | 123,200 |  |
| Georgia | 5,500 | 120,600 | 900 | 64,800 | 197,800 | 14,000 |
| South Central Division: |  |  |  |  |  |  |
| Kentucky | 2, $100^{6}$ | 82,000 104,200 | 0 0 | 5,400 49,000 | 87,406 155,300 | 0 |
| Alabama | 2, | 56,500 | 0 | 27, 000 | 83,500 | 2,000 |
| Mississippi | 0 | 78, 147 | 20,490 | 18, 790 | 117,427 | 2,200 |
| Louisiana | 3,000 | 10, 450 | 0 | 1,500 | 14,950 | 2,000 |
| Texas. | 0 | 22, 778 | 0 | 30,000 | 52. 778 |  |
| Arkansas | 0 | 6,000 | 0 | 8,000 | 14,000 | 500 |
| North Central Division: | 5,000 | 100, 210 | 0 | 35̃, 313 | 140,523 | 9,000 |
| Illinois | 550 | 63, 000 | 0 | 2,000 | 65, 550 | 4,200 |
| Wisconsin | 6,000 | 23,500 | 0 | 0 | 34,500 | 18,500 |
| Minnesota | 1,470 | 4,500 | 0 | 0 | 5,970 | 6,000 |
| Missouri | 4,400 | 110, 179 | 0 | 43, 000 | 157.579 | 175 |
| Western Division: | 300 | 22,000 | 0 | 750 | 23,050 | 8,000 |
| California.. | 0 | 24,000 | 0 | 26,000 | 50,000 | 3,000 |

Table 36．－Professors and students in schools of technology．

| State or Terri－ tory． |  | Professors and instructors． |  |  |  |  |  | Students． |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Pre－ para－ tory de－ part－ ments． |  | Cotlegi－ ate de－ part． ments． |  | Total number （exclud－ ing dupli－ cates）． |  | Prepara－ tory de－ part－ ments． |  | Collegiate depart－ ments． |  | Graduate depart－ ments． |  |  |  | Total num－ ber（ex－ cluding dupli－ cates）． |  |
|  |  |  |  | Resi－ dent． |  |  |  |  |  |  |  |  |
|  |  | $\stackrel{\text { © }}{\stackrel{0}{\mathrm{sjn}}}$ |  |  |  | $\begin{gathered} \text { ®゙ } \\ \text { 感 } \end{gathered}$ |  | $\stackrel{\oplus}{\stackrel{\Phi}{5}}$ |  | 宊 |  | $\underset{\sim}{\text { ® ت゙ }}$ |  |  |  | 永 | 范 | 岉 |  |
| UnitedStates． | 43 | 81 | 15 | 1，00： | 68 |  |  | 1，068 | 103 | 1，999 | 532 | 8，321 | 1，201 | 290 | 68 | 31 | 6 | 10，848 | 2，597 |
| N．Atlantic Div | 11 | 19 | 0 | 382 | 11 | 343 | 12 | 201 | 2 | 2,443 | 169 | 89 | 5 | 1 | 0 | 2， 788 | 284 |
| S．Atlantic Div | 8 | 13 | 1 | $19 \%$ | 1 | 199 | 1 | 376 | 31 | 1，543 | 12 | 68 | 0 | 1 | 0 | 1，988 | 43 |
| S．Central Div | 5 | 11 | 1 | 90 | 0 | 100 | 1 | 403 | 41 | 867 | 49 | 29 | 0 | 2 | 0 | 1，301 | 90 |
| N．Central Div | 11 | 28 | 6 | 278 | 36 | 300 | 65 | 453 | 176 | $\stackrel{2}{2}, 679$ | 638 | 86 | 51 | 24 | 5 | 3，337 | 1，490 |
| Western Div | 8 | 10 | 7 | 116 | 20 | $1: 6$ | 24 | 566 | 282 | 789 | 353 | 18 | 12 | 3 | 1 | 1，434 | ， 690 |
| N．AtlanticDiv．： <br> New Hampshire | 1 | 8 | 0 | 17 | 0 | 17 | 0 | 7 | 0 | 65 | 14 | 2 | 0 | 0 | 0 | 96 | 14 |
| Massachusetts．－ | 3 | 0 | 0 | 180 | 1 | 180 | 1 | 0 | 0 | 1，412 | 69 | 8 | 3 | 1 | 0 | 1，518 | 72 |
| Rhode Island | 1 | 0 | 0 | 18 | 7 | 18 | 7 | 0 | 0 | 95 | 48 | 5 | $\stackrel{\sim}{2}$ | 0 | 0 | 101 | 50 |
| Connecticut | 1 | 0 | 0 | 12 | 3 | 12 | 3 | 0 | 0 | 84 | 24 | 0 | 0 | 0 | 0 | 84 | 24 |
| New York | 3 | 0 | 0 | 9 | 0 | 76 | 1 | 4 | 2 | 395 | 0 | 0 | 0 | 0 | 0 | 498 | 110 |
| New Jersey | 2 | 11 | 0 | 29 | 0 | 40 | 0 | 190 | 0 | 391 | 14 | 0 | 0 | 0 | 0 | 351 | 14 |
| S．Atlantic Div．： Maryland． | 1 | 0 | 0 | 70 | 0 | 70 | 0 | 0 | 0 | 259 | 0 | 3 | 0 | 0 | 0 | 262 | 0 |
| Virginia． | 2 | 0 | 0 | 45 | 0 | 45 | 0 | 0 | 0 | 515 | 0 | 39 | 0 | 1 | 0 | 555 | 0 |
| North Carolina． | 2 | 6 | 1 | 31 | 1 | 31 | 1 | 36 | 31 | 277 | 12 | 16 | 0 | 0 | 0 | 329 | 43 |
| South Carolima＿ | 2 | 5 | 0 | 33 | 0 | 38 | 0 | 240 | 0 | $3 \%$ | 0 | 10 | 0 | 0 | 0 | 575 | 0 |
| Georgia | 1 | 2 | 0 | 13 | 0 | 15 | 0 | 109 | 0 | 167 | 0 | 0 | 0 | 0 | 0 | $26 \%$ | 0 |
| S．Central Div．： Alabama | 1 | 1 | 0 | 33 | 0 | 33 | 0 | 29 | 0 | 269 | 20 | 23 | 0 | 0 | 0 | 321 | 20 |
| Mississipp | $\stackrel{1}{2}$ | 9 | 0 | 20 | 0 | 33 | 0 | 315 | 2 | 214 | 9 | ？ | 0 | $\ddot{\sim}$ | 0 | 533 | 11 |
| Texas ．．． | 1 | 0 | 0 | 29 | 0 | 92 | 0 | 0 | 0 | 334 | 0 | 3 | 0 | 0 | 0 | 337 | 0 |
| Oklahoma | 1 | 1 | 1 | 9 | 0 | 10 | 1 | 59 | 39 | 50 | $\Sigma 0$ | 1 | 0 | 0 | 0 | 110 | 59 |
| N．Central Div．： Ohio | 1 | 0 | 0 | 20 | 0 | 20 | 0 | 0 | 0 | 291 | 0 | 16 | 0 | 0 | 0 | 240 | 0 |
| Indiana | 2 | 0 | 0 | 78 | 6 | 78 | 6 | 0 | 0 | 717 | \％6 | 29 | 21 | 18 | 0 | 757 | 97 |
| Inlinois | 1 | 14 | 2 | 28 | 3 | 42 | 28 | $1 \% 5$ | 82 | 143 | 1 | 0 | 0 | 0 | 0 | 349 | ${ }_{\sim} 03$ |
| Michigan | $\stackrel{2}{1}$ | 0 | 0 | 54 | 5 | 54 | 5 | 0 | 0 | 441 | S0 | $\stackrel{2}{2}$ | 3 | 0 | 0 | 508 | 83 |
| Iowa－－． | 1 |  |  | 49 | 10 | 49 | 10 | 45 | 26 | 460 | 100 | $\stackrel{3}{5}$ | 0 | 0 | 0 | 510 | 126 |
| North Dakota | 1 | 3 | 2 | 10 | 2 | 13 | 4 | 134 | 41 | 32 | 20 | 3 | 0 | 0 | 0 | 169 | 61 |
| South Dakota | 2 | 5 | 0 | 15 | 4 | 20 | 4 | 36 | 12 | 236 | 118 | 8 | 5 | 3 | 3 | 283 | 138 |
| Kansas．．．．－ | 1 | 6 | 2 | 18 | 6 | 21 | 8 | $6 \%$ | 15 | 426 | $\therefore 43$ | 30 | 22 | 3 | 2 | 521 | $\therefore 8 \%$ |
| Western Div．： <br> Montana | 1 | 1 | 2 | 12 | 4 | 13 | 6 | 98 | 85 | 13 | 5 | 0 | 0 | 0 | 0 | 111 | 90 |
| Colorado | $\stackrel{1}{2}$ | 0 | 1 | 31 | 2 | 34 | 3 | 28 | 17 | 329 | 60 | 8 | 0 | 3 | 1 | 425 | 100 |
| New Mexic | 2 | 2 | 3 | 15 | 3 | 16 | 3 | 112 | 37 | 57 | 28 | 1 | 0 | 0 | 0 | 170 | 65 |
| Utah | 1 | 3 | 0 | 17 | 4 | 20 | 4 | 209 | 70 | 103 | 61 | 1 | 3 | 0 | 0 | 313 | 134 |
| Washington | 1 | 4 | 1 | 20 | 1 | 22 | 2 | 119 | 73 | 110 | 55 | 1 | 1 | 0 | 0 | 231 | 149 |
| Oregon．．．． | 1 | 0 | 0 | 21 | 6 | 21 | 6 | 0 | 0 | 177 | 144 | 7 | 8 | 0 | 0 | 184 | 152 |

Table 3i.-Students pursuing various courses of study in schools of technology.


Table 38.-Preparation of freshmen of schools of technology.

| State or Territoly | $\begin{aligned} & \text { Institutions report- } \\ & \text { ing. } \end{aligned}$ |  | Freshmen prepared by- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Preparatory departments of colleges. |  | Private preparatory schools. |  | Publichigh schools. |  | Private study. |  |
|  |  |  |  |  |  |  | $\begin{aligned} & \dot{\oplus} \\ & \text { \# } \\ & \text { Z } \\ & \text { Z } \end{aligned}$ | $\begin{gathered} \stackrel{+}{\square} \\ \stackrel{0}{0} \\ \stackrel{0}{0} \\ \sim \end{gathered}$ |  | + |
| United States | 16 | 1,282 | 159 | 12.40 | 92 | 717 | 929 | 72.47 | 102 | 7.96 |
| North Atlantic Division | 5 | 164 | 2 | 1.22 | 16 | 9. 76 | 146 | 89.08 | 0 | 0 |
| South Atlantic Division | 1 | 48 | 36 | 75.00 | 12 | 25. 00 | 0 |  | 0 | 0 |
| North Central Division | 6 | 898 | 70 | 7.79 | 48 | 5.35 | 713 | 79.40 | 67 | 7.46 |
| Westeru Division. | 4 | 172 | 51 | 29.65 | 16 | 9.30 | \%0 | 4070 | 35 | 20. 35 |
| North Atlantic Division• <br> Now Hampshire |  | 18 | 0 | 0 | 0 | 0 | 18 |  | 0 |  |
| Massachusetts. | 1 | 80 | 0 | ${ }_{0}^{0}$ | 15 | 18.75 | 65 | 81.25 | 0 | 0 |
| Connecticut. | 1 | 23 | 0 | 0 | 0 | 0 | 23 | 100.00 | 0 | 0 |
| New York | 1 | 18 | 2 | 11.11 | 1 | 5.56 | 15 | 8333 | 0 | 0 |
| New Jersey | 1 | 25 | 0 | 0 | 0 | 0 | 25 | 109.00 | 0 | 0 |
| South Atlantic Division: Georgia | 1 | 48 | 36 | 7500 | 12 | 2500 | 0 | 0 | 0 | 0 |
| North Central Division: |  |  |  |  |  |  |  |  |  |  |
| Indiana.. | 1 | 167 | 5 | 299 | 13 | 7.79 | 133 | 7964 | 16 | 9.58 |
| Michigan | 2 | 250 | 33 | 13.20 | 12 | 4.80 | 170 | 68.00 | 35 | 1400 |
| Iowa | 1 | 153 | 20 | 1307 | 23 | 15.03 | 94 | 61.44 | 16 | 10.46 |
| North Dakota | 1 | 12 | 12 | 100.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kansas | 1 | 316 | 0 | 0 | 0 | 0 | 316 | 100.00 | 0 | 0 |
| Western Division: | 1 | 11 | 7 | 63.64 | 2 | 18.18 | 2 | 18.18 | 0 | 0 |
| Colorado | $\stackrel{1}{2}$ | $14 \sim$ | 39 | 24.49 | 14 | 9.52 | 62 | 42.18 | 35 | 23.81 |
| New Mexico | 1 | 14 | 8 | 57.14 | 0 | 0 | 6 | 42.86 | 0 | ${ }^{0}$ |

Table 39.-Degrees conferred on men by schools of technology.


Table 40.-Degrees conferred on women by schools of techology.

| State or Territory. | B. S. | B. C. E. | B. Agr. | M. S. | B. L. | B. H. S. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States | 87 | 1 | 1 | ${ }^{6}$ | 13 | 12 |
| North Atlantic Division | 14 |  | 1 |  |  |  |
| South Central Division | 7 |  |  |  |  |  |
| North Central Division. | 59 |  |  | 6 | 13 |  |
| Western Division....... | 7 | 1 |  |  |  | 12 |
| North Atlantic Division: |  |  |  |  |  |  |
| New Hampshire.... <br> Massachusetts |  |  |  |  |  |  |
| Rhode Island --. | $\stackrel{5}{5}$ |  |  |  |  |  |
| Connecticut |  |  | 1 |  |  |  |
| South Central Division: |  |  |  |  |  |  |
| Alabama | 5 |  |  |  |  |  |
| Oklahoma North Central Division: | 2 | - |  |  |  |  |
| Indiana............--- | 6 |  |  | 4 |  |  |
| Michigan | 5 |  |  |  |  |  |
| Iowa-... | 7 |  |  |  | 13 |  |
| South Dakota | 8 |  |  |  |  |  |
| Kansas | 33 |  |  | 2 |  |  |
| Western Division: |  |  |  |  |  |  |
| Colorado -...- |  | 1 |  |  |  |  |
| New Mexico <br> Utah | $\stackrel{2}{2}$ |  |  |  |  |  |
| Washington | $\stackrel{2}{2}$ |  |  |  |  |  |
| Oregon .-.....- |  |  |  |  |  | 12 |

## Table 41.-Property of schools of technology.

| State or Territory. | $\mathrm{SCl}_{\left[प \mathrm{~S}_{\triangle 1} \mathrm{O} I I \partial\right.}$ |  | Libraries. |  |  | Value of scientific apparatus. | Value of grounds and buildings. | $\begin{aligned} & \text { Produc- } \\ & \text { tive } \\ & \text { funds. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Vol- <br> umes. | Pamphlets. | Value. |  |  |  |
| United States......- | 2 | 564 | $3 \% 4.836$ | 122, 142 | \$596,419 | \$2, 632,656 | \$12, 785, 609 | \$9, 078, 143 |
| North Atlantic Division.. | 2 | 208 | 139,449 | 38,593 | 232,901 | 970, 173 | 4, 793, $88 \underset{\sim}{2}$ | 2, 838,340 |
| Soutll Atlantic Division. | 0 | 322 | 6:2, 488 | 9,983 | 80,500 | 300,000 | 1, 796, 450 | 644, 751 |
| South Central Division | 0 | 13 | 29, 057 | 27, 405 | 40,020 | 211,550 | ¢51, 813 | 659, 650 |
| North Central Division | 0 | 24 | 109, 171 | 35, 654 | 187, 984 | 944, 433 | 4,545, 435 | 4, 749,513 |
| Western Division. | 0 | 0 | 34,671 | 10,507 | 55,014 | 206,500 | 898,029 | 185,889 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |
| New Hampshire | ${ }_{0}^{0}$ | $\stackrel{51}{5}$ | 5, 600 | 3, 000 | 6, 600 | 42, 000 | 183, 881 | 1116,000 |
| Massachusetts | $\underset{0}{2}$ | 135 0 | 63,515 6,750 | 17, ${ }_{6}^{17} 500$ | 138,600 $11,6 \% 5$ | -298, 790 | 1, 68\%, 170,950 | $1,620,575$ 50,000 |
| Connecticut | 0 | 0 | 5,000 | 1,600 | 5, 500 | 5,389 | 100,000 | 135,000 |
| New York | 0 | 0 | 48,584 | 8,645 | 61, 776 | 489,468 | 2,249,276 | 441, 765 |
| New Jersey | 0 | 19 | 10,000 |  | 18,800 | 55, 000 | 407, 000 | 475, 000 |
| South Atlantic Division: <br> Maryland | 0 | 0 | 38,000 |  | 38,000 | 100,000 | 795, 896 | 0 |
| Virginia. | 0 | 25s | 12,500 | 5,583 | 27, 000 | \%7,000 | 420,000 | 365,312 |
| North Carolin | 0 | 0 | 1,988 | 2,000 | 2, 500 | 18,000 | 125,554 | 125, 000 |
| South Carolina | 0 | 68 | 10,000 | 2,400 | 13,000 | 55, 000 | 305, 000 | 154, 439 |
| Georgia - . | 0 | 0 |  |  |  | 50,000 | 150,000 | 0 |
| South Central Division: ${ }_{\text {S }}$ |  |  |  |  |  |  |  |  |
| Mississipp | 0 | 0 | 10,007 | 12, 490 | 12,520 | 97,250 | 244,010 | 197, 150 |
| Texas . | 0 | 0 | 5,000 | 3, 500 | 6,000 | 25, 000 | 346, 385 | 209, 000 |
| Oklahoma | 0 | 0 | 4,200 | 3,000 | 7,500 | 20,000 | 25,000 | 0 |
| North Central Division: ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |
| Indiana | 0 | 0 | 16,598 | 3, 35.1 | 32, 000 | 365, 000 | 605,009 | ', 940,050 |
| Illinois |  |  | 15,000 | 300 | 15,000 |  | $2,000,000$ |  |
| Michigan | 0 | 4 | 34, 600 | 5,700 | 71,965 | 225, 775 | 486, 210 | 6\%5,000 |
| Iova. | 0 | 0 | 11,000 | 2,000 | 11,000 | 22,000 | 485, 000 | 681,034 |
| North Dakota | 0 | 0 | 4,075 | 600 | 5, 000 | 18,000 | 120,000 | 0 |
| South Dak | 0 | 0 | 6,400 | 9,700 | 10, 800 | 40,000 | 110,000 | 0 |
| Kansas | 0 | 0 | 19,040 | 14,000 | 33,219 | 60,658 | 254,295 | 503,479 |
| Western Division: |  |  |  |  |  |  |  |  |
| Montana | 0 | 0 | 3,300 | 2,000 | 6,000 | 10,000 | 120,000 | 0 |
| Colorado - | 0 | 0 | 13,725 | 1,621 | 22,039 | 67,500 | 332, 299 | 49,583 |
| New Mexico | 0 | 0 | 3,516 | 1,300 | 7,975 | 21,000 | 106; 000 | 0 |
| Utah | 0 | 0 | 5,100 | 3,750 | 8,000 | 50,000 | 171, 800 | 0 |
| Washington | 0 | 0 | 3,330 | 1,836 | 5,000 | 50, 000 | 115, 000 | 0 |
| Oregon. | 0 | 0 | 5,700 |  | 6,000 | 8,000 | 53,000 | 137,306 |

Table 42.-Income of schools of technology.

| State or Territory. | Tuition fees. | $\underset{\text { prom }}{\text { produc }}$ tive funds. | State or munici-palap-propriations. | United States Government ap-propriations. | $\begin{gathered} \text { From } \\ \text { other } \\ \text { sources. } \end{gathered}$ | Total income. | Bene-factions. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States | 8432,658 | \$500, 692 | \$724,041 | \$1,509, 899 | \$25\%, 320 | \$3, 424, 610 | \$90,886 |
| North Atlantic Division | 304, 030 | 179,103 | 115, 150 | 631, 573 | 13, 480 | 1,243,336 | 84,486 |
| South Atlantic Division | 47,126 | 38,625 | 166, 000 | 283, 55, | 110 | 535, 413 |  |
| South Central Division | 650 | 47,290 | 121, 117 | 138, 774 | 19.790 | 327, 631 | 100 |
| North Central Division | 77, 732 | 219,592 | 192, 375 | 228, 000 | 210,734 | 928, 433 | 5, 550 |
| Western Division .-..... | $3,11 \mathrm{C}$ | 16,082 | 129, 399 | 208, 000 | 13,206 | 389, 797 | ${ }^{2} 50$ |
| North Atlantic Division: | 0 | 6 , 800 | 5, 000 | 38,000 | 9 | 49800 | 10,000 |
| Massachusetts. | 241,545 | 117, 150 | 53,000 | 38,000 | 2, 253 | 452, 448 | 70,231 |
| Rhode Island |  | 2,942 | 32, 150 | 33, 000 | 6,000 | 79, 092 |  |
| Connecticut |  | 6, 750 | 15,000 | 38, 000 |  | 59,750 | 0 |
| New York | 28,398 | 25,511 |  | 479,573 | 1,3¥1 | 534,823 | 755 |
| New Jersey --...- | 34, 087 | 19,950 | 10,000 | 0 | 3,386 | 67, 423 | 3,500 |
| South Atlantic Division: Maryland. | 0 | 0 | 0 | 203, 719 | 0 | 203, 719 | 0 |
| Virginia | 21,593 | 21,859 | 45,000 | 30, 333 | 0 | 118,785 |  |
| Nortly Carolina | 4,083 | \%,500 | 20,000 | 23, 000 | 110 | 54, 693 |  |
| South Carolina | 18,430 | 9,266 | 76,000 | 26,500 | 0 | 130,216 |  |
| Georgia --. | 3,000 | 0 | 20, 000 | 0 | 0 | 28, 000 | 0 |
| Alabama --.. | 480 | 20,280 | 9,388 | 27, 534 | 3,902 | 62, 174 | 0 |
| Mississippi | 180 | 12, 730 | 55, 129 | 38, 000 | 14, 721 | 120, 760 | 0 |
| Texas | 0 | 14,230 | 55, 500 | 35,250 |  | 105, 030 | 0 |
| Oklahoma | 0 | 0 | 500 | 38,000 | 1,167 | 39,667 | 100 |
| North Central Division: Ohio | 18,000 | 45, 000 | 0 | 0 |  |  |  |
| Indiaña | 25,087 | 50,000 | 65, 3 \% 5 | 38,000 | 36,544 | 215,006 | 5,500 |
| mlinois | 30, 000 |  |  | ${ }^{0}$ | 70, 000 | 100, 000 |  |
| Michigan | 1,280 | 46, 843 | 51,000 | 38,000 | 24, 258 | 161, 381 |  |
| Iowa -......- | 0 | 47, 230 | 37,232 | 38,000 | 2,287 | 125, 249 | - |
| Nouth Dakot | 3,365 | ${ }_{0}^{0}$ | 16,000 26,100 | 38,000 38,000 | 1,968 | 56,500 69,433 |  |
| Kansas....-. | $\bigcirc$ | 27, 700 | 5,000 | 38,000 | 11,993 | 82, 693 | 50 |
| Western Division: Montama |  |  | 12,000 |  | 0 |  |  |
| Colorado |  | 3,504 | \%9, 827 | 38.000 | 1,561 | 122, 892 | \% |
| New Mexi | 1,100 | 0 | 8,727 | $38, \mathrm{c} 00$ | 425 | 48,252 | 0 |
| Utah | 0 | 0 | 12,250 | 38,000 | 6,333 | 56,583 |  |
| Washington | 0 | 0 | 11,595 | 38,000 | 3,720 | 53,321 |  |
| Oregon. | 0 | 12,578 | 5,000 | 38, 000 | 1,161 | 56, 739 |  |

Table 43.-Statistics of universities and


[^64]colleges for men and for both sexes．

| Professors and in－ structors． |  |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Profes－ sional de－ partments |  | Total num ber（ex cluding du plicates）． |  | Prepara－ tory de－ partment． |  | Collegiate depart－ ment． |  | Graduate depart ment． |  |  |  | Profes－ sional de partments． |  | Total num ber（ex－ cluding du－ plicates）． |  |  |
|  |  | Resident． | Nonresi－ dent． |  |  |  |  |  |  |  |  |
|  |  |  |  | 茳 |  | $\begin{aligned} & \text { 忽 } \\ & \text { 豆 } \end{aligned}$ |  | $\frac{\text { 閏 }}{}$ |  | $\stackrel{\text { 咸 }}{ }$ | $\begin{aligned} & \dot{9} \\ & \text { 采 } \\ & \text { E } \end{aligned}$ | $\stackrel{\dot{5}}{\stackrel{y}{\mathrm{c}}}$ |  | 寻 | $\begin{gathered} \text { 感 } \\ \text { 勿 } \end{gathered}$ | $\stackrel{\dot{\pi}}{\underset{\sim}{\pi}}$ |  |  |
| 9 | 11 | 11 | 12 |  |  | 13 | 18 | 15 | 16 | 17 | 18 | 19 | 29 | 21 | 18 | 23 | 21 |  |
| 0 | 0 | 5 | 3 | 168 | 98 | 48 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 216 | 135 | 1 |
| 0 | 0 | 12 | 0 | 31 | 0 | 112 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 143 | 1 | 2 |
| 0 | 0 | 8 | 0 | 30 | 0 | 145 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1\％5 | 4 | 3 |
| 0 | 0 | 2 | 3 | 50 | 60 | 40 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 90 | 105 | 4 |
| 0 | 0 | 4 | 2 | 35 | 30 | 81 | 67 | 0 | 0 | 0 | 0 | 0 | 0 | 116 | 97 | 5 |
| 4 | 0 | 16 | 0 | 20 | 0 | 71 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 11： | 0 | ${ }_{7}^{6}$ |
| 0 | 0 | 5 | 4 | 95 | 104 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 96 | 107 | 7 |
| 0 | 0 | 18 | 0 | 39 | ${ }_{0}^{0}$ | －32 | 0 | ${ }_{4}$ | 0 | 0 | ${ }_{0}^{0}$ | 0 138 | ${ }_{0}^{0}$ | 108 303 | ${ }_{15}^{0}$ | 8 9 |
| 2 | 0 | 52 | 0 | 0 | 0 | 169 | 15 | 4 | 0 | 0 | ， | 108 | 0 | 30 | 15 | 9 |
| 0 | 0 | 11 | 3 | 58 | 41 | 42 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 57 | 10 |
| 0 | 0 | 3 | 3 | 31 | 7 | 35 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 66 | 72 | 11 |
|  |  | 8 |  | 75 | 75 | 75 | 75 | 0 | 0 | 0 | 0 | 24 | 0 | $1 \% 0$ | 150 | 12 |
| 0 | 0 | a | 1 | 17 | 28 | 48 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 6.5 | 43 | 13 |
| 0 | 0 | 4 | 3 | 37 | 43 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 44 | 14 |
| 0 | 0 | 9 | 0 | 80 | 10 | 61 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 141 | 19 | 15 |
| 19 | 0 | 41 | 11 | 175 | 83 | 154 | 63 | 1 | 2 | 0 | 0 | 128 | 0 | 458 | 148 | 16 |
|  |  | 5 | 4 | 35 | 24 | 16 | 2 | 0 | 0 | 0 | 0 | 18 | 0 | 69 | 26 | 17 |
| 0 | 0 | 3 | 5 | 25 | 20 | 34 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | 62 | 18 |
| 239 | 0 | 38：2 | 5 | 0 | 0 | 869 | 630 | 95 | 70 | 6 | 5 | 470 | 39 | 1，531 | 860 | 19 |
| 0 | 0 | 10 | 5 | 59 | 41 | 63 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 124 | $8{ }_{8} 8$ | 20 |
| 0 | 0 | 10 | 4 | 62 |  | 4 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 105 | $8{ }^{2}$ | 21 |
| 0 | 0 | 6 | 4 | 29 | 19 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 21 | 22 |
| 0 | 0 | 16 | 0 | 80 | 0 | 80 | ${ }_{\sim}^{0}$ | 0 | 0 | 0 | 0 | 0 | 0 | 160 | 0 | 23 |
| 0 | 0 | 3 | 3 | 27 | 24 | 8 | 7 | 0 | 0 | 0 |  | 0 | 0 | 35 | 31 | 24 |
| 0 | 0 | 11 | 9 | 74 | 23 | 8 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 142 | 74 | 25 |
| 0 | 0 | 23 | 0 | 125 | 0 | 230 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 355 | 0 | 26 |
| 0 | 0 | 23 | 0 | 33 | 0 | 181 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $\because 14$ | 0 | 27 |
| 0 | 0 | 4 | 4 | 9 | 12 | 26 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 30 | 28 |
| 0 | 0 | 75 | 10 | ， | 0 | 697 | $4 \geqslant 1$ | 69 | 37 | 0 | 0 | 0 | 0 | 766 | 458 | 29 |
| 25 | 2 | 42 | 12 | 133 | 76 | 54 | 30 | 0 | 0 | 0 | 0 | 88 | 29 | $2 \% 5$ | 135 | 30 |
| 45 | 1 | 80 | 6 | 120 | 153 | 125 | 111 | 13 | 8 | 8 | 0 | 67 | 5 | 333 | 277 | 31 |
| 0 | 0 | 29 | 6 | 173 | 50 | 70 | 61 | 1 | 0 | 0 | 0 | 0 | 0 | 144 | 111 | 32 |
|  | 0 | 15 | 0 | 110 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 138 | 0 | 33 |
| 68 | 0 | 80 | 9 | 79 | 49 | 32 | 33 | ， | 0 | 11 | 5 | 189 | 16 | 311 | 103 | 34 |
| 0 | 0 | 23 | 0 | 0 | 0. | 134 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 136 | 0 | 35 |
| 0 | 0 | 28 | 0 | 0 | 0 | 257 | 58 | 10 | 2 | 0 | ， | 0 | 0 | 267 | 60 | 36 |
| 94 | 0 | 250 | 0 | 0 | 0 | 1，724 | 0 | 205 | 35 | 21 | 1 | 428 | 0 | 2，395 | 105 | 37 |
|  | 0 |  | 1 | 19 | 9 | 14 |  | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 14 | 38 |
| 0 | 0 | 13 | 0 | 0 | 0 | 88 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 91 | 0 | 39 |
| 14 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 52 | 0 | 0 | 0 | 99 | 0 | 151 | 0 | 40 |
| 94 | 0 | 161 | 0 | 0 | 0 | 25.5 | 93 | 57 | 11 | 0 | 0 | 605 | 0 | 917 | 104 | 41 |
| 0 | 0 | 9 | 1 | 16 | 15 | 34 | 23 | 3 | 2 | 0 | ， | 0 | 0 | 53 | 40 | 42 |
| 80 | 0 | 124 | 0 | 147 | 0 | 123 | 0 | 41 | 0 | 0 |  | 402 | 0 | 684 | 0 | 43 |
| 0 | ${ }_{0}^{0}$ | 13 | 0 | 136 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | ${ }^{0}$ | 160 | 0 | 44 |
| 45 | 0 | 66 | 9 | 86 | 12 | 36 | 10 | 0 | 0 | 0 | 0 | 208 | 18 | $4{ }^{2} 8$ | 136 | 45 |

Table 43.-Statistics of universities and colleges


[^65]for men and for both sexes－Continued．

| Professors and in－ structors． |  |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Profes－ sional de－ partments． |  | Total num ber（ex－ cluding du－ plicates）． |  | Prepara－ tory de－ partment． |  | Collegiate depart－ ment． |  | Graduate depart－ ment． |  |  |  | Profes－ sional de－ partments． |  | Total num－ ber（ex－ cluding au－ plicates）． |  |  |
|  |  | Resi | ent． |  |  |  | resi- <br> nt． |  |  |  |  |  |
|  |  |  |  |  | $\begin{aligned} & \stackrel{0}{1} \\ & \text { డ్ } \\ & \text { g్ర } \\ & \text { - } \end{aligned}$ |  |  | $\begin{gathered} \stackrel{0}{心} \\ \text { 会 } \end{gathered}$ | $\begin{aligned} & \text { థ゙ } \\ & \text { む్ } \\ & \text { む } \\ & \text { I } \end{aligned}$ |  |  | 商 | 完 | 帯 |  | 完 | 过 | 完 |  |  |
| 9 | 10 | 1 1 | 12 | 直3 | 14 | 15 | 16 | 直7 | 18 | 19 | 180 | 21 | 188 | 23 | P显 |  |
| 0 | 0 | 14 | 11 | 78 | 61 | 12 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 115 | 76 | 46 |
| 0 | 0 | 13 | 2 | 46 | 7 | 56 | 21 | 4 | 1 | 0 | 0 | 0 | 0 | 150 | 53 | 47 |
| 0 | 0 | 7 | 3 | 50 | 40 | 12 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | $4 \%$ | 48 |
| 0 | 0 | 5 | 0 | 10 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 49 |
| 0 | 0 | 4 | 2 | 19 | 21 | 49 | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 63 | 80 | 50 |
| 0 | 0 | 8 | 11 | 51 | 32 | 10 | 10 | 0 | 1 | 0 | 1 | 0 | 0 | 69 | 55 | 51 |
| 21 | 0 | 40 | 0 | 0 | 0 | 247 | 0 | 8 | 0 | 0 | 0 | 215 | 0 | 470 | 0 | 52 |
|  |  | 4 | 0 | 28 | 0 | 7 | 0 | 1 | 0 | 0 | 0 | 17 | 0 | 56 | 0 | 53 |
| 0 | 0 | 8 | 7 | 73 | 2 | 19 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 102 | 153 | 54 |
| 2 | 0 | 7 | 1 | 24 | 42 | 10 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 63 | 42 | 55 |
| 0 | 0 | 2 | 3 | 30 | 30 | 28 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 44 | 56 |
| 0 | 0 | 6 | 2 | 40 | 20 | 96 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 136 | 34 | 57 |
| 4 | 0 | 15 | 0 | 38 | 0 | 210 | 0 | 1 | 0 | 0 | 0 | 12 | 0 | 260 | 0 | 58 |
| 2 | 0 | 16 | 0 | 61 | 0 | 259 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 325 | 0 | 59 |
| 0 | 0 | 6 | 2 | 31 | 10 | 11 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 45 | 57 | 60 |
| 0 | 0 | 1 | 5 | 35 | $3 ;$ | 20 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | 43 | 61 |
| 0 | 0 | 4 | 6 | 82 | 33 | 63 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 161 | 72 | 62 |
| 0 | 0 | 10 | 6 | 92 | 69 | 53 | 31 | 3 | 0 | 0 | 0 | 0 | 0 | 148 | 100 | 63 |
| 0 | 0 | 12 | 8 | 110 | 83 | 39 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 142 | 98 | 64 |
| 9 | 0 | 31 | 3 | 83 | 68 | 62 | 33 | 0 | 0 |  |  | 58 | 1 | 203 | 101 | 65 |
| 4 | 0 | 40 | 0 | 50 | 0 | 134 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 200 | 0 | 66 |
| 0 | 0 | 5 | 4 | 35 | 22 | 12 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 47 | 35 | 67 |
| 0 | 0 | 9 | 3 | 38 | 71 | －33 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 71 | 89 | 68 |
| 84 | 2 | 171 | 12 | 145 | 54 | 538 | 158 | 30 | 1 | 36 | 11 | 566 | 21 | 1，337 | 215 | 69 |
| 0 | 0 | 26 | 0 | 245 | 0 | 143 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1， $47 \%$ | 0 | 70 |
| 16 | 0 | 193 | 17 | 126 | 70 | 588 | 705 | 575 | 300 | 0 | 0 | 339 | 32 | 1，554 | 949 | 71 |
| 0 | 0 | 10 | 3 | 100 | 80 | 70 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 170 | 140 | 79 |
| 0 | 0 | 8 | 0 | 6 | 0 | 86 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112 | 0 | $\ldots 3$ |
| 3 | 0 | 11 | 5 | 51 | 30 | 44 | 24 | 1 | 2 | 1 | 0 | 37 | 11 | 122 | 66 | 44 |
| 173 | 24 | 218 | 33 | 367 | 164 | 318 | 233 | 24 | 8 | 3 | 1 | 1，3\％\％ | 132 | 2，082 | 538 | 75 |
| 1 | 0 | 6 | 7 | 57 | 14 | 37 | 5 | 1 | 0 | 0 | 0 | － 14 | 0 | N， 111 | 19 | 76 |
| 0 | 0 | 6 | 4 | 50 | 90 | 25 | 40 | 8 | 0 | 16 | 1 | 12 | 0 | 111 | 141 | 77 |
| 0 | 0 | 15 | 8 | 126 | 37 | 185 | 136 | 0 | 4 | 0 | 0 | 0 | 0 | 311 | 217 | 78 |
| 5 | 1 | 9 | 4 | 18 | 9 | 32 | 39 | 0 | 0 | 0 | 0 | 9 | 2 | 59 | 50 | 79 |
| 0 | 0 | 10 | 7 | 100 | 75 | 32 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 132 | 93 | 80 |
| 0 | 0 | 15 | 0 | 116 | 0 | 113 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 235 | 0 | 81 |
| 81 | 0 | 108 | 15 | 95 | 138 | 59 | 37 | 4 | 3 | 0 | 0 | 1，064 | 0 | 1，222 | 178 | 82 |
| 2 | 0 | ${ }^{9}$ | 1 | 71 | 29 | 27 | 6 | 3 | 2 | 12 | 1 | 1，8 | 0 | 121 | 138 | 83 |
| 0 | 0 | 11 | 3 | 37 | 33 | 22 | 25 | 0 | 0 | 1 | 0 | 0 | 0 | 60 | 58 | 84 |
| 0 | 0 | 9 | 5 | 63 | 50 | 80 | 63 | 0 | 2 | 0 | 0 | 0 | 0 | 143 | 115 | 85 |
| 3 | 0 | 14 | 5 | 109 | 40 | 50 | 23 | 0 | 0 | 0 | 0 | 33 | 1 | 192 | 63 | 86 |
| 0 | 0 | 9 | 0 | 21 | 0 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 67 | 0 | 87 |
| 4 | 0 | 8 | 6 | 25 | 18 | 15 | 10 | 0 | 0 | 0 | 0 | 4 | 1 | 49 | 33 | 88 |
| 0 | 0 | 14 | 0 | 81 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 198 | － 0 | 89 |
| 4 | 0 | 17 | 1 | 56 | 25 | 103 | 11 | 1 | 1 | 14 | 1 | 61 | 0 | 235 | 38 | 90 |
| 0 | 0 | 10 | 0 | 100 | 0 | 95 | 0 | 0 | 0 | － | 0 | 0 | 0 | 195 | 0 | 91 |
| 0 | 0 | 18 | 6 | 76 | 28 | 49 | 29 | 4 | 0 | 0 | 0 | 0 | 0 | 129 | 57 | 92 |
| 0 | 0 | 5 | 1 | 60 | 25 | 13 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 73 | 35 | 93 |
| 0 | 0 | 8 | 10 | 89 | 57 | 39 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 140 | 91 | 94 |
| 3 | 0 | 60 | 0 | 0 | 0 | 644 | 300 | 59 | 14 | 0 | 0 | 93 | 0 | 735 | 314 | 95 |
| 0 | 0 | 21 | 0 | 76 | 0 | 124 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 202 | 0 | 96 |

Table 43．－Statistics of universities and colleges

|  | Location． | Name． | Religious denomina－ tion con－ trolling． | $\begin{aligned} & \text { Year } \\ & \text { of } \\ & \text { open- } \\ & \text { ing. } \end{aligned}$ | Professors and instructors． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Prepar atory depart ment． |  | Collegi ate de－ part－ ment |  |
|  |  |  |  |  | 㡙 |  | 恖 | 馬 |
|  | 1 | 1 | 3 | 4 | 5 | 6 | 7 | 8 |
|  | indiana－cont＇d． |  |  |  |  |  |  |  |
| 97 | Fort Wayn | Concordia College | Luth | 1839 | 6 | 0 | 7 | 0 |
| 98 | Franklin－ | Franklin College | Bapt | 1834 | $\stackrel{5}{5}$ | $\stackrel{2}{2}$ | 7 | $\stackrel{2}{2}$ |
| 99 100 | Greencastl Hanover | De Pauw University | M．E | 1837 | 10 | $\stackrel{2}{2}$ | 16 | $\stackrel{2}{2}$ |
| 101 | Irvington | Butler College． | Christian－－ | 1855 | $\stackrel{5}{2}$ | $\stackrel{2}{2}$ | 10 | 3 |
| 102 | Merom | Union Christian College | Christian－－ | 1859 | 5 | 3 | 4 | 2 |
| 103 | Moores Hill | Moores Hill College． | M．E | 1856 | 7 | 1 | 5 | 0 |
| 104 | Notre Dame | University of Notre Dame | R．C | 1842 | 25 | 0 | 41 | 0 |
| 105 | Richmond | Earlham College－－．－－－－－－ | Friends | 1847 | 4 | 1 | 11 | 3 |
| 106 | Ridgeville | Ridgeville College | Cong | 1867 | 3 | 3 | 3 | 3 |
| 107 | St．Meinrad | St．Meinrad College | R．C | 1857 | 3 | 0 | 8 | 0 |
| 108 | Upland | Taylor University | M．E | 1847 | 3 | 1 | 9 | 4 |
|  | indian territory． |  |  |  |  |  |  |  |
| 109 | Bacone | Indian University | Bapt | 1880. | 3 | 4 | 3 | 3 |
| 110 | Muscogee | Henry Kendall College | Presb ．－．－．－－ | 1894 | 0 | ， | 3 | 6 |
|  | IOWA． |  |  |  |  |  |  |  |
| 111 | Cedar Rapids．．． | Coe College | Presb | 1881 | 4 | 3 | 6 |  |
| 113 | Charles City－．．． | Whartes City College | M．E． | 1891 | 3 | 0 | 4 | 0 |
| 114 | Collegesprings．－．－－ | Amity College．．．． | None． | 1855 | ${ }_{3}$ | 0 | 4 | $\stackrel{2}{2}$ |
| 115 | Decorah | Luther College | Luth | 1861 | 14 | 0 | 14 | 0 |
| 116 | Des Moines． | Des Moines College | Bapt | 1865 | 2 | 2 | 5 | 3 |
| 117 | Daido do | Drake University | Christian | 1880 | 1 | 5 | 12 | $\stackrel{2}{1}$ |
| 118 | Fairfield | Parsons College ．．．． | Presb | 1876 | 5 | $\stackrel{2}{2}$ | 8 | 1 |
| 119 | Fayette | Upper Iowa University | M．E． | 1857 | 8 | 6 | 5 | 3 |
| 120 | Grinneil | Iowa College ．－．．．．．．．．．．． | Cong | 1848 | 6 | 5 | 19 | 4 |
| 121 | Hopkinton． | Lenox College | Presb | 1859 | 3 | 3 | 3 | 4 |
| 12\％ | Indianola | Simpson College | M．E． | 1867 | 5 | 6 | 6 | 3 |
| 123 | Iowa City | State University of Iowa | None | 1856 | 0 | 0 | 45 |  |
| 124 | Mount Pleasant | German College ${ }^{\text {G }}$－ | M．E． | 1873 | 3 | 1 | 3 | 1 |
| 125 |  | Iowa Wesleyan University | M．E | 1844 | 5 | 2 | 9 | 2 |
| 126 | Mount Vernon | Cornell College．．．．．－．－－．．．．． | M．E．－ | 1857 | 5 | 10 | 15 | 1 |
| 127 | Oskaloosa | Penn College－ | Friends | 1873 | 0 | 2 | 8 | 2 |
| 128 | Pella | Central University of Iowa | Bapt | 1853 | 1 | 0 | 8 | 5 |
| 129 | Sioux City | Morningside College ．．．．． | M．E | 1890 | 9 | 4 | 5 | 3 |
| 130 | Storm Lak | Buena Vista Coliege | Presb | 1891 | 4 | 0 | 3 | 0 |
| 131 | Tabor | Tabor College ．－．．．． | Cong | 1866 | 1 | 0 | 7 | ${ }_{6}^{6}$ |
| 132 | ＇Toledo | Western College ．．－．．－－－ | U．B | 1859 | 2 | 0 | 4 | 1 |
|  | kansas． |  |  |  |  |  |  |  |
| 133 | Atchison． | Midland College | Luth | 1887 | 15 |  | ${ }^{6}$ |  |
| 134 | －－do | St．Benedict＇s Colleg | R．${ }^{\text {C }}$ | 1858 | 15 |  | 11 | 0 |
| 135 | Baldwin | Baker University | M．E | 1858 | ${ }^{6}$ | 4 | 8 | 4 |
| 136 | Dodge City | Soule College＊ | M．E． | 1893 | 2 | 1 | 6 | 1 |
| 137 | Emporia－ | College of Emporia | Presb | 1883 | 8 | ${ }_{2}^{2}$ | 9 | 0 |
| 138 | Highland | Highland University－ | Presb | $185 \%$ |  | 6 | 4 | 6 |
| 139 | Holton． | Campbell University | None． | 1882 | 12 | 3 | 12 | 3 |
| 140 | Kansas City | Kansas City University | M．P． | 1896 | 4 | 1 | 10 | 1 |
| 141 | Lawrence．．． | University of Kansas | None | 1866 | 0 | 0 | 40 | 4 |
| 142 | Lecompton | Lane University ．．． | U．B | 1865 | 2 | 0 | 4 | 1 |
| 143 | Lindsborg | Bethany College． | Luth | 1881 | 9 | 1 | 9 | 1 |
| 144 | Ottawa ．． | Ottawa University | Bapt | 1865 | 12 | 4 | 8 | 4 |
| 145 | St．Marys | St．Mary＇s College | R． C | 1869 | 22 | 0 | 11 | 0 |
| 146 | Salina－ | Kansas Wesleyan Universit | M．E．－．－． | 1886 | 5 | $\stackrel{2}{1}$ | 4 |  |
| 147 148 | Sterling | Cooper Memorial College． | U．Presb | 1887 | $\stackrel{2}{6}$ | 1 | ${ }_{8}^{5}$ | ${ }_{5}^{1}$ |
| 148 | Wichita | Washburn College． | Cong | 1865 | 6 | 3 3 3 | 8 | 5 <br> 1 |
| 150 | Winfield | St．John＇s Lutheran College | Luth | 1893 | 4 | $\stackrel{3}{2}$ |  | $\stackrel{1}{2}$ |
| 151 | ．do | Southwest Kansas ${ }^{\text {college．}}$ | M．E． | 1886 | 7 | 3 | 8 | 1 |

[^66]for men and for both sexes－Continued．

| Professors and in－ structors． |  |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Profes－ sional de－ partments． |  | Total num ber（ex－ cluding du－ plicates）． |  | Prepara－ tory de－ partment． |  | Collegiate depart－ ment． |  | Graduate depart－ ment． |  |  |  | Profes－ sional de－ partments． |  | Total num－ ber（ex－ cluding du－ plicates）． |  |  |
|  |  | Resident． | Nonresi－ dent． |  |  |  |  |  |  |  |  |
| $\stackrel{\dot{y}}{\stackrel{y}{\text { g }}}$ |  |  |  |  |  | $\begin{aligned} & \dot{\Xi} \\ & \text { 岕 } \\ & \hline \end{aligned}$ |  | $\stackrel{\dot{y}}{\stackrel{y}{\mathrm{~N}}}$ | $\begin{aligned} & \dot{9} \\ & \text { ボ } \\ & \text { g } \\ & \text { © } \end{aligned}$ | 追 |  |  |  | 令 |  | $\stackrel{\stackrel{0}{J}}{\underset{\sim}{\pi}}$ |  |  |
| 9 | 19 | 11 | 12 |  |  | 13 ${ }^{1}$ | 1晏 | 1.3 | 16 | 18 | 18 | $\underline{19}$ | 210 | 181 | P： | 12：3 | 21 |  |
| 0 | 0 | 7 | 0 | 70 | 0 | 105 | 0 | C | 0 | 0 | 0 | 0 | 0 | 175 | 0 | 97 |
| 0 | 0 | 8 | 4 | 46 | 34 | 69 | 59 | 4 | 3 | 0 | 0 | 0 | 0 | 119 | 96 | 98 |
| 9 | 0 | 31 | 3 | 150 | 141 | 304 | 125 | 4 | 3 | 1 | 1 | 38 | 1 | 497 | 271 | 99 |
| 0 | 0 | 11 | 2 | 31 | 16 | 65 | 23 | 0 | 3 | 0 | 0 | 0 | 0 | 96 | 42 | 100 |
| 5 | 0 | 15 | 4 | 50 | 14 | 75 | 58 | 4 | 3 | 0 | 0 | 12 | 0 | 129 | 75 | 101 |
| 2 | 1 | 9 | 4 | 65 | 43 | 42 | 45 | 4 | 2 | 2 | 0 | 28 | 7 | 131 | 97 | 102 |
| 0 | 0 | 8 | 1 | 43 | 25 | 35 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 48 | 103 |
| 5 | 0 | 53 | 0 | 407 | 0 | 163 | 0 | 8 | 0 | 0 | 0 | 71 | 0 | 650 | 0 | 104 |
| 0 | 0 | 11 | 3 | 11 | $\stackrel{2}{2}$ | 103 | 112 | 1 | 0 | 2 | 4 | 0 | 0 | 117 | 118 | 105 |
| 0 | 0 | 3 | 3 | 40 | 45 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 45 | 106 |
| 8 | 0 | 16 | 0 | 23 | 0 | 42 | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 110 | 0 | 107 |
| 2 | 0 | 16 | 5 | 56 | 38 | \％ | 6 | 0 | 0 | 0 | 0 | 33 | 4 | 108 | 48 | 108 |
| 0 | 0 | 4 | 6 | 29 | 24 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 26 | 109 |
| 0 | 0 | 3 | 7 | 24 | 23 | 12 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 39 | 110 |
| 0 | 0 | 6 | 4 | 21 | 17 | 26 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 47 | 59 | 111 |
| 1 | 0 | 6 | 0 | 35 | 99 | 11 | 8 | 0 | 0 | 0 | 0 | 9 | 0 | 99 | 44 | 112 |
| 0 | 0 | 7 | 0 | 40 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71 | 0 | 113 |
| 0 | 0 | 7 | 4 | 32 | 33 | 16 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 72 | 86 | 114 |
| 0 | 0 | 14 | 0 | 91 | 0 | 101 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 192 | 0 | 115 |
| 0 | 0 | 7 | 5 | 35 | 20 | 48 | 35 | 9 | 0 | 0 | 0 | 0 | 0 | 83 | 55 | 116 |
| 30 | 0 | 44 | 9 | 161 | $1 \geqslant$ | 98 | $4 \%$ | 4 | 0 | 0 | 0 | 257 | 45 | 499 | 211 | 117 |
| 0 | 0 | 9 | 3 | 29 | 13 | 58 | 39 | 1 | 1 | 0 | 0 | 0 | 0 | 88 | 53 | 118 |
| 0 | 0 | 13 | 9 | 185 | 102 | 73 | 48 | 1 | 0 | 3 | 0 | 0 | 0 | 262 | 150 | 119 |
| 0 | 0 | 20 | 6 | 94 | 79 | 145 | 116 | 4 | 0 | 9 | 6 | 0 | 0 | 25： | 201 | 120 |
| 0 | 0 | 5 | 5 | 29 | 18 | 33 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 56 | 121 |
| 0 | 0 | 9 | 8 | 202 | 141 | 63 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 265 | 177 | 122 |
| 81 | 2 | 97 | 8 | 0 | 0 | 40\％ | 178 | 27 | 23 | 29 | 10 | 640 | 37 | 1，066 | 247 | 123 |
| 1 | 0 | 4 | 1 | 20 | 11 | 29 | 8 | 0 | 0 | 0 | 0 | 10 | 0 | 10 | 18 | 124 |
| 0 | 0 | 14 | 4 | 165 | 105 | 59 | 32 | 0 | 0 | 2 | 1 | 0 | 0 | 296 | 138 | 125 |
| 0 | 0 | 20 | 11 | 159 | 100 | 176 | 135 | 0 | 0 | 1 | 0 | 0 | 0 | 336 | 235 | 126 |
| 0 | 0 | 8 | 4 | 75 | 51 | 64 | 59 | 1 | 2 | 0 | 0 | 0 | 0 | 149 | 112 | $12 \%$ |
| 0 | 0 | 9 | 5 | 60 | 17 | 15 | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 75 | 27 | 128 |
| 0 | 0 | 9 | 4 | $11 \%$ | 76 | 15 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 127 | 88 | 129 |
| 0 | 0 | 5 | 2 | 17 | 3 | 3 | \％ | 0 | 0 | 0 | 0 | 0 | 0 | 54 | 42 | 130 |
| 0 | 0 | 11 | 6 | 50 | 47 | 36 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 86 | 90 | 131 |
| 0 | 0 | 8 | 1 | 66 | 33 | 40 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 125 | 71 | 132 |
| 0 | 0 | 8 | 4 | 32 | 36 | 24 | 17 | 2 | 1 | 0 | 0 | 0 | 0 | 58 | 54 | 133 |
| 0 | 0 | 24 | 0 | 89 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 155 | 0 | 134 |
| 0 | 0 | 14 | 8 | 224 | 112 | 118 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | $31 \%$ | 170 | 135 |
| 0 | 0 | 8 | 2 | 62 | 49 | 18 | 14 | 2 | 0 | 2 | 0 | 0 | 0 | 84 | 63 | 136 |
| 0 | 0 | 9 | 2 | 27 | 12 | $5 \%$ | 28 | 0 | 0 | 1 | 0 | 0 | 0 | 80 | 40 | 137 |
| 0 | 0 | 4 | 6 | 9 | 15 | 10 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 26 | 138 |
| 2 | 1 | 14 | 4 | 131 | 156 | 70 | 74 | 0 | 0 | 0 | 0 | 9 | 0 | 210 | 230 | 139 |
| $5 \%$ | 4 | 67 | 7 | 45 | 25 | 19 | 14 | 2 | 0 | 4 | 0 | 97 | 12 | 167 | 51 | 140 |
| 21 | 0 | 54 | 4 | 0 | 0 | 412 | 242 | 28 | 14 | 2 | 0 | 219 | 14 | 653 | 409 | 141 |
| 4 | 0 | 7 | 2 | 70 | 58 | 17 | 8 | 0 | 0 | 0 | 0 | 30 | 1 | 108 | 67 | 142 |
| 0 | 0 | 11 | 3 | 31 | 32 | 42 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 133 | 75 | 143 |
| 0 | 0 | 13 | 5 | 185 | 206 | 62 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 247 | 254 | 144 |
| 0 | 0 | 25 | 0 | 212 | 0 | 73 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 285 | 0 | 145 |
| 0 | 0 | 5 | 2 | 44 | 13 | 23 | 16 | 2 | 0 | 0 | 0 | 0 | 0 | 69 | 29 | 146 |
| 0 | 0 | 7 | 2 | 38 | $2 ;$ | 24 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 42 | 147 |
| 0 | 0 | 9 | 8 | 80 | 39 | 71 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 151 | 83 | 148 |
| 0 | 0 | 11 | 4 | 37 | $4 \%$ | 36 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 73 | 84 | 149 |
| 0 | 0 | 5 | $\underset{2}{2}$ | 35 | 16 | 32 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 103 | 23 | 150 |
| 0 | 0 | 11 | 5 | 105 | 63 | 15 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 162 | 89 | 151 |

Table 43.-Statistics of universities and colleges


[^67]for men and for both sexes－Continued．

| Professors and in－ structors． |  |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Profes－ sional de－ partments． |  | ```Total num- ber (ex- cluding du plicates).``` |  | Prepara－ tory de－ partment． |  | Collegiate depart－ ment． |  | Graduate depart－ ment． |  |  |  | Profes－ sional de－ partments． |  | Total num－ ber（ex－ cluding du－ plicates）． |  |  |
|  |  | Resid | ent． |  |  |  | esi- <br> t． |  |  |  |  |  |
|  |  |  |  | $\begin{aligned} & \dot{\Delta} \\ & \text { N } \\ & \text { 感 } \end{aligned}$ |  |  |  | $\begin{gathered} \dot{9} \\ \stackrel{\text { gin }}{\boldsymbol{H}} \end{gathered}$ |  |  |  |  |  | $\underset{\text { ت゙ }}{\text { ت゙ }}$ |  | 官 | 込 |  |  |  |
| 9 | 10 |  | 18 | 13 | 退退 | 15 | 16 | 18 | 18 | 13 | 10 | 31 | 29 | 98 | 9， |  |
| 0 | 0 | 3 | 3 | 14 | 11 | 7 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 16 | $15 \%$ |
| 0 | 0 | 18 | 11 | 352 | 268 | 36 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 388 | 285 | 153 |
| 0 | 0 | 5 | 0 | 42 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 | 0 | 154 |
| 4 | 0 | 17 | 0 | 55 | 0 | 185 | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 242 | 0 | 155 |
| 0 | 0 | 12 | 11 | 118 | 61 | 130 | 75 | 0 | 0 | 0 | 0 | 0 | 0 | $2: 35$ | 132 | 156 |
| 0 | 0 | 2 | 4 | 25 | 18 | 20 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 39 | 157 |
| 0 | 0 | 5 | 5 | 25 | 25 | 75 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 75 | 158 |
| 0 | 0 | 23 | 0 | 67 | 14 | 190 | 58 | 5 | 1 | 0 | 0 | 0 | 0 | 304 | 126 | 159 |
| 4 | 0 | 12 | 1 | 27 | 4 | 157 | 44 | 3 | 0 | 0 | 0 | 127 | 0 | 314 | 48 | 160 |
| 48 | 0 | 64 | 10 | 203 | 183 | 130 | 12 | 4 | 0 | 2 | 0 | 428 | 0 | 787 | 195 | 161 |
| 0 | 0 | 8 | 0 | 0 | 0 | 89 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 0 | 162 |
| 0 | 0 | 10 | 0 | 80 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 120 | 0 | 163 |
| 0 | 0 | 11. | 6 | 185 | 125 | 100 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 285 | 163 | 164 |
| 0 | 0 | 20 | 0 | 88 | 0 | 158 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 250 | 0 | 165 |
| 0 | 0 | 12 | 0 | 30 | 0 | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 110 | 0 | 166 |
| 0 | 0 | 6 | 0 | 27 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 0 | 167 |
| 0 | 0 | 3 | 4 | 14 | 16 | 27 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 55 | 168 |
| 0 | 0 | 18 | 0 | 114 | 0 | 170 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 367 | 0 | 169 |
| 0 | 0 | 3 | 4 | 14 | 15 | 24 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 23 | $1 \% 0$ |
| 8 | 0 | 13 | 2 | 15 | 22 | 7 | 7 | 0 | 0 | 0 | 0 | 17 | 0 | 39 | 29 | 171 |
| 3 | 0 | 6 | $\stackrel{\sim}{2}$ | 18 | 8 | 7 | 0 | 0 | 0 | 0 | 0 | 16 | 1 | 41 | 9 | 172 |
| 30 | 0 | $5 \%$ | 16 | 0 | 65 | 163 | 129 | 5 | 68 | 0 | 0 | 421 | 5 | 559 | 267 | 173 |
| 16 | 0 | 33 | 0 | 0 | 0 | 243 | 0 | 0 | 0 | 0 | 0 | 140 | 0 | 383 | 0 | 174 |
| 5 | 0 | 23 | 0 | 0 | 0 | 155 | 106 | 0 | 0 | 0 | 0 | 43 | 5 | 198 | 111 | 175 |
| 0 | 0 | 34 | 0 | 0 | 0 | 307 | 10 | 7 | 0 | 0 | 0 | 0 | 0 | 314 | 10 | 176 |
| 0 | 0 | 15 | 1 | 0 | 0 | 138 | 73 | 0 | 0 | 0 | 0 | 0 | 0 | 138 | \％ 3 | 177 |
| 0 | 0 | 13 | 0 | 35 | 0 | 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 125 | 0 | 178 |
| 43 | 0 | 123 | 0 | 0 | 0 | 185 | 0 | 215 | 0 | 0 | 0 | 200 | 41 | 600 | 41 | 179 |
| 0 | 0 | 14 | 0 | 75 | 0 | \％$\%$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150 | 0 | 180 |
| 3 | 0 | 5 | 3 | 14 | 1 | 9 | 1 | 0 | 0 | 0 | 0 | 11 | 0 | 34 | 2 | 181 |
| 0 | 0 | 6 | 3 | 27 | 32 | 31 | 18 | 2 | 0 | 0 | 0 | 0 | 0 | 60 | 50 | 182 |
| 0 | 0 | 17 | 0 | 23 | 0 | 81 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 105 | 0 | 183 |
| 0 | 0 | 14 | 0 | 78 | 0 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 126 | 0 | 184 |
| 0 | 0 | 20 | 0 | 72 | 0 | 138 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 210 | 0 | 185 |
| 8 | 0 | 27 | 0 | 87 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 189 | 0 | 186 |
| 0 | 0 | 4 | 3 | 14 | 6 | 21 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 16 | 187 |
| 0 | 0 | 11 | 7 | 50 | 34 | 87 | 76 | 0 | 0 | 0 | 0 | 0 | 0 | 137 | 110 | 188 |
| 0 | 0 | 34 | 0 | 0 | 0 | 369 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | $3 \% 2$ | 0 | 189 |
| 0 | 0 | 20 | 0 | 297 | 0 | 180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $47 \%$ | 0 | 190 |
| 90 | 5 | 129 | 7 | 0 | 0 | 113 | 304 | 75 | 37 | 0 | 0 | 724 | 62 | 1，052 | $40 \%$ | 191 |
| 177 | 0 | 404 | 0 | 0 | 0 | 2，240 | 0 | 272 | 0 | 15 | 0 | 1，339 | 0 | 3，859 | 0 | 192 |
| 0 | 0 | 6 | 3 | 38 | 19 | －10 | 0 | 0 | 0 | 0 | 0 | － 0 | 0 | －48 | 19 | 193 |
| 48 | 0 | 84 | 0 | 6 | 0 | 198 | 76 | 6 | 0 | 0 | 0 | 183 | 61 | 393 | 137 | 194 |
| 0 | 0 | 30 | G | 0 | 0 | 359 | 0 | 5 | 0 | 19 | 0 | 0 | 0 | 383 | 0 | 195 |
| 0 | 0 | 11 | 0 | ${ }_{0}^{0}$ | 0 | 0 | 0 | 44 | 0 | 0 | 0 | 0 | 0 | 44 | 0 | 196 |
| 0 | 0 | 25 | 0 | 136 | 0 | 205 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 341 | 0 | 197 |
| 0 | 0 | 9 | 6 | 44 | 21 | 39 | 22 | 0 | 0 | 0 | 0 | 25 | 0 | 83 | 43 | 198 |
| 0 | 0 | 17 | 11 | 141 | 28 | 128 | \％2 | 0 | 0 | 8 | 9 | 0 | 0 | $2 \%$ | 109 | 199 |

Table 43.-Statistics of universities and colleges

|  | Location. | Name. | Religious denomination controlling. | $\left\|\begin{array}{c\|} \text { Year } \\ \text { of } \\ \text { open- } \\ \text { ing. } \end{array}\right\|$ | Professors and instructors. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Preparatory department. |  | Collegi ate de-partment. |  |
|  |  |  |  |  |  |  | $\begin{gathered} \stackrel{0}{5} \\ \stackrel{y y y y}{\mid c} \end{gathered}$ |  |
|  |  |  | 3 | 4 | 5 | 6 | 7 | 8 |
|  | MICHIGAN - cont'd. |  |  |  |  |  |  |  |
| 200 | Alma. .-.. | Alma College .-......... | Presb ...... | 1887 | 7 | 3 | 10 | 6 |
| 201 | Ann Arbor | University of Michigan | None........ | 1837 | 0 | 0 | 100 | 6 |
| 202 | Battle Creek | Battle Creek College*. | 7 th D. Adv | 1874 | 1 | 11 | 10 | 2 |
| 203 | Benzonia. | Benzonia College*... | Cong - .-...- | 1890 | 5 | 3 | 4 | 4 |
| 204 | Detroit | Detroit College... | R. C .-.....- | 1877 | 7 | 0 | 6 | 0 |
| 205 | Hillsdale | Hillsdale College | Free Bapt. | 1855 | 5 | 2 | 6 | 2 |
| 206 | Holland | Hope College | Reformed.- | 1865 | 11 | 1 | 13 | 0 |
| 207 | Kalamazoo | Kalamazoo College | Bapt | 1855 | 1 | 1 | 9 | 3 |
| 208 | Olivet. | Olivet College .... | Cong ........ | 1859 | 7 | 3 | 16 | 8 |
|  | MINNESOTA. |  |  |  |  |  |  |  |
| 209 | Collegeville. | St. John's University | R. C | 1867 | 5 | 0 | 18 | 0 |
| 210 | Minneapolis | Augsburg Seminary | Luth --..-. | 1869 | 6 | 0 | 8 | 0 |
| 211 | ---do --.- | University of Minnesota | None .-....- | 1868 | 0 | 0 | 9:2 | 20 |
| 212 | Northfiel | Carleton College.. | Cong | 1870 | 1 | 2 | 11 | 4 |
| 213 | .- do | St. Olaf College | Luth | 1875 | 4 | 2 | 6 | 0 |
| 214 | St. Paul | Hamline University | M. E | 1854 | 5 | 2 | 16 | 3 |
| 215 | --- do | Macalester College | Presb | 1885 | 6 | 1 | 8 | 2 |
| 216 | St. Peter | Gustavus Adolphus College | Luth ....... | 186: | 6 | 1 | 9 | 1 |
| 217 | Winnebago City..- | Parker College..-........... | Free Bapt.. | 1888 | 0 | 2 | 2 | 2 |
|  | MISSISSIPPI. |  |  |  |  |  |  |  |
| 218 | Clinton -- | Mississippi College | Bapt .-..... | 1852 | 2 | 0 | 7 | 1 |
| 219 | Holly Springs | Rust University .. | M. E--.-.-- | 1869 | 0 | 3 | 5 | 1 |
| 220 | Jackson-...... | Millsaps College | M. E.So | 1893 | 3 | 0 | 7 | 0 |
| 2:1 | University | University of Mississippi | None. | 1848 | 0 | 0 | 13 | 1 |
|  | Missouri. |  |  |  |  |  |  |  |
| 222 | Albany | Central Christian College | Christian .- | 1892 | 0 | 0 | 3 | 3 |
| $2 \% 3$ | ...do do | Northwest Missouri College | M. E. So.... | 1892 | 2 | 1 | 3 | 2 |
| 224 | Bolivar | Southwest Baptist College . | Bapt | 1878 | 1 | 0 | 3 | 1 |
| 2\% | Bowling Green | Pike College **......- | None | 188: | 0 | $\stackrel{2}{2}$ | 2 | 6 |
| 226 | Cameron...... | Missouri Wesleyan College | M. E | 1883 | 4 | 5 | 4 | 5 |
| 227 | Canton | Christian University .-.-. | Christian .- | 1855 | 4 | 1 | 8 | 1 |
| 228 | Cape Girardeau | St. Vincent College. | R.C | 1843 | 5 | 0 | 5 | 0 |
| 229 | Clarksburg .... | Clarksburg Baptist College | Bapt | 1876 | 2 | 2 | 3 | 3 |
| 230 | Columbia .- | University of the State of Missouri | None-.----- | 184\% | 0 | 0 | 58 | 2 |
| 231 | Edinburg.--..-..... | Grand River Christian Union College. | ChristianU. | 1850 | 2 | 2 | 3 | 2 |
| 232 | Fayette | Central College. .-.....................- | M. E.So...- | 1857 | 4 | 1 | 8 | 0 |
| 233 | Fulton | Westminster College -----. -- .-. | Presb --.--- | 1853 | 2 | 0 | 7 | 0 |
| 234 | Glasgow | Pritchett College..-................... | None....... | 1866 | 3 | 4 | 5 | 2 |
| 235 | La Grange | La Grange College - .-. | Bapt - - - - - - | 1858 | 4 | 1 | 5 | 1 |
| 236 | Liberty --------- | William Jewell College | Bapt --....- | 1849 | 9 | 0 | 14 | 0 |
| 237 | Marshall | Missouri Valley College | Cumb.Presb | 1889 | 8 | 4 | 8 | 2 |
| 238 | Morrisville | Morrisville College. | M. E.So..... | 1872 | 0 | 1 | 6 | 4 |
| 239 | Neosho | Scarritt Collegiate Institute. | M. E.So...- | 1888 | 1 | 2 | 2 | 1 |
| 240 | Parkville |  | Presb .-..-- | 1875 | 3 | ${ }^{6}$ | 9 | 2 |
| 241 | St. Louis | Christian Brothers College | R.C......- | 185: | 9 | 0 | 9 | 0 |
| 213 | ... do .-- | St. Louis University ....... |  | 1829 | 13 | 0 | 14 | 0 |
| 213 | do | Washington University | None. ------ | 1859 | 31 | 34 | $2 \pm$ | 0 |
| 244 | Springfield | Drury College........ | Cong ------ | 1873 | 3 | 4 | 8 | 4 |
| 245 | Tarkio --. | Tarkio College ------------------- | U. Presb .-. | 1883 | 7 | 4 | 5 | 4 |
| 246 | Trenton | Avalon College ${ }^{\text {\% }}$ | U. B ----... | 1868 | 1 | 2 | 2 | 2 |
| 247 | Warrenton | Central Wesleyan Coilege ............ | M. E | 1864 | 4 | 0 | 4 | 0 |
|  | montana. |  |  |  |  |  |  |  |
| 248 | Deer Lodge. | College of Montana .................. | Presb .-. .-. | 1878 | 1 | 2 | 2 | 2 |
| 249 | Helena..... | Montana Wesleyan University .... | M. E..-- -- | 1890 | 9 | 3 | 5 | 1 |
| 250 | Missoula | University of Montana ............ | None | 1895 | 3 | 5 | 7 | 4 |

* Statistics of 1896-97.
for men and for both sexes－Continued．

| Professors and in－ structors． |  |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Profes－ sional de－ partments． |  | Total num－ ber（ex－ cluding du－ plicates）． |  | Prepara－ tory de－ partment． |  | Collegiate depart－ ment． |  | Graduate depart－ meut． |  |  |  | Profes sional de－ partments |  | Total num－ ber（ex－ cluding du－ plicates）． |  |  |
|  |  | Resi | dent． |  |  |  | $\begin{aligned} & \text { resi- } \\ & \text { at. } \end{aligned}$ |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | $\begin{gathered} \stackrel{0}{\mathrm{~N}} \\ \text { ت゙ } \end{gathered}$ |  | $\begin{aligned} & \dot{\Delta} \\ & \text { 玉゙ } \\ & \underset{y y y y}{*} \end{aligned}$ |  | 岕 |  | $\underset{\sim}{\underset{\sim}{\dddot{N}}}$ |  | 耑 | － |  |
| 9 | 10 | 18 | 19 | 18 | 显星 | H | 16 | 18 | 18 | 19 | 21） | 91 | P2 | 28 | 24 |  |
| 0 | 0 | 10 | 6 | 30 | 20 | 44 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 85 | 43 | 200 |
| 105 | 2 | 176 | 8 | 0 | 0 | 966 | 568 | 50 | 21 | 2 | 1 | 1，431 | 89 | 2，443 | 672 | 201 |
| 0 | 0 | 11 | 13 | 104 | 117 | 96 | 67 | 0 | 0 | 0 | 0 | 0 | 0 | 200 | 184 | 202 |
| 0 | 0 | 9 | 7 | 43 | 71 | 6 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 79 | 203 |
| 0 | 0 | 13 | 0 | 183 | 0 | 73 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 256 | 0 | 204 |
| 4 | 0 | 15 | 4 | 65 | 53 | 54 | 42 | 1 | 0 | 0 | 0 | 40 | 30 | 160 | 125 | 205 |
| 0 | 0 | 13 | 1 | 77 | 19 | 87 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 164 | 23 | 206 |
| 0 | 0 | 10 | 4 | 44 | 15 | 81 | 34 | 2 | 4 | 0 | 0 | 0 | 0 | 127 | 53 | 207 |
| 0 | 0 | 16 | 8 | 67 | 55 | 57 | 40 | 0 | 0 | 0 | 0 | 0 | 6 | 124 | 95 | 208 |
| 4 | 0 | 27 | 0 | 41 | 0 | 200 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 260 | 0 | 209 |
| 2 | 0 | 8 | 0 | 75 | 0 | 91 | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 194 | 0 | 210 |
| 144 | 0 | 202 | 20 | 0 | 0 | 1，014 | c 577 | 138 | 46 | 0 | 0 | $82 \%$ | 26 | 2，061 | 831 | 211 |
| 0 | 0 | 14 | 8 | 66 | 64 | 1， 77 | 85 | 0 | 2 | 0 | 0 | 0 | 0 | 143 | 151 | 212 |
| 0 | 0 | 8 | 2 | 54 | 16 | 36 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 90 | 15 | 213 |
| 43 | 0 | 59 | 3 | $7 \%$ | 33 | 104 | 78 | 0 | 1 | 5 | 5 | 92 | 6 | 278 | 117 | 214 |
| 0 | 0 | 10 | 2 | 35 | 20 | 65 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 30 | 215 |
| 0 | 0 | 11 | 1 | 67 | 27 | $5 \%$ | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 178 | 39 | 216 |
| 0 | 0 | 2 | 4 | 21 | 15 | 1 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 35 | 217 |
| 0 | 0 | 9 | 1 | 20 | 0 | 85 | 0 | 2 | 0 | 8 | 0 | 0 | 0 | 115 | 0 | 218 |
| 0 | 0 | 5 | 4 | 75 | 85 | 15 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 90 | 90 | 219 |
| 2 | 0 | 12 | 0 | 60 | 0 | 140 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 200 | 0 | $2: 0$ |
| 7 | 0 | 20 | 1 | 0 | 0 | 175 | 29 | 2 | 0 | 12 | 4 | 52 | 0 | 241 | 33 | 221 |
| 3 | 2 | 4 | 5 | 0 | 0 | 23 | 29 | 0 | 0 | 0 | 0 | 3 | 0 | 41 | 29 | $22 \%$ |
| 0 | 0 | 5 | 3 | 10 | 8 | 38 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 46 | 2：3 |
| 0 | 0 | 4 | 1 | 40 | 32 | 25 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 65 | 73 | $2 \geqslant 4$ |
| 0 | 0 | 2 | 8 | 20 | 30 | 35 | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | 110 | 205 |
| 0 | 0 | 4 | 5 | 52 | 57 | 8 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 64 | 2：6 |
| 3 | 0 | 9 | 1 | 25 | 10 | 42 | 23 | 0 | 1 | 0 | 0 | 47 | 0 | 93 | 31 | 227 |
| 0 | 0 | 5 | 0 | 20 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 228 |
| 0 | 0 | 5 | 5 | 30 | 21 | 52 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 82 | 49 | $2: 39$ |
| 15 | 0 | 62 | 2 | 0 | 0 | 439 | 102 | 19 | 4 | 0 | 0 | 173 | 3 | 631 | 109 | 330 |
| 0 | 0 | 5 | 4 | 41 | 40 | 16 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 57 | 50 | 231 |
| 0 | 0 | 10 | 1 | 93 | 6 | 58 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 151 | 8 | 232 |
| 0 | 0 | 9 | 0 | 25 | 0 | 77 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 | 0 | 233 |
| 0 | 0 | 5 | 6 | 37 | 46 | 14 | 7 | 1 | 1 | 0 | 0 | 0 | 0 | 52 | 54 | 234 |
| 0 | 0 | 10 | 5 | 16 | 14 | 42 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 44 | 235 |
| 0 | 0 | 23 | 0 | 159 | 0 | 159 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 329 | 0 | 236 |
| 0 | 0 | 8 | 4 | 97 | 45 | 59 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 156 | 82 | 237 |
| 0 | 0 | 6 | 5 | 8 | 7 | 45 | 65 | 0 | 0 | 0 | 0 | 0 | 0 | 53 | 72 | 238 |
| 0 | 0 | 3 | 3 | 35 | 55 | 20 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | 78 | 239 |
| 0 | 0 | 12 | 8 | 164 | 98 | 90 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 254 | 156 | 240 |
| 0 | 0 | 24 | 0 | 190 | 0 | 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 405 | 0 | 241 |
| 0 | 0 | 29 | 0 | 169 | 0 | 70 | 0 | 67 | 0 | 0 | 0 | 0 | 0 | 399 | 0 | 242 |
| 65 | 0 | 120 | 34 | 554 | 365 | 86 | 52 | 0 | 0 | 0 | 0 | 367 | 4 | 1，007 | 421 | 243 |
| 0 | 0 | 11 | 6 | 110 | 97 | 50 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 160 | 139 | 244 |
| 0 | 0 | 10 | 4 | 54 | 56 | 44 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 134 | 87 | 245 |
| 0 | 0 | 3 | 4 | 30 | 20 | 25 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | 35 | 246 |
| 2 | 0 | 14 | 0 | 80 | 40 | 34 | 10 | 0 | 0 | 0 | 0 | 47 | 0 | 180 | 62 | 248 |
| 0 | 0 | 3 | 4 | 6 | 8 | 8 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 22 | 248 |
| 0 | 0 | 9 | 3 | 20 | 26 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 26 | 219 |
| 0 | 0 | 7 | 5 | 52 | 58 | 25 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 77 | 93 | 250 |

$a$ Students in school of agriculture are included in collegiate department．

Table 43.-Statistics of universities and colleges

for men and for both sexes－Continued．

| 00000001000 | Sootin ${ }^{\text {H }}$ | 0000 | －った | $\bigcirc$ |  | 6－ | Male． |  | $\begin{aligned} & \text { ro } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0000000000 | 11000000000000000000000 | 0000 | 00 | $\bigcirc$ | 0000w0000：00 | $\stackrel{\text { b }}{\text { d }}$ | Female． |  |  |
|  |  |  | H8 | $\stackrel{\sim}{6}$ |  | ${ }_{\text {lod }}^{\text {kod }}$ | Male． |  |  |
| WCトMra0000 | W000000000110002000 wisoon | OOnO | 00 | $\omega$ |  | ${ }_{2}$ | Female |  |  |
|  |  | - | 100 | ${ }_{\infty}$ |  | $\underset{c y}{l y}$ | Male． | 比 |  |
|  | $0000000000000000000^{\frac{1}{k}} 00 \mathrm{i}$ | －0 \％ | 00 | $\underset{H}{\text { W }}$ |  | 4 | Female． | Co |  |
|  | Nイッ | ciote | ¢， | $\stackrel{F}{8}$ |  | $\underset{G}{6 x}$ | Male． |  |  |
|  |  | 0000 | 00 | $\underset{\infty}{1}$ |  | $0$ | Female． |  |  |
| 00000020゙ちo |  | $0 \text { 感:00 }$ | 00 | $\omega$ | 00009000100r | $\frac{100}{40}$ | Male． | 10  <br> 0 0 <br> 0 0 <br> 0 0 <br> 0 0 |  |
| 0000000010 | N0000600008000000000000 | 0000 | 00 | － | 0000 发0000000 | 0 | Female． |  |  |
| 000000 EV000 | 00F00000000000云00000002 | 02000 | 00 | $\bigcirc$ | 00000000000 r | \％ | Male． |  |  |
| 000000000 | 000000000000000000000 | 0000 | 00 | 0 | 00001000000 N | c | Female． |  |  |
| $0000000 \text { た氐ひ }$ |  | Woo | o | 0 | $00 \% 0 \stackrel{B}{8} 0000 \text { iver }$ | $d \theta$ | Male． |  |  |
| 000000000 |  | 0000 | 00 | $\bigcirc$ | 00002000000－ | d2 | Female． |  |  |
| N－7．$\infty$ |  |  | CR | $\stackrel{\circ}{8}$ |  | 19 69 | Male． |  |  |
|  |  | $00 \text { ©o }$ | 00 | 官 |  | ${ }_{\text {co }}^{\substack{*}}$ | Female． |  |  |
|  N్ర $9 \infty$ | 亿్రీ |  | CNM | $\stackrel{\mathbb{E}}{2}$ |  Nop |  |  |  |  |

Table 43.-Statistics of universities and colleges


[^68]for men and for both sexes－Continued．

| Professors and in－ structors． |  |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Profes－ sional de－ partments． |  | Total num－ ber（ex－ cluding du－ plicates）． |  | Prepara－ tory de－ partment． |  | Collegiate depart－ ment． |  | Graduate depart－ ment． |  |  |  | Profes－ sional de－ partments． |  | Total num－ ber（ex－ cluding du－ plicates）． |  |  |
|  |  | Resid | ent． |  |  |  | resi－ <br> t． |  |  |  |  |  |
| ¢ | 込 |  |  | $\stackrel{\dot{\Delta}}{\stackrel{\text { In }}{\text { In }}}$ |  |  |  | $\begin{gathered} \stackrel{0}{\text { ® }} \\ \stackrel{ت}{\mathrm{H}} \end{gathered}$ |  | $\underset{\sim}{\stackrel{\omega}{\mathrm{w}}}$ |  |  |  | 帯 |  | 無 | 寺 | $\stackrel{0}{\text { cin }}$ | ¢ |  |
| 9 | 10 | 11 | 18 | 13 | 14 | 15 | 16 | 17 | 18 | 团 | 20 | 准县 | 38 | 23 | 24 |  |
| 12 | 0 | 16 | 8 | 19 | 20 | 18 | 6 | 0 | 0 | 0 | 0 | 95 | 0 | 178 | 174 | 303 |
| 0 | 0 | 8 | 1 | 30 | $\stackrel{9}{2}$ | 59 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 58 | 304 |
| 0 | 0 | 4 | 4 | 35 | 40 | 13 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 80 | 305 |
| 1 | 0 | 14 | 0 | 0 | 0 | 224 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 253 | 0 | 306 |
| 0 | 0 | 3 | 2 | 75 | 50 | 65 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 140 | 85 | 307 |
| 0 | 0 | 7 | 3 | 55 | 34 | 18 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 73 | 41 | 308 |
| 0 | 0 | 11 | 2 | 140 | 138 | 48 | 32 | 1 | 0 | 3 | 0 | 0 | 0 | 192 | 170 | 309 |
| 0 | 0 | 4 | 4 | 41 | 73 | 16 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 57 | 78 | 310 |
| 0 | 0 | 10 | 8 | 43 | 45 | 40 | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 83 | 96 | 311 |
| 0 | 0 | 15 | 6 | 168 | 106 | 101 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 269 | 137 | 312 |
| 0 | 0 | 17 | 5 | 170 | 118 | 78 | 41 | 0 | 7 | 3 | 1 | 0 | 0 | 251 | 167 | 313 |
| 7 | 0 | 23 | 4 | 35 | 23 | 55 | 27 | 2 | 1 | 2 | 0 | 61 | 0 | 165 | 68 | 314 |
| 2 | 0 | 10 | 0 | 50 | 37 | 35 | 3 | 0 | 0 | 0 | 0 | 28 | 0 | 113 | 40 | 315 |
| 0 | 0 | 6 | 2 | 12 | 7 | 14 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 23 | 316 |
| 0 | 0 | 7 | 0 | 53 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 92 | 0 | 317 |
| 0 | 0 | 24 | 0 | 310 | 0 | 102 | 0 | 42 | 0 | 0 | 0 | 0 | 0 | 454 | 0 | 318 |
| 67 | 0 | 91 | 3 | 0 | 0 | 142 | 144 | 18 | 21 | 5 | 2 | 395 | 1 | 560 | 168 | 319 |
| 0 | 0 | 14 | 0 | 142 | 0 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 188 | 0 | 320 |
| 70 | 0 | 106 | 16 | 61 | 35 | 186 | 146 | 15 | 11 | 0 | 0 | 306 | 0 | 566 | 192 | 321 |
| 3 | 0 | 10 | 0 | 18 | 0 | 53 | 0 | 0 | 0 | 0 | 0 | 42 | 0 | 113 | 0 | 322 |
| 9 | 0 | 90 | 5 | 0 | 0 | $74 \%$ | 208 | 23 | 6 | 2 | 1 | 148 | 0 | 915 | 235 | 323 |
| 0 | 0 | 4 | 1 | 23 | 13 |  |  | 0 | 0 | 1. | 0 | 0 | 0 | 24 | 13 | 324 |
| 43 | 1 | 81 | 16 | 298 | 125 | 35 วั | 269 | 12 | 10 | 11 | 2 | 90 | 65 | 687 | 516 | 325 |
| 1 | 0 | 5 | 0 | 5 | 3 | 20 | 26 | 0 | 0 | 0 | 0 | 7 | 1 | 32 | 30 | 326 |
| 5 | 0 | 21 | 0 | 64 | 0 | 89 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 164 | 0 | $32 \%$ |
| 0 | 0 | 23 | 0 | 163 | 24 | 150 | 71 | 0 | 0 | 0 | 0 | 0 | 0 | 285 | 94 | 328 |
| 0 | 0 | 21 | 6 | 125 | 74 | 123 | 42 | 6 | 0 | 2 | 0 | 0 | 0 | 283 | 124 | 329 |
| 0 | 0 | 7 | 3 | 24 | 10 | 10 | 8 | ． 0 | 0 | 0 | 0 | 0 | 0 | 88 | 78 | 330 |
| 0 | 0 | 18 | 4 | 80 | 60 | 80 | 37 | 4 | 0 | 1 | 0 | 0 | 0 | 165 | 97 | 331 |
| 0 | 0 | 7 | 3 | 19 | 16 | 55 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 74 | 41 | 332 |
| 0 | 0 | 10 | 5 | 52 | 19 | 57 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 109 | 47 | 333 |
| 10 | 0 | 49 | 20 | 236 | 178 | 206 | 218 | 4 | 5 | 0 | 0 | 46 | 1 | 492 | 415 | 334 |
| 0 | 0 | 15 | 0 | 90 | 5 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 132 | 5 | 335 |
| 0 | 0 | 6 | 2 | 31 | 19 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 20 | 336 |
| 0 | 0 | 4 | 2 | 19 | 8 | 10 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 12 | 337 |
| 3 | 1 | 13 | 3 | 70 | 46 | 54 | 30 | 0 | 0 | 0 | 0 | 46 | 1 | 225 | 85 | 338 |
| 0 | 0 | 10 | $\stackrel{2}{2}$ | 59 | 39 | 91 | 55 | 0 | 0 | 10 | 0 | 0 | 0 | 160 | 94 | 339 |
| 5 | 0 | 13 | 3 | 65 | 24 | 59 | 25 | 1 | 0 | 12 | 1 | 25 | 0 | 197 | 126 | 340 |
| 0 | 0 | 13 | 2 | 58 | 55 | 53 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 111 | 90 | 341 |
| 4 | 0 | 12 | 8 | 45 | 45 | 51 | 18 | 0 | 0 | 0 | 0 | 17 | 1 | 177 | 146 | 342 |
| 0 | 0 | 5 | 4 | 24 | 43 | 25 | $3 \%$ | 1 | 2 | 0 | 0 | 0 | 0 | 50 | 77 | 343 |
| 0 | 0 | 13 | 3 | 92 | 54 | 140 | 107 | 0 | 2 | 177 | 6 | 0 | 0 | 409 | 169 | 314 |
| 0 | 0 | 14 | 3 | 44 | 40 | 18 | 7 | 1 | 2 | 0 | 0 | 0 | 0 | 63 | 49 | 345 |
|  |  | 8 | 2 | 186 | 145 | 20 | 7 | 0 | 0 | 0 | 0 | 6 | 3 | 212 | 155 | 346 |
| 19 | 0 | 36 | 2 | 89 | 57 | 67 | 41 | 1 | 2 | 0 | 0 | 81 | 6 | 231 | 106 | 347 |
| 0 | 0 | 7 | 4 | 75 | 50 | 20 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 95 | 67 | 348 |
| 0 | 0 | 5 | 4 | 6 | 10 | 25 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 22 | 349 |
| 0 | 0 | 9 | 1 | 36 | 28 | 22 | $2 \%$ | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 50 | 350 |
| 0 | 0 | 5 | 3 | 33 | 28 | 30 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 63 | 48 | 351 |
| 0 | 0 | 5 | 4 | 10 | 15 | 4.5 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | 61 | 352 |
| 26 | 0 | 40 | 4 | 54 | 66 | 15 | 13 | 0 | 0 | 0 | 0 | 42 | 6 | 111 | 85 | 353 |
| 3 | 0 | 18 | 8 | 88 | 84 | 21 | 14 | 0 | 0 | 0 | 0 | 27 | 0 | 126 | 93 | 354 |

Table 43.-Statistics of universities and colleges


[^69]for men and for both sexes－Continued．

| Professors and in－ structors． |  |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Profes－ sional de－ partments． |  | Total num ber（ex－ cluding du－ plicates）． |  | Prepara－ tory de－ partment． |  | Collegriate depart－ ment． |  | Graduate depart－ ment． |  |  |  | Profes－ sional de－ partments． |  | Total num ber（ex－ cluding du－ plicates）． |  |  |
|  |  | Resi | ent． |  |  |  | $\begin{aligned} & \text { esi- } \\ & \text { at. } \end{aligned}$ |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | $\underset{\sim}{\stackrel{\rightharpoonup}{c}}$ |  | 帯 |  |  |  | 号 |  | 呇 | 皆 |  |
| 9 | E（1） | 1道 | 178 | 13 | 14 | 15 | 16 | ［ ${ }^{3}$ | 1980 | 15 | 8 ${ }^{3}$ | 21 | 32 | 23 | 8． 1 |  |
| 90 | 0 | 103 | 0 | 0 | 0 | 161 | 5 | 3 | 0 | 1 | 0 | 522 | 3 | 683 | 8 | 355 |
| 0 | 0 | 12 | 0 | 50 | 0 | 110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 160 | 0 | 356 |
| 0 | 0 | 13 | 3 | 56 | 10 | 64 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 120 | 40 | 337 |
| 4 | 0 | 22 | 0 | 121 | 0 | 114 | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 270 | 0 | 353 |
| 0 | 0 | 5 | 2 | 68 | 27 | 40 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 108 | 45 | 359 |
| 3 | 0 | 5 | 0 | 0 | 0 | 28 | 0 | 0 | 0 | 7 | 0 | 12 | 0 | 47 | 0 | 360 |
| 7 | 0 | 26 | 1 | 108 | 8 | 189 | 14 | 0 | 0 | 11 | 1 | 78 | 1 | 386 | 21 | 361 |
| 0 | 0 | 14 | 0 | 27 | 0 | 81 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111 | 0 | 362 |
| 6 | 0 | 23 | 5 | 70 | 16 | 85 | 6 | 2 | 0 | 0 | 0 | 17 | 0 | 174 | 22 | 363 |
| 0 | 0 | 28 | 0 | 0 | 0 | 281 | 0 | 8 | 0 | 26 | 0 | 0 | 0 | 315 | 0 | 364 |
| 0 | 0 | 16 | 0 | 59 | 19 | 175 | 7 | 0 | 0 | 3 | 0 | 0 | 0 |  | 26 | 365 |
| 0 | 0 | 8 | 2 | 20 | 19 | 42 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 29 | 356 |
| 0 | 0 | 11 | 3 | 153 | 85 | 181 | 57 | 0 | 0 | 0 | 0 | 0 | 0 | 355 | 177 | $36 \%$ |
| 0 | 0 | 18 | 0 | 0 | 0 | 110 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 111 | 0 | 368 |
| 5 | 0 | 24 | 0 | 86 | 0 | 183 | 0 | 2 | 0 | 1 | 0 | 46 | 0 | 306 | 0 | 369 |
| 0 | 0 | 18 | 6 | 75 | 65 | 212 | 43 | 6 | 1 | 15 | 3 | 0 | 0 | 308 | 112 | 3\％0 |
| 8 | 0 | 10 | 0 | 0 | 0 | 156 | 0 | 0 | 0 | 0 | 0 | 47 | 0 | 203 | 1 | 371 |
| 0 | 0 | 21 | 2 | 91 | 32 | 145 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 236 | 90 | 372 |
| 0 | 0 | 6 | 1 | 41 | 8 | 47 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 88 | 15 | 373 |
| 0 | 0 | 6 | 6 | 61 | 39 | 111 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 172 | 92 | 374 |
| 0 | 0 | 44 | 0 | 0 | 0 | 1，193 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 1，225 | 0 | 375 |
| 0 | 0 | 14 | 0 | 111 | 0 | 1， 92 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1，203 | 0 | 376 |
| 163 | 0 | 208 | 0 | 0 | 0 | 630 | 303 | 1.21 | 33 | 1 | 0 | 1， 220 | 2 | 2，491 | 343 | 377 |
| 0 | 0 | 11 | 3 | 16 | 19 | 40 | 60 | 0 | 0 | 0 | 0 | 1， 0 | 0 | － 56 | 79 | 378 |
| 0 | 0 | 13 | 0 | 30 | 0 | 160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 190 | 0 | 379 |
| 2 | 0 | 12 | 1 | 65 | 18 | 53 | 8 | 1 | 0 | 3 | 0 | 10 | 0 | 144 | 28 | 380 |
| 0 | 0 | 42 | 0 | 0 | 0 | 345 | 0 | 7 | 0 | 11 | 0 | 0 | 0 | 363 | 0 | 381 |
| 0 | 0 | 45 | 2 | 38 | $\stackrel{2}{2}$ | 235 | 12 | 2 | 1 | 0 | 0 | 0 | 0 | 332 | 15 | $38 \%$ |
| 0 | 0 | 14 | 9 | 0 | 0 | 69 | 93 | 0 | 0 | 0 | 0 | 0 | 0 | － 69 | 93 | 383 |
| 3 | 0 | 15 | 0 | 53 | 0 | 82 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 152 | 0 | 384 |
| 0 | 0 | 6 | 2 | 60 | 45 | 35 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 95 | 85 | 385 |
| 0 | 0 | 16 | 0 | 77 | 0 | 223 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 301 | 0 | 386 |
| 0 | 0 | 71 | 1 | 0 | 0 | 610 | 149 | 24 | 29 | 37 | 11 | 0 | 0 | 671 | 189 | 387 |
| 0 | 0 | 6 | 0 | 0 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 388 |
| 0 | 0 | 6 | 0 | 0 | 0 | 30 | 21 | 0 | 1 | 0 | 0 | 0 | 0 | 30 | 25 | 388 |
| 3 | 0 | 4 | 0 | 4 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 16 | 3 | 390 |
| 1 | 0 | 12 | 0 | 0 | 0 | 146 | 17 | 3 | 0 | 0 | 0 | 22 | 1 | 171 | 18 | 391 |
| 0 | 0 | 7 | 0 | 18 | 0 | 109 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 127 | 2 | 392 |
| 0 | 0 | 15 | 0 | 30 | 0 | 136 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 166 | 2 | 393 |
| 0 | 0 | 8 | 0 | 42 | 0 | 102 | 9 | 0 | 0 | 8 | 0 | 0 | 0 | 152 | 9 | 394 |
| 0 | 0 | 15 | 8 | 45 | 48 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 57 | 53 | 395 |
| 0 | 0 | 11 | 0 | 41 | 0 | 158 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 199 | 3 | 396 |
| 0 | 0 | 3 | 4 | 14 | 29 | 10 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 33 |  |
| 0 | 0 | 4 | 5 | 12 | 20 | 11 | 8 | 1 | 0 | 2 | 0 | 0 | 0 | 32 | 33 38 | 397 |
| 0 | 0 | 10 | 3 | 58 | 41 | 35 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 110 | 98 | 399 |
| 0 | 0 | 8 | 4 | 16 | ${ }_{6}$ | 15 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 29 | 400 |
| 0 | 0 | 12 | 8 | 112 | 124 | 36 | 35 | 1 | 2 | 0 | 0 | 0 | 0 | 197 | 180 | 401 |
| 0 | 0 | 9 | 6 | 59 | 54 | 32 | 22 | 1 | 0 | 0 | 0 | 0 | 0 | 92 | 76 | 402 |
| 30 | 0 | 36 | 6 | 128 | 140 | 27 | 8 | 1 | 2 | 0 | 0 | 185 | 0 | 341 | 150 | 403 |
| 0 | 0 | 5 | 0 | 0 | 0 | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 0 | 404 |

Table 43．－Statistics of universities and colleges

|  | Location． | Name． | Religious denomina－ tion con－ trolling． | $\begin{gathered} \text { Year } \\ \text { of } \\ \text { open- } \\ \text { ing. } \end{gathered}$ | Professors and instructors． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Prepar－ atory depart－ ment． |  | Co ${ }^{\text {Tegi }}$ ate de－ part－ ment． |  |
|  |  |  |  |  | 芯 |  | 淢 | ¢ |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|  | TENNESSEE－cont゙d． |  |  |  |  |  |  |  |
| 405 | Clarksville | Southwestern Presbyterian Uni－ versity． | Presb ．－．－．－ | 1855 | 0 | 0 | 8 | 0 |
| 406 | Harriman． | American Temperance University | None | 1893 | 10 | 3 | 15 | 2 |
| 407 | Hiwassee College | Hiwassee College．．．．．．－－－．－．－．－．．．－ | None | 1849 | 1 | 1 | 3 | 0 |
| 408 | Jackson | Southwestern Baptist University＊ | Bapt | 1847 | 2 | 1 | 9 | 1 |
| 409 | Knoxville | Knoxville College | U，Presb | 1875 | 0 | 3 | 5 | 5 |
| 410 | －－．do．． | University of Tennessee．．．－－－．．．－． | None ．－．．．． | 1794 | 0 | 0 | 28 | 2 |
| 411 | Lebanon | Cumberland University ．－－－．．．－．．．－． | Cumb．Pres． | 1842 | 2 | 0 | 5 | 0 |
| 412 | McKenzie | Bethel College－－－－ | Cumb．Pres． | 1850 | 1 | 2 | 2 | 1 |
| 413 | Maryville | Maryville College | Presb | 1819 | 12 | 4 | 12 | 4 |
| 414 | Memphis | Christian Brothers＇College | R．C． | $18 \% 1$ | 5 | 0 | 6 | 0 |
| 415 | Milligan | Milligan College．．．－．－．－－．．．．．－．－．－－ | Christian－－ | 1882 | 1 | 1 | 4 | 1 |
| 416 | Mossy Creek | Carson and Newman College．．．．．． | Bapt ．－．－． | 1851 | 6 | $\stackrel{2}{2}$ | 6 | 1 |
| 417 | Nashville ．－． | Central Tennessee College．． | M．E | 1869 | 3 | 1 | 4 | 1 |
| 418 | －．．．do．－ | Fisk University | Cong | 1836 | 8 | 16 | 7 | 4 |
| 419 | ．do | Roger Williams University | Bapt | 1863 | 3 | 4 | 5 | 1 |
| 420 | －－do | University of Nashville ．－－－－－－．．－ | Nolle | 1785 | 6 | 5 | 15 | 13 |
| 421 | －－－do | Vanderbilt University ．－．．－．．．．．．．．．．．．． | M．E．So | 1875 | 0 | 0 | 35 | 0 |
| 422 | Sewanee | University of the South ．－．－．－．－－－－ | P．E | 1868 | 5 | 0 | 10 | 0 |
| 423 | Spencer | Burritt College | Christian | 1848 | 1 | 1 | 3 | 0 |
| 424 | Sweetwater | Sweetwater College | None． | 1874 | 1 | 1 | 2 | 6 |
| 425 | Tusculum ．．．．．．．－－ | Greeneville and Tusculum College | Presb | 1794 | $\stackrel{\square}{2}$ | 2 | 3 | 1 |
| 426 | Washington Col－ lege． | Washington College ．．．．．．．．．．．．．．．．－ | Presb | 1795 | 2 | 1 | 3 | 2 |
|  | TEXAS． |  |  |  |  |  |  |  |
| 427 | Austin | St．Edward＇s College | R．C． | 1881 | 15 | 0 | 5 | 0 |
| 428 | －－－do． | University of Texas． | None | 1883 | 0 | 0 | 34 | 4 |
| 429 | Brownwood | Howard Payne College | Bapt | 1890 | 4 | 2 | 4 | 4 |
| 430 | Campbell | Henry College ．－．－ | None | 1892 | 0 | 0 | 11 | 1 |
| 431 | Fort Worth | Fort Worth University | M．E | 1881 | 6 | 5 | 4 | 4 |
| $43 \%$ | －－do ．－ | Polytechnic College．．－ | M．E． | 1891 | 0 | 2 | 5 | 0 |
| 433 | Galveston | St．Mary＇s University－－．．．． | R．C－－－ | 1854 | 2 | 4 | 10 | 0 |
| 434 | Georgetown | Southwestern University ．－．．．．．．． | M．E．So | 1873 | 3 | 2 | 7 | 0 |
| 435 | Greenville | Burleson College | Bapt | 1895 | 4 | 4 | 4 | 0 |
| 436 | Marshall | Wiley University | M．E | 1873 | 6 | 2 | 4 | 2 |
| 437 | San Antonio | St．Louis College． | R．C | 1894 | 9 | 0 | 6 | 0 |
| 438 | Sherman．． | Austin College－－－－－－－－－－．－．－．－－ | Presb ．－．－－－ | 1850 | 7 | 0 | 7 | 0 |
| 439 | Tehuacana |  | Cumb．Pres． | 1869 | 0 | 3 | 6 | 0 |
| 440 | Waco－－－ | Add Ran Christian University ．．．． | Christian－－ | 1873 | 1 | 1 | 8 | 4 |
| 441 | do | Baylor University－－．．．．．．－．－． | Bapt | 1845 | 1 | 8 | 11 | 0 |
| 442 | －do | Paul Quinn College | A．M．E－－－－ | 1881 | 1 | 2 | 1 | 2 |
|  | UTAH． |  |  |  |  |  |  |  |
| 443 | Logan | Brigham Young College－－－－－－－－－． | L．D．Saints | 1878 | 13 | $\underset{\sim}{2}$ | 7 | ${ }_{0}$ |
| 444 | Salt Lake City ．－．． | University of Utah ．－．－－－－－－－－．－．－ | None．．．．．．．－ | 1850 | 13 | 3 | 14 | 2 |
|  | VERMONT： |  |  |  |  |  |  |  |
| 445 | Burlington | University of Vermont | None | 1800 | 0 | 0 | 30 | 0 |
| 446 | Middlebury | Middlebury College．．．．．．－－．．．．．．．．．．．． | None | 1800 | 0 | 0 | 11 | 0 |
| 447 | Northfield． | Norwich University ．－．．．．．．．．．．．．． | None．．．．．．． | 1834 | 0 | 0 | 11 | 0 |
|  | VIRGINIA． |  |  |  |  |  |  |  |
| 448 | Ashland ．．．． | Randolph Macon College ．．．．．．．．．．． | M．E．So ． | 1832 | 0 | 0 | 10 | 0 |
| 449 | Bridgewater ．．．．．－ | Bridgewater College．．．．．．．．．．．．．．．．．．． | Bapt－－－ | 188\％ | 2 | 3 | 4 | 0 |
| 450 | Charlottesville－－．－ | University of Virginia．．．． | None－－－ | 1825 | 0 | 0 | 22 | 0 |
| 451 | Emory＿－－．．．－．．．． | Emory and Henry College．．．．．．．．．． | M．E．So | 1838 | 1 | 0 | 7 | 0 |
| $45 \%$ | Fredericksburg．．－ | Fredericksburg College ．．．．．．．．．．．．．． | Presb | 1893 | 6 | 0 | 8 | 0 |
| 453 | Hampden Sidney－ | Hampden－Sidney College－－．．．－．－．．．－ | None． | 1776 | 0 | 0 | 7 | 0 |
| 454 | Lexington－．．．－．－－－ | Washington and Lee University．－ | None | 1749 | 0 | 0 | 17 | 0 |
| 455 | Richmond | Richmond College ．－．－．－．．．－－．．－－－－ | Bapt | 1832 | 0 | 0 | 14 | 0 |
| 458 | Salem ．．．．．．．．． | Roanoke College ．．．．．．－－－．．．－ | Luth | 1853 | $\stackrel{3}{1}$ | 0 | 10 | 0 |
| 457 | Williamsburg | College of William and Mary | None | 1693 | 1 | 0 | 9 | 0 |

for men and for both sexes－Continued．

| Professors and in－ structors． |  |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  | ， |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Profes－ sional de－ partments． |  | Total num－ ber（ex－ cluding du－ plicates）． |  | Prepara－ tory de－ partment． |  | Collegiate depart－ ment． |  | Graduate depart－ ment． |  |  |  | Profes－ sional de－ partments． |  | Total num－ ber（ex－ cluding du－ plicates）． |  |  |
|  |  | Resi | ent． |  |  |  | resi- nt. |  |  |  |  |  |
| $\stackrel{\dot{\mathbf{S}}}{\substack{\text { 玉in }}}$ |  |  |  | $\underset{\underset{\sim}{3}}{\stackrel{y}{3}}$ |  |  |  |  |  | $\begin{aligned} & \dot{\oplus} \\ & \text { ت゙ } \\ & \text { ت゙ } \end{aligned}$ |  | $\stackrel{\dot{A}}{\stackrel{\text { ® }}{A}}$ |  | $\underset{\text { 突 }}{\substack{\text { ® }}}$ |  |  | $\frac{\dot{A}}{\text { 寍 }}$ | 家 | $\begin{gathered} \dot{\Phi} \\ \text { ت゙心 } \\ \hline \end{gathered}$ |  |
| 9 | 19 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 2 县 |  |
| 5 | 0 | 10 | 0 | 0 | 0 | 105 | 0 | 2 | 0 | 0 | 0 | 23 | 0 | 125 | 0 | 405 |
| 1 | 0 | 17 | 4 | 110 | 40 | 39 | 16 | 2 | 0 | 26 | 2 | 17 | 1 | 2：9 | 66 | 406 |
| 0 | 0 | 5 | 1 | 25 | 10 | 20 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 25 | 407 |
| 0 | 0 | 10 | 1 | 28 | 0 | 127 | 22 | 0 | 0 | 0 | 0 | 60 | 0 | 223 | 47 | 408 |
| 7 | 0 | 12 | 8 | 39 | 36 | 12 | 9 | 0 | 0 | 0 | 0 | 5 | 0 | 56 | 45 | 409 |
| 36 | 0 | 57 | 2 | 0 | 0 | 192 | 59 | 12 | 2 | 0 | 0 | 343 | 0 | 537 | 61 | 410 |
| 9 | 0 | 16 | 0 | $5 \%$ | 0 | 60 | 6 | 11 | 0 | 0 | 0 | 137 | 9 | 262 | 15 | 411 |
| 0 | 0 | 3 | 3 | 60 | 62 | 50 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 110 | 92 | 412 |
| 0 | 0 | 12 | 4 | 173 | 85 | 84 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 257 | 122 | 413 |
| 0 | 0 | 13 | 0 | 93 | 0 | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 179 | 0 | 414 |
| 0 | 0 | 5 | 2 | 66 | 44 | 44 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 110 | 77 | 415 |
| 0 | 0 | 9 | 3 | 120 | 62 | 45 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 165 | 92 | 416 |
| 24 | 1 | 31 | 3 | 34 | 18 | 15 | 7 | 0 | 0 | 0 | 0 | 214 | 9 | 263 | 34 | 417 |
| 4 | 0 | 8 | 16 | 80 | 88 | 45 | 9 | 0 | 0 | 0 | 0 | 4 | 0 | 129 | 97 | 418 |
| 0 | 0 | 5 | 4 | 53 | 35 | 20 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 73 | 39 | 419 |
| 26 | 0 | 52 | 27 | $17 \%$ | 234 | 208 | $3 \% 0$ | 0 | 0 | 0 | 0 | 203 | 3 | 588 | 607 | 420 |
| 50 | 0 | 87 | 0 | 0 | 0 | 231 | 29 | 31 | 6 | 0 | － 0 | 576 | 2 | 765 | 35 | 421 |
| 27 | 0 | 42 | 0 | 96 | 0 | $12 \%$ | 0 | 0 | 0 | 0 | 0 | 204 | 0 | 427 | 0 | 422 |
| 0 | 0 | 4 | 1 | 72 | 27 | 34 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 106 | 39 | 423 |
| 0 | 0 | 3 | 6 | 4 | 11 | 54 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 61 | 424 |
| 0 | 0 | 5 | 3 | 68 | 34 | 26 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 94 | 52 | 425 |
| 0 | 0 | 5 | 3 | 63 | 33 | 25 | 24 | 1 | 0 | 0 | 0 | 0 | 0 | 89 | 57 | 426 |
| 0 | 0 | 20 | 0 | 126 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150 | 0 | 427 |
| 36 | 1 | 66 | 5 | 0 | 0 | 279 | 139 | 11 | 7 | 0 | 0 | $3 \% 9$ | 25 | 646 | 154 | 428 |
| 1 | 0 | 6 | 4 | 43 | 31 | 29 | 19 | 0 | 0 | 0 | 0 | 27 | 19 | 80 | 57 | 429 |
| 0 | 0 | 11 | 1 | 0 | 0 | 180 | 85 | 2 | 0 | 0 | 1 | 0 | 0 | 182 | 86 | 430 |
| 17 | 0 | 27 | 9 | 380 | 255 | 23 | 18 | 0 | 0 | 0 | 0 | 185 | 3 | 588 | 276 | 431 |
| 0 | 0 | 5 | 2 | 167 | 119 | 36 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 203 | 129 | 432 |
| 0 | 0 | 12 | 4 | 80 | 100 | 126 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 206 | 100 | 433 |
| 0 | 0 | 11 | 8 | 79 | 28 | 155 | 73 | 0 | 0 | 0 | 0 | 0 | 0 | 234 | 101 | 434 |
| 0 | 0 | 5 | 4 | 26 | 30 | 20 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 57 | 435 |
|  |  | 6 | 2 | 22 | 15 | 8 | 1 | 0 | 0 | 0 | 0 | 6 | 0 | 36 | 16 | 436 |
| 0 | 0 | 14 | 0 | 91 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 108 | 0 | 437 |
| 0 | 0 | 7 | 0 | 38 | 0 | 56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 | 0 | 438 |
| 0 | 0 | 6 | 3 | 61 | 33 | 47 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 108 | 56 | 439 |
| 2 | 0 | 9 | 5 | 66 | 32 | 86 | 44 | 0 | 0 | 0 | 0 | 21 | 0 | 163 | 76 | 440 |
| 0 | 0 | 12 | 8 | 167 | 82 | 106 | 75 | 4 | 4 | 0 | 0 | 0 | 0 | 277 | 161 | 441 |
| 1 | 0 | 3 | 4 | 82 | 63 | 17 | 14 | 0 | 0 | 0 | 0 | 12 | 0 | 111 | 77 | 442 |
| 0 | 0 | 13 | $\stackrel{\sim}{3}$ | 167 | 120 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 168 | $1: 0$ | 443 |
| 0 | 0 | 19 | 3 | 85 | 49 | 49 | 56 | 2 | 1 | 0 | 0 | 0 | 0 | 281 | 336 | 444 |
| 26 | 0 | 59 | 0 | 0 | 0 | 245 | 51 | 1 | 0 | 1 | 0 | 283 | 0 | 530 | 51 | 445 |
| 0 | 0 | 11 | 0 | 0 | 0 | 60 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 48 | 446 |
| 0 | 0 | 11 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 56 | 0 | 447 |
| 0 | 0 | 10 | 0 | 0 | 0 | 103 | 0 | 6 | 0 | 1 | 0 | 0 | 0 | 110 | 0 | 448 |
| 0 | 0 | 6 | 3 | 73 | 34 | 13 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 86 | 42 | 449 |
| 21 | 0 | 24 | 0 | 0 | 0 | 240 | 0 | 20 | 0 | 0 | 0 | 264 | 0 | 489 | 0 | 450 |
| 0 | 0 | 8 | 0 | 6 | 0 | 113 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 119 | 0 | 451 |
| 0 | 0 | 10 | 0 | 50 | 50 | 39 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 95 | 452 |
| 0 | 0 | 7 | 0 | 0 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 128 | 0 | $4{ }^{5} 3$ |
| 7 | 0 | 24 | 0 | 0 | 0 | 88 | 0 | 9 | 0 | 0 | 0 | 43 | 0 | 140 | 0 | 454 |
| 3 | 0 | 17 | 0 | 0 | 0 | 219 | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 262 | 0 | 455 |
| 0 | 0 | 12 | 0 | 34 | 1 | 127 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 179 | 12 | 456 |
| 0 | 0 | 10 | 0 | 116 | 0 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 153 | 0 | 457 |

Table 43.-Statistics of universities and colleges

*Statistics of 1806-97.
for men and for both sexes－－Continued．

| Professors and in－ structors． |  |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Profes－ sional de－ partments |  | Total num－ ber（ex－ cluding du－ plicates）． |  | Prepara－ tory de－ partment． |  | Collegiate depart－ ment． |  | Graduate depart－ ment． |  |  |  | Profes－ sional de－ partments． |  | Total num－ ber（ex－ cluding du－ plicates）． |  |  |
|  |  | Resi | ent． |  |  | $\begin{gathered} \text { Non } \\ \text { de } \end{gathered}$ | resi－ <br> nt． |  |  |  |  |  |
|  |  |  |  | 品 |  |  |  |  |  | $\stackrel{\dot{9}}{\stackrel{\rightharpoonup}{5}}$ |  | 宊 | $\begin{aligned} & \dot{\oplus} \\ & \text { 雨 } \\ & \text { d } \\ & \text { En } \end{aligned}$ | 詈 | $\begin{aligned} & \text { © } \\ & \text { 感 } \\ & \text { 怘 } \\ & \text { Ey } \end{aligned}$ | 濷 |  |  | ¢ |  |
| 9 | 10 | 11 | ［18 | 18 | 1建 | 15 | 16 | 18 | 18 | 19 | 20 | 21 | 22 | $\mathfrak{B}$ | 28 |  |
| 0 | 0 | 6 | 3 | 59 | 20 | 22 | 12 | 2 | 0 | 0 | 0 | 0 | 0 | 83 | 32 | 458 |
| 0 | 0 | 3 | 2 | 97 | 22 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 24 | 459 |
| 0 | 0 | 8 | 5 | 20 | 35 | 10 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 50 | 460 |
| 0 | 0 | 19 | 2 | 5 | 10 | 129 | 92 | 2 | 1 | 0 | 0 | 0 | 0 | 136 | 103 | 461 |
| 0 | 0 | 15 | 0 | 20 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 120 | 0 | 452 |
| 0 | 0 | 6 | 1 | 7 | 14 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 16 | 463 |
| 0 | 0 | 11 | 3 | 93 | 72 | 21 | 4 | 2 | 0 | 1 | 0 | 0 | 0 | 117 | 76 | 464 |
| 0 | 0 | 6 | 0 | 43 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 | 0 | 465 |
| 0 | 0 | 10 | 6 | 58 | 41 | 20 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 55 | 468 |
| 0 | 0 | 4 | 4 | 5 | 5 | 35 | 25 | 0 | 0 | 3 | 0 | 0 | 0 | 40 | 30 | 467 |
| 0 | 0 | 9 | 4 | 0 | 0 | 69 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 69 | 25 | 468 |
| 4 | 0 | 38 | 4 | 158 | 16 | 259 | 63 | 5 | 6 | 10 | 1 | 123 | 3 | 555 | 89 | 469 |
| 0 | 0 | 18 | 4 | 60 | 44 | 63 | 54 | 4 | 2 | 7 | 0 | 0 | 0 | 134 | 100 | 470 |
| 0 | 0 | 22 | 0 | 223 | 0 | 147 | 59 | 1 | 0 | 0 | 0 | 0 | 0 | 346 | 59 | 471 |
| 3 | 0 | 16 | 0 | 27 | 0 | 53 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 104 | 0 | 472 |
| 0 | 0 | 6 | 4 | 2 | 4 | 12. | 15 | 5 | 0 | 0 | 0 | 0 | 0 | 19 | 19 | 473 |
| 44 | 0 | 118 | 11 | 0 | 0 | 994 | 335 | 78 | 28 | 17 | 5 | 235 | 6 | 1，324 | 374 | 474 |
| 0 | 0 | 8 | 2 | 33 | 14 | 29 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 1，82 | 38 | 475 |
| 0 | 0 | 9 | 0 | 73 | 14 | 146 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 219 | 0 | 476 |
| 0 | 0 | 11 | 0 | 114 | 0 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 231 | 0 | 477 |
| 0 | 0 | 9 | 8 | 46 | 26 | 39 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 85 | 54 | 478 |
| 0 | 0 | 8 | 0 | 63 | 9 | 62 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 125 | 11 | 479 |
| 0 | 0 | 11 | 3 | 50 | 56 | 33 | 22 | 4 | 2 | 2 | 0 | 0 | 0 | 88 | 80 | 480 |

Table 43.-Statistics of universities and colleges

for men and for both sexes-Continued.


Table 43.-Statistics of universities and colleges

|  |  | Annua | 1 ex - |  | al liv- |  | 家 |  | Librar |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { legia } \\ & \text { partı } \end{aligned}$ | $\begin{aligned} & \text { e de- } \\ & \text { nent. } \end{aligned}$ |  |  |  | $\begin{aligned} & 0 \\ & \cdots \\ & 0 \\ & 0 \end{aligned}$ | \% |  |  |
|  | Name. |  |  | $\begin{aligned} & \text { B } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  |  | \# 8 0 0 0 0 |  | $\stackrel{\dot{\square}}{\stackrel{\text { ® }}{\text { - }}}$ |
|  | 9 | 185 | 26 | æ\% | 189 | 19 | 30 | \$1 | 38 | 33 |
|  | Florida. |  |  |  |  |  |  |  |  |  |
| 46 | John B. Stetson University | \$60 |  |  | \$148 | 0 | 2 | 7,000 | 1,000 | \$10,000 |
| $\begin{aligned} & 40 \\ & 47 \end{aligned}$ |  | (a) | \$10 | \$110 | 130 | 0 | 3 | 2,620 | $\stackrel{2}{2}, 500$ | 6,000 |
| $48$ | Florida Conference College*... St. Leo Military College...... |  |  |  | 90 $<200$ |  | 1 | $\stackrel{2}{2,000}$ | 2,000 | 2,000 2,000 |
| $\begin{aligned} & 49 \\ & 50 \end{aligned}$ | St. Leo Military college........- | 0 | 10 | b200 | 6200 150 | 0 | ${ }_{0}^{1}$ | 1, 2,200 | 1,000 300 | 2,000 1,000 |
| 51 | River. <br> Rollins College | 50 |  |  |  | 0 | 0 | 3,500 |  | 3,000 |
|  | georgia. |  |  |  |  |  |  |  |  |  |
| 5.2 | University of Georgia | 0 | 15 | 90 | 126 | 1 | 0 | 28, 960 | 8,045 | 25,000 |
| 53 | Atlanta Baptist College ...-.-... | 12 |  | 72 |  | 0 | 0 | 2,500 | 500 | 1,000 |
| 54 | Atlanta University - .-..........- | 16 | 0 | 96 | 96 | 0 | 0 | 10,000 |  | 10,000 |
| 55 | Morris Brown College | 9 |  | 115 |  |  |  | 1,500 | 500 500 | 1,500 |
| ${ }_{56}^{56}$ | Bowdon College-................... | ${ }_{0}$ | 10 | 115 | 125 |  |  | 1,200 2,000 | 500 1,000 | $\stackrel{2}{1,000}$ |
| $5 \%$ | North Georgia Agricultural College. | 0 |  | 75 | 100 | 0 | 0 | 2,000 | 1,000 | 1,500 |
| 58 | Mercer University .-............. | 50 |  | 65 | 115 | 0 | 8 | 15,000 |  | 5,000 |
| 59 | Emory College | 60 | 5 | 72 | 108 |  |  | 20, 090 |  | 25,000 |
| 60 | Clark University |  |  | b 80 |  |  |  | 1,500 |  | 1,000 |
| 61 | Nannie Lou Warthen College.- | 20 |  | 65 | 95 |  |  | 230 |  |  |
| 62 | Young Harris College........... | 10 |  | 72 | \% |  |  | 500 |  | 500 |
|  | idaho. |  |  |  |  |  |  |  |  |  |
| 63 | University of Idaho | (c) |  | 100 | 150 | 0 | 0 | 6,100 | 9,500 | 5,000 |
|  | illinots. |  |  |  |  |  |  |  |  |  |
| 61 | Hedding College**-...........- | 38 | 9 | 140 | 175 | 0 | 24 | 2,000 | 1,000 | 2,000 |
| 65 | Milinois Wesleyan University... | 40 | 5 | 125 | 150 | 0 | 2 | 7,000 | 3,000 | 10,000 |
| 66 | St. Viateur's College...----- |  |  | -2110 |  |  |  | 7,000 | 1,000 | 2,000 |
| 67 | Blackburn University | 35 | 2 | 110 | 140 | 0 | 4 | 3,000 |  | 2,000 |
| 69 | University of llinois. | ${ }^{3}$ | 23 | 15 | 1232 | 6 | 38 | 34,000 | 6,750 | 4,000 65,000 |
| 50 | St. Ignatius College. | 40 | 10 |  |  | - |  | 20,000 |  | 20,000 |
| 71 | University of Chicag | 120 | 5 | 200 | 300 | 2 | 140 | 341, 740 |  | 223,220 |
| \% | Austin College .... | 32 |  | 100 | 120 | 0 | 0 | 2,000 | 500 | 2,500 |
| 73 | Evangelical Proseminary | 50 | 6 |  | 100 |  |  | 1,962 |  | 1,600 |
| 7 | Eureka College | 39 |  | \% | 127 |  |  | 3,193 | 2,265 | 3,000 |
| 75 | Northwestern University-....- | 69 | 5 | 140 | 232 | 3 | 36 | 37,366 | 23,400 | 45, 000 |
| 76 | Ewing College .-....-... | 30 | 5 | 85 | $1: 0$ | 0 | 0 | 4,000 | 1,000 | 4,000 |
| 9 | Northern Illinois College | 40 | 40 | 125 | 145 |  |  | 1,800 | 500 | 1,200 |
| 78 | Knox Colleze | (d) 50 |  | 133 | 190 | 0 | 4 | 10,000 |  | 10, 000 |
| 79 | Lombard University | (d) | 12 | 125 | 175 | 0 | 15 | 7,000 | 2,000 | 10,000 |
| 81 | Greer College --..... | 43 | 2 | 75 | 100 89 |  |  | $\stackrel{2}{2,100}$ | 590 | 1,500 10,000 |
| 82 | Lake Forest Universit | 40 |  | 215 | 400 | 0 | 20 | 13, 000 | 2,500 | 10,00 |
| 83 | McKendree College | 36 | 0 | 100 | 175 | 0 | 0 | 8,000 | 3,000 | 12,000 |
| 84 | Lincoln University | 10 | 15 | 135 | 175 |  |  | 2,500 | ${ }^{5} 00$ | 3,500 |
| 85 | Monmouth College | 40 | 10 | 100 | 130 | 0 | 0 | 20,000 |  | 30, 000 |
| 86 | Northwestern Colleg | 18 | 15 | 100 | 160 | 0 | 0 | 5,000 | 1,500 | 7,000 |
| 87 | St. Bede College... | 30 |  |  |  | 0 | 0 | 7,000 | 1,000 |  |
| 88 | Chaddock College | 40 | 10 | 100 | 164 |  |  | 1,000 | 200 | 1,000 |
| 89 | St. Francis Solanus College | 30 | 17 | 130 | 130 | 0 | 3 | 4,500 | 350 | 7,000 |
| 90 | Augustana College.- | 36 |  | 129 | 160 | 0 | 0 | 16,000 | 5,000 | 16,000 |
| 919 | St. Joseph's Diocesan College. Shurtleff College.......... |  |  | b180 | 170 | 0 | 0 | 9,000 | 1,000 |  |
| 93 | Westfleld College | 30 |  | 95 | 125 |  |  | 2,500 | 1,000 | 1,200 |
| 94 | Wheaton College. | 24 | 12-18 | 80 | 150 | 0 | 9 | 3,000 |  | 2,000 |
|  | indiana. |  |  |  |  |  |  |  |  |  |
| 95 | Indiana University | 0 | 18 | 150 | 225 | 0 | 0 | 29,450 |  | 60,000 |
| ${ }_{97}^{95}$ | Wabash College .................. | $2 \pm$ | 20 | 108 | 125 | 1 | 0 | 34, 000 | 2,000 | 50,000 |
| 97 | Concordia College.-.............- | 40 |  | 72 |  |  |  | 3,750 |  | 4,000 |

* Statistics of 1896-97.
a Free to residents; $\$ \mathscr{\infty}$ to nonresidents.
$b$ Includes tuition.
for men and for both sexes-Continued.

$c$ Free to residents; $\$ 15$ to nonresidents.
$d \$ 3.50$ per study per term.

Table 43.-Statistics of universities and colleges

for men and for both sexes-Continued.

|  |  | Productive funds. | Income. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{gathered} \text { spunf } \\ \text { osṭonpoxd mox } \end{gathered}$ |  |  | $\begin{aligned} & \text { səoxnos } \\ & x \partial \text { प } 70 \text { साox斗 } \end{aligned}$ |  |  |  |
| 34 | 35 | 36 | 38 | 38 | -9 ${ }^{19}$ | 40 | 48 | 42 | 43 |  |
| \$3, 000 | \$75, 000 | \$207, 000 | 84,000 | \$11,000 | 0 | 0 | 0 | \$15,000 | \$30,000 | 98 |
| 18, 000 | 3004000 | 200,000 | 16,200 | 11,000 | 0 | 0 | 0 | 27, 200 | 8,000 | 99 |
| 5,000 | 125, 000 | 175,000 | - 0 | 10,000 | 0 | 0 | $\$ \sim, 500$ | 12,500 | 35,000 | 100 |
| 5,000 | 150,000 | 250,000 | 5,000 | 16, 000 | 0 | 0 | , 0 | 21, 1900 |  | 101 |
| 2,000 | 50,000 | 40,000 | 3,200 | 2,460 | 0 | 0 | 1,190 | 6,850 | 800 | 102 |
| 500 | 50,000 | 16,871 | 3,501) | 1,000 | 0 | 0 | 500 | 5,000 |  | 103 |
| 25, 000 | $2,000,000$ | 0 | 200,000 | 1, 0 | 0 | 0 | 0 | 200, 000 | 0 | 104 |
| 15,000 | 265, 000 | 102, 000 | 12, 806 | 5,501 | 0 | 0 | 5, 000 | 23, 307 | 0 | 105 |
| 5,000 | 20,000 125,000 | 0 0 | 800 | 0 | 0 | 0 | 0 | 800 |  | 106 |
| 1,000 | 50,000 | 0 | 2,000 | 0 | 0 | 0 | 3,000 | 5,000 | 2,000 | 108 |
| 100 | 30,000 | 0 | $87 \%$ | 0 | 0 | 0 | 2,998 | 3,800 |  | 109 |
| 500 | 30,000 | 0 | 10,000 | 0 | 0 | 0 | 0 | 10,000 |  | 110 |
| 7,000 | 100, 000 | 33, 41.2 | 2,500 | 3,300 | 0 | 0 | 400 | 6,200 |  | 111 |
| 150 | 50, 000 | 16,000 | 2,600 | 1,100 | 0 | 0 | 1,400 | 5,100 | 500 | 112 |
| 250 | 75,000 | 0 | 3,078 | 0 | 0 | 0 | 5,968 | 9,046 | 160 | 113 |
| 2,000 | 40,000 | 30, 009 | 3,000 | 2,000 | 0 | 0 | 0 | 5,000 |  | 114 |
| 2,500 | 80,000 | 8,597 | 1,474 | 434 | 0 | 0 | 0 | 1,908 |  | 115 |
| 1,200 | 40,998 | 55,862 | 2,095 | 3,972 | 0 | 0 | 2,152 | 8,219 |  | 116 |
| 15,000 | 145, 000 | 159,830 | 29,096 | 9,434 | 0 | 0 | 415 | 38,945 |  | 117 |
| 5, 000 | 90, 000 | 170,000 | 3,500 | 9, 000 | 0 | 0 | 0 | 12,500 |  | 118 |
| 3,000 | 125, 000 | 53, 000 | 10.000 | 2,500 | 0 | 0 | 0 | 12,500 | 2,200 | 119 |
| 10,000 | 150, 000 | 400,000 | 22,500 | 25,500 | 0 | 0 | 0 | 48,000 | 14,000 | 120 |
| 2,500 | 32, 000 | 8,000 | 2,966 | 450 | 0 | 0 | 125 | 3,541 | --...- | 121 |
| 2,300 | 100,000 | 65,078 | 8,955 | 3,729 | - 0 | 0 | 2,546 | 15,230 | 2,646 | 123 |
| 200, 000 | 450,000 | 231,000 | 58,796 | 17,760 | \$72,979 | 0 | 0 | 149, 535 |  | 123 |
|  | 20,000 150,000 | 27,000 55,000 | 780 3,500 | 1,900 | 0 0 | 0 0 | 0 0 | 2,680 |  | 124 |
| 1,000 20,000 | 150,000 | 55,000 | 3,500 20 | 3,500 | 0 0 | 0 | 0 1.988 | 7,000 | 2,000 | 125 |
| 20,000 8,500 | 215,000 | 100,000 | 20, 813 | 4, 892 | 0 | 0 | 1,988 | 27,693 | 102,500 | 126 |
| 8,500 2,000 | 75,000 | 30, 000 | 6,773 | 1,200 | 0 | 0 | 375 | 8,348 | 2,700 | 127 |
| 2,000 400 | 40, 000 | 25,000 | 2,000 | 2,000 | 0 | 0 | 0 | 4,000 | 3,000 | 128 |
| 400 150 | 40,000 |  | 4,600 |  | 0 | 0 | 2,500 | 7,100 | 12,000 | 129 |
| 150 3,000 | 40,000 45,800 | 0 89,060 | 2,000 | 6,000 | 0 | 0 | 0 | 2,000 | 2,000 | 130 |
| 3,000 1,500 | 45,800 | 89,060 | 4,000 | 6,000 | 0 | 0 | 350 | 10,350 | 3, 650 | 131 |
| 1,500 | 70,000 | 0 | 6,500 | 0 | 0 | 0 | 0 | 6,500 | 6, 000 | 133 |
| 1,000 | 46,500 | 24,055 | 3,902 | 1,656 | 0 | 0 | 5,121 | 10,679 | 250 | 133 |
| 15,000 | 80,000 | 40,000 | 9,000 | 1,000 | 0 | 0 | 5,000 | 15,000 |  | 135 |
| , 500 | 100,000 | 0 | 1,100 | 1,0 | 0 | 0 | - 800 | 1,900 |  | 136 |
| 2,000 | 100,000 | 0 | 1,828 | ${ }^{0}$ | 0 | 0 | 5,172 | 7,000 |  | 137 |
|  | 10,000 | 40,000 | . 750 | 2,400 | 0 | 0 | 0 | 3,150 | 50 | 138 |
| 1,500 | 40,000 | 0 | 9,250 | 0 | 0 | 0 | ${ }^{0}$ | 9,250 |  | 139 |
|  | 50, 000 | $\begin{array}{r} 0 \\ 12500 \end{array}$ | 2,000 | $\begin{array}{r}0 \\ \\ \hline 000\end{array}$ | - 0 | 0 | 3, 000 | 5,000 | 20,000 | 140 |
| 150,000 | 450,000 | 135, 000 | -900 | 7,000 | 88, 540 | 0 | 1,000 | 97, 440 | 21,350 | 141 |
| 275 500 | 40,000 120,000 | 0 0 | 1,300 9,000 | 0 <br> 0 | 0 | 0 | - 0 | 1,300 | , 500 | 142 |
| 1,000 | 120,000 | 0 73,100 | 9,000 | - ${ }^{0}$ | 0 | 0 | $\begin{array}{r}0 \\ \hline\end{array}$ | 9, 200 | 50,000 | 143 |
| 1,000 | 55, 180,000 | 73,100 0 | 4,623 40,000 | 5,375 | 0 | 0 | 3,509 5,000 | 13,507 45,000 | 0 | 144 |
| 700 | 50,000 | 0 | 7,000 | 0 | 0 | 0 | 2,000 | 9,000 | 0 | 146 |
| 200 | 25,000 | 20,000 | 2,000 | 2,000 | 0 | 0 | 300 | 4,300 | 2,000 | 147 |
| 3,000 | 250,000 | 65, 000 | 9,038 | 6,796 | 0 | 0 | 773 | 16,607 | 2,2:3. | 148 |
| 1,500 | 75, 000 | 0 | 2,000 | 0 | 0 | 0 | 0 | $\stackrel{2}{2}, 000$ | 25,000 | 149 |
| 500 2,500 | 40,000 | 0 | 3,000 | 0 | 0 | 0 | - 0 | 3,000 |  | 150 |
| 2,500 | 60,000 | 0 | 6,000 | 0 | 0 | 0 | 2,500 | 8,500 | 2,500 | 151 |
|  | 10,000 | 7,000 | 2,000 | 200 | 0 | 0 | 0 | 2,200 |  | 152 |
| 525 | 114, 000 | 101,568 | 4,429 | 4,935 | 0 | 0 | 463 | 9,82\% | 27,981 | 153 |

Table 43.-Statistics of universities and colleges

|  | Name. | Annual expenses in col legiate department. |  | $\underset{\text { Annual liv- }}{\text { ing ex- }} \text { penses. }$ |  |  |  | Library. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | \% |  |  |  |  |
|  |  |  |  |  |  | $\begin{aligned} & \dot{W} \\ & 0 \\ & 0 \\ & \dot{0} \\ & 0 \\ & H \end{aligned}$ |  |  | $E$ 0 0 0 0 0 |  | $\stackrel{\dot{8}}{\stackrel{\text { ® }}{\text { ¢ }}}$ |
|  | ${ }^{2}$ | 25 | 26 | 27 | 48 |  | 39 | 89 | 31 | 32 | 33 |
|  | KENTUCKY-continued. |  |  |  |  |  |  |  |  |  |
| 154 | Ogden College | \$40 | \$10 | \$100 | \$120 | 0 | 40 | 3,210 | 1,200 | \$8,000 |
| 150 | Centre College | 50 | 116 | 110 | 150 | 0 | 49 | 12,535 | 3,511 | 10,000 |
| 157 | Liberty College | 36 | 10 | 120 | 150 | 0 | 0 | $1 \sim 150$ | 300 | 12, 300 |
| 158 | South Kentueky College. | 50 |  | 109 | 110 |  |  | 2,500 |  |  |
| 159 | Agricultural and Mechanical College. | 15 | 5 | 200 | 250 | 2 |  | 3,356 | 5,969 | 6,700 |
| 160 | Kentucky University | 2 | 20 | 95 | 153 |  |  | 15,000 | 1,200 | 15,000 |
| 161 | Central University | 50 | 10 | 100 | 160 | 0 | 16 | 8,000 | $\stackrel{1}{2}, 000$ | 8,000 |
| 162 | Bethel College | 55 |  | 100 | 100 | 0 | 20 | 5,009 | 2,000 | 5,000 |
| 163 | St. Mary's College |  |  | a 150 |  |  |  | 4,000 | 2,000 | 4,000 |
| 164 | Kentucky Wesleyan Colleg | 30 | 20 | 160 | 200 |  |  | 2,000 | 500 | 2,000 |
|  | louisiana. |  |  |  |  |  |  |  |  |  |
| 165 | Louisiana State Universit | 0 |  | 126 | 138 |  |  | 20, 000 | 2,000 | 20,000 |
| 166 | Jefferson College... |  |  | 180 | 200 | 0 | 6 | 4,000 | 2,000 | 10,000 |
| 167 | Centenary College of Louisiana | 50 | 5 | 90 | 135 | 0 | 0 | 3,000 |  | 3,000 |
| 168 | Keatchie College....-.-.-.-....- | 50 |  | 125 | 150 |  |  | 1,200 |  | 1,000 |
| 169 | College of the Immaculate Conception. | 60 |  |  |  |  |  | 10,000 |  | 10,000 |
| 170 | Leland University ...-........... | 0 | 0 | 85 | 90 | 0 | 0 | 1,000 |  | 1,000 |
| 171 | New Orleans University |  |  | 80 | 100 |  |  | 5, 200 | 1500 | $\stackrel{2}{2,000}$ |
| 173 | Tulane University. | 103 |  |  |  | 0 | 188 | ~5, 000 | 5,000 | 20,000 |
|  | matne. |  |  |  |  |  |  |  |  |  |
| 174 | Bowdoin College | 75 | 17 | 175 | $\stackrel{0}{20}$ | 0 | 91 | 62, 688 | 1,000 | 75, 000 |
| 175 | Bates College -..-... | 50 | 17 | 100 | 150 | 0 | 46 | 19,500 |  | 25, 000 |
|  | University of Maine | 30 60 | 10 | 125 90 | 200 | 8 | 1 80 | 14,000 | 6,000 20,000 | 12,550 50,000 |
|  | mafyland. |  |  |  |  |  |  |  |  |  |
| 178 | St. John's College | 75 | 32 | 150 | 200 | 0 | 73 | 6,000 | 500 | 5,000 |
| 179 | Johns Hopkins University | 150 | 5 | 200 | 300 | 21 | 7\% | 84, 000 | 60,000 | 116,340 |
| 180 | Loyola College .-..... - . - - - | 60 |  |  |  | , | 10 | 40,000 |  | 80, 000 |
| 181 | Morgan College ${ }^{\text {Washington College }}$ | 8 | 1 | 68 | 300 | 0 | $\stackrel{4}{4}$ | 3,000 | 1,000 | 1,000 |
| 183 | Maryland Agricultural College. | 24 | 0 | $1: 8$ | 150 | ${ }_{3}$ | $\stackrel{46}{26}$ | $\stackrel{2}{2}, 100$ |  | 2,500 |
| 134 | Rock Hill College .-.-.-.......... | 60 | 15 | 200 | 230 | 0 | 0 | 7,500 | 530 | 6,000 |
| 185 | St. Charles College |  |  | a 180 |  | 0 | 0 | 13,210 |  |  |
| 186 | Mount St. Mary's College |  |  | a 390 |  | 0 | 2 | 20,000 | 3,090 | 50, 000 |
| 187 | New Windsor College *-- | 4.5 |  | 155 |  |  |  | 2,000 | 500 | 2,000 |
| 188 | Western Maryland College...- | 45 |  | 180 | - | 0 | 23 | 5,000 |  |  |
|  | MASSACHUSETTS. |  |  |  |  |  |  |  |  |  |
| 189 | Amherst College | 110 |  | 350 | 500 | 3 | 90 | 68,000 |  | 50,000 |
| 190 | Boston College | 60 |  |  |  | 0 | 51 | 34, 109 |  |  |
| 191 | Boston University | 100 | 10 | 144 | 270 | 3 | 203 | 21,000 |  | 29,500 |
| 192 | Harvard University | 150 |  | 250 | 350 | 26 | 2 a 2 | 490, 200 | 490,000 | 500, 000 |
| 193 | French-American College | 40 | 8 | 75 |  |  |  | 2,800 | 1,200 | 3,000 |
| 194 | Tufts College. | 100 | 11 | 152 | $\stackrel{275}{275}$ | 2 | 100 | 36, 000 | 16,000 | 30,000 |
| 195 | Williams College | 105 | 8 | 260 | 370 | 1 | 142 | 40, 750 | 15,110 | 16,500 |
| 196 | Clark University .-....... |  |  | ${ }_{200}^{200}$ | 300 200 | 16 | 16 | 17,000 |  |  |
| 197 | College of the Holy Cross.-..... michigan. | 60 | 10 | 200 | 200 | 0 | 8 | 10,000 | 3,000 | 15,000 |
| 198 | Adrian College | 15 | 30 | 120 |  | 0 | 0 | 6,000 | 1,000 | 7,000 |
| 199 | Albion College | 21 |  | $8{ }^{1}$ | 130 |  |  | 11, 600 | 5,000 | 15,000 |
| 200 | Alma College- | 32 | 10 | 130 | 145 | 0 | 26 | 15,312 | 10,000 | 16,000 |
| 201 | University of Michigan | 30 | 10 | 133 | 190 | 3 | 16 | 120,000 | 20,000 | 175,000 |
| ${ }_{203}^{202}$ | Battle Creek College | 32 | 0 | 100 | 150 | 0 | 0 | 3,000 |  | 4,162 6,000 |
| 204 | Detroit College.... | 40 |  |  |  | 0 | 9 | 6,000 8,820 | 1,060 | 6,000 |

* Statistics of 1590-9\%.
$\alpha$ Includes tuition.
for men and for both sexes-Continued.


Table 43.-Statistics of miversities and colleges

$a$ Includes tuition.
for men and for both sexes-Continued.


Table 43.-Statistics of universities and colleges

for men and for both sexes－Continued．

|  |  |  | Income． |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | $\begin{aligned} & \text { From other } \\ & \text { sources. } \end{aligned}$ |  |  |  |
| 3 是 | 35 | 36 | 37 | 33 | 38 | 40 | 告吕 | 428 | 48 |  |
| $\begin{array}{r} 8200 \\ 850 \\ 1,500 \\ 190,000 \\ 1,000 \\ 20,000 \\ 2,500 \\ 600 \end{array}$ | $\begin{array}{r} \$ 30,000 \\ 65,000 \\ 80,000 \\ 735,000 \\ 25,400 \\ 200,000 \\ 150,000 \\ 52,000 \end{array}$ | $\begin{array}{r} 0 \\ \$ 35,000 \end{array}$ | －52，620 | $\begin{array}{r} \$ 1,540 \\ 550 \\ \\ \hline \end{array}$ | 005126,250 | － $38, \begin{array}{r}0 \\ 0 \\ 8\end{array}$ | 082,250 | \＆1， 120 | 12，827－${ }^{255}$ |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 15，000 | 3， 000 |  |  |  |  | 6，000 | 3，000 | 257 |
|  |  | 160，009 | 12，534 |  |  |  | 0 | 176，784 | 1，000 | 258 |
|  |  | 25， 000 | 1，250 | 1，250 | 0 | 0 | 0 | 2，500 |  | 259 |
|  |  | 150，000 | 0 | 7，500 | 0 | 0 | 0 | 7，500 |  | 260 |
|  |  | 0 | $\stackrel{7}{5}, 000$ | － | 0 | 0 | 0 | 7，000 |  | 231 |
|  |  | 0 | 5，000 | 0 | 0 | 0 | 0 | 5，000 |  | 262 |
| 12，030 | 156， $18 \frac{1}{x}$ | 95， 000 | 0 | 3， 800 | 12， 450 | 38，000 | 628 | 54，878 |  | 263 |
| 100,000 2,000 | 500,000 150,000 | $1,500,000$ 0 | $\begin{aligned} & 25,000 \\ & 12,000 \end{aligned}$ | 65,000 0 | 5,000 0 | 0 | 0 | $\begin{aligned} & 95,0 \cap 0 \\ & 12,000 \end{aligned}$ | $\begin{array}{r} 156,000 \\ 200 \end{array}$ | 264 |
|  | 25，000 |  |  |  | 0 | 38，000 |  | 64，919 |  | 266 267 208 |
| 10，000 | 500， 000 | 0 | 7，000 | 0 | 0 | 0 | 22,000 | 29，000 | 4，000 | 269 |
| 20，000 | 90，000 | 283， 765 | 5，176 | 12，310 | 1 | 0 | 13,149 | 31，556 | 16，325 0 | $2 \pi 0$271$2 \% 2$ |
| 700 500 | 234,000 254,820 |  | 9，759 | $\begin{array}{r}0 \\ \\ \hline\end{array}$ | 0 | 0 | 21， 850 | 31， 640 |  |  |
| 14，000 | 493， 000 |  | 11，110 | \％， 120 | 0 | 0 | 0 | 11，3ั0 | 8，546 |  |
| 12，000 | 325， 010 | 103， 000 | 13，48\％ | 1，975 | 100 | 0 | 5， 037 | 20，621 | 1，000 | $2 \% 3$ $2 \% 4$ |
| 500 | 160，500 | 0 | 15， 000 | 0 | 0 | 0 | 23，500 | 38，500 |  | 275 |
| 1，500 | 438，200 | 0 | 29，600 | 0 | 0 | 0 | 1，750 | 31， 350 | 3，509 | $2 \pi 5$ |
| 6，545 | 258，635 | 0 | 10， 416 | 0 | 0 | 0 | 24，438 | 34， 854 | 11，325 | 277 |
| 2，000 | 109， 000 | 311，000 | 2，833 | 18，312 | 0 | 0 | 695 | 21，840 | 12， 157 | 278 |
| 20，000 | 500， 000 | 400， 000 | 8，000 | 20，000 | 200 | 0 | 4，000 | 32， 200 | 20，000 | $2 \% 9$ |
| 21，050 | 166， 090 | 364， 967 | 3，492 | 13，3\％5 | 0 | 0 | 2，815 | 19， 42 | 3，656 | 280 |
| 16，000 | 60t， 000 | 1，719，345 | 12， 607 | 41，015 | 0 | 0 | 2，499 | 56,121 | 30，070 | 281 |
| 689， 411 | 1，796，373 | 6，446， 818 | 121，206 | 386，05： | 60，000 | 36，743 | 32，050 | 635，051 | 204，126 | 289 |
| 5， 450 | \％50，000 | － 0 | 29，195 | － 0 | － 0 | － 0 | 8，656 | 37， 851 | 5，035 | 283 |
| 51， 000 | 665，000 | 9， 404,550 | 211． $01{ }^{\circ}$ | 2，007 | 175， 000 | 0 | － 0 | 17\％，00\％ | －${ }^{\circ}$ | 284 |
| 235，000 | 8，500，000 | 9，50），060 | 341，215 | 396， 157 | － 0 | 0 | 42，967 | 780， 340 | 354， 417 | 285 |
| 8，061 | －612，056 | 1，505，${ }^{0}$ | 13，3 ${ }^{5} \mathbf{4} 0$ | ${ }_{93}{ }^{0}$ | 0 | 0 | 24，839 | 38，209 | 311，${ }^{0} 5$ | 286 |
| 59，356 | 1，796，941 | 1，556，76\％ | 85， 445 | 93，835 | 0 | 0 | 0 | 1\％9，280 | 3112，555 | 287 |
| 18，000 | 1，000，000 | 0 |  |  |  |  |  |  |  | 288 |
| 3，000 | 200， 000 | 0 | 25， 000 |  | 0 | 0 | 10，000 | 35，000 | 5，000 | 289 |
| 64， 459 | 398， 130 | \％ 71 交， 169 | 6，662 | 31，906 | 0 | 0 | 26， 461 | 65，029 | 112，690 | 290 |
| 83，000 | 510，000 |  | 5， 28 |  | 0 | 0 |  | 346， 434 | 1，042 | 291 |
| \％$\%$ ，19\％ | 989，500 | 1，311，588 | 49，458 | 16,610 | 0 | 0 | 30，613 | 93， 681 | 57，41\％ | 292 |
| 4，000 | 100，000 | － 0 | 15，000 | 0 | 0 | 0 | 0 | 15，000 | 500 | 293 |
| 10，000 | 300，000 | 100， 000 | 18，000 | 5，000 | 25，000 | 0 | 5，000 | 53，000 |  | $\begin{array}{r}-291 \\ \hline 295 \\ -296 \\ -297 \\ \hline 297\end{array}$ |
| － 500 | 130，090 | 7，000 | 4，000 | －210 | 00 | 0 | 3， 760 | 8，000 | －－－－－－－－－－ |  |
| 5， 000 | 150，000 | 122，000 | 9，000 | 7,00010,000 |  | 0 | － 0 | 16， 000 |  |  |
|  | 210,00060,000 |  | 2，600 |  | 0 | 0 | 11，000 | 23， 560 | $\begin{array}{r} 135,000 \\ 1,000 \end{array}$ |  |
| 500 |  | － 0 | 3， 20 | 10，0 |  |  |  | 3，800 |  | 297 298 |
| 509 | 100,00025,000 | 48，000 | 6，000 | 2，300 | 0 | 0 | 0 | 8，300 |  | 299300 |
|  |  | 015,000 | 1，800 | 0500 | 0 | 0 | 0 | $\begin{aligned} & 1,800 \\ & 2,000 \end{aligned}$ |  |  |
| 1，000 | 15，000 |  | 1， 500 |  | 0 | 0 | 0 |  | 1，200 | 301 |
| 1，300 | 12，090 | 31， 000 | 2， 300 | 2,000 | 0 | 0 | 0 | 4，500 | 5，000 | $\begin{aligned} & 302 \\ & 393 \\ & 304 \end{aligned}$ |
| 1，500 | 180，000 |  | 3，193 | 175 | 0 | 0 | 105 | 3，473 |  |  |
|  | 10，060 |  | 3，000 | 0 | 0 | 0 | 0 | 3，000 |  |  |
| 150 | 125，000 | $\begin{array}{r} 2,509 \\ 205,442 \\ 0 \end{array}$ | 1，100 | 1200 | 0 | 0 | 6，188 | 7，428 | 3，490 | 305 |
| 10，000 | \％5， 000 |  | 1,0002,500 | 17，803 0 | 00 | － | 0 | $\begin{array}{r} 24,803 \\ 2,500 \end{array}$ | 5，383 | 306 |
| － 100 | 1，500 |  |  |  |  |  |  |  |  | 807 |

Table 43.-Statistics of universities and colleges

$a$ To nonresidents.
for men and for both sexes-Continued.


Table 43.-Statistics of universities and colleges


[^70]$a$ Includes tuition.
$b$ Payable but once.
for men and for both sexes－Continued．

| $\begin{gathered} \text { Value of scientific } \\ \text { apparatus. } \end{gathered}$ |  |  | Income． |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \dot{0} 8 \\ & \otimes \\ & 0 \\ & 0 \\ & 0 \\ & \text { E } \\ & \text { E } \end{aligned}$ |  |  |  |  |  |  |  |
| 36 | 35 | 36 | 87 | 83 | 331 | 413 | 退 | ${ }^{6} 2$ | 43 |  |
|  | \＄150，000 | － 180500 | 86， 500 | \＄7，586 | 0 |  | \＄3，075 | \＄17， 161 |  | 362 |
| \＄12，500 | 120,000 |  |  |  |  | 0 |  |  | S2，750 | 363 |
| 30，060 | 650， 000 | 280，000 | 13， 638 | 14，950 | ） | 0 |  | 28，588 |  | 364 |
| 55，000 | 249.000 | 210，000 | 13，000 | 10.000 | 0 | 0 | 2，000 | 25， 000 | 9，000 | 365 |
| 1，000 | 75．000 | 60，000 | 4，500 | 3，500 | 0 | 0 | 2，500 | 10，500 |  | 366 |
| 5，000 | 150， 000 |  |  |  |  |  |  |  |  | 367 |
| 80，000 | 400,000 | \％00，000 | 33， 000 | 23，000 | 0 | 0 | 2，300 | 63， 300 | 15，000 | 368 |
| 25,000 | 255，000 | 345,000 | 15 0 | 18，000 | 0 | 0 | 10，000 | 28，000 | 35，000 | 369 |
|  | 300， 000 | 400， 000 | 15， 000 | 17，500 | 0 | 0 | 17， 500 | 50,000 | 3，00 | $3 \% 0$ |
| 34，000 | 200，000 | $\frac{463}{3}, 650$ | 1，250 | 30， 000 | 0 | 0 | 10，000 | 41， 250 | 20，000 | 371 |
| 80，000 | 200， 000 | 200， 000 | 10， 060 | 12，000 | 0 | 0 | 4，000 | 23，000 | 11，500 | 37\％ |
| 800 88,000 | 25，000 | 24，000 | 2，751 | 210 | 0 | 0 | 825 | 3，816 | 19，000 | 373 |
| 88,000 14.000 | 250,000 $1,011,563$ | 200， 009 |  |  |  |  |  |  |  | 374 |
| 14，000 800 | $1,011,363$ 150,000 | 0 | 0 | 0 | 82a゙， 049 | 0 | 0 | 225，049 |  | 375 |
| 389，418 | 3，662，019 | 2，179，065 | 321，494 | $9 \%, 260$ | 50，000 | 0 | 0 | 468， 754 | 406， 202 | 377 |
| 3，000 |  |  |  |  |  |  |  |  |  | 378 |
| 1,000 1,000 | 100,000 47,000 | 0 43,000 | 8,000 5,000 | 2，000 | 0 | 0 | 0 | 8，000 | 0 | 379 |
| 50，000 | 1，200，000 | 2．000，000 |  | 2，000 | 0 | 0 | 0 | 7，000 |  | 380 |
| 60， 000 | 790，000 | 517，000 | 0 | 31，020 | 43，416 | 338， 000 | 10， 159 | 123，595 | 600 | 382 |
| 20，000 | 500，000 | 250， 000 | 49，613 | 12， 300 | 0 | 0 | 4， 434 | 69，317 |  | 383 |
| 2,009 150 | 330,000 5,000 | 0 | 1，600 | 0 | 0 | 0 | （） | －1，600 | 0 | 384 385 |
| 25， 000 | 250，000 | 2\％\％，991 | 14，781 | 14， $17 \%$ | 0 | 0 | 9 | 28，967 | 1，000 | 385 |
| 340，000 | 1，17\％， $95 \%$ | 80\％，481 | 101， 721 | 28，661 | 0 | 0 | 1，370 | 131，${ }^{\text {\％}}$ \％ | 13， 800 | 387 |
| 1,500800 | 75,00010,000 | $\begin{array}{r} 2955,300 \\ 6,500 \end{array}$ | $\begin{aligned} & 100 \\ & 800 \end{aligned}$ | $10,5 \% 2$300 | 2，000 | 0 | 00 | $\begin{array}{r} 12,672 \\ 1,100 \end{array}$ | 1，300 | 388389 |
|  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{r} 10,000 \\ 500 \end{array}$ | 20,000800,000 | 0 | 800 | 0 | 0 | 0 | 3，500 | 4，300 |  | 390 |
|  |  | 0 | 2，800 | 0 | 25， 000 | 0 | 3， 000 | 30， 800 |  | 391 |
|  | 65， 090 | 86，000 | 3，000 | 4，500 | 0 | 0 | 0 | 7，500 | 15，000 | 392 |
|  | 100，000 | 68，000 | 6，000 | 6，000 | 0 | 0 | 0 | 12，000 |  | 393 |
|  | 45,000100,000 | 32，000 | 3，500 | 1，700 | 0 | 0 | 800 | 6，000 | 214 | 394 |
| 1，0（\％） |  | 0 | 4，000 | － 0 | 0 | 0 | 11，000 | 15， 000 | 15，000 | 395 |
| 3，000 | 125， 000 | 63， 000 | 4，000 | 4，500 | 0 | 0 | 2，000 | 10，500 | 15，00 | 398 |
|  | 32，500 |  | 1，950 |  | 0 |  |  | 1， 2,050 | 2，200 | 397 |
| 250 1,500 | 33， 000 | 30，000 0 | 1，509 | 300 |  | 0 | 250 |  |  | 308 |
|  | 60,000 20,000 | 0 | 3，000 | 0 | 0 | 0 | 3，600 | r 12,600 | －9， 9,600 | 399 400 |
| 1，750 | 99，000 |  | 5， 620 |  | 23， 950 | 0 | $5 \pm 0$ | 30， 110 |  | 401 |
| 3，000 | 150，000 | 52， 500 | 4，000 | 3，000 | 0 | 0 | 0 | 7，000 | 7，500 | 402 |
|  | $\begin{array}{r} 150,000 \\ 25,000 \\ 60,000 \end{array}$ | $\begin{array}{r} 0 \\ 20,000 \\ 190,000 \end{array}$ | $\begin{aligned} & 2,702 \\ & 3,000 \\ & 2,600 \end{aligned}$ | $\begin{array}{r} 0 \\ 1,000 \\ 10,000 \end{array}$ | 0 | 00 | 1，819 | 4，521 | 6，000 | 403 |
|  |  |  |  |  | 0 |  | ， 0 | 4，000 |  | 401 |
| 2，000 |  |  |  |  | 0 | 0 | 2，000 | 14， 600 |  | 405 |
| 700 | 100， 000 | 5，000 | 4，000 | 0 | 0 | 0 | 0 | 4， 000 | 12，000 | 409 |
|  | $\begin{aligned} & 10,000 \\ & 50,000 \end{aligned}$ | $\cdots$ |  |  |  |  |  |  |  | 407 |
| 4，000 |  |  | 8，500 | 4，200 | 0 | 8 | 0 | 12，700 |  | 408 |
| 200 | $\begin{array}{r} 100,000 \\ 586,000 \\ 60,000 \end{array}$ | $\begin{array}{r} 0 \\ 425,000 \\ 95,000 \end{array}$ | 5256,3395,600 | $\begin{array}{r} 0 \\ 25,686 \end{array}$$4,500$ | 3,20000 | ［ $\begin{array}{r}0 \\ 38,090 \\ 0\end{array}$ | $\begin{array}{r} 8,525 \\ 0 \\ 0 \end{array}$ | $\begin{aligned} & 12,250 \\ & 70,005 \\ & 10,100 \end{aligned}$ |  | 409 |
| 60，600 |  |  |  |  |  |  |  |  | 0 | 410 |
| 2，000 |  |  |  |  |  |  |  |  | 15，000 | 4.11 |

Table 43.-Statistics of universities and colleges

for men and for both sexes-Continued.

|  |  |  | Income. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
| 34 | 35 | 836 | 37 | 35 | 39 | 4 | 41 | 418 | 43 |  |
| \$250 | \$18, 000 |  | \& 4,000 |  | 0 | 0 | ${ }^{0}$ | \$4, 000 |  | 412 |
| 5,000 | 100, 000 | \$255, 000 | 4,328 | \$11,043 | 0 | 0 | \$1,120 | 16,491 | \$90,000 | 413 |
| --. 150 | 80,000 15,000 | 0 | 3, 500 | 0 | 0 | 0 | 20 | 3,700 | 1,500 | 414 415 |
| 1,200 | 75,000 | 30,000 | 3,200 | 1,600 | 0 | 0 | 700 | 5,500 |  | 416 |
| 250 | 105, 000 | 10,000 | 2,896 | 150 | 0 | 0 | 5,496 | 8,542 | 661 | 417 |
|  | 350, 000 | 40,000 | 3,715 | 2,400 | 0 | 0 | 11,549 | 17, 564 | 0 | 418 |
| -1,000 | 125,000 | 1,200 | 1,500 | . 60 | -20 | 0 | 7,000 | 8,560 | 6,500 | 419 |
| 13,000 | 300, 000 |  | 26,500 | 3,500 | \$20,000 | 0 | 40,000 | 90,000 |  | 420 |
| 175, 000 | 600,000 | 1, 100,000 | 55, 000 | 55, 000 | 0 | 0 | 0 | 110,000 |  | 4.21 |
| 2,000 | 400,000 | 160,000 | 18,360 | 9,600 | 0 | 0 | 8,000 | 35, 960 | 46, 000 | 422 |
| 500 | 20,000 | 0 | 4,375 | 0 | 0 | 0 | 0 | 4,375 | 0 | 423 |
| 25 | 20,000 | 0 | 3,500 | 0 | 0 | 0 | 0 | 3,500 |  | 424 |
|  | 25,700 | 0 | 1,746 | 0 | 0 | 0 | 702 | 2,455 |  | 425 |
| 250 | 40,000 | 5,000 | 1,200 | 300 | 0 | 0 | 0 | 1,500 | 2,800 | 426 |
| 79, $\begin{array}{r}250 \\ 500\end{array}$ | 110,000 | 0 a696, 716 | 15, 000 | 0 70,002 | 0 72,500 | 0 0 | 0 0 | 15,000 152,857 |  | 427 428 |
| 72,500 800 | 505,000 45,000 | a6\%6, 716 | 10,335 5,000 | 70, 028 | 72,500 0 | 0 0 | 0 1,500 | 152,857 6,500 | 42,500 5,000 | 428 429 |
|  | 12,000 | 0 | 10,000 | 0 | 0 | 0 | 1,0 | 10,000 | 0 | 430 |
| 8,000 | 160, 000 | 0 |  |  |  |  |  |  |  | 431 |
| 500 | 25,000 | 0 | 7,000 | 0 | 0 | 0 | 0 | 7,000 |  | 432 |
| 5 500 | 200, 000 | 0 |  |  |  |  |  |  |  | 433 |
| 5,000 | 80,500 | 0 | 15,902 | 0 | 0 | 0 | 2,974 | 18,876 | 33, 000 | 434 |
| 300 | 25,000 | 0 | 6,000 | 0 | 0 | 0 | ( 0 | 6,000 | 0 | 435 |
|  | 48,000 | 0 | 1,450 | 0 | 0 | 0 | 6,500 | 7,950 |  | 436 |
| 700 | 200,000 | 0 | 15,000 | 0 | 0 | 0 | 0 | 15,000 | 0 | 437 |
| 500 | 40,000 | 60,000 | 3,500 | 3,000 | 0 | 0 | 0 | 6,500 | 3,000 | 438 |
| 1,000 | 84,000 | 34,000 | 7,000 | 3,000 | 0 | 0 | 0 | 10, 000 |  | 439 |
| - 500 | 150,000 | 0 | 11,500 | 0 | 0 | 0 | 0 | 11,500 | 0 | 440 |
| 2,500 | 200,000 | 0 | 28,090 | 0 | 0 | 0 | 0 | 28,000 | 0 | 441 |
| 25 | 75,000 | 0 | 900 | 0 | 0 | 0 | 6,100 | 7,000 |  | 442 |
| 500 | 45,000 | 96, 427 | 2,880 | 6,500 | 0 | 0 | 7,5.5 | 16. 935 |  | 443 |
| 20,000 | 280, 000 | 100,000 | 5,300 | 693 | 60,000 | 0 | 0 | 65,993 | 300 | 444 |
| 100,000 | 600,000 | 375, 000 | 13,058 | 16,069 | 6, 000 | 323,000 | 16, 62 1 | 74, 748 |  | 445 |
| 4,000 | 100,000 | 380, 000 | 1,002 | 18,500 | 2,400 | 0 | 2,374 | 24,276 | 34, 050 | 446 |
| 1,000 | 25,000 |  | 1,93\% | 50 | 2,983 | 0 | 500 | 5,465 | 590 | 447 |
| 9,000 | 110,000 | 125, 000 | 9,000 | 6,000 | 0 | 0 | 0 | 15,000 | 3, 450 | 448 |
| 100 | 9,000 | 11,000 | 3,000 | 300 | 4\% 0 | 0 | ${ }^{0}$ | 3,300 |  | 449 |
| 25,000 | 1,000,000 | 417,300 | 55,768 | 20,651 | 47,500 | 0 | 1,056 | 124,975 | 135,000 | 450 |
| 1,000 | 100,000 | 10,010 | 5,000 | 600 | 0 | 0 | 4,400 | 10, 000 | 300 | 451 |
| 100 | 15,000 | 0 | 4,500 | 0 | 0 | 0 | 1.040 | 5, 510 |  | 452 |
| 5,000 | 100, 000 | 140,000 | 2,300 | 8,500 | 0 | 0 | 2,500 | 13, 300 | 1,931 | 453 |
| 16,000 | 200, 000 | 639, 800 | 9,000 | 33, 000 | 0 | 0 | 0 | 42, 040 | 2,500 | 454 |
| 4,000 | 400,000 | 270,000 | 9,000 | 18,000 | 0 | 0 | 3,700 | 30,700 | 6,000 | 455 |
|  | 100,000 | 40,000 | 4,276 | 2,400 | 0 | 0 | 2,400 | 9,076 | 6,200 | 456 |
| 25,000 | 125, 000 | 125, 900 | 964 | 3,954 | 15,000 | 0 | 0 | 19,918 |  | 457 |
| 200 | 35,000 | 0 | 6, 3 \% 5 | 0 | 0 | 0 | 8,236 | 14, 611 |  | 458 |
| 200 | 15,000 | 0 | 2,500 | 0 | 0 | 0 | . 500 | 3,000 | 250 | 459 |
| 558 | 50,000 | 0 | 2,483 | 0 | $\stackrel{0}{0}$ | 0 | 12,294 | 14, 777 |  | 460 |
| 10,000 | 350,000 | 0 | 0 | 0 | 40,250 | 0 | 0 | 40,250 |  | 461 |
| 1,000 |  |  |  |  |  |  |  |  |  | 462 |
| 500 | 19,000 | 0 | - 550 | 0 | 0 | 0 | 1,200 | 1,750 |  | 463 |

a Also 2,000,000 acres of land.

Table 43.-Statistics of universities and colleges

|  |  | Annua | 1 ex - |  | al liv. |  | 宽 |  | Librar |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | legia part | ent. |  |  |  | 若 | \%่ |  |  |
|  | Name. |  |  |  |  |  |  |  |  | $\stackrel{\text { ¢ }}{\stackrel{\text { ¢ }}{\text { ¢ }}}$ |
|  | ® | 35 | 26 | 29 | 95 | 83 | 30 | 31 | 32 | 33 |
|  | washington-continued. |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 454 \\ & 455 \end{aligned}$ | Puget Sound University .... St. James College | 845 40 | \$10 | ${ }_{200}^{\$ 100}$ | \$150 | - ${ }^{0}$ | 0 | 3,000 3,000 | 1,000 | \$7,006 |
| ${ }_{466}^{450}$ | Whitman College -.......... | 48 | \$ | 125 | 175 | 0 | 8 | 6,000 | 1,500 | 10,000 |
|  | West virginia. |  |  |  |  |  |  |  |  |  |
| $46^{47}$ | Barboursville College | 36 | 6 | 75 | 90 | 0 |  | 600 | 200 |  |
| ${ }_{469}^{468}$ | West Virginia University | 4 | 7 | 114 | 152 | 2 | 0 | 150000 | 3,000 |  |
|  | wisconsin. |  |  |  |  |  |  |  |  |  |
| ${ }_{470}^{47}$ | Lawrence University | ${ }_{36}^{2}$ | 10 | 60 118 | ${ }_{215}^{120}$ | ${ }_{0}^{0}$ | ${ }_{51}^{2}$ | 15,672 | ${ }_{6}^{6,700}$ | 30,000 |
| ${ }_{472}^{471}$ | Beloit College -.... | ${ }_{20}^{36}$ | 13 10 | 118 80 | ${ }_{150}^{255}$ |  | ${ }_{0}$ | 24,000 6,000 | 7,100 |  |
| 473 | Gale College.-.... | 33 |  | 70 | 140 |  |  | 3, 000 | 1,000 | 5,000 |
| 474 | University of Wisconsin. | 0 | 12 |  |  | 18 | 5 | 54,000 | 14,000 | 60,000 |
| ${ }_{4}^{475}$ | Milton Coillege-............ | 36 40 | ${ }_{15}^{0}$ | ${ }^{120} 6$ | 170 | 0 | ${ }_{0}^{0}$ | 4,000 3,540 | 1,530 <br> 480 <br> 150 | 4,000 2,500 |
| 477 | Marquette College .-........... | 60 |  |  |  |  |  | 9,300 | 1,100 |  |
| ${ }_{479}^{478}$ | Ripon College | 36 30 | 4 | $\begin{aligned} & 50 \\ & 80 \\ & 80 \end{aligned}$ | $\begin{aligned} & 120 \\ & 100 \end{aligned}$ | 0 | 0 | $\begin{aligned} & 8,000 \\ & 8,570 \end{aligned}$ | 3,000 300 | $\begin{aligned} & 5,0,000 \\ & 5,000 \end{aligned}$ |
|  | Wyoming. |  |  |  |  |  |  |  |  |  |
| 480 | University of Wyoming | 0 | 3 | 150 | 200 |  | ... | 5,750 | 4,000 | 8,000 |

for men and for both sexes-Continued.


Table 44.—Statistics of colleges

for women, Division A.


for women, Division $B$.


Table 45.-Statistics of colleges


* Statisties of $1896-9 \%$.
for women, Division B-Continued.


*Statistics of 1896-97.
for women, Division $B$-Continued.

$a$ Inciudes tuition.

Table 45.-Statistics of colleges


[^71]for women, Division $B$-Continmed.


Thble 40.-Statistics of

|  | Location. | Name. |  |
| :---: | :---: | :---: | :---: |
|  | 1 | 1 | 3 |
|  | Auburn | Alabama Agricultural and Mechan | 1872 |
| 2 | Fort Collins, | Colorado Agricultural Colle | 1879 |
| 3 | Golden, Colo | (Colorado) State School of M | 1874 |
| 4 | Storrs, Conn | Storrs Agricultural College | 1881 |
|  | Atlanta, Ga | Georgia Nchool of Technology | 1888 |
| 6 | Chicago, IL | Armour Institute of Technology | 1893 |
|  | Lafayette, Ind. | Purdue University-........ | 1874 |
| 8 | Terre Haute, Ind | Rose Polytechnic Institute | 1883 |
| 9 | Ames. Iowa - -...- | Iowa Agricultural College | 1868 |
| 10 | Manhattan, Kans | Kansas Agricultural College | 1863 |
| 11 | Annapolis, Md | United States Naral Academy | 1845 |
| 12 | Amherst, Mas | Massachusetts Agricultural College -... | 1867 |
| $\begin{aligned} & 13 \\ & 14 \end{aligned}$ | Woston, Mass.... | Massachusetts Institute of Technology | 1865 |
| 15 | Agricultural College, Mich | Michigan Agricultural College. | 1857 |
| 16 | Houghton. Mich ........... | Michigan College of Mines... | 1885 |
| 17 | Agricultural College, Miss | Mississippi Agricultural and Mechanical Colleg | 1880 |
|  | Westside, Miss | Alcorn Agricultural and Mechanical College --..- | 1871 |
| 19 | Bozeman, Mon | Montana College of Agriculture and Mechanic Art | 1893 |
| 0 | Durham, N H | New Hampshire College of Agriculture and Mechanic Arts | 1867 |
| 2 | Hoboken, N.J | Stevens Institute of 'Technology ................................ | 1871 |
| 22 | Newark. N.J | Newark Technical School | 1885 |
| 23 | Mesilla Park, N. Mex | New Mexico College of Agriculture and Mechanic Arts. | 1891 |
| 24 | Socorro. N. Mex | New Mexico School of Mines | 1893 |
|  | Potsdam, N. Y | Clarkson School of Technolog | 1896 |
| 26 | Troy, N. Y | Rensselaer Polytechnic Institute | 1824 |
| 9 | West Point, N. V |  | 1802 |
| 28 | Greensboro, N. C | Agricultural and Mechanical College for the Colored Race | 1894 |
| 29 | Raleigh, N. C. | North Carolina College of Agriculture and Mechanic Airts | 1889 |
| 30 | Agricultural College, N. Dak. | North Dakota Agricultural College........................... | 1890 |
| 31 | Cleveland, Ohio | Case School of Applied Science | 1881 |
| $0 \%$ | Stillwater, Okl | Oklahome Agricultural and Mechanical College | 1891 |
| 33 | Corvalis, Oreg | Oregon State Agiricultural College. ....-- | 1870 |
| 34 | Kingston. P. I. | Rhode Island College of Agricuiture and Mechanic Arts.- | 1890 |
| 35 | Charleston, S. C | South Carolina Military Academy | 1843 |
| 35 | Clemson College, S | Clemson Agricultural College - | 1893 |
| 37 | Brookings, S. Dak | South Dakota Agricultural Colleg | 1884 |
| 38 | Rapid City, S. Dak... | (South Dakota) State School of Mines. | 1886 |
| 39 | College Station, Tex | Agricultural and Techanical College of Texas. | 1876 |
| 40 | Logan, Utah.- | Utain Agricultural College -....................... | 1830 |
| 41 | Blacksburg, Va | Virginia Agricultural and Mechanical Colleg | 1872 |
| 42 | Lexington, Va-............ | Virginia Military Institute | 1839 |
| 43 | Pullman, Wash .-........... | Washington Agricultural College and School of Science. | 1892 |

schools of technology．

| Professors and instrustors． |  |  |  |  |  | Students． |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Prepara－ tory de－ partinent． |  | Collegiate depart－ ment． |  | Total number （exclud－ ing dupli－ cates）． |  | Prepara－ tory de－ partment． |  | Collegiate depart－ ment． |  | Graduate department． |  |  |  | Total number （exclud－ ing dupli－ cates）． |  |  |
|  |  | Resident． | Non－ resident． |  |  |  |  |  |  |  |  |
|  |  |  |  | $\frac{\stackrel{y}{3}}{\stackrel{y y y y y y}{c}}$ |  | $\begin{aligned} & \stackrel{\oplus}{\leftrightarrows} \\ & \text { ت゙ } \\ & \text { 感 } \end{aligned}$ |  |  |  | $\stackrel{\text { ® }}{\text { 嵒 }}$ |  | 永 |  | $\stackrel{\dot{9}}{\stackrel{\text { ® }}{4}}$ |  |  | ¢ |  |
| 4 | 5 | 6 | \％ |  |  | 8 | 9 | 16 | 11 | 83 | 18 | 1是 | 是可 | 16 | 18 | 且4 | 15 |  |
| 1 | 0 | 33 | 0 | 33 | 0 | 29 | 0 | 209 | 20 |  |  |  | 0 | 321 | 20） |  |
| 0 | 1. | 19 | 2 | 22 | 3 | 28 | 17 | 154 | 39 |  |  |  | 1 | 245 | 99 |  |
| 0 | 0 | 12 | 0 | 1\％ | 0 | 0 | 0 | 175 | 1 |  |  |  | 0 | 180 | 1 |  |
| 0 | 0 | 12 | 3 | 12 | 3 | 0 | 0 | 84 | 24 |  |  |  | 0 | 84 | 24 |  |
| 2 | 0 | 13 | 0 | 15 | 0 | 100 | 0 | 167 | 0 |  |  |  | 0 | 267 | 0 |  |
| 14 | 2 | 28 | 3 | 42 | 28 | 1.6 | 8\％ | 143 | 1 |  |  |  | 0 | 349 | 703 |  |
| 0 | 0 | 58 | 6 | 58 | 6 | 0 | 0 | 617 | \％ 6 | 21 |  | 15 | 0 | 653 | 97 |  |
| 0 | 0 | 20 | 0 | 20 | 0 | 0 | 0 | 100 | 0 |  |  |  | 0 | 104 | 0 |  |
|  |  | 49 | 10 | 49 | 10 | 45 | 26 | 460 | 109 |  |  |  | 0 | 510 | 123 |  |
| 6 | 2 | 18 | 6 | 24 | 8 | 62 | 15 | 426 | 243 | 30 |  |  | 2 | 521 | 282 |  |
| 0 | 0 | \％0 | 0 | 70 | 0 | 0 | 0 | 259 | 0 |  |  |  | 0 | 262 | 0 |  |
| 0 | 0 | 19 | 0 | 19 | 0 | 0 | 0 | 131 | 0 | 1. |  |  | 0 | 173 | 0 |  |
| 0 | 0 | 131 | 1 | 131 | 1 | 0 | 0 | 1，062 | 69 | 6 |  |  | 0 | 1，129 | 72 | 13 |
|  | 0 | 30 | 0 | 30 | 0 | 0 | 0 | ${ }^{2} 16$ | 0 |  |  |  | 0 | － 216 | 0 | 14 |
|  | 0 | 37 | 5 | 37 | 5 | 0 | 0 | 319 | 80 |  |  |  | 0 | 386 | 83 |  |
| 0 | 0 | $1 \%$ | 0 | 17 | 0 | 0 | 0 | 122 | 0 |  |  |  | 0 | 122 | 0 | 16 |
| 3 | 0 | 18 | 0 | 21 | 0 | 91 | 2 | 190 | 9 |  |  |  | 0 | 285 | 11 | 17 |
| 6 | 0 | 8 | 0 | 14 | 0 | 224 | 0 | 24 | 0 |  |  |  | 0 | 248 | 0 | 18 |
| 1 | 2 | 12 | 4 | 13 | 6 | 98 | 85 | 13 | 5 |  |  |  | 0 | 111 | 90 | 19 |
| 8 | 0 | $1 \%$ | 0 | 17 | 0 | 7 | 0 | 65 | 14 |  |  |  | 0 | 96 | 14 | 20 |
| 10 | 0 | 21 | 0 | 31 | 0 | 145 | 0 | 230 | 0 |  |  |  | 0 | 375 | 0 | 21 |
| 1 | 0 | 8 | 0 | 9 | 0 | 45 | 0 | 161 | 14 |  |  |  | 0 | 206 | 14 | 22 |
| 1 | 3 | 14 | 3 | 14 | 3 | 98 | 35 | 54 | 26 |  |  |  | 0 | 153 | 63 | 23 |
| 1 | 0 | 1 | 0 | $\stackrel{2}{2}$ | 0 | 14 | 1 | 3 | 2 |  |  |  | 0 | 17 | 3 | 24 |
|  |  | 6 | 0 | 6 | 1 | 4 | 2 | 24 | 0 |  |  |  | 0 | 37 | 110 | 25 |
|  | 0 | 15 | 0 | 13 | 0 | 0 | 0 | 138 | 0 |  |  |  | 0 | 138 | 0 | 26 |
| （ | 0 | 55 | 0 | 55 | 0 | 0 | 0 | 233 | $\theta$ |  |  |  | 0 | 233 | 0 | 27 |
| 6 | 1 | 9 | 1 | 9 | 1 | 30 | 31 | 37 | 12 |  |  |  | 0 | 74 | 43 | 28 |
| 0 | 0 | 22 | 0 | 28 | 0 | 0 | 0 | 210 | 0 | 1. |  |  | 0 | 355 | 0 | 29 |
| 3 | 2 | 10 | 2 | 13 | 4 | 134 | 41 | 32 | 20 |  |  |  | 0 | 169 | 61 | 30 |
| 0 | 0 | 20 | 0 | 20 | 0 | 0 | 0 | 224 | 0 | 16 |  |  | 0 | 210 | 0 | 31 |
| 1 | 1 | 9 | 0 | 10 | 1 | 59 | 39 | 50 | 20 |  |  |  | 0 | 110 | 59 | 3 3） |
| 0 | 0 | 21 | 6 | 21 | 6 | 0 | 0 | 177 | 144 |  |  |  | 0 | 181 | 159 | 33 |
| 0 | 0 | 18 | 7 | 18 | $\frac{1}{6}$ | 0 | 0 | 96 | 48 |  |  |  | 0 | 101 | 50 | 34 |
| 0 | 0 | 9 | 0 | 9 | 0 | 0 | 0 | 125 | 0 |  |  |  | 0 | 125 | 0 | 35 |
| 5 | 0 | 24 | 0 | 29 | 0 | 240 | 0 | 200 | 0 | 10 |  |  | 0 | 450 | 0 | 35 |
| 5 | 0 | 10 | 4 | 15 | 4 | 36 | 12 | 215 | 118 |  |  |  | 3 | 268 | 138 | 37 |
| 0 | 0 | 5 22 | 0 | 22 | 0 |  | 0 | 21 334 | 0 0 |  |  |  | 0 | ${ }_{3}^{21}$ | 0 | 33 39 |
| 3 | 0 | 17 | 4 | 20 | 4 | 209 | 8 | 103 | 61 | 1 |  |  | 0 | 313 | 131 | 40 |
| 0 | 0 | 31 | 0 | 31 | 0 | 0 | 0 | 294 | 0 | 39 |  |  | 0 | 333 | 0 | 41 |
| 0 | 0 | 14 | 0 | 14 | 0 | 0 | 0 | 221 | 0 |  |  |  | － 0 | 222 | 0 | 42 |
| 4 | 1 | 20 | 1 | 22 | $\stackrel{\sim}{2}$ | 119 | 73 | 110 | 55 |  |  | 0 | 0 | 231 | 143 | 43 |

Table 46.—Statistics of schools

|  |  |  |  |  |  |  |  |  | ibrary |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\left\lvert\, \begin{gathered} \text { pen } \\ \text { in co } \\ \text { gia } \\ \text { dep } \\ \text { me } \end{gathered}\right.$ | ses | $\begin{array}{r} \text { Ann } \\ \text { livi } \\ \text { ex } \\ \text { pens } \end{array}$ | $\begin{aligned} & \text { nual } \\ & \text { ing- } \\ & \text { ses. } \\ & \text { ses. } \end{aligned}$ | $\stackrel{\dot{x}}{\stackrel{\dot{x}}{\square}}$ |  |  |  |  |
|  |  | $\begin{aligned} & \dot{0} \\ & \text { © } \\ & \text { \# } \\ & \text { \# } \\ & \text { E } \end{aligned}$ |  |  |  |  |  | $\begin{aligned} & \text { E } \\ & \text { B } \\ & \text { B } \\ & \text { O} \\ & \text { 菏 } \end{aligned}$ |  | $\stackrel{\text { ¢ }}{\stackrel{\circ}{\text { ® }}}$ |
|  | 2 | 28 | ${ }^{1} 1$ | 89 | 2B | 9 ${ }^{\text {d }}$ | 25 | 28 | 8\% | 29 |
| 1 | Alabama Agricultural and Mechanical College | (a) | \$12 |  | \$160 | 0 | 13 | 9,850 | 8,415 | 14,000 |
| $\begin{aligned} & 1 \\ & 2 \\ & 3 \end{aligned}$ | Colorado Agricultural College | 0 |  | 120 | 140 | 0 | , | 9, 968 | 1,021 | 10,439 |
| $\begin{aligned} & 3 \\ & 4 \end{aligned}$ | (Colorado) State School of Mine | 0 0 | 0 | 1200 | 300 125 | 0 | - 0 | 3,757 5,000 | 600 600 | 11,600 5,500 |
| 5 | Georgia school of Technology | 825 | 20 | 50 | 90 | 0 | 0 |  |  |  |
| 6 | Armour Institute of Technology | 75 |  |  |  |  |  | 15,000 | 300 | 15,000 |
| 7 | Purdue University |  | $\left\{\begin{array}{l}27 \\ 35\end{array}\right.$ | 150 | 250 | 0 | 0 | 8,098 | 2,354 | 15,000 |
| 8 | Rose Polytechnic Instit | 75 |  | 225 | 275 |  |  | 8,500 | 1,000 | 17, 000 |
| 9 | Iowa Agricultural College |  |  | 111 |  | 0 | 0 | 11, 458 | 2,000 | 15,000 |
| 10 | Kansas Agricultural College | 0 |  | 100 | 200 | 0 | 0 | 19,040 | 14,000 | 33, 219 |
| 11 | United States Naval Academy | 0 |  |  |  | 0 | 0 | 38,000 |  | 33,000 |
| 13 | Massachusetts Agricultural College | $b 0$ |  | 231 | 550 | 0 |  | 18,600 |  | 18,600 |
| $1 \pm$ | Massachusetts institute of Technolog | 200 |  |  | 500 | 2 | 70 | 40,015 | 14, 148 | 100, 000 |
| $1 \pm$ | Worcester Poly technic Institute | 160 |  | 200 | 300 |  | 65 | 4,900 | 3,000 | 10,000 |
|  | Michigan Agricultural College | 0 |  | 125 | 150 |  |  | 21,000 | 4,000 | 42, 125 |
| 10 | Michigan College of Mines --.-.-...-.-.-.-.-- | c25 |  | 162 | 225 | 0 | ${ }_{4}^{4}$ | 13, 600 | 1,60 | 29, 840 |
| 17 | Mississippi Agricultural and Mechanical College. | 0 |  | 75 |  | 0 | 0 | 6,487 3,520 | 7,690 4,800 | 8,520 4,000 |
| 19 | Alccrn Agricultural and Mechanical College. |  |  |  |  |  |  | 3,520 | 4, 800 | 4,000 |
| 19 | Montana College of Agriculture and Mechanic Alts. | 0 |  |  | 190 |  |  | 3,30] | 2,000 | 6,000 |
| 20 | New Hampshire College of Agriculture and Mechanic Arts. | 60 | 15 |  | 123 | 0 | 54 | 5,600 | 3, $\% 00$ | 6,600 |
| 21 | Stevens Institute of Technology ................ | 2150 |  | 250 | 300 | 0 | 19 | 9,300 |  | 18,000 |
| ${ }_{22}^{22}$ | Newark Technical School ...................... |  |  |  |  | 0 | 0 | 700 |  | - 800 |
| 23 | New Mexico College of Agriculture and Mechanic Arts. | 10 |  |  |  | 0 | 0 | 3,316 | 1,000 | 7,500 |
| $2 \pm$ | New Mexico School of Mines.......-.-.-. - | 10 |  | 200 | 250 |  |  | 200 | 300 | 475 |
|  | Clarkson School of Technology | 00 |  | 100 | 15 |  |  | 540 | 456 | 1,776 |
| 26 | Rensselaer Polytechnic Institute | 200 |  | 190 | 310 | 0 | 0 | 6. 500 | 1,590 | 10,000 |
| 27 28 | United States Military Academy | 0 |  |  |  |  |  | 41,544 | 6,689 | 50, 000 |
| 28 | Agricultural and Mechanical College for the Colored Race. |  |  |  |  |  |  | 714 | 2,000 | 1,090 |
| 29 | North Carolina College of Agriculture and Mechanic Arts. | 20 | 5 | 130 | 150 |  |  | 1,2\%4 |  | 1,500 |
| 30 | North Dakota Agricultural College-...----- | 0 |  | 150 | 200 | 0 | 0 | 4,075 | 600 | 5,000 |
| 31 | Case School of Applied Science. | 100 |  | 95 | 15. | 0 | 20 | 2,000 |  | 5,000 |
| 32 | Oklahoma Agricultural and Mechanical College. |  |  |  |  | 0 | 0 | 4,200 | 3,000 | 7,500 |
| 33 | Oregon State Agricultural College .-.-- |  |  | 100 | 150 |  |  | 5,700 |  | 6,000 |
| 34 | Rhode Island College of Agriculture and Mechanic Arts. | 0 |  |  | 195 |  |  | 6,750 | 7,500 | 11,625 |
| 35 | South Carolina Militar'y Academy. |  |  |  |  |  | 68 | 5,000 | 400 | 5,000 |
| 8 | Clemson Agricultural College | 40 | 5 | 100 |  | 0 | 0 | 5,100 | 2,000 | 8,600 |
| $3{ }^{\prime \prime}$ | South Dakota Agricultural College | 12 |  | 145 | 200 | 0 | 0 | 5,900 | 9,509 | 10,000 |
| 38 | (South Dakota) State School of Mines........ |  |  |  | 190 | 0 | 0 | 500 | 200 | 800 |
| 39 | Agricultural and Mechanical College of Texas. | 0 |  | 110 | 110 | 0 | 0 | 5, 090 | 3,500 | 6,000 |
| 40 | Utah Agricultural College .-....-.-.-.-. | 0 | 5 | 80 | 90 |  |  | 5, 100 | 3,750 | 8,000 |
| 41 | Virginia Agricultural and Mechanical College | 30 |  |  | 90 |  | 209 | 2,500 | 5 300 | 2, 2,000 |
| 42 |  | 85 |  | 330 | 365 |  | 54 | 10,000 | 5,283 |  |
| 43 | Washington Agricultural Coilege and School of Science. |  |  |  |  |  |  | 3,330 | 1,836 | 5,000 |

$a$ Free to residents: $\$: 20$ to nonresidents.
$6 \$ 80$ to nonresidents.
$c$ To residents; $\$ 150$ to nonresidents.
$d$ To residents; $\$ 25$ to nonresidents.
of technology-Continued.

|  |  | Income. |  |  |  |  |  |  | Benefactions. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | $\begin{aligned} & \text { ت゙ं } \\ & \stackrel{0}{0} \\ & \text { Hi } \end{aligned}$ |  |  |
| 29 | 83 | 31 | 318 | 83 | E ${ }^{1}$ | 85.5 | 36 | 38 | 38 |  |
| 869,3C0 | \$136, 418 | Q253, 500 | \$180 | \$20,230 | 89, 988 | 837, 524 | \$3, 90? | S69, 174 | 0 | 1 |
| 30, 000 | 192, 229 | 48,583 | 0 | -2, $50 \frac{1}{2}$ | 45, 827 | 38, 000 | 1,561 | 83, 892 | 0 | 2 |
| 37,509 | 140,000 |  | 0 | 0 | 3£,000 | 0 | 0 | 34, 009 | 9750 | 3 |
| 5,389 | 100,000 | 135,000 | 0 | 6,750 | 19, 000 | 38, 000 | 0 | 59, 750 | 0 | 4 |
| 50,000 | $\begin{array}{r} 150.000 \\ 2,000,000 \end{array}$ | 0 | $\begin{array}{r} 3,000 \\ 30,000 \end{array}$ | 0 | 25, 000 | 0 | \% 0,000 | $\begin{array}{r} 28,090 \\ 100,(100 \end{array}$ | 0 | 5 |
| 2\%5, 000 | 405, 000 | $3 \pm 0,000$ | 17,087 | 17,000 | 65,375 | 38,000 | 36, 544 | 174,000 | 5, 500 | 7 |
| 90,000 | 200.000 | 600, 000 | 8,000 | 33,000 | - 0 | - 0 | - 0 | 41,000 |  | 8 |
| 160,000 | 470,090 | 681, 034 | 8, | 50, 049 | 28,900 | 38,000 | 63, 471 | 180, 420 |  | 9 |
| 60,658 | 254, 225 | 508, 479 | 0 | 27,700 | 5,000 | 38, 000 | 11,993 | -82, 693 | 59 | 10 |
| 100,000 | 795, 896 | - 0 | 0 | 0 | 0 | 203, 719 | 0 | -203, 719 | 0 | 11 |
| 8,750 | 23\%, 775 | 300, 575 | 500 | 10, \%96 | 23,000 | 30,333 | 0 | 66, 80$\}$ |  | 12 |
| 200, 009 | ¢50,000 | 650, 060 | 215, 015 | 72, 174 | 25,000 | \%,66\% | 2, 133 | 320, 639 | 59,231 | 13 |
| 90,000 | 500,000 | 610,000 | 25, 000 | 31,000 | 3,000 | - 0 | - 0 | 63, 000 | 11,000 | 14 |
| 104,090 | 355. 239 | 625, 000 | 140 | 45, 843 | 11,000 | 38,000 | 18, 688 | 114, 671 |  | 15 |
| 121, 685 | 130,971 | - 0 | 1,140 | - 0 | 40, 000 | - 0 | 5, 5\%0 | 46.710 |  | 16 |
| 8, 30 | $175, \geqslant 60$ | 98,575 | 180 | 5,915 | 20,500 | 25, 681 | 14, 721 | 66, 99\% | 0 | 17 |
| 88,750 | 63,750 | 98,5\%5 | 0 | 6,815 | 34,629 | 12.319 | 0 | 53, 763 |  | 18 |
| 10,000 | 120,000 | 0 | 2,010 | 0 | 12,030 | 38,000 | 0 | 52,010 |  | 19 |
| 42,000 | 183, 881 | 116,090 | 0 | 6,800 | 5,000 | 38,000 | 0 | 49,800 | 10,000 | 20 |
| 50,000 | 337,000 | 4 4\%\%, 000 | 33,696 | 19,950 | 0 | 0 | 3,386 | 57, 038 |  | 21 |
| 5,000 | 70,000 | 0 | 391 | 0 | 10,000 | 0 | 0 | 10, 341 | 3,500 | $\stackrel{21}{2}$ |
| 20,000 | 61,000 | 0 | 900 | 0 | 4, $64 \%$ | 38,000 | $3 \%$ | 43, 920 | 0 | 23 |
| 1,000 | 45,000 | - 0 | 200 | 0 | 4,080 | 0 | 52 | 4.332 |  | 21 |
| 18, 524 | 124, 276 | 300, 000 | 2,628 | 19,009) | 0 | 0 | 940 | $2 \%, 568$ | 75.3 | 25 |
| 20,944 | 125,000 | 141, 765 | 25, 770 | 6,511 | 0 | 0 | 401. | 32,68: |  | 23 |
| 450,000 | 2,000,000 | 0 | 0 | 0 | 0 | 4\%9,5\%3 | 0 | 479,573 |  | 27 |
| 18,000 | 42,000 | 0 | 0 | 0 | 12, 500 | 8,06: | 110 | 20,674 |  | 8 |
|  | 83, $55 \pm$ | 125,000 | 4, 083 | 7,590 | 7,500 | 14, 936 | 0 | 34, 019 |  | 29 |
| 18,000 | 120,000 | 0 | 0 | 0 | 16,000 | 38,000 | 2,500 | 56,500 |  | 30 |
| 75, 000 | 500,000 | 2,000,000 | 18,000 | 45, 000 | 0 | -38, 0 | -1.0 | 63, 060 |  | 31 |
| 20,000 | 25, 000 | $0$ | 0 | 0 | 500 | 38,000 | 1, 16\% | 39,667 | 100 | 32 |
| 8,000 | 53, 000 | 137, 306 | 0 | 12, 578 | 5,000 | 38,000 | 1,161 | 56, 739 |  | 33 |
| 79,566 | 170,950 | 50,000 | 0 | 2,942 | 32,150 | 38,000 | 6,000 | \%9,032 |  | 34 |
| 5,000 | 85, 0000 | 151, 139 | 17,109 | $\bigcirc$ | 20,000 | - ${ }^{0}$ | 0 | $3 \% 100$ |  | 35 |
| 50, 000 | 220,000 | 154, 139 | 1,350 | 9,265 | 56, 000 | 26,500 | ${ }^{0}$ | 93, 116 |  | 36 |
| 30,000 | 80, 000 | 0 0 | 3, 365 | ${ }_{0}^{0}$ | 17,500 | 38, 000 | 1,968 | 60, 833 | 0 | 37 |
| 10, 2000 | 316, 385 | 209, 000 | 0 | 14,280 | 85, 5009 | 35, 250 | 0 | 8,600 | O | 33 39 |
| 50,000 | 171,800 | 200, 0 | 0 | 14, 0 | 12,250 | 38, (0)0 | 6,333 | 56,583 |  | 40 |
| 62,000 | 170,000 | 344,312 | 11,593 | 20,659 | 15,000 | 30, 333 | 0 | 77,585 |  | 41 |
| 15,000 | 250, 000 | 21,000 | 10,090 | 1,200 | 30, 000 | - 0 | 0 | 41,900 |  | 42 |
| 50,000 | 115, 000 | 0 | 0 | 0 | 11,595 | 38,000 | 3,7\%6 | 53, 321 |  | 43 |

## CHAPTER XLIII.

## PROFESSIONAL SCHOOLS.

The whole number of medical students for the year, of all classes excepting those in postgraduate schools, was 23,433 , a decrease of 944 since the previous year. This is the first time in ten years that a decrease in the number of medical students has occurred, the annual increase heretofore being constant and appreciable. Whether the lengthened course of four years and longer annual sessions, with a corresponding increase in expenses, cause young men to reflect more carefully before entering upon medical study is left for others to determine.
Theological students showed an increase of only 200 during the year, and for several years the increase in this class of students has been very slight. It is doubtful whether it has equaled the growth in population.
It is difficult to account for the seemingly abnormal increase in the number of law students. In 1896-97 they numbered 10,449 ; this year their number is 11,615 . A large increase has been regularly occurring for ten years, which shows that it is not an accidental variation. The ratio of increase during the last ten years has been $21 \%$ per cent, while medical students auring the same length of time increased only 79 per cent, and theological students only 28 per cent. The increase in the number of dental students in ten years has been remarkable also, viz, 327 per cent. Is it not possible that the large growth in these two classes, law and dentistry, is attributable to similar causes?

In former years it was customary for young men to study law in private offices, and dental students frequently obtained all their training under a private preceptor. Scarcely any young man would expect to acquire his dental knowledge in such manner at the present time, but he now determines what dental school he will attend almost as soon as he decides upon dentistry itself. The many advantages of systematic study in a law school, and the almost absolute necessity of such method of study in those States where full written examinations are required for admission to the bar, have caused the discarding, to a large extent, of study in private offices. This seems to be the most plausible explanation of the large number of students of law and dentistry, after making due allowance for the considerable increase now noticeable in the number of young men entering the professions generally, not only in this country, bat in others as well, particularly in Germany.

The diagram given shows the relative number of students of the different classes at three decennial periods-1878, 1888, and 1898. It will be seen that while the number of medical students in 1888 was nearly four times as great as the number in law, in 1898 it was only twice as great. The number of law students in ten years has risen much above the number in theology, and likewise the number in dentistry has nearly doubled the number in pharmacy. In 1878 there were fourteen times as many medical as dental students; in 1898 about three and onehalf times as many.

Table 1.-General summary of statistics of professional and allied schools for 1897-98.

| Class of schools. | Schools. | Instructors. | Students | Graduating. | Per cent graduating. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Theological | 155 | 958 | a 8,371 | 1,673 | 20 |
| Lav.... | 83 | $\stackrel{845}{24}$ | b 11,615 | 3, 065 | ${ }^{26}$ |
| Medical | 151 | 4,247 | 23,433 | 5,597 | 24 |
| Dental---..-.. | 50 | 961 | 6,774 | 1,848 | ${ }_{30} 7$ |
| Pharmaceutical | 45 14 | ${ }_{173}^{401}$ | 3, 712 | 1,129 | 30 |
| Veterinary --... | $\stackrel{14}{3 \%}$ | 173 | $\begin{array}{r}3: 6 \\ 8,805 \\ \hline\end{array}$ | 109 3,027 | 33 <br> 34 |
| Total. | 875 | 7,585 | 63, 036 | 16,448 | 28 |

a 198 women included.
$b 147$ women included.


TABLE 2.-Comparative statistics of professional and allied schools.

| Class. | 1877-78. | 1887-58. | 1897-98. | $\begin{aligned} & \text { Increase } \\ & \text { in } 10 \\ & \text { years. } a \end{aligned}$ | Increase in 20) years. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Theology: |  |  |  | Percent. | Per cent. |
| Schoois | 4, $\begin{array}{r}125 \\ 320\end{array}$ | $\begin{array}{r} 138 \\ 6,512 \end{array}$ | 8,371 |  | 91 |
| Graduates | +826 | -985 | 1,6\% |  |  |
| Law: ${ }_{\text {Le }}$ |  |  |  |  |  |
| Schools | 50, | ${ }^{49}$ | ${ }^{83}$ |  | 86 |
| Graduates | 1,162 | 1,299 | 13,065 | 1 | 6 |
|  |  |  |  |  |  |
| Schools .-.......- | 81 | 112 | 151 |  |  |
| Students. | 9,942 | 13,091 | 23,433 | 79 | 136 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Students | 8,279 | 11,172 | 21,00 | 88 | 151 |
| Graduates | 2,506 | 3,147 | 5,003 |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Students.- | 1,215 | 1,118 | 1,786 | 60 | 47 |
| Dentistry:Schools |  |  |  |  |  |
|  |  |  |  |  |  |
| Students. | 701 | 1,588 | 6, 7 74 | 327 | 866 |
| Graduates | 218 | 595 | 1,818 |  |  |
| Pharmacy:Schools |  |  |  |  |  |
| Graduates | 1,180 | -692 | 1,129 |  | 1 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Students.- |  | 323 | 326 | 1 |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Students.-- | 9 |  |  | \%06 |  |
| Graduates |  |  |  |  |  |

a From 1888 to 1895

## LAW SChOOL OF THE UNIVERSITY OF MAINE. ${ }^{1}$

The trustees of the University of Maine voted to open a law school October 5, 1898 , in the city of Bangor, having a population of about 23,000 ; the university proper being at Orono, 9 miles distant. With no law school in New England north of Boston, the constituency to which it appeals is a wide one, and it is believed that there is abundant room for the development of a large and prosperous school.

In conformity to the requirements for admission to the bar in the State of Maine, the course of study has been arranged to cover two years.

## CONSOLIDATION OF MEDICAL COLLEGES.

At the graduating exercises of the Medical College of New York University (in 1898), the chancellor, Rev. Dr. Henry M. MacCracken, announced that a consolidation of the medical department with the Bellevue Hospital Medical College had been effected, and that the resulting institution would be called "The University and Bellevue Hospital Medical College." Dr. Edward G. Janeway, it was stated, would be the dean of the faculty. ${ }^{2}$
Atlantu ITedical College and the Southern Medical College have been united under the name of the Atlanta College of Physicians and Surgeons. For many years both of these schools have been in a very flourishing condition, and naturally both have been rivals for popular prestige. The Atlanta college was the older,

[^72]and, in fact, one or the oldest in the South, while on the other haud, the Southern had already attained a high position for its thorough curriculum. ${ }^{1}$

The Cleveland Medical College of Ohio and the Cleveland University of Medicine and Surgery were united in May, 1897, under the name of the Cleveland Homeopathic Medical College.
Buffalo University medical department and the Niagara University medical school were consolidated in 1898. The faculties of the two institutions will henceforth work together under the charter of the University of Buffalo. This will add materially to the teaching strength of the institution, as the Niagara faculty brings not only a number of strong and experienced teachers, but also a quantity of valuable apparatus, books, pathological specimens, and a great amount of material for clinical instruction. ${ }^{2}$

Rush Medical College ${ }^{3}$ entered into relations of affiliation with the University of Chicago in April, 1898. One of the conditions precedent to affiliation was the removal of a debt of $\$ 71,000$ against the coilege. This was raised by the gift of $\$ 25,000$ each from Dr. Nicholas Senn, professor of surgery, and Dr. Ephraim Ingals, professor emeritus of materia medica and therapeutics. The remainder of the debt was raised by subscription from the other members of the faculty. In view of the generous gifts of the above-named gentlemen, the trustees established the Nicholas Senn professorship of surgery and the Ingals professorship of therapeutics and preventive medicine.

Rush Medical College has adopted the quarterly system in vogue at the University of Chicago, which will go into effect the present year. ${ }^{4}$ The academic year will begin July 1, and will be divided into four quarters, designated the summer, autumn, winter, and spring quarters, and beginning on the first day of July, October, January, and April, respectively. Instruction will be given in all departments during each quarter, and the several courses will be so arranged that a student can begin his medical study at the commencement of any quarter, and continue it advantageously. He may continue in residence at the college as many successive quarters as he desires, but credit will not be given for more than three successive quarters. Attendance upon twelve quarters will be required for graduation, and at least forty-five months must intervene between the beginning of a student's first course of medical study and the date of his graduation.

CORNELL UNIVERSITY MEDICAL COLLEGE. ${ }^{5}$
The event of the year, and one of the epoch-making events in the entire history of Cornell University, was the establishment of the medical college. Ever since the university opened, its sanguine friends have dreamed of a medical department; but the treasury was always overdrawn for the support of existing departments, and no benefactor came forward with an endowment for a department of medicine. It is true that from time to time proposals were received for the federation of independent medical schools in other cities, but such unions offered no prospect for the advancement of medical education, and the university shrank from even a nominal connection with proprietary institutions whose ultimate object was economic and financial, not scientific and educational.

But if Cornell had no medical department, she cultivated with special zeal and assiduity those biological sciences which form the scientific foundation of the medical profession. Furthermore, this university recognized the indispensable importance of these sciences to the physician and surgeon at a time when-to

[^73]quote from Prof. Burt G. Wilder's writings in 18i5-students of medicine were accustomed to hear "lectures upon surgery without any knowledge of anatomy, and upon therapeutics while ignorant of physiology." Indeed, within two years after its opening in 1868, Cornell University had arranged a four-years' course in natural history, leading to the degree of bachelor of science, which was well adapted to the needs of students who contemplated the study of medicine; and, in 1878 , for such students as could not take this full course, a shorter two-years' course was provided, in which a large amount of time was devoted to practical work in anatomy, physiology, histology, and chemistry. Thus, Cornell University, from the beginning, has recognized and acted upon the first great principle of medical education, the principle so emphatically enunciated by Professor Huxley in his address to the medical students of University College, London: "I do not believe that all the talking about and thinking of medical education will do the slightest good until the fact is clearly recognized that men must be thoroughly grounded in the theoretical branches of their profession."

The theoretical branches of the medical profession have been well taught in the scientific laboratories of Cornell University, and they must be even more fully and thoroughly taught in the future. But medicine is an art as well as a science. The practical part of the curriculum presupposes hospitals, clinics, and dispensaries, which exist in sufficient supply only in a large city. If a medical course is given in a small city or village where these facilities do nos exist, it is no better than the teachings of physics and chemistry without a laboratory. It follows, therefore, as a second principle of medical education, that for the pureiy professional subjects of the curriculum students should have access to the hospitals and dispensaries of a large city, which, in the case of Comell University, should undoubtedly be the city of New York. The ideal arrangement would be for students to complete their scientific training in the extensive laboratories of the university at lthaca and then take their professional branches under medical professors in New York who are entitled to utilize, for teaching purposes, the vast quantity and variety of clinical material found in the great city hospitals.

For Cornell University, therefore, situated as it is in a small city, the ideal of a medical department would be one which should be located in New York City, but which should at the same time utilize the scientific instruction offered in the academic department at Ithaca. In practice this means provision for a full fouryears' course in New York, with the duplication at Ithaca of the first two years of the course-the scientific bases of medicine-anatomy, physiology, chemistry, bacteriology, histology, etc. For Cornell University, therefore, Hurley's saying is especially true, that " the question of medical education is, in a very large and broad sense, a question of finance."

Thanks to the generosity and wisdom of Col. Oliver H. Payne, this ideal is an actuality. A gift for the establishment and maintenance of a medical department of this miversity having been tendered to the trustees by him, it was, at a special meeting of the board, held April 14, 1898, voted to "establish a medical department in New York City, to be known and designated as the Cornell University Medical College, of which a portion of the instrnction may be duplicated in Ithaca." Six professors were then elected to chairs in the new department, to which were subsequently added 5 more members of the faculty and 56 clinical professors, instructors, clinical assistants, etc. With this teaching staff of 67 in the medical college, assisted by the professors in the scientific departments of the university, the new department will begin its first year on October 4, 1838.

All the advantages of Cornell University, rural and urban, will be combined for the strudent of the science of medicine. The great hospitals of New York City, with which an unusually large proportion of the faculty are connected in the capacity of surgeons or physicians, make it imperative that the last two years of
the course should be taken by all students of the college in that city, where the opportunities of clinical instruction are literally unsurpasser.

To the student, too, who aims to excel in his profession, and to that end is not contented with completing the bare minimum of work necessary to obtaining his professional degree, Cornell University offers further encouragement. In the academic department the student has abso'ute liberty in the choice of studies, so that, if the future medical student enters that course he may, while cultivating letters and philosophy, at the same time master thoroughly his anatomy, physiology, histology, chemistry, physics, and botany, and at the end of four years receive his A. B. degree. There then would remain of the medical curriculum only the professional branches, which he could compass in the next two years in New York City. Thus, thanks to the elective system, he woald win both the A. B. and the M. D. degress in six years, though each separately requires four years.

A building in the grounds of the Bellevue Hospital has been leased from the commissioner of charities for the use of the medical college during the year 1898-99. A site for the permanent home of the dopartment has been purchased at a cost of $\$ 150,000$. It comprises the entire First Avenue front of the block lying between Twenty-seventh and Twenty-eighth streets, a space of 100 by 200 feet.

## HIGHER TRAINING FOR MILITARY SURGERY AND SANITATION.

## [By George M. Kober, M. D., Washington, D. C. ${ }^{1}$ ]

Perhaps no subject just now is of greater interest to the profession and the public than the training of medical men as future medical officers of the Army. Few men will question that military surgery and sanitation should have a place in the medical-college curriculum. Those who are in doubt will simply have to recall our experience in past wars and consider the probabilities of the future.

In the Crimean war the French army lost 1 man out of 3 of the whole army, and of 95,613 lives lost only 10,240 were killed, about as many died of wounds, while the remainder, more than 75,000 , died of disease.

The total deaths in the Union Army during our civil war numbered 259,496, or over 15 per cent of the entire number of enlistments. Of this number, 124,586, or nearly one-half, died from disease, while 134,910 were killed in battle or died from the effects of wounds. Indeed it is calculated that in that war the Union Army treated over $6,000,000$ cases, including 151,384 cases of continued fever, mostly typhoid, $1,739,135$ cases of diarrhea and dysentery, 76,318 cases of measles, 18,952 cases of smallpox, and 24,812 cases of erysipelas.
"What an excess of pain and sorrow-what an ocean of tears and blood-are contained in these figures!"
Consider, if you please, that in addition to this terrible sacrifice of human life a generous nation expends $\$ 140,000,000$ a year for the support of invalids of this war.

In spite of this array of preventable diseases, Professor Virchow, the highest medical authority in Germany, in reviewing the medical history of that war, said: "That the French in the Crimea learned from their experience little or nothing, and the Americans during the civil war so much, was not due to the magnitude of the need which the Americans had to suffer-for this was not greater than that experienced by the French in the Crimea-but rather to the critical and truly scientific spirit, the open mind, the sound and practical common sense which in America gradually permeated all departments of army organization, and which, under the wonderful cooperation of an entire nation, reached the highest point of humane effort ever attained in a great war."

From this time dates a new era in military medicine, and the knowledge purchased at so vast an expense, has had a beneficial influence upon other armies and borne fruit in our recent brief but glorious war; for, notwithstanding the most unjust criticism of the press, the work of the Medical Department of the Army, in the face of adverse climatic conditions, shows a marked improvement over that performed heretofore.

We cught not to judge the efficiency of the Medical Corps by a few isolated cases of suffering and distress incident to the exigencies of war; but should estimate the work by the grand total accomplished.

[^74]The War Department, on October 4, posted a bulletin showing the number of deaths from all causes between May 1 and September 30 to have been as follows:
Killed, 23 officers and 257 enlisted men; died of wounds, 4 officers and 61 enlisted men; died of disease, 80 officers and 2,485 enlisted men, being an aggregate of 2,910 out of a total force of 274, \% 17 officers and enlisted men, or a percentage of 1.59 .

In estimating these percentages due allowances should, of course, be made for the comparative short duration of the recent war; and reliable conclusions can only be drawn by comparing the statistics of the first six months of our civil war with the corresponding period of the Spanish-American war. This, at present, is not practicable; but we do know that among 20,000 troops stationed at Camp Alger, Va., at the close of the second month of its recent occupancy, there were only 39 cases of typhoid fever, while at the corresponding period of 1861 the same number of troops near Washington furnished 166 cases.

When it is remembered that the largest percentage of sickness and mortality generally occurs during the first ferv months of a war-because large numbers of unseasoned troops are aggregated in military camps, and their very ages, from 18 to 30 , together with a radical change in the mode of living, render them especially liable to typhoid fever infection-we may confidently expect that future comparisons with troops exposed to similar influences will show that the Medical Corps has kept pace with the progress of preventive medicine. Indeed, the medical statistics so far at hand clearly demonstrate its success in diminishing the horrors of war.

All this is the more creditable when we consider that the United States, with a small standing army and a small corps of trained medical officers, was suddenly involved in war, absolutely unprepared for the struggle, except that we had men gifted with good common sense, powers of observation and application, and a generous nation to provide the necessary means.

If the American medical staff accomplished so much without special training, how much more might have been achieved had the volmnteer medical officers enjoyed instruction in military surgery and sanitation such as is given in the Army Medical School in this city, established by Surgeon-General Sternberg five years ago, as one of his first official acts.

Some one will say, "Necessity is the mother of invention. Experience is the best teacher. We did it before, and we can do again." Yes; but who can deny that had the medical officers of our wars known more of army diseases, their causes and prevention; had they appreciated the importance of military sanitation and the routine of their official duties, the results, creditable as they are, would have been still more satisfactory?
It is true the volunteer medical officer is perfectly familiar with surgery and medicine. Their practice from civil life does not differ save in the circumstances which surround them; but it is not so with his official and sanitary duties, and, as well expressed by a competent critic, " the difficulties encountered by the Army Medical Department were due to the impossibility of having in so short a time an experienced and well-disciplined medical force sufficiently strong in numbers to control the sanitary situation in an aggregation of a quarter of a million of men hurriedly thrown together in military camps."

Our Army certainly needs reorganization. Instead, however, of attacking a faulty system, for which the people or their representatives in Congress are largely to blame, the present chief of the Army Medical Department has been made a target for most unjust criticism. He appears to be held responsible for the care of every individual sick, for the sanitary condition of camps, for the misdeeds of his subordinates, for the failure of the Quartermaster's Department to land medical supplies, etc.; but this earnest, hard-working officer needs no vindication at my hands. History will do this when the facts are known, and the facts already developed reflect the highest credit upon his administration.
His circular of April 25, four days after the declaration of war, in which he urged on medical and commanding officers the importance of sanitary precautions for the prevention of disease in camps, has alone saved thousands of lives, as judged by the experience of former wars.

The question naturally arises, What can be done to secure an experienced sanitary corps of medical officers in the event of future wars? And the answer must be, we should either have a large standing army, fully trained and equipped for any and every emergency, or provide this special training in some other way.
One of our Presidents has said that, "under our system of government we will never have a large standing army, and our strength and safety are in a general dissemination of military knowledge among the people." This advice has been acted upon by numerous educational institutions teaching the coming men of America the elements of the art of war; but so far scarcely any of our medical colleges have deemed it necessary to teach their students the duties of medical officers. It is true the National Guard affords an opportunity for this training,
but even ir all the medical officers of the State troops were on the high plane of efficiency that a few have attained, they could not fill the demand of those needed in a war of any proportion, requiring at least one medical officer for every 200 fighting men; and we should, therefore, look to our medical schools for a systematic diffusion of military sanitation.

Our medical colleges have very generally introduced instruction in personal and public hygiene, and there should be no difficulty in convincing them that it is a patriotic duty to establish a course on military surgery and sanitation.

As a matter of fact, one of the medical schools in this city established such a course in 1894, and it is believed that interest in the general course on hygiene has been promoted thereby.

It is no more difficult to interest the average student in this than in any of the subjects tanght, provided the course is made obligatory and he is required to pass a satisfactory examination. This is sufficient to insure prompt attendance and attention; but apart from this we can appeal to the patriotism and ambition of the student.

It can not be expected that every young physician will or can choose the Army or other public service for his professional career; but there will be ample opportunities for the application of the knowledge thus acquired as sanitary officers in connection with health boards, as physicians and surgeons in charge of hospitals, reform schools, jails, prisons, and asylums, as ship and police surgeons, pension examiners, surgeons in the employ of railroad and mining companies, or of surveying expeditions, as medical examiners of insurance companies, and in the home of almost every patient.

When a student is told, for example, that the general rules to be observed in the examination of recruits will enable him to select able-bodied men for \% the police force and life insurance policies, and that the question of food, its preparation and the care of cooking utensils are of practical importance in the management of his patients, his interest in these subjects will be stimulated. Indeed, he will soon learn that the aphorisms of the army cook's creed are not less applicable to the civilian. Take, for instance, the following, the truth of which the soldier learned from bitter experience:
"Cleanliness is next to godliness both in persons and kettles. It is less dangerous to work your elbows than your comrade's bowels. Remember, that beans badly boiled kill more than bullets, and too much grease is more fatal than powder,"

The average student of to-day will not forget the import of these aphorisms, and takes pride in being able to explain that dirty and greasy pots furnish food for certain saprophytic germs and consequent toxic products, which in turn produce cholera morbus and other gastro-enteric disorders; that an excess of grease and improperly cooked beans render the digestive tract vulnerable to the germs of typhoid fever and dysentery, and are, to a great extent, responsible for the many cases of simple and chronic diarrhea. He will also appreciate the necessity of a prompt and correct diagnosis and proper disinfection, in order to limit the spread of typhoid fever and other infectious diseases, and will scarcely forget that good wholesome food and personal hygiene secure pure blood, which offers the best possible defense against microbial invaders.

The lectures on military hygiene and surgery may very properly be devoted to the following subjects:

1. The national necessity of instruction in military surgery and sanitation.
2. The duties of medical officers, professional and administrative.
3. The duties of medical officers as sanitary officers.
4. The importance of examination of recruits and discharges on surgeons' certificates.
5. The training of the hospital corps.
6. The hygiene of troops in permanent posts.
7. The hygiene of troops upon the march and in camps.
8. Preparation and supplies for field service and active hostilities.
9. Modern firearms, explosives, and projectiles.
10. The effects of modern firearms in battle and probable amount of surgical work in a given number of wounded.
11. General consideration of gunshot, sabre, and bayonet wounds.
12. Dressing stations, field, base, and general hospital.
13. Army diseases, their causes and prevention.

In order to supplement theoretical instruction by practical exporience, legislation should be invoked to enable respectable medical colleges to recommend to the Surgeon-General a certain number of qualified students for admission to the Army Medical School. Upon completion of their course, those passing the most creditable examination might be chosen to fill vacancies in the regular corps, while the
remainder should be appointed additional assistant surgeons for a term of two years, at the expiration of which they should return to civil life, obligated to render service whenever the exigencies of war require it.
The advantage of this plan, apart from supplying the public service with superior talent, woald be the creation of a strong reserve, whose special training would be invaluable, not only to State troops, but to the nation, in peace as well as in war.

In conclusion, let us not relax our efforts to elevate the standard of our beneficent profession. Progress has crowned our past. We will not retrograde. Let us, hand in hand, with heart and mind, join in promoting the welfare of American medicine until she has reached the proudest pinnacle in the world of learning, until she has become the fontainhead of all that is pure in scientific medicine.

## ELECTIVE STUDIES IN MEDICINE.

[By Dr. H. P. Bowditch, of the Harvard Medical School. ${ }^{1}$ ]
During the last quarter of a century the improvement in medical education in this country has consisted chiefy in increasing the requirements for admission, in lengthening the course, and in extension of the laboratory method of instruction. Important as these improvements have been, it may fairly be asked whether they have kept pace with the requirements imposed upon teachers by the remarkable advance in every department of medicine during the last thirty years.

During this period we have seen the germ theory of disease established upon a firm basis and extended so as to throw light upon a large number of morbid processes with which it was formerly supposed to have no connection. Antiseptic methods have revolutionized the surgeon's art. The study of the internal secretion of glands has led to the development of a system of glandular therapeutics. The use of the antitosin treatment has robbed one at least of the most dreaded diseases of more than half of its terror, while the use of instruments of precision has increased the accuracy of our diagnosis in nearly all the ills to which fesh is heir. * * *
To extend the course of instruction in the medical schools of this country beyond the present four-year limit does not, under the prevailing conditions of education in America, seem desirable, and the curriculum of most of our schools is already so crowded that no considerable amount of instruction can possibly be added. In what way, then, can we give to our medical students an adequate amount of information on all subjects embraced in the constantly widening domain of medical science and art? In other words, how shall instruction keep pace with knowledge?

In seeking an answer to this question it may be assumed that a medical school of the first rank should be an institution in which the most advanced instruction in all departments of medicine can be obtained, and on this assumption it is, of course, impossible to arrange a course of study that every stradent must follow in all its details, for in the time which may properly be devoted to a course of professional study it is quite impossible for even the most intelligent students to assimilate all the varied information which such a school may reasonably bo expected to impart.

It seems, therefore, to be evident that in arranging a course of medical study a distinction must be made between those subjects which it is essential that every student should know and those subjects which it is desirable that certain students should know, that is, between those things of which no man who calls himself a physician can afford to be ignorant and those which are important for certain physicians but not for all; in other words, provision must be made both for required and for elective studies.
The introduction of the elective system into a professional school is not an altogether novel proposition. For several years a large part of the instruction in the fourth year of the Earvard Medical School has been given in elective courses in various specialties, such as ophthalmology, otology, etc. The extension of the elective system to the earlier years of the course would be attended by no difficulty as far as details of administration are concerned, and has, indeed, been advocated by President Eliot in a speech at the dinner of the Harvard Medical Alumni Association in 1895. * * *
Any one who is familiar with the existing methods of medical instruction is aware that in nearly every department many things are taught which are subsequently found to be of use to only a fraction of those receiving the instruction.

[^75]Thus, the surgical anatomy of hernia is taught to men who will subsequentiy devote themselves to dermatology; future obstetricians are required to master the details of physiological optics, and the microscopical anatomy of tumors forms a part of the instruction of men destined to a career as alienists. Now, no one can question the propriety of including instruction on all these subjects in the curriculum of a medical school, but it may be fairly questioned whether every student should be forced to take instruction in them all. It may, perhaps, be urged that no choice of studies can be made without determining to some extent the direction in which the work of a future practitioner is to be specialized, and that such specialization can not be properly and safely permitted until the student has completed his medical studies. To this it may be answered that, whatever may be the dangers of too early specialization, the dangers of crowding the medical course with instruction of which many students do not feel the need, and of thus encouraging perfunctory and superficial work, are certainly no less serious. Moreover, it will doubtless be found perfectly possible to establish such a relation between the required and the elective courses that the requirements in each department will be in no way lowered, while a certain freedom of choice is permitted with regard to the direction in which the work is pursued.
It would doubtless be found desirable in practice not to confine the possibility of taking elective courses to the year in which the required instruction is given; for a student may frequently in the latter part of his course become interested in a subject like mental diseases, for instance, and will then be glad of an opportunity to take special instruction on the physiology of cerebral localization. The elective courses should, therefore, be so arranged that they may be taken in any part of the medical curriculum. ***

Under the existing conditions of medical education the introduction of the elective system in some form or other seems to be an essential condition to any further important advance. If it be said that under this system the medical degree will cease to have the definite meaning now attached to it, and that it will be impossible to tell from his diploma in what way a physician has been educated, it may be replied that, though the degrees of A. B., A. M., Ph. D., and S. D. are affected with exactly this same uncertainty of signification, their value seems in no way diminished thereby. As long as the M. D. degree stands for a definite amount of serious work on medical subjects, directed on lines above indicated, we may be reasonably sure that those who hold it will be safe custodians of the health of the community in which they practice.

If it be urged that the elective system in medical education will lead to the production of a class of physicians who, owing to the early specialization of their work, will be inclined to overrate the importance of their specialty and to see in every disease an opportunity for the display of their special skill, it may be pointed out that this result is apt to be due not so much to early as to imperfect instruction in the work of a specialist, and that, since the elective system tends to encourage thoroughness in special instruction, the evil may be expected to diminish rather than to increase.

## COST OF MEDICAL EDUCATION IN GREAT BRITAIN. ${ }^{1}$

The educational number of the British Medical Journal, August 27, contains the following data, which may prove interesting for a comparison with the requirements in this country:

The fee paid to medical schools for the full curriculum-the composition feevaries a good deal and ranges from a little under $£ 100$ to a little over $£ 150$. The difference, however, when spread over five years, is not very cousiderable, and we do not think that very much weight should be attached to this point in choosing a school. From $£ 30$ to $£ 50$ must be added for various necessary additional expensesfor extra classes, materials used in practical work, instruments, books, and subscriptions to clubs-so that it may ke roughly estimated that the sum paid by the medical student for his education should not exceed about £200 and may be made, perhaps, about $£ 50$ less. The fees to be paid for degrees or diplomas vary very much, but they may be set down, perhaps, at about $£ 50$.
As has been observed, the cost of living varies very much in different places. It is, for instance, decidedly lower in Aberdeen or Edinburgh than it is in London; but we may, perhaps, assume that a fair average will be about $£ 100$ a year, provided that the student lives free of expense during the Easter and summer vacations. To this must be added a suitable allowance for clothing and traveling expenses.

From this it will be seen that the estimated minimum, allowing £500 $(\$ 2,500)$ for five years' maintenance during the curriculum, and, say $£ 20$ ( $\$ 100$ ) a year for five years for incidentals-total $\$ 500$, will enable him to get his diplomas for from $\$ 3,900$ to $\$ 4,250$. But, as the editor says:

On the whole, it should not be expected that a student should be able to pass through the prescribed curriculum and obtain the necessary degrees or diplomas for an expenditure of less than $£ 1,000(\$ 5,000)$, and it must be recognized that this amount is very likely to be exceeded. In former times it was sometimes possible for the student to earn something during the last year or two of the curriculum, but this has now become extremely difficult, and the attempt ought not to be encouraged. The five years now prescribed is all too short a period within which to crowd the immense number of subjects with which the student is expected to become familiar.

## THE METRIC SYSTEM OF WEIGHTS AND MEASURES. ${ }^{1}$

The committee on weights and measures of the American Pharmaceutical Association, at its meeting in Baltimore, 1898, reported as follows:
Your committee, however, are pleased to reportsubstantial progress in the adoption and use of the metric system by the world at large. The most important advance in its recognition is the use of the metric system of weights and measures in the recently issued British Pharmacopœia; and although the old imperial system has also been given in this work, it is probable that the action taken is the stepping-stone to the exclusive adoption of the metric system in future editions of this authority. In addition to this a bill has passed both Houses of Parliament logalizing the system in Great Britain, and probably before this date has received royal assent. Russia has also made the adoption of the metric system a certainty after a stipulated date.
It is to be regretted that our own physicians do not more generally use the metric system in their everyday prescription writing. Our American physicians do not take up its use as rapidly as we would expect from members of a profession so progressive in science and in investigation.
This is no doubt largely due to the fact that medical students are still taught mainly in the old system of weights and measures, and the difficulty they experience in adapting new terms and calculations to the dosage which they have been taught prevents their serious consideration of the subject.
We can hope for no rapid progress in the use of the metric system in medicine until our medical schools and colleges teach this system alone and medical authors at least give it the preference rather than stating the equivalent in metric terms. In view of this fact your chairman would suggest that a resolution be passed by this association to be presented to the American Medical Association at its next meeting, to be held at Columbus, Ohio, requesting the American Medical Association to use its influence in bringing about the exclusive use of the metric system of weights and measures by all colleges and schools of medicine recognized by them in the United States.
This would require only such men as are engaged in scientific instruction in teaching medicine to change their old established methods of dosage and calculations, and all students coming under their instruction would from their entrance in college know no other system of weights and measures.
In accordance with this suggestion, a resolution covering the proposition is herewith presented:
"Whereas the metric system of weights and measures is used exclusively in the United States Pharmacopeia, and is official in the pharmacopœias of nearly all other nations; and
"Whereas it has become the universal system of weights and measures in scientific calculations; be it
"Resolved, That the members of the American Pharmaceutical Association request the American Medical Association to use its influence with all colleges and schools of medicine recognized by them in the United States, to use exclusively the metric system of weights and measures in the instruction of students, beginning with the classes entering said colleges and schools in the college year of 1900."
H. M. Whelpley, M. D., St. Louis, Mo., spoke as follows:

During the past fifteen years I have paid considexable attention to the work of introducing the metric system among pharmacists and physicians. I find that the
doctors claim that a pharmacist can not fill their prescriptions if written in the metric system, while the druggists say that the physicians are unable to write prescriptions in the metric system.

I have made no attempt to canvass the subject of teaching the metric system in colleges of pharmacy, for I believe that every American institution teaching pharmacy insists upoa the students becoming familiar with the metric system.

In order to learn the extent to which the metric system is taught in the colleges of medicine, I sent a copy of the following inquiries to each one of the 154 medical institutions in the United States recognized by the Illinois Board of Health:

1. Is the metric system taught in your college?
2. If so, are the students obliged to become familiar with it before graduation?
3. About how many, if any, of your teachers use the metric system in their regular practice?
4. Has your college ever taken any united action favoring the general use of the metric system in prescription writing?
5. Name of the college.

Unfortunately these queries were sent out during the college vacation, and this fact undoubtedly accounts for the small number of answers received. Up to dato 67 colleges have answered. A summary of the responses is as follows:

Fifty-one out of the 67 colleges answering are teaching the metric system.
Forty-three of the 67 colleges answering state that students are obliged to become familiar with the metric system before graduation.

Four of the 67 colleges answering state that all of their teachers who are practicing physicians ase the metric system.

No united action has been taken by the teachers of any medical college among the 63 answering to favor the general use of the metric system in prescription writing further than is done by teaching it to the students.

From this report I judge that the metric system is taught in nearly all of the medical colleges, but fear that the members of the faculty fail to use it in prescription writing: or impress upon the graduates that it is a practical and convenient as well as scientific system of weights and measures. Some colleges seem to teach it out of a sense of duty rather than from belief in its utility. I suggest that the members of the American Pharmaceutical Association living in the vicinity of medical colleges and acquainted with the teachers take pains to impress upon such physicians the importance of using as well as teaching the metric system.

Mr. Ryan said: In regard to the charge made by physicians that pharmacists are not equipped for the use of the metric system I want to say this: The secretary of the Erie County Pharmaceutical Association, including the city of Buffalo, sent out 150 poztal cards to members asking if they were acquainted with the metric system, and how many of the last 100 prescriptions filled by them had been written in the metric system, and this was the result: Seventy-one cards were returned; 60 of the 71 had full sets of metric weights and measures; 7 had none; 2 kad partial sets, and 2 did not reply to this portion of the question. The report on the last 100 prescriptions, 71 being returned, made 7,100 prescriptions, and of these 769 , or a trifle over 10 per cent, were in the metric system. One druggist replied that his last 100 prescriptions had all been written in the metric system. An investigation took place, and he was found to be a Polish druggist, handling all his prescriptions from one Polish doctor, who wrote all his prescriptions in that system.

## UNIVERSITY OF PENNSYLVANIA--TEE NEW DENTAL HALL. ${ }^{1}$

Realizing the need for more ample facilities for properly carrying on its educational work the dental faculty had for several years urged the necessity for a more commodious building devoted exclusively to the requirements of dental teaching, where the most approved methods of instruction could be pursued. The matter having receired the favorable consideration of the trustees, a committee was appointed to consider and report upon plans for a new building. A subcommittee was instructed to make a study of a number of the representative dental schools of this country, with a view to learning the kest that had been done in the construction of dental-college buildings, their equipment, and the pedagogical methods pursued. The report of this committee embodied the results of their study of 10 representative dental colleges, and the raluable suggestions thas acquired formed the basis of the plans drawn for the new Dental Hall.

The arrangement of the interior is such that facilities are provided for the thorough education of the student in every important detail of his professional work. The clinical operating room occupies one entire floor of the main building: giving a floor space 180 by 50 feet, furnished with 100 latest pattern Wilkerson operáing chairs, each provided with a fountain cuspidor, with running water attached, and attachment for the Fisk saliva ejector. Both chairs and cuspidors were specially designed and mantofactured for this department. Each chair is provided with a bracket arm and table for holding instruments, besides a separate table for the instrument caso. Electric service is provided for each chair. A complete locker system in connection with the operative clinic furnishes means for the safe storage of instruments when not in use. In fitting up the operating room the aim has been to make the appointments as nearly as possible like those of a first-class private office, so that from the beginning of his course the student is familiarized with the conditions he will meet in practice.
One large general laboratory for prosthetic work is provided, and separate departments for crown and bridge work, orthodontia technics, prosthetic technics, operative technics, metallurgical work, vulcanizing and modeling, special clinic rooms, and laboratories. Ample arrangements are provided for the convenience and comfort of the strdents in the care of instruments, tools, etc. There are also hat and coat rooms, lavatories, etc., a bicycle room, laundry, store rooms, and living apartments of the janitor, and an assembly room for the exclusive use and recreation of the students when not on duty. The laboratories are fitted with the most approved appliances for work and instruction in the several departments of dentistry. Compressed air is supplied to the laboratory tables for melting and soldering operations, as well as for metallurgical work. The laboratory lathes are driven by an electric motor, and no feature which could add to the facilities for thorough and accurate work has been omitted.
The lecture amphitheater will comfortably seat 350. It joins the main buildiag by a corridor, and in relation with it are arranged the dental museum and library.

## VETERINARY STUDY IN MISSACEUSETTS. ${ }^{1}$

The last legislature of Massachusetts appropriated 825,000 for the erection aad equipment of a veterinary laboratory and stable hospital in connection with the State Agricultural College. Provision was also made for an ainual appropriation of $\$ 1,000$ as a maintenance fund for the veterinary laboratory, to provide means of instruction, and to carry on investigations of the diseases of domestic animals. This allowance is to be made from January 1, 1899. Two new buildings are to be erected. One will be used as a hospital, and the other will contain the c'ass rooms for students in veterinary science, the private ffice of the professor in the department, his cabinet of specimens, and other rooms comnected with the work. The cabinet will open into the laboratory, so that the specimens can be used for either class room or laboratory work. The Agricultural College, although giving a thorough prelininary cousse in veterinary medicine, does not girant any degree. Those who wish for this must take the regular courses in professional veterinary schools.

Note.-In Chapter XXV, entitled "The Learned Professions and Social Control," by Mr. Addis, which appeared in the Commissioner's Report for 1896-97, on page 1202, under the head of Pennsyl rania and in the second column, the words "Others must stand an examination" should be "All [except licentiates of New Jersey] must stand an examination before board." The error of the text is due to the writer of the chapter and not to Dr. Latta, secretary of the Medical Council of Pennsylvania, whose answer is reproduced correctly on page 1234 under Pennsylvania. In reply to the note explaining the cause of the error Dr. Latta has further favored this Bureath with the following information: "The latter clause of the thirteenth section of the act of $1: 03$ provides for the acceptance of certificates from other States in lieu of examination, but the council has held that it has the authority to determine what certifcates shall be recegnized, and at present it recognizes the certificate from New Jersey only."

Table 3.-Summary of statisitics of schools of theology for 1897-98.

| States. |  |  | Students. |  |  | Value of grounds and buildings. | Endowment funds. | Benefactions received during the year. | Volumes in libraries. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| United States. | 155 | 958 | 8,371 | 1,673 | 2,796 | \$13, 863, 628 | 317,977, 325 | \$614, 776 | 1,360, 720 |
| North Atlantic Division .- | 49 | 382 | 3,119 | 72 | 1,353 | 8,126,432 | 11,125, 441 | 373,435 | 786,400 |
| South Atlantic Division.. | 21 | 132 | 1,007 | 180 | 186 | 1,415,000 | 1,542, 034 | 29,800 | 187, 600 |
| South Central Division. | 17 | 73 | , 848 | 118 | 263 | 1691, 400 | 1,281,500 | 46,902 | 44,442 |
| North Central Division. | 59 | 330 | 3,221 | 628 | 943 | 3,308, 796 | $3,190,143$ | 14\%.039 | 301, 928 |
| Western Division | 9 | 41 | 176 | 19 | 49 | 412,000 | 838,207 | 17,600 | 40,350 |
| North Atlantic Division: |  |  |  | 18 |  |  |  |  |  |
| Massachu | 2 | 75 | 580 | 114 | 243 | 1,440,000 | 1,614,414 | 56, 341 | 138, 2100 |
| Connecticut | 3 | 36 | 195 | 59 | 156 | 1,435, 877 | $1,170,657$ | 23,362 | 97,029 |
| New York | 15 | 123 | 988 | 219 | 351 | 3,704,500 | 3, 486, 404 | 246, 132 | 206, 823 |
| New Jersey | 5 | 34 | 486 | 127 | 339 | 1,010,009 | 2,188,000 | 1,800 | 148,348 |
| Pennsylvania----.-...-- | 16 | 101 | 88.2 | 191 | 251 | 1,411,055 | 2,395,966 | 45,800 | 171,850 |
| South Atlantic Division: | 6 | 65 | 509 | 88 | 21 | 580,000 | 17,000 | 6,000 | 93,000 |
| District of Columbia | 4 | 26 | 138 | 18 | 64 | 363,000 | 490,009 |  | 13, 300 |
| Virginia, | ${ }_{2}^{4}$ | 16 | 175 | 34 | 56 | 182, 000 | 368, 034 | 21,600 | 39, 300 |
| North Carolina | 2 |  | 32 |  | 8 | 140,000 |  |  | 8,509 |
| South Carolina | 3 | 11 | 55 | 18 | 30 | 50,000 | 267,000 |  | 22,000 |
| Georgia .-........... | 2 | 7 | 98 | 17 | 7 | 100,000 | 400,000 | 2,200 | 11,500 |
| Kentucky ...... | 4 | 26 | 559 | 80 | 157 | 320,000 | 880, 000 | 12,500 | 32,942 |
| Tennessee | 8 | 35 | 232 | 33 | 103 | 260,090 | 392, 000 | 20,000 | 7,600 |
| Alabama | 8 | 9 | 41 | 5 | 3 | 10,400 | 9,500 | 12,887 | 3, 700 |
| Texas .-. | , | 3 | 16 | 0 | 0 | 11,000 | 0 | 1,515 | 200 |
| North Central Division: Ohio | 12 | 68 | 449 | 104 | 165 | 389,500 | 7 | 31,232 | , 400 |
| Indiana | 12 | 19 | 107 | 12 | 0 | 6,000 | 0 | 450 | 850 |
| Illinois. | 13 | 91 | 1,220 | 208 | 463 | 1, 199, 725 | 1,941,5\%0 | 65,353 | 101,798 |
| Michigan | 3 | 11 | 124 | 13 | 21 | 10,000 | 1, 68,500 |  | 6,400 |
| Wisconsin | 4 | 31 | 170 | 65 | 44 | 335, 000 | 80, 000 | 12,292 | 34,500 |
| Minnesot | 8 | 41 | 320 | 64 | 36 | 450, 000 | 310,000 | 18,500 | 41,150 |
| Iowa | 5 | 16 | 208 | 17 | 21 | 63,571 | 63,226 | 6,442 | 8,800 |
| Missouri | 7 | 34 | 558 | 127 | 187 | 780,009 | 140,009 | 12,770 | 56,700 |
| Nebraska | 3 | 13 | 58 | 14 | 3 | 75, 000 | $\bigcirc$ |  | 2,200 |
| Kansas ---...... | 1 | 3 | 7 | 4 | 3 | 0 | 700 |  | 100 |
| Western Division: Colorado |  | 10 | 40 | 3 | 11 | 165, 000 | 100,000 | 1,600 | 11,200 |
| Orezon | $\stackrel{2}{2}$ | 8 | 41 |  | 3 | 7,000 | 3, 500 | 3,000 | , 650 |
| California | 5 | 23 | 95 | 16 | 35 | 240,000 | 734, 707 | 13,000 | 28,500 |

Table 4．－Summary of statistics of schools of law for 1897－9S．

| States． | $\begin{array}{r} \dot{A} \\ 0 \\ \text { 弟 } \\ \dot{3} \\ \hline \end{array}$ |  | Students． |  |  | Value of grounds and build－ ings． | Endow－ ment funds． | Benefac tions re－ ceived during the year． | Volumes in libra－ ries． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| United States | 83 | 845 | 11，615 | 3，065 | a 1，825 | a \＄1，431，000 | a $5 \% 52,500$ | \＄52，\％00 | 243，054 |
| North Atlantic Division． | 13 | 226 | 3，951 | 976 | 1，091 | 516，000 | 405， 000 | 700 | 146，237 |
| South Atlantic Division．．． | 17 | 118 | 1，631 | 487 | 168 | 122， 000 | 115，000 | 16，000 | 18， 750 |
| South Central Division．．－ | 14 | 66 | 643 | 208 | 32 | 170，000 |  |  | 12， 841 |
| North Central Division．．． | 32 | 359 | 4，899 | 1，280 | 463 | 573， 000 | 97，500 | 35，500 | 61，051 |
| Western Division ．－．．．．－．－ | 7 | 76 | 491 | 114 | 71 | 50， 000 | 135̃，000 | 500 | 4，175 |
| North Atlantic Division： |  | 46 | 986 | 204 | 570 | 375，000 | 400，000 | 700 |  |
| Connecticut－－－－－－－－－ | 1 | $\stackrel{40}{36}$ | 200 | 42 | 74 |  | 40， 00 |  | 12，000 |
| New York | 7 | 108 | 2，274 | 572 | 311 | 141，000 | 5，000 | 0 | 63， 633 |
| Pennsylvania－．－－－－ | 3 | 36 | 491 | 158 | 136 |  |  |  | 18，904 |
| South Atlantic Division： Maryland | 2 | 16 | 277 | 70 | 25 | 10，000 |  |  |  |
| District of Columbja－ | 5 | 66 | 841 | 280 | 67 | 112，000 | 115， 000 |  | 8，900 |
| Virginia－－．．．． | $\stackrel{2}{2}$ | 10 | 90 | 28 | ${ }^{6}$ |  |  | 16，000 | 3，750 |
| West Virginia． | $\stackrel{2}{2}$ | 6 | 238 | 42 | 27 |  |  |  | 3，000 |
| North Carolina | 2 | 6 | 95 | ${ }^{6}$ | 12 |  | 0 | 0 | 1，500 |
| South Carolina．．．．．．－－ | 1 | 13 | 23 | 18 | 10 |  | 0 | 0 | ${ }^{0}$ |
| Georgia－．．．－－－．－．－－ | 3 | 13 | 67 | 48 | 21 |  | 0 | 0 | 200 |
| South Central Division： |  | 3 | 48 | 20 |  | 50，000 | 0 | 0 | 0 |
| Tennessee | 6 | 26 | 227 | 76 | 7 | 120，000 | 0 | 0 | 7，400 |
| Alabama－ | 1 | 2 | 9 | 0 |  |  | 0 | 0 |  |
| Mississippi | 1 | 7 | 52 | 27 | 16 |  |  | 0 | 1，541 |
| Louisiana | 1 | 5 | 82 | 28 |  |  |  |  |  |
| Texas ．－． | $\stackrel{2}{2}$ | 9 | 164 | 48 |  |  |  |  | 3，900 |
| Arkansas－－．．．．．．．．． | 2 | 14 | 61 | 9 | 5 |  |  |  |  |
| North Central Division： Ohio |  |  |  |  |  |  |  | 30，000 |  |
| Indiana | 5 | 34 | 440 | 130 | 5 | 3，000 | 0 |  | 8，200 |
| Illinois ． |  | 115 | 1，351 | 310 | 127 |  | 0 | 4，000 | 5，160 |
| Michigan | $\stackrel{2}{2}$ | 47 | 893 | 240 | 137 |  |  | 1，500 |  |
| Wisconsin | 2 | 7 | 225 | 28 |  | 80，000 | 20，000 | 0 | 4，000 |
| Mimnesota | $\stackrel{1}{2}$ | 13 | ${ }_{336}^{437}$ | 115 | 74 |  |  |  | 11，200 |
| Missouri | 3 | 35 | 381 | 129 | 44 | 70，000 | 77， 500 | 0 | 11，991 |
| Nebrask | 2 | 24 | 141 | 46 | 21 |  |  | 0 | 0 |
| Kansas－－－．．．．－． | 1 | 8 | 172 | 70 |  |  |  |  |  |
| Western Division： Colorado | 2 | 40 | 98 | 30 | 11 |  | 0 | 500 | 4，000 |
| Oregon | － | 16 | 65 | 32 |  |  |  |  |  |
| California． | 3 | 20 | 328 | 52 | 60 | 50，000 | 135， 000 |  | 1 1\％ |

$a$ So far as reported．

Table 5.-Summary of statistics of schools of medicine, dentistry, pharmacy, and for nurses and veterinarians, for 1897-98.

| States and classes. |  |  | Students. |  |  |  |  |  | $\begin{aligned} & \text { स } \\ & \text { a } \\ & \text { © } \\ & \text { a } \\ & \text { B } \\ & \text { og } \\ & \text { od } \\ & \text { a } \\ & \text { a } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
| A.-BY Clas |  |  |  |  |  |  |  |  |  |  |
| Regular medic | 122 | 3,423 | 19,957 | 1,045 | 21,002 | 5,023 | 1,938 | \$9,282,500 | \$1, 577, 272 | 94, 165 |
| Homeopathic | 21 | 629 | 1,495 | 291 | 1,786 | 387 | 107 | 1,827,263 | 328,800 | 53, 610 |
| Eclectic | 6 | 147 | 493 | 45 |  | 151 | 36 | 137,500 |  | 3,458 |
| Physiomedical | 2 | 48 | 91 | 16 | 107 | 36 | 13 | 17,000 |  | 200 |
| Total medical | 151 | 1,247 | 22,036 | 1,397 | 23,433 | 5,597 | 2,694 | 11,264,263 | 1,906,072 | 151,433 |
| Dental. | 50 | 961 | 6,612 | 162 | 6, 774 | 1,848 |  | 1,019,836 | 50,000 | 6,901 |
| Pharmaceutical | 45 | 401 | 3,538 | 174 | 3,712 | 1,129 |  | 656,588 | 16,056 | 22,156 |
| Nurse training | 314 |  | 801 | 8,004 | 8, 805 | 3,027 |  |  |  |  |
| Veterinary. | 14 | 173 | 326 |  | 326 | 109 | 3 |  |  |  |
| $\begin{aligned} & \text { B.-By STATES AND } \\ & \text { CLASSES. } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
| Regular médical. |  |  |  |  |  |  |  |  |  |  |
| Maine | 2 | 31 | 167 | 0 | 167 | 33 | 36 | 12,000 |  | 3,700 |
| New Hamp | 1 | 15 | 120 | 0 | 120 | 40 | 23 |  |  |  |
| Vermont ----- | 1 | $\begin{array}{r} 25 \\ 155 \end{array}$ | 238 | 0 | 238 | 69 |  |  |  |  |
| Massachusetts | 1 | $\begin{array}{r}24 \\ 373 \\ \hline 1\end{array}$ | 833 | 66 0 | 899 122 | 168 31 | 251 | 30,000 | 25, 106,000 | 2,300 |
| New York | 0 |  | 2,442 | 140 | 2,582 | 623 | 396 | 2,820,500 | 497,000 | 7,756 |
| Pennsylvani | 5 | 373 191 | 1,983 | 159 | 2,142 | 392 | 352 | 1,235,000 | 349, 272 | 14,625 |
| Maryland |  | 191 | 1,225 | 50 | 1,275 | 339 | 205 | 738,900 | 427, 000 | 10,085 |
| District of Colum | 5 |  | 4.37 | 20 | 457 | 77 | 28 |  |  |  |
| Virginia -- | 3 | 65 | 565 | 0 | 565 | 113 | 22 | 1 105,000 |  |  |
| North Carolina | 3 | 23 | 165 | 0 | 165 | 14 | 4 | 18,700 | 5,000 | 1,700 |
| South Carolina | ${ }_{3}^{1}$ | 11 | 87 419 | 0 | 87 419 | 14 89 |  | 90,000 |  | 0 |
|  |  |  |  |  |  |  |  |  |  |  |
| Tennes | 8 | 165 | 1,473 | 13 | 1,486 | 55 | 27 | 188,400 | 13000 | 0 |
| Alabama | 3 | 49 | 212 | 3 | 215 | 35 | 25 | 2,000 |  | 100 |
| Louisiana | 2 | 26 | 338 | 0 | 338 | 94 |  | 200,000 |  | 2,777 |
| Texas--- | 2 | 44 | 355 | 9 | 365 | 58 |  | 320,000 | 0 | 2,500 |
| Arkansas | 1 | 18 | 103 | 1 | 104 | 19 | 0 | 16,000 |  |  |
| Ohio | 10 | 252 | 1,074 | 62 | 1,136 | 373 | 48 | 615, 000 |  | 7,600 |
| Indiana | 3 | $\begin{aligned} & 102 \\ & 357 \end{aligned}$ | 300 | 23 | 323 | 127 | 3 | 70,090 |  | 4,500 |
| Illinois | 8 |  | 1,757 | 189 | 1,946 | 333 | 165 | 635, 000 | 60,000 | 6,825 |
| Michigan | 4 | 357 131 | 701 | 77 | 778 | 147 |  | 135, 000 |  | 14,200 |
| Wisconsin | $\stackrel{2}{2}$ | 61 | 179 | ${ }^{0} 7$ | 179 | 51 | 18 | 202,000 |  |  |
| Minneso | 5 | 97 | 289 629 | 40 | 316 669 | 23 | 42 | 100,000 |  |  |
| Iowa .-.- | 12 | 97 | 629 1,793 | 40 19 | 669 1,812 | 211 | +45 | 111,000 | 10,000 1,000 | 1,200 1,100 |
| Nebrask | 2 | 318 62 | 157 | 15 | ${ }^{172}$ | 39 | 20 | 125, 000 |  |  |
| Kansas | 2 | 63 | 129 | 27 | 156 | 40 | 6 | 10,000 |  | 157 |
| Colorado <br> Oregon $\qquad$ <br> California | ${ }_{3}^{2}$ | $\begin{aligned} & 92 \\ & 36 \\ & 84 \end{aligned}$ | $\begin{array}{r} 156 \\ 58 \\ 424 \end{array}$ | 17 | 173 | 38 | 24 | 20,000 |  |  |
|  |  |  |  | 14 | 72 | 10 | 11 |  |  | 1,500 |
|  |  |  |  | 74 | 498 | 94 | 37 | 674,000 | 84,000 | 3,600 |
| North Atlantic Division.. South Atlantic Division.South Central Division North Central Division. Western Division. | 2 | 814 | 5,905 | 305 | 6,270 | 1,356 | 1,080 | 4,097,500 | 977,272 | 28,381 |
|  | 21 | 465 | 2,898 | 70 | 2,968 | 646 | 259 | 1,012, 600 | 432,000 | 17,225 |
|  | 20 | 404 | 3,508 | 26 | 3,534 | 980 | 52 | 895,400 | 13,000 | 6,877 |
|  | 509 | 1,528 | 7,008 | 479 | 7,487 | 1,899 | 475 | 2,583,000 | 71,000 | 36,582 |
|  |  | 212 | 638 | 105 | 43 | 142 | 72 | 694, 000 | 84,000 | 5,100 |
| United States...-.-- | 12: | 3, 423 | 19,957 | 1,045 | 21,002 | 5,023 | 1,938 | 9,282,500 | 1,577,272 | 94,165 |
| Homeopathic. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts | 1111 | $\begin{aligned} & 35 \\ & 59 \\ & 36 \end{aligned}$ |  | 57260 | 196158 | 46 <br> 28 | 3119 | $\begin{aligned} & 200,000 \\ & 450,000 \\ & 523,763 \end{aligned}$ | $\begin{array}{r} 35,000 \\ 0 \\ 223,800 \end{array}$ | $\begin{array}{r} 3,500 \\ 4,500 \\ 15,000 \end{array}$ |
| New York. |  |  |  |  |  |  |  |  |  |  |
| Pennsylvania |  |  |  |  | 273 | 68 |  |  |  |  |
| Maryland | 1 | 21 | 22 | 10 | 32 | 7 |  | 30,000 | ............ | 600 |
| Kentucky | 1 | 20 | 22 | 14 | 36 | 11 |  |  |  |  |

$a$ So far as reported.

Table 5．－Summary of statistics of schools of medicine，dentistry，etc．－Cont＇d．

| States and classes． |  |  | Students． |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | $\oplus$《ंण 80） हैं出 |  |  |  |
| B．－BY states and CLASSES－cont＇d． <br> Homeopathic－Cont＇d． |  |  |  |  |  |  |  |  |  |  |
| Ohio | $\begin{aligned} & 2 \\ & 5 \\ & 1 \\ & 1 \\ & 1 \\ & 3 \end{aligned}$ | $\begin{array}{r} 73 \\ 204 \\ 9 \\ 26 \\ 12 \\ 89 \end{array}$ | $\begin{array}{r} 190 \\ 443 \\ 51 \\ 25 \\ 58 \\ 98 \end{array}$ | $\begin{array}{r} 30 \\ 95 \\ 8 \\ 2 \\ 7 \\ 7 \\ 26 \end{array}$ | $\begin{array}{r} 220 \\ 537 \\ 59 \\ 27 \\ 67 \\ 124 \end{array}$ | $\begin{array}{r} 68 \\ 95 \\ 6 \\ 0 \\ 0 \\ 8 \\ 35 \end{array}$ | 624 | $\begin{aligned} & \$ 125,000 \\ & 391,000 \end{aligned}$ | 870，000 |  |
| Illinois |  |  |  |  |  |  |  |  |  | 2， 17 17 7 |
| Michigan |  |  |  |  |  |  |  | 50， 000 |  | \％，090 |
| Minnesota |  |  |  |  |  |  | 5 |  |  | 2，000 |
| Iowa |  |  |  |  |  |  | 6 12 | 30,000 22,000 |  | $\stackrel{49}{210}$ |
| Colorado <br> California $\qquad$ $\qquad$ | 1 | $\begin{aligned} & 29 \\ & 15 \end{aligned}$ | $\begin{aligned} & 32 \\ & 11 \end{aligned}$ | $11$ | $\begin{aligned} & 43 \\ & 16 \end{aligned}$ | 18 | 4 | 5，500 |  | 200500 |
|  |  |  |  |  |  |  |  |  |  |  |
| North Atlantic Division South Atlantic Division． South Central Division．－． North Central Division．－． | $\begin{array}{r} 4 \\ 1 \\ 1 \\ 13 \\ 2 \end{array}$ | $\begin{array}{r} 130 \\ 21 \\ 20 \\ 413 \\ 45 \end{array}$ | $\begin{array}{r} 544 \\ 2 . \\ 22 \\ 204 \\ 804 \\ 43 \end{array}$ | $\begin{array}{r} 83 \\ 10 \\ 14 \\ 168 \\ 16 \end{array}$ | $\begin{array}{r} 627 \\ 32 \\ 36 \\ 1,032 \\ 59 \end{array}$ | $\begin{array}{r} 142 \\ 7 \\ 11 \\ 212 \\ 10 \end{array}$ | 50 | $\begin{array}{r} 1,173,763 \\ 30,000 \end{array}$ | 258，800 | 23,000600 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | $\begin{array}{r}4 \\ 4 \\ \hline\end{array}$ | 618，500 | 70，000 | －7，300 |
| United States Eclectic． <br> New York | 21 | 629 | 1，495 | 291 | 1，786 | $38 \%$ | 107 | 1，827，263 | 328，800 | 53，610 |
|  | 1 | 28 | 67 | 15 | 8.2 | 16 | 10 | 40，000 |  | 2，250 |
| Georgi | 1 | 16 | 58 | 3 | 61 | 14 |  | 10，000 |  | －．．．－ |
| Ohio | $\begin{array}{l\|l} 1 & 16 \\ 1 & 44 \\ 1 & 17 \\ 1 & 25 \end{array}$ |  | $\begin{array}{r} 159 \\ 111 \\ 48 \\ 50 \end{array}$ | $\begin{gathered} 7 \\ 10 \\ 10 \end{gathered}$ | $\begin{array}{r} 166 \\ 121 \\ 58 \\ 50 \end{array}$ | $\begin{aligned} & 45 \\ & 43 \\ & 18 \\ & 15 \end{aligned}$ | 23 | $\begin{array}{r} 60,000 \\ 25,000 \\ 2,500 \end{array}$ | 0 | 500500200 |
| Illinois |  |  |  |  |  |  |  |  |  |  |  |
| Missour |  |  |  |  |  |  |  |  |  |  |
| Nebra |  |  |  |  |  |  |  |  |  |  |
| North Atlantic Division． South Atiantic Division North Central Division．－ | 114 | $\begin{array}{r} 23 \\ 16 \\ 103 \end{array}$ |  | $\begin{array}{r} 67 \\ 58 \\ 568 \end{array}$ | $\begin{array}{r} 15 \\ 3 \\ 27 \end{array}$ | $\begin{array}{r} 82 \\ 61 \\ 395 \end{array}$ | $\begin{array}{r} 10 \\ 14 \\ 1: \\ 1: 1 \end{array}$ | $\begin{array}{r} 10 \\ \cdots \quad 26 \end{array}$ | $\begin{aligned} & 40,000 \\ & 10,000 \\ & 87,500 \end{aligned}$ | －－．．．．－－ | 2，208 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | 200 |
| United Stat | 6 | 147 | 493 | 45 | 538 |  | 36 | 137， 500 | －．．．－－－．．．．－ | 3， 458 |
| Dentistry |  |  |  |  |  |  |  |  |  |  |
| Massachusett | 135 | $\begin{array}{r} 34 \\ 89 \\ 101 \end{array}$ | $\begin{array}{r} 130 \\ 435 \\ 1,387 \end{array}$ | 01147 | $\begin{array}{r} 130 \\ 446 \\ 1,434 \end{array}$ | $\begin{array}{r} 37 \\ 124 \\ 358 \end{array}$ |  | $\begin{aligned} & 161,000 \\ & : 210,000 \end{aligned}$ | 50，000 | 148100 |
| New York．－ |  |  |  |  |  |  |  |  |  |  |
| Pennsylvani |  |  |  |  |  |  |  |  |  |  |
| Maryland | 3 <br> 3 <br> 1 <br> 2 | 537171723 | $\begin{array}{r} 497 \\ 121 \\ 27 \\ 263 \end{array}$ | 2100 | $\begin{array}{r} 499 \\ 125 \\ 27 \\ 263 \end{array}$ | $\begin{array}{r} 156 \\ 20 \\ 10 \\ 10 \\ 74 \end{array}$ |  | $\begin{array}{r} 200,000 \\ 40,000 \\ 65,000 \\ 15,000 \end{array}$ |  | 100240 |
| District of Coiun |  |  |  |  |  |  |  |  |  |  |
| Virginia．－ |  |  |  |  |  |  |  |  |  |  |
| Georgia |  |  |  |  |  |  |  |  |  |  |
| Kentucky | 1411 | 154711 | $\begin{array}{r} 150 \\ 311 \\ 34 \end{array}$ | 030 | $\begin{array}{r} 150 \\ 314 \\ 34 \end{array}$ | $\begin{aligned} & 52 \\ & 77 \\ & 8 \end{aligned}$ | －－．．．－． |  |  | 200 |
| Tennessee |  |  |  |  |  |  |  |  |  |  |
| Alabama |  |  |  |  |  |  |  |  |  |  |
| Ohio | 5 | \％ 72 | $\begin{aligned} & 498 \\ & 209 \end{aligned}$ | $\begin{aligned} & 15 \\ & 2 \\ & 20 \end{aligned}$ | 513211 | $\begin{array}{r} 120 \\ 53 \end{array}$ |  | $\begin{array}{r} 70,000 \\ 30,000 \\ 20,000 \\ 155,336 \end{array}$ |  | 2，743 |
| Indiana | 2 |  |  |  |  |  |  |  |  |  |
| Illinois | 4 | $\begin{array}{r}109 \\ 27 \\ \\ \hline\end{array}$ | 1，094 |  | 1， 114 | 36080 |  |  |  | 600 |
| Michigan | ， |  | 218 | 20 |  |  |  |  | －．．．－－－－－ |  |
| Wisconsin | 1 | 17 | 96 | 00 | 96 | 14 |  | 155， 335 |  |  |
| Minneso |  | 15 |  |  |  |  | －－－ | －－－－－－－－－－－ | －－－－－ | 150 |
| Iowa ．－． | 2 | 37 | 155 | 15 | 170 | 61 |  |  |  |  |
| Missouri | 4 | 9323 | 16453 | $\stackrel{12}{5}$ | 47658 | 141 |  | 12，500 |  | 2，100 |
| Nebraska | 1 |  |  |  |  |  |  |  |  |  |
| Colorado | $\begin{aligned} & 1 \\ & 1 \\ & 2 \end{aligned}$ | 181770 | $\begin{array}{r} 43 \\ 33 \\ 304 \end{array}$ | $\begin{array}{r}4 \\ 15 \\ \hline\end{array}$ | $\begin{array}{r} 47 \\ 35 \\ 319 \end{array}$ | $\begin{array}{r} 5 \\ 9 \\ 50 \end{array}$ |  |  |  |  |
| Washington |  |  |  |  |  |  |  |  |  | 0 |
| California |  |  |  |  |  |  |  |  |  | 00 |
| North Atlantic Division－－ |  |  |  |  |  |  |  |  | 50，000 |  |
| South Atlantic Division．－ | 9 | 132 | 911 | 3 | ${ }^{914}$ | 263 |  | 320，000 |  | 340 |
| South Central Division．．． | 6 | 73 | － 495 | 3 | 498 | 137 |  |  |  | 200 |
| North Central Division－－ | 22 | 427 | 2，874 | ${ }^{77}$ | 2，951 | 861 |  | 298，836 |  | 5，593 |
| Western Division． | 4 | 105 | 380 | 21 | 401 | 69 |  |  |  | 400 |
| United States | 50 | 961 | 6，612 | 16： | 6，7\％4 | 1，848 | －－－ | 1，019，836 | 50，000 | 6，901 |

Table 5.-Summary of statistics of sehools of medicine, dentistry, etc.-Continued.


Table 5．－Summary of statistics of schools of medicine，dentistry，etc．－Continued．

| States and classes． | $\begin{gathered} \dot{2} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 02 \end{gathered}$ |  | Students． |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | ゅ ＜$\dot{\Omega}$ <br> 河 |  |  |  |
| B．－BY STATES AND CLASSES－cont＇d． <br> Nurse training－Cont＇d． |  |  |  |  |  |  |  |  |  |  |
| Indiana | 7 |  | 49 | 121 | 170 | 80 |  |  |  |  |
| Illinois | 33 | －－ | 27 | 835 | 86\％ | 243 |  |  |  |  |
| Michigan | 14 |  | 69 | 327 | 396 | 187 |  |  |  |  |
| Wisconsin | 4 |  | 2 | 81 | 83 | 47 |  |  |  |  |
| Minnesota | 13 |  | 81 | 268 | 349 | 104 |  |  |  |  |
| Iowa．． | 8 |  | 52 | 128 | 180 | 46 |  |  |  |  |
| Missouri | 8 |  | 4 | 132 | 136 | 42 |  |  |  |  |
| Kansas | 4 |  | 13 | 39 | 52 | 13 |  |  |  | －－－ |
| Colorado | 4 |  | 0 | 58 | 58 | 34 |  |  |  |  |
| Utah． | 1 |  | 0 | 20 | 20 | 4 |  |  |  |  |
| Washington．．－．－．．．．－．－．．．．．． | 1 |  | 0 | 81 | 8 | 4 |  |  |  |  |
| Oregon California． | 3 |  | 0 7 | 61 256 | 61 263 | 90 | －－－－－ |  |  |  |
| Noith Atlantic Division． | 207 |  | 429 | 4，659 | 5，088 | 1，784 |  |  |  |  |
| South Atlantic Division．． | 31 |  | 32 | 546 | 578 | 148 |  |  |  |  |
| South Central Division．．． | 12 |  | 8 | 174 | 182 | 45 |  |  |  |  |
| North Central Division．．． | 108 |  | 325 | 2，2220 | 2，547 | 867 |  |  |  |  |
| Western Division． | 19 |  | 7 | 403 | 410 | 153 |  |  |  |  |
| United States | 377 |  | 801 | 8，00t | 8，805 | 3，027 | －．．．．． |  |  |  |

Table 6.-Statistics of schools of

| Location. | Neme of institution. |  | President or dean. |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |
| St. Bernard, Ala.- | St. Bernard College (R.C.) | 1893 | Benedict Menges |
| Talladega, Ala .-. | Talladega College, Theological Dept. (Cong.). | 187\% | George W. Andrews, D. D. |
| Tuscaloosa, Ala | Stillman Institute (Presb.) | 1878 | O. B. Wi |
| Berkeley, Cal | Berkeley Bible Seminary (Disciples). | 1896 | Samuel M. Jefferson, |
| Oakland, Cal | Pacific Theological Seminary (Cong.) | 1869 | John Knox McLean, D. D. |
| San Anselmo, Cal. | San Francisco Theological Seminary (Presb.). | 1871 | Henry C. Minton, D. D., clerk. |
| San Mateo, Cal. | Church Divinity School of the Pacific ( D 下 | 1893 | William F. Nichols, D. D.- |
| University, Cal... | Maclay College of Theology, Univer- | 1886 | George Cochran, D. D |
| Denver, Colo | Denver Theological School, or Mat- | 1872 | John F. Spaulding, D. D.-. |
| University Park, Colo. | Iliff School of Theology, University of Denver (M.E.). | 1892 | Arthur H. Briggs, A. M.-. |
| Hartford, Conn... | Hartford Theological Seminary (Cong.). | 1834 | Chester D. Hartranft, D. D. |
| Middletown, Conn | Berkeley Divinity School (P. E.).-.-, | 1854 | John Williams, D. D., |
| New Haven, Conn | Yale Divinity School (Cong.) | 1822 | George P. Fisher, D. D., LL. D. |
| Washington, D.C. | Catholic University of America, Theological Dept. (R. C.). | 1889 | Thomas J. Shahan, D. D.- |
|  | Howard University, Theological | 18\%1 | John L. Ewell, D. D....... |
| do | King Hall Theological School (P.E.) | 1890 | William V. Tunn |
|  | Wayland Seminary (Bapt.) | 1865 | George R. Hovey |
| Atlanta | Atlanta Baptist Seminary | 1867 | George Sale, A. |
|  | Gammon Theological School (M.E.) | 1883 | Wilbur P. Thirkield, D. D. |
| Chicago, | Chicago Theological Seminary (Cong.) | 1858 | Franklin W. Fisk, D. D., LL. D. |
| ---.-do | Evangelical Lutheran Theological | 1891 | R.F. Weidner, D. D., LL. D |
| do | German Theological Seminary (Ev. | 1885 | J.D. Severinghaus, D. D |
| do | MeCormick Theological Seminary | 1830 | Andrew C. Zenos, D. D |
| . do | University of Chicago, Divinity | 1867 | Eri B. Hulbert, D. D |
|  | Western Theological Seminary(P.E.) | 1885 | Wm. J. Gold, S. T. D., |
| Eureka, Ill | Eureka College, Bible Department | 1890 | J. H. Hardi |
| Evanston, Ill | Garrett Bibiical Institute, North- | 1855 | Charles J. Little |
| , | Western University (M. E.). | 1885 | Nels E. Simonsen, D. D |
|  | nary, Northwestern University (M.E.). |  |  |
| Galesburg, Ill. | Ryder Divinity School, Lombard University (Üniv) | 1881 | C. Ellwood Nash, A. MI., D. D. |
| Naperville, Ill | Union Biblical Institute (Ev. Asso.).- | 1876 | Thomas Bowman...... |
| Rock Island, Ill . | Augustana Theological Seminary (Ev.Luth.). | 1860 | Olof Olsson, Ph. D., D. D.- |
| Springfield, Ill. | Concordia College (Ger. Ev. Luth.) | 1846 | Reinhold Piepe |
| Merom, Ind.-..... | Union Christian College, Theological Dept. (Christian). | 1859 | L. J. Aldrich . |
| St. Meinrad, Ind.. | St. Meinrad's Ecclesiastical Semi- | 1860 | A. Schmitt, abbot |
| Upland, Ind.. | Taylor University, Theological | 1894 | T. C. Reade, D. D |
| Charles City, Iowa | Charles City College, Theological | 1891 | J. F. Hirsch, A. M |
| Des Moines, Iowa. | Drake University, Bible College (Dis- | 1881 | Harvey W. Everest.......- |
| Dubuque, Iowa .-. | German Presbyterian Theological | 1852 | Adam W. Ringland, D. D. |

theology，for the year 1897－98．

| Regularsessioncloses－ | $\begin{aligned} & \text { In- } \\ & \text { struct- } \\ & \text { ors. } \end{aligned}$ |  | Students． |  |  |  |  |  |  |  | Endowment funds． |  | Volumes in library. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { on } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \sim \end{aligned}$ |  |  |  | Whole number. |  |  |  |  |  |  |  |  |  |
| 5 | 6 | 9 | 8 | （1） | 19 | 且1 | 旦： | 是3 | 14 | 15 | 16 | 且 | 188 |  |
| June 20 <br> June 15 | ${ }_{2}^{5}$ | 0 | $\begin{aligned} & 17 \\ & 15 \end{aligned}$ | 0 0 | 17 | $\begin{aligned} & 4 \\ & 1 \end{aligned}$ | $\begin{aligned} & 2 \\ & 1 \end{aligned}$ | 3 | 40 35 | \＄4，400 | $\$ 1,500$ 8,000 | \＄004 | 2，200 | ${ }_{2}^{1}$ |
| $\begin{aligned} & \text { May } 28 \\ & \text { Apr. } 27 \end{aligned}$ | 2 | 0 | ${ }_{12}^{9}$ | 0 | 9 | $\begin{aligned} & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0 \end{aligned}$ | ${ }_{3}^{3}$ | $\begin{array}{\|l} 32 \\ 32 \\ 32 \end{array}$ | 6，000 0 | 50，000 | 12,383 10,000 | a 1，500 | 3 4 4 |
| ．．．．do <br> Apr． 28 | 6 | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ | $\begin{aligned} & 24 \\ & 31 \end{aligned}$ | 0 0 | ${ }_{31}^{24}$ | $\begin{aligned} & 4 \\ & 9 \end{aligned}$ | 7 25 | $\begin{aligned} & 3 \\ & 3 \end{aligned}$ | $\begin{array}{\|l\|} 32 \\ 31 \end{array}$ | $\begin{array}{r} 75,000 \\ 150,000 \end{array}$ | $\begin{array}{r} a 230,000 \\ 400,000 \end{array}$ | 3，000 | $\begin{array}{r} a 7,500 \\ a 17,000 \end{array}$ | 5 6 |
| June 1 | 3 | 2 | 7 | 0 | 7 | 2 | 2 | 3 | 40 | 15，000 | 38，000 |  | a 2，000 | 7 |
| June 10 | 3 | 0 | 12. | 3 | 15 | 1 | 1 | 3 | 36 |  | 16，70\％ |  | 2，000 | 8 |
| May 31 | 4 |  | 5 | 0 | 5 | 0 | ．． | 3 | 35 | 100， 000 | 0 | 0 | a 8，000 | 9 |
| June 10 | 5 | 1 | 34 | 1 | 35 | 3 | 11 | 3 | 36 | 65，000 | 100，000 | 1，600 | 3，290 | 10 |
| May 28 | 12 | 7 | 55 | 9 | 64 | 19 | 59 | 3 | 32 | 200，000 | 180，000 | 17，108 | 68，029 | 11 |
| June 5 | 5 | 2 | 31 | 0 | 31 | 13 | 12 | 3 | 37 | 85， $8 \% 7$ | 340， $65 \%$ | 1，730 | 20，000 | 12 |
| May 20 | 7 | 3 | 100 | 0 | 100 | 27 | 85 | 3 | 32 | 150，000 | 650， 000 | 4，524 | a 9，000 | 13 |
| June 7 | 5 | 2 | 64 | 0 | 64 | 10 | 64 | 2 | 36 | 338，000 | 450，000 |  | 11，000 | 14 |
| May 28 | 2 | 8 | 34 | 0 | 34 | 4 |  | 3 | 33 |  | 40， 000 |  | a 1，200 | 15 |
| June 2. | 5 |  | 10 | 0 | 10 | 1 |  | 3 | 35 | 25，000 |  |  | 600 | 16 |
| May 28 | 1 | 3 | 30 | 0 | 30 | 3 | 0 | ${ }_{2}^{2}$ | 34 |  | 0 | 0 | a 500 | 17 |
| May 25 | 1 |  | ${ }_{80}^{18}$ | 0 | 18 | 10 | 0 | 3 | ${ }^{24}$ | $\begin{array}{r} 0 \\ 100,000 \end{array}$ | 400， 000 |  | 11500 | 18 |
| May 11 | 12 | 4 | 164 | 0 | 164 | 45 | 90 | 3 | 32 | 300， 000 | 963， 820 | 17，229 | $a \geq 0,000$ | 20 |
| Apr． 24 | 2 | 7 | 54 | 0 | 54 | 23 | 31 | 3 | 30 | 100，000 | 0 | 7，000 | 4，000 | 21 |
| May 11 | 3 |  | 10 | ．－ | 10 | 5 |  | 3. | 33 | 11，000 |  |  |  | 22 |
| May 5 | 8. | 2. | 147 | 0 | $14 \%$ | 50 |  | 3 | 32 | 422， 725 | 464，000 | 25，000 | 20，000 | 23 |
| （b） | 16 | 3 | 339 | 32 | 371 | 37 | 238 | 3 | 48 | 100，000 | 251， 650 | 10，425 | 40，000 | 24 |
| May 28 | 5 | 2 | 23 | 0 | 23 | 5 | 5 | 3 | 35 | 125，000 | 200， 000 | 0 | 4，000 | 25 |
|  | 3 | 0 | 37 | 11 | 48 |  |  | 3 | 39 |  | 3，000 |  | 340 | 20 |
| May 26 | 8 | 2 | 158 | 1 | 159 | 20 | 48 | 3 ． | 32 |  |  |  | 11，558 | 27 |
| May 6 | 1 |  | 11 |  | 11 |  |  | 4 | 32 | 16，000 | 5，000 | 700 | 200 | 23 |
| June 5 | 5 |  | 9 | 2 | 11 | 4 | 0 | 4 | 38 |  |  |  |  | 29 |
| $\begin{aligned} & \text { June } 23 \\ & \text { May } 26 \end{aligned}$ | $\stackrel{2}{3}$ | $\begin{aligned} & 0 \\ & 1 \end{aligned}$ | $\begin{aligned} & 33 \\ & 61 \end{aligned}$ | 1 0 | $\begin{aligned} & 34 \\ & 61 \end{aligned}$ | $\begin{array}{r} 9 \\ 10 \end{array}$ | $\begin{array}{r} 8 \\ 43 \end{array}$ | $2,3$ | $\begin{aligned} & 38 \\ & 32 \end{aligned}$ |  | $\begin{gathered} 2 \mathrm{2a}, 000 \\ 20000 \end{gathered}$ | 500 | 500 | 30 31 |
| June 15 | 4 <br> 3 <br> 3 | $1$ | $\begin{array}{r} 127 \\ 29 \end{array}$ | 0 | $\begin{gathered} 127 \\ 35 \end{gathered}$ | 2 |  | $\begin{aligned} & 3 \\ & 3 \end{aligned}$ | $\begin{aligned} & 40 \\ & 36 \end{aligned}$ | 125， 000 | 2，100 | $\begin{array}{r} 4,500 \\ 450 \end{array}$ | $\begin{array}{r} 1,200 \\ -\quad 480 \end{array}$ | 32 33 |
| June－ | 8 | 0 | 35 | 0 | 35 | 10 | 0 | 5 | 40 | 6，000 | 0 | 0 | a 400 | 34 |
|  | 2 | 2 | 33 | 4 | 37 |  |  | 3 | 36 |  |  |  |  | 35 |
| June 9 | 1. | 0 | 9 | 0 | 9 | 0 | 0 | 3 | 39 |  | 9，000 | 500 | 500 | 36 |
| June 15 | 3 | 2 | 94 | 31 | 125 | 0 |  | 3 | 36 |  | 23，6\％6 | 0 | 1，000 | 37 |
| Apr． 27 | 2 |  | 11 | 0 | 11 | 1 | ．．． | 3 | 32 | 23，5\％1 | 18，530 | 2，337 | a 2,800 | 38 |


| Location. | Name of institution. |  | President or dean. |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |
| Dubuque. Iowa ... | Wartburg Seminary (Ev.Luth.) - |  | S. Fritschel, |
| Mount Pleasant, | German College, Theological School (II E. | 1873 | E. E. Schnette |
| Atchison, Kans .-. | Western Theological Seminary (Ev. | 1895 | Frank D. Altma |
| Danville, K | Presbyterian Theological Semin | 1853 | J. M. Worrall, D. |
| Lexington, Ky | Collese of the Bible, Theological course (Christian). | 1865 | J. W. McGarvey |
| Louisville, Ky . | Louis-ille Presbyterian Sheological Seminary.* | 1883 | Wm. Hoge Marquess, D. D. |
| do | Southern Baptist Theological Seminary. | 1859 | Wm. H. Whitsitt, D. D. LL. D. |
| Bangor | Bangor Theological Seminary (Cong.) | 1816 | None |
| Lewiston, | Cobb Dirinity School, Department of Bates College (Free Bapt.). | $18 \pm 0$ | James A. Howe, I |
| Baltimore, Md. | St. Joseph's Seminary (R. C.) | $1888$ | J. R. Slattery |
| Ilchester, M | Redemptorist College of Ilchester | $\begin{aligned} & 1891 \\ & 1857 \end{aligned}$ | Aerdinand A. Li |
| Mount St. Marys, Ma. | Mount ist. Mary's Theological School | 1308 | Willis L. O'Hare |
| Westminster, Ma. | Westminster Theological Seminary | 188:2 | Hugh L. Elderdice, A. If |
| Woodstock, Md | Woodstock Coll | 1869 | Burchard Villig |
| Andover, Mass | Andover Theological Seminary | 1808 | George Harris, |
| Boston, Mass | Boston University, School of Theol$\operatorname{ogy}$ (M. E.). | 1839 | Marcus D. Buell, A. M., D. D. |
| . do | St.john's Boston Ecelesiastical Sem- | 1884 | J. Hogan, D |
| Cambridge, Mass | Episcopal Theological School (P.E.) | 1867 | George Eodges, D. D |
|  | Harvard University, Divinity School (nonsec.). | 1817 | Charles C. Everett, D.I LL. D. |
| , | New (hurch Theological School | 1366 | Jame |
| Newton Center, Mass. | Newton Theological Institution (Bapt.) | 1825 | Alvah Hovey, D. D., LL. |
| Tufts College, Mass. | Tufts College, Divinity School (Univ.). | 1869 | Charles H. Leonar |
| Adrian, Mich | Adrian College, School of Theology | 1882 | David Jones, D |
| Hillsdale, Mi | Hillsdale College, Theological School | 1873 | George F. Mosher, L |
| Holland, Mich | Western Theological Seminary (Ref. | 1849 | John W. Beardslee, D. D |
| Collegeville. Minn | St. John's Seminary (R. C.) | 1867 | Peter Engel, Ph. |
| Faribault, Minn -- | Seabury Divinity School (P.E.) | 1860 | Henry B. Whipple, D. D., LL. $D$. |
| Minneapolis, Minn | Augsburg Seminary (Ev. Iruth.) | 1869 | Georg Sverdru |
| Red Ving, Minn.. | Red Wing seminary (Ev. Luth | 18.9 | M. G. Hans |
| Robbinsdate, Minn | Luther Seminary (Ev. Luth.) | 1876 | J. B. Frich.- |
| St. Panl, Minn..... | Luther Seminary (Ev. Luth.) | 1885 | H. Ernst, D. D C. W. Hertzler |
|  | St. Paul Seminary (R. C.) | 1834 | Patrick R. Hefiron, D. D., LL. D. |
| Canton, Mo | Christian Uuiversity (Christian) | 1857 | Clinton Lockhart |
| Flowisant, Mo. | St. Stanislaus Seminary (R. C.) - | $18 \% 3$ | Frederick P. Hagemann.- |
| Kansas City, Mo.. | Redemptorist Seminary of the St. Louis Province (R. C.). | 1887 | Ferreol Girardey, rector'-- |
| St. Louis, Mo | Concordia Theological Seminary (Ev. Luth.). | 1899 | Francis Piepe |
| do | Kenrick Theological Seminary (R.C.) | 1893 | Fraucis V. Nugen |
|  | Theological Seminary of the Evangelical Synod of North America, Edsn College. | 1850 | Louis Haeberle |
| Warrenton, Mo... | Central Wesleyan College (M.E.) | 1864 | George B. Addicks |
| Blair, Nebr | Trinity Seminary (Ev. Luth.) | 1886 | Peter S. Vig |

* In 1896-97.
theology, for the year 1897-98-Continued.

a The institution received a bequest of $\$ 6,000$ from Mrs. Sallie Logan, of Lexington, Ky
$b$ Approximately.

| , | Location. | Name of institution. |  | President or dean. |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 |
| 81 | Omaha, Nebr | Presbyterian Theological Seminary - | 1891 | Josepli J. Lampe, Ph. D., <br> D. D., chairman. |
| 82 | Santee Agency, Nebr. | Santee Normal Training School (Cong.). | 1870 | Alfrred L. Riggs ---...... |
| 83 | Bloomfield, N. J.. | German Theological School of Newark (Presb.). | 1869 | Charles E. Knox, D. D |
| 84 | Madison, N. | Drew Theological Seminary (M. E.) - | 1867 | Henry A. Buttz, D. D., LL. D. |
| 85 | New Brunswick, N.. J. | Seminary of the Reformed (Dutch) Church in America. | 1784 | Samuel M. Woodbridge, D. D., LL. D. |
| 86 | Princeton, N. J.. | Theological Seminary of the Presbyterian Church. | 1812 | William Henry Green, D. D., LL. D. |
| 87 | South Orange, N.J | Sominary of the Immaculato. Conception (R. C.). | 1856 | JosephJ. Synnott, D. D .- |
| 88 | Alfred, N. Y | Alfred University, Theological Dept. (7th Day Bapt.). | 1857 | Boothe C. Davis, Ph. D...- |
| 89 | Allegany, $\mathrm{N} . \mathrm{Y}$ | St. Bonareirture's Seminary (R. C.) - | 1860 | Joseph F. Butler |
| 90 | Auburn, N. Y | Auburn Theological Seminary (Presb.). | 1821 | Henry M. Booth, D. D., LL. D. |
| 91 | Buffalo, N. | German Martin Luther Seminary (Ev. Luth.). | $185 \pm$ | John A. Graban. |
| 92 | Canton, N. Y | Canton Theological Seminary of St. Lawrence University (Univ.). | 1858 | Isaac M. Atwood, |
| 93 | Hamilton, N. X | Hamilton Theological Seminary; Colgate University (Bapt.). | 1819 | Sylvester Burnham, D. D. |
| 94 | Hartwick Seminary, N. Y. | Hartwick Seminary (Ev. Luth.) ....... | 1816 | John G. Traver, A. M., principal. |
| 95 | New Xork, N.Y.- | General Theological Seminary of the Protestant Episcopal Church. | 1817 | Eugene A. Hoffiman, D. D., LL. D., D. C. L. |
| 96 | -do | Jewish Theological Seminary (Hebrew). | 1886 | Joseph Blumenthal |
| 97 | do | Union Theological Seminary (Presb.).* | 1836 | Charles C. Hall, D. D |
| 88 | Niagara University, N. Y. | Niagara University, Theological Dept. (R. C.). |  | J. P. Cribbins, director --.- |
| 99 100 | Rochester, N. Y .- | Rochester Theological Seminary (Bapt.). <br> St. Bernard's Seminary (R. C.) | 1851 1893 | Augustus H. Strong, D.D., LL. D. <br> James J. Hartley |
| 101 | Stanfordville, N. Y. | Christian Biblical Institute (Christian). | 1869 | John B. Weston, D. D |
| 102 | Yonkers, N.Y.... | St. Joseph's Seminary (R.C.)--......- | 1895 | Edward R. Dyer |
| 103 104 | Charlotte, N. C Raleigh, N. C | Biddle University, School of Theology (Presb.). <br> Shaw University, Theological School <br> (Bapt.). | 1868 | D.J. Sanders, D.D. <br> M. W. D. Norman, A. M., prof. |
| 105 | Berea, Ohio --....- | German Wallace College, Theological Dept. (M. E.). | 1865 | William Nast |
| 105 | Carthagena, Ohio. | St. Charles Borromeo Theological Seminary (R. C.). | 1860 | Boniface Russ |
| 107 | Cincinnati, Ohio | Hebrew Union College (Hebrew) ...- | 1875 | Isaac M. Wise.-...-...-. -- |
| 108 | --.. do .-.....-. | Lane Theological Seminary (Presb.). | 1829 | DavidS. Schaff., D. D., sec. |
| 109 | Columbus, Ohio .- | German Lutheran Seminary (Ev. Luth.). | 1850 | F. W. Stellhorn, D. D.-.... |
| 110 | Dayton, Ohio .-..- | Union Biblical Seminary (United Breth.). | 1871 | George A. Funkhouser, D. 1 . |
| 111 | Gambier, Ohio | Kenyon College, Divinity School (P.E.). | 1828 | Hosea W. Jones, D. D...... |
| 112 | Oberlin, Ohio | Oberlin College, Theological Dept. (Cong.). | 1835 | Owen H. Gates, Ph. D., registrar. |
| 113 | Springfield, Ohio | Wittenberg College, Theological School (Ev. Luth.) | 1845 | Samuel A. Ort, D. D., LL. D. |
| 114 | Tiffin, Ohio .-..... | Heidelberg Theological Seminary (Ref. Ch.) | 1850 | David Van Horne, D. D., LL. D. |
| 115 | Wilberforce, Ohio | Payne Theological Seminary (Af. M. E.). | 1892 | John G. Mitchell, A. M., D. D. |
| 116 | Xenia, Ohio .-..... | Xenia Theological Seminary (U. Presb.). | 1794 | James Harper, D. D., LL D. |
| 117 | Eugene, Oregon | Eugene Divinity School (Disciples) .- | 1895 | Eagene C. Sanderson, D.D. |

theology, for the year 1897-9S-Continued.

| Regular session closes- | $\begin{gathered} \text { In- } \\ \text { struct- } \\ \text { ors. } \end{gathered}$ |  | Students. |  |  |  |  | $\text { -өs.anoo өप7 u!̣ s.I飞ө } X$ |  | $\begin{aligned} & \text { Value of grounds and } \\ & \text { buildings. } \end{aligned}$ |  | © <br>  0 0 0 0 0 ". <br> 号 | $\text { -К.Iв.aq!̣ u! semnโo } \Lambda$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | o 0 0 0 0 0 0 0 0 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | 6 | \% | 8 | 9 | 11 | [11 | $1{ }^{1}$ \% | 18 | 14 | 13 | 16 | $1{ }^{18}$ | 18 |  |
| Apr. 28 | 6 | 1 | 30 | 0 | 30 | 8 | 3 | 3 | 32 |  |  |  | 2,000 | 81 |
| June 18 | 2 | 1 | 10 | 4 | 14 | 2 | 0. | 3 | 38 | \$60,000 | 0 |  | 0 | 82 |
| May 2 J | 3 | 0 | 9 | 0 | 9 | 6 | 0 | 3 | 32 | 25,000 | \$59,000 |  |  | 83 |
| May 20 | 6 | 0 | 168 | 0 | 168 | 47 | 95 | 3 | 36 | 485, 000 | 400,000 | 0 | 43,000 | 84 |
| May 25 | 5 | 2 | 41 | 0 | 41 | 11 | 8 | 3 | 34 |  | 360,000 | \$1,800 | 43,700 | 85 |
| May 7 | 8 | 4 | 238 | 0 | 238 | 60 | 206 | 3 | 33 | 500,000 | 1,369,000 |  | 61,648 | 85 |
| June 18 | 5 | 1 | 30 | 0 | 30 | 3 | 30 | 4 |  |  |  |  |  | 87 |
| June 23 | 3 | 0 | 4 | 0 | 4 | 0 | 3 | 3 | 38 | 0 | 26,000 |  |  | 88 |
| June 22 May 5 | 6 6 | 3 4 | 60 104 | 0 0 | 60 104 | 13 | ${ }^{0} 5$ | $\stackrel{4}{3}$ | $\stackrel{42}{33}$ | 25,000 300,000 | 6.66,417 ${ }^{0}$ | a 24, 143 | $\begin{array}{r} 2,265 \\ 250 \\ \hline \end{array}$ | 89 90 |
| May 5 | 6 | 4 | 104 | 0 | 104 | 42 | 85 | 3 | 33 | 300, 000 | 626,417 | a 24, 143 | 25, 010 | 90 |
| June 24 | 2 | 2 | 11 | 0 | 11 | 0 | 0 | 4 | 40 | 12,500 |  | 850 | 1,201 | 91 |
| June 28 | 4 | 3 | 19 | 4 | 23 | 5 | 3 | 3 | 38 | 50,000 | 154,000 | 730 | 8,000 | 92 |
| June 20 | 5 | 4 | 48 | 0 | 48 | 13 | 20 | 3 | 36 |  |  |  |  | 93 |
| June 22 | 2 | 1 | 7 | 0 | 7 | 2 | 0 | 3 | 39 | 10,000 | 15,000 | 0 |  | 94 |
| May 2 a | 10 | 4 | 155 | 0 | 155 | 44 | 98 | 3 | 36 | 1,353,000 | 1,260,987 | 187, 741 | 28,183 | 95 |
| June 15 | 3 | 3 | 26 | 0 | 26 | 3 | 0 |  | 46 | 27,000 |  | 10,000 | b 8,000 | 96 |
|  | 7 | 5 | 133 | 1 | 134 | 331 | 13 | 3 | 36 | 500,000 | 1,350,000 | 20,000 | 71,576 | 97 |
|  | 7 |  | 70 |  | 70 |  |  | 3 |  |  |  |  |  | 98 |
| May 15 | 12 | 1 | 152 | 0 | 152 | 40 | 29 | 3 | 35 |  |  |  | 29,608 | 99 |
|  | 9 |  |  | 0 | 66 | 11 |  |  | 40 |  |  |  |  | 100 |
| May 11 | 7 | 2 | 21 | 1 | 22 | 2 | 0 | 3 | 34 | $\begin{array}{r} 27,000 \\ \hline \end{array}$ | 54,000 | 2,668 | 1,980 | 101 |
| June 25 <br> June 5 | $\begin{array}{r} 8 \\ 5 \end{array}$ | 1 | $\begin{array}{r} 106 \\ 16 \end{array}$ | $\begin{aligned} & 0 \\ & 0 \end{aligned}$ | $\begin{array}{r} 106 \\ 16 \end{array}$ | 11 | 8 | $\begin{aligned} & 4 \\ & 3 \end{aligned}$ | 39 32 | $\begin{aligned} & 1,100,000 \\ & 140,009 \end{aligned}$ |  |  | $\begin{array}{r} 22,000 \\ 8,500 \end{array}$ | 102 103 |
|  | 1 |  | 16 | 0 | 15 |  |  |  |  |  |  |  |  | 104 |
|  | 2 |  | 28 | 0 | 28 | 5 |  |  |  |  |  |  |  | 105 |
| June 15 | 3 | 1 | 18 | 0 | 18 | 2 |  | 4 | 40 | 40,000 | 0 | 0 | 8,200 | 106 |
| June ${ }^{\text {May }}$ | 4 | ${ }_{5}^{5}$ | 71 | 0 | 71 | ${ }^{7}$ | ${ }_{2}{ }^{2}$ | ${ }_{3}^{5}$ | ${ }_{30}^{40}$ | 30,000 | 60,000 | 18,000 | 16,000 | 107 |
| June 2\% | ${ }_{3}^{4}$ | $\stackrel{3}{3}$ | 42 | 0 | 31 42 42 | 15 | 38 | ${ }_{3}^{3}$ | 40 | 125,000 |  |  | 6,000 | 109 |
| May 1 | 4 | 1 | 32 | 4 | 35 | 11 | 10 | 3 | 34 | 38,000 | 67,000 | 8,000 | 3,000 | 110 |
|  | 4 | 2 | 21 | 0 | 21 |  |  | 3 | 36 | 35, 000 | 110,000 |  | 8,000 | 111 |
| May 12 | 8 | 3 | 47 | 1 | 48 | 10 | 11 | 3 | 32 | 75,000 | 144,147 | 5,232 |  | 112 |
| do | 3 | 1 | 38 |  | 38 | 8 | 30 | 3 | 32 | 30,000 | 50,000 |  |  | 113 |
| Apr. 20 | 5 | 0 | 25 | 0 | 25 | 11 | 15 | 3 | 28 | 1,500 | 25,000 |  |  | 114 |
| June 20 | 2 | 3 | 35 | 2 | 37 | 5 | 0 | 3 | 36 | 10,000 |  |  | 2,200 | 115 |
| Apr. 28 | 4 | 0 | 45 | 5 | 50 | 18 | 39 | 3 | 34 | 5,000 | 130,000 |  | 6,000 | 116 |
| June 8 | 1 | 2 | 12 | 2 | 14 |  | 3 | 3 | 32 | 7,000 | 3,500 | 3,000 | 550 | 117 |

$a$ Legacy of late Johu W. Howe, of Rochester, $\$ 9,543$.
$b$ Approximately.

Table 6.-Statistics of schools of

|  | Location. | Name of institution. |  | President or dean. |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | \& | 3 | 4 |
| 118 | University Park, Oreg. | Portland University, Department of Theology (M. E.). | 1891 | Harvey K. Hines, |
| 119 | Allegheny, Pa.... | Allegheny Theological Seminary (U. | 1825 | James A. Grier, D |
| 120 | do | Reformed Presbyterian Theological | 1856 | David B. |
| 121 | . do | Seminary (Ref. Presb.). <br> Western Theological Seminary | 1827\% | Thomas H. Robinson, D. D |
| 122 | Beatty, Pa | St. Vincent's Seminary | 1346 | Lea |
| 123 | Bethlehem, Pa | Moravian Theological Seminary | 1807 | Augustus Schultze, D. D. |
| 124 | Chester. Pa Colleger | Crozer Theological Seminary (Bapt.) | 1858 | Henry G. Weston Henry T. Spangler, ${ }^{\text {D }}$ |
| 125 | Collegeville, Pa | Ursinus school of Theology (Ref. Ch. in U.S ). | 1871 | Henry T. Spangler, D. D.- |
| 126 | Gettysburg, Pa. | Evangelical Lutheran Theological Seminary. | 1825 | Milton Valentine, D. D., |
| 127 | Lancaster, Pa | Theological Seminary of the Re- formed Cnurch. | 18.5 | $\begin{aligned} & \text { Emanuel V. Gerhart, } \\ & \text { D.D. LL. } \end{aligned}$ |
| 128 | Lincoln Univer sity. Pa | Lincoln University, Theological Dept (Presb.). | 1872 | Isaac N. Rendall, D. D .... |
| 130 | Overbrook, Pa | Theological Seminary of St. Charles | 183, | Patrick J. Ga |
| 131 | Pliladelphia, Pa.. | Lutheran'Theological Seminary (Ev. Luth.). | 1864 | Henry E. Jacobs, D. D., LL D. |
| 132 |  | St. Vincent's Seminary (R. C.) | 1868 | James Mctill................. |
| 133 | Selins Grove, Pa | Susquehanna University, Theolog. ical Dept. (Ev. Luth.). | 1858 | J. R. Dimm, A. M., D. |
| 134 | Villanova, Pa. | Augustinian College, Theological School (R. C) | 1843 | Thomas C. Middleton, D D. |
| 135 | Columbia, S. C | Presbyterian Theological Seminary | 1829 | William M. McPheeters, D. D. chairman. |
| 136 | Duewest, S. C | Erskine Theological Seminary (A. R. P.). | 1837 | W. L. Pressly, D. D ...... |
| 13 \% | Newberry, S.C | Evangelical Lutheran Theological | 1892 | A. G. Voigt, D. D |
| 138 | Chattanooga, Tenn | U. S. Grant University, School of Theology (M E.). | 1886 | G. T. Newesent, D |
| 139 | Clarksville, Tenn. | Southwestern Presbyterian University, Divinity School. | 1885 | George Summey, D. D |
| 140 | Knoxville, Tenn. | Knox ville College, Theological Dept. (U. Presb.) | 1893 | J. R. Millin |
| 141 | Lebanon, Tenn | Cumberland University, Theological School (Cumb Presb.). | 1853 | J. M. Hubbert, D. D |
| 142 | Nashville, Tenn.- | Central Tennessee College, Theolog. ical Dept. (M.E.). | $188 \%$ | J. Braden, D. D |
| 143 | do | Fisk University, Theological Dept (Cong.). | 1892 | E. M. Crarath, D. D |
| 144 |  | Vander'bilt University, Biblical Dept. (M E.) | 1875 | Wilbur F. Tillett, D. D |
| 145 | Sewanee, Tenn | University of the South, Theological Dept. (P. E.). | 1878 | William P. Dubose, M. A., S. T. D. |
| 146 | El Paso, Tex. | Rio Grande Congregational Training | 1890 | A. C. Wright |
| $14 \%$ | Marshall, Tex | Wiley University. Theological Dept. (M.E.).* |  | M. W. Dogan, A. M |
| 148 | Petersburg, Va. | Bishop Payne Divinity School (P.E.). | 1878 | C. R Hains, D D |
| 149 | Richmond, Va.... | Richmond Theological Seminary <br> (Bapt.) | 1886 | Charles H. Corey, A. M., D. D. |
| $\begin{aligned} & 150 \\ & 151 \end{aligned}$ | Theological Sem | Unıon Theological Seminary (Presb.) | 1824 | W. W. Moore, D. D. [LL. D. |
| 151 | Theological Sem. inary, Va | Episcopal Theological Seminary | 1823 | Cornelius Walker, D. D |
| 152 | Franklin, W is | Mission House of the Reformed Church in the United States. | 1850 | H. A Muehlmeier, D. D... |
| 153 | Nashotah, Wis. | Nashotah House (P.E.) --......... | 1842 | Wm. Walter Webb, D. D.. |
| 154 | St. Francis, Wis . | Provincial Seminary of St. Francis of Sales (R.C.). | 1856 | Joseph Rainier ............. |
| 15.5 | Wauwatosa, Wis . | Erangelical Lutheran Theological Seminary. | 1878 | A. Hoenecke. |

* In 1896-97.
theology，for the year 1897－98．

| Regular session closes－ | $\left\lvert\, \begin{gathered} \text { In- } \\ \text { struct- } \\ \text { ors. } \end{gathered}\right.$ |  | Students． |  |  |  |  | 'əs.anoo əūt uị s.aveス |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Special or assist－ ant． |  |  | $\dot{8}$ <br> \＃ <br> g <br> d <br> 0 <br> 0 <br> 8 |  |  |  |  |  |  |  |  |  |
| 5 | 6 | 7 | 8 | 9 | 11410 | 11 | 18.8 | $1{ }^{1}$ | 18 | 國 5 | E $\underbrace{\text { d }}$ | 11\％ | 18 |  |
| June 6 | 5 |  | 27 |  | 27 |  |  | 3 | 36 |  |  |  | 100 | 118 |
| May 20 | 4 |  | $\%$ |  | \％ 6 | 25 |  | 3 | 32 | §60，000 | \＄218，000 | \＄10，000 | 6，000 | 119 |
| Apr． 30 | 2 |  | 28 | 0 | 28 | 9 | 24 | 3 | 32 | 25，000 | 74，3：3 |  | 3，450 | 120 |
| May 12 | 5 | 2 | 99 | 0 | 99 | 27 | 26 | 3 | 32 | 780 ， 55 | 530，055 | 20，000 | 27，500 | 121 |
|  |  |  | $35$ | 0 | 35 |  |  | 3 | $\begin{aligned} & 42 \\ & 40 \end{aligned}$ |  |  |  |  | 122 |
| June 15 | $\begin{aligned} & 4 \\ & 6 \end{aligned}$ | $\stackrel{1}{2}$ | ${ }_{95}^{12}$ | 0 0 | ${ }_{95}^{12}$ | 16 |  | $\stackrel{2}{3}_{3}^{3}$ | $\begin{aligned} & 40 \\ & 36 \end{aligned}$ |  | 461，500 |  | 6,090 14,500 | 123 |
| May 3 | 5 | 2 | 17 | 0 | 17 | 9 | 11 | 3 | 30 |  |  |  |  | 125 |
| June 2 | 4 | 0 | 51 | 0 | 51 | 24 | 48 | 3 | 36 | 160，000 | 201，687 |  | 12，000 | 126 |
| May 12 | 5 | 1 | 42 | 0 | 42 | 11 | 35 | 3 | 33 | 110，000 | 125，000 | 0 | 12，000 | 127 |
| June 5 | 8 |  | 46 | 0 | 46 | 17 | 43 | 3 | 33 | 63，000 | 135，960 | 4，800 |  | 128 |
| June 10 | 5 | 8 | 16 | 2 | 18 | 4 | 2 | 3 | 38 | 18，000 | 353， 701 | 0 | 28，000 | 129 |
| June 13 | 12 | 1 | 142 | 0 | 142 | 8 |  | 4 | 44 |  |  |  | 25，090 | 130 |
| May 31 | 4 | 1 | 92 | 0 | 92 | 32 | 58 | 3 | 31 | 1\％5，000 | 198，800 | 9，000 | 21,800 | 131 |
| June 28 June 1： | $\begin{aligned} & 5 \\ & 2 \end{aligned}$ | 3 | $\begin{aligned} & 39 \\ & 10 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & 39 \\ & 10 \end{aligned}$ | $\stackrel{7}{2}$ | 4 | $\begin{aligned} & 4 \\ & 3 \end{aligned}$ | $\begin{aligned} & 40 \\ & 39 \end{aligned}$ | 20，000 | $\begin{array}{r} 0 \\ 43,000 \end{array}$ | $\begin{array}{r} 0 \\ 2,000 \end{array}$ | 12，600 | ${ }_{133}^{132}$ |
|  | 5 |  | 22 |  | 22 |  |  |  | 40 |  |  |  |  | 134 |
| May 12 | 5 | 1 | 33 | 0 | 33 | 6 | 22 | 3 | 32 | 50，000 | 235， 000 |  | 20，000 | 135 |
| June 20 | 4 |  | 14 | 0 | 14 | 7 |  | 2 | 36 |  | 32，000 |  | 2，060 | 136 |
| June 5 | 1 |  | 8 | 0 | 8 | 5 | 8 | 3 | 33 |  |  |  |  | 137 |
| 緑 10 | 3 | 1 | 32 |  | 32 | 3 |  |  | 32 |  |  |  | 2，000 | 138 |
| juve 12 | 5 | 1 | 23 | 0 | 23 | 5 | 11 | 2 | 40 |  |  |  |  | 139 |
|  | 1 |  | 5 | 0 | 5 | 2 | 2 | 3 | 36 |  |  |  | 0 | 140 |
| June 5 | 8 |  | 57 | 8 | 65 | 11 | 35 | 3 | 32 | 10，000 | 82，000 | a20，000 | 1，000 | 141 |
| do | 2 | 1 | 24 | 0 | 24 | 2 | 0 | 2，4 | 38 |  |  |  |  | 142 |
| June 1 | 2 | 1 | 4 | 0 | 4 | 0 | 0 | 2，3 | 35 | 30，000 | 0 | 0 | 600 | 143 |
| June 20 | 5 | 50 | 46 | 0 | 46 | 6 | 38 | 3 | 34 | 170，000 | 250，000 |  | 4，000 | 144 |
| Aug． 4 | 4 | 1 | 33 | 0 | 33 | 4 | 17 | 3 | 40 | 50，000 | 60，000 |  |  | 45 |
| May 28 | 1 | 1 | 6 | 0 | 6 | 0 | 0 | 4 | 40 | 11，000 | 0 | 1，515 | 200 | 146 |
|  | 1 |  | 10 |  | 10 |  |  |  |  |  |  |  |  | 14 |
| June 7 Apr． 28 | $\stackrel{2}{4}$ | 2 0 | $\begin{aligned} & 10 \\ & 59 \end{aligned}$ | 0 0 | $\begin{aligned} & 10 \\ & 59 \end{aligned}$ | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ | $\frac{1}{1}$ | $\begin{aligned} & 3 \\ & 4 \end{aligned}$ | $\begin{aligned} & 39 \\ & 30 \end{aligned}$ | 12，000 | 60，090 | $\underset{5}{2,500}$ | $\begin{array}{r} 390 \\ 5,000 \end{array}$ | 148 149 |
| June 5 <br> June 27 | $\begin{aligned} & 5 \\ & 4 \end{aligned}$ | 1  <br> 4 1 <br> -  | $\begin{aligned} & 68 \\ & 38 \end{aligned}$ | 0 0 | $\begin{aligned} & 68 \\ & 38 \end{aligned}$ | $\begin{aligned} & 17 \\ & * 9 \end{aligned}$ | 54 | $\stackrel{3}{3}$ | $\begin{aligned} & 39 \\ & 42 \\ & 42 \end{aligned}$ | 170，000 | 308， 034 | 14，000 | $\begin{aligned} & 16,000 \\ & 18,000 \end{aligned}$ | 150 151 |
| June－ | 3 | 32 | 24 | 0 | 24 | 12 | 12 | 3 | 38 |  |  | 8，792 | 6，000 | 152 |
| May 29 <br> June 21 | 4 13 | 4 4 <br> 1  | $\begin{aligned} & 46 \\ & 65 \end{aligned}$ | 0 | 46 65 | 4 | 6 | 3 | $\begin{aligned} & 32 \\ & 45 \end{aligned}$ | $\begin{aligned} & 110,000 \\ & 150,000 \end{aligned}$ | 80，090 | $3,000$ | $\begin{aligned} & 14,006 \\ & 12,500 \end{aligned}$ | $\begin{aligned} & 153 \\ & 154 \end{aligned}$ |
| June 28 | 3 | 31 | 35 | 0 | 35 | 15 | 20 | 3 | 40 | 75，000 | 0 | 0 | 1，000 | 155 |


| Location. | Name of institution. | $\begin{aligned} & \text { Year of first open- } \\ & \text { ing. } \end{aligned}$ | President or dean. |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 |
| University, Ala-- | University of Alabama, School of Law. | 1873 | Wm. S. Thorington -.... | June 22 |
| Little Rock, Ark. | Arkansas Industrial University, Law Dept. | 1890 | F. M. Goar | June 7 |
| ..... d | University of Arkansas, Law Dept. | 1887 | John H. Carmichael.-..- | May 31 |
| Los Angeles, Cal. | Los Argeles Law School .-..... | 1897 | ```James B. Scott, A. M., D. C. L.``` | June 21 |
| San Francisco, Cal. | University of California, Hastings College of the Law. | $18 \% 8$ | Charles W. Slack--.....-. | May 18 |
| Stanford University, Cal. | Leland Stanford Junior University, Law Dept. | 1893 | Nathan Abbott. | May 25 |
| Eoulder, Colo... | University of Colorado, Law School. | 1892 | Moses Hallett, LL. D...- | June 2 |
| Denver, Colo | University of Denver, Denver Law School. | 1892 | Albert E. Pattison. .-.... | June 8 |
| New Haven, Conn. | Yale University, Law Dept .-.. | 1824 | Francis Wayland, LL. D. | June 27 |
| Washington, D. C | Catholic University of America, Law Dept. | 1895 | William C. Robinson, | June 8 |
|  | Columbian University, Law School. | 1826 | Walter S. Cox, LL. D. | June 1 |
|  | Georgetown University, School of Law. | $18 \% 0$ | Jeremiah M. Wilson, LL. D. |  |
| do | Howard University, School of Law. | 1869 | Benjamin F. Leighton, LL. D. | May 28 |
|  | National University, LawDept* | $18 \% 0$ | Richard H. Alvey | $\text { May } 5$ |
| Athens, Ga | University of Georgia, Law Dept. | 1859 | Sylvanus Morris, A. M., sec. | June 15 |
| Atlanta, Ga.....- | Morris Brown College, Law School. | 1896 | C. H. J. Taylor .-........- | June 1 |
| Macon, Ga ....... | Mercer University, Law School | 1875 | Emory Speer .-...-.-.- |  |
| Bloomington, Ill. | Bloomington Law School, Illinois Wesleyan University. | 1874 | Owen T, Reeves, LL. D. | June 12 |
| Chicago, Ill | Chicago College of Law, Lake Forest University. | 1888 | Thomas A. Moran, LL. D | June 1 |
| ---- do --------..- | Chicago Law School.-............ | 1896 | George W. Warvelle, LL. I. | May 27 |
| ----do | Illinois College of Law | 1897 | Howard N. Ogden, Ph. D., L. H. D. | May 28 |
| do | Kent College of La | 1892 | Marshall D. Ewell, LL. D | May 20 |
| -.-- do .-.... | Northwestern University, Law School. | 1859 | PeterS. Grosscup, LL. D | June 16 |
| Lebanon, Ill | Mckendree Law School | 1859 | George A. Crow ---...- | June 8 |
| Quincy, Ill.------ | Chaddock College Law School. University of lllinois, School | 1880 | Thomas R, Petri, sec.-.. | May 27 |
| Urbana, Ill.......- | University of Illinois, School of Law. | 1897 | Andrew S.Draper,LL.D. | June 14 |
| Bloomington,Ind <br> Danville, Ind .... | Indiana University, Law School Indiana Central Law School*.. | 1888 | William P. Rogers <br> J. A. Joseph | June 15 |
| Indianapolis, Ind | Indiana Law School, Univer. sity of Indianapolis. | 1894 | William P. Fishback .... | May 25 |
| Notre Dame, Ind | University of Notre Dame, Law Dept. | 1869 | William Hoynes, LL. D. |  |
| Valparaiso, Ind.- | Northern Indiana Law School- | 1879 | Mark L. De Motte --..- | Juner ${ }^{2}$ |
| Des Moines, Iowa | Iowa College of Law, Drake University. | 1886 | Chester C. Cole, LL. D.- | May 25 |
| Iowa City, Iowa. | State University of Iowa, Law Dept. | 1865 | Emlin McClain, LL. D... | June 8 |
| Lawrence, Kans. | University of Kansas, School of Law. | 1879 | J. W. Green, A. M....... | d |
| Louisville, Ky... | University of Louisville, Law School | 1846 | W. O. Harris .-.....-..... | Apr. 30 |
| New Orleans, La_ | Tulane University of Louisiana, Law Dept. | 1847 | Harry H. Hall | May 14 |
| Baltimore, Md... | Baltimore University, School of Law. | 1890 | Bernard C. Steiner, Ph.D. | June 8 |
| ......do | University of Maryland, Law School. |  | John P. Poe | June 1 |
| Boston, Mass. | Boston University, School of Law. | 1872 | Samuel C. Bennett, acting. | -.-do -.- |

schools of law for 189\%-98.


Table 7.-Statistics of schools

|  | Location. | Name of institution. | $\begin{aligned} & \text { Year of first open- } \\ & \text { ing. } \end{aligned}$ | President or dean. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 8 | 4 | 5 |
| 40 | Cambridge, Mass | Harvard University, Law | 1817 | James Barr Ames, A. M | June 27 |
| 41 | Ann Arbor, Mich | School. <br> University of Michigan, Law | 18 \% 9 | Harry B. Hutchins, | June 22 |
| 42 | Detroit, Mich | Dept. <br> Detroit College of Law | 1892 | $\begin{aligned} & \text { LL.D. } \\ & \text { Philip T.Van Zile, LL.D } \end{aligned}$ | June 24 |
| 43 | Minneapolis, Minn. | University of Minnesota, College of Law. | 1888 | Williams. Patiee, LL.D | $\text { June } 1$ |
| 44 | University, Miss. | University of Mississippi, Law | 1854 | G. D. Shands, LL. D | June 8 |
| 45 | Columbia, Mo | University of Missouri, Law | 18\%2 | Alexander Martin, | June 6 |
| 48 | Kansas City, Mo. | Kansas City School of Law | 1895 | LL. D. <br> William P. Borland .... | June 11 |
| 47 | St. Louis, Mo... | St. Louis Law School, Washing. ton University | 1867 | William S. Curti | June 16 |
| 48 | Lincoln, Nebr | University of Nebraska, Col- | 1891 | M. B. Reese | June 6 |
| 49 | Omaha, Nebr | Omaha School of Law, Univer- | 189\% | T. J. Mahone | une 16 |
| 50 | Albany, N. Y | Albany Law School, Union Uni- | 1851 | J. Newton Fiero, LL. D. | June 2 |
| 51 | Buffalo, N. Y | Buffalo Law School, Univer- | 1887 | Adelbert Moot | May 23 |
| 52 | Ithaca, N. Y | Cornell University, College of | $188 \%$ | Francis M. Finch, LL. D. | June 16 |
| 53 | New York, N. Y | Columbia University, School of L2w. |  | Wm. A. Keener, LL. D.- | June 11 |
| 54 | .....do | New York Law School --....- | 1891 | George Chase | June 9 |
| 55 |  | New York University, School of Law. | 1831 | Clarence D. Ash |  |
| 56 | Syracuse, N. Y | Syracuse University, College of Law | 1895 | James B. Brooks, A. M., | June 8 |
| $5 \%$ | Chapel Hill, N. C. | University of North Carolina, | 1846 | John Mranning, LL. D .-. | June 1 |
| 58 | R | Shaw University, Law School.. | 1888 | E. A. Jol | ar. 15 |
| 59 | Ada, Ohio | Ohio Normal University, Law | 1893 | S. P. Axlin | July 21 |
| 60 | Cincinnati, Ohio. | University of Cincinnati, Law |  | William H. Taft, LL. D | June 16 |
| 61 | Cleveland, Ohio | Cleveland College of Law |  | Sherman Arter, A |  |
| 63 | ...- do --.......... | Franklin T. Backus Law School of Western Reserve University. | 1892 | Evan H. Hopkins | June 20 |
| 63 | Columbus, Ohio | Ohio State University, School of Law. | 1891 | Wm. Forrest Hunter | June 16 |
| 64 | Portland, Oreg | University of Oregon, School of Law. | 1884 | Richard H. Thornton | Nay 25 |
| 65 | Salem, Oreg | Willamette University, Law | 1887 | S. T. Richardson, A. M | June 7 |
| 66 | Carlisle. Pa | Dickinson School of Law | 1834 | William Trickett, LL. D. |  |
| 67 | Philadelphia, Pa. | University of Pennsylvania, Law Dept. | f1790 | William Draper Lewis, Ph. D. | une 8 |
| 68 | Pittsburg, Pa.. | Pittsburg Law School, Department of Western University of Pennsylvania. | 1895 | John D. Shafer | une 3 |
| 69 | Columbia, S. C | South Carolina College, Law | 1885 | Jos. Daniel Pope, LL. D. | June 23 |
| 70 | Harriman, Tenn. | American Temperance Uni- | 1893 | S. C. Brown, A. M | May 24 |
| 71 | Knoxville, Tenn | University of Tennessee, Law | 1889 | Henry H. Ingersoll, | June 15 |
| 72 | Lebanon, Tenn | Dept. <br> Cumberland University, Law School. | 1847 | Andrew B. Martin, LL. D. | une 2 |
| 73 | Nashvilie, Tenn. | Central Tennessee College, Law Dept | 1879 | John W. Grant... | ane 2 |
| 74 |  | Vanderbilt University, Law | 1875 | Thomas H. Malo | une 21 |
| 75 | Sewanee, Tenn | Sewanee Law School, Univer- | 1893 | Burr J. Ramage, Ph. D | Aug. 8 |
| 76 | Austin, Tex | sity of the South. <br> University of Texas, Law Dept. | 1883 | George T. Winston...... | June 21 |

of law for 1897-98-Continued.


## d Approximately. <br> $e$ Yields an income of $87,5 \%$ <br> $f$ Reorganized in 1850 .

$g$ From 3.30 to 5.30 p. m.
$h$ In addition to the regular day course there is an evening course covering three years.

Table 7.-Statistics of schools

|  | Location. | Name of institution. |  | President or dean. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 |
| 77 | Fort Worth, Tex. | Fort Worth University, Law | 1881 | Augustus J. Booty ...... | May 25 |
| 78 | Lexington, Va... | Washington and Lee Univer- | 1849 | Charles A. Graves......- | June 15 |
| 79 | Richmond, Va ..- | sity, School of Law. <br> Richmond College, School of | $18 \% 0$ | F. W. Boatwright, A. M. | June 23 |
| 80 | University of Virginia $V$ a | University of Virginia, Law School | 18.26 | W. M. Lile . . . . . . . - . . . . | June 15 |
| 81 | Morgantown, | West Virginia University, | 1878 | Okey Johnson, A. M ....- | June 9 |
| 82 | Madison, Wis...- | University of Wisconsin, Col- | 1863 | Edwin E. Bryant......... | June 23 |
| 83 | Milwaukee, Wis. | Milwaukee Law School. | 1893 | Edward R. Veech ....... | May 31 |

a James C. Carter, of New York, gave $\$ 5,000$.
of law for 189\%-98—Continued.

b Approximately.

Table 8.—Statistics of schools of

$a$ Approzimately. $\quad b$ No tuition fee the fourth year.
medicine, for the year 1897-98.

$c$ Day course only hereafter.
d Four-year course will begin in 1899.

Table 8.-Statistics of schools of

medicine，for the year 189\％－98－Continued．

| Students． |  |  |  |  | Course． |  |  | $\begin{gathered} \text { Graduation or exami- } \\ \text { nation fees. } \end{gathered}$ | 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> .3 <br>  <br>  <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 |  |  |  | Volumes in library. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \dot{\sim} \\ & 0 \\ & \text { a } \\ & \text { ä } \\ & 0.0 \\ & \text { ä } \\ & 0 \\ & \text { B } \\ & \text { z } \end{aligned}$ | $\begin{aligned} & \text { Fi } \\ & \text { से } \\ & \text { E-1 } \end{aligned}$ |  | $\begin{aligned} & \dot{0} \\ & \dot{4} \dot{0} \\ & x_{0} \dot{\theta} \\ & \dot{\pi} \dot{0} \\ & \frac{3}{工} \end{aligned}$ |  | Weeks in year. |  |  |  |  |  |  |  |  |  |  |
| 8 | 9 | 10 | 1818 | 18 | 13 |  | 125 | 18 | 18 | 38 | 49 | P6 | 211 | 208 | ＇3：3 |  |
| 56 | 2 | 53 | 22 |  | 4 | 24 | 365 | 325 | \＄250 |  | \＄10，000 |  |  | Day－ |  | 32 |
| 192 | 8 | 200 | 50 | 16 | 4 | 23 | 65 | 0 | 260 |  |  |  | 1，200 | Day ．－ | 1893 | 33 |
| 107 | 14 | 121 | $4 \%$ | 24 | 4 | 26 | 33 | 30 |  | \＄60， 000 | 0 | 0 |  | Botir－ | 1898 | 34 |
| 239 | $1 \frac{1}{2}$ | 246 | 89 |  | a 3 | 26 | 43 | 30 |  | 40.000 | 0 | 0 | 0 | Both | 1890 | 35 |
| 42 | 2 | 41 | 12 | 5 | 4 | 28 | 45 | 2） | $23 \%$ | 11，000 |  |  |  | Day | 1845 | 36 |
| 60 | 10 | $\%$ | 23 | 6 | 3 | 21 | 60 | 25 |  |  |  |  | $15 \sim$ | Day |  | 37 |
| 69 | 17 | 83 | 18 |  | 3 | 23 | 69 | 30 |  | 10，000 |  |  |  | Day |  | 38 |
| 300 | 0 | 300 | 138 |  | 4 | $2{ }^{3}$ | 115 | 30 | 495 |  | 0 | 0 |  | Lay | 1896 | 39 |
| 309 | 0 | 309 | 140 |  | 4 | 23 | \％ | 10 |  | 75,000 | 0 | 0 | 500 | Both |  | 40 |
| 180 | 0 0 | 180 | 73 |  | $\frac{4}{3}$ | 26 | 75 | 30 30 | 400 | 100，000 |  | 0 |  | Day | 1895 | 41 |
| 17 | 0 | 17 | ＊8 |  | 4 | 21 | 30 | 10 | 130 |  |  |  |  |  |  | 43 |
| 321 | 0 | 321 | 86 |  | 3 | 26 | 150 | 30 | 465 | 200，000 | 0 | 0 | $2, \%$ | Day |  | 44 |
| 126 | 0 | $1 \approx 6$ | 33 | 2\％ | 3 | 21 | $\% 8$ | 25 |  | 13，000 | 0 | 0 | 3，\％00 | Day |  | 45 |
| 41 | 0 | 41 | （b） | 9 |  | 22 | 50 |  |  |  | 0 | 0 |  | Day |  | 46 |
| 400 | 0 | 409 | 147 |  | 4 | 28 | 90 | 30 |  | 250，000 | 0 | 0 | 0 | Day | 1895 | 47 |
| 149 | 0 | 149 | 51 |  | a3 | 26 | 50 | 30 | c300 |  |  | 0 |  | Day |  | 48 |
| 284 | 0 | 284 | 83 |  | 4 | 23 | 100 | 30 | 430 | 80，000 |  |  | 0 | Day |  | 49 |
| 134 | 33 | $15 \sim$ | $2)$ | $16 \%$ | 4 | 35 | 200 | 0 |  | 92,800 | 127，000 | \＄3，000 | \％，71\％ | Day－ | 1893 | 50 |
| 258 | 0 | 258 | 33 | 30 | 4 | 28 | 100 | 30 | $4 \%$ | 300，000 | 0 | 2，000 | c2，000 | Day－－ | 1885 | 51 |
| 0 | 12 | $1 \%$ | 0 | 8 | 4 | 33 | 100 | 30 | 430 | 16，000 | 0 | 0 | $3 \% 3$ | Day－－ | 1895 | 52 |
| 98 | 18 | 116 | 1 |  | 4 | 33 | 100 | 30 | c $4 \%$ | 30,000 | 25,000 | 5,900 | 1，500 | Day ． | 1895 | 53 |
| 563 | 0 | 553 | 126 | c232 | 4 | 40 | 200 | 30 | 723 |  |  |  | 0 | Day - | 1892 | 54 |
| 172 | 48 | $2 \geqslant 0$ | 41 | 19 | 4 | 30 | 100 | 30 |  |  |  |  | 800 | Day－－ | 1896 | 55 |
| 351 | 58 | 409 | ＊63 |  | 4 | 36 |  |  | $300{ }^{4}$ |  |  |  | 10，000 | Day－－ |  | 56 |
| 191 | 0 | 191 | 30 | －．－ | 4 | 28 | 60 | 30 | 415 | 110，000 | 0 | 0 | 1，200 | Day－－ | 1805 | $5 \%$ |
| 104 | $1 t$ | 118 | 46 | －－－－ | 4 | 24 | 50 | 23 | 290 | 25,000 |  |  | 3，000 | Day－－ |  | 58 |
| 55 | 5 | 60 | 8 | －－ | 3 | 31 | 50 | 25 | 250 | 0 | 0 | 0 | 0 | Day－－ |  | 59 |
| 90 | S | 98 | 10 | 18 | 4 | 36 | 65 | 0 | 238 |  | 0 | 0 | 0 | Day ． | 1895 | 60 |
| 199 | 19 | 218 | 13 | 24 | 4 | 32 | 100 | －－－ | 410 | 100，000 |  |  | 1，000 | Day－－ | 1895 | 61 |
| 48 | 1 | 49 | 13 | －．．． | 3 | 36 | 20 | 3 | 120 |  |  | 0 | $c 200$ | Day ．－ |  | 62 |
| 130 | 0 | 130 | 41 |  | 3 | 25 | 75 | 20 | 225 | 15,000 |  |  |  | Day－－ |  | 63 |
| 33 | 0 | 33 | 1 | 7 | a3 | 28 | 50 | 25 | 200 |  |  |  |  |  |  | 64 |

Table 8.-Statistics of schools of

|  |  |  | ${ }_{8}^{80}$ |  | 0 0 0 0 0 |  | n-ucts. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Location. | Name of institution. |  | President or dean. |  |  |  |
|  | 1 | 3 | 3 | 4 | 5 | 6 | 7 |
|  |  | REGULAR-continued. |  |  |  |  |  |
| 65 | Kansas City, Mo. | University Medical College. | 1881 | S. G. Gant | Mar. 20 | 15 | 15 |
| 66 | . do | Woman's Medical College | 1895 | Flavel B. Tiffan | May 3 | 20 |  |
| 67 | St. Joseph | Central Medical College... | 1894 | T. E. Potter -....-- | Mar. 1 | 17 | 0 |
| 68 | --do----- | Ensworth Medical College | 1877 | Hiram Christop |  | 16 | 4 |
| 69 | St. Louis, | Barnes Medical College.- | 1893 | C. H. Hughes --.-- | Apr. 13 | 22 | 6 |
| 70 | .-. - do .- | Beaumont Hospital Medical College. | 1885 | Frank J. Lutz, A. M- | Apr. 21 | 20 | 5 |
| 71 | . do | Marion Sims College of Medicine. | 1890 | Young H. Bond, A. M- | Apr. 9 | 19 | 8 |
| 72 | do | Missouri Medical College. | 1840 | P.G.Robinson,LL.D. | Mar. 29 | 16 | 22 |
| 73 | ---do | St. Louis Medical College - | 1842 | Henry H. Mudd.... | Apr. 26 | 21 | 13 |
| 74 | Omaha, N | John A. Creighton Medical College. | 189\% | D. C. Bryant, A. M.- | Sept. 25 | 25 | 10 |
| 75 | - do .-.-.-....- | Omaha Medical College -- | 1881 | Harold Gifford. | Apr. 22 | 23 | 4 |
| 76 | Hanover, N. H .- | Dartmouth Medical College. | 1798 | Wm. T. Smith, LL.D. | Feb. 26 | 13 | 2 |
| 77 | Albany, N. Y | Albany Medical College.- | 1838 | Willis G. Tucker, Ph. D. | Apr. 20 | 14 | 28 |
| 78 | Buffalo, N. Y | Niagara University,Medical Dept. $c$ | 1883 | Thomas Lothrop, M. A., Ph. D. | May 11 | 27 | 11 |
| 79 | do | University of Buffalo, Medical Dept.c | 1845 | Matthew D. Mann, A. M. | Apr. 26 | 7 | 25 |
| 80 | New York, N. Y. | Bellevue Hospital Medical College. $d$ | 1861 | Austin Flint, LL. D.- | May 9 | 28 | 10 |
| 81 | do | College of Physicians and Surgeons, Medical Dept. of Columbia University | 1807 | James W. McLane .- | June 12 | 24 | 50 |
| 82 | New York (Brooklyn), N. Y. | Long Island College Hospital. * | 1860 | Jarvis S. Wigh |  | 20 | 29 |
| 83 | New York, N. Y. | University Medical Col- | 1841 | Egbert Le Fevre | May 18 | 8 | 34 |
| 84 | do | lege. $d$ <br> Woman's Medical College of the New York Infirmary for Women and Children. | 1866 | Emily Blackwell | May 26 | 9 | 22 |
| 85 | Syracuse, N. Y | Syracuse University, College of Medicine. | 1872 | Henry D. Didama, LL. D. | June 8 | 16 | 18 |
| 86 | Chapel Hill, N. C. | University of North Carolina, Medical School. | 1890 | Edwin A. Alderman, D. C. L. | May 30 | 5 | 1 |
| 87 | Davidson, N.C .- | North Carolina Medical College. | 1893 | John P. Munroe ..... | May 1 | 5 | 3 |
| 88 | Raleigh, N. C...- | Leonard Medical School of Shaw University. | 1882 | James McKee........- | Mar. 15 | 8 | 1 |
| 89 | Cincinnati, Ohio. | Cincinnati College of Medicine and Surgery. | 1851 | S. C. Ayres, A. M...- | Oct. 1 | 13 | 10 |
| 90 | do | Laura Memorial Woman's Medical College. | 1889 | John M. Withrow, A. M. | Apr. 28 | 19 | 2 |
| 91 | .do | Medical College of Ohio, University of Cincinnati. | 1819 | W. W. Seely-...-.... | May 3 | 12 | 14 |
| 92 | do | Miami Medical College..- | 1853 | N. P. Dandridge, <br> A. M. | do | 11 | 11 |
| 93 | Cleveland, Ohio - | Cleveland College of Phy. sicians and Surgeons, Medical Dept. of Ohio Wesleyan University. | 1865 | Charles B. Parker, M.R.C.S.Eng. | May 4 | 21 | 9 |
| 94 | do | Western Reserve University, Medical College | 1843 | $\begin{aligned} & \text { Hunter H. Powell, } \\ & \text { A. M. } \end{aligned}$ | June 16 | 20 | 3 |
| 95 | Columbus, Ohio. | Ohio Medical University . | 1890 | George M. Waters, A. M, | Apr. 5 | 34 | 8 |

[^76]a Approximately.
c The medical departments of Niagara University and Buffalo University were consolidated in 1898.
medicine, for the year 189\%-98-Continued.

| Students. |  |  |  |  | Course. |  |  |  | Fees of entire course. |  |  | $\begin{aligned} & \text { Benefactions received } \\ & \text { in 1897-98. } \end{aligned}$ | Volumes in library |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\oplus$ <br>  | -əs.anoo u! s.xen |  |  |  |  |  |  |  |  |  |  |  |
| 8 | 9 | 10 | 11 | 18 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 180 |  | $3{ }^{3}$ | 183 |  |
| 275 | 0 | 275 | 67 | $a 60$ | $b 3$ | 24 | \$60 | 825 | \$200 | \$35, 000 |  |  | 100 | Day .. |  | 65 |
| 0 | 15 | 15 | 7 | 4 | 3 | $3{ }^{3}$ | 100 | 30 | $2 \% 0$ |  | \$1,000 |  | 0 | Day |  | 65 |
| 71 | 2 | 73 | 25 |  | 3 | 26 | 40 | 25 |  | 25,000 | 0 | 0 | 0 | Both |  | 67 |
| 39 | 1 | 40 | 12 |  | 3 | 25 | 50 | 25 | $\alpha 200$ |  |  | 0 | ct 300 | Day . |  | 68 |
| 604 | 0 | 604 | $1 \% 7$ |  | 4 | 28 | 55 | 25 | 293 | 140,000 | 0 | ${ }^{0}$ |  | Day | 1897 | 69 |
| 74 | 0 | 74 | 27 | 33 | 3 | 28 | 85 | --- | 250 | 50,000 |  | \$1,000 |  | Day |  | 70 |
| 215 | 0 | 215 | 72 |  | 4 | 26 | 75 | 25 | 225 | 65,000 |  |  | 500 | Day . | 1897 | 71 |
| 215 | 0 | 215 | 85 |  | 4 | 26 | 100 |  | 405 | 100, 000 |  |  |  | Day | 1897 | 72 |
| 89 76 |  | 89 84 | 28 | 24 20 | 4 | 2888888 | 100 |  | 305 300 | 150,000 100,000 |  |  |  | Day - | 1897 1894 | 73 74 |
| 76 | 8 | 84 | 13 | 20 | 4 | 28 | 75 |  | 300 | 100,000 |  |  | 0 | Day . | 1894 | 74 |
| 81 | 7 | 88 | 27 |  | b 3 | 26 | 65 | 39 | a 250 | 25,000 | 0 | 0 |  | Day . | 1895 | 75 |
| 120 | 0 | 120 | 40 | 23 | 4 | $\because 8$ | 110 | 25 |  |  |  | 0 |  | Day .- | 1898 | 76 |
| 195 | 0 | 195 | 57 | 26 | 3 | 29 | 100 | 25 | a 459 | 100,060 | 12, 500 | 5,000 |  | Day .- |  | 77 |
| 54 | 3 | 57 | 10 | ---- | 4 | 30 | 75 | 25 |  | 75,000 |  |  | a 600 | Day -- | 1897 | 78 |
| 209 | 30 | 239 | 63 |  | 4 | 30 | 100 | 10 | 520 | 173,500 | 4,500 | 0 | 6,3\%3 | Day .- | 1896 | 79 |
| 503 | 0 | 503 | 132 | 59 | 4 | 32 | 150 | 30 |  | 300,000 | 0 | 0 | 0 | Day .- | 1897 | 80 |
| 765 | 0 | 765 | 145 | 298 | 4 | 3 3) | 200 | 25 | 830 | 2,000,000 | 480,000 |  | 0 | Day .. | 1894 | 81 |
| 383 | 0 | 383 | 71 |  | 3 | 26 | 125 | 25 | $4 \% 5$ |  |  |  |  |  |  | 82 |
| 244 | 0 | 244 | 103 |  | 3 | 38 | 175 | 30 |  |  |  |  |  | Day .- |  | 83 |
| 0 | 100 | 100 | 18 | 13 | 4 | 34 | 130 | 30 | 535 | 102,000 |  |  | 833 | Day .- | 1893 | 84 |
| 89 | 7 | 96 | 24 |  | 4 | 32 | 125 | 25 | 517 | 70,000 | 0 | 2,700 |  | Day -- | 1896 | 85 |
| 39 | 0 | 39 | 0 | 4 | (e) | 32 | 90 |  |  |  | 0 | 0 | 1,500 | Day .- |  | 86 |
| 62 | 0 | $6 \stackrel{2}{2}$ | 4 | ---- | 3 | 32 | 75 | 25 | 240 | 3,700 | 0 | 0 | a 200 | Day .- |  | 87 |
| 6.4 | 0 | 64 | 10 |  | 4 | 24 | 75 | 10 | 310 | 15,000 | 5,000 | 2,200 |  | Day | 1882 | 88 |
| 83 | 11 | 94 | 23 |  | 4 | 30 | 75 | 25 | 335 |  |  |  |  | Day | 1895 | 89 |
| 0 | 22 | 22 | 7 | 2 | 4 | 28 | 50 | 25 | 260 | 30,000 |  | 1,000 |  | Day | 1894 | 90 |
| 214 | 0 | 214 | 29 |  | 4 | 28 | 100 | 25 |  | 70,000 |  |  |  |  | 1895 | 91 |
| 81 | 0 | 81 | 12 | 12 | 4 | 26 | 100 | 25 | 430 |  |  |  |  |  | 1895 | 92 |
| 91 | 5 | 96 | 43 |  | 3 | 32 | 100 | 30 |  | 65,000 |  |  |  | Day. | 1895 | 93 |
| 123 | 0 | 123 | 37 | ---- | 4 | 33 | 125 | -- | a 525 | 300,000 |  | 30,000 |  | Day .- | 1896 | 94 |
| 207 | 16 | 223 | 95 | 34 | 4 | 28 | 50 | 10 | 271 | 50,000 |  |  | 2,000 | Day .. | 1895 | 05 |

[^77]Table 8.—Statistics of schools of

|  | Location. | Name of institution. | Year of first opening | President or dean. | $\begin{aligned} & 1 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | In-structors. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  | 1 | ${ }^{8}$ | 3 | 4 | \% | 6 | 7 |
|  |  | REGULAR-continued. |  |  |  |  |  |
| 96 | Columbu -, Ohio | Staring Medical College. | 1847 | Starling Loving, LI. D. | Apr. 14 | 16 | 12 |
| 97 | Lebanon, Ohio | National Normal University, College of Medicine. | 1890 | Selden S. Scoville, A. M. | Mar. 19 | 9 | 1 |
| 98 | Toledo, Ohio | Toledo Medical College .- | 1883 | Daniel L.Haag, Ph.C. | Apr. 5 | 17 | 10 |
| 99 | Portland. Oreg. | University of Oregon, Medical Dept. | 188\% | S. E. Josephi. | Apr. 1 | 14 | 6 |
| 100 | Salem, Oreg | Willamette University, | 1865 | W. H. Byrd.. | Mar. 30 | 16 |  |
| 101 | Philadelphia, Pa. | Jefferson Medical College of Philadelphia. | 1825 | James W. Holland... | May 15 | 24 | 14 |
| 102 | do | Medico-Chirurgical College of Philadelphia. | 1881 | Seneca Eghert, A. M | May 21 | 25 | 17 |
| 103 | do | University of Pennsylvania, Dent of Merlicine. | 1785 | John Marsnall, Nat. Sc. D. | June 12 | 14 | 3 |
| 104 | do | Womans Medical College | 1850 | Clara Marsha | May 18 | 10 | 24 |
| 103 | Pittshurg, Pa | Western Pennsylvania Medical College, Medical Department Western University of Pennsylvania. | 1884 | J. C. Lange | May 30 | 20 | 40 |
| 105 | Charleston, S.C.. | Medical College of the State of South Carolina. | $18: 8$ | Francis L. Parker. | Apr. 1 | 8 | 3 |
| 107 | Chattanooga, Tenn | Chattanooga Medical Col- lege. | 1889 | J. R. Rathmell, A. M | Mar. 15 | 10 | 7 |
| 108 | Knoxville, Tenn | Tennessee Medical College. | 1889 | J. C. Cawrood | Mar. 29 | 13 | 1 |
| 109 | Memphis, Tenn | Memphis Hospital Medical College. | 1880 | W. B. Rogers | Mar. 31 | 10 | 18 |
| 110 | Nashville, Tenn | Central Tennessee College, Meharry Medical Dept. | 1876 | G. W. Hubbard | Feb. 1 | 10 | 4 |
| 11 i | do | Unıversity of Nashville, Medical Dept. | 1850 | William G. Ewing. | Apr. 5 | 12 | 10 |
| 11.2 |  | University of Tennessee, Medical Dept. | $18 \% 6$ | Paul F. Eve | Mar. 29 | 14 | 6 |
| 113 | do | Vanderbilt University, Medical Dept. | 1873 | William L. Dudley.. | Apr. $2 \sim$ | 12 | 21 |
| 114 | Sewanee, Tenn. | Sewanee Medical College, <br> University of the South | 1892 | John S. Cain | Jan. 16 | $1:$ | 6 |
| 115 | Fort Worth, Tex | Fort Worth University, Medical Dept. | 1894 | Bacon Saunder's | Apr. 5 | 14 | 6 |
| 116 | Galveston, Tex | University of Texas, Medical Dent | 1891 | Henry P. Cooke | May 15 | 12 | 12 |
| 117 | Burlington, Vt | University of Vermont, Medical Dept. | $18 \% 3$ | A. P. Grinnell | June 30 | 7 | 18 |
| 118 | Richmond, Va | Medical College of Vir. ginia. | 1838 | Christopher Tompkins. | May 4 | 1:2 | 12 |
| 119 |  | University College of Medicine. | 1893 | J. Allison Hodges .. | May 11 | 18 | 14 |
| 120 | University of Virginia, Va | Unıversity of Virginia, Medical Dept. | 1825 | John W. Mallet, Ph.D., LL.D., F.R.S. | June 18 | 6 | 3 |
| 121 | Milwaukee, W 1 s | Mulwaukee Medical College. | 1894 | William H. Earles..- | Apr. 5 | 23 | 4 |
| 122 | . do . | Wisconsin College of Physicians and Sur geons. | 1883 | W. H.Washburn, sec. | Apr. 27 | 21 | 13 |
| 123 | Atlanta, Ga. | ECLECTIC, <br> Georgia College of Eclectic Medicine and Surgery. | 1839 | C. F. Durham........ | Apr. 1 | 8 | 8 |
| * In 189\%-97 <br> $a$ This is a preparatory school. |  |  | b Approximately. <br> $c$ Tuition fee fourth year, $\$ 20$. |  |  |  |  |

medicine，for the year 189\％－98－Continued．

|  | Stu | dent |  |  | Cou | r＇se． |  | 荡 | $\begin{aligned} & \dot{0} \\ & \text { O} \\ & \text { B } \end{aligned}$ | تَ | ＊ | $\begin{aligned} & \text { ت } \\ & \stackrel{0}{0} \end{aligned}$ |  | $\begin{aligned} & 80 \\ & \Xi \\ & \because=0 \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $x \in ə \AA \text { u!̣ SYəəM }$ |  |  |  | $\begin{gathered} \text { Value of groun } \\ \text { buildings } \end{gathered}$ |  |  |  |  |  |  |
| 8 | 9 | 139 | 118 | 13 | 13 | 夏真 | 13 | 193 | Eg | 18 | 29 | 80 | S通 | 2898 | 183 |  |
| $18:$ | 0 | 182 | 97 |  | 4 | 25 | \＄50 | \＄25 | \＄984 | Si5， 000 | 0 | 0 | 4，000 | Day ．－ | 1896 | 96 |
| 30 | 3 | 33 | 0 |  | （a） | 28 | 60 |  |  |  | 0 | 0 | 100 | Day ．－ |  | 97 |
| 63 | 5 | 68 | 20 |  | 4 | 28 | 55 | 23 | 285 | 25，000 |  |  | 1，509 | Day | 1586 | 98 |
| 3 \％ | 13 | 49 | 0 | 5 | 4 | 26 | 130 | 30 |  |  |  |  | b1，500 | Day－ | 1853 | 99 |
| 21 | 2 | 23 | 10 | 6 | 4 | 24 | c 100 | 30 | 350 |  | ．．．－．－．－ |  |  | Day－－ |  | 100 |
| 453 | 0 | 453 | $55^{\circ}$ | 33 | 4 | 34 | 150 | －－－ | 605 | 600，000 |  |  | 300 | Day ．． | 1894 | 101 |
| 400 | 0 | 400 | 112 |  | 4 | 33 | 130 | 25 | $b 550$ |  | 0 | 0 | U1，8п0 | Day ．－ | 1897 | 102 |
| 883 | 0 | 883 | 183 | 18： | 4 | 32 | 200 | 0 | $81 \%$ | 400， 000 | \＄2\％ั̌， 500 | 0 | 10，000 | Day－－ | 1893 | 103 |
| 0 | 159 | 159 | 35 | 17 | 4 | 30 | 129 |  | 516 | 110，000 | 296， 76. | 0 | 2，025 | Day | 1803 | 104 |
| $21 \%$ | 0 | $24 \pi$ | \％ | 120 | 4 | 33 | 130 | 0 | $5: 3$ | 105，000 | 0 | 0 | 500 | Day | 1894 | 105 |
| $8 \pi$ | 0 | 87 | 14 |  | 3 | 24 | 190 | 0 | 300 |  |  |  |  | Day |  | 106 |
| 153 | 0 | 153 | 31 |  | 3 | 26 | 80 | 25 | 285 |  | 0 | 0 | 0 | Day－ |  | 107 |
| 73 | 0 | 73 | 18 |  | 3 | 24 | $6 \bigcirc$ | 25 | 220 | 40，000 | 0 | $\theta$ | 0 | Day ．－ |  | 168 |
| $3 \% 2$ | 0 | 372 | 93 |  | 3 | 24 | 75 | 25 | $b \stackrel{70}{ }$ | 60,000 |  |  |  | Day ．－ |  | 109 |
| 114 | 7 | 151 | \％3 4 | 18 | 4 | 20 | 30 | 10 | 140 | 30，000 | 13，000 |  | 700 | Day ．－ | 1893 | 110 |
| 224 | 6 | 230 | 56 |  | 3 | 20 | 75 | 25 | b2\％ 2 | 42，400 |  |  |  | Day ． |  | 111 |
| 200 | 0 | 200 | 31 |  | 3 | 26 | 100 | 2 | 3350 | 10，000 | 0 | 0 | 300 |  |  | 112 |
| $24 \%$ | 0 | 24.7 | 66 |  | 3 | 28 | 100 | 25 |  |  |  |  |  |  |  | 113 |
| 60 | 0 | 60 | 28 | 9 | 3 | 30 | 65 | 25 | 230 |  |  |  |  | Day． |  | 114 |
| 167 | 4 | 171 | 20 |  | 3 | 26 | 50 | 25 | 250 | 30，000 | 0 | \＄3，\％\％9 | 0 | Day ．－ |  | 115 |
| 189 | 5 | 194 | 38 |  | 4 | 30 | 0 | 0 | 85 | 290，000 | 0 | d35，000 | 2，500 | Day ．－ | $189 \%$ | 116 |
| 238 | 0 | 238 | 69 |  |  |  |  |  |  |  |  |  |  |  |  | 117 |
| 189 | 0 | 189 | 41 | －－－－ | 3 | 28 | 90 | 30 |  | 100， 000 |  | 5,000 |  | Day ．． | －－－－－－ | 118 |
| 236 | 0 | 236 | 49 |  | 3 | 30 | 85 | 30 | 255 | 65，000 |  |  | $\therefore 40$ | Day |  | 119 |
| 110 | 0 | 140 | 23 | 22 | 3 | 40 | 100 | 0 | 280 |  |  | 0 |  | Day ． |  | 120 |
| 130 | 0 | 130 | 31 | 18 | e3 | 26 | 110 | 10 | 410 | 150，000 | 0 | 0 | 0 | Day |  | 121 |
| 49 | 0 | 49 | 20 |  | 4 | 27 | 100 | 0 | $37 \%$ | 52，000 | 0 | 0 | 0 | Day ． | 1895 | 12\％ |
| 58 | 3 | 61 | 14 |  | 3 | 26 | 90 | 25 | － | 10，000 |  |  |  | Day ．－ |  | 123 |

[^78]Table 8.-Statistics of schools of

|  |  |  | $\dot{B}$ |  | $\begin{aligned} & 1 \\ & \text { i } \\ & \text { of } \\ & 0 \\ & 0 \end{aligned}$ |  | n- <br> uct- <br> rs. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Location. | Name of institution. |  | President or dean. |  |  |  |
|  | 1 |  | 3 | 4 | 5 | 6 | 7 |
| 121 | Chicago, [11...... | ECLECTIC-continued. <br> Bennett College of Eclectic Medicine and Surgery. | 1867 | Anson L. Clark, A. M | May 10 | 28 | 16 |
| $125$ | St. Louis, Mo.-. | Anerican Medical College | $1873$ | Edwin Younk |  | 15 | 2 |
| 126 | Lincoln, Nebr ... | Cotner University, Lincoln Medical College. | $1891$ | W. S. Latta.... | $\text { Mar. } 1 \%$ | 17 | 9 |
| 12\% | New York, N. V. | Eclectic Medical College of the City of New York. | 1865 | George W. Boskowitz, A. M. | $\text { May } 4$ | 13 | 15 |
| 128 | Cincinnati, Ohio. | Eclectic Medical Institute HOMEOPATHIC. | 1845 | Frederick J. Locke. | May 10 | 14 | 2 |
| 129 | San Francisco, Cal. | Hahnemann Hospital College of San Francisco. | 1884 | A. C. Peterson .--.-.- | Apr. 30 | 13 | 3 |
| 130 | Denver, Colo .... | Dellyer Homeopathic Medical College. | 1894 | Samuel S. Smythe.- | Apr. 15 | 20 | 9 |
| 131 | Chicago, Ii | Chicago Homeopathic Medical College. | 1876 | J. S. Mitchell, A. M.- | Mar. 22 | 26 | 20 |
| 132 | .-..do | Uunham Medical College* | $1895$ | C. S. Fahnestock |  | 19 | 14 |
| 133 | - | Hahnemann Medical College. | $1800$ | C. H. Vilas | Mar. 28 | 17 | 24 |
| 134 | do | Hering Medical College -- | 1893 | Henry C. Allen ...... | Apr. 10 | 23 | 16 |
| 135 |  | National Medical College- | 1891 | Thomas C. Duncan, Ph.D.,LL.D. | $\text { Mar. } 31$ | 21 | 24 |
| 130 | Iowa City, Iowa | State University of Iowa, Homeopathic Medical Dept. | 18\%7 | Wilmot'H. Dickinson | Mar. 29 | 9 | 3 |
| 137 | Louisville, Ky . | Southwestern Homeopathic Medical College.* | 1893 | A. Leight Monroe... | Apr. 2 | 17 | 3 |
| 138 | Baltimore, Md | Southern Homeopathic Medical College. | 1891 | Henry Chandlee | Apr. 9 | 14 | 7 |
| 139 | Boston, Mass | Boston University School of Medicine. | 1873 | I. Tisdale Talbot. | June 1 | 18 | 17 |
| 140 | Ann Arbor, Mich | University of Michigan, Homeopathic Medical College | 1875 | W. B. Hinsdale | June 22 | 5 | 4 |
| 141 | Minneapolis, Minn. | University of Minnesota, College of Homeopathic Medicine and Surgery. | 1888 | A. P. Williamson, LL. B. | June 2 | 17 | 9 |
| 142 | Kansas City, Mo. | College of Homeopathic Medicine and Surgery of the Kansas City University. | 1890 | Wm. II. Jenny . . . . . | Mar. 21 | 12 | 14 |
| 143 | do | Kansas City Homeopathic Medical College. | 1888 | Peter Deiderich. | Mar. 25 | 32 |  |
| 144 | St. Louis, Mo | Homeopathic Medical College of Missouri. | 1857 | Wm. C. Richardson | Apr. 7 | 23 | 8 |
| 145 | New York, N. Y | New York Homeopathic Medical College. | 1860 | Wm. Todd Helmuth, LL. D. | May | 25 | 13 |
| 146 | . .do | New York Medical Col- <br> lege and Hospital for Women. | 1863 | J. de la M. Lozier | May 3 | 20 | 1 |
| 147 | Cincinnati, Ohio | Pulte Medical College --.- | $1872$ | W. D. Buck |  | 18 28 | 7 20 |
|  |  | Cleveland Homeopathic Medical College. |  |  |  | 28 |  |
| 149 | Philadelphia, Pa- | Hahnemann Medical Col- lege. | 1848 | Pemberton Dudley .- | May 12 | 8 | 28 |
|  |  | physionedical. |  |  |  |  |  |
| 150 | Chicago, Ill ...... | Chicago Physiomedical | 1891 | H. J. Treat |  | 23 | 5 |
| 151 | Indiana polis, Ind | Physiomedical College of Indiana. | 1873 | N. D. Woodard | Mar. 23 | 17 | 3 |

[^79]medicine, for the year 1897-98-Continued.

| Students. |  |  |  |  | Course. |  |  |  |  | $\begin{aligned} & \text { Value of grounds and } \\ & \text { buildings. } \end{aligned}$ |  |  | Vurumes in library. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 | 9 | $1(1)$ | 11 | 12 | 13 | 14 | 15 | 16 |  | 18 | 18 | 19 | 20 | 21 | 12 | 38 |  |
| 111 | 10 | 121 | 43 |  | 4 | 31 | \$100 | 0 | \$400 | \$25, 000 | 0 | 0 | 500 | Day .. | 1896 | 124 |
| $\begin{aligned} & 48 \\ & 50 \end{aligned}$ | 10 | $\begin{aligned} & 58 \\ & 50 \end{aligned}$ | $\frac{18}{* 15}$ |  | 4 | $\begin{aligned} & 32 \\ & 26 \end{aligned}$ | 75 | 325 | 325 | 2,500 |  |  | 200 | Day <br> Day | 1896 | 125 126 |
| 67 | 15 | 82 | 16 | 10 | 4 | 26 | 100 | 25 | 515 | 40, 000 |  | \$2,054 | 2,258 | Day .- | 1896 | 127 |
| 159 | 7 | 166 | 45 | 26 | 4 | 27 | \% 5 | 25 | 275 | 60, 000 |  |  | 500 | Day .. | 1897 | 128 |
| 11 | 5 | 16 | 2 | 4 | 4 | 27 | 75 | 25 |  |  |  |  | 560 | Day. |  | 129 |
| 32 | 11 | 43 | 13 | -- | 4 | 26 | 100 | 0 | 405 | 5,500 | 0 | 0 | a 200 | Day. | 1895 | 130 |
| 137 | 0 | 137 | 30 | 24 | 4 | 26 | 65 | 30 | 300 | 125, 000 | 0 | 0 | a5, 000 | Day. | 1885 | 131 |
| +39 | 11 | 59 | 8 |  | 4 | 28 | 100 | 0 | 405 | 50,060 | - 0 |  | $450$ |  |  | 132 |
| 122 | 50 | 172 | 28 |  | 4 | 28 | \% 0 | 30 | 375 | 191,000 | 8\%0,000 | 6,000 | $12,009$ | Day. | 1894 | 133 |
| $\begin{array}{r} 31 \\ 113 \end{array}$ | 259 | 1220 | 14 |  | 4 | 30 26 | 109 | ${ }_{2}^{0}$ | ${ }^{405}$ | 25, 000 |  |  | 250 | Day. Day. | $\begin{aligned} & 1895 \\ & 1896 \end{aligned}$ | 134 185 |
| 53 | 7 | 65 | 8 | 6 | 4 | 23 | 65 | 0 | 260 | 30,000 | 0 | 0 | 400 | Day. | 1895 | 136 |
| 22 | 14 | 36 | 11 | --- | 4 | 26 | 85 | 0 | 380 | 0 | 0 |  | 0 | Day. |  | 137 |
| 22 | 10 | 32 | 7 |  | 4 | 24 | 100 | 30 | 445 | 30, 000 |  | 0 | $a 600$ | Day. | 1895 | 138 |
| 139 | 57 | 196 | 46 | 31 | 4 | 30 | 125 | 30 | $5: 2$ | 200,000 | 35, 000 |  | 3,500 | Day. | 1890 | 139 |
| 51 | 8 | 59 | * 6 |  | 4 | 23 | 35 | 10 | 210 | * 50, 000 |  |  | 7,000 | Day. |  | 140 |
| 25 | 2 | 27 | 0 | 5 | 4 | 34 | 100 | 0 |  |  |  |  | 2,000 | Day. | 1895 | 141 |
| 12 | 6 | 18 | 0 | 5 | 4 | 23 | 50 | 35 | 280 |  |  |  | 210 | Day. |  | 142 |
| 24 | 12 | 36 | 14 | - | 4 | 24 | 80 | 25 | --- | 10,000 | 0 | 0 | 0 | Day. | 1896 | 143 |
| 62 | 8 | 70 | 21 | 7 | 4 | 26 | 50 | 25 | 260 | 12,000 | 0 | 0 | 0 | Day. | 1896 | 144 |
| 132 | 0 | 132 | 24 | 18 | 4 | 30 | 125 | 30 | a 540 | 450, 000 |  | 10,000 | a 4,000 | Day. | 1894 | 145 |
| 0 | 23 | 20 | 4 | 1 | 4 | 25 | 100 | 39 | 460 |  | 0 | 4,000 | 500 | Day. | 1893 | 146 |
| 27 ${ }^{27}$ | ${ }_{23}^{7}$ | 34 186 | 5 63 | 6 | 4 | $\begin{aligned} & 27 \\ & 26 \end{aligned}$ | 75 | $\frac{25}{25}$ | $330$ | 25,000 100,000 | 0 | $\% 00$ | 2,000 | Day. <br> Day | $1894$ | 147 148 |
| 273 | 0 | 273 | 68 |  | 4 | 30 | 125 | 30 | 550 | 523, 763 | 223, 800 | 10,000 | 15,000 | Day. | 1893 | 149 |
| 45 | 10 | 55 | 13 |  | 4 | 30 | 80 | 0 | 340 |  |  |  | 200 | Day. |  | 150 |
| 46 | 6 | 52 | 23 | 13 | 4 | 26 | 65 | ... | 260 | 17,000 |  | 5,000 |  | Day. | 1896 | 151 |

Table 3.-Statistics of schools of

|  |  |  | 荮 |  | $\begin{aligned} & 1 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  | n- |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Location. | Name of institution. |  | President or dean. |  |  |  |
|  | 1 | æ | 3 | 4 | $\pm$ | 6 | $\%$ |
|  |  | POSTGIRADUATEAND special (not includED IN SUMMARY). |  |  |  |  |  |
| 15.2 | Chicago, ill | Playfair School of Mid- | 1895 | Frances Dickinson -- |  | 1:3 | 3 |
| 153 | . do | Wifery <br> Postgraduate Medical | 1888 | W. Franklin Cole- |  | 49 | $4)$ |
| 154 | New Orleans, Ia | New Orleans Polyclinic. | $188 \%$ | Charles Chassaignac |  | 11 | 8 |
| 150 |  | New York Postgraduate |  | D. B. St. John Roosa, |  | 17 | 51 |
| 156 | -...do .. | New York School of Clin- | 1895 | Ferd. C. Valentine, |  | 12 | 11 |
| 157 | Philadelphis, Pa . | Philadelphia Polyclinic | 1882 | Max ${ }^{\text {sec. }}$ J. Stera |  | 35 | 13 |
|  |  | and College for Craduates in Medicine. |  |  |  |  |  |
| 158 | .do. | Philadelphia Postgraduate School of Homeopathics. | 1891 | J. T. Kent. ...... |  | 8 | 5 |

medicine, for the year 1897-98--Continued.

a Approximately.

Table 9.—Statistics of schools of
............

At...do.......................
Chicago, Ill
-... do
.-. - do
.....do...........................
Indianapolis, Ind...
..... do .
Iowa City, Iowa .
Keokuk, Iowa
Keokuk Dental College, Dental De-
partment of Keokuk Medical Col-
lege.
Louisville, Ky.......
Baltimore, Md.......
....- do .
....-do
do .-..................
Boston, Mass.
Ann Arbor, Mich.
Detroit, Mich
Minneapolis, Minn
Kansas City, Mo.....
--- do ---.................
St. Leuis, Mo.
....do
Omaha, Nebr
Buffalo, N. Y
New York, N. Y.......
-.- do ....................

.....do
.....do
Cleveland, Ohio.
Columbus, Ohio .....
Philadelphia, Pa.
..... do
.....do
.do
Pittsburg, Pa

| Lucation. | Name of institution. |  | President or dean. |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |
| Birmingham, Ala | Birmingham Dental College | 1893 | T. M. Allen |
| San Francisco, Cal... | College of Physicians and Surgeons, | 1896 | Winslow Anderson |
| do | University of California, College of | 188: | L. L. Dunbar |
| Denver, Colo | Denver College of Dentistry, Univer- <br> sity of Denver. | 1887 | Alva H. Sawins...-. .-... |
| Washington, D. C... | Columbian University, Dental Dept | 1886 |  |
| - - . do - do .-.................... | Howard University, Dental Dept.... Washington Dental College | 1882 | Thomas B. Hood, A. MD Elmer Wiber |
| Atlanta, Ga | Atlanta Dental College .-. | 1893 | W m. Crenshaw |
| .-...do .- | Southern Medical College, Dental Dept. | 1887 | Sheppard W. Foster .... |
| Chicago, Ill | Chicago College of Dental Surgery, Lake Forest University. | 1883 | Truman W. Brophy, <br> LL. D. |
| do | Columbian Dental College | $1891$ | Frank N. Brown ........ |
|  | German-American Dental College . Northwestern University Dental | $\begin{aligned} & 1888 \\ & 1886 \end{aligned}$ | Fritz W. Huxman Greene V. Black Sc. |
|  | Northwestern University Dental School. | 1886 | Greene V. Black, Sc. D.- |
| Indianapolis, Ind | Central College of Dentistry ......... | 1897 | Milton F. Ault............ |
|  | Indiana Dental College, University of Indianapolis. | 1878 | George E. Hunt .......... |
| Iowa City, Iowa | State University of Iowa, Dental | 1881 | William S. Hosford |
| Keokuk, Iowa .......- | Keokuk Dental College, Dental Department of Keokuk Medical College. | 1897 | B. C. Hinkley |
| Louisville, Ky | Louisville College of Dentistry - | 1886 | P. Richard Tayl |
| Baltimore, Md........ | Baltimore College of Dental Surgery - | 1839 | M. W. Foster |
| do | Baltimore Medical College, Dental | 1895 | J. W. Smith |
| do | University of Maryland, Dental Dept - | 1882 | Ferdinand J. S.Gorgas, A. M. |
| Boston, Mass. | Harvard University, Dental School.- | 1867 | Eugene H. Smith.... |
| Ann Ai'bor, Mich | University of Michigan, College of Dental surgery. | 1875 | Jonathan Taft |
| Detroit, Mich | Detroit College of Medicine, Dept. of Dental Surger | 1891 | Theodore A. McGraw |
| Minneapolis, Minn .- | University of Minnesota, College of | 1888 | Wm.P. Dickinson, sec |
| Kansas City, Mo | Kansas City Dental College | 1881 | J. D. Patterson |
|  | Western Dental College --...-.-.... | 1890 | D.J. McMillen |
| St. Leuis, Mo | Marion Sims College of Medicine, 1)ental Dept. | 1894 | Young H. Bond, A. M |
| do | Missouri Dental College - .-........... | 1865 | Henry H. Mudd |
| Omaha, Neb | University of Omaha, Dental Dept .- | 1894 | W. H. Sherrad |
| Buffalo, N. Y New York, N. | University of Buffalo, Dental Dept .New York College of Dentistry | 1892 1868 | W. C. Barrett ..... |
| New York, N. Y | New York College of Dentistry <br> New York Dental School | 1868 | Faneuil D. Weisse Dwight L. Hubbar |
| Cincinnati, Ohio | Cincinnati College of Dental Surgery. | 1893 | G. S. Junkerman. |
|  | Miami Dental College - .-......-.-.... | 1896 | C. A. Schuchardt |
|  | Ohio College of Dental Surgery, University of Cincinnati. | 1845 | H. A. Smith, A. M |
| Cleveland, Ohi | Western Reserve University, Dental | 1892 | Henry L. Ambler, M. S.- |
| Columbus, Ohio | Ohio Medical University, Dental | 1890 | Otto Arnold |
| Philadelphia, Pa | Medico-Chirurgical College, Dept. of | 1897 | Robert H. None |
|  | Pentistry ${ }_{\text {D }}^{\text {Dentia }}$ College of Dental Sur- | 1856 | C. N. Peirc |
|  | Philadelp | 663 |  |
|  | University of Pennsylvania, Dept. of | 1878 | Edward C. |
| Pittsburg, Pa .-.-...- | Dentistry. <br> Pittsburg Dental College, Western University of Pennsylvania. | 1896 | J. G. Templeton, A. M. |

dentistry, for the year 1897-98.

| Regular session closes - | $\begin{aligned} & \text { In- } \\ & \text { struct- } \\ & \text { ors. } \end{aligned}$ |  | Students. |  |  |  | Course. |  | Fees. |  |  | Value of grounds and buildings. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { in } \\ & 0.0 \\ & 0.0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \tilde{0} \end{aligned}$ |  |  |  |  |  | $\begin{gathered} \dot{0} \\ 0 \\ \tilde{0} \\ 0 \\ 0 \\ . \\ . \\ 0 \\ \tilde{0} \\ \tilde{0} \\ \end{gathered}$ |  | $\begin{aligned} & \dot{\otimes} \\ & \text { © } \\ & \text { \# } \\ & \text { E } \end{aligned}$ |  |  |  |  |  |  |  |
| 5 | 6 | g | 8 | 9 | 14 | 且1 | 12 | 13 | 14 | 且 5 | 186 | 17 | 18 | 19 | 20 |  |
| Apr. ${ }_{\text {July }}{ }_{\text {a }}$ | 18 | $\begin{array}{r} 4 \\ 30 \end{array}$ | 34 156 | 0 3 | r 34 | ${ }^{8}$ | $\begin{aligned} & 3 \\ & 3 \end{aligned}$ | $\begin{aligned} & 26 \\ & 30 \end{aligned}$ | $\begin{aligned} & \$ 100 \\ & 100 \end{aligned}$ | ${ }_{25}^{25}$ | $\begin{array}{r} \$ 360 \\ 325 \end{array}$ | $0$ | 0 | $\begin{aligned} & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { Day } \\ & \text { Day } \end{aligned}$ | ${ }_{2}^{1}$ |
| May 31 | 7 | 15 | 148 | 12 | 160 | 44 | 3 | 36 | 115 | 25 | 370 |  | 0 | a200 |  | 3 |
| Apr. 22 | 12 | 6 | 43 | 4 | $4 \%$ | 5 | 3 | 28 | 75 | 25 | 275 |  | 0 | 0 | Day | 4 |
| May 15 | 7 | 3 | 76 | 0 | 76 | 15 | 3 | $\stackrel{34}{34}$ | 100 | 0 |  | 810,000 |  |  | Eve | 5 |
| May ${ }^{\text {Mpr. }} 6$ | 8 | 6 | 25 | 0 | 25 | 2 | 3 | ${ }_{20}^{28}$ | 100 | 0 | a 300 |  |  | 100 | Eve | ${ }_{7}$ |
| Apr. 1 | 9 | 0 | 185 | 0 | 185 | 61 | 3 | 24 | 100 | 33 | 350 | 0 | 0 |  | Day | 8 |
| -...do --- | 9 | 5 | 78 | 0 | 78 | 13 | 3 | 24 | 105 | 25 | 350 | 15,000 |  |  | Day | 9 |
| Apr. 5 | 19 | 37 | 524 | 0 | $5: 4$ | 163 | 3 | 25 | 125 | 0 | 350 | 0 | 0 |  | Day | 10 |
| Apr. 1 | 14 | 8 | 57 | 0 | 59 | 14 | 3 | 25 | 85 | 25 | 280 |  |  |  | Day | 11 |
| Mar. 25 | 6 | 3 | 22 | 0 | 22 | 3 | 3 | 25 | 100 | 25 | 325 | 25,000 | 0 |  | Day | 12 |
| Apr. ${ }^{6}$ | 16 | 6 | 491 | 18 | 5 | 180 1 | $\stackrel{3}{3}$ | 26 | 105 | 15 | 340 |  | 0 |  | Day | 13 |
| --.do. | 14 | 2 | 185 | 2 | 187 | 52 | 3 | 24 | 100 | 10 | 325 | 30,000 | 0 | 0 | Day | 15 |
| June 4 | 9 | 9 | 135 | 13 | 148 | 61 | 3 | 35 | $\%$ | 0 | 225 |  |  |  | Day | 16 |
| Mar. 15 | 11 | 8 | 20 | 2 | 22 | 0 | 3 | 20 | 50 |  | 155 |  |  |  | Day .- | 17 |
| June 30 | 11 | 4 | 150 | 0 | 150 | 59 | 3 | 26 | 115 | 30 |  |  | 0 | 0 | Day | 18 |
| Apr. 1 | ${ }_{8}^{7}$ | 12 | 230 | $\stackrel{2}{0}$ | 232 | T4 | 3 | 26 | 100 | 35 | 345 |  |  |  | Day | 19 |
| Apr. 6 | 8 | 18 | 60 | 0 | 60 | 18 | 3 | 20 | 100 | 30 | 330 | 200,000 |  |  | Day | 20 |
| Mare $\sim$ - | 6 | 4 | $20 \%$ | 0 | 207 | 64 | 3 | 25 | 105 | 30 | 355 |  |  |  | Day | 21 |
| June 27 | 10 | 24 | 130 | , | 130 | 37 | 3 | 39 | 150 |  | 511 |  | 850,000 | 120 | Day .. | 22 |
| June 22 | 4 | 7 | 116 | 8 | 124 | 55 | 3 | 40 | 45 | 10 | 246 | 50,000 |  | a 600 | Day | 23 |
| June 16 | 10 | 6 | 102 | 0 | 102 | 25 | 3 | 34 | 50 | 30 | 265 | 105, 336 |  |  | Day | 24 |
| June 1 | 10 | 5 | 93 | 0 | 96 | 14 | 3 | 33 | 100 | 0 | 310 |  | 0 | a 150 | Day .. | 25 |
| Apr. 1 | 9 | 4 | 85 |  | 85 | 32 | 3 | 24 | 100 | 20 | 325 | 12,500 |  |  | Day .- | 26 |
| Apr. 4 | 14 | 24 | 194 | , | 203 | 54 | 3 | 26 | 100 | 20 | 325 |  | 0 | 100 | Day -- | 27 |
| Apr. 9 | 15 | 1:2 | 61 | 3 | 64 | 16 | 3 | 27 | 100 | -... | 305 |  | 0 | 2,000 | Day .- | 28 |
| Apr. 28 | 9 | 6 | 124 | 0 | -124 | 39 | 3 | 28 | 100 |  | 300 |  |  |  | Day -- | 29 |
| Apr. 6 | 12 | 11 | ${ }^{53}$ | 5 | 58 | 9 | 3 | $2 \pm$ | 75 | 20 | 250 |  |  |  | Day -- | 30 |
| Apr. 25 | 12 | ${ }_{3} 9$ | 169 | 5 | 174 | 47 | 3 | 2. | 100 | 30 | 335 | 190,000 | 0 | 148 | Day -- | 31 |
| -...do.. | 7 | 23 | 41 | 6 | 47 | 9 | 3 | 29 | 150 | 25 | 475 |  | 0 | 0 | Day | 33 |
| Apr. 1 | 10 | 5 | 88 | 1 | 89 | 18 | 3 | 26 | 100 | 0 | 300 | 25,000 | , | 300 | Day | 34 |
| Apr. 21 | 8 | 3 | 18 | 6 | 24 | 1 | 3 | 26 | 100 |  | 300 |  |  | 143 | Day -- | 35 |
| Apr. 5 | 6 | 5 | 200 | 6 | 203 | 66 | 3 | 26 | 100 | 25 | 330 |  |  | 303 | Day | 36 |
| June 15 | 10 | 4 | 91 | 0 | 91 | 27 | 3 | 36 | 100 | 20 | 335 |  |  |  | Day | 37 |
| Apr. | 16 | 5 | 101 | 2 | 103 | 14 | 3 | 28 | 50 | 10 | 205 | 50, 000 |  | 2,000 | Day | 38 |
| Apr. 23 | 11 | 22 | 61 | 0 | 61 | 4 | 3 | 30 | 100 | 25 | 350 |  |  |  |  | 39 |
| Apr. 6 | 7 | 12 | 346 | 30 | 340 | 100 | 3 | 24 | 100 | 30 | 345 | \%0, 000 | 0 |  | Day | 40 |
| Apr. 1 | 5 | 10 | 393 | 16 | 409 | 141 | 3 | 26 | 100 | 35 | 370 | 170,000 | 0 |  | Day |  |
| June 8 | 9 | 16 | 437 | 0 | 437 | 95 | 3 | 36 | 100 | 30 | 345 |  |  |  | Day | 42 |
| Apr. 1 | 8 | 7 | 150 | 1 | 151 | 18 | 3 | 21 | 100 | 30 | 335 |  |  | 100 | Day .- | 43 |

Table 9.-Statistics of schools of

|  | Location. | Name of institution. |  | President or dean. |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | \% | 3 | 4 |
| 44 | Knozvilie, Tern. | Tennessee Medical College, Dental | 1889 | R. N. Kesterson - |
| 45 | Nashville, Tenn | Contral Tennessee College, Meharry | 1883 | G. W. Hubbard |
| 46 |  | Vanderbilt University, Dept. of Den- | 1879 | Wiiliam H. Morgan |
| 47 |  | University of Tennessee, Dental Dept | 18\% |  |
| 43 | Richmond, Va........ | University College of Medicine, Den- | 1893 | J. Allison Hodges.... |
| 49 |  |  |  |  |
| 50 | Ifilwankee, Wis.... | Milwanke Medical College, Dental Dept. | 1894 | George V. I. Brown. |

deatisiry，for the year 189～－98－Continued．

| Regular session closes－ | In－ struct ors． |  | Strudents． |  |  |  | Course． |  | Fees． |  |  | Value of grounds and build－ings． |  |  | $\begin{aligned} & \text { Instruction given in day or } \\ & \text { evening. } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{aligned} & \text { 苟 } \\ & \text { 0 } \\ & \text { y } \\ & 0 \\ & \text { ت } \\ & 0 \\ & 0 \\ & 3 \end{aligned}$ | $\begin{aligned} & \text { Э. } \\ & \text { ず } \\ & \text { H- } \end{aligned}$ |  | $\begin{aligned} & \dot{8} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \text { z } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  |  |  |  |  | Volumes in library. |  | － |
| $\overline{3}$ | 6 | 8 | 8 | 9 | 10 | 直1 | 18 | 18 | 12 | 15 | 16 | 189 | 18 | 19 | 238 |  |
| do | 12 | 2 | 13 | 0 | 13 | 5 | 3 | 23 | \＄100 | 325 | \＄325 |  |  | 0 | Day | 44 |
| Feb． 1 | \％ | 1 | 19 | 0 | 19 | 4 | 4 | 20 | 30 | 10 | $13 \%$ |  |  |  | Day ． | 45 |
| Mar． 23 | \％ | 3 | 181 | 3 | 181 | 54 | 3 | 24 | 100 | 25 | 350 |  |  | 200 | Day | 46 |
| $\begin{aligned} & \text { Apr. } \\ & \text { May } 11 \end{aligned}$ | $\begin{aligned} & 13 \\ & 10 \end{aligned}$ | $\frac{4}{7}$ | $\underset{\underset{2}{93}}{ }$ | $\begin{aligned} & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & 93 \\ & { }_{27}^{2} \end{aligned}$ | $\begin{aligned} & 1 t \\ & 10 \end{aligned}$ | $\begin{aligned} & 3 \\ & 3 \end{aligned}$ | $\begin{aligned} & 24 \\ & 30 \\ & 30 \end{aligned}$ | $\begin{array}{r} 100 \\ \delta 5 \end{array}$ | $\begin{aligned} & 25 \\ & 35 \\ & \hline \end{aligned}$ | $\begin{array}{r} 340 \\ 205 \end{array}$ | \＄45，000 |  | $2 \pm 0$ | Day． | 47 48 48 |
| $\begin{array}{ll} \text { Apr. } & 6 \\ \text { Apr. } & 5 \end{array}$ | $\begin{array}{r} 9 \\ 13 \end{array}$ | $\begin{aligned} & 8 \\ & 4 \end{aligned}$ | $\begin{aligned} & 33 \\ & 8 \pi \\ & 8 \pi \end{aligned}$ | 0 | $\begin{aligned} & 3 \pi \\ & 8 \pi \end{aligned}$ | 9 17 | $\begin{aligned} & 3 \\ & 3 \end{aligned}$ | $\stackrel{24}{24}$ | $\begin{aligned} & 109 \\ & 100 \end{aligned}$ | 0 | $\begin{aligned} & 300 \\ & 33 \pm \\ & 304 \end{aligned}$ | 0 | 0 | 200 | $\begin{aligned} & \text { Day } \\ & \text { Ere } \end{aligned}$ | 49 50 |

Table 10.-Statistics of schools of
Auburn, Ala
Mobile, Ala
San Francisco, Cal. -
Washington, D. C...
Atlanta, Ga
Chicago, 111
....-do
Lafayette, Ind
Valparaiso, Ind....
Des Moines, Iowa....
Iowa City, Lowa.
Lawrence, Kans. -
Louisville, Ky
New Orleans, La ....
Orono, Me .............
Baltimore, Md.......-
Boston, Mass
Ann Arbor, Mich...
Detroit, Mich
Minneapolis, Minn .
Kansas City, Mo.....
St. Louis, Mo
Newark, N.
Albany, N. Y
Brooklyn, N. Y .-....-
Butfalo, N. Y --......
New York, N. Y....
Raleigh, N. C........-
Ada, Ohio
Cincinnati, Ohio.
Cleveland, Ohio
Columbus, Ohio
Scio, Ohio.
Norman, Okla
Philadelphia, Pa
Pittsburg, Pa.
Charleston, S. C....--
Brookings, S. Dak..
Nashville, Tenn
.-.-.do
Galveston, Tex.......

Mobile, Ala

Location. Name of institution.
partment of Pharmacy.
Medical School of Alabama, School of Pharmacy, University of Alabama. California College of Pharmacy, University of California.
National College of Pharmacy
Atlanta College of Pharmacy
Chicago College of Pharmacy, University of illinois.
Nor'thwestern University, School of Pharmacy.
Purdue University, School of Pharmacy.
Northern Indiana Scbool of Pharmacy.
Highland Park College of Pharmacy State University of Iowa, Department of Pharmacy.
University of Kansas, School of Pharmacy.
Louisville College of Pharmacy ......
Tulane University of Louisiana.......
University of Maine, Department of Pharmacy.
Maryland College of Pharmacy ......
Massachusetts College of Pharmacy
University of Michigan, School of Pharmacy.
Detroit College of Medicine, Department of Pharmacy.
University of Minnesota, College of Pharmacy.
Kansas City College of Pharmacy..
St. Louis College of Pharmacy .......
New Jersey College of Pharmacy ....
Albany College of Pharmacy
Brooklyn College of Pharmacy-.-........
Buffalo College of Pharmacy
College of Pharmacy of the City of New York.*
Shaw University, Pharmaceutical Dept.
Ohio Normal University, Dept. of Pharmacy
Cincinnati College of Pharmacy, University of Cincinnati.
Cleveland School of Pharmacy - .-....
Ohio State University, College of Pharmacy.
Scio College, Dept. of Pharmacy .....
University of Oklahoma, School of Pharmacy.
Philadelphia College of Pharmacy .-.
Pittsburg College of Pharmacy......
Medical College of the State of South Carolina, Dept. of Pharmacy.
South Dakota Agricultural College, Dept. of Pharmacy.
Central Tennessee College, Dept. of Pharmacy.
Vanderbilt University,Dept. of Pharmacy.
University of Texas, School of Pharmacy.
1835
E. R. Miller

George A. Ketchum
President or dean. William M. Searby

Samuel L. Hilton
W. S. Kendrick

Frederick M. Goodman.
Oscar Oldberg
Arthur L. Green
J. Newton Roe
S. R. Macy

Emil L. Boerner
Lucius E. Sayre
Gordon L. Curry
Stanford E. Chailié .......
A. W. Harris

Charles Caspari, jr
Julian W. Baird
Albert B. Prescott
John E. Clark
Frederick J. Wulling
William F. Kuhn
James M. Good
P. E. Hommell

Willis G. Tucker
E. H. Bartley...

Willis G. Gregory
Edward Kemp
Wm. Simpson
B. S. Young

Julius H. Eichberg
Joseph Feil
George B. Kauffinan
J. H. Beal

Joseph P. Remington
Julius A. Koch
Francis L. Parker.
B. T. Whitehead, prof
G. W. Hubbard

James M. Safford
H. C. Cooke
a Approximately.
pharmacy, for the year 1897-98.


[^80]ED 98-123

Table 10.-Statistics of schools of

pharmacy, for the year 189\%-93-Continued.

Table 11.-Statistics of veterinary schools, for the year 1897-9S.

|  | Location. | Name of institution. |  | Name of dean. |  | $\begin{gathered} \text { In } \\ \text { struct- } \\ \text { ors. } \end{gathered}$ |  | Students. |  |  | Course. |  | Fees. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 且 | 8 | 3 | 4 | 5 | ${ }^{6}$ | g | 8 | (1) | 10 | 11 | $1{ }^{18}$ | 18 | 11 | 1\% |
|  | San Francisco, Cal... | University of California, Veterinary Dept.......- | 1895 | Frank W. Skaife |  | 8 | 2 | 11 | 4 |  | 3 | $\stackrel{27}{27}$ | $\$ 109$ | 82.5 | \$355 |
| $\stackrel{2}{3}$ | Washington, D.C... | Columbian Uni versity, Veterinary Dept........... | 1892 | D. E. Salmon ${ }^{\text {C. }}$ - | Apr. 15 | 13 10 | $\stackrel{2}{2}$ | 11 | $\stackrel{2}{5}$ | 1 | 3 | 等 | 80 70 | 10 | 210 |
| 4 | Chicago, lil | Chicago Veterinary College* .-................. | 1883 | Richard J. Withers |  | 11 | $\stackrel{2}{2}$ | 45 | $\stackrel{8}{8}$ | 0 | 3 | $\stackrel{3}{20}$ | 80 | 10 | 250 |
| 5 | --..do --...---.... | McKillip Veterinary College. | 1894 | F. S. Schoenleber | Apr. 1 | 11 |  | 32 |  | 1 | 3 | 24 | 75 | 10 | 210 |
| 6 | Indianapolis, Ind --. | Indiana Veterinary College .-.................- | 1892 |  |  | ${ }_{1}^{9}$ | 7 | 10 34 | $\stackrel{2}{10}$ | 1 | $\stackrel{2}{3}$ | $\stackrel{25}{36}$ | 90 150 | 20 0 | 195 460 |
| 7 | Boston, Mass ........ | Harvard University, School of Veterinary Medicine. | 1882 | Charles P. Lyman | June 29 | 10 | 9 | 34 | 10 |  | 3 | 36 | 150 | 0 | 460 |
| 8 | Detroit, Mich | Detroit College of Medicine, Veterinary Dept..-- | 1891 | H. O. Walker | Mar. 31 | 7 | ${ }_{6}^{6}$ | *11 | 0 |  | 3 | $\stackrel{24}{4}$ | 50 | 19 | 205 |
| 9 | Ithaca, N. Y | New York State Veterinary College at Cornell | 1896 | James Law | June 29 | 1:2 | 2 | 17 | 4 | 0 | 3 | 39 | 0 | 5 |  |
| 10 | New York, N. Y | American Veterinary College | $18 \% 4$ | A.F.Liautard | Mar. 21 | 7 | 2 | 44 | 26 | 0 | 3 | 36 | 115 | 25 |  |
| 11 | ---do .-....--... | New York College of Veterinary Surgeons | 1857 | Harry D. Gill | Apr. 1 | 8 | 2 | 33 | 10 | 0 | 3 | 26 | 75 | 25 | 295 |
| 12 | Columbus, Ohio | Ohio State University, College of Veterinary | 1885 | David S. White | June 17 | \% |  | 20 |  | 0 | 3 | 36 | 0 | 0 | 61 |
| 13 | Philadelphia. Pa .- | University of Pennsylvania, Dept. of Veterinary | 1884 | John Marshall. | June 10 | 6 | 2 | 48 | 14 |  | 3 | 34 | 100 | 0 | 323 |
| 14 | Pullman, Wash... | Washington Agricultural College, School of Veterinary Science. | 1896 | S. B. Nelson. | June 23 | 4 | 2 | 5 | 0 | 0 | 2 | 36 | 0 | 0 | 10 |

Table 12.-Statistics of training schools for nurses, for the year 1897-9S.

TABLE 12.-Statistics of training schools for nurses, for the year 189\%-98-Continued

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|  | Polyclinic Hospital |
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|  | Postgraduate Hospital and Chicago Charity Hospital． |
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|  | St．Joseph＇s Hospit |
|  | St．Luke＇s Hospital |
| do | Wesley Hospital |
|  | Woman＇s Hospital |
| Elgin，Ill | Sherman Hospital |
| Galesburg， | Galesburg Cottage Hospital |
| Hospital， 11 | Illinois Eastern Hospital for |
| Peoria， 111 | Cottage Hospital |
| Quincy， 111 | Blessing Hospital |
| Rockford，Ill | Rockford Hospital |
| Evansville，Ind | Evansville Sanitarium |
|  | St．Mary＇s Hospital |
|  | Southern Indiana Hospital for Insane |
| Fort Wayne，Ind ． | Hope Hospital |
| Indianapolis，Ind． | Indianapolis City Hospital |
| Logansport，Ind | Northern Indiana Hospital for Insane |
| South Bend，Ind． | Epworth Hospital |
| Cedar Rapids，Lowa－ | St．Luke＇s Hospital |
| Clarinda，Iowa－．． | Iowa Hospital for the |
| Davenport，lowa． | St．Luke＇s Hospital |
| Des Moines，Iowa． | Cottage Hospital． |
| Independence，Iowa－ | Hospital for the Ins |
| Iowa City，Lowa | Homeopathic Hospital at Iowa State Univer－ sity． |
|  | Iowa State University Hospital．－．－－－．－－－－ |
| Mount Pleasant，Iowa | Iowa Hospital for the Insane |
| Kansas City，Kans－－ | Bethany Hospital |
| Topeka，Kans | Christ＇s Hospital |
| －do | Jane C．Stormont Hospital＊ |
| Wichita，Kans | Wichita Hospital |
| Lexington，Ky | Protestant Infirmary |
| Louisville，Ky | Jennie Casseday Infirmary or Hospital for Women．＊ |
| do | John N．Norton Memorial Infirmary ． |
| do | Lonisville City Hospital． |
| New Orleans，L | Charity Hiospital Training Schoo |
|  | Phyllis Wheatley Sanitarium |
|  | Touro Infirmary |
| Bangor，Me | Eastern Maine General Hospital |
| Lewiston，Me | Central Maine General Hospital |
| Portland，M | Maine General Hospital |
| Baltimore， | Good Samaritan Hosy |
|  | Johns Hopkins Hospital |


 Nor ther＇n Indiana Hospital for Insane－－－－－
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Table 12．－Statistics of training schools for nurses，for the year 189\％－98－Continned．

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|  | Location． | Name of school． | Year of first open－ ing． | Superintendent． | Session． closes | $\begin{aligned} & \text { 寻 } \\ & \text { 岂 } \end{aligned}$ |  |  |  |  |  |  |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 | $6{ }_{6}$ | $g$ | 8 | （1） | 10 | 111 | 18 | 1：3 | 14 | 15 |
| 99 | Baltimore，Md． | Maryland General Hospital | 1892 | Alvira B．Morgan | May 1 | 0 | 22 | 8 | 2 | Yes． | 200 | 0 | 0 |  |  |
| 100 | －．－．－do | Maryland Homeopathic Hospital | 1894 | Minnie B．Galbraith | Apr． 14 | 0 | 15 | 5 | 2 | Yes． | 300 | 0 |  |  |  |
| 101 | －do | Provident Hospital | 1896 | W．E．Harris．－ | June 16 | 1 | 6 | 1 | 3 |  | 250 | \＄4 | \＄5 | $\$ 5$ | 0 |
| 102 | do | St．Agnes Hospital ．－．．．－．．．．． | 1896 | M．D．McVan | July 1 | 0 | ${ }^{6}$ | ${ }_{5}$ | 3 |  |  | 5 | 5 | 5 | \＄100 |
| 103 | －－．－do | Union Protestant Infirmary－－．． | 1889 | J．E．Feeley－1．．．．．．．． | May 31 | 0 |  | 5 | $\stackrel{2}{3}$ | Yes |  | 8 | 12 |  |  |
| 104 | Cumberland，Mad | University of Maryland Hospital | 1889 | Elizabeth Fehrmann | May 15 | 0 0 | ${ }_{7}^{30}$ | 4 4 4 | 3 | Yes． | 80 260 | 5 6 | 5 | 12 |  |
| 106 | Beverly，Mass ．．． | Beverly Hospital ．－．－－－－．．． | 1893 | S．J．Fisher ．－ |  |  | 6 | 3 |  | Yes． |  | 8 | 12 |  |  |
| 107 | Boston，Mass | Boston Almshouse and Hospital，Long Island | 1897 | Mary A．Marris |  |  | 27 | 0 | 2 | Yes． | 100 | 10 | 12 |  |  |
| 105 | －．．．－do | Boston City Hospital | $18 \% 8$ | Lucy I．Drown | （a） | 0 |  | 54 | 2 | Yes． |  | ＂ | 10 |  |  |
| 109 | ．－．．．do | Carney Hospital Training Schoo | 1893 | Sister Mary Lucia |  | 0 | ${ }^{43}$ | 6 | 3 | Yes． | 300 | 8 | 8 | 8 | 0 |
| 110 | －．．．－do | Children＇s Hospital．．－－${ }^{\text {a }}$－ | 18890 |  | June 1 | 0 | $\stackrel{74}{7}$ |  | 3 | Yes． | 303 119 | 0 10 | 1 | 0 | 0 |
| 111 | －．－．do do | Massachusetts General Hospital－ | 188 | Maria B．Brown Alice A．Griswola |  | 0 | ${ }^{77}$ | 27 <br> 20 | $\stackrel{2}{3}$ |  | 119 100 | 10 6 | $\begin{array}{r}14 \\ 8 \\ \hline\end{array}$ | 14 |  |
| 113 | do | New England Baptist Hospital．－－ | 1895 | Emma A．Anderson | （a） | 0 | 8， | $\stackrel{1}{1}$ | $\stackrel{3}{2}$ | Yes． | 150 | 6 | 10 |  | 0 |
| 114 | do | New England Deaconess Home and Hospital |  | Nellie L．Hibbard |  |  | ${ }^{6}$ | 3 |  |  |  |  |  |  |  |
| 115 | $\begin{aligned} & \text { Boston (Roxbury), } \\ & \text { Mass. } \end{aligned}$ | New England Hospital for Women and Chil－ dren． | 1863 | Clara D．Noyes． | May－ |  | 22 | 4 | 2 | Yes． | 96 | 8 | 12 |  | 0 |
| 116 | Boston，Mass ．．．－．．． |  | 1895 | Susan M．Foley | June 15 |  | 27 | 4 | 3 | Yes | 160 | 8 | 8 | 10 |  |
| 117 | －－－－do | Somerville Hospital | 1893 | Fanny C．Hartwell | June 30 |  | 20 | 12 | $\stackrel{2}{2}$ | Yes | 120 | 9 | 12 |  |  |
| 118 | do | Woman＇s Charity Club Hospital | 1896 | Margaret L．Weill | June 13 |  | 15 | 1 | $\stackrel{2}{2}$ | Yes． | 1：20 | 8 | 10 |  |  |
| 119 | Brockton，Mass | Brockton Hospital | 1897 | Grace B．Beattie | June 30 |  | ${ }^{6}$ | 0 | 2 | Yes． | 130 | 10 | 1\％ |  |  |
| 120 | Clinton，Mass． | Clinton Hospital | 1893 | Ella F＇reeze | June－ | 0 | 13 | 6 | 2 | Yes | 144 | 7 | 12 |  |  |
| 121 | Danvers．Mass | Danvers State Hospital ．－ | 1888 | Grace G．Pillsbury | June－ |  | 42 | 12 | $\stackrel{2}{2}$ | Yes |  | 15－16 | 17－18 |  |  |
| 12： | Everett，Mass | Whidder Memorial Hospital | 1897 | Alice M．Hodgson |  |  | 6 | 0 |  | Yes． | 100 | 8 | 12 |  |  |
| 123 | Fall River，Mass | Fall River Hospital．．．．． | 1888 | M．M．Brownrigg |  | 0 | 10 | $\stackrel{3}{3}$ | $\stackrel{2}{2}$ | Ycs． | 175 | 10 | 10 |  | 0 |
| 124 | Fitchburg，Mass．．．．．．． | Home Training Schcol，Emergency Hospital | 1894 | Abbie A．Bliss． | June- |  | 27 | 1\％ | $\stackrel{2}{2}$ | Yes | 260 | 8 | 10 |  |  |
| 125 | Fitchburg，Mass ．．－－ | Burbank Hospital． | 1994 | Cornelia L．Walker | June 20 | 0 | 12 | $\stackrel{2}{0}$ | $\stackrel{2}{2}$ | Yes | 14.2 | ${ }^{8}$ | 10 |  |  |
| 1126 | Gloucester，Mass．．．． | Addison Gilbert Hospital | $1897 \%$ | Emma J．Gordon |  | 0 |  | 0 5 | $\stackrel{3}{2}$ | Yes | 156 140 | ${ }_{7}^{9}$ | 12 |  | 0 |
| 127 | Greenfield，Mass | Franklin County Hospital | 1895 | Annie C．Nedwill | July 1 | 0 | 12 | 5 | 2 |  | 140 | 7 | 7 |  |  |
| 128 | Holyoke，Mass．．． | Holyoke City Hospital． | 1893 | Celemna E．Toner | （a） | 0 | 16 | 8 | 2 | Yes． |  | 10 | 14 |  | 0 |


Table 12.-Statistics of training schools for murses, for the year 1897-98-Continued.



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Table 12.-Statistics of training schools for nurses, for the year 1897-98-Continued.




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Elizabeth Gamble Deaconess Home and
Good Samaritan H
 Ohio Hospital for Women and Children Cleveland City Hospital
General Hospital General Hospital --...Lakeside Hospital -- - -------
State Hospital (for the insane) Protestant Hospital Toledo Hospital-----------
 Homeopathic Hospital --At. Vincent Hospital Hospital Presbyterian Hospital. Carbondale Hospital* State Hospital for the Insane --..-.-...-.-.-.-.
State Hospital for Injured Persons in AnState Hospital .-. Conemaugh Valley Memorial Hospital City Hospital...... Charity Hospital.
Oil City Hospital. Oil City Hospital. Children's Hospital.... Frederick Douglass Memorial Hospital Germantown Hospital. Gynecean Hospital.-
 * In 1896-9\%



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## CHAPTER XLIV.

AGRICULTURAL AND MECHANICAL COLLEGES. ${ }^{1}$

NEW BUILDINGS AND CHANGES IN THE COURSE OR IN THE METHODS OF INSTRCCTION (FROM PRESIDENTS' REPORTS).

President William Leroy Broun, Llabama Agricultural and Mechanieal College.Among the 280 students enrolled were 61 from other States. No change in the method of instruction. Much attention is given to laboratory instruction, the college being provided with 10 laboratories in the different scientific departments. For the study of electricity there is the nsual experimental lecture course and a full course in electrical engineering, the laboratory of which contains 15 different dynamos. Compressed air is used in the mechanical engineering department.

President John L. Buchanan, Arkansas Industrial Cniversity.-No material changes have been marle, but there have been some important additions to the course. The chair of economies and soeiology was filled by the election of a competent professor and a four jears' course of instruction in those subjects provided. The art department was duly organized, and a convenient and commodious studio, with a partial outfit, provided for it. Fuller and more definitely outlined courses in agriculture and horticulture have been introduced. The work of the session suffered somewhat from the war excitement. A number of students volunteered, some of whom, as well as a number of former students, received appointments as officers, owing principally to their military training received here.

A handsome plant or green house, with a room adjoining which serves as a botanical laboratory, has been erected, at a cost of about $\$ 2,500$, and furnished with a largely increased collection of plants. Two new office roms have been added to the experimentstation building, costing in the neighborhood of $\$ 1,000$, and a seed and tool house erected on the farm, costing about $\$ 200$. The plant house and seed and tool house are of wood on a stone foundation; the office rooms are of wood reneered with brick. A sewerage system, with lavatories, toilet rooms, and bath house has been constructed, at a cost of $\$ 2,000$. The university shops have received an addition to their equipment in the way of machinery and tools, costing between $\$ \tilde{\$}, 000$ and $\$ 6,000$. The department of civil engineering has been given more commodious quarters and valuable additions have been made to its outfit. The apparatus of the electrical laboratory has been increased by purchases amounting to nearly $\$ 1,000$ an X-ray outfit, two Kelvin voltmeters, an AC-DC polyphase motor generator, etc. Thus the university is better equipped than ever before for both theoretical and practical instruction. The buildings are in excellent condition and the grounds have been improved.

President Martin Kellogg, Lniversity of California.-A college of commerce has been established and will begin its courses at once. Prof. George Davidson, formerly of the Coast Survey, has been appointed to the chair of geography.

What are called the "affiliated college buildings" [professional schools] in San Francisco, built by a State appropriation, have been completed at a cost of $\$ 175,672$.

[^81]At Berkeley several buildings have been erected, at a cost of $\$ 55,318$, namely: An agricultural hall (to replace the one burned), which has a complete equipment for the agricultural college; a two-story and basement building for the botanical department, with laboratories; a hall for philosophy, including experimental psychology; a large building for zoology (freshman), physics, mechanical drawing, and industrial art. A site for the Wilmerding Trade School has been given by citizens of San Francisco, and valuable additions, chiefly gifts, have been made to the hbrary. The electrical department is fully equipped in the hall of mechanics.

President Alston Ellis, Colorado Stave Agricultural College.-The college year of thirty-nine weeks, divided into three terms of thirteen weeks each, closed with the exercises of commencement day, Thursday, June 2, 1898. The year was characterized by steady progress in all the departments of instruction. There was nothing connected with the administration of the college that was particularly marked or especially distinguished from that of the year preceding. Experience has shown that the strengthening of the course of study by the addition of another year's work was a step in the right direction. The standard of scholarship has been raised and the work of the institution has reached more to the dignity of what is known as collegiate instruction. It is not supposed that the total revenue roceived from the State for the support of the college within the next year will exceed $\$ 38,000$. Fortunately, however, the receipts from the land income fund, those arising from the Congressional act of 1862, are gradually increasing. It is fair to estimate that the increase of receipts from the last-mentioned source will make up the loss of revenue received under the operations of the mill-tax law. The commercial department that was established two years ago now enrolls about $\varepsilon 0$ students. Its course covers a period of two years and presents a great deal of scholastic work in addition to the peculiar work for which commercial colleges usualiy make more or less adequate provisions.
The college buildings and grounds hare been kept in a good state of repair, and many improvements of a minor character have been made in the interior of the various buildings on the college grounds. At this writing the new chemical laboratory is completed and in use. The total cost of the bnilding, including leating, lighting, and plumbing appliances, is $\$ 27,387.76$. Of this amount a little over $\$ 6,000$ had been paid prior to June 30,1897 . Probably the architect's fee and cost of supervision, amounting to alout $\$ 1,300$, ought to be added to the cost of the building as above reported.
President G. H. Flint, Storrs Agricultural College.-The course is now four gears in duration, with full lines in English, agriculture, horticulture, mathematics, veterinary science, physiology, mechanical drawing, and work in wood and iron. No new buildings added, though several are needed. Two cottages for dwellings were finished December 1, 1898.

President George A. Harter, Delauare College. - The principle of freedom in the election of studies without destroying educational coherency has been introduced into the junior and senior years of the several courses. The call for volunteers by the President caused 7 seniors, 7 juniors, 3 sophomores, and 2 freshmen to respond, all being made commissioned or noncommissioned officers in the First Delaware Reginent; but as the work of the senior class was practically finished, the members of the senior class who entered the military service were graduated with the rest of the class.
President IT. F. Yocum, Florida Agricultural College.-The department of agriculture, which for some years had been combined with that of chemistry, has become a separate department in charge of a competent professor. The mechanical course of study has been much strengthened and new apparatus purchased. A complete course in electrical engineering will be inaugurated at the beginning of the next year. No important additions have been made to the grounds or buildings.

President H. C. White, Gcorgia State College of Agriculture and the Mechanic Arts.The condition of the college is entirely satisfactory, and its progress during the past year all that could be expected or desired. A thorough examination of the college
and its affairs was made by tro distinct committees of the general assembly of the State and both of these committees unanimously testified to the efficiency of the work of the college and the scrupulous integrity and carefulness of its financial management. A difference of opinion was developed as to the experliency of continuing the connection of the college with the State University, but all measures presented to the general assembly looking to a disturbance of presentrelations were defeated by large majorities. No changes of importance have been made in the courses or the methods of instruction. Existing courses have been strengthened and somewhat extended.

One new building (the gift of the State) has been completed, of three stories and basement, constructed of brick and granite, at a cost of, approximately, $\$ 23,000$. With the exception of one lecture room and two administrative offices, the basement and two lower floors are occupied by the lecture rooms, laboratories, museums, stock rooms, etc., of the school of chemistry. The third floor has been fitted up with lecture rooms, laboratories, etc., for the school of biology. The accommodations and equipment for these tro schools is now admirable and first class in every particular. The portion of a building formerly occupied by the school of chemistry has been refitted (at a cost of, approximately, $\$ 2,000$ ) for the department of electrical engineering, and additional engines, dynamos, and other apparatus provided at an approximate cost of $\$ 1,000$. This department is now fairly well provided with space and apparatus for very satisfactory teaching, both didactic and experimental, of electricity and its applications in " the industries of life." The study of compressed air as a secondary motor power is not yet specialized. A new and excellent farm of 120 acres ( 100 under cultivation) has been purchased (from funds of the unirersity) for the school of agriculture and is now in process of equipment.

President F. B. Gault, University of Idaho.-There has been crected during the year a greenhouse for a horticultural department in which instruction is to be given in floriculture and greenhouse management. There is a building, a story and a half, in front of greenhouse for class room and other horticultural work.

President andrew S. Draper, University of Illinois.-The university has been unprecedently prosperous during the last year. A school of law was established upon a substantial footing, and the college of physicians and surgeons of Chicago, with over 400 students, was absorbed and became the school of medicine of the university. The school of library science, formerly at Armour Institute, Chicago, was removed to the university.

President J. H. Smart, Purdue Cniversity.-Our course in railway engineering and management has been greatly eularged. A noteworthy increase in our attendance has occurred, the number of students now being 750 with 57 post-graduate students. We have printed 5 regular college bulletins, 14 newspaper bulletins, and 2 food bulletins.

A one-story brick building, 50 by 100 feet, with corridor 20 by 40 feet, to be used for our railway testing department, has been built, and a greenhouse for the horticultural department, the last containing 3 rooms, one for a work room, the other two affording different degrees of temperature. For the cxtensive course in electrical engineering, the building and equipment of which is valued at $\$ 55,000$, a one-story brick addition has been added 63 by 26 feet.

President Beardshear, Iowa State Agricultural College.-An additional year of study has been added to all our courses, excepting the agricultural and veterinary, which have been strengthened. Our work in domestic science has been enlarged and another teacher added to the department. Our fiscal year has been changed to close June 30, and our commencement will ke in June instead of in November.

A new carpenter shop, 120 feet in length by 37 in breadth and 30 in height, made of brick and covered with slate, costing alout $\$ 5,000$, was erected and completed in July, 1898. A campanile was finished late last fall, at a cost of about $\$ 6,000$, for the reception of memorial chimes presented by Prof. E.W. Stanton in inemory of his wife, who was one of the first members of the faculty of the college.

President Thomas E. Till, Kansas Siate Agricultural College.-Extensivo changes in the course of study have been made during the two years ending July 1,1898 . The work was begun at the close of the fiscal year ending July 1, 1897, and is still in progress. The principal object of the changes was and is to emphasize the work in agriculture and mechanic arts, and also to give more prominence to studies conducive to civic intelligence and good citizenship. Special four sears' courses in agriculture, household economics, architecture, and a short dairy course have been added. A civil engineering course has been prepares., and will doulbtless be adopted by the board of regents at their meeting in January, 1899.

A building costing $\$ 16,000$, for the use of the department of domestic science, has been erected. It was occupied at the beginning of the winter term, 1898, and will be dedicated January 6, 1899. This building accommodates the two departments of sewing and household economics, iucluding cooking, and also contains a large students dining hall and a kitchen, thus enabling board to be furnished to students at cost-that is to say, at $\$ 1.75$ a week.

Electricity is studied in elementary physics during the first year. We have no laboratory. Electricity as an element in nature is studied under the head of meteorology and protection from lightning.

President James K. Patterson, Agricnltural and Mechanical College of Kentucky.-The course of mechanical engineering was modificd, as shown in the schedules [a comparison of the two schedules, old and new, shows a very decided change in respect to electrical engineering, that study gaining additional attention, it seems, by the use of the morning hours of Saturday during the junior and senior years]. The study of electricity as a secondary motive power forms a part of the course of study in the department of mechanical and electrical engineering. The study of compressed air as a secondary motive power is not considered, except as transmission of power by compressed air forms a part of the subject of thermodynamics.

A new building deroted to natural science was completed and dedicated in January, 1898. The building is constructed of pressed brick, with oolitic limestone trimmings, and slate roof. The building is about 97 feet square, and is three stories high, not including the basement, which extends under the whole structure. The building is heated by steam and lighted by electricity, and cost, with new furniture, about $\$ 22,000$. In this hall are facilities for instruction in geology, zoology, botany, and allied subjects. On the third floor the State geological collection has been placed.

President Thomas D. Boyd, Lonisiana State Tniversity and Agricultural and Mechanical College.-The buildings and grounds occupied by the university belong to the General Government and were formerly used for the purposcs of a garrison. Hence the buildings are not well adapted to college purposes and were, when the university took charge of them, in bad condition. As the appropriation of $\$ 20,000$ by the State legislature of 1896 depends upon the sale of certain State property for the amount named, the same is not set available, and, therefore, the proposed central building has not yet been built.

President A. W. Harris, The Unirersity of Maine. -There are no important changes in courses or methods of instruction. One new building has been erected upon the university grounds by the Q. T. V. Society to be used as a club-house, furnishing a home for about 25 students. The facilities for instruction in electrical engineering are, with slight additions, as before. The apparatus of the department of physics for instruction in electricity is already large, and is constantly being increased. It will be noted that the number of students in electrical engineering exceeds that in any other line.

President R. W. Silcester, Maryland Agricultaral College. -No changes in course or methods of instruction. A building of brick has been constructed, at a cost of $\$ 10,000$, to be used as a science hall, thus supplying laboratory facilities, the want of which has long been felt. Through the departments of the State horticulturist and farmers' institutes much good is being accomplished and the work of a university extension character is having its effect with us.

President Henry H. Goodell, Massachusetts Agricultural College.-The State has this year appropriated $\$ 25,000$ to erect and equip for class instruction and original research a two-story veterinary laboratory of brick, in connection with a hospital stable, likewise of brick, where diseased animals can be observed and treated. It has also erected and equipped, at a cost of $\$ 2,000$, a small plant to be used exclusively in solving dairy problems.

President J. M. Crafts, Massachusetts Institute of Tcchnology.-A new building is now under construction with a total floor space of 48,000 square feet. It will reccive the departments of architecture, liology, and geology, will furnish additional space to the departments of mechanical engineering, chemistry, and will indirectly better the situation for all the other departments needing more space.

President J. L. Snyder, Michigan Agricultural College.-While no important buildings have becn added to the college during the past year, there have been a number of minor additions made at an outlay of about $\$ 9,000$, which adds much to the equipment and conrenicnces of the college. An electric-lighting system has been installed at a cost of $\$ 5,000$. This outlay was for dynamos and the wiring of buildings. The dynamo is run with water power by an outside party under a five-year contract. The enrollment has reached 470 , the highest figure in the history of the college. All students are required to take industrial work in one of the three courses of study offered. In fact, the work of the college is confined to courses of study, in which scientific and technical instruction in agriculture, mechanic arts, and domestic econcmy play the leading part. Six thousand dollars were expended in repairing buildings.

President Cyrus Morthrop, Cniversity of Minnesota.-The instruction in the lines of agriculture and mechanic arts in the university has been somewhat broadened during the last ycar, more attention having been given to forestry and general agricnlture and to elcetrical engincering and to railroad engineering. Indeed, there has been improvement along all the lines of studs. The work in both colleges of agriculture and mechanic arts has been most satisfactory. Four hundred and seventy students have been connected with the agricultural department during the year, 129 with that of mechanic arts, and 54 with that of mines. The third topic of your inquiry is answered by Professor Shepardson to the following effeet:

> "The University of Minvesota, "/ Minneapolis, August 26,1898 .
"Replying to the inquiry from the Department of Elucation regarding instruction in the use of electricity and compressed air as secondary motive powers, I would say that our four sears' course in electrical engineering is largely devoted to preparation for and study of electricity as a motive power. If the question refers specifically to the use of elcctric motors and transmission, such as would compcte with compressed air, it is difficult to differentiate. The course 'Electrical generators' of four recitations and lectures per week through the third term of junior jear has largely to do with motors. The four-hour course in 'Alternating currents' in first-term senior, the four-hour course in 'Electrical transmission' in scond-term senior, and the two-hour course in third-term senior on 'Central stations,' all bear upon electric power. The first three of these terms are accompanied loy six to ten hours per week upon expcrimental work in the laboratory. The 'Thesis' in the third term allows students to work ten or more hours per week upon such subjects if so desired. The 'Designs and specifications' of third-term senior may also be directer that way.
"In the study of compressed air the seniors in mechanical engineering have a twohour course of lectures and recitations in the third-tem senior. The mechanical laboratory has some equipment along that linc. There are several plants in the Twin Cities which use compressed air to some extent. These, with the numerous and extensive electric plants, are examined by the students from year to year."

President Stephen D. Lee, Mississippi Agricultural and Mechanical College.-The session ending June 28 has had several interruptions. The yellow-fever scare in the
summer and fall of 1897 prevented the college from opening in September, and we did not open till November 15 -two months late. The studies and duties of nine months were put into seven and a half months. The war with Spain in the spring of 1898 unsettled the student body. Tho senior class of 15 members, with two exceptions, volunteered and enlisted in the regiments from Mississippi. The class was graduated six weeks before the regular time. About 70 students left the college from the other classes, most of them enlisting for the war. The United States Army officer, Capt. H. H. Ludlow, Sixth Artillery, was ordered to his regiment and the two rifle cannon were drawn in by the Ordnance Department. A large per cent of the officers in the Mississippi regiments were graduates of the college, and in almost every company former students were found holding commissioned and noncommissioned positions.

The academic instruction has been fully up to that of former years. Electrical apparatus for laboratory instruction and for lighting buildings and grounds has been parchased anl is now being received, as also a larger air compressor for increasing supply of water for use on the campus. A new building has been erected for a woodshop to make room for the electrical plant in the larger shop building. The grounds and the farm, station, and horticultural departments are in perfect and improved condition, and the shops are fairly well equipped. The complete electric plant will be in operation at beginning of the next session in September. All told, the year has becn a most successful and progressive one, notwithstanding the abnormal interruptions.

Director George E. Ladd, School of Mines and Metallurgy, Missouri.-The old academic course has been remodeled and made into a four-year course in general science, the work in which is largely elective, and during the last two jears is wholly so. A wooden structure has been built at a cost of $\$ 350$ to supply, temporarily, quarters for the woodworking shop and dynamo laboratory. We have a compressed-air drill used by students experimentally; also temporarily a yood air compressor and mining pump (the invention of one of our professors) run by compressed air. Lecture on this subject is given by our professor of cngineering. We offer a number of courses, lectures, and much lalsoratory work in electricity.

President James Reid, Montana Agricultural College.-The changes have been as follows: The domestic science course has bcen changed from a two-year to a four-year course. Upon the completion of the course the degree of bachelor of science is conferred. The course in agriculture also covers four years, and upon its completion the degree of bachelor of scientific agriculture is conferred. The veterinary has been changed and remodeled for an engineering laboratory, cesting about $\$ 1,200$. The work in this laboratory will be chiefly in electrical lines.

Chancellor George E. MacLean, the Cniversity of Nebraska.-During the past year tho faculty made a study of the curricula of leading institutions in this country and Europe. They further studied the registration of students in the college during the past five years to see what had been the demands made by these students. As a result of their studies they reviscd the groups of studics in the university, recognizing first, the demand for general groups; secondly, for special groups. It was clear that a further evolution of the group system, recognizing cognate studies, correlation of studies, and sequences, would be preferable to the abandonment of groups. It is believed that the university has not only met local demands, but given an example of original and progressive evolution of a curriculum. The present scheme is as follows:
A. General scientific group.
C. Special groups:

1. Agriculture and chemistry.
2. Botany and agricalture.
3. Botany and zoology.
4. Chemistry and physics.
5. Horticulture and botany.
6. Mathematics and physics.
7. Zoulogy and philosophy.
D. General agricultural group.
D. Technical groups:
I. Technical agriculture.
II. Civil engineering.
III. Municipal engineering.
IV. Electrical engineering.
V. Steam engineering.
VI. Mechanical engineering.

Early in the spring ground was broken for the ereetion of the wing of a new building, to be known as the college of mechanie arts. Through the liverality of the last legislature, $\$ 30,000$ was appropriated for the erection of the first wing of this new building. The dimensions of the wing are 65 by 120 feet. The style is of the Romanesque order of architecture. There are lecture rooms forgeneral use, besides the mechanie-art shop, photometry room, civil engineering, testing laboratory, senior laboratory, battery room, standardizing room, electro-metallurgical laboratory, musomn, library, mechanics' arts office, civil engineering offce, electrical engineering office, engineering room, and apparatus room. In the antumn of 1897 the enlarged dairy building was completed and opened. In addition to the accommodations for the farm and dairy school it has specifically for the experiment station a lotanical and horticuitural laboratory and the laboratory for the study of soil physics, while a new wing to the barn gives relief to the former overcrowding and affords an opportunity for experiments in feeding. The didactie and experimental provisions for the study of electricity have for a series of years been excellent, and there has been added certain apparatus for the use of students in developing their theses.
President J. E. Stubbs, Nevada State University.-(1) Courses of instruetion. The organization of the university comprises the following schools of instruction and training: (a) The school of liberal arts; (b) the school of mines; (c) the school of agriculture; (d) the school of mechanies; (e) the school of civil engineering; ( $f$ ) the State normal school. The sehool of civil engineering was opened last year. The school of mines naturally maintains a leading position in the interest of the peoplo of this State. The school of agrieulture will receive more attention in the nest five years than hitherto, for the reason that there seems to be a growth of intercst in the subject of agrieulture in this state. Quite a desirable change has been made in the school of liberal arts. At the beginning of the junior year students, with the approval of the faculty, may ehoose to pursue a special line of study, eonsisting of one major subject and two minor subjects, the minor subjects to give breadth and depth to the subject taken as a major. An effort has been made to improve the quality and general eharaeter of the work in the military department. Also, an advance has been made in the requirements of the State normal school, a department of the university but not of the Agricultural and Meehanical College. The faculty have given eareful eonsideration to secure the very best methods of instruction through the proper combination of class room, laboratory, and library methods.
(2) The new mechanical building was equipped with new machinery apportioned to three departments: First, the woodworking shop; second, the machine shop; and third, the blacksmith shop. The equipments cover machinery and tools of the best kind adapted to the needs of this department. For the completion of this building and for the equipment the State spent the last year $\$ 7,073.09$.
(3) In comnection with the mechanical building the university has established a small eleetrical laboratory, eonsisting of dynamo and other electrical applianees, for the purpose of giving practieal instruetion in the construction and use of electrical machinery and apparatus to students in all the science schools. It is not intenderl, for the present at least, to establish a department of electrical engineering.
President Charles S. Murhland, the New Hampshire College of Agriculture and the Mechanic Arts.-The chief change in the eourses of the institution bas been an elevation of the standard, amounting to nearly one complete year's work. The requirements for admission have been raised, so that students who enter must have had the equivalent of a good high-sehool edncation. Courses have been readjusted with special reference to developing the pedagogieal sequezee of the agricultural eourses, in the attempt to make them equal in intellectual quality with the engineering courses. No important addition has been made to the plant. No special provision has been made for the study of compressed air as a motive power. The experimental researches in electricity have not developed any results significant enough for special mention. In geueral, the work of the year has been progressive,
and the changes have been determined by the necessity of adjusting the eollege more aceurately to the requirements of the State.
Iresident Austin Scott, Riutgers Scientific School, The New Jersey State College for the Benefit of Agriculture and the Mechanic Arts. -The course in agrieulture has received an increased number of elections, and it has been possible to accommodate all of those students pursning this course with board and lodging at the college farm, where they have daily practice in farm methods under the immediate supervision of the professor of agriculture. Among the more important acquisitions for better instruction in clectricity are an electrical condenser, a $1 \frac{1}{2}$-horsepower motor, a thermo-generator, an ammeter, and X-ray supplies. Other purchases of apparatus and instruments include an aneroid barometer, a polar planimeter, beam compasses, graduated, a pantograph, an ellipsograph, a solar eje-piece, a collimating eye-piece, a direct vision prism, and a set of demonstration lenses. The library has received valuable additions of mathematical and chemical works.

To aid in promoting the purposes of the sanitary laws of New Jersey, the trustees of Rutgers College and Rutgers Scientifie School have appointed a board of examiners to conduct examinations and grant certificates in municipal hygiene to officers of local boards of health, sanitary inspectors, factory inspectors, plumbing inspectors, and to those who may seek appointments to these positions withont expense to this institution. The examinations are designed to test the fitness of persons who may be called upon to engage in the execution of the health laws, and the certificates issued will indicate the degree in which the holders are qualified to perform the duties relating to the promotion and the protection of the public health required by the laws of the State, and by the rules, regulations, and ordinances of local boards of health. The first of the triyearly examinations was held in June, 1838, at which time three persons approved themselves as qualified to act-one as an executive health officer, one as a sanitary inspector, and one as a plumbing inspector. This plan of instruction and examination in municipal hygiene is now introduced for the first time, it is believed, in any American institution.

In the general work of this department five half courses, of six lectures each, have been given, as follows: One half course each on India and Persia, the Eastern question, modera history, English literature, and six American poets. The total attendance at the 30 lectures was 794 persons and the average attendance 720 . The total attendance at the class hours following each lecture was 410 persons and the average attendance 341. Ordinary half-course pass cards were awarded to 10 persons and honor pass cards to 4 .
In special work 31 lectures were given, at which the total attendance was estimated at 2,000 persons and the average attendance at 1,700 . The total attendance at the class hours was estimated at 1,290 persons and the average attendance at 1,075.

President C. T. Jordan, New Mexico College of Agriculture and Mechanic Arts.-The course of study and methods of instruction have not been materially changed. A building especially designed for laboratory work was completed during the year. The twenty-one rooms it contains are all taken np by work for the experiment station, and botanical, chemical, entomological, and physiological laboratories for college classes. The building cost about $\$ 12,500$. A dormitory for girls was also completed at a cost of about $\$ 6,000$. A dynamo and motor was added to the equipment of the mechanical department and is used for purposes of instruction solely.

President J. H. Worst, Agricultural College and Experinient Station, North Dakota.No material changes in course of study or methods of instruction. The two years, short course provided for last year enrolled 12 students and the "farm school" 35 students. This farm school gives a course of instruction for three months during the winter.

President J. G. Schurman, Cornell Cniversity. -The year 1897-98 was the most prosperous, healthful, and in many ways the most memorable in the history of Cornell University. The attendance was larger than ever before, and, owing to the great
and progressive elevation in recent jears in the standards of admission to nearly all courses, a striking improvement is markedly visible in the scholarship of this augmented student-body. The staff of instruction has also been larger than ever before. The great hydraulic laboratory has been completed, and a new department of instruction has been added to the college of civil engineering ly the appointment of a professor of civil engincering in charge of the hydraulic laboratory. A graduate school of railway mechanical engineering has been added to the seven departments formerly constituting the Sibley College of Mechanical Engineering. The Sage Chapel has been doubled in seating capacity, and a semi-octagonal apse 16 by 31 feet has also been added as a memorial to Mr. Sage, $\$ 12,000$ being deroted to interior decoration of this apse. Work has been begun on a new $\$ 55,000$ chemical annex, which will double the space at the disposal of that department. The mansion of the late Hon. Henry W. Sage was conveyed by his sons, Dean and William H. Sage, to the university as memorial to their father, and they also fitted and equipped it, and endowed it with $\$ 100,000$. The State of New York established this year the New York State College of Forestry at Cornell, giving it as a laboratory, a demonstration area of 30,000 acres of Adirondack forest, and making an initial appropriation of $\$ 10,000$ for maintenance. But most important of all lias been the gift of Col. Oliver H. Payne, which has provided for the establishment and maintenance of a Cornell University Medical College in New York and in Ithaca. Upon this foundation a faculty of 11 professors, $5 t$ clinical professors, instructors, etc., has been appointed, who will be assisted by the teaching force of the existing scientific departments of the university.
Cornell Cniversity, 1SOS-Degrees, by years.



Cornell University, $1 S 3 S$-Degrees, by years-Continued.


President James H. Canfield, Ohio State Cniversity. - We have no special changes to note for the jear. The new buildings referred to in my last report hare been completed and are now occupied for the purposes for which they were erected. The results following, more ample accommodation and better equipment are already apparent in the far better work they make possible. There has been a gain in our attendance of about $12 \frac{1}{2}$ per cent. The greatest gan $n$ anyone college is that in the college of agriculture and domestic science-nearly 50 per cent. The agricultural experiment station being a separate institution in this State, we have but few experiments to report. Those for the past jear have been chiefly in the study of soils and in the study of the possibility of successful beet-sngar culture in this State. These will appear in the more formal report to be printed and forwarded later. It may be iuteresting to add, in view of the military provision in the law of 1862, that the large number of those who, as graduates and former students of this university, are now in the military service of their comntry and are showing unusnal proficiency in the art of war is an ample proof of the wisdom of maintaining cadet service and military drill in the land-grant colleges.

President G. E. Morrow, Oklahoma Agricultural and Mechanical College.-No considerable changes in course or methods of instruction were made during the sear. Increased attention was given to laboratory methods in instruction and more use made of the library. A somewhat higher standard of preparation was noticed in those entering, and a larger area of the Territory was represented in the school.

President J. H. Washburn, Rhode Island College of Agricultrire and the Mechanic Arts. -The number of students has increased and our course of stady has been materially raised, so that we are nearly two jears in adrance of our former standard. We have established a preparatory school, to take in studeuts of agriculture who come from country schools and are unable to arail themselves of the adrantages of high schools. We are conducting this school under protest and will discontinne it as soon as possible. In January we gave a short poultry-school course of four weeks, which proved to be a decided success. We are giving this rear a course in road construction and engineering.

During the year the State legislature appropriated $\$ 10,000$ for current expenses and $\$ 11,500$ for agricultural buildings.

President Henry S. Hartzog, the Clemson Agricultural College.-A course in textile training has been added, and a building erected for same at a cost of $\$ 15,000$. A building has also been erected for horticultural department at a cost of $\$ 1,000$. The building for instruction in electricity is well equipped, and graduates liave had no trouble in securing good positions.

President J. TH. Heston, South Dakota Agricultural College.-Although the army officer detailed to this college was recalled to service in the field, we have maintained a military organization and carried on our military exercises with staff officers, who hare done excellent work under the circumstances. The department of mnsic was reorganized at the beginning of the year, and a new line of work in the valuo of architectural engineering and agricultural ongineering was introduced. We attempted to offer instruction in German and Latin during the year as optional and elective studies and to furnish guidance for the study by assigning work to professors already burdened with other duties. The experience of the year indicated that we should do more than this, so the board elected a professor of morlern languages. The board organized a preparatory department and appointed a teacher of Latin. In order to more systematically carry on the work of farmers' institutes that work was assigned to the State engineer of irrigation. It is our intention to pursue a more vigorous campaign of college extension next jear and to endeavor to organize farmers' clubs for home study and scientific agricultural research. Another change is the revision of the entire curriculum, toward which we hare been working for two jears. We now offer all our work in short comrses and run our college six days of the week all the year round. The number of studies pursned at anyone time is materially reduced. The different departments offer adranced
work not heretofore possible. Modern languages and Latin are given a prominent place, and at least one of them must be studied two years by all candidates for a bachelor's degree. Our short courses have been strengthened by the introduction of more suljects which bear directly on farm operations and processes, and also which show how scientific knowledge and technical skill may be applied in farm life and all home activities.
A new building has been erected, to be used for a mechanical laboratory. This is a two-story brick, 90 by 40 . The first floor contains office, class room, machine and dynamo room. The second floor is fitted up for a drawing room and carpentry shop. The cost of the building is $\$ 5,000$. A building has been remodeled for instruction in physics, industrial art, and domestic seience; still another for agricultural experiment work. It contains laboratories for soil physics, chemistry, and animal and plant biological work. An electric-light plant has been added.
President Charles IT. Dabney, Cniversity of Tennessee.-No essential changes have been made in the conrses or methods of instruction during the past year, but decided progress has heen made in many of them. The agricultural science course has been still further expanded, so as to give greater liberty of election in languages, literature, and history, and to provide more thorough and complete instruction in the sciences pertaining to agriculture. The engineering courses, which are the same in the freshman and sophomore classes for mechanical, electrical, civil, and military engineering have been further expanded, so as to provide special study nuder each of these heads in the junior and senior years. Some studies continue the same in all, but greater differentiation and liberty of election is provided, so as to permit students to specialize more than was possible under the old comrses. In the same manner the chemical group has been arranged so as to permit students to specialize in general analytical chemistry, mining chemistry, metallurgy, pharmaceutical chemistry, or agricultural chemistry. The literary course has been rearranged so as to allow also freer election in the jumior and senior classes. A course in pharmacy has been established. The department of history has been very much expanded and the work divided between two professors, one for European and American history, and the other for constitutional history and international law, with three lecturers to assist. The work in modern languages has been rearranged, so as to give more men and more time for the work in English, and to provide a separate professor, for the first time, in charge of French and German. A separate elective course has been provided in organic and agricultural chemistry in the hands of an instructor in the department of chemistry.

A mechanical hall, to be called Estabrook Hall, in honor of President Estabrook, is being erected at the cost of abont $\$ 15,000$. The college has outgrown its first mechanical building, and the new will be abont three times as large as the old one. It will contain laboratories for hydraulic and stcam testing, dynamo and dynamometer work, material testing, coal testing, oil testing, and a large general laboratory for instrument calibration and other general work. In it wiil also be the usual departments for wood working and iron working and the electric-lighting plant, besides storerooms for electrical goods, patterns, and plumbing supplies, coal and wood, offices for superintendent, printing, wash and dark rooms for blue-print and photographic work, a private laboratory and a general museum for displaying work of stadents, engineering specialties, and other things of interest to the profession. The machinery contained in the old building will be removed to the new one, and considerable new machinery and apparatus purchased for the equipment of the additional laboratories. Improved facilities are thus being provided for instruction in mechanic arts and electricity. The power will be transmitted to the different shops in the form of electricity. Two new dormitories are being erected, one to accommodate about 60 men students and the other about 40 women students; the latter is the first woman's dormitory to be erected upon the college grounds.

Acting President R. H. Whitlock, Agricultural and Mechanical College of Texas.-A new mess hall of brick has been built at a cost of \$25,000, inclnding part of equipment, as also two frame residences for professors at a cost of $\$ 3,000$.

President J. M. Tanner, the Agricultural College of Utah.-The session ended June 15 was a snccessful one. The registration of students was 447 , of an average age of 13.6 years.

A number of our students enlisted for the war when volunteers were called for. Most of these, having been well drillcdi in military science and tactics, were commissioned as officers in their regiments. The professor of military science was ordcred to his regiment, but the military drill was continued for the balance of the year by the senior officers of the cadets. The new manual training courses have been liberally patronized durng the year, and the students acquired more skill in forge and carpentry work and in cooking and sewing than was possible under the previons arrangement of courses. The sum of the expenditures during the year for college and station was $\$ 56,355.13$, against $\$ 65,135.52$ for the previous year. Considerable repairing work has been done on the main building, including repainting of the outside woodwork. Many needed improvements have been made on the college campus.
The experiment station has issued during the year seven bulletins and an annual report, as follows: Bulletin No. 51, Poultry Experiments; No. 52, the Chemical Composition of Utah Soils, Cache and Sanpete counties; No. 53, Utah Sugar Beets; No. 54, Cattle Feeding; No. 55, Orchard Pests; No. 56, Field Experiments with Wheat, Oats, and Barles; No. 57, By-Products of the Dairy ; No. 58, Chemical Life History of Lucern, Part II, and Eighth Annual Report.
President Matthew H. Euckham, Unirersity of Termont.-Attention is called to (a) the raising of standard required for preparing examinations in all departments to be 60 per cent; (b) abolition of all surveillance of seniors, both as to attendance and work done, which has worked well so far, action of students in enforcing fairness and honor in examinations through a jury of their own number which has been accepted by faculty in lien of supervision; (d) great increase of laboratory work in departments of chemistry, biology, physics, and electricity.

The Williams Science Hall has been completed and equipped, there having been a gift of $\$ 60,000$ for that purpesc. Important progress las been made in the department of electricity.

President J. M. McBryde, Virginia Agricultural and Mechanical and Polytechnic Instituie.-Only important change is abolition of subireshman class. Only students of collegiate grade admitted. About $\$ 3,500$ was expended for a dynamo, laboratory, and machinery for mechanical engineering department. Water is pumped by compressed air. The spring and pump are about a mile distant from the power house in which the compressor is installed. The plant was put in by the students and is watched over by them and the professor of mechanical engineering makes large use of the plant for illustrative purposes. The professor of electrical engineering makes large use of our electric-light plant. The colloge buildings are lighted by our directcurrent dynamo and the village of Blacksburg by our alternating-current dynamo.

President Jerome H. Raymond, West Virginia Cniversity.-During the past year two new courses have been organized in the college of arts and sciences, the philosophical course, leading to the degree of bachelor of philosophy, in which one of the classical languages is required, but not both, and the modern literature course, leading to the degree of bachelor of letters, in which neither of the classical languages is required, but an equivalent anount of French or German.

The requirements for admission to the freshman class have been materially advanced during the past year. The department of ancient languages has been subdivided into two departments of Latin and Greek, and the department of modern languages has been subdivided into the departments of Germanic languages and literatures and romance languages and literatures.

The summer quarter has been instituted, beginning July 1 and continning twelve weeks. During the present summer, which is the first summer we have hat this summer quarter, we have had 178 students in residencc. We have adopted the course system. A course consists of five hours' instruction a weok for one quarter
(twelve weeks). Heretofore our classes have, most of them, met but two or three times a week. Now, with very few exceptions, all classes meet five times a week.

President Enoch A. Bryan, Agricultural College and School of Science of the State of Washington.-No important changes in course or method of instruction have been made. No new buildings or additions to buildings. Ferry Hall (boys' dormitory) was burned November 22,1897 . We offer a four years' course in electric\&l engineering, as indicated in the annual catalogue. A plant for experimental and illustrative purposes is maintained and a eonsiderable electrical equipment is owned by the college.

President C. I. Adams, Unirersity of Wisconsin.-During the year there has been constructed a dairy barn and stock-judging building, costing $\$ 16,000$. The equipment, including electric motors and other machinery, adds $\$ 2,000$. The building has a frontage of 86 by 50 feet in depth, with wings 70 by 110 feet. The third floor of the barn, which is the principal one, is approached by a steel trestle bridge leading from a slight elevation near by. The stables are arranged to take advantage of our present knowledge of the requirements of sanitary engineering. There are provisions for a liberal allowance of sunshine, ample ventilation, and the walls and floors are so constructed that the rooms can be flushed with water daily if desired. The stock-judging room (with skylights) covers 40 by 70 feet. Architecturally, the building is a reproduction of a farm building in Normandy, France.

President W. H. Councill, president Agricultural and Mechanical College (colored), Ala-bama.-A college department has been added. Seay Hall, burnt February 9, 1898, has been rebuilt, mechanic arts building repaired, and an engine and boiler, and sawmill, painting, mattress-making, wheelwrighting, and foundry departments have been added.

Presideut W. C.Jason, Delaware State College for Colored Students.-A frame annex to the college building was completed February 1, 1898. It is two stories high, containing dining room, kitchen, laundry, and bathrooms on first floor, and ten sleeping rooms on second floor. Its cost was about $\$ 2,000$.

President Johu H. Jackson, Fentucky State Normal School for Colored Persons.-We have built an addition, consisting of six rooms and a chapel, to our main building, at a cost of $\$ 3,625$. We have done some elementary work in electricity, but have given much more attention to awaken the interest of our students in agriculture. We have engaged in an effort to thoroughly study the growth and culture of the sugar, and we hope to be able to report upon what we have done at an early date.

President H. A. Hill, Southern Unirersity and Agricultural and Mechanical College.The students have built an additional two-story dormitory on the farm capable of aecommodating 24 pupils. Labor not included, the cost was $\$ 500$. Though yellow fever interfered with our opening, we have made up the lost time by using the time usually given to the holiday vacation and by teaching extra time.

President James B. Dudley, Agricultural and Mechanical College for the Colored Race, North Carolina.-A woman's course has been added, in which is given special attention to domestic science. Two frame buildings have been erected, one for instruction in dairying, the other to be used as a barn. These buildings cost about $\$ 3,500$.

President H. B. Frissell, Hampton Normal and Agricultural Institute.-A new feature of our field work has been the establishment of a model farm of 4 acres, equipped with stoek and a model barn. Many of our students come from small farms, ranging in area from 1 or 2 acres up to 10 or 12 , and the object of our 4 -acre model farm is to give them praetical experience in so managing a small area that it will grow sufficient produce to maintain at least 1 horse, 1 cow, 1 pig, some poultry, and supply a medium-sized family with the necessities of life, while maintaining, if not increasing, the fertility of the land. Aside from this, our field work has been as usual, experimentation in a simple way, to give the students practical demonstrations of the truths and prineiples tanght in the class room. In our new domestic science building, which has been constructed during the year, 6 rooms, covering about 10,000 square feet of floor space, have been equipped for the use of the department of
agriculture. These rooms are (1) a museum and lecture room, (2) a chemical laboratory, (3) a laboratory for botany and horticulture, (4) a farm eugineering room, (5) a dairy, and (6) a farm laboratory. These additions will greatly facilitate our work.

## FINANCLAL NOTES.

The financial reports of the presidents of the colleges for the benefit of agriculture and the mechanic arts (excluding the college of North Carolina) for 1897-98 show the following facts:


Of these sums there were expended during the year:

For instruction in other subjects and for other expenses ........................................... 2, 057,349
Total (excluding North Carolina Agricultural College) ................................................. 4, 251, 7:35
Summary of statistics.

|  | Men. | Women. |
| :---: | :---: | :---: |
| Teachers: |  |  |
| In colleges for the Caucasian race (exclusive of North Carolina College). | 1,377 | 139 |
| In colleges for the African race .... | 118 | 86 |
| 'Total. | 1,495 | 225 |
| Students: |  |  |
| (1) In colleges for the Caucasian race (exclusive of North Carolina College): (a) Preparatory |  |  |
| (b) Collegiate................................................................................ | 11, 32 | 1,927 |
| (c) Post graduate... | -443 | 90 |
| (d) Other departments | 7,352 | 3,019 |
| Total | 21,574 | 5,768 |
| (2) In colleges for the African race: <br> (a) Preparatory |  |  |
| (b) Collegiate ........... | , 557 | 354 |
| (c) Pest graduate. | 4 | 10 |
| Total. | 2,038 | 1,710 |

Distribution of students in courses of colleges for the Cancasian race (as far as reported).


[^82]ED 98
125


| Name of institution． | Name of president． |  | Faculty． |  | Students，by departments． |  |  |  |  |  |  |  | Properts： |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 合 |  | Prepara－ tory． |  | Collegi－ ate． |  | $\begin{gathered} \text { Post } \\ \text { gradu- } \\ \text { ate. } \end{gathered}$ |  | All other depart－ ments of college or alibliated depart－ ments． |  | Library． |  |  |  |  |
|  |  |  |  |  | $\underset{\sim}{\dot{E}}$ | 華 | $\dot{y}$ | $\underset{E}{\dot{E}}$ | 家 | $\begin{aligned} & \text { E. } \\ & \text { B } \\ & \text { B } \end{aligned}$ | $\stackrel{\dot{\Xi}}{\underset{y}{\Delta}}$ | $\begin{aligned} & \dot{\text { E }} \\ & \text { E } \\ & \dot{E} \end{aligned}$ | $\frac{\dot{\infty}}{\stackrel{\dot{D}}{\tilde{E}}}$ |  |  |  |  |
| Alabama Polytechnic Institute，Auburn，Ala | Williann Leroy Irroun | 8 | 31 | 0 | 29 | 0 | 269 | 20 | 23 | 0 | 0 | 0 | 11，712 | 1，750 | 75 | \＄2， 500 | \＄18．7， 540 |
| University of Arizona，Tueson，Ariz．．．．．． | M．M．Parker．．．．．．．．．．． | ${ }_{6}^{6}$ | 12 | 3 | 57 | 42 | 41 | 16 | 0 | 0 | 0 | 0 | 3，100 |  | 60 | 3，000 | 88， 700 |
| Arkansas Industrial Unversity，Fayctteville，Ark． | John L．Buchanai | 7 | 22 | 11 | 62 | 0 | 27 | 0 | 0 | 0 | 211 | 148 | 7， 908 | 6， 499 | 40 | 9， 600 | 198， 000 |
| University of California，Berkeley，Cal．．．．．．．．．．．．．． | Martin Kellogg | 14 | 72 | 0 | 0 | 0 | 419 | 15 | 20 | 0 | 1，092 | 845 | 73，500 | 80，000 | $18 \cdot 2$ | 193， 125 | 1，072， 111 |
| Colorado Agricultural College，Fort Collins，Colo | Aiston Ellis． | 7 | 22 | 3 | 28 | $: 7$ | 211 | 81 | 6 | 1 | 0 | 0 | 9，968 | 1，021 | 225 | 32， 900 | 189，329 |
| Storrs Agricultural College，Storrs，Comn．．．．．．．．． | Ceorge W．Flint | 5 | 10 | 4 | 0 | 0 | 89 | 24 | 0 | 0 | 0 | 0 | 6， 500 | 500 | 100 | 15， 000 | 70，000 |
| Delaware College，Newark，Del．．．．．． | （ ieorge A．Harter | 5 | 13 | 0 |  |  | 88 |  | 3 |  |  |  | 10,000 | 8，000 | 4 | 3， 000 | 114， 800 |
| Florida Agricultural College，Lake City，Fla．．．．．．． | W．F．Yoemm． | 6 | 133 | 2 | 36 | 10 | 42 | 13 | 2 |  | 42 | 27 |  |  | 93 | 7，000 | 31，5：31 |
| State Agricultural and Mcehanical College，Athens， （ia． | II．©．White． |  | 21 |  |  |  | 105 |  | 5 |  |  |  | 28， 960 | 8， 045 | 100 | 10，000 | 600， 600 |
| University of Idaho，Moscow，Idaho．．．．．．．．．．．．．．．．．． | F．B．Gault | 8 | 15 | 6 | 92 | 69 | 53 | 31 | 3 | 0 |  |  | 6， 100 | 9，500 | 94 | 4，000 | 163， 000 |
| University of Illinois，Urbana，Ill．． | Audrew S．Drap | 10 | 87 | 10 | 145 | 54 | 538 | 158 | 66 | 12 | 588 | 21 | 34， 338 | 6，750 | 600 | 100，000 | 975，000 |
| Purdue University of Indiana，Lafayetie，In | J．H．Smart．．．．． | 11 | 58 | 6 |  |  | 617 | 76 | 36 | 21 |  |  | 8，098 | 2，854 | 149 | 60， 000 | 570， 000 |
| Iowa Agricultural College，Ames，Iowa．－．－．．．．．．．．．．．． | W．M．Beardshea | 14 | 49 | 10 | 45 | 26 | 460 | 100 | 5 | 0 | 0 | 0 | 11，458 |  | 300 | 45，000 | 475， 000 |
| Kansas State A gricultural College，Manhattan，Kans． | Thomas E．Will．．．．．．． | 12 | 32 | 10 | $6 \pm$ | 15 | 426 | 243 | 33 | 24 | 0 | 0 | 19，040 | 14，000 | 250 | 39.100 | 406， 512 |
| Kentucky A gricultural and Mechanical College，Lex－ ington， $\mathrm{K} y$ ． | James K．l＇atterson．．． | 6 | 18 | ．．． | 67 | 14 | 190 | 58 | 8 | 1 | 39 | 53 | 3，356 | 5，969 | 45 | 25，000 | 176，000 |
| Loulsiana State University and Agricultmal and Mechanical College，Baton Rouge，La． | Thomas D．I | 20 | 20 | $\cdots$ | 88 | － | 158 | $\cdots$ | 4 |  |  |  | 20，000 | 2，000 | 310 | 33， 300 | 200，000 |
| University of Maine，Orono，Me．．．．．．．．．．．．．．．．．．．．．．．． | A．W．Marris． | 10 | 34 | 0 |  |  | 307 | 10 | 7 |  |  |  | 14， 000 | 6， 000 | 120 | 9，325 | 157， 725 |
| Maryland Agricaltural College，College Park，Md．．． | 1．W．Silvester | 11 | 17 | 0 | 23 |  | 81 |  | 1 |  |  |  | 2， 100 | 700 | 110 | 28， 6,0 | 74，000 |
| Massachusetts Agricultural College，Amherst，Mass． | I．H．Goodell． | 21 | 22 | 0 | 0 | 0 | 1 133 | 0 | 9 | 0 | 0 | 0 | 18， 760 | ${ }^{0}$ | 260 | 45,000 | 164，500 |
| Massachusetts lustitute of＇Technology，Boston， Mass． | J．M．Crafts | 0 | 54 | 0 |  |  | 1， 117 | 73 | 9 |  |  |  | 46，015 | 14， 148 |  |  | 546， 083 |
| Michigan State Agricultural College，Agricultural Conlege，Mich． | J．L．Snyder．．．．．．．．．．．． | 17 | 37 | 5 | 0 | 0 | 384 | 80 | 2 | 3 | 0 | 0 | 21，000 | 4，000 | 500 | 47，320 | 501，454 |
| University of Minnesota．Minneapolis，Minn． | Crris Northrop．．．．．．． | 12 | 51 | 7 | 139 | 25 | 347 | 88 |  |  | 1，573 | 718 | 52， 003 |  | 210 | 300,000 | 955,000 |
| Agricultrral and Merhanical College of Mississippi， Agricultural College．Miss． | Stephen D．Leө．．．．．．． | 5 | 21 |  | 91 | 1 | 19．） | 10 | 4 |  |  |  | 6， 487 | 7，650 | 450 | 4：，605 | （ 65,811 |
| University of Missouri，Columbia，Mo． | I．H．Jesse | 14 | 29 | 1 |  |  | 276 | 6 |  |  | 505 | 31 |  |  | 320 | 141， 106 | 228， 000 |


| 용 | $c_{c}^{0} 0$ | $\begin{aligned} & 1071083 \\ & 103 \end{aligned}$ |  | $88$ | $\hat{O}$ | $8$ | $\mathrm{E}$ | $8$ | $8$ | $\underbrace{}_{\infty} 3$ | ${\underset{\infty}{\infty}}_{8}^{2}$ | 8 | $\underset{i .}{+0}$ | E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 「"今े | $\overbrace{i}^{5} \overbrace{i}^{2}$ |  | $15 \sum_{\infty}^{\infty}+\infty$ | $\begin{aligned} & \infty-9 \\ & -2 \end{aligned}$ | $\text { E } \frac{25}{42}$ | $\begin{aligned} & 2500^{\circ} \\ & \approx \frac{10}{4} \end{aligned}$ | ${ }_{6}^{25}$ | $\begin{gathered} \infty \\ \stackrel{\infty}{-1} \\ \hline \end{gathered}$ | ${\underset{\sim}{8}}_{8}^{8} \underset{\sim}{\circ}$ | on | Cis | $\stackrel{\sigma}{i}$ | $\stackrel{65}{50}$ | 12 |



Table 1．－Statistics for 1S97－98 of institutions endowed by the acts of Congress approvcd July 2，1862，ein．－Continued．

| ＊Name of institution． | Name of president． |  | Faculty |  | Students，by departments． |  |  |  |  |  |  |  | Property． |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | E | $\begin{aligned} & \text { E. } \\ & \text { E } \\ & \text { B. } \end{aligned}$ | Prepara－ tory． |  | Collegi－ ate． |  | $\begin{gathered} \text { Post } \\ \text { gradu- } \\ \text { ate. } \end{gathered}$ |  | All dep men colle aftil dep | $\begin{aligned} & \text { her } \\ & \text { rt- } \\ & \text { of } \\ & \text { e or } \\ & \text { ted } \\ & \text { rt- } \\ & \text { ts. } \end{aligned}$ | Library． |  |  |  |  |
|  |  |  |  |  |  | 免 | 或 | 这 | － | 盛 | $\xrightarrow{\text { E }}$ | 药 | $\stackrel{\text { ® }}{\text { E }}$ | $\stackrel{\dot{\infty}}{\stackrel{\sim}{\approx}}$ |  |  |  |
| Lincoln Institute，Jefferson Cits，Mo．．．．．．．．．．．．．．．．．． | John H．Jackson． |  | 3 |  | 69 |  |  |  |  |  | 48 |  | 225 | 100 | 14 | \＄2， 300 | \＄62， 550 |
| Agricultural and Mechanical College for the Colored | James B．Dudley |  | 9 | 1 | 36 | 31 | 37 | 12 | 1 |  |  |  | 714 | 2，000 | 20 | 3，000 | 48，250 |
| Race，Greensboro，N．C． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Colored Normal，Industrial，and Agricultural and Mechanical College，Orangeburg，S．C． | Thos．E．Miller | 0 | 12 | 9 | 223 | 266 | 12 | 13 | 0 | 0 |  |  | 400 | 350 | 75 | 19，950 | 80，000 |
| Prairie View State Normal School，Prairie View，Tex． | Edward L．Blackshear |  | 5 | 3 |  |  | 100 | 90 |  |  |  |  | 946 | 250 | 300 | 15，000 | 76，989 |
| Hampton Normal and Agricultural Institute，Hamp－ ton， V a． | H．B．Frissoll－．．－－．．．． | 4 | 30 | 49 | 443 | 368 | 118 | 68 | 1 |  |  |  | 8，7⿺5 | 916 | 500 | 32，000 | 684， 000 |
| West Virginia Colored Institute，Farm，W．Va．．．．．． | J．H．Hill |  | 5 | 3 |  |  |  |  |  |  |  |  | 600 | 200 |  | 2，750 | 30， 500 |




| Name of institution. | Palance on liand July 1 , 1897. | Receipts. |  |  |  |  | Expenditures. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Federal aid- |  |  |  | Fees and all other sources. | Instruction in the subjects specificd in section 1, act of Ang. 30, 1890. | Experiment station. | Administrative expenses and instruction inall other departments. |
|  |  | State aid by endowmentand appro priation. | Fromact of July 2 , 1862. | From act of Aug. 30, 1890. | For support of experiment stations. |  |  |  |  |
| Ohio State Unicersity . | \$19, 782 | \$353, 890 | \$31,461 | \$23, 000 |  | \$33, 547 | \$31, 217 |  | \$134, 211 |
| Oklahoma Agrieultural and Mechanical Colleqe | 37, 349 | - 500 |  | 23,000 | \$15,000 | 1, 173 | 8,568 0 | \$15, 0.0 | $\stackrel{\text { ¢, } 916}{ }$ |
| State A gricultural College of Oregon ..... | 2,993 | 5,000 48,799 | 12,554 | 23,000 | 15, 000 | 1,161 | 23, 229 | 15, 000 | 9, 036 |
| Pennsylvania State College........ |  | 48,799 | 25, 637 | 23,000 | 15, 000 | 10, 159 | 41, 755 | 15,000 | 52,007 |
| Rhode Island College of A griculture and Mechani | 23,337 <br> $2,2,154$ | 21, 500 | $\stackrel{2}{2,943}$ | 23,000 11,500 | 15,000 15,000 | 6,000 4,862 | 26,809 25,900 | 15,000 15,000 | 10,000 10,000 |
| Clemson Agricultural College. .-............ | 22, 158 | 56,000 17,500 | 5, 764 | 11,500 23,000 | 15,000 15,000 | 4, 802 5,000 | 25,900 23,073 | 15,000 15,000 | 10,000 22,424 |
| State Agricultural College of Sonth Jakota University of Tennesse日.................. | 333 | 17,500 | 23, 960 | 23,000 23,000 | 15,000 15,000 | $\begin{array}{r}\text { 5, } \\ 1000 \\ \hline 0,988\end{array}$ | $2,1,073$ 21,484 | 15,000 15,000 | 22,424 29,45 |
| Agricultural and Mechanical College of Texas |  | 60,500 | 14,280 | 17, 250 | 15, 000 | 8,332 | 26, 333 | 35,000 | 8,657 |
| A gricultural College of Utah .................. |  | 12,250 |  | 23,000 | 15,000 | 6,333 | 22, 127 | 18, 280 | 15, 948 |
| University of Vermont and State Agricultural College |  | 6, 000 | 8. 130 | 23, 000 | 15,000 | 37, 618 | 46, 467 | 15,000 | 24, 888 |
| Virginia A gricultural and Mechanical College ......... |  | 15,000 | 20,659 | 15,333 | 15,000 | 11,593 | 18,333 | 17, 190 | 30, 901 |
| Washington Agrieuitural College, Experiment Station, and School of Seic | 3 | 11, 595 |  | 23, 000 | 15,000 | 3,726 | 22, 005 | 15, 000 | 11, 595 |
| West Virginia University......... |  | 36,550 | 6,408 | 18,000 | 15,000 | 11,858 | 20,313 | 21, 053 | 57, 386 |
| University of Wisconsin. |  | 76,800 | 9,300 | 19, 1000 | 15,000 | 5, 000 | 18,400 | 39, 125 | 45, 200 |
| University of Wyoming. | 7,680 | 8, 077 |  | 23, 000 | 15,000 | 1,167 | 21, 017 | 15,557 | 5,400 |
| FOR THE COLORED RACE. |  |  |  |  |  |  |  |  |  |
| Alabama Agricnltural and Mechanical College for Colored Students | 601 | 4,000 |  | 10, 477 |  | 17, 500 | 7,849 |  | 2,349 |
| Jranch Normal College of Arkansas Industrial University |  | 9, 000 |  | 6, 273 |  | 450 |  |  |  |
| Delaware State College for Colored Students ................ |  |  |  | 4, 600 |  | 200 | 3,560 |  | 2,200 |
| Florida State Normal and Industrial College for Colored Students | 1,025 |  |  | 11, 500 | --..----- | 389 | 7,500 |  |  |
| Georgia Industrial College for Colored Youths......... | 2,910 |  | 8,000 | 7,667 |  | 454 | 6, 248 |  | 5, 866 |
| Kentucky State Normal School for Colored Persons............. | 1,055 | 7, 404 | 628 | 3,335 |  | 2,573 | 2,790 | -.---- | 7. 639 |
| Southern University and Agricultural and Mechauical College |  | 9,000 |  | 11,862 |  |  | 11,862 |  | 9,000 |
| Alcorn Agricultural and Meehanical College.................... |  | 34,629 | 6,815 | 12, 310 |  |  |  |  |  |
| Lincoln Institute..........-.................. | 6 | 21,400 |  | 1, 2;3 |  |  | 4, 940 |  | 10,599 |
| Arieultural and Mechanical College for the Colored Race........................... | $\varepsilon 2$ | 12,500 |  | 8,064 |  | 110 | 8,151 | - | 2,598 |
| Colored Normal, Industrial, and Aqricultural and Mechanical College of South Carolina |  | 10,060 | 5,754 | 11,500 |  | 1,165 | 13, 216 |  | 5,754 |
| Prairie View State Normal School |  | 15,700 |  | 5, 750 |  | 8, 114 | 5, 675 |  | 2,200 |
| Hampton Normal and Agricultural Institut |  |  | 10,329 | 7,667 |  | 175, 400 |  |  | 212, 539 |
| West Virginia Colored Institute. | 1,6:5 | 15, 000 |  | 5, 000 |  | 830 | 5,372 |  | 500 |

## CHAPTER XLV.

## STATISTICS OF NORMAL SCHOOLS.

The number of students pursuing training courses for teachers in varions institutions in the United States in the scholastic year 1897-98 was 89,225. These students were in 1,376 schools of various grades. Nearly 52 per cent of the whole number, or 46,245 , were in the 167 public normal schools. The 178 private normal schools had 21,293 students in training courses for teachers, public universities and colleges had 2,255 , private universities and colleges had 6,065 , public high schools had 7,378 , and private secondary schools had 5,989 students pursuing similar courses. The following table shows the number of institutions of each class and the number of normal students in each class for four scholastic years:

Normal students reported for four years.

| Classes of institutions. | 1891-95. |  | 1895-96. |  | 1896-97. |  | 1897-98. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Institations. | Students. | Institutions. | Students. | Institutions. | Students. | Institutions. | Students. |
| Public normal schools | 155 | 36,276 | 180 | 40, 421 | 164 | 43, 199 | 167 | 46, 245 |
| Private normal schools | 201 | 21,927 | 169 | 20,777 | 198 | 24, 181 | 178 | 21, 243 |
| Public universities and colleg | 26 | 1,075 | 27 | 1,691 | 30 | 1, 839 | 23 | 2, 255 |
| Private universities and colle | 166 | 5,327 | 166 | 5,335 | 166 | 4,650 | 188 | 6, 065 |
| Public high schools . | 433 | 6, 809 | 447 | 8, 246 | 507 | 9,001 | 494 | 7,378 |
| Private high schools | 458 | 9,124 | 439 | 7,930 | 422 | 7, 064 | 326 | 5,989 |
| Grand total | 1, 439 | 80, 538 | 1,408 | 84, 400 | 1.487 | 89, 934 | 1,376 | 8.), 235 |
| In all public institutions | 614 | 44, 160 | 634 | 50,358 | 701 | 54, 039 | 684 | 55,878 |
| In all private inst.tuions. | 825 | 35,378 | 734 | 34, 042 | 786 | 35, 895 | 692 | 33, $3 \div 7$ |

The abore statement shows that in $1897-98$ nearly 63 per cent, or 55,878 students in training courses for teachers, were in public institutions. The 167 public normal schools had an average of 277 normal students to the school, while the average number to the 178 private normal schools was 120 . The average number of such students in 23 public universities and colleges was 98 and in 188 private universities and colleges 32 . The average number of normal students in $49 \pm$ public high schools was 15 , and the average number in 326 private high schools and academies was 18. Students in public and private normal schools pursuing other courses of study are accounted for elsewhere in this chapter.

The number of graduates from the public and private normal schools at the close of the year ending June, 1898, was 11,255 , or almost exactly one-sixth of the number of normal students in those schools. If one-sixth of the normal students in other institutions completed their courses the total number of graduated teachers for the year must have reached 14,871 .

## PUBLIC NORMAL SCHOOLS

With two exceptions, all the States make provision for the education of teachers in public normal schools. The statistics of the 167 public normal schools are summarized in Tables 1 to 8, while information concerning each school is given in Table 19.

Table 1 shows the number of public normal schools in each State. New York and Pennsylvania have 15 each; Massachusetts, 10 ; West Virginia, North Carolina, Mississippi, and Wisconsin, 7 each ; Alabama, 6 ; Ohio, Minncsota, Iowa, and Missouri, 5 each. Wyoming and Nevada have no public normal schools. In the 167 schools there were 1,863 teachers employed in instructing normal students, and 241 teachers engaged wholly in other departments.

The total number of normal students in tho public normal schools was 46,215 , as already stated-12,578 males and 33,607 females. The enrollment in each State is shown in Table 2. These schools also had 673 students in business courses, 3,570 in sccondary grades equivalent to the high school grades, and 26,104 in elementary grades, as shown in Table 2.

Table 3 shows that the total number of students and pupils receiving instruction in the public normal schools was 76,594 . There were 32,080 children in the model schools attached to or used by these institutions. This 32,080 includes most of the children in the elementary grades mentioned in Table 2, but in many cases elementary schools in the neighborhood are used as model schools.

The number of colored normal students in the public normal schools was 1,763 , as shown in Table 3. Nearly all these were in the public normal schools for the colored race supported by the Southern States.

The number of graduates from the normal courses of the public normal schools in 1898 was 8,188 , as shown in Table 4. Of these graduates $6,6+5$ were women and 1,543 men. There were 102 graduates from business courses and 607 from other courses.

Table 5 shows for each State the income of the public normal schools. The appropriations from States, counties, and cities for support aggregated $\$ 2,566,132$ for the 167 schools, an increase of $\$ 139,947$ over the previous year. The total income for the year from appropriations, tuition fees, productive funds, and from other sources was $\$ 3,445,751$, an increase of $\$ 180,823$ over the year 1896-97. It is probable that the greater part of the $\$ 307,409$ mentioned in next to the last column of the table as "other sources and unclassified" came directly or indirectly from public appropriations.

Table 6 is an exhibit of the value of buildings and other property of the public normal schools. The number of volumes in the librarics of 150 of these institutions was 566,681 , valued at $\$ 586,077$. The value of buildings, grounds, scientific apparatus, ete., was $\$ 19,950,222$.

The amount of public appropriations received each year for the last six jears by the public normal schools is shown in Table 7. With the exception of a single year, when there was a small decrease in the appropriations, there has been a steady increase since 1892. These appropriations increased from $\$ 1,452,914$ in 1892-93 to \$2,566,132 in 1897-98.

Table 8 shows the amounts appropriated each year for six years for buildings and improvements in the States and Territories. There has been a decrease in the aggregate for the past two ycars, the $\$ 417,866$ appropriatcd for $1897-98$ being less than the aggregate for any year since $1891-92$, when it was $\$ 391,635$.

PISIVATE NORMAL SCHOOLS.
The number of private normal schools reporting to this office for the year 1897-98 was 178. There are many other privatc institutions known as normal schools, bat the training of teachers is not their distinctive work. The statistics of private normal schools will be found summarized in Tables 9 to 14, while the information concerning the separate schools is given in Table 20.

Table 9 shows the number of teachers in the 178 private normal schools. There were 1,008 teachers for normal students and 736 wholly for other departments. Fifteen States and Territories have no private normal schools. - In the North Atlantic and Western divisions there are only 19 such schools.

The number of students pursuing training courses for teachers in the private normal schools was 21,293 , as shown in Table 10 . This was a decrease of 2,888 from the previous year. The number of students in business conrses was 5,031 , an increase of 1,156 . The number in secondary grades was 7,337, a decrease of 248 . The number of pupils in elementary grades was 18,999, a decrease of 235 from the previous year. The total enrollment in all the grades and departments of these schools, as shown in Table 11, was 50,660 , a net decrease of 2,215 . This decrease is dne to the fact that a few of the schools reported the previous year suspended and a number of others ceased to be distinctively training schools for teachers. The number of schools was thus reduced from 198 to 178.

It is also shown in Table 11 that there were 2,410 colored normal students in private normal schools, ncarly all of them in colored normal schools in the South supported by donations and tuition fecs. This table also shows that the number of children in the model schools used by private normal schools was 6,726.

Table 12 shows that there were 3,067 graduates from teachers' training courscs, 1,164 from business courses, and 672 from other courses in the private normal schools in 1897-98. This was a decrease of 1,041 in the number of normal graduates, decrease of 347 in the number of business graduates, and a decrease of 1,034 in the number of graduates from other courses.

Table 13 shows the income received from various sources by the private normal schools so far as reported. The aggregate income of these schools was $\$ 898,909$, a decrease of $\$ 127,168$ from the previous year.

An exhibit of property owned by private normal schools is presented in Table 11. The number of volumes in the libraries of 140 of these schools was $19 \pm, 460$, valued at $\$ 197,932$. The value of buildings and grounds, scientific apparatus, etc., was $\$ 5,047,507$. Benedactions amounting to $\$ 240,203$ were received during the year. The total money value of the endowment of the institutions reporting this item was $\$ 2,311,594$.

DISTRIBUTION OF NORMAL STUDENTS.
A comparisen is made in Table 15 botween certain statistics of prblic and private normal schools. In the public normal schools only 27.20 per cent of the normal students were males, while the female students comprised 72.80 per cent of the umber. In the private normal schools the number of students was almost equally divided between the sexes. In the public normal schools 17.71 per cent of the students in the school during the year graduated, while in the privato normal schools the per cent of graduates was 14.40 .

Table 16 is a summary, by States, of the number of students pursuing teachers' training courses in universities and colleges, in public high schools, and in private high schools and academies.

Table 17 is a general summary, by States, of all the students in the five classes of institutions reported to this office as pursuing normal or teachers' training courses in 1897-98.

Table 18 contains a list of the universities and colleges in which courses designed for the professional training of teachers are maintained. The number of normal stndents in each institution each year for the past six years is given. Certain universities and colleges having regularly organized departments of pedagogy did not report the number of students pursuing courses in such departments.

Table 1.-Summary of statistics of public normal schools in 1897-98.
SCHOOLS AND INSTRUCTORS.

| State or Territory. | $\begin{aligned} & \dot{g} \\ & \stackrel{y}{\ddot{0}} \\ & \stackrel{0}{0} \\ & \dot{\sim} \end{aligned}$ | Teachers for normal students. |  |  | Teachers wholly for other departments. |  |  | Total number teach. ers employed. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male. | Female. | Total. | Male. | Female. | Total. | Male. | $\begin{aligned} & \mathrm{Fe}- \\ & \text { male. } \end{aligned}$ | Total. |
| United States. | 167 | 783 | 1, 080 | 1,863 | 165 | 576 | 741 | 948 | 1,656 | 2,604 |
| North Atlantic Division. | 56 | 268 | 485 | 753 | 72 | 307 | 379 | 340 | 792 | 1, 132 |
| South Atlantic Division. | 27 | 90 | 129 | 219 | 28 | 80 | 108 | 118 | 209 | 327 |
| South Central Division.. | 25 | 76 | 91 | 167 | 21 | 42 | 63 | 97 | 133 | 230 |
| North Central Division. | 42 | 251 | 284 | 535 | 43 | 142 | 185 | 294 | 426 | 720 |
| Western Division... | 17 | 98 | 91 | 189 | 1 | 5 | 6 | 99 | 96 | 195 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |  |  |
| Maine ................ | 4 | 8 | 22 | 30 | 0 | 2 | 2 | 8 | 24 | 32 |
| New Hampshire | 1 | 3 | 5 | 8 | 1 | 5 | 6 | 4 | 10 | 14 |
| Vermont.... | 3 | 6 | 11 | 17 | 0 | 2 | 2 | 6 | 13 | 19 |
| Massachusetts | 10 | 30 | 73 | 103 | 9 | 56 | 65 | 39 | 129 | 168 |
| Rhode lslaud. | 1 | 4 | 7 | 11 | 0 | 8 | 8 | 4 | 15 | 19 |
| Connecticut | 4 | 10 | 44 | 54 | 2 | 33 | 35 | 12 | 77 | 89 |
| New York | 15 | 52 | 130 | 182 | 35 | 143 | 178 | 87 | 273 | 360 |
| New Jersey | 3 | 12 | 23 | 35 | 7 | 30 | 37 | 19 | 53 | 72 |
| Pemnsylvania.. | 15 | 143 | 170 | 313 | 18 | 28 | 46 | 161 | 198 | 359 |
| South Atlantic Division: | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 |
| Maryland. | 2 | 5 | 7 | 12 | 0 | 4 | 4 | 5 | 11 | 16 |
| District of Columbia. | 2 | 0 | 15 | 15 | 0 | 0 | 0 | 0 | 15 | 15 |
| Virginia.. | 3 | 29 | 35 | 64 | 9 | 32 | 41 | 38 | 67 | 105 |
| West Virginia | 7 | 23 | 15 | 38 |  | 8 | 11 | 26 | 23 | 49 |
| North Carolina | 1 | 18 | 29 | 47 | , | 7 | 14 | 25 | 36 | 61 |
| South Carolina | 1 | 3 | 12 | 15 | 3 | 12 | 15 | 6 | 24 | 30 |
| Georgia. | 2 |  | 12 | 20 | 1 | 13 | 14 | 9 | 25 | 34 |
| South Central Division: ${ }_{\text {S }}$ |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky | 4 | ${ }_{13}^{6}$ | 3 15 | $\begin{array}{r}9 \\ 28 \\ \hline\end{array}$ | 3 0 | 3 0 | ${ }_{0}^{6}$ | 9 13 | ${ }_{15}^{6}$ | 15 |
| Tennessee. | 1 | ${ }_{22}^{13}$ | 15 | 58 | 11 | ${ }^{0} 7$ | $\begin{array}{r}0 \\ 38 \\ \hline\end{array}$ | 13 | 15 | 28 |
| Mississippi | 7 | 12 | 3 | 15 | 6 | 10 | 16 | 18 | 13 | 31 |
| Louisiana. | 2 | 6 | 20 | 26 | 0 | 0 | 0 | 6 | 20 | 26 |
| Texas.... | 3 | 7 | 13 | 20 | 1 | 2 | 3 | 8 | 15 | 23 |
| Arkansas. | 1 | 5 | 2 | 7 | 0 | 0 | 0 | 5 | 2 |  |
| Oklahoma | 1 | 5 | 4 | 9 | 0 | 0 | 0 | 5 | 4 |  |
| North Central Division: |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio ${ }_{\text {Indiana........ }}$ | 5 3 3 | 10 22 | 18 9 | 28 31 | 1 6 | 13 3 | 14 9 | 11 | 31 12 | 42 |
| Illinois | 3 | 32 | 36 | 68 | 3 | 11 | 14 | 35 | 47 | 8 |
| Michigan. | 3 | 29 | 34 | 63 | 0 | 31 | 31 | 29 | 65 | 94 |
| Wisconsin |  | 55 | 66 | 121 | 0 | 28 | 28 | 55 | 94 | 149 |
| Minnesota | 5 | 17 | 35 | 52 | 13 | 28 | 41 | 30 | 63 | 93 |
| Iowa ... | 5 | 27 | 17 | 44 | - 10 | 17 | 27 | 37 | 34 | 71 |
| Missouri. | 5 | 21 | 16 | 37 | 9 | 5 | 14 | 30 | 21 | 51 |
| North Dakota | $\stackrel{2}{2}$ | 9 | 19 | 19 | 0 | 0 | 0 | 9 | 10 | 19 |
| South Dakota. | 2 | 5 | 17 | 22 | 0 |  |  | 5 | 17 | 22 |
| Nebraska. | 1 | 10 | 6 | 16 | 1 | 4 | 4 | 10 | 10 | 20 |
| Kansas.- | 1 | 14 | 20 | 34 | 1 | 2 | 3 | 15 | 22 | 37 |
| Western Division: |  |  |  |  |  |  |  |  |  |  |
| Wyoming ..... | 1 | 3 | 2 | 5 | 0 | 0 | 0 | 3 | 2 |  |
| Colorado. | 1 | 6 | 10 | 16 | 0 | 0 | , | 6 | $1{ }^{1}$ | 16 |
| New Mexico. | 1 | 3 | 1 | 4 | 0 | 1 | 1 | 3 | 2 |  |
| Arizona | 1 | 3 | 3 | 6 | 0 | 0 | 0 | 3 | 3 |  |
| Utah | 2 | 27 | 12 | 39 | 0 | 0 | 0 | 27 | 12 | 39 |
| Nerada.. |  |  |  |  |  |  |  |  |  |  |
| Idaho... | 2 | 5 | 4 | 9 | 0 | 0 | 0 | 5 | 4 | 9 |
| Washington | 2 | 7 | 8 | 15 | , | 0 | 0 | 7 | 8 | 15 |
| Oregon. | , | 16 | 8 | 24 | ${ }^{0}$ | 2 | 2 | 16 | 10 | 26 |
| California. | 4 | 28 | 43. | 71 | 1 | 2 | 3 | 29 | 45 | 74 |

Table 2．－Summary of statisties of public normal schools in 189～－99．
STUDENTS AND COURSES OF STUDY．

| State or Territory． | Students in normal depart－ ment． |  |  | Students in busi－ ness courses． |  |  | Other students in secondary grades． |  |  | Pupils in clementary grades． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\frac{\stackrel{y}{5}}{\stackrel{y}{n}}$ |  | $\begin{aligned} & \text { تु่ } \\ & \stackrel{\text { जु }}{0} \end{aligned}$ | $\stackrel{\dot{3}}{\text { ت }}$ |  | $$ | $\stackrel{\oplus}{\underset{\sim}{x}}$ | 家 | ت゙ | $\stackrel{0}{3}$ | ¢ | $\begin{aligned} & \frac{\text { gin }}{9} \\ & \text { H } \end{aligned}$ |
| United States． | 12，578 | 33， 667 | $46,2 \pm 5$ | 237 | 446 | 673 | 1， 258 | 2，312 | 3，570 | 12， 474 | 13，632 | 6， 106 |
| North Atlantic Division． | 4，867 | 14， 603 | 19，470 | 28 | 29 | 57 | 362 | 975 | 1，337 | 5，635 | 6， 221 | 11， 856 |
| South Atlantic Division ． | 1，491 | 2，954 | 4． 445 | 75 | 172 | 247 | 79 | 353 | 432 | 1，000 | 1，478 | 2， 478 |
| South Central Divison．． | 1， 105 | 1，834 | 2， 999 | 59 | 202 | 261 | 294 | 274 | 568 | 1，561 | 1，357 | 2， 918 |
| North Central Division．． | 4， 268 | 11． 274 | 15,542 | 55 | 36 | 91 | 467 | 656 | 1，123 | 3，85こ | 4， 056 | 7，908 |
| Western Division． | 847 | 2.942 | 3， 789 | 10 | 7 | 17 | 56 | 54 | 110 | 426 | 520 | 946 |
| North Atlantic Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine | 262 | 6.52 | 94 |  |  |  |  |  |  | 44 | 59 | 97 |
| New Hamp | 2 | 75 | 77 | 0 | 0 | 0 | 30， | 40 | 70 | 93 | 100 | 193 |
| Vermont． | 42 | 231 | 273 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Massachusetts | 65 | 1，282 | 1，347 | 0 | 0 | 0 | 0 | 0 | 0 | 1，394 | 1，486 | 2，880 |
| Rhode Island | 3 | $\because 15$ | 218 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Connecticut | 6 | 530 |  |  |  |  |  |  |  |  |  |  |
| New York | 1， 195 | 6，345 | 7， 540 | 0 | 0 | 0 | 123 | 6.48 | 771 | 2，874 | 3， 279 | 6，153 |
| New Jersey | 84 | 824 | 908 | 0 | 0 | 0 | 74 | 105 | 179 | 411 | $50 \%$ | 918 |
| Pennsylvania．．．．．．．－ | 3，208 | 4， 449 | 7,657 | 28 | 29 | 57 | 135 | 182 | 317 | 819 | 796 | 1，615 |
| South Atlantic Division： <br> Delaware | 0 | 24 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maryland | 32 | 404 | 436 |  |  |  | 2 | 17 | 19 | 11 | 15 | 26 |
| Distriet of Columba． | 14 | 139 | 153 | 0 | 0 | 0 | 0 | 0 | 0 | 175 | 211 | 386 |
| Virginia | 177 | 214 | 391 | 0 | 0 | 0 | 37 | 0 | 37 | 510 | 640 | 1，150 |
| West Virginia | 7.3 | 585 | 1，318 | 75 | 41 | 116 | 3 | 1 | 4 | 14 | 23 | 37 |
| North Carolina | 251 | 775 | 1， 026 | 0 | 50 | 50 | 37 | 108 | 145 | 250 | 336 | 586 |
| South Carolina | 0 | 149 | 199 | 0 | 49 | 49 | 0 | 81 | 81 | 3 | 11 | 14 |
| Georgia． | 209 | 499 | 708 | 0 | 32 | 32 | 0 | 146 | 146 | 6 | 168 | 174 |
| Florida ．．．．．．．．．．．．．．． | 75 | 115 | 190 | 0 | 0 | 0 |  |  |  | 31 | 74 | 105 |
| South Central Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentueky ．．．．．．．．．．． | 133 | 177 | 310 | 49 | 190 | 239 | 76 | 47 | 123 | 344 | 342 | 686 |
| Tennessee | 161 | 330 | 491 |  |  |  | 47 | 40 | 87 |  |  |  |
| Alabama． | 194 | 273 | 567 | 0 | 9 | 9 | 94 | 99 | 193 | 360 | 441 | 801 |
| Mississippi | 115 | 115 | 230 | 10 | 3 | 13 | 59 | 69 | 128 | 389 | 350 | 739 |
| Louisiana． | 71 | 364 | 435 | 0 | 0 | 0 | 0 | 0 | 0 | 281 | 81 | 362 |
| Texas | 193 | 332 | 525 | 0 | 0 | 0 | 18 | 19 | 37 | 187 | 143 | 330 |
| Arkansas | 127 | 63 | 130 |  |  |  |  |  |  | 0 | 0 | 0 |
| Oklahoma | 111 | 140 | 251 |  |  |  |  |  |  |  |  |  |
| Indian Territory．．．． |  |  |  |  |  |  |  |  |  |  |  |  |
| North Central Division： <br> （）hi•．．．．．．．．．．．．．．．．．．．．．． | 9 | 438 | 447 |  |  |  | 46 | 64 | 110 |  |  |  |
| Indiana． | 249 | 331 | 580 | 0 | 0 | 0 |  |  |  | 393 | 490 | 883 |
| Illinois | 528 | 1， 251 | 1． 779 |  |  | ． | 69 | 55 | 124 | 482 | $46 \%$ | 945 |
| Michigan | 253 | 1，002 | 1， 235 | 0 | 0 | 0 | 16 | 70 | 86 | 878 | 777 | 1，655 |
| Wisconsin | 841 | 2，057 | 2， 898 | 0. | 0 | 0 | 20 | 20 | 46 | 748 | 759 | 1，507 |
| Minnesot | 352 | 1，550 | 1，302 | 0 | 0 | 0 | $\theta$ | 0 | 0 | 667 | 782 | 1，449 |
| Iowa．． | 514 | 1， 359 | 1， 873 | 55 | 36 | 91 | 116 | 130 | 246 | 286 | 254 | 540 |
| Missouri－．．．． | 663 | 1， 266 | 1，929 |  |  |  | $1: 30$ | $1 \pm 0$ | 270 | 235 | 238 | 468 |
| North Dakota | 110 | 189 | 299 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 19 | 33 |
| South Dakota． | 108 | 366 | 474 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 89 | 119 |
| Nebraska | 160 | 298 | 458 | 0 | 0 | 0 | 7） | 171 | 241 |  |  |  |
| Kansas－－－－．．． | 481 | 1，167 | 1，648 |  |  |  |  |  |  | 119 | 190 | 309 |
| Western Division ： <br> Montana．．．．．． | 6 | 18 | 24 |  |  |  | 26 |  | 58 |  |  |  |
| Wyoming |  |  |  |  |  |  |  |  |  |  |  |  |
| Coloratto | 47 | 256 | 303 | 0 | 0 | 0 | 0 | 0 | 0 | 81 | 115 | 199 |
| New Mexico | 10 | 30 | 40 | 2 | 4 | 6 | 13 | 7 | 20 |  |  |  |
| Arizona | 74 | 97 | 171 | 0 | 0 | 0 | 0 | 0 | 0 |  |  |  |
| Utah．．． <br> Nerata | 213 | 344 | 557 | 0 | 0 |  |  |  |  | 43 | 13 | 56 |
| Nerata Idalko．． | 38 | 86 | 124 | 8 | 3 | 11 | 2 | 6 | 8 | 43 | 53 | 96 |
| Washington | 113 | 290 | 403 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Oregon | 179 | 294 | 473 |  |  |  | 15 | 9 | 24 | 181 | 216 | 397 |
| California． | 167 | 1，527 | 1，694 |  |  |  | ${ }^{0}$ |  | 0 | 75 | 123 | 198 |

Table 3.-Summary of statistics of public normal schools in 1897-98.
TOTAL ENROLLMENT OF STUDENTS.

| State or Territory. | Total enrollment in all departments. |  |  | Colored students included in normal department. |  |  | Number of children in model school. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male. | Female. | Total. | Male. | $\begin{aligned} & \text { Fe- } \\ & \text { male. } \end{aligned}$ | Total. | Male. | Female. | Total. |
| United States | 26, 537 | 50, 057 | 76,594 | 832 | 931 | 1, 763 | 15,292 | 16, 788 | 32, 080 |
| North Atlantic Division... | 10, 892 | 21, 828 | 32, 720 | 4 | 22 | 26 | 8, 111 | 9, 010 | 17,121 |
| South Atlantic Division .- | 2, 645 | ${ }_{4}^{4}, 957$ | 7, 602 | 519 | 65.4 | 1,173 | 929 | 1, 111 | 2, 040 |
| Soutil Central Dirision.... | 3, 019 | 3,727 | 6,746 | 234 | 188 | 422 | 592 | 520 | 1,112 |
| North Central Division ... | 8,642 | 16, 022 | 2t, 664 | 75 | ${ }_{6} 9$ | 142 | 4, 769 | 4,987 | 9,756 |
| Western Division.......... | 1,339 | 3,523 | 4,862 | 0 | 0 | 0 | 891 | 1,160 | 2, 051 |
| North Atlantic Division : |  |  |  |  |  |  |  |  |  |
| Maine | 306 | 705 | 1, 011 | 0 | 0 | 0 | $12+$ | 149 | 273 |
| New Hampshire | 125 | 215 | $3 \pm 0$ | 0 | 0 | 0 | 123 | 140 | 263 |
| Vermont. | 42 | 231 | 273 | 0 | 0 | 0 | 98 | 105 | 203 |
| Massachusetts | 1,459 | 2, 768 | 4,227 | 0 | 2 | 2 | 2, 212 | 1,839 | 4, 051 |
| Rhode Island.. | 3 | 215 | 218 | 0 |  | 0 | 100 | 125 | 225 |
| Connecticut | 6 | 530 | $5: 36$ | 0 | - | 4 | 1,200 | 1,554 | 2,754 |
| New Y ork. | 4,192 | 10,272 | 14,464 | 2 | 5 | 7 | 2, 666 | 3, 000 | 5,666 |
| New Jersey | 569 | 1,436 | 2,005 | 2 | 4 | 6 | ¢ 28 | 481 | ${ }^{809}$ |
| Pemsslrania - ...... | 4, 190 | 5,450 | 9,646 | 0 | 7 | 7 | 1,260 | 1,617 | 2, 877 |
| Doutaware............ | 0 | 24 | 24 | 0 | 0 | 0 | 120 | 130 | 250 |
| Maryland. | 45 | 436 | 481 | 7 | 8 | 15 | 11 | 15 | 26 |
| District of Columbia .- | 189 | 350 | 539 | 13 | 43 | 56 | 351 | 351 | 702 |
| Virginia . | 724 | 854 | 1,578 | 167 | 133 | 300 | 220 | 296 | 516 |
| West Virginia | 825 | 650 | 1,475 | 44 | 50 | 100 | 14 | 27 | 41 |
| Nortil Carolina | 538 | 1,269 | 1,807 | $25 i$ | 338 | 589 | 114 | 108 | 222 |
| South Carolina | 3 | 340 | , 343 | 0 | 0 | 0 | 57 | 77 | 134 |
| Georgia.. | 215 | 845 | 1, 060 | 0 | 0 | 0 | 26 | 76 | 102 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Tennessee. | 208 | 370 | 1,578 | 0 | 0 | 10 | 105 | 215 | 320 |
| Alabama. | 648 | 922 | 1,570 | 12 | 21 | 33 | 141 | 149 | 290 |
| Mississippi | 573 | 537 | 1,110 | 44 | 47 | 91 | 48 | G0 | 108 |
| Louisiana. | 352 | 445 | 797 | 0 | 0 | 0 | 281 | 81 | 362 |
| Texas. | 398 | 494 | 892 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arkansas | 127 | 63 | 190 | 127 | 63 | 190 | 0 | 0 | 0 |
| Oklahoma. | 111 | 140 | 251 | 0 | 0 |  | 17 | 15 | 32 |
| Indian Territory.... |  |  |  |  |  |  |  |  |  |
| Ohio | 55 | 502 | 557 |  | 7 |  | 1, 024 | 1,113 | 2,137 |
| Indiaua | 612 | 821 | 1,463 | 3 | 8 | 11 | 65 | 82 | 147 |
| Illinois. | 1. 079 | 1,769 | 2, 848 | 59 | 43 | 102 | 411 | 388 | 799 |
| Michigan | 1,147 | 1, 849 | 2, 996 | 2 | 1 | , | 1, 079 | 978 | 2, 057 |
| Wisconsin | 1,609 | 2, 842 | 4,451 | 0 | 1 | 1 | 685 | 691 | 1,376 |
| Minnesota | 1,019 | 2,332 | 3, 351 | 0 | 0 | 0 | 724 | 82.5 | 1,549 |
| Iowa .... | , 971 | 1,779 | ${ }^{2,750}$ | 0 | 0 | 0 | 386 | $33 \pm$ | 740 |
| Missouri | 1, 028 | 1. 639 | 2, 667 |  |  |  | 138 | 167 | 305 |
| North Dakota | 124 | 208 | 332 | 0 | 0 | 0 | 5 | 7 | 12 |
| South Dakota | 138 | 455 | 593 | 2 | 1 | 3 | 66 | 141 | 207 |
| Nebraska | 230 | 469 | 6.99 |  |  |  | 130 | 100 | 230 |
| Kansas. | 600 | 1,357 | 1,957 | 9 | 6 | 15 | 56 | 141 | 197 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Colorallo | 131 | 371 | 502 | 0 | 0 | 0 | 81 | 199 | 283 |
| New Mexico. | 25 | 41 | 66 | 0 | 0 | 0 | 10 | 9 | 19 |
| Arizona | 74 | 97 | 171 | 0 | 0 | 0 | 36 | 34 | 70 |
| Utalt - | 256 | 357 | 613 | 0 | 0 | 0 | 207 | 199 | 406 |
| Nevada | 91 | 148 | 239 | 0 | 0 | 0 | 7 | 8 | 15 |
| Washington | 113 | 290 | 403 | 0 | 0 | 0 | 70 | 91 | 164 |
| Oregon.- | 375 | 519 | 894 | , | 0 | 0 | 181 | 216 | 397 |
| California... | 242 | 1,650 | 1,892 | 0 | 0 | 0 | 276 | 376 | 652 |

Table 4.-Summary of statistics of public normal schools in 1897-iS.
NUMBER OF NORMAL AND OTHER GRADUATES.

| State or Territory. | Normal graduates. |  |  | Graduates in business eourses. |  |  | Graluates in other courses. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Malc. | Fe. male. | Total. | Malc. | Female. | Total. | Malc. | Female. | Total. |
| United States ....... | 1,543 | 6,645 | 8,188 | 54 | 48 | 102 | 223 | 384 | 607 |
| North Atlantic Dirision.. | 789 | 3,545 | 4,334 | 4 | 10 | 14 | 45 | 230 | 275 |
| South Atlantic Division.- | 85 | 316 | 401 | 20 | 25 | 45 | 9 | 36 | 45 |
| South Central Division.... | 120 | 275 | 395 | 25 | 3 | 23 | 33 | 15 | 48 |
| North Central Division... | 440 | 1,614 | 2, 054 | 5 | 10 | 15 | 127 | 101 | 228 |
| Western Division......... | 109 | 895 | 1,004 | 0 | 0 | 0 | 9 | 2 | 11 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |  |
| Maine-................... | 27 0 | 129 20 | 147 20 | ${ }_{0}^{0}$ | 0 0 | 0 0 | ${ }_{0}^{6}$ | 27 | 33 7 |
| Vermont ....... | 7 | 101 | 108 |  |  |  |  |  |  |
| Massachusetts | 74 | 334 | 408 | 0 | 0 | 0 | 2 | 7 | 9 |
| Rhode Island. | 0 | 16 | 16 |  |  |  |  |  |  |
| Connecticat. | 2 | 171 | 173 |  |  |  |  |  |  |
| New York | 166 | 1,427 | 1,593 | 0 | 0 | , | 10 | 152 | 162 |
| New Jersey. | 23 | , 238 | , 258 | 0 | 0 | 0 | 7 | 23 | 30 |
| Pennsylranir ${ }^{\text {Pre....... }}$ | 493 | 1,118 | 1, 611 | 4 | 10 | 14 | 20 | 14 | 34 |
| South Atlantic Division: <br> Delaware | 0 | 16 | 16 |  |  |  |  |  |  |
| Maryland .............. | 8 | 74 | 82 | 0 | 0 | 0 | 0 | 16 | 16 |
| District of Columbia.- | , | 22 | 29 |  |  |  |  |  |  |
| Virginia ...... | 33 | 76 | 114 | 0 | 0 | 0 | 4 | 0 | 4 |
| West Virginia... | 17 | 36 41 | 53 | 20 | 10 | 30 | 5 | 7 | 12 |
| North Carolina. | 3 | 16 | 16 | 0 | 6 | 6 | 0 | 4 | 4 |
| Georgia .. | 11 | 33 | 44 | 0 | 9 | 9 | 0 | 9 | 9 |
| Florida-............. | 1 | 2 | 3 |  |  |  |  |  |  |
| South Central Division: Kentucky ............ | 34 | 33 | 67 | 21 | 2 | 23 | 31 | 13 | 44 |
| Tennessee...... |  |  |  |  |  |  |  |  | 4 |
| Alabama | 21 | 68 | 89 | 0 | ${ }^{0}$ | 0 | 2 | 0 | ${ }_{2}^{2}$ |
| Mississippi | 14 6 | 82 | 36 87 | 4 | 1 | 5 | 0 | 2 | 2 |
| Texas ..... | 35 | 61 | 96 |  |  |  |  |  |  |
| Arkansas | - | 2 | 9 |  |  |  |  |  |  |
| Oklahoma | 3 | 8 | 11 |  |  |  |  |  |  |
| Indian Territory...... |  |  |  |  |  |  |  |  |  |
| North Central Division: |  |  |  |  |  |  |  |  |  |
| Ohio ... | 9 | 216 | 225 | 5 | 10 | 15 | 0 | 0 | 0 |
| Inlinois. | $2{ }^{6}$ | 50 | 76 | 0 | 0 | 0 | 17 | 15 |  |
| Michigan | 39 | 216 | 255 | 0 | 0 | 0 | 8 | 47 | 55 |
| W isconsin | 161 | 396 | 557 |  |  |  |  |  |  |
| Minnesota | 26 | 294 | 320 |  |  |  |  |  |  |
| Iowa .... | 59 | 126 | 185 |  |  |  |  |  |  |
| Missouri North Dakota | 53 | 117 | 260 | 0 | 0 | 0 | 88 | 36 | 124 |
| North Dakota | 1 | 0 | 1 |  |  |  |  |  |  |
| South Dakota Nebraska.... | 8 | 45 23 | 54 |  |  |  |  |  |  |
| Kansas... | 43 | 66 | 109 | 0 | 0 | 0 | 14 | 3 | 17 |
| Western Division: Montana | 0 | 3 | 3 |  |  |  |  |  |  |
| Wyoming |  |  |  |  |  |  |  |  |  |
| Colorato | 13 | 44 | 57 | 0 | 0 | 0 | 2 | 1 |  |
| New Mexic | 2 | 6 | 8 |  |  |  |  |  |  |
| Arizona | 4 | 13 | 17 |  |  |  |  |  |  |
| Utah... | 3 | 2! | 27 |  |  |  |  |  |  |
| Washingt | 7 | 18 29 | $\stackrel{18}{36}$ | 0 | 0 | 0 |  | 1 |  |
| Oregon- | 26 | 52 | 78 |  |  |  |  |  |  |
| Calitornia. | 54 | 706 | 760 |  |  |  |  |  |  |

Thble 5.-Summary of statistics of public normal schools in 1S9~-98.
incone froml various sources.

|  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |

Table 6.-Summary of statistics of public normal schools in 189\%-3S.
VALUE OF BUILDINGS AND OTHER PROPERTY.

| State or Territory. | Schools reporting libraries. | Volumes in libraries. | Estimated value of libraries. | Talne of buldings, groands, apparatus, etc. | Value of benefactions received 18.7-93. | Total money value of endowment. | Appropriated by States, counties, and cities for buildings and improve. ments. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States | 150 | 566, 68t | \$586, 077 | \$19, 980,222 | \$35, 185 | \$1, 172, 865 | \$417, 866 |
| North Atlantic Division | 52 | 205, 488 | 195,957 | 10,272 5:0 | 0 | 17,265 | 131, 217 |
| South Atlantic Division | 22 | 34, 590 | 30, 775 | 2, $0+2.250$ | 330,858 | 1,392, 550 | 57, 435 |
| South C'entral Division. | 21 | 42,875 | 58, 660 | 773,267 | 5, 277 | 0 | 4,310 |
| North Central Division | 38 | 231, 393 | 235, 505 | 5,269,865 | 50 | 3, 050 | 97,504 |
| Western Division | 17 | 52,338 | 65, 780 | 1, 1222.250 | 0 | 61, 000 | 127, 400 |
| North Aflantie Division: |  |  |  |  |  |  |  |
| Maine | 4 | 5,620 | 10,500 | 225,000 | 0 | 0 | 41,000 |
| New Hamp | 1 | 2,000 | 2, 000 | 100,000 | 0 | 0 | 715 |
| Vermont | 2 | 5, 500 | 4, 000 | 36,000 | 0 | 10, 00 | 0 |
| Massachusetts | 8 | 30,284 | 42,111 | 1,408,012 | 0 | 350 | 0 |
| Rhode Island. | 1 | 3,500 | 3. 000 | ---- | 0 | 0 | 0 |
| Commeticut | 4 | 25,459 | 23, 6ut | 290,000 |  |  |  |
| New York | 14 | 64, $92 \times 8$ | 39. 388 | 3, 665, 161 |  |  | 5.5, 587 |
| New Jersey | 3 | 4,172 | 5,520 | 5i3, 000 |  |  | 4,515 |
| Pennsylvania ....... | 15 | $64,0 \div 5$ | 65,838 | 4,045,417 | 0 | 6,915 | 29, 400 |
| South Atlantic Division <br> Delaware. | 1 | 75 | 50 |  |  |  |  |
| Maryland | 2 | 4,000 | 5, 500 | 150, 600 | 0 | 0 | 2, 760 |
| District of Columbia | 2 | 1,018 | 700 |  |  |  |  |
| Virginia. | 2 | 13, 641 | 7,000 | 916, 0¢0 | 230, 633 | 1.392, 360 | 2,500 |
| West Virginia. | 6 | 6,000 | 8, 100 | 435, 1000 |  |  | 45,450 |
| North Carolina | 5 | 4,052 | 3,375 | 113, 750 | 205 | 190 |  |
| Sonth Carolina | 1 | 2,990 | 3, 000 | 17.), 000 | 0 | 0 | 1,725 |
| Georgia | 1 | 2,000 | 1. $50 \%$ | 210, (00 |  |  |  |
| Florida...--......... | 2 | 814 | 1,550 | 12,500 |  |  | 5,000 |
| South Central Division: |  |  |  |  |  |  |  |
| Kentucky .......... | 3 | 9t0 | 1,010 | 21,417 |  |  | 800 |
| Tennessee | 1 | 13, 000 | 13,000 | 300, 000 |  |  |  |
| Alabama | 5 | 9, 000 | 5, 875 | 152, 500 | 5, 200 |  | 1,0:0 |
| Mississippi | 5 | 3,715 | 6,725 | $2 t, 850$ | 77 | 0 | 110 |
| Louisiana. | 2 | 1, 200 | 1,100 | 60.000 |  |  |  |
| Texas. | 3 | 10,200 | 25,350 | 104,500 | 0 | 0 | 2. 000 |
| Arkansas | 1 | 3, 800 | 4,000 | 60,000 | 0 |  | 400 |
| Oklahoma ....... | 1 | 1,000 | 1,000 | 50,000 |  |  |  |
| Indian 'Territory.... |  |  |  |  |  |  |  |
| North Ceutral Division: |  |  |  |  |  |  |  |
| Ohio ... <br> Indiana | 5 2 | 1,780 20,100 | 25, 1,850 | 40,600 854,000 |  |  | 2,300 50 |
| Itlinois | 3 | 37, 5u0 | 89,184 | 1, 700, v00 |  |  |  |
| Michigan | 3 | 21, 080 | 26,250 | 36:3, 76.5 | 0 | 0 | 17,500 |
| Wisconsin | 7 | 52.176 | 57,309 | 756, 000 | 50 | 3, 050 | 33, 354 |
| Minnesota | 5 | 21. 656 | 18,962 | 755, 100 | 0 | 0 | 15,000 |
| Iowa | 4 | 9, 954 | 11, 200 | 240, 000 |  |  |  |
| Missouri | 3 | 11,900 | 10,200 | 551, 000 |  |  | 3, 009 |
| North Dakota | 2 | 3,575 | 5,500 | 75. 040 |  |  | 300 |
| South Dakot | 2 | 21,672 | 9. 600 | 125, v00 | 0 | 0 |  |
| Nebraska | 1 | 13. 000 | 16,00\%) | 200, 100 | 0 | 0 | 20,000 |
| Kansas. | 1 | 14,060 | 15,000 | - 200,000 |  |  |  |
| Westarn Division: <br> Montana | 1 | 1,500 | 1,600 | 55,000 |  |  | 50,000 |
| Wyoming |  |  | 1, | 55,000 |  |  | 50, 000 |
| Colorado | 1 | 9,000 | 13,000 | 200.000 | 0 |  | 0 |
| New Mexico | 1 | 2,000 | 900 | 20,00J |  |  |  |
| Arizona | 1 | 600 | 1,500 | 65,100 | 0 |  | 16, 000 |
| Utah | 2 | $13,8 \cup 9$ | 20,600 | $2800,0 \div 0$ | 0 | 6 ) , 000 | 58,500 |
| Nevada. |  |  |  |  |  |  |  |
| Idaho ... | $\stackrel{2}{9}$ | 628 | 620 | 66, 000 |  |  | 5. |
| Washingto | $\stackrel{2}{3}$ | 4. 861 | 3, 960 | 1+1, 25! |  |  | 2,850 |
| Oregon... | 3 | 1. 540 | 1,050 | 29,000 |  |  |  |
| Califoruıa | 4 | 18,400 | 22,550 | 760.000 | 0 |  | 0 |

Table 7.-Review of publicnormal school statistics, 1892-1898.
APPROPRIATIONS FROM STATE, COUNTY, OR CITY FOR SUPPORT.

| State or Serritory. | 1892-93. | 1893-94. | 1894-95. | 1895-96. | 1896-97. | 1897-98. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States. | \$1, 452, 914 | \$1,906, 271 | \$ $1,917,375$ | \$2, 187, 875 | \$2, 426, 185 | \$2, 566,132 |
| North Atlantic Division | 606, 603 | 907, 010 | 773, 035 | 887, 530 | J., 005,972 | 1,035,502 |
| South Atlantic Dirision | 62. 268 | 121,460 | 141,017 | 146,592 | 257, 836 | 220,328 |
| South Central İvision. | 56,344 | 119,949 | 113, 460 | 106, 043 | 75,940 | 131, 165 |
| North Central Division | 465, 319 | 651, 824 | 668, 063 | 769, 900 | 852,787 | 881, 437 |
| Western Livision | 172, 380 | 196, 028 | 221,800 | $27 \overline{7}, 750$ | 233, 650 | 297, 700 |
| North Atlantic Division: |  |  |  |  |  |  |
| Maine .... | 28, 600 | 26,450 | 25, 600 | 2?, 350 | 26,900 | 26, 900 |
| New Hamp | 12,000 | 12,000 | 12,000 | 10,000 | 13, 000 | 13, 000 |
| Vermont. | 16,100 | 13,039 | 7,264 | 13, 032 | 12,426 | 15,000 |
| Massachusetts | 121,731 | 122, 164 | 78,397 | 138, 294 | 168,207 | 175,878 |
| Rhode Island | 14,000 | 16,000 | 18,000 | 138, | 20,00) | 175, 000 |
| Connecticut | 49, 000 | 79, 656 | 72, 000 | 39, 000 | 42, 695 | 16, 000 |
| New York. | 336, 645 | 397, 523 | 360, 111 | 444, 95! | 184.801 | 517, 105 |
| New Jersey | 28, 750 | 34, 083 | 40,570 | 40, 570 | 44,943 | 55, 661 |
| Pennsylvania.... | 83,777 | 206, 035 | 159, 093 | 174, 390 | 193, 000 | 190,958 |
| South Atlantic Division: |  |  |  |  |  |  |
| Maryland | 10, 500 | 10,500 | 10, 500 | 10,500 | 12,500 | 12, 875 |
| District of Cohumbia |  |  |  |  |  |  |
| Virginia | 17,000 | 27, 950 | 30, 200 | 31,000 | 38,333 | 47,995 |
| West Virginia | 15, 000 | 18,718 | 28,267 | 35, 100 | 42,200 | 36, 400 |
| North Carolina | 4, 200 | 29, 235 | 19,800 | 20,750 | 41,316 | 37, 657 |
| South Carolina | 5,250 | 7,250 | 5, 250 |  | 62.229 | 30, 000 |
| Georgia. |  | 23, 207 | 32,900 | 32,900 | 45, 400 | 45, 400 |
| Florida | 10,218 | 3,600 | 5,0u0 | 7,300 | 15,858 | 10, 000 |
| South Central Division: |  |  |  |  |  |  |
| Kentucky .-. |  | 23,588 | 9,200 | 10,350 | 5,775 | 3,375 |
| Tennessee | 1, 500 | 1,500 | 15,000 | 20, 225 |  | 20, 000 |
| Alabama. | 27, 604 | 23, 411 | 18,525 | 22,413 | 29,450 | 22,445 |
| Mississippi | 2,500 | 3,950 | 8, 425 | 6,350 | 6, 615 | 6, 820 |
| Louisiana. | 12,500 | 12,500 | 13,750 | 13,750 | 15,000 | 15,000 |
| Texas... |  | 35, 000 | 40,500 | 28, 090 | 1,600 | 42,500 |
| Arkansas | 6, 240 | 12,50J | 8,060 | 4,950 | 5, 50 | 5,025 |
| Oklahoma........ | 6, 000 | 7,500 |  |  | 12,000 | 16,000 |
| Indian Territory .... |  |  |  |  |  |  |
| North Central Division: |  |  |  |  |  |  |
| Onio ... | 1,500 | 800 42,700 | 5, 000 | 1. 800 | 3000 | 8, 000 |
| Illinois | 56, 105 | 96, 104 | 56, 500 | 123, 610 | 60,720 64.000 | 60,700 |
| Michigan | 56, 645 | 62, 298 | 58, 450 | 61, 409 | 63, 850 | 95,650 |
| Wisconsin | 123, 417 | 120,911 | 155, 271 | 165, 085 | 288, 540 | 259,396 |
| Minnesota | 76,300 | 82, 000 | 88, 000 | 91,500 | 95, 0:0 | 128, 000 |
| Iowa. | 21,000 | 27, 875 | 38,525 | 39, 075 | 42, 625 | 51, 737 |
| Missomi. | 25, 250 | 142, 561 | 142,317 | 142,352 | 143, 552 | 49, 950 |
| North Dakota | 23, 060 | ${ }^{\circ} 20,000$ | 22, 000 | 19,000 | 20, 000 | 20, 227 |
| South Dakota | 21,100 | 26, 250 | 26,000 | 12, 500 | 26, 000 | 27, 000 |
| Nebraska |  | 21, 200 | 30, 000 | 19,500 | 25,000 | 21,750 |
| Wansas ........ | 20,000 | 9,125 | 6,000 | 28,250 | 20,000 | 28, 000 |
| - Wyoming |  |  |  |  |  | , 700 |
| Coloratlo. | 35,000 | 35, 000 | 35,060 | 35,000 | 35, 000 | 35, 000 |
| New Mexic |  | 3, 500 | 0 | 7,000 | 6,000 | 6,500 |
| Arizona |  | 7,20) | 0 | 6, 000 | 8,000 | 11,500 |
| Utah |  |  |  |  |  | 58,500 |
| Nevada |  |  |  |  |  |  |
| Idaho. |  |  | 7,600 | 50,500 | 17,000 | 14, 000 |
| Washingt | 43, 880 | 37, 500 | 39, 000 | 42, 000 | 26,500 | 12,500 |
| Oregon | 48, 00 ) | 18,528 | 23. 200 | 16,000 | 15, 650 | 9,700 |
| Catifornia. | 45,500 | 94, 3¢0 | 117,900 | 121, 250 | 125.500 | 142,300 |

Table 8. - Review of public normal school statistics, 189,3-1898.
PUBLIC APPROPRIATIONS FOR BUILDINGS AND IMPROVEMENTS.

| State or Territory. | 1892-93. | 1893-94. | 1894-95. | 1895-96. | 1896-97. | 1897-98. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States. | \$816, 826 | \$1, 583, 399 | \$1, 003, 933 | \$1, 124, 834 | \$743, 333 | \$417, 866 |
| North Atlantic Division | 48,516 | 856,670 | 449, 959 | 564, 118 | 146, 044 | 131, 217 |
| South Atlantie Division | 35, 074 | 49, 580 | 100, 309 | 83, 168 | 263, 045 | 57, 435 |
| South Central Division. | 24,450 | 23,350 | 11, 200 | 9,798 | 15, 250 | 4,310 |
| North Central Dirision | 168, 686 | 374, 799 | 320, 165 | 288, 250 | 203, 669 | 97,504 |
| Western Division | 105,100 | 279,000 | 122,300 | 179,500 | 115,325 | 127, 400 |
| North Atlantic Ilivision : <br> Maine | 2, 000 | 12,500 | 39,060 | 17,000 | 68, 000 | 41, 000 |
| New Hampshire. |  |  |  |  | 715 | 715 |
| Vermont........ | 1,000 | 10,300 |  | 0 | 0 | 0 |
| Massachusetts | 200,000 | 276, 200 |  | 125, 000 | 10,000 | 0 |
| Rhode Island. | 0 |  | 0 | 250,000 | 0 | 0 |
| Comnecticut | 75,000 | 125, 000 | 240, 000 | 20,000 | 0 |  |
| New York | 92,391 | 97, 793 | 60, 142 | 140,869 | 16,895 | 55, 587 |
| New Jersey | 12,000 | 10,000 | 10,693 | 1,249 | 330 | 4,515 |
| Pennsylrani | 103, 125 | 324,877 | 100, 124 | 10,000 | 50, 104 | 29, 400 |
| South Atlantic Division: |  |  |  |  |  |  |
| Delaware Maryland | 2,224 |  | 43, 776 | 5,912 1,631 | 0 | 2, 760 |
| District of Columbia |  |  | 0 |  |  |  |
| Virginia .....- | 0 | 5,050 |  | 5,125 | 166, 405 | 2, 500 |
| West Virginia | 27, 300 | 20,000 | 42,000 | 55,000 | 61, 400 | 45, 450 |
| North Carolina | 150 | 4,630 | 5,033 |  | 190 |  |
| South Carolina | 2, 000 |  |  |  | 50 | 1,725 |
| Georgia. |  | 2, 500 | 1,000 | 7,000 | 35,000 |  |
| Florida | 1. 400 | 7, 400 | 8,500 | 8,500 | 0 | 5,000 |
| South Central Division: |  |  |  |  |  |  |
| Kentueky |  | 2,500 |  |  | 2, 700 | 800 |
| Tennesseo | 0 |  |  | 0 |  |  |
| Alabama. | 200 | 1,300 | 500 | 3, 002 | 50 | 1,000 |
| Mississippi | 0 | 0 |  | 0 | 20 | 110 |
| Louisiana | 1, 250 | 1, 250 | 7,500 |  | 12,480 |  |
| Texas |  | 3,000 | 3,000 | 2, 500 | 0 | 2, 000 |
| Arkansas | 6,000 | 300 | 200 | 1,296 | 0 | 400 |
| Oklahoma | 17,000 | 15, 000 |  | 3,000 | 0 |  |
| Indian Territory |  |  |  |  |  |  |
| North Central Division: |  |  |  |  |  |  |
| Ohio... |  | $\begin{array}{r}0 \\ 40,000\end{array}$ |  | 1, 000 | 3,000 10,000 | 2,300 |
| Indiana | 40,000 | 40,000 | 20,000 | 0 | 10,000 | 50 |
| Illinois |  | - 0 | 40,000 | 47,000 | 56,000 |  |
| Miehigan | 20,000 | 20,000 | 20,000 |  | 25, 000 | 17, 500 |
| Wisconsin | 2,686 | 20,000 | 12, 736 | 155, 800 | 55, 889 | 39, 354 |
| Minnesota | 66,000 | 116,000 | 54,500 | 11, 750 | 12,500 | 15, 000 |
| Iowa. | 0 | 3, 000 | 36,000 | 30,000 | 3, 000 |  |
| Missouri. |  | 104, 479 | 131, 929 | 35, 400 | 6,280 | 3,000 |
| North Dakota | 40,000 | 18, 220 |  |  | 0 | 300 |
| South Dakota. | 0 | 3,100 | 0 |  | 0 |  |
| Nebraska |  | 0 | 5, 000 | 3, 000 | 20,000 | 20,000 |
| Kansas | 0 | 50, 000 |  | 4,300 | 12,000 |  |
| Western Division : <br> Montana. |  |  |  |  |  | 50, 000 |
| W yoming |  |  |  |  |  | 50,00 |
| Colorado. | 20,000 | 35, 000 | 10, c00 | 20,000 | 0 | 0 |
| New Mexico |  | 12,000 |  | 10,000 | 10,000 |  |
| Arizona |  | 8, 000 | 1,300 | 11,500 | 35, 000 | 16, 000 |
| Utah |  |  |  |  |  | 58,500 |
| Nerada |  |  |  |  |  |  |
| Idaho. |  |  | 25,000 | 70,000 | 1,000 | 50 |
| Washington |  | 135, 000 | 6,000 | 60, 000 | 62, 825 | 2,850 |
| Oregon | 10, 100 | 11,000 |  | 3, 000 | 4, 000 |  |
| California. | 75, 000 | 78,000 | 80,000 | 5,000 | 2,500 | 0 |

Table 9.-Summary of statistics of prirate normal schools, in 1897-98.
SCHOOLS AND INSTRUCTORS.


Table 10．－Summary of statistics of private normal schools in 183ñ－9S．
STUDENTS AND COURSES OF STUDT．

| State or Territory． | Students in normal depart－ ment． |  |  | Students in busi－ ness courses． |  |  | Other students in secondary grades． |  |  | Pupils in clemen－ tary grades． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\stackrel{\dot{0}}{\underset{\sim}{x}}$ |  | تِ | $\stackrel{\dot{3}}{\stackrel{3}{7}}$ | $\begin{gathered} \stackrel{\text { ® }}{\text { E }} \\ \text { ت } \\ \text { H } \end{gathered}$ | $\begin{aligned} & \text { ت } \\ & \text { in } \\ & \text { - } \end{aligned}$ | $\frac{\dot{3}}{\frac{9}{4}}$ | 令 | $\begin{aligned} & \text { 䨗 } \\ & \text { B } \end{aligned}$ | 害 |  |  |
| United Stat | 10， 597 | 10，696 | 21， 293 | 3，783 | 1，248 | 5， 031 | 4，095 | 3,242 | 7，337 | 8，539 | 8，460 | 6， 999 |
| North A tlantic Dirision． | 543 | 1， 181 | 1，724 | 152 | 107 | 259 | 163 | 154 | 317 | ， 261 | －291 | ， 552 |
| South Atlantic Division． | 590 | 859 | 1，449 | 45 | 28 | 73 | 346 | 395 | 741 | 1，398 | 2，228 | 3， 626 |
| South Central Division．． | 2，292 | 1，973 | 4，26 | 297 | 80 | 377 | 693 | 514 | 1，207 | 3，383 | 3， 192 | 6，875 |
| North Central Division．． | 6， 843 | 6， 302 | 13， 145 | 3， 109 | 963 | 4，072 | 2， 836 | 2， 107 | 4，943 | 3，345 | 2，234 | 5，579 |
| Western Division．．． | 329 | 381 | 710 | 180 | 70 | 250 | 57 | 72 | 129 | 152 | 215 | 367 |
| North Atlantic Division： <br> Maine ．．．．．．．．．．．．．．．．．．． <br> New Hampshire． | 79 | 95 | 174 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 7 | 26 |
| TIassachusetts | 0 | 168 | 168 |  |  |  |  |  |  |  |  |  |
| Rhode Island |  |  |  |  |  |  |  |  |  |  |  |  |
| Connecticut |  |  |  |  |  |  |  |  |  |  |  |  |
| New York | 80 | 564 | 644 | 0 | 0 | 0 | 87 | 93 | 180 | 143 | 121 | 264 |
| New Jersey |  |  |  |  |  |  |  |  |  |  |  |  |
| Pennsylvania | 384 | 354 | 738 | 152 | 107 | 259 | 76 | 61 | 137 | 99 | 163 | 263 |
| Sonth A tlantic Division： <br> Delaware | 23 | 11 | 34 |  |  |  |  |  |  | 5 |  |  |
| Marsland．．．．．．．．．．．． | 47 | 8 | 55 | 6 | 0 | 6 |  |  |  | 32 | 5 |  |
| District of Columbia． | 0 | 35 | 35 |  |  |  |  |  |  | 12 | 14 |  |
| Virginia．．．．．．．．．．．． | 163 | 149 | 312 | 8 | 0 | 8 | 135 | 145 | 280 | 71 | 85 | 156 |
| West Virginia | 91 | 105 | 196 | ， | 1 | 5 | 6.3 | 38 | 101 | 58 | 90 | 148 |
| North Carolina | 95 | 320 | 415 | 0 | 9 | 9 | 35 | 32 | 67 | 391 | 869 | 1，260 |
| South Carolina | 79 | 73 | 152 | 3 | 6 | 9 | 37 | 100 | 137 | 570 | 727 | 1， 297 |
| Georgia | 33 | 107 | 140 | 6 | 3 | 9 | 8 | 6 | 14 | 125 | 337 | 462 |
| Florida | 59 | 51 | 110 | 18 | 9 | 27 | 68 | 74 | 142 | 134 | 98 | 232 |
| South Central Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky． | 295 | 274 | 569 | 169 | 40 | 203 | 239 | 176 | 415 | 425 | 425 | 850 |
| Tennessee ． | 829 | 695 | 1，524 | 68 | 22 | 90 | 235 | 138 | 373 | 1，106 | 1，151 | 2， 257 |
| Alabama | 353 | 220 | 573 | 6 | 5 | 11 | 7 | 41 | 48 | 535 | 339 | 874 |
| Mississipp | 298 | 281 | 579 | 12 | 6 | 18 | 46 | 11 | 57 | 648 | 750 | 1，398 |
| Louisiana． | 1 | 8 | 9 |  |  |  | 12 | 6 | 18 | 114 | 131 | 245 |
| Texas | 288 | 318 | 606 | 35 | ， | 42 | 103 | 101 | 204 | 257 | 439 | 696 |
| Arkansas | 228 | 177 | 405 | 7 | 0 | 7 | 51 | 41 | 92 | 298 | 257 | 555 |
| Oklahoma ．－．．． |  |  |  |  |  |  |  |  |  |  |  |  |
| Indian Territory |  |  |  |  |  |  |  |  |  |  |  |  |
| North Central Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio <br> Indiana． | 2,397 1,403 | 1,405 1,240 | 3,802 2,643 | 469 935 | 179 169 | 648 1,104 | 1， 277 | 730 348 | 2， 007 | 88 1,445 | 30 582 | $\begin{array}{r}118 \\ \hline\end{array}$ |
| Illinois | 1,403 917 | 1,240 768 | 1，685 | 206 | 169 92 | 1，104 298 | 470 140 | 348 | 288 | 1,445 214 | 146 | 2， 027 |
| Michigan | 90 | 159 | 249 | 150 | 177 | 327 | 31 | 27 | 58 | 92 | 135 | 227 |
| Wisconsin | 47 | 23 | 70 | 30 | 0 | 30 |  |  |  | 77 | 83 | 160 |
| Minnesot | 50 | 15 | 65 | 30 | 2 | 32 | 4 | 0 | 4 | 62 | 31 | 93 |
| Iowa． | 840 | 1，490 | 2， 330 | 598 | 126 | 724 | 389 | 453 | 842 | 361 | 205 | 566 |
| Missouri | 304 | 257 | 561 | 176 | 25 | 201 | 5 | 0 | 5 | 329 | 367 | 696 |
| North Dakota | 35 | 29 | 64 | 67 | 28 | 95 | 11 | 7 | 18 | 25 | 18 | 43 |
| South Dakota | 29 | 36 | 65 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 14 | 55 |
| Nebrask | 464 | 646 | 1，110 | 308 | 75 | 383 | 328 | 194 | 522 | 234 | 366 |  |
| Kansas． | 267 | 234 | 501 | 140 | 90 | 230 | 176 | 200 | 376 | 377 | 257 | $63 \pm$ |
| Western Division： <br> Montana． |  |  |  |  |  |  |  |  |  |  |  |  |
| Wroming |  |  |  |  |  |  |  |  |  |  |  |  |
| Colorado． | 10 | 80 | 90 | 5 | 7 | 12 | 7 | 32 | 39 | 9 | 41 |  |
| New Mexico |  |  |  |  |  |  |  |  |  |  |  |  |
| Arizona |  |  |  |  |  |  |  |  |  |  |  |  |
| Ctah | 296 | 251 | 547 | 173 | 62 | 235 | 50 | 40 | 90 | 143 | 174 | 317 |
| Nevada |  |  |  |  |  |  |  |  |  |  |  |  |
| Idaho． |  |  |  |  |  |  |  |  |  |  |  |  |
| Washington |  |  |  |  |  |  |  |  |  |  |  |  |
| Oregon ．．．． |  |  |  |  |  |  |  |  |  |  |  |  |
| California． | 23 | 50 | 73 | 2 | 1 | 3 | 0 | 0 | 0 | 0 | 0 |  |

Table 11.-Summary of statistics of private normal schools in 1897-9S.
TOTAL ENROLLMENT OF STUDENTS, ETC.


Table 12. -Summary of statistics of pricate normal schools in 189\%-98.
NUMBER OF NORAAL AND OTILER GRADUATES.

| State or Territory. | Normal graduates. |  |  | Graduates in business courses. |  |  | Graduates in other courses. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male. | $\begin{gathered} \mathrm{Fe}- \\ \text { male. } \end{gathered}$ | Total. | Male. | $\begin{gathered} \mathrm{Fe}- \\ \text { male. } \end{gathered}$ | Total. | Male. | $\underset{\text { male }}{\mathrm{Fe}} \text { ma }$ | Toial. |
| United States. | 1,689 | 1,278 | 3,067 | 882 | 28. | 1,164 | 310 | 362 | 672 |
| North Atlantic Division .. South Atlantic Division. | 61 78 | 117 109 | 178 187 | 53 25 | 39 15 | 92 40 | 16 23 | 10 27 | 26 50 |
| Sonth Central Division.... | 257 | 187 | 444 | 181 | 56 | 237 | 74 | 69 | 143 |
| North Central Division ... | 1,279 | 920 | 2, 199 | 617 | 172 | 789 | 193 | 250 | 443 |
| Western Division ......... | 14 | 45 | 59 | 6 | , | 6 | 4 | 6 | 10 |
| North Atlantic Division : Maine | 2 | 7 | 9 |  |  |  |  |  |  |
| New Hampshire....... |  |  |  |  |  |  |  |  |  |
| Vermont......... |  |  |  |  |  |  |  |  |  |
| Massachusetts Rhode Island | 0 | 45 | 45 |  |  |  |  |  |  |
| Connecticut.... |  |  |  |  |  |  |  |  |  |
| New York ... | 1 | 24 | 23 |  |  |  |  |  |  |
| New Jersey |  |  |  |  |  |  |  |  |  |
| Pennsslvania Soutl Allant... | 58 | 41 | - 99 | 53 | 39 | 92 | 16 | 10 | 26 |
| Soutli Atlantic Division: Delaware............... | 0 | 2 | 2 | 0 | 0 | 0 | 4 | 2 | 6 |
| Maryland | 6 | 0 | 6 | 5 | 0 | 5 | 0 | 0 | , |
| District of Columbia .. | 0 | 14 | 14 |  |  |  |  |  |  |
| Virginia...... | 22 | 20 | 42 | 11 | 11 | 11 | 0 | 2 | , |
| West Virginia | 13 | 6 | 19 | 2 | 1 | 3 | 5 | 0 | 5 |
| North Carolina | 14 | 22 | 36 | 0 | 6 | 6 | 0 | 4 |  |
| South Carolina | 14 | 28 | 42 | 3 | 6 | 9 | 2 | 3 | 5 |
| Georgia ................ | 1 | 9 | 10 |  |  |  |  |  |  |
| Florida................. South Central Division: | 8 | 8 | 16 | 4 | 2 | 6 | 12 | 16 | 28 |
| Koturntucky ....... | 61 | 46 | 107 | 107 | 30 | 137 | 28 |  | 49 |
| T'emessee. | 88 | 64 | 152 | 25 | 12 | 37 | 18 | 20 | 38 |
| Alabama. | 21 | 19 | 40 | 0 | 0 | 0 | 0 | 2 |  |
| Mississippi | c0 | 37 | 97 | 19 | 9 | 28 | 8 | 19 | 27 |
| Louisiana |  |  |  |  |  |  |  |  |  |
| Texas.... Arkansas | 15 | 110 | ${ }_{25}^{23}$ | 27 | 5 | 32 | 16 | ${ }^{6}$ | 22 |
| Oklanoma | 15 | 10 | 25 | 3 |  |  | 4 | 1 |  |
| Indian Territory ... |  |  |  |  |  |  |  |  |  |
| North Central Disision: |  |  |  |  |  |  |  |  |  |
| Ohio ..... | 879 | 468 | 1,347 | 65 | 13 | 78 | 17 | 15 | 32 |
| Indiana | 54 | 120 | 174 | 157 | 20 | 177 | 23 | 14 | 37 |
| Illinois. | 135 | 104 | 239 | 101 | 27 | 128 | 49 | 96 | 145 |
| Michigan.... | 11 | 22 | 33 | 20 | 16 | 36 | 13 | 20 | 33 |
| Wisconsin... | 13 | 4 | 17 | 3 | 0 | 3 | 0 | 0 | 0 |
| Minnesota | 21 | 7 | 28 |  |  |  |  |  |  |
| Iowa .... | 73 | 77 | 150 | 123 | 26 | 149 | 24 | 41 | 65 |
| Missouri ..... | 2 | 1 | 3 | 42 | 7 | 49 | 21 | 9 | 30 |
| North Dakota | 0 | 0 | 0 | 4 | 2 | 6 | 8 | 5 | 13 |
| South Dakota Nebraska | 10 | 9 | 19 |  |  |  |  |  |  |
| Nebraska.. | 31 | 69 | 100 | 72 | 32 | 101 | 13 | 21 | 34 |
| Kansas........ | 50 | 39 | $8)$ | 30 | 29 | 59 | 25 | 29 | 54 |
| Western Division: Montana |  |  |  |  |  |  |  |  |  |
| Wyoming |  |  |  |  |  |  |  |  |  |
| Colorado. | 0 | 22 | 22 |  |  |  |  |  |  |
| New Mexico |  |  |  |  |  |  |  |  |  |
| Utall -- | 14 | 8 | 22 | 6 | 0 |  | 2 | 0 | 2 |
| Nevada |  |  |  |  |  |  |  |  |  |
| Washington |  |  |  |  |  |  |  |  |  |
| Washington |  |  |  |  |  |  |  |  |  |
| California | 0 | 15 | 15 | 0 | 0 | $\hat{*}$ | 2 | 6 | 8 |

Table 13.-Summary of statistics of prirate normal schools in 1897-98.
INCOME FROM VARIOUS SOURCES.

|  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: |

TABLE 14.-Summary of statistics of private normal schools in 1897-9S.
YiLUE OF BUILDINGS AND OTHER PROPERTE.

| State or Territory. | Schools reporting libraries. | Volumes in libraries. | Estimateri value of libraries. | Value of buildings, grounds, apparatus, ete. | Talue of benefactions received 1897-98. | Total money value of endow ment. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States. | $1 \pm 0$ | 194, 460 | \$197, 932 | \$5, 047, 507 | \$240, 203 | \$2, 311, 594 |
| North Atlantic Division. | 8 | 24,703 | 22,080 | 1,396, 814 | 207, 764 | 1, 233, 763 |
| South Atlantic Division | 29 | 28, 212 | 24, 170 | 421,560 | 5, ${ }^{\text {¢ }} 99$ | 242, 875 |
| South Central Division. | 42 | 47, 287 | 43, 8:5 | 1, 102, 533 | 3, 347 | 343, 506 |
| North Central Division | 56 | 80, 995 | 89, 612 | 2, 000,600 | 23,693 | 481, 450 |
| Western Division..... | 5 | 13, 263 | 18,245 | 126, 000 |  | 10,000 |
| North Atlantic Dirision: |  |  |  |  |  |  |
| Maine | 1 | 104 | 70 | 1,200 | 0 |  |
| New Hampshire |  |  |  |  |  |  |
| Kermont....... | 1 | 3, 600 | 3,600 | 70,000 | 0 |  |
| Rhode Island |  |  |  |  |  |  |
| Connecticut. |  |  |  |  |  |  |
| New Jork | 2 | 10, 493 | 12, 110 | 1,184, 614 | 206, 764 | 1, 213, 763 |
| New Jersey. | 4 | 10,506 | 6,300 | 141, 000 | 1,000 | 20, 000 |
| South Atlantic Division: |  |  |  |  |  |  |
| Delaware............ | 1 | 1,000 | 300 | 10, 000 |  |  |
| Maryland. | ${ }_{2}^{2}$ | 5, 560 | 6, 060 | 4,000 | 0 | 0 |
| District of Colu |  | 375 | 550 |  |  |  |
| Virginia | 6 | 2, 675 | 3, 500 | 70,300 |  |  |
| West Virginia | 2 | 5,250 | 5,500 | 71, 000 |  |  |
| North Carolina | 6 | 3, 636 | 3,425 | 98, 500 | 1,530 | 181, 875 |
| South Carolina | 5 | 3, 200 | 1,675 | 90,000 | 3, 500 | 61, 000 |
| Georgia. | 3 | 4,216 | 1,410 | 44,760 | 329 |  |
| Florida | 2 | 2,300 | 1,750 | 33, 000 | 40 |  |
| South Central Division : |  |  |  |  |  |  |
| Kentucky .... | 12 | 3,476 | $\begin{array}{r}3,805 \\ 15 \\ \hline\end{array}$ | 102, 100 | $\begin{aligned} & 132 \\ & 195 \end{aligned}$ | 20, 000 |
| Tennessee. | 12 | 15,880 7,700 | 15,850 7,950 | 342,700 254,333 |  | 60,000 29,406 |
| Mississippi | 6 | 5,826 | 3, 920 | 164, 400 | 2, 000 |  |
| Louisiana | 1 | 2, 000 | 2,500 | 100, 000 |  | 140, 000 |
| Texas... | , | 6, 700 | 5,000 | 84, 000 |  | 34, 000 |
| Arkansas | 6 | 5,705 | 4, 800 | 55, 000 | 1,020 | 60,100 |
| Oklahoma........ |  |  |  |  |  |  |
| Indian Territory... |  |  |  |  |  |  |
| North Central Division: |  |  |  |  |  |  |
| Ohio ..... |  | $\begin{gathered} 12,811 \\ { }_{20} 0,474 \end{gathered}$ | 12,650 22,700 | $173,700$ |  | 33,000 89,200 |
| Indiana | 7 | - 7 -775 | 11, 500 | 352, 000 | 2,793 | 89,200 55,600 |
| Michigan | 3 | 2, 740 | 3,700 | 14, 000 | 0 | 5, 000 |
| Wisconsin | 2 | 3,350 | 5, 000 | 100, 000 | 15, 000 | 150, 000 |
| Minnesot | 2 | 800 | 1, 050 | 58, 000 |  |  |
| Iowa | 10 | 14,850 | 13,235 | 507, 100 | 0 | 4, 650 |
| Missouri. | , | 800 | 1,200 | 57,000 | 500 | 9, 900 |
| North Dakot | 1 | 1, 000 | 2,500 | 40, 000 | 0 |  |
| South Dak | 1 | 870 | 1,000 | 25, 000 | 0 | 50, 000 |
| Nebraska | 4 | 6,325 | 6, 027 | 320, 000 | 0 | 45, 000 |
| Kansas ........ | 6 | 9, 200 | 9, 050 | 145, 800 | 3, 800 | 40, 000 |
| Western Division: Montana...... |  |  |  |  |  |  |
| W yoming |  |  |  |  |  |  |
| Colorado. | 1 | 600 | 500 | 1, 000 |  |  |
| New Mexico |  |  |  |  |  |  |
| Arizona. <br> Utah.... |  |  |  |  |  |  |
| Nevada | 2 | 10,963 | 16,345 | 105, 000 |  | 10,000 |
| Idaho. |  |  |  |  |  |  |
| Washington |  |  |  |  |  |  |
| California | 2 | 1,700 | 1, 400 | 20,000 |  |  |

Table 15.-P'rcentage of male and female students and percentage of graduates to total number in normal con'se in public and private normal schools in 1897-9S.

| state or Territory. | In public normal schools. |  |  | In private normal schools. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male. | Female. | Graduates. | Male. | Female. | Graduates. |
| United States. | 27.20 | 72. 80 | 17.71 | 49.77 | 50.23 | 14. 40 |
| North Atlantic Division. | 25.00 | 75. 00 | 22.26 | 31.50 | 68.50 | 10.32 |
| South Atlantic Division. | 33.54 | 66.46 | 9.02 | 40.72 | 59.28 | 12.91 |
| South Central Division. | 36.85 | 63.15 | 13.17 | 53.74 | 46.26 | 10.41 |
| North Central Division | 27.46 | 72.54 | 13. 22 | 52. 06 | 47.94 | 16. 73 |
| Western Division.... | 22.35 | 77.65 | $\underline{2.50}$ | 46. 34 | 53.66 | 8.31 |
| North Atlantic Division: |  |  |  |  |  |  |
| Maine | 28.67 | 71. 33 | 16.08 | 45.40 | 54.60 | 5. 17 |
| New Hampshire. | 2. 60 | 97.40 | 25.97 |  |  |  |
| Vermont......... | 15. 38 | 84.62 | 39.56 |  |  |  |
| Massachusetts | 4.83 | 95.17 | 30.29 | 0 | 100.00 | 26.79 |
| Rhode Island | 1.38 | 98.62 | 7. 34 |  |  |  |
| Connecticut | 1.12 | 98.88 | 32.28 |  |  |  |
| New York. | 15. 85 | 84.15 | ${ }_{2}^{21.13}$ | 12. 42 | 87.58 | 3.88 |
| New Jersey | 9.25 | 90.75 | 28.41 |  |  |  |
| Pennsylvania | 41.90 | 58.10 | 21.04 | 52.03 | 47.97 | 13.41 |
| South Atlantic Division: Delaware | 0 | 100.00 | 66.67 | 67.65 | 32.35 | 5. 88 |
| Marsland. | 7.34 | 92.66 | 18.81 | 85.45 | 14.55 | 10. 91 |
| District of Columbi | 9.15 | 90.85 | 18.95 | 0 | 100.00 | 40.00 |
| Virginia | 45.27 | 54.73 | 29.15 | 52.24 | 47.76 | 13.46 |
| West Virginia. | 55.61 | 4. 39 | 4.02 | 46. 43 | 53.57 | 9. 69 |
| North Carolina | 24.46 | 75.54 | 4. 29 | 22. 89 | 77.11 | 8.67 |
| South Carolina |  | 100.00 | 8.04 | 51.97 | 48.03 | 27.63 |
| Georgia. | 29.52 | 70.48 | 6. 21 | 23.57 | 76. 43 | 7. 14 |
| Florida | 39.47 | 60.53 | 1. 58 | 53.64 | 46.36 | 14.55 |
| South Central Division: |  |  |  |  |  |  |
| Kentueky | 42. 90 | 57.10 67.21 | 21. ${ }^{61}$ | 51.85 54.40 | 48.15 45.60 | 18.80 9.97 |
| Alabama. | 34.22 | 65.78 | 15. 70 | 61. 61 | 38.39 | 6.98 |
| Mississippi | 50.00 | 50.00 | 15.65 | 51.47 | 48. 53 | 16. 75 |
| Louisiana. | 16.32 | 83.68 | 20.00 | 11. 11 | 88.89 |  |
| Texas .. | 36.76 | 63.24 | 18.29 | 47.52 | 52.48 | 3.80 |
| Arkansas. | 66. 84 | 33.16 | 4.74 | 56.30 | 43. 70 | 6.17 |
| Oklahoma ........ | 44.22 | 55.78 | 4.38 |  |  |  |
| Indian Territory.... <br> Nortl Central Division: |  |  |  |  |  |  |
| Ohio.. | 2.01 | 97.99 | 50.34 | 63.05 | 36.95 | 35.43 |
| Indiana | 42. 93 | 57.07 | 7.07 | 53.08 | 46. 92 | 6. 58 |
| Illinois | 29.68 | 70.32 | 4. 27 | 54.42 | +5. 58 | 14. 18 |
| Michigan | 20.16 | 79.84 | 20.32 | 36. 14 | ¢3. 86 | 13.25 |
| Wisconsin | 29. 02 | 70.98 | 19.22 | 67.14 | 32.86 | 24.29 |
| Minnesota | 18. 51 | 81.49 | 16.82 | 76. 92 | 23.08 | 43. 08 |
| Iowa.. | 27.44 | 72.56 | 9.88 | 36. 05 | 63.95 | 6. 44 |
| Missouri | 34.37 | 65.63 | 10. 37 | 54.19 | 45.81 | 53 |
| North Dakota | 36.79 | 63.21 | . 33 | 54. 69 | 45.31 |  |
| South Dako | 22.78 | 77.22 | 11. 39 | 4. 62 | 55. 38 | 29. 23 |
| Nebraska | 34.93 | 65.07 | 6. 77 | 41. 80 | 58.20 | 9. 01 |
| Western Division: | 29.19 | 70.81 | 6.61 | 53.29 | 46.71 | 17.76 |
| Montana.... | 25. 00 | 75.00 | 12. 50 |  |  |  |
| Wyoming |  |  |  |  |  |  |
| Colorado.... | 15.51 | 84.49 | 18.81 | 11.11 | 88.89 | 24.44 |
| New Mexic | 25.00 | 75.00 | 20.00 |  |  |  |
| Arizona | 43.27 | 56.73 | 9.94 |  |  |  |
| Utah ${ }^{\text {Nerada }}$ | 38.24 | 61.76 | 4.85 | 54.11 | 45.89 | 4.02 |
| Idaho. | 30.65 | 69.35 | 14.52 |  |  |  |
| Washington | 28.04 | 71.96 | 8.93, |  |  |  |
| Oregon | 37.84 | 62.16 | 16. 49 |  |  |  |
| California | 9. 86 | 90.14 | 44.86 | 31.51 | 68.49 | 20.55 |

Table 16.-Normal students in miversities and colleges and public and prirale high schools and academies in 1597-95.

| State or 'Territory. | In universities and colleges. |  |  |  | In publie high schools. |  |  |  | In prirate high schools. |  |  |  | ت <br> 3 <br> 3 <br>  <br>  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\stackrel{\dot{y}}{\underset{y y}{x}}$ | $\frac{\dot{y y}}{\tilde{y}}$ | $\begin{aligned} & \text { İ } \\ & 0 \end{aligned}$ |  | $\frac{\dot{5}}{\stackrel{y}{5}}$ | - | $$ |  | $\stackrel{\dot{y y y}}{\stackrel{y}{x}}$ |  | $\begin{aligned} & \text { ت゙ } \\ & \stackrel{y}{5} \end{aligned}$ |  |
| United States | 211 | 3,346 | 4,974 | 8,320 | 494 | 2,374 | 5, 004 | 7,378 | 326 | 2,609 | 3,380 | 5, 989 | 21,687 |
| North Atlantic Division. | 27 | 580 | 548 | 1,128 | 143 | 364 | 2, 010 | 2,374 | 75 | 511 | 912 | 1,423 | 4,925 |
| Soutl Atlantic Division. | 36 | 424 | 697 | 1,121 | 42 | 254 | 434 | 688 | 56 | 315 | 334 | 649 | 2, 458 |
| South Central Division.- | 40 | 340 | 714 | 1,054 | 138 | 982 | 1, 179 | 2, 161 | 86 | 899 | 761 | 1,660 | 4,875 |
| Nortl: Central Division.- | 88 | 1, 458 | 1. 813 | 3, 271 | 163 | 769 | 1,341 | 2. 110 | 88 | 820 | 1,233 | 2,053 | 7,434 |
| Westerı Division ....... | 20 | 544 | 1,202 | 1,746 | 8 | 5 | 40 | 45 | 21 | $6 \pm$ | 140 | 204 | 1,995 |
| North Atlantic Division : <br> Maine | 1 | 0 | 25 | 25 | 8 | 57 |  | 138 | 4 | 21 | 119 | 140 | 303 |
| New Hampshire |  |  |  |  | 0 | 0 |  | 0 | 2 | 0 | 4 | 4 | 4 |
| Vermont .-.......... | 1 | 5 | 5 | 10 | 17 | 15 | 95 | 110 | 8 | 21 | 51 | 72 | 192 |
| Massachusetts | 3 | 62 | 91 | 153 | 7 | 11 | 269 | 280 | 2 | 0 | 95 | 95 | 528 |
| Rhode Island. | 1 | 23 | 27 | 50 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 3 | 53 |
| Connecticut. |  |  |  |  | 1 | 0 | 49 | 49 | 3 | 1 | 3 | 4 | 53 |
| New York. | 9 | 358 | 239 | 597 | 71 | 220 | 1, 078 | 1,298 | 19 | 46 | 153 | 199 | 2, 094 |
| New Jersey | 1 | 0 | 40 | 40 | 10 | 3 | 196 | 199 | 4 | 2 | 39 | 41 | 28.3 |
| Penusylvania .-..... | 11 | 132 | 121 | 253 | 29 | 58 | 242 | 300 | 32 | 420 | 445 | 805 | 1,418 |
| South Atlantic Division: <br> Delaware.............. |  |  |  |  | 0 | 0 | 0 | 0 |  |  |  |  | 0 |
| Marrland | 2 | 2 | 46 | 48 | 1 | 3 | 2 | 5 | 5 | 20 | 18 | 38 | 91 |
| District of Columbia. | 2 | 8 | 18 | 26 | 0 | 0 | 0 | 0 | 1 | 2 | 10 | 12 | 38 |
| Verginia. | 5 | 128 | 29 | 157 | 11 | 103 | 148 | 251 | 12 | 10 | 79 | 89 | 497 |
| West Virginia | 2 | 17 | 21 | 38 | 1 | 2 | 4 | 6 | 2 | 26 | 22 | 48 | 92 |
| North Casolina | 5 | 117 | 179 | 296 | 0 | 0 | 0 | 0 | 18 | 157 | 124 | 281 | 577 |
| South Carolina | 5 | 49 | 99 | 148 | 1 | 3 | 73 | 76 | 4 | 14 | 11 | 25 | 249 |
| Georgia | 11 | 90 | 280 | 370 | 20 | 70 | 110 | 180 | 11 | 81 | 58 | 139 | 689 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tennessee | 14 | 115 | 247 | 362 | 24 | 176 | 180 | 356 | 18 | 150 | 131 | 281 | 999 |
| Alabama | 3 | 18 | 26 | 44 | 9 | 58 | 90 | 148 | 12 | 54 | 54 | 108 | 300 |
| Mississipp | 7 | 25 | 178 | 203 | 29 | $2 \because 2$ | 281 | 503 | 12 | 127 | 117 | 244 | 950 |
| Louisiana | 2 | 6 | 27 | 33 | 2 | 2 | 11 | 13 | 5 | 57 | 65 | 122 | 168 |
| Texas.. | 6 | 66 | 93 | 159 | 39 | 187 | 240 | 427 | 15 | 91 | 79 | 170 | 756 |
| Arkansas | 3 | 27 | 43 | 70 | 15 | 117 | 125 | 242 | 4 | 47 | 49 | 96 | 408 |
| Oklahoma | 1 | 4 | 5 | 9 | 0 | 0 | 0 | 0 |  |  |  |  | 9 |
| Indian Territory.... |  |  |  |  | 1 | 4 | 4 | 8 |  |  |  |  | 8 |
| North Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Indiana | 6 | 170 | 108 | 278 | 7 | 7 | 62 | 69 | 8 | 176 | 181 | 357 | 704 |
| Illinois. | 12 | 157 | 174 | 331 | 17 | 54 | 178 | 232 | 16 | 117 | 201 | 318 | 881 |
| Michigan | 7 | 77 | 92 | 169 | 18 | 62 | 107 | 169 | 4 | 65 | 117 | 182 | 520 |
| Wisconsin | 3 | 54 | 2.5 | 79 | 12 | 115 | 159 | $27 \pm$ | 2 | 20 | 29 | 49 | 402 |
| Minnesota | 3 | 50 | 113 | 163 | 3 | 9 | 38 | 47 | 2 | 43 | 22 | (5) | 275 |
| Iowa ... | 12 | 273 | 361 | 634 | 17 | 54 | 133 | 187 | 12 | 65 | 198 | 263 | 1,084 |
| Missouri | 11 | 107 | 124 | 231 | 15 | 85 | 143 | 228 | 18 | 207 | 190 | 397 | 856 |
| Nortli Dakota | 1 | 19 | 61 | 80 | 1 | 3 | 8 | 11 | 1 | 0 | 2 | 2 | 93 |
| South Dakota | 5 | 33 | 70 | 103 | 0 | 0 | 0 | 0 | 6 | 28 | 81 | 112 | 215 |
| Nebraska | 6 | 88 | 217 | 305 | 4 | 4 | 11 | 15 | $\pm$ | 19 | 55 | 74 | 394 |
|  | 9 | 175 | 209 | 384 | 11 | 96 | 150 | 246 | 5 | 15 | 40 | 55 | 685 |
| Weestern Division: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana. | 1 | 0 | 4 | 4 | 1 | 1 | 0 | 1 |  |  |  |  | 5 |
| Wroming | 1 | 3 | 26 | 29 | 0 | 0 | 0 | 0 | 1 | 0 | ${ }^{6}$ | 6 | 35 |
| Colorato .... | 2 | 17 | 40 | 57 | 0 | 0 | 0 | 0 | 1 | 0 | 11 | 11 | 68 |
| New Mexico |  |  |  |  | 0 | 0 | 0 | 0 |  |  |  |  | 0 |
| Arizona. | 1 | 2 | $\stackrel{2}{2}$ | 4 | 0 | 0 | 0 | 0 |  |  |  |  | 4 |
| Utah | 2 | 165 | 273 | 438 | 0 | 0 | 0 | 0 | 3 | 24 | 44 | 68 | 506 |
| Nerada | 1 | 5 | 43 | 48 | 0 | 0 | 0 | 0 |  |  |  |  | 48 |
| Ilaho ...... |  |  |  |  | 0 | 0 | 0 | 0 | 2 | 19 | 15 | 34 | 34 |
| Washington | 5 | 16 | 19 | 35 | 2 | 0 | 2 | 2 | 3 | 6 | 8 | 14 | 51 |
| Oregon. | 3 | 44 | 126 | 170 | 1 | 0 | 10 | 10 | 7 | 10 | 43 | 53 | 233 |
| California | 4 | 292 | 669 | 961 | 4 | 4 | 28 | 32 | 4 | 5 | 13 | 18 | 1,011 |

TABLE 17.-Distribution of students pursuing teachers training courses in rarious institutions in 1.597-3S.

TOTAL NUMBER OF NORMAL STTDENTS.

| state or Territory. | In public normal schools. | In private normal schools. | In universities and colleges. | In public high schools. | $\begin{aligned} & \text { In private } \\ & \text { ligigh } \\ & \text { schools. } \end{aligned}$ | Total <br> normal students. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States. | 46, 245 | 21, 293 | 8,320 | 7,378 | 5,989 | 89, 225 |
| North Atlantic Division. | 19,470 | 1,724 | 1,128 | 2, 374 | 1,423 | 26,119 |
| South Atlantic Division. | 4,445 | 1,449 | 1,121 | 688 | 649 | 8,352 |
| South Central Iivisioz . . | 2, 999 | 4, 265 | 1, 054 | 2, 161 | 1,660 | 12, 139 |
| North Centrai Division.. | 15,542 | 13, 145 | 3, 271 | 2,110 | 2, 053 | 36, 121 |
| Western Dirision ...... | 3,789 | 710 | 1,746 | 45 | 204 | 6,494 |
| North Atlantic Division: |  |  |  |  |  |  |
| Maine | 914 | 174 | 25 | 138 | 140 | 1,391 |
| New Hampshire | 77 |  |  | 0 | 4 | 81 |
| Vermont.. | 273 |  | 10 | 110 | 72 | 465 |
| Massachusetts | 1,347 | 168 | 153 | 280 | 95 | 2,043 |
| Rhode Island.. | 218 |  | 50 | 0 | 3 | 271 |
| Connecticut. | 536 |  |  | 49 | 4 | 589 |
| New York. | 7, 540 | 614 | 597 | 1, 298 | 199 | 10,278 |
| New Jersey | -908 |  | 40 | 199 | 41 | 1,138 |
| Pennsylvania........ | 7, 657 | 738 | 253 | 300 | 865 | 9,813 |
| South Atlantic Division Delaware ............ | 24 |  |  | 0 |  | 58 |
| Maryland. | 436 | 55 | 48 | 5 | 38 | 582 |
| District of Columbia. | 153 | 35 | 26 | 0 | 12 | 226 |
| Virginia. | 391 | 312 | 157 | 251 | 89 | 1,200 |
| West Virginia | 1,318 | 196 | 38 | 6 | 48 | 1,606 |
| North Carolina | 1,026 | 415 | 296 | 0 | 281 | 2,018 |
| South Carolina | 199 | 152 | 148 | 76 | 25 | 600 |
| Georgia.. | 708 | 140 | 370 | 180 | 139 | 1,537 |
| Florita -............. | 190 | 110 | 38 | 170 | 17 | 525 |
| South Central Division: |  |  |  |  |  |  |
| Kentucky. | 310 491 |  | 174 <br> 362 |  | 639 281 | 2,156 |
| Tennessee. | 491 | 1,524 | $\begin{array}{r}362 \\ 44 \\ \hline 1\end{array}$ | 356 148 | 281 | 3,014 1,440 |
| Mississippi | 230 | 579 | 203 | 503 | 244 | 1,759 |
| Louisiana. | 435 | 9 | 33 | 13 | 122 | 612 |
| Texas.... | 525 | 606 | 159 | 427 | 170 | 1,887 |
| Arkansas. | 190 | 405 | 70 | 242 | 96 | 1,003 |
| Oklahoma | 251 |  | 9 | 0 |  | 260 |
| Indian Territory . |  |  |  | 8 |  | 8 |
| North Central Division: Ohio |  |  |  |  |  |  |
| Indiana. . | 447 580 | 3,802 | 514 278 | 632 69 | 179 | 5,927 |
| Illinois | 1,779 | 1,685 | 331 | 232 | 318 | 4,345 |
| Michigan | 1,255 | 249 | 169 | 169 | 182 | 2,024 |
| Wisconsin | 2,898 | 70 | 79 | 274 | 49 | 3,370 |
| Minnesota | 1,902 | 65 | 163 | 47 | $6 \overline{3}$ | 2,242 |
| Iowa. | 1,873 | 2, 330 | 634 | 187 | 263 | 5,287 |
| Missouri. | 1, 929 | 561 | 231 | 228 | 397 | 3,346 |
| North Dakota | 299 | 64 | 80 | 11 | 2 | 456 |
| South Dakoti. | $47 \pm$ | 65 | 103 | 0 | 112 | 75 |
| Nebraska. | 458 | 1, 110 | 305 | 15 | 74 | 1,962 |
| Kansas | 1,648 | 501 | 384 | 246 | 55 | 2,834 |
| Western Division: |  |  |  |  |  |  |
| Montana.... | 24 |  | 4 | 1 |  | 29 |
| Wyoming. |  |  | 29 | 0 | ${ }^{6}$ | 35 |
| Colorado. | 303 | 90 | 57 | 0 | 11 | 461 |
| New Mexico | 40 |  |  | 0 |  | 43 |
| Arizona | 171 |  | 4 | 0 |  | 175 |
| Utah... | 557 | 547 | 438 | 0 | 68 | 1,610 |
| Nevada |  |  | 48 | 0 |  | 48 |
| Idaho.. | 124 |  |  | 0 | 34 | 158 |
| Washington | 403 |  | 35 | $\stackrel{1}{10}$ | 14 | 45 |
| Oregon ${ }_{\text {California... }}$ | 1.473 |  | ${ }_{961}^{170}$ | 10 32 | 53 18 | 706 2,778 |
| Cahifornia | 1,694 | 73 | 961 | 32 | 18 | 2,778 |

Table 18.-Colleges and universities reporting studeats in teachers' training coarses.

| Location. | Institution. | Normal students. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1893. | 1891. | 1895. | 1896. | 1897. | 1898. |  |  |
|  |  |  |  |  |  |  | $\frac{\stackrel{9}{5}}{\frac{5}{5}}$ | 淢 |  |
| ALABAMA. |  |  |  |  |  |  |  |  |  |
| Athens .... | Athens Female Colloge |  |  |  | 8 | 10 | 0 | 12 | 12 |
| Blountsville | Blount College ......... |  | 17 |  | 14 | 29 | 18 | 11 | 29 |
| Cullman. | St. Beruard College |  |  |  |  | 14 |  |  |  |
| Lafayette | Lafayette College | 29 | 15 | 9 |  |  |  |  | -. ${ }^{\text {- }}$ |
| Selma | Selma University -............... | 150 | 44 | 40 |  |  |  |  |  |
| Talladega | Isbell Female College . . . . . . . . |  |  |  | 13 | 15 | 0 | 3 | 3 |
| ARIzONA. |  |  |  |  |  |  |  |  |  |
| Tucson ............... | Taiversity of Arizon |  |  |  |  |  | 2 | 2 | 4 |
| ARKANSAS. |  |  |  |  |  |  |  |  |  |
| Arkadelphia |  |  |  |  |  |  | 7 | 12 | 19 |
| Do. | Ouachita Baptist College....... | 40 |  | 40 | 9 |  |  |  | . . . |
| Clarksville | Arkansas Cumberland College. |  | 17 | 17 | 9 |  |  |  |  |
| Conway | Central Baptist College .-..... - |  | 11 | 7 |  |  |  |  |  |
| Do..-............. | Hendrix College | 10 |  |  |  |  |  |  |  |
| Fayetteville......... | Arkansas Iudustrial University (public). |  |  |  |  | 16 | 3 | 3 | 6 |
| Little Rock. . | Philander Smith College......... |  | 3 |  | 2 |  | 17 | 28 | 4.5 |
| Mountain Home | Mountain Home Baptist College | 71 |  |  |  |  |  |  |  |
| CALIFORNIA. |  |  |  |  |  |  |  |  |  |
| Berkeley | Unicersity of California (public). a |  | 57 | 100 | 269 | 562 | 190 | 527 | 717 |
| Los Angeles | St. Vincent's College |  |  | 30 | 78 |  |  |  |  |
| Oakland.... | California College -......-....... |  |  | 3 | $\cdots$ |  |  |  |  |
| Pasadena | Throop Polytechnic Institute. - |  |  | 16 | 11 | 10 | 2 | 11 | 13 |
| San Jose. | College of Notre Dame........ | 24 | 20 | 35 | 20 | 10 | 0 | 20 | 20 |
| Santa Rosa .-......... | Pacific Methodist College ....... |  | ${ }^{6}$ |  |  | 1 |  |  |  |
| Stanford University | Leland Stantord Junior University. a |  | 37 | 158 | 46 | 50 | 100 | 111 | 211 |
| University ............ COLORADO. | University of Southern California. |  |  |  |  | 18 |  |  |  |
| Boulder | Tnicersity of Colorado (public). $a$ |  |  |  |  | 65 | 10 | 32 | 42 |
| Colorado Springs.... | Colorado College and Cutler Academy. |  |  |  |  |  | 7 | 8 | 15 |
| DISTRICT OF COLUYBIA. |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Washington .-. . . . . . } \\ & \text { Do................. } \end{aligned}$ | Gallaudet College . . Howard University | 6 | 5 | $\begin{array}{r} 5 \\ 188 \end{array}$ | $\begin{array}{r} 5 \\ 47 \end{array}$ | 124 | 3 5 | 16 | 5 21 |
| Florida. |  |  |  |  |  |  |  |  |  |
| De Land. | John B. Stetson Unirersity | 6 |  |  |  | 29 |  |  |  |
| Lake City | Florida A gricultural College... |  |  |  |  |  | 5 | 14 | 19 |
| Leesburg. | Florida Conference College ... |  | 3 |  |  | 8 | 3 | 5 | 8 |
| St. Leo | St. Leo Military College ........ |  | 2 | 3 | 2 | 4 | 3 | 0 | 3 |
| Winter Park ......... | Rollins College.................. |  |  |  |  | 18 | 2 | 6 | 8 |
| GEORGIA. |  |  |  |  |  |  |  |  |  |
| Atlanta. | Atlanta Paptist College ........ |  |  |  |  | 2 | 3 | 0 | 3 |
| Do | Atlanta University .............. | 88 | 99 | 83 | 105 | 127 | 0 | 139 | 139 |
| Do.. | Morris Brown University |  | 25 | 29 | 26 | 16 | 5 | 40 | 45 |
| Bowdon ..... | Bowdon College................. |  |  |  |  |  | 14 | 13 | 27 |
| College Park | Southren Female College....... |  | 12 |  |  | 225 |  |  |  |
| Cuthbert ............. | Andrew Female College.......... |  |  |  | 4 |  | 0 | 8 | 8 |
| Dahlonega | North Georgia Agricultural College. |  |  |  | 40 | .-... | 28 | 16 | 44 |
| Dalton..... | Dalton Female College ......... |  |  |  |  |  | 0 | 3 | 3 |
| Gainesville | Georgia Female Seminary ...... | 40 | 20 |  | 18 |  |  |  |  |
| Lagrange | La Grange Female College ..... | 32 | 21 | 14 | 23 | 23 |  |  |  |
| Do ... | Southern Female College........ |  |  |  | 10 |  |  |  |  |
| Macon ........ | Mercer University ....... |  |  | 27 | 10 | 10 | 11 | 0 | 11 |
| South Atlanta | Clark University..... | 45 |  | , | 42 | 31 | 3 | 44 | 47 |

a Has pedagogical department.

TABLE 18.-Colleges and unirersities reporting students in teachers' training coursesContinuerl.

| Location. | Institution. | Normal students. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | 1898. |  |
|  |  | 1893. | 1894. | 1895. | 1896. | 1897. | 案 |  | تّ - - |
| GEORGLA--continued. |  |  |  |  |  |  |  |  |  |
| Thomasvill | Young Female College |  |  |  |  |  | 0 | 4 | 4 |
| Wriglitsville | Nannie Lou Wartben College .. |  |  | 18 |  |  |  |  |  |
| Foung Harris | Young L. G. Harris College ... |  |  |  |  | 25 | 16 | 13 | 29 |
| HLL NOLS. |  |  |  |  |  |  |  |  |  |
| Abingdon | Hedtling College . . . . . . . . . . . . | 25 | 17 | 22 | 18 | 4 | 2 | 2 | 4 |
| Carlinvilie | Blackburn University ........... | 16 |  | 7 |  |  |  |  |  |
| Carthage | Carthage College............... |  | 10 | 64 |  |  |  |  |  |
| Champaign | University of 1llinois (pablic).. |  |  | 12 | 31 | 66 | 35 | 33 | 68 |
| Chicago.. | Cniversity of Clicago a ....... |  |  |  |  |  |  |  |  |
| Effingham | Austin College .... |  | 52 | 110 | 130 | 110 | 40 | 50 | 90 |
| Elmhurst. | Proseminarder Evangel Synode ron N. A. | 40 |  |  | 33 |  | 20 | 0 | 20 |
| Evanston | Northwestern University a .... |  | 11 |  | 20 | 20 | 9 | 11 | 20 |
| Ewing. | Ewing College .............. |  |  |  |  | 9 |  |  |  |
| Fulton. | Northern Illinois College | 35 | 40 | 30 | 50 | 46 | 10 | 25 | 35 |
| Ifoopeston | Greer College ............. |  |  | 4 | 51 | 44 | 10 | 15 | 25 |
| Jacksonville | Illinois Collego |  |  |  |  | 5 | 8 | 0 | 8 |
| Do..... | Illinois Female College |  | 7 | 7 | 7 | 15 | 0 | 15 | 15 |
| Knosville | St. Mary's School.... |  | 90 | 40 |  |  |  |  |  |
| Lake Forest | Lake Forest University |  | 15 |  |  |  |  |  |  |
| Naperville. | Northwestern College. | 12 | 16 | 13 | 12 | 12 |  |  |  |
| Quiney ... | Chaddock College... |  | 10 |  | 10 |  | 10 | 15 | 25 |
| İock İsland | Augustana College............... | 12 | 8 | 17 | 12 | 5 | 1 | 6 | 7 |
| Upper Alton | Shurtleti College . . . . . . . . . . . . |  | 3 | 5 |  |  |  |  |  |
| Westfield... | Westfield College |  | 9 |  | 9 | 17 | 12 | 2 | 14 |
| Wheaton | Wheaton College. |  |  |  |  | 17 |  |  |  |
| Indint. |  |  |  |  |  |  |  |  |  |
| Bloomington. | Indiana University (public) a .. | . |  |  | 52 |  | 78 | 50 | 128 |
| Craw fordsvill | Wabash College................. |  |  |  |  |  | 4 | 0 | 4 |
| Hanover. | Hanover College |  | 5 |  |  |  |  |  |  |
| Merom | Union Christian College | 26 | 18 | 47 | 54 | 23 | 38 | 27 | 65 |
| Moores Mill | Moores Hill College............. | 67 | 104 | 98 | 98 | 20 |  |  |  |
| Ridgeville | Rilgeville College................. | 10 | 15 |  | 90 | 65 | 20 | 15 | 35 |
| Upland. | 'Taylor U'niversity .............. | 12 | 25 | 50 | 40 | 52 | 22 | 10 | 32 |
| INDIAN 'x ERRITORY. |  |  |  |  |  |  |  |  |  |
| Bacone | Indian University ............... |  | 9 | 19 |  |  |  |  | .... |
| IOWA. |  |  |  |  |  |  |  |  |  |
| Charles City. | Charles City College ........... | 22 | 19 | 33 | 32 | 22 | 8 | 21 | 29 |
| Collere Springs | Amity College ................... | 30 |  | 49 | 16 | 18 | 6 | 31 | 37 |
| Des Xloines... | Drake University . ............... | 358 |  | 88 |  |  | 91 | 82 | 173 |
| Fayette. | Upper Iowa University . . . . . . . | 1 |  |  | 28 |  | 23 | 10 | 33 |
| Grinnell | Iowa College. . . . . . . . . . . . . . . . |  |  |  |  |  | 5 | 10 | 15 |
| Hopkintor | Lenox College.................... | 3 | 3 |  |  |  |  |  |  |
| Indianola.. | Simpson College.................. | 24 | 54 | 63 | 124 | 114 | 55 | 66 | 121 |
| Iowa City . | State University of Iowa (public). $a$ |  |  |  | 51 | 54 |  |  | ... |
| Mount Pleasant | German College ............. |  | 15 | 6 | 4 | 2 |  |  |  |
| Do......... | Iowa Wesleyan Eniversity | 4 |  | 5 | 19 | 19 | 5 | 7 | 12 |
| Mount Vernon..... | Cornell College................... |  |  | 64 | 78 | 72 | 35 | 37 | 72 |
| Pella .-...... | Central University of Iowa... |  |  |  |  | 30 | 1 | 25 | 26 |
| Sioux City... | Morningside College........ |  |  |  | 12 | 55 | 20 | 22 | 42 |
| Storm Lake | Buena Vista College |  | 87 | 33 | 59 | 47 | 18 | 30 | 48 |
| Toledo... | Western College ................. | 68 | 35 | 21 | 14 |  | 6 | 26 | 32 |
| Waverly............. | W'artburg College. | 10 |  |  |  |  |  |  | ... |
| KANS.is. |  |  |  |  |  |  |  |  |  |
| Atchison | Midlant College.. |  |  |  | 9 |  |  |  |  |
| Baldwin... | Baker University | 32 | 39 | 62 | 77 |  | 42 | 50 | 92 |
| Dodge City | Soule College..... |  |  | 49 | 20 | 28 | 17 | 11 | 28 |
| Enterprise............ | Central College....... | 29 | 20 | 20 |  |  |  |  |  |
| Highland ............ | Highland University |  |  |  | 4 | 3 |  |  |  |
| Holton .............. | Campbell University. |  | $65^{-}$ | 8 | 18 | 18 | 25 | 42 | 67 |

a Has pedagogical department.

Table 18.-Colleges and universities reporting students in teachers' training coursesContinued.

$a$ Has pedagogical department.

Tanle 18.- Colleges and universifies reporting students in teachers' training coursesContinued.

| Location. | Institution. | Normal students. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1893. | 1894. | 1895. | 1896. | 1897. | 1898. |  |  |
|  |  |  |  |  |  |  | 袻 | 淾 |  |
| minnesota. |  |  |  |  |  |  |  |  |  |
| Excelsior | Northwestern Christian College. |  | 13 | 15. | 23 |  |  |  |  |
| Minneapolis | University of Minnesota (public). $a$ | 22 | 29 | 46 | 130 | 28 | 40 | 90 | 130 |
| St. Peters...... | Gustarus Adolphus College... |  | 60 |  | 84 | 50 | 5 | 15 | 20 |
| Winnebago City | Parker College ................... | 6 | 18 | 17 | 16 | 8 | 5 | 8 | 13 |
| MISSISSIPPI. |  |  |  |  |  |  |  |  |  |
| Brookharen | Whitworth Female College .... |  |  |  |  | 15 | 0 | 20 | 20 |
| Columbus .. | Mississippi Industrial Institute and College (public). | 80 | 67 | 90 | 104 | 15 | 0 | 78 | 78 |
| Daleville | Cooper-Huddleston College..... | 13 | 5 | 31 | 10 |  |  |  |  |
| Frencl Camp | Central Mississippi Institute..- |  |  |  |  | 23 | 0 | 45 | 45 |
| Holly Springs. | Rust University .-............... |  | 72 | 77 | 28 | 20 | 25 | 15 | 40 |
| Meridian .... | East Mississippi Female College. | 8 |  |  |  | 10 | 0 | 12 | 12 |
| Do. | Stone College for Young Ladies. |  |  |  | 6 | 5 | 0 | 6 | 6 |
| Oxford. | Union Female College ........... |  |  | 10 | 10 | 10 |  |  |  |
| Pontotoc. | Chickasaw Female College. |  | 8 |  |  | 15 |  |  |  |
| Port Gibson | Port Gibson Female College... |  |  |  | 1 | 2 | 0 | 2 | 2 |
| University. | University of Mississippi (public). $a$ |  | 18 | 27 | 40 | 31 |  |  |  |
| Water Valley. | Hamilton College ................ |  |  |  | 6 | 5 |  |  |  |
| Woodville... | Edward MeGehee College | 2 |  |  |  |  |  |  |  |
| missouri. |  |  |  |  |  |  |  |  |  |
| Albany | Central Christian College ...... |  | 70 |  | 10 | 5 | 3 | 6 | 9 |
| Do. | Northwest Missouri College.... | 20 | 18 | 15 | 12 | 28 | 6 | ${ }_{17}^{2}$ | 8 |
| Bolivar ......... | Southwest Baptist College .... - |  |  |  |  | 16 | 14 | 17 | 31 |
| Bowling Green | Pike College .................... | 16 | 16 |  |  |  |  |  |  |
| Cameron....... | Missouri Wesleyan College..... | 26 | 43 |  | 20 | 28 | 10 | 8 | 18 |
| Canton | Christian University ............ |  |  | 41 |  | 7 |  |  |  |
| Columbia | University of the State of Missouri (public). a | 84 | 112 | 70 | 52 | 57 | 29 | 34 | 63 |
| Edinburg | Qrand River Christian Union College. | 12 |  | 70 |  |  |  |  |  |
| Fulton | Synodical Female College....... |  | 14 | 0 |  |  |  |  |  |
| Glasgow | Pritcliett State Institute....... |  |  |  | 3 |  |  |  |  |
| Lagrange | Lagrange College...... |  |  |  |  | 19 | 7 | 8 | 15 |
| Lexington. | Baptist Female College |  |  |  | 2 |  | 0 | 5 | 5 |
| Morrisville | Morrisville College............... |  |  |  |  |  | 15 | 18 | 33 |
| Nevada... | Cotley College for Young Ladies |  |  |  |  | 20 |  |  |  |
| St. Charles | St. Charles College ............... | 10 |  |  |  |  |  |  |  |
| Springfield | Drury College ..................... |  |  |  |  | 14 | 10 | 5 | 15 |
| Tarkio... | Tarkio College .. .................. | 27 |  | 8 |  |  |  |  |  |
| Trenton... | A valon College.................... | 45 | 34 | 31 |  |  |  |  |  |
| Warrenton | Central Wesleyan College...... | 8 | 9 | 5 | 22 | 30 | 6 | 20 | 26 |
| montana. |  |  |  |  |  |  |  |  |  |
| Bozeman | College of Agriculture and Mechanic Arts. |  |  |  |  |  | 0 | 4 | 4 |
| Helena. | Montana W'esleyan University- |  |  |  | 15 |  |  |  |  |
| NEBRASKA. |  |  |  |  |  |  |  |  |  |
| Bellevue | University of Omaha............ | 12 | 12 | 10 |  | 13 | 5 | 6 | 11 |
| Betlany ..... | Cotner University |  | 25 | 43 | 12 | 12 |  |  |  |
| College View | Union College |  |  |  |  |  | 19 | 27 | 46 |
| Crete... | Doane College ....... . . . . . . . . . . . | 11 | 15 | 13 |  |  |  |  |  |
| Fairfield ...... | Fairfield College.................. | 34 | 37 | 28 | 25 | 9 | 4 | 6 | 10 |
| Grand Island | Grand Island College ........... |  |  |  |  |  | 8 | 20 | 28 |
| Lincoln. | University of Nebraska (public) |  |  |  | 60 | 80 | 40 | 100 | 140 |
| Neligh............. | Gates Coilege .................... |  | 76 | 51 |  | 56 | 12 | 58 | 70 |
| University Place | Nebraska Wesleyan University |  | 15 | 50 |  |  |  |  |  |
| York ...... | York College........................ | 15 | 6 |  | 15 | 25 |  |  | -... |
| NEYADA. |  |  |  |  |  |  |  |  |  |
| Reno | State University of Nevada (public). | 40 | 40 | 67 | 94 | 75 | 5 | 43 | 48 |

a Has pedagogieal department.

Table 18.-Colleges and universities reporling students in teachers' training coursesContinued.

$a$ Has pedagogical department.

Table 18.-Colleges and unirersities reporting students in teachers' training coursesContinued.


Table 18．－Colleges and universitics reporting students in teachers training courses－ Continued．

| Location． | Institution． | Normal students． |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1893. | 1894. | 1895. | 1896. | 1897. | 1898. |  |  |
|  |  |  |  |  |  |  | 边 | 感 | E® －1 |
| TENNESSEE－con＇d． |  |  |  |  |  |  |  |  |  |
| Spencer． | Burritt College． | 47 | 42 | 16 | 19 | 32 | 16 | 12 | 28 |
| Sweetwater | Sweetwater College | 5 |  | 16 | 8 |  |  |  |  |
| Washington College． | Washington College |  |  | 11 |  |  |  |  |  |
| Winchester．．．．．．．．．． | Mary Sharp College |  |  |  | 6 | 6 |  |  |  |
| TEXAS． |  |  |  |  |  |  |  |  |  |
| Austin | Universily of Texas（public）$a$ ． |  |  | 125 | 129 |  | 35 | 56 | 91 |
| Bonham | Carlton College．．．．．．．．．．．．．．．．．．． | 7 |  |  |  |  | 0 | 5 | 5 |
| Brownwood | Howard Pajne Colleg | 20 | 15 | 15 | 18 | 22 | 12 | 10 | 22 |
| Campbell ．．． | Henry College．．．．．．．．．．． |  | 13 | 15 | 9 | 50 |  |  | ．．． |
| Fort Worth | Fort Worth University | 14 | 8 | 37 | 9 |  |  |  |  |
| Marshall ．－ | Wiley University．．．．．． |  | 24 | 31 | 33 |  | 5 | 12 | 17 |
| San Antonio | St．Louis Collego．． |  |  |  | 1 |  |  |  |  |
| Sherman | Austin College． | 5 |  |  | ． |  |  |  |  |
| Tehuacana | Trinity University－． |  | 4 |  |  |  |  |  |  |
| Waco．．．．． | Add－Ran Christian University． |  |  |  |  |  | 11 | 6 | 17 |
| Do． | Paul Quinn College ．．．．．．．．．．．． | 5 | 6 | 6 | 2 | 12 | 3 | 4 | 7 |
| U゙TAH． |  |  |  |  |  |  |  |  |  |
| Logan ．．． | Prigham Youns College．．．．．．．． |  |  | 107 |  |  | 13 | 11 | 24 |
| Salt Lake City | Enirersity of İtah（public）a．． | 203 |  | 70 | 320 | 379 | 152 | 262 | 414 |
| VERMONT． |  |  |  |  |  |  |  |  |  |
| Middlebury ．．．．．．．． | Middlebury College |  |  |  |  | 2 | 5 | 5 | 10 |
| virginia． |  |  |  |  |  |  |  |  |  |
| Bridgewater． | Bridgewater College |  | 5 | 10 | 8 | 8 | 12 | 5 | 17 |
| Fredericksburg | Fredericksburg College |  |  |  |  | 10 |  |  |  |
| Lynchburg ．．．．．．．．． | Randolph－3acon Woman＇s Col． lege．a |  | 7 | 6 | 10 | 20 | 0 | 20 | 20 |
| Williamsburg ． | William and Mary College ．．．． |  |  | 114 | 125 | 106 | 116 | 0 | 116 |
| Winchester．．． | Valley Female College ．．． |  | 2 | 2 | 1 | 2 | 0 | 2 | 2 |
| WAShington． |  |  |  |  |  |  |  |  |  |
| Burton | Vashon College ．．．．．．．．．．．．．．．．． |  | 28 | 20 | 25 | 18 | 2 | 4 | 6 |
| Colfax．－ | Colfax College ．．．．．．．．．．．．．．．．．．．．．．． | 5 |  |  |  |  | 8 | 4 | 12 |
| College Place ．．．．．．．． | Walla Walla College |  |  |  | 20 |  |  |  |  |
| Seattle．．．．．． | University of Washington （public）． | 14 | 59 | 107 | 4 |  |  |  |  |
| Sumner | Whitworth College ．－．．．．．．．．．．． |  |  |  |  |  | 0 | 2 | 2 |
| Tacoma．．．．－．．．．．．． | Puget Sound University |  | 6 | 39 | 49 | 26 | 3 | 9 | 12 |
| Vanconver．．．．．．．．．．．．． | St．James College．．－．．． |  |  | 14 | 14 |  | 3 | 0 | 3 |
| Walla Walla． | Whitman College． | 14 |  | 12 |  |  |  |  |  |
| West virginia． |  |  |  |  |  |  |  |  |  |
| Barboureville． | Barboursville College ．．．．．．．．．．－ | 60 | 57 | 20 |  | 18 | 10 | 5 | 15 |
| Miorgantown．． | West Virginia University（pub－ lic）．$a$ | ， | 21 | 20 | 15 | 23 | 7 | 16 | 23 |
| Wisconsin． |  |  |  |  |  |  |  |  |  |
| Appleton | Lawrence University |  |  |  | 22 | 21 | 12 | 13 | 25 |
| Beloit ．．． | Beloit College ．．．．．．．．．．．．．．．．．．．．． |  |  |  |  | 7 | 18 | 5 | 23 |
| Fox Lake．．．．．．．．．．．．． | Downer College－．－．．－．．－．．－．．－ | 4 |  |  |  |  |  |  |  |
| Franklinton．．．．．．．．． | Mission House of the Reformed Chureh in the United States． |  |  |  | 15 | ．．．．．． |  |  | ． |
| Galesrille | Gale College |  |  | 14 |  |  |  |  |  |
| Madison ．．．．．．．．．．．． | University of Wisconsin（pub－ lic）．$a$ |  |  |  | 62 |  | 24 | 7 | 31 |
| Ripon ．．．．．．． | Ripon College |  | 151 |  |  |  |  |  |  |
| Watertown． | Northwestern University ．．．．．． | 13 |  |  |  | 7 |  |  |  |
| WYOMING． |  |  |  |  |  |  |  |  |  |
| Laramie ．．．．．．．．．．． | University of Wyoming（pub－ lic．） | ．．．．．． | 21 | 20 | 25 | 24 | 3 | 26 | 29 |

Table 19.-Siatistics of public

normal schools, 189\%-98.


Table 19.-Statistics of public


[^83]normal schools for 189シータターC＇ontinued．


Table 19.—Statistics of public

$a$ No report.

* Statistics of 1896-97.
nowal schools, 1897-98-Continued.


Table 19.-Statistics of public

normal schools, 1597-98-Continued.


Table 19．－Statistics of public

|  |  |  |  | Teac | chers． |  |  |  | Stude | ents． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Location． | Name of institution． |  | tire m． I． yed． | $\begin{gathered} \mathrm{II} \\ \text { stry } \\ \text { ing } \\ \text { int } \\ \text { st } \\ \text { den } \end{gathered}$ | $\begin{aligned} & \text { net. } \\ & \text { net. } \\ & \text { nor } \\ & \text { talu } \\ & \text { nte. } \end{aligned}$ |  | $\begin{aligned} & \text { tire } \\ & \text { ner } \\ & \text { olleded. } \end{aligned}$ | $\begin{gathered} \mathrm{Bel} \\ \text { hel } \\ \text { hid } \\ \text { scl } \\ \text { nor } \\ \text { nor } \\ \text { gra } \end{gathered}$ | $\begin{gathered} \text { low } \\ \text { igh } \\ \text { hool } \\ \text { no } \\ \text { cmal } \\ \text { des. } \end{gathered}$ |  | $\begin{aligned} & \text { nor- } \\ & \text { nal } \\ & \text { arse } \end{aligned}$ |
|  |  |  | 采 |  | 完 |  | 㭡 |  | 完 |  | $\stackrel{\dot{g}}{\substack{g}}$ |  |
|  | 1 | ${ }^{\text {a }}$ | 3 | 4 | 5 | 4 | 7 | 8 | 9 | 14 | 11 | 12 |
|  | penxstlvaia． |  |  |  |  |  |  |  |  |  |  |  |
| 121 | Ploomsburg | State Normal School ．．．．．．． | 14 | ${ }_{15}^{12}$ | 14 | 8 | 236 | 325 | 39 | 31 | 247 | 2185 |
| 122 | California | Southwestern State Normal Sch ol． | 15 |  |  | 8 |  |  |  |  | 180 | 185 |
| $\begin{aligned} & 123 \\ & 124 \end{aligned}$ | Clarion...........$- ~$ East Stroudsburg | Clarion State Normal School <br> State Normal School | ${ }^{12}$ | 7 | 10 | 4 | 288 | $\begin{aligned} & 382 \\ & 254 \\ & \hline 204 \end{aligned}$ | 66 40 | 65 50 | 128 | 274 204 |
| 1125 | Edinboro ．．．．．．．． |  |  | 7 |  | 8 | 142 | ${ }_{317}^{288}$ |  |  | 142 | 317 |
| 126 | Iudiana．．． | Indiana Normal School of | 12 | 12 | 12 | 8 | 181 | 347 |  |  | 173 | 317 |
| 127 | Kutztown | Keystone State Normal | 17 | 6 | 17 | 6 | 547 | 289 | 99 | 78 | 427 | 197 |
| 128 129 | Lockhaven Manstield． | Central state Normal School State Normal School | $\begin{array}{r}13 \\ 6 \\ \hline\end{array}$ | $\begin{aligned} & 11 \\ & 10 \end{aligned}$ | ${ }_{6}^{12}$ | 9 | $\begin{aligned} & 365 \\ & 192 \\ & \hline \end{aligned}$ | ${ }_{289}^{385}$ | 90 | 75 | ${ }_{192}^{275}$ | 310 289 |
| 130 | Millersville | First Pennsylvania State | 20 | 15 | 10 | 7 | 545 | 593 | 136 | 131 | 409 | 462 |
| 131 | Philadelphia． | Philadelphia Normal School | 2 | 52 | 2 | 52 | 0 | 598 | 0 | 0 | 0 | 598 |
| 132 | Pittsburg | High School，Normal De－ | 3 | 12 | 3 | 11 | 0 | 14 |  |  | 0 | 144 |
| 133 | shippensburg．．． | Cumberlani Valley State | 8 | 9 | 8 | 9 | 216 | 182 | 31 | 39 | 185 | 143 |
| 134 135 | Slippery Rock | State Normal School ．．．．．．．． | ${ }_{15}^{8}$ | ${ }_{16}^{9}$ | 15 | ${ }_{16}^{9}$ | 344 487 | $\begin{aligned} & 51 \\ & 385 \end{aligned}$ | $\begin{array}{r} 107 \\ 31 \end{array}$ | ${ }_{30}^{122}$ | ${ }_{456}^{237}$ | ${ }_{355}^{389}$ |
|  | rhode island． |  |  |  |  |  |  |  |  |  |  |  |
| 136 | Providence ．．． | Rhode Tsland Normal School． | 4 | 15 | 4 | 7 | 3 | 215 | 0 | 0 | 3 | 215 |
|  | south carolina． |  |  |  |  |  |  |  |  |  |  |  |
| 137 | Rockh．ll． | Winthrol Normal and In． | 6 | 24 | 3 | 12 | 3 | 340 | 3 | 11 | 0 | 199 |
|  | socth dakota． | dustrial College． |  |  |  |  |  |  |  |  |  |  |
| 138 | ${ }_{\text {Madison }}$ | State Normal School | ${ }_{1}^{4}$ | ${ }_{11}^{6}$ | $4$ | $6$ | ${ }_{6}^{66}$ | 305 | 30 | 89 | ${ }^{36}$ | 216 |
| 139 | Spearfish ．．．．．．． <br> teneessee． |  |  |  |  |  |  |  |  |  | 72 |  |
| 140 | Nashrille． | Peabody Normal College ．．． | 13 | 15 | 13 | 15 | 208 | 370 |  |  | 161 | 330 |
|  | texas． |  |  |  |  |  |  |  |  |  |  |  |
| 141 | Detroit． | Detroit Normal School ．．．．．． | 1 |  |  |  |  |  |  |  | 15 | 20 |
| 142 | Huntsrille． | Sam Houston Normal Insti－ tute． | 5 |  |  |  |  |  |  |  | 160 | 296 |
| 143 | Timpson．．．．．．．．．．．． | Timpson High School ．．．．．．． | 2 | 2 | 1 | 1 | 178 | 128 | 150 | 100 | 18 | 16 |
|  | UTaf． |  |  |  |  |  |  |  |  |  |  |  |
| 144 | Cedar City． | Southern Branch of State | 3 | 1 | 3 | 1 | 72 | 47 | 43 | 13 | 29 | 34 |
| 145 | Salt Lake City． | Utah State Normal School ．． | 24 | 11 | 24 | 11 | $18 \pm$ | 310 | 0 | 0 | 184 | 310 |
|  | iost |  |  |  |  |  |  |  |  |  |  |  |
|  |  | State Normal School |  | 2 |  |  | 20 |  | 0 | 0 | 20 |  |
| 147 148 | Johnson ．．．．．．．． | do． |  | 6 | 3 | ${ }_{6}^{6}$ | 15 |  |  |  | ${ }^{7}$ | 64 67 |
| 148 | Randolph Center ．．． virginia． | ．do． | 1 | 5 | 1 | 3 | 15 |  | 0 | 0 | 15 |  |
| 149 | Farmville |  |  |  |  |  |  | 256 |  |  |  |  |
| 150 | Hampton ．．．．．．．．．．．． | Hampton Normal and Agri－ | 30 | 49 | 21 | 24 | 562 | ${ }_{44}^{256}$ | 443 |  | 119 | 76 |
| 151 | Petorsburg | Virginia Normal and Colle． | 7 | 6 | 7 | 6 | 162 | 154 | 67 | 86 | 58 | 68 |

normal schools，1897－98－Continued．

| Students． |  |  |  | Chil－ dren in model school． |  | Colored stn－ dents in nor－ nal course． |  | Gradu－ ates from normal course． |  | － $\operatorname{simoo}$［rumou wị s．reat |  | Volumes in library. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| In busi－ ness course． |  | In high． school grades． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{\dot{8}}{5}$ | $\begin{gathered} \dot{D} \\ \stackrel{y}{ت} \\ \underset{\sim}{3} \\ \hline \end{gathered}$ | $\stackrel{9}{\frac{2}{8}}$ |  | $\stackrel{\dot{5}}{\stackrel{5}{3}}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 | $1 \pm$ | 15 | ［ 6 | 直翌 | 18 | 19 | 123 | 31 | 13 | ${ }^{1} 3$ | 93－4 | 25 | 36 | 87 | 28 | 99 |  |  |
|  |  |  |  | 39 | 31 | 0 | 0 | 42 | 93 | 2 | 42 | 2， 130 | \＄315， 300 | \＄$\$ 7.500$ | \＄36， 76 |  | 121 |  |
|  |  | 69 | 124 | 162 | 155 |  |  | 32 | 61 | 2 | 42 | 4， 000 | 220， 000 | 7，500 | 7，500 |  | 122 |  |
| 22 | 18 | 43 | 25 |  |  | 0 | 0 |  |  | 2 | 42 | 4，000 | 259，000 | 4，725 | 19，038 | \＄7，500 | 123 |  |
| 0 | 0 |  |  | 40 | 50 |  |  | 35 | 58 | 2 | 42 | 750 | 58， 217 | 12． 052 | 31， 253 |  | 124 |  |
|  |  |  |  | 43 | 45 | 0 | 0 | 18 | 31 | 2 | 42 | 9， 000 | 171， 000 | 14，181 | 20，644 | 0 | 125 |  |
| 6 | 11 | 2 | 19 | 70 | 87 | 0 | 0 | 25 | 63 | 2 | 42 | 2，552 | 265,300 | 10，000 | 32， 752 |  | 126 |  |
|  |  | 21 | 14 | 120 | 92 |  |  | 83 | 53 | 3 | 42 | $6,1 \pm 8$ | 272，000 | 7，500 | 74， 438 |  | 127 |  |
|  |  |  |  | 90 | 75 |  |  | 61 | 72 | 3 | 42 | 4，300 | 250， 000 | 7．500 | 22，500 |  | 128 |  |
| 0 | 0 |  |  | 109 | 145 | 0 | 0 | 29 | 53 | 3 | 42 | 4，849 | 310， 000 | 15． 000 | 22， 000 | 0 | 129 |  |
|  |  |  |  | 136 | 131 | 0 | 1 | 47 | 69 | 3 | 42 | 10，150 | 457,609 | 7,500 | 106， 822 |  | 130 |  |
| 0 | 0 | 0 | 0 | 177 | 490 | 0 | 4 | 0 | 262 | 2 | 40 | 4， 200 | 600，000 | 75，000 | 75， 000 | 0 | 131 |  |
| 0 | 0 | 0 | 0 | 105 | 125 | 0 | 0 | 0 | 101 | 4 | 40 | 544 |  |  |  |  | 132 |  |
|  |  |  |  | 31 | 39 |  |  | 54 | 44 | 3 | 12 | 2， 850 | 225， 000 | 7，500 | 22，500 |  | 133 |  |
|  |  |  |  | 107 31 | 122 30 | 0 0 | 0 2 | 27 40 | 83 75 | 3 3 | $\begin{aligned} & 42 \\ & 40 \end{aligned}$ | 1，352 | 192,000 450,000 | 7,500 7,500 | 25,923 $4+869$ | 14,400 7,500 | 134 135 |  |
| 0 | 0 | 0 | 0 | 100 | 125 |  |  | 0 | 16 | 2 | 39 | 3,500 |  | 25，000 | 25，000 | 0 | 136 |  |
| 0 | 49 | 0 | 81 | 57 | 77 | 0 | 0 | 0 | 16 | 4 | 36 | 2，990 | 175， 000 | 30，000 | 38，204 | 1，725 | 137 |  |
| 0 | 0 | 0 | 0 | 30 | 89 | 1 | 0 | 5 | 27 | 4 | 38 | 1， 200 | 75，000 | 13，800 | 15,129 |  | 138 |  |
| 0 | 0 | 0 | 0 | 36 | 52 | 1 | 1 | 4 | 18 | 5 | 38 | 12， 672 | 50， 000 | 13,200 | 14，902 |  | 139 |  |
|  |  | 47 | 40 | 105 | 215 |  |  |  |  | 2 | 32 | 13，000 | 300,000 | 20，000 | 67，306 |  | 140 |  |
| 0 | 0 | 8 | 7 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 36 | 100 | 2， 000 | 1，000 | 1，300 | 0 | 141 |  |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 60 | 3 | 36 | 10，000 | 100， 000 | 39，500 | 45，500 | 2， 000 | 142 |  |
| 0 | 0 | 10 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 36 | 100 | 2，500 | 2， 000 | 2， 700 | 0 | 143 |  |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 36 | 309 | 21，000 | 7，500 | 8，385 | 0 | 144 |  |
| 0 | 0 |  |  | 297 | 199 |  |  | 3 | 24 | 4 | 36 | 13,500 | 265， 000 | 51， 000 | 56，000 | 6，000 | 145 |  |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 48 | 2 | 40 |  | 15， 000 | 5，000 | 5， 000 | 0 | 116 |  |
|  |  |  |  | 60 | 80 |  |  | 3 | 29 | 2 | 40 | 2，500 | 6，000 | 5,000 | 5，180 |  | 147 |  |
| 0 | 0 | 0 | 0 | 38 | 25 | 0 | 0 | 1 | 24 | 2 | 40 | 3， 000 | 15,000 | 5，000 | 5，655 | 0 | 143 |  |
| 0 | 0 | 0 | 0 | 13 | 78 | 0 | 0 | 0 | 50 | 4 | 40 | 4， 000 | 75， 000 | 15， 000 | 17， 333 | 2， 500 | 149 |  |
| 0 | 0 |  |  | 167 | 195 | 109 | 65 | 29 | 16 | 3 | 37 | 9，641 | 684， 000 | 17， 996 | 132，358 | 0 | 150 |  |
| 0 | 0 | 37 | 0 | 35 | 23 | 58 | 68 | 9 | 10 | 3 | 34 |  | 157， 000 | 15,000 | 20，796 |  | 151 |  |

Table 19．－Statistics of public

|  | Location． | Name of institution． | Teachers． |  |  |  | students． |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Entire num－ ber em－ ployed． |  | In－ struct－ ing nor－ mal stu－ dents． |  | Entire number emrolled． |  | Below high school and normal grades． |  | $\underset{\substack{\text { normal } \\ \text { course }}}{\text { In }}$ |  |
|  |  |  | $\frac{\stackrel{0}{5}}{\frac{5}{4}}$ | 范 | $\frac{\dot{9}}{\text { cु }}$ |  |  | E E E － |  | 洯 | 完 | 宽 |
|  |  | 9 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 19 | 11 | 118 |
|  | WAshinciton． |  |  |  |  |  |  |  |  |  |  |  |
| $15:$ | Cheney－ | State Normal School | 4 | 2 | 4 | 2 | 75 | 130 | 0 | 0 | 75 | 130 |
| 153 | Ellensburg | ．．．．－do．．．．．． | 3 | 6 | 3 | 6 | 38 | 160 | 0 | 0 | 38 | 160 |
|  | WEST VIRGINIA． |  |  |  |  |  |  |  |  |  |  |  |
| 154 | Athens ． | Concordstate NormalSchool | 6 | 3 | 4 | 1 | 149 | 87 | 4 | 13 | 137 | 72 |
| 155 | Fairmont | Fairmont State Normal School． | 5 | 4 | 5 | 2 | 204 | 140 |  |  | 204 | 140 |
| 156 | Farm | West Virginia Colored In－ stitute． | 4 | 2 | 4 | 2 | 44 | 56 |  |  | 44 | 56 |
| 157 | Glenvill： | （ileaville State Normal School． | 3 | 2 | 3 | 2 | 100 | 48 | 0 | 0 | 100 | 48 |
| 158 | Huntington．．．． | Marshall College，State Nor－ mal School． | 3 | 7 | 2 | 5 | 204 | 181 | 10 | 10 | 121 | 134 |
| 159 | Shepherdstown． | Shepherd College，State Normal School． | 2 | 3 | 2 | 2 | 47 | 50 | 0 | 0 | 47 | 50 |
| 160 | West Liberty．． | State Jormal Seliool | 3 | $\simeq$ | 3 | 1 | 77 | 85 | 0 | 0 | 77 | 85 |
| 161 | Milwankee | State Normal School | 8 | 14 | 8 | 8 | 176 | 454 | 135 | 101 | 41 | 353 |
| 162 | Oshkosh | ．．．do | 10 | 20 | 10 | 15 | 419 | 684 | 179 | 197 | 224 | 477 |
| 163 | Platteville | do | 10 | 11 | 10 | 7 | 253 | 405 | 98 | 132 | 155 | 273 |
| 164 | River Falls． | －do | 5 | 13 | 5 | 9 | 145 | 306 | 83 | 105 | 62 | 201 |
| 165 | Sterens Point． | ．．． i o | 9 | 11 | 9 | 8 | 285 | 392 | 82 | 85 | 153 | 300 |
| 166 | West superior． | ．do | 6 | 13 | $\underline{6}$ |  | 177 | 271 | 90 | 70 | 8. | 197 |
| 167 | Whitewater ．．． | ．．do | 7 | 12 | 7 | 9 | 204 | 330 | 81 | 69 | 122 | 256 |

[^84]normal s:hools, $189,-98$ - C'ontinned.


Table 20.-Statistics of private

normal schools for 189\%-98.


Table 20.-Statistics of pritate


[^85]a No report.
normal sehools, 159\%-9S-('ontinued.


Table 20.-Statistics of private

normal schools for 1897-9S--Continued.


Table 20．－Statistics of pritate

|  | Loration． | Name of institution． | Teachers． |  |  |  | Students． |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Entire number em． ployed． |  | $\xrightarrow[\text { str }]{\substack{\text { ing } \\ \text { mal } \\ \text { der }}}$ | ct－ <br> nor－ <br> stu－ <br> ts． | Entire number enrolled． |  | Below high school and normal grades． |  | $\begin{aligned} & \text { In } \\ & \text { normal } \\ & \text { course. } \end{aligned}$ |  |
|  |  |  | $\frac{\stackrel{0}{5}}{\stackrel{5}{5}}$ |  | 密 |  | $\frac{\dot{c}}{\frac{\circ}{5}}$ |  | 皆 | 完 |  |  |
|  | 1 | 9 | 3 | 4 | 5 | 6 | 7 | 3 | 43 | 10 | 11 | 13 |
|  | NFBRASKA． |  |  |  |  |  |  |  |  |  |  |  |
| 104 | Fremont | Fremont Normal School． | 16 | 5 | 3 | 2 | 498 | 279 | 25 | 23 |  | 125 |
| 105 | Normal． | Lincoln Normal T＇niversity－ | 10 | 5 | 9 | 2 | 320 | 380 | 50 | 50 |  | 1：300 |
| 106 | Santee Agency ．．． | Santee Normal Training School． | 4 | 4 | 2 | 1 | 47 | 46 | 43 | 43 | 4 | 3 |
| 107 | Way ne | Nebraska Normal Collegt．．． | 5 | 6 | 5 | 4 | 409 | 576 | 116 | 245 | 173 | 218 |
|  | NEW Jonk． |  |  |  |  |  |  |  |  |  |  |  |
| 108 | Butialo | ＇Teachers＇College，Univer－ | 5 | 2 | 5 | 2 | 20 | 80 | 0 | 0 | 18 | 70 |
| 109 | New York | ＇Teachers＇College（Columbia （Vniversity）． | 36 | 40 | 20 | 23 | 290 | 692 | 143 | 121 | 02 |  |
|  | NORTH Catolina． |  |  |  |  |  |  |  |  |  |  |  |
| 110 | Ashevill | Normal and Collegiate Insti－ tute． | 1 | 11 | 1 | 5 | 4 | 226 | 4 | 61 | c |  |
|  | Charlotte | Training School for Teach－ ers．a |  |  |  |  |  |  |  |  |  |  |
| 111 | Concord | Scotia Seminary ．．．．．．．．．．．．． | 1 | 14 | 1 | 3 | 0 | 273 | 0 | 259 | 0 | 14 |
| 112 | Kings Monntain．． | Lincoln Academy | ${ }^{0}$ | 7 | 0 | 4 | 70 | 149 | 62 | 127 | 8 | 22 |
| 113 | Lumberton ．．．．．．． | Whitin Normal School ．．． | 1 | 1 | 1 | 1 | 20 | 25 | 8 | 11 | 12 | 14 |
|  | Poes．．． | Buies Creek Academy a |  |  |  |  |  |  |  |  |  |  |
| 114 | Raleigh． | St．Augustine＇s School ． | 12 | 8 | 12 | 3 | 148 | 167 | 118 | 129 | 30 | 38 |
| 115 | Traphill | Fair View College．．． | 3 | 1 | 1 | 0 | 88 | 63 | 70 | 55 | 18 | 8 |
| 116 | Wilmingto | Greqory Normal Institute ．． | 1 | 10 | 1 | 2 | 80 | 209 | 70 | 158 | 10 | 51 |
| 117 | Winton．．．．．．．．． | Waters Normal Institute ．．． | 2 | 2 | 2 | 2 | 111 | 118 | 59 | 69 | 17 | 23 |
|  | Yadkinville ．．．． | Normal School．a |  |  |  |  |  |  |  |  |  |  |
|  | NORTH DAROTA． |  |  |  |  |  |  |  |  |  |  |  |
| 118 | Grand Forks | Northwestern Normal Col－ lege． | 5 | 4 | 3 | 1 | 138 | 82 | 25 | 18 | 35 | 29 |
|  | OHIO． |  |  |  |  |  |  |  |  |  |  |  |
| 119 | Ada | Ohio Normal University ．．． | 24 | 9 | 10 | 4 | 2179 | 1030 | 5 | 2 | 804 | 326 |
| 120 | Angusta | Augusta Normal School ．．．． | 2 | 0 | 2 | 0 | 20 | 10 |  |  | 20 | 10 |
| 121 | Canfield | Northeastern Ohio Normal College． | 6 | 3 | 6 | 3 | 88 | 83 | 17 | 23 | 39 | 49 |
| 122 | 1）ayton． | St．Mary＇s Convent ．．．．．．． | 12 | 0 | 12 | 0 | 93 | 0 | 40 | 0 | 53 | 0 |
| 123 | Nwington | Ewington A cademy ．．．．．．．．． | 1 | 1 | 1 | 0 | 25 | 2.$)$ | 10 | 5 | 13 | 15 |
| 124 | Fayetto． | Fayette Normal University | 8 | 3 | 6 | 1 | 140 | 118 | 0 | 0 | 75 | 68 |
| 125 | Lebanon ．．． | National Normal University＊ | 8 | 5 | 8 | 5 | 1481 | 940 |  |  | 1243 | 850 |
| 126 | Middlepoint ．．．．．． | Western Onio Normal School | 5 | 0 | 5 | 0 | 6. | 34 |  |  | 6 | 34 |
| 127 | New Plitadelphia． | John P．Kuhn＇s Normal school． | 1 | 0 | 1 | 0 | 15 | 10 |  |  | 15 | 10 |
| 128 | Piketon | Southern Ohio School of Pedagogy． | 3 | 0 | 3 | 0 | 30 | 20 | 0 | 0 | 30 | 20 |
| 129 | Portsmonth | Normal University ．．．．．．．．．．． | 4 | 1 | 3 | 0 | 61 | 79 |  |  | 25 | 23 |
| 130 | Woodville． | Evangelical Lutheran Teach－ er＇s Seminary． | 4 | 0 | 4 | 0 | 89 | 0 | 16 | 0 | 20 | 0 |
|  | revnsylvania． |  |  |  |  |  |  |  |  |  |  |  |
| 131 | Ehenshurg． | Ebensburg Norrnal Insti－ tute． | 2 | 0 | 2 | 0 | 32 | 40 | 2 | 4 | 30 | 36 |
| 132 | Hintington．．．．．．． | Juniata College ．．．．．．．．．．． | 17 | 2 | 17 | 2 | 202 | 120 |  |  | 156 | 111 |
| 133 | Muney ．．．．．．．．．．． | Lycoming County Normal School． | 5 | 1 | 5 | 1 | 125 | 140 | 0 | 0 | 110 | 115 |
| 134 | Philadelphia．．．．．． | Institute for Colored Youth． | 3 | 7 | 3 | 7 | 114 | 211 | 60 | 132 | 32 | 49 |
| 135 | Pittsburg．．．．．．．．． | Curry College．．．．．．．．．．．．．．． | 7 3 | 6 | 1 | 2 0 | 213 | 153 21 | 30 | 25 | 50 | 35 8 |
| 136 | Rimersbirg West Bridgewater | Clarion Collegiate Institute． Piersol＇s A cademy $a$ | 3 | 1 | 1 | 0 | 25 | 21 | 7 | 2 | 6 |  |

$a$ No report．

[^86]normal schools for 189:-9S-Continned.


Table 20.-Statistics of private

normal schools for 189\%-2s-Continned.


Table 20.-Statistics of privete


* Statistics of 1890-97.
nomat schools for 1597-2s--Continued.



## CHAPTER XTMI.

## STATISTIOS OF SEOONDAIEY SOHOOIS.

During the scholastic year ending June, 1898, there were enrolled in institutions of various classes reporting to the Bureau of Education 626,115 seeondary students. This was a gain of 41,211 over the preceding year, or more than 7 per cent. Tho total number of pupils enrolled in the schools of all classes in the United States for the year was $16,687,643$. The secondary students comprise about 3.75 per cont of this aggregate enrollment. The secondary students enumerated vere distributed among oight classes of institutions as follows:

| Institutions. | Male. | Femate. | Total. |
| :---: | :---: | :---: | :---: |
| Publie high schools | 189, 187 | 260, 413 | 449,600 |
| Public normal sehools | 1,258 | 2,312 | 3,570 |
| Public universities and colleges | 4,797 | 1,816 | 6, 643 |
| Privata high schools | 52, 172 | 53, 053 | 105, 225 |
| Private normal sehools | 4, 095 | 3, 242 | 7. 337 |
| Prisate universities and colleges | 28,849 | 12,978 | 41,827 |
| Private colleges for women. .... |  | 5, 004 | 5, 004 |
| Manual training schools... | 4, 021 | 2,888 | 6,909 |
| Total | 234,379 | 341,736 | 626, 115 |

In the elementary schools of nearly all the States there are many students pursuing secondary studies where high schools are not accessible. These students and others not reported probably exceed 25,000 . The aggregate number of secondary students in the United States may be safely estimated at 650,000 . This total does not include the 70,950 students eurolled in commercial schools, although many of the branches tanght in these institutions are equivalent to high-school studies. These students who spend only a few months in the commercial schools are not given the standing of students who are enrolled for the extire year in secondary schools.

For the year 1897-98 there mere 5,315 public high schools and 1,990 private high schools and academies reporting to this office. This chapter is deroted almost exclusively to the statistics of these 7,305 secondary schools. The following table shows the growth of public and private high schools and academies for the past nine yeurs:

| Year reported. | Public. |  |  | Private. |  |  | Total. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Schools. | Teachcrs. | Students. | Schools. | Teach. ers. | Students. | Sc!iools. | Teachers. | Students. |
| 1889-90 | 2, 526 | 9,120 | 202, 963 | 1,632 | 7,209 | 94,921 | 4,158 | 16,329 | 297, 894 |
| 1890-91 | 2,771 | 8,270 | 211, 596 | 1,714 | 6, 231 | 98, 400 | 4,485 | 14,501 | 309,996 |
| 1891-92 | 3, 035 | 9,564 | 239, 556 | 1,550 | 7,093 | 100, 789 | 4,585 | 16, 657 | $3 \pm 0,295$ |
| 1892-93 | 3, 218 | 10, 141 | 254, 023 | 1,575 | 7,199 | 102.375 | 4,793 | 17, 340 | 356, 398 |
| 1893-9 | 3, 964 | 12, 120 | 289, 274 | 1,982 | 8, 009 | 118, 645 | 5,946 | 20, 129 | 407,919 |
| 1894-95 | 4, 712 | 14, 122 | 350, 099 | 2, 180 | 8,559 | 118, 347 | 6, 882 | 22,681 | 468, 416 |
| 1895-96 | 4, 974 | 15,700 | 380, 493 | 2,108 | 8,752 | 106, 654 | 7,080 | 24,452 | 487, 147 |
| 1896-97 | 5,109 | 16, 809 | 403, 433 | 2,100 | 9, 574 | 107, 633 | 7,209 | 26, 383 | 517, 063 |
| 1897-98 | 5,315 | 17,941 | 449,600 | 1,990 | 9,357 | 105, 225 | 7,305 | 27, 298 | 554, 825 |

While there has been a small decrease in the number of private high schools and arademies within the last four years, the increase in the number of public high schools has been phenomenal. In 1889-90 there were 2,520 public high schools with 202,963 secondary student;, while in 1897-98 the mumber had reached 5,315 schools with 449,600 students.

The relative progress of public and private high schools for the past nine years is shown in the following table, which gives the proportion of the number of schools, tearhers, and students of the two classes:

| Year reported. | Per cent of uumber of schools. |  | Per cent of number of teachers. |  | Per cent of number of students. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Public. | Private. | Public. | Private. | Public. | Private. |
| 1889-90.. | 60.75 | 39. 25 | 55.85 | 44.15 | 68.13 | 31.87 |
| 189\%-91. | 61.78 | 38.22 | 57.03 | 42.97 | 68.26 | 31.74 |
| 18?1-92. | 66.19 | 33.81 | 57.42 | 42.58 | 70.40 | 29.60 |
| 1892-93. | 66. 23 | 33.77 | 60.25 | 39.75 | 70.78 | 29.22 |
| 1893-94. | 66. 67 | 33.33 | 60.21 | 39.79 | 70.91 | 29.09 |
| 1894-95. | 68.37 | 31.63 | 62.26 | 37.74 | 74.74 | 25.26 |
| 1895-96. | 70.25 | 29.75 | 64. 21 | 35.79 | 78.11 | 21.89 |
| 189\%-97. | 70.87 | 29.13 | 63.71 | 36.29 | 79.18 | 20.82 |
| 1897-93. | 72. 76 | 27.24 | 65.72 | 34.28 | 81.03 | 18.97 |

For the year ending June, 1890 , the public high schools had about 68 per cent of the number of secondary students, and for the year ending June, 1898, about 81 per cent.

It was not until 1889-90 that the United States Bureau of Education attempted to collcet statistics from all the public high schools, although information was collected concerning public high schools in the larger cities as early as 1876. The following table shows the percentage of the number of public and private high-school students to the total population each year for twenty-seren years:

Number of secondary students in public and prirate high schools.

| Star. | Secondary students. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underset{\substack{\text { In public } \\ \text { hi.gh }}}{\text { nen }}$ <br> schools. | Per cent of population. | In private high hich schools. | Per cent of popu lation. | $\begin{aligned} & \text { In both } \\ & \text { classes of } \\ & \text { schools. } \end{aligned}$ | Per cent of population. |
| 1871. |  |  | 38, 280 | 0.097 |  |  |
| 1872 |  |  | 48,669 <br> 56,640 <br> 6.0 | . 132 |  |  |
| ${ }_{1874} 18$. |  |  | 61, 660 | . 145 |  |  |
| 1875. |  |  | 68. 580 | . 157 |  |  |
| 1876. | 22, 082 | 0.051 |  | . 164 | ${ }_{98}^{96,722}$ | 0. 215 |
| 1878. | 28, 124 | -.059 | $7_{7,620}$ | . 155 | 101, 744 | ${ }_{214}$ |
| 1879 | 27,163 | . 056 | 74,160 | . 152 | 101, 323 | 208 |
| 1880 | 26, 609 | . 053 | 75, 840 | . 151 | 102, 449 | 204 |
| 1881. | 36,591 | . 071 | ${ }^{80} \mathbf{0}$, 160 | . 156 | 116, 751 | ${ }_{2}^{227}$ |
| 1882-83 | 39,581 $3+672$ | . 063 | 88,920 950 | . 1174 | 129, 552 | :240 |
| 1884 -85. | 35, 307 | . 063 | 97, 020 | . 173 | 132, 327 | . 236 |
| 1885-86. | 70,241 | . 122 | 86, 400 | . 150 | 156, 641 | . 272 |
| 1880-87. | 80, 004 | . 136 | ${ }^{83,160}$ | . 112 | 163, 164 | 278 |
| 1887-88. | 116. 009 | . 19.4 | 69,600 | . 116 | 185, 609 | . 310 |
| 1888-89. | 125, 542 | . 205 | 79, 440 | . 130 | 204, 982 | . 335 |
| 1889-90. | a 202, 963 | a. 324 | 94,931 | . 152 | 297, 894 | . 476 |
| 1890-91 | ${ }^{2111,596}$ | . 331 | 988,400 | . 154 | 309, 996 |  |
| 1891-92. | ${ }^{239,556}$ | . 383 | 100,739 <br> 102 <br> 375 | . 155 | 340,295 <br> 356,398 | . 5324 |
| ${ }_{1893-94 .}^{18929 .}$ | - 2594,274 | ..$_{425} 38$ | 102, ${ }^{1185}$ | . 1774 | 356,398 407,919 |  |
| $1894-95$ | 350, 099 | 509 | 118, 347 | . 172 | 468, 446 | 681 |
| 1895-96 | 380, 493 | 539 | 106. 654 | . 151 | 487, 147 | . 690 |
| ${ }^{1896-97 .}$ | 409, 449,600 | . 618 | 107, ${ }^{1035}$ | . 1141 | 554, 825 | . 724 |
| 1897-98. |  |  |  |  |  |  |

[^87]In the above table the statistics of the years from 1871 to 1889 have been carefully corrected upon the basis of reports for later years. Prior to 1890 the number of students reported by a large number of the private high sehools included the whole number in attendance, the clementary pupils as well as the secondary students. An attempt has been made in the preceding table to eliminate all pupils below the high school grades.
PCbife lifin Schools.

The statisties of pablic high sehools are summarized in Tables 1 to 15 and the information concerning each school is given in detail in Table 42. Tables 16 to 29 relate exclusively to private high schools and academies, while Tables 30 to 38 combine the statistics of public and private high schools. Tahles 39 and 40 show the distribution of secondary students by States in the various classes of institutions.
The number of public high schools reporting to this office for the year 1897-98 was 5,315 , a gain of 203 schools over the presoling year. The number of these schools which were departments of cits or villago systems was 4.693 , while only 620 were reported as independent. Of the number belonging to city or village systems 700 are in cities which have 8,000 population or over. The 620 independent public high schools are generally outside the cities or villages.

The number of teachers instructing students in the pablir high schools as shown in Table 1 was 17,941, the nmmber of men being 8,542 and the number of women 9,399 . This was an increase of 1,132 in the number of teachers over the preceding year.

Table 1 also shows that the publie high schools had 449,600 secondary students, 189,187 males and 260,413 females. There was a gain of 40,167 students, or only a little less than 10 per cent. The male students comprised 42.08 per cent of the whole number, and the female stadents 57.92 per cent.

The States of the North Central Division had 22.5,578 of the public high school students, or considerably more than half the total number for the United States. The North Atlantic Division had 141,747 secondary students in the public high schools, the South Central 32,888, the Soath Atlantic 24,383, ant the Western Division 25,004 .

Included in the 449,600 there were 6,306 colored secondary students. It is noticeable that only 2,858 of these colored students were in the two Sonthern divisions, while the other divisions had 3,448 . If the 681 colored secondary students in Missouri be snlotracted from the number in the North Central Division and adiled to the total in the two Southern divisions the number wonld be 3,539 for the Sonth and 2,767 for the Fastern, Northern, and Western sections of the comntry.

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STCDENTS AND (OURSES (OF STCDY.
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Table 2 shows the number of secondary students in classical and scientific courses known to be preparing for coilege, the number ef graduates in 1898 , the number of college preparatory students in the graduating classes, and the number of public high school students in military drill. The number preparing for college was 51,066 , or 11.36 per cent of the whole number. The number of graluates was 53,022 , or almost 12 per cent of the total enrollment. The number of graduates prepared for college was 14,552 , or 27.45 per cent of the total number of graduates. The number of students in military drill was 9,032 , an increase of 371 over the preceding year.

Students in certain courses and studies in public high schools.

a Por cent of number of graduates.
The above table is a synopsis of the summaries exhibited in Tables 2 to 11. About 14 per cent of the male students and nearly 10 per cent of the female stadents were preparing for colloge. Abont 10 per cent of the male students and 13 per cent of the female students emrolled graduated in 1898. Nearly 35 per cent of the male graduates and about 23 per cent of the female graduates had prepared for college.
As shown in the above table, there were 223,307 public high school students studying Latin, or almost 50 per cent of the wholo number. More than 46 per cent of the male students and 52 per cent ofethe female students were studying Latin in 1897-93. The namber in each State is given in Table 3. The numbers and percentages for the other leading high school studies are given in the above table for the United States, and by States in detail in Tables 3 to 11.
Latin was tanght in 4,488 of the 5,315 public high schools. This was an increase of 260 in the number of schools offering Latin. The number of students was $2 \overline{5}, 293$ more than the preceding year, an increase of more than 12 per cent.
The table which follows shows the per cent of students in certain courses and studies cach year for the past ninc years. The per cent of students in Latin increased from 34.69 in 1889-90 to 49.67 in 1897-98. In several other branches the increase was quite as marked.

Per cent of total number of secondury students in public high schools in certain courses and studies, etc.

| Students and studies. | 1889-90. | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1891-95. | 1895-96. | 1896-97. | 1897-98. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Males | 42. 67 | 40. 27 | 40.59 | 40.10 | 40.45 | 41.15 | 41.51 | 42.36 | 42.08 |
| Female | 57.33 | 59.73 | 59.41 | 59.00 | 59.55 | 58.85 | 58.49 | 57.64 | 57.92 |
| Preparing for college classical courso ............... | 7.38 | 6.04 | 6.33 | 7.50 | 7.87 | 7.53 | 7. 68 | 6. 62 | 6. 21 |
| Preparing for college scientific courses. | 7.06 | 5.80 | 6.90 | 7.10 | 6.43 | 6.22 | 6.14 | 5.55 | 5.15 |
| Total preparing for collego .............. | 14.44 | 11.84 | 13.23 | 14. 50 | i4.30 | 13.75 | 13.82 | 12.17 | 11.36 |
| Grauluates | 10.78 | 12.00 | 11.48 | 12.60 | 12.90 | 12.11 | 12.05 | 12.22 | 11.79 |
| Graduates prepared for college $a$. |  | 25.58 | 32.44 | 29.97 | 26. 70 | 23.08 | 29.28 | 29.26 | 27.45 |
| StudyingLatin. | 34. 69 | 41. 20 | 38.88 | 43.66 | 44. 78 | 43.97 | 46.18 | 48. 36 | 49.67 |
| Greek | 3.05 | 3. 00 | 3.08 | 3.40 | 3.33 | 3.10 | 3.11 | 3.13 | 3.12 |
| French | 5. 84 | 5. 70 | 5.18 | 6.42 | 6.81 | 6.52 | 6.99 | 6. 86 | 7.51 |
| German | 10.51 | 15.92 | 10.43 | 11.92 | 11.77 | 11. 40 | 12.00 | 12. 42 | 13.25 |
| Algebra | 45.40 | 52.20 | 48.93 | 52.88 | 56.14 | 54. 27 | 54. $6 \frac{1}{4}$ | 55.46 | 56.13 |
| Geometry | 21.33 | 24.60 | 23. 71 | 26.00 | 27.20 | 25.34 | 26.23 | 26.71 | 27.09 |
| Trigonometry |  |  | 2.37 | 2.73 | 2.93 | 2. 53 | 2.48 | 2.45 | 2.27 |
| Astronomy |  |  |  |  |  | 4.79 | A. 40 | 4.21 | 3.82 |
| Physics | 22. 21 | 24.00 | 22. 82 | 23.27 | 25.29 | 22.77 | 22.08 | 21.09 | 20.69 |
| Chemistry | 10.10 | 10.20 | 10.17 | 10.00 | 10.31 | 9.15 | 8.95 | 8. 83 | 8. 30 |
| Physical geograp |  |  |  |  |  | 23.89 | 25.54 | 25.38 | 21. 91 |
| Geolog. ${ }^{\text {a }}$ |  |  |  |  |  | 5. 00 | 4.80 | 4.62 | 4.37 |
| Physiology |  |  |  |  |  | 29.95 | 31.34 | 30.84 | 29.08 |
| Psychology |  |  |  |  |  | 2.74 | 3.00 | 2.90 | 2. 74 |
| Rlietoric |  |  |  |  |  | 32.05 | 32.34 | 34.24 | 35.97 |
| English literature |  |  |  |  |  |  |  |  | 40.07 |
| History (other than United States)...... | 27.31 | 28. 20 | 30.97 | 33.88 | 36.48 | 34. 33 | 35. 28 | 85.76 | 37.70 |
| Civics...... |  |  |  |  |  |  |  |  | 22.74 |

a Per cent of total number of graduates.
There has been a falling off in the proportion of students preparing for college since 1889-90, although the actual number each year has been larger. In 1889-50 the per cent of public high school students preparing for college was 14.44 and in 1897-98 only 11.36.

Table 12 gives the statistics of public high schools in cities of 8,000 population and over. There were 700 such schools, with 6,880 instructors and 208,775 students, in 1897-98. Outside of these cities there were 4,515 public high schools, with 11,061 instructors and 240,825 students. In the cities these schools had an average of 298 students to a school, while the average outside of the cities was 52 students to a school, as shown in Table 11.

## EQUIPMENT AND INCOME.

Table 15 exhibits the equipment and income of public high schools in each State. The number of volumes in the libraries of 4,311 schools was $2,380,895$; the value of grounds, buildings, scientific apparatus, etc., owned by 4,300 schools was $\$ 83,096,050$. Only 1,905 schools were able to report the amount of State or municipal aid received, owing to the fact that in most cascs separate accounts are not kept of the propertion of public appropriations used by the high schools. The amount of public money received by the 1,905 high schools was $\$ 4,816,237$. The amount received from tuition fees by 1,616 schools was $\$ 552,932$; the amount received from 202 schcols from productive funds was 4209,817 , and the amount received by 786 schools from other sources unclassified was $\$ 1,630,831$. It is certain that nearly all of the latter item should be credited to State, county, or city appropriations.

The total income of 2,141 schcols reporting this item was $\$ 7,209,817$. This was air arerage of nearly $\$ 3,368$ to the school. It is hardly probabie that this average would be maintained by the 3,174 schools not reporting this item.

## Private Migh Scmools and Academies.

The statistics of private high schools, academies, and scminaries liaving students of no higher grade than secondary are summarized in Tables 16 to 29 , inclusive. The tables from 16 to 26 are similar in form to Tables 1 to 11 , in which the statistics of public high schools are summarized, and the two series nay be compared. Tables 27 and 15 may also be compared. Table 30 is a comparative showing of the average numbers of teachers and students in public and private high schools.

The number of privato secondary schools reporting for 1897-98 was 1,990, or 110 less than the number reporting the year before. Table 16 shows that these schools had 9,357 teachers instructing secondary students, a decrease of 217 , and that these schools had 105,225 students, a decrease of 2,408 from the previous year. The total number of secondary students included 1,659 colored students, 260 in the North Atlantic division, 15 in the North Central and Western divisions, and 1,384 in private colored schools in the two Sonthern divisions. The number of elementary pupils reported by the 1,990 schools aggregated 124,807 .

## STEDENTS AND COURSES OF STCDY.

The number of students in private secondary schools preparing for college was 26,693 , about 25 per cent of the number enrolled and a decrease of 3,637 from the year before. As shown in Table 17, the number of these college preparatory stadents preparing for the classical course was 16,361 , and the number preparing for scientific eonrses 10,332 . The number of graduates in the class of 1898 was 12,148 , or nearly 12 per cent of the number of secondary students enrolled. In the classes that graduated there were $\overline{5}, 388$ students prepared for college, or more than 44 per cent of the graduates. There were 7,854 students in military drill, an increase of 1,206 over the preceding year.
Tables 18 to 23 give the nmmber of students in each of 18 high school studies in each State, while the percentages of students in these studies are shown in Tables 24,25 , and 26 . The following table is a synopsis showing the number and per cent of students by sex in college preparatory courses and in the leading high school studies in private institutions of secondary grade in 1897-98:

Studies in certain courses and studies in private high schools and academies.

| Courses, studies.etc. | Number students. | Per cent of total number of secondary sturients. | Male <br> students. | Percent of total number of male students. | Female students. | Per cent of total number of female students. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Students preparing for college: |  |  |  |  |  |  |
| Classical course | 16, 361 | 15.54 | 11,128 | 21.33 | 5,233 | 9.86 |
| Scientitie course. | 10,332 | 9.82 | 7,429 | 14.23 | 2,903 | 5. 47 |
| Total preparing for college | 26,693 | 25.36 | 18, 557 | 35.56 | 8,136 | 15.33 |
| Graduating in 1898 | 12, 148 | 11.54 | 6,302 | 12.08 | 5,846 | 11.02 |
| College preparatory students in graduating class | 5,388 | $a+4.35$ | 3, 628 | $a 57.57$ | 1,760 | a 30.11 |
| Students in- |  |  |  |  |  |  |
| Latin | 50, 986 | 48.45 | 27,908 | 53.49 | 23, 078 | 43.50 |
| Greek | 10,973 | 10. 43 | 8,983 | 17.21 | 1, 990 | 3. 75 |
| French | 24, 248 | 23.04 | 8,682 | 16. 64 | 15,566 | 29.34 |
| German | 19, 417 | 18. 45 | 9, 719 | 18.63 | 9,698 | 18.28 |
| Algebra | 34, 397 | 51.70 | 29,470 | 56. 49 | 24, 927 | 46. 99 |
| Geometry | 25,702 | 24.43 | 14,791 | 28.35 | 10,911 | 20.57 |
| Trigonometry | 5,519 | 5.25 | 3, 447 | 6.61 | 2,172 | 3.91 |
| Astronomy . | 7,263 | 6. 91 | 2, 188 | 4. 19 | 5, 075 | 9.57 |
| Physies... | 20,612 | 19.59 | 10,230 | 19.61 | 10,382 | 19.57 |
| Chemistuy | 10,119 | 9.62 | 4,991 | 9.57 | 5,128 | 9. 67 |
| Physical geography | 22, 849 | 21.79 | 10,555 | 20.23 | 12,294 | 23.17 |
| Geology ............. | 6,205 | 5.93 | 2, 506 | 4. 80 | 3, 699 | 6.97 |
| Physiology | 28, 205 | 26. 80 | 12,561 | 24.08 | 15, 644 | 29.49 |
| Psychology | 7,873 | 7.48 | 2, 814 | 5.39 | 5, 059 | 9.54 |
| Rhetoric | 34,124 | 32.43 | 15, 164 | 29.07 | 18,960 | 35. 74 |
| English literature | 35,654 | 33.88 | 15,709 | 30.11 | 19,945 | 37.59 |
| History. | 39, 556 | 37.59 | 18,346 | 35.16 | 21, 210 | 39.98 |
| Civies | 16,565 | 15. $7 t$ | 7,975 | 15. 29 | 8,590 | 16.19 |

$a$ Per cent of total number of graduates.

A comparison of this table with the similar table relating to public high schools will show that while the private secondary schools were preparing over 25 per cent of their students for college but little more than 11 per cent of the public high school students were making such preparation. In the private schools 48.45 per cent studied Latin, as against 49.67 per cent in the public high schools. The per cent studying algebra in the private high schools was 51.70 and in the public high schools 56.13 per cent.

The progress made by the private high schools and academies in the past nine years, as indicated in the increased percentages of stndents in certain courses and studies, may be seen from the following table:

P'r cent of tolal number secondary shadents in pricale high sehoots and academies in certain courses and studies.

| Students and studies. | 1889-90. | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1895-96. | 1896-97. | 1897-98. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nalcs | 50. 07 | 50.97 | 52.14 | 52.10 | 50.39 | 48.46 | 50.15 | 49. 44 | 49. 58 |
| Femal | 49.93 | 49. 03 | 47.86 | 47.90 | 49.61 | 51.51 | 49.85 | 50.56 | 50.42 |
| Preparing for collegc, classical course ......... | 17.54 | 13.62 | 15. 87 | 15.60 | 16.36 | 17.30 | 18. 50 | 17.72 | 15. 54 |
| Preparing for college, scicntific courses. | 10.16 | 7.62 | 9.22 | 10.90 | 9.55 | 9. 78 | 10.78 | 10. 45 | 9.82 |
| Total preparing for college | 27.70 | 21.24 | 25. 09 | 26.50 | 25.91 | 27.08 | 29.28 | 28.17 | 25.36 |
| Graiuates | 8.50 | 7.22 | 8.41 | 8.70 | 9. 40 | 10.11 | 10.58 | 10.93 | 11.54 |
| Graduates prepared collegc $a$.............. |  | 61.37 | 61. 68 | 60.10 | 50.39 | 47.93 | 46. 55 | 46. 81 | 14.35 |
| Studying- | 31.32 | 37.00 | 33. 60 | 39. 23 | 40.77 | 43.14 | 46.36 | 46.67 | 48.45 |
| Greek | 7.02 | 8. 09 | 8.16 | 8.61 | 9.04 | 9.55 | 9.83 | 10.22 | 10.43 |
| French | 17.03 | 16.30 | 16.69 | 18.47 | 18.85 | 19.38 | 21.31 | 21.83 | 23.04 |
| German | 13.55 | 15.10 | 14.45 | 15.63 | 15.25 | 16. 07 | 17.46 | 18.84 | 18.45 |
| Algebra | 37.12 | 45. 00 | 44.57 | 42.75 | 44.37 | 4688 | 49. 22 | 49. 50 | 51.70 |
| Geometry | 17. 5 | 19.60 | 19.66 | 20.37 | 20.54 | 22.06 | 23.84 | 24.45 | 24.43 |
| Trigonometry |  |  | 4.37 | 5.76 | 5.93 | 5.39 | 5.51 | 5.45 | 5.25 |
| Astronomy |  |  |  |  |  | 6. 69 | 7.99 | 7.46 | 6.91 |
| Physics | 18.39 | 20.98 | 20.16 | 19.76 | 20.91 | 20.32 | 21.02 | 20.14 | 19.59 |
| Chemistry | 8.59 | 10.60 | 9.83 | 9. 94 | 10.32 | 9. 79 | 9. 89 | 10.49 | 9. 62 |
| Physieal gcography |  |  |  |  |  | 18.15 | 22.77 | 21. 81 | 21. 79 |
| Gcology |  |  |  |  |  | 7.08 | 6. 61 | 6. 11 | 5. 90 |
| Physiology |  |  |  |  |  | 22.34 | 28. 01 | 26.71 | 26.80 |
| Psy chology |  |  |  |  |  | 5.13 | 6.74 | 7.35 | 7.48 |
| Rlietoric |  |  |  |  |  | 29.12 | 32.01 | 32. 00 | 32.43 |
| English literature..... |  |  |  |  |  |  |  |  | 33.88 |
| History (other than United Staies) | 28.98 | 33.10 | 32.22 | 32.46 | 34.07 | 35.60 | 37.35 | 37.31 | 37. 59 |
| Civics... |  |  |  |  |  |  |  |  | 15.74 |

a Per cent of number of graduates.
The per cent of graduates has increased steadily from 8.50 in 1890 to 11.54 in 1898. The proportion of graduates prepared for college to the total number of graduates each year has decreased from 61.37 per cent in 1891 to 44.35 per cent in 1898 . As in the case of the public high schools, there has been a marked increase in the number of students in Latin. In 1889-90 the per cent was 31.32, and in 1897-98 it had increased to 48.45. In the nine years the proportion studying algebra increased from 37.12 to 51.70 per cent. In the same period the number studying Greek increased from 7.02 to 10.43 per cent. In several other leading high school studies the increase is not less marked.

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## EQUIPMENT AND INCOME.

The equipment, income, benefactions, value of endowment, etc., of the private secondary schools are exhibited in Table 27. Of the 1,990 schools, 1,397 reported libraries with an aggregate of $1,718,631$ volumes. The value of buildings, grounds, scientific apparatus, etc., owned by 1,421 of these schools was $\$ 60,769,995$. Only 297 of these schools received aid from public funds to the amount of $\$ 162,299$. The amount received in tuition fees by 1,245 schools was $\$ 6,349,804$, while 304 schools received $\$ 838,978$ from productive funds. Receipts from sources not indicated amounted to $\$ 976,755$ for 430 schools. The aggregate income of 1,316 schools was $\$ 8,329,836$. Benefactions amounting to $\$ 1,298,670$ were received by 181 schools. The total money value of the endowment of 358 of these institutions was $\$ 44,404,372$.

## Denominational Schools.

The number of private secondary schools reported as under the control of religious denominations in 1897-98 was 968. There were 52,604 students in these denominational schools, as against 52,621 in nonsectarian schools. In Table 43, which gives in detail the statistics of private secondary schools, the name of the religious denomination controlling each school is given in column 4. From Tables 28 and 29, which show the number of schools in each State controlled by each religions denomination, the following statement is condensed:

| Religious denomination. | Schools. | Instruct ors. | Students. |
| :---: | :---: | :---: | :---: |
| Nonsectarian. | 1,022 | 4,653 | 52,621 |
| Roman Catholic | 351 | 1,662 | 14,325 |
| Baptist..... | 92 | 401 | 6,412 |
| Presbyteriau | 99 | 439 | 5,348 |
| Episcopa | 108 | 710 | 5,315 |
| Methodist Episcopal Suuth | 51 | 205 | 4,157 |
| Methodist. | 56 | 289 | 4,093 |
| Friends .-... | 55 | ${ }_{207}$ | 3, 597 |
| Congregational. | 53 | 225 | 3,362 |
| Lutheran....... | 33 | 135 | 1,780 |
| All other denominations | 70 | 341 | 4,215 |
| Total. | 1,990 | 9,357 | 105, 225 |

Public and Private Secondary Schools.
Table 30 presents a comparison of certain statistics of public and private high schools. For example, it is shown that the public high schools have an average of about 85 students to a school, while the average number for the private high school is 54 .
The statistics of public and private secondary schools are combined in Tables 31 to 38 . Table 31 shows that the 7,305 schools had 27,298 teachers for secondary students and 554,825 students. Of these secondary students 241,359 , or 43.50 per cent, were males and 313,466 , or 5650 per cent, were females. It is shown in Table 32 that 77,759 , or 14 per cent, of the secondary students were preparing for college. The graduates for 1898 numbered 65,170 , or nearly 12 per cent of the entire number enrolled. The number of graduates who had prepared for college was 19,940, or 30.60 per cent of the whole number of graduates.

The number and per cent of high school students in each of the eighteen leading high s:hool studies in each State is given in Tables 33 to 38 . The following synopsis shows the number and per cent of students in certain courses and studics for the United States:

Students in certain courses and studies in public and private high schools and academies.

$a$ Per cent of number of graduates.
The progress made by public and prirate secondary schools in the increased percentage of students pursuing certain studies has been noticed in referring to the summaries of the two classes of schools separately.

In 1889-90 the per cent of sevondary students in public and private high schools studying Latin was 33.62. For the cight years since there has been each jear a large increase in the number of Latin stutents, nntil the percentage for 1897-98 was 49.44. There has been but little variation in the proportion of students in Greok, and bnt a small increase in the percentage of stutents in French, whilo the percentage of those studying German increased from 11.48 in 1889-90 to 14.21 in 1897-98. In 1889-90 the per cent of students in algebra was 42.77, and in 1897-98 it had increased to 55.29 . The per cent in geometry increased from 20.07 to 26.59 in the same time. The percentage of students in history other than history of the United States increased from 27.83 to 37.68 per cent in the eight years. These percentages for each of the nine years are shown in the following synopsis:

Per cent of total mumber of secondary stulents in public and private high schools and academies in certain courses and studies, etc.

| Stuleats and studies. | 1889-90. | 1890-91 | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1895-96. | 1896-97. | 897-98. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Males | 45.03 | 43.67 | 44.01 | 43. 62 | 43. 39 | 43.00 | 43.40 | 43.84 | 43.50 |
| Female | 54.97 | 56.33 | 55. 09 | 56.38 | 56. 61 | 57.00 | 56. 60 | 56.18 | 56.50 |
| Preparing for college, clas sical course | 10.61 | 8.45 | 9.18 | 9. 90 | 10.34 | 10.00 | 10.05 | 8.94 | 7.99 |
| entific courses | 8.05 | 6.38 | 7.53 | 8. 22 | 7.33 | 7.11 | 7.16 | 6.57 | 6. 03 |
| Total preparing for college..............$~$ | 18.66 | 14. 83 | 16.77 | 18.12 | 17.67 | 17.11 | 17. 21 | 15.51 | 14.02 |
| Graduates | 10.05 | 10.51 | 10.87 | 11.46 | 11.88 | 11. 60 | 11.73 | 11.95 | 11.75 |
| college $a$... |  | 35.74 | 39. 15 | 30.62 | 30.92 | 32.44 | 32. 69 | 32.60 | 30.60 |

$a$ Per cent of total number of graduates.

Per cent of total number of secondary students in mublic:and private high schools and academies in certain courses and studies, ctc.-Continned.

| Students and studies. | 1889-90. | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1895-96. | 1896-97. | 189\%-98. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Studying- |  |  |  |  |  |  |  |  |  |
| Latin. | 33.62 | 39.80 | 38. 80 | 41.94 | 43.59 | 43. 76 | 46.22 | 48.01 | 49. 44 |
| Greek | 4.32 | 4.65 | 4.68 | 4.92 | 4.93 | 4.73 | 4.58 | 4. 60 | 4.50 |
| French | 9.41 | 9.06 | 8.59 | 9.94 | 10.31 | 9.77 | 10.13 | 9.98 | 10. 48 |
| German | 11.48 | 15. 68 | 11.61 | 13.00 | 12. 78 | 12.58 | 13.20 | 13. 76 | 11. 24 |
| Algebra | 42. 77 | 49.89 | 47.65 | 49.92 | 52. 71 | 52. 40 | 53.46 | 54. 22 | 55. 29 |
| Geometry | 20.07 | 23.04 | 22.52 | 24.36 | 25.25 | 24.51 | 25.71 | 26.24 | 26. 59 |
| Trigonometry |  |  | 2.96 | 3.61 | 3.80 | 3.25 | 3.15 | 3.08 | 2. 83 |
| Astroncmy ... |  |  |  |  |  | 5. 27 | 5. 19 | 4.89 | 440 |
| Physies... | 21.86 | $\because 3.06$ | 22.04 | 22.25 | 24.02 | 22.15 | 21.85 | 20.89 | $\because 0.48$ |
| Chemistry ....... | 9.62 | 10.37 | 10.08 | 9.98 | 10.31 | 9.31 | 9.15 | 9.18 | 8.55 |
| Physical geography |  |  |  |  |  | 22. 44 | 24.93 | 24.61 | 24.33 |
| Geology............. |  |  |  |  |  | 5. 52 | 5. 20 | 4.93 | 4. 66 |
| Physiology - |  |  |  |  |  | 28. 03 | 31.08 | 29.98 | 29. 38 |
| Psjehology |  |  |  |  |  | 3.35 | 3.82 | 3. 82 | 3.64 |
| Rhetoric... |  |  |  |  |  | 31.31 | 32.27 | 33. 78 | 35. 30 |
| English literature.... |  |  |  |  |  |  |  |  | 38.90 |
| History (other than United States) | 27.83 | 29. 77 | 31.35 | 33.46 | 35. 78 | 34.65 | 35.73 | 36.08 | $37.68$ |
| Civics................. |  |  |  |  |  |  |  |  | $21.41$ |

SECONDARY STUDENTS IN THE UNITED STATES.
The distribution of secondary students enrolled in 1897-98 in eight classes of institutions is given by Sta'es in Tables 39 and 40. It is slown that of 626,115 , the total number of secondary students in the United States as reported to this Bureau, 459,813 were in public institutions and 166,302 in private institutions. In the public institutions 449,600 were in public high schools, 6,643 in preparatory departments of universitics and colleges, and 3,570 in phblic normal schools. In the private institutions 105,225 were in private high schools and academies, 46,831 in preparatory departments of private universitics and colleges, 7,337 in private normal schools, and 6,909 in manual training schools.

The number of secondary students to each 1,000 population in the Cuited States and in each State is given in Table 41. For the whole country there was an average of 8.60 secondary students to each 1,000 of population. The average for the Nortin Atlantic Division was 9.61 ; for the South Atlantic, 4.87 ; for the Sonth Ceutral, 5.16; for the North Central, 10.87; for the Western Division, 9.05.

The number of students in ligher education was 144,477 , as shown also in Table 41. This number includes all students who in 1897-98 were receiving higher instruction in colleges, resident graduate students in universitics and colleges, and all professional students in theology, medicine, and law. The independent professional schools are included, as well as those classed as departments of universities and colleges. Students of normal schools and schools of dentistry, pharmacy, veterinary surgery, and unse training are not here included. The last colum of Table 41 shows that the number of studeats in higher education to each 1,000 population was 1.98 . The average in the North Atlantic Division was 2.26; in the Soath Atlantic, 1.98; in the Sonth Central, 1.45 ; in the North Central, 2.02; and in the Western Division, 2.08.

Table 42 gives in detail the statistics of the 5,315 public high schools reporting to this office. Table 43 gives similar statistics of private high schools, academies, and other private institutions for secondary instruction.

Table 44 shows the number of public and private high schools for boys only, the number for girls ouly, and the number of coctucational schools of this grade in each State.

Table 1．－Public high schools—Number of schools，secondary instructors，secondary students，and elementary pupils in 1897－98．

| State or Territory． | $\begin{aligned} & \frac{\dot{x}}{\tilde{g}} \\ & \stackrel{0}{3} \\ & \text { in } \end{aligned}$ | Secoudary tcachers． |  |  | Socondary students． |  |  | Colored stin－ dents（included in preceding column）． |  |  | Elementary pupils， including all below secondary grades． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { む } \\ & \text { 合 } \\ & \text { Z } \\ & \hline \end{aligned}$ | 试 |  |  | 焉 |  | 3 0 -8 | 感 |  | $\begin{aligned} & \text { స్ } \\ & \text { E. } \end{aligned}$ | $\frac{\stackrel{0}{5}}{\text { 感 }}$ | 泉 |  |
| United | 5， 315 | 8，512？ | 9，399 | 17，941 | 189， 187 | 260， 413 | 449，600 | 2，142 | 4， 164 | 6，306 | 45，533 | 46，661 | 92． 194 |
| North Aitantic Divi－ sion | 1，3162 | 2, | 11 | 5， 686 | 61， 651 | 80， 036 | 41， 717 | 3 | 519 | 851 | 7，235 | 7，395 | 14，630 |
| South Atlantic Divi－ <br> sion． | 387 | 512 | 564 | 1，076 | 9，742 | 14， 641 | 24，383 | 416 |  | ， 340 | 6，993 | 6，635 | 13，628 |
| South Central Diri－ sion | 552 | $862$ | 700 | 1，562 | 13， 607 | 19， 281 | 32，883 |  | ，066 | ， 518 | 9，230 | 9，119 | 18,349 |
| North Central Divi－ sion $\qquad$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Western Division ． | －228 | 489 | 490 | 979 | 10，024 | 14， 980 | 25，004 | 29 | 66 | 95 | 520 | 605 | 1，125 |
| North Atlantic Divi． sion： |  |  |  | 339 |  |  |  |  |  |  |  |  |  |
| Maine．．．．．．．．．．．．． | 154 | 170 | 162 | 332 | 3， 813 | 4，695 | 8， 568 | ${ }^{0}$ | 6 | G | 9.56 | 901 | 1，857 |
| New Hamp | 52 | 58 | 87 | 145 | 1，467 | 1，858 | 3， 325 | 1 | 0 | 1 | 272 | 272 | 544 |
| Termont | 55 | 55 | 86 | 141 | 1，348 | 1，808 | 3，156 | ， | 1 | 9 | 474 | 487 | 961 |
| Massachusett | 227 | 495 | 861 | 1， 356 | 14， 604 | 18，718 | 33，322 | 59 | 106 | 165 | 419 | 423 | 842 |
| Fihode Island | 16 | 73 | 82 | 155 | 1，339 | 1， 810 | 3，149 | 11 | 17 | 28 |  |  |  |
| Connecticut | 68 | 11.2 | 195 | 307 | 3，106 | 3，775 | 6，881 | 16 | 23 | 39 | 159 | 149 | 308 |
| New York | 367 | 6161 | 1，198 | 1，814 | 21，491 | 25，083 | 46，574 | 81 | 113 | 19. | 3， 708 | 3，824 | T，532 |
| New Jersey | 85 | 1341 | 280 | 414 | 3，842 | 5,848 | 9， 640 | 50 | 84 | 134 | 128 | 126 | 254 |
| Pennsylvania | 292 | 532 | 490 | 1，022 | 10，581 | 16，501 | 27，082 | 111 | 169 | 280 | 1，119 | 1． 213 | 2，332 |
| Surth Atlantic Divi． sion： <br> Delaware | 14 | 16 | 31 | 47 | 49 | 5 | 104 |  |  |  | 0 | 53 | 103 |
| Maryland | 46 | 75 | 68 | 143 | 1，533 | 2，389 | 3，922 | 72 | 120 | 192 | 741 | 553 | 1，294 |
| District of Colum－ bia | 5 | 49 | 73 | 122 | 1，203 | 1，753 | 2，956 | 220 | 470 | 690 |  |  |  |
| Virginia | 66 | 70 | 96 | 166 | 1， 615 | 2， 296 | 3，911 | 44 | 126 | 170 | 1，372 | 1，397 | 2，769 |
| West Virgi | 28 | 36 | 43 | 79 | 644 | 1，134 | 1， 778 | 15 | 50 | 65 | 114 | 171 | 285 |
| North Carolina | 14 | 22 | 15 | 37 | 399 | 493 | 832 | 5 | 4 | 9 | $18 \pm$ | 203 | 387 |
| Sontli Carolina | 85 | 93 | 84 | 177 | 1， 298 | 2， 014 | 3，312 | 36 | 67 | 103 | 1． 935 | 1，615 | 3，550 |
| Georsia | 105 | 116 | 121 | 237 | 2，173 | 3，281 | 5，45！ | 23 | 82 | 105 | 2， 103 | 2， 138 | 4， 241 |
| Florida | 24 | 35 | 33 | 68 | 428 | 626 | 1，054 | 1 | 5 | 6 | 491 | 505 | 909 |
| South Central Divi－ sion： |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky | 61 | 103 | 111 | 214 | 1，985 | 2， 769 | 4，754 | 129 | 423 | 552 | 405 | 442 | 817 |
| Tennessee | 93 | 130 | 93 | 223 | 2，293 | 3，064 | 5， 357 | 80 | 186 | 266 | 2， 150 | 1，917 | 4， 067 |
| Alabama | 48 | 55 | 62 | 117 | 1，036 | 1，541 | 2，577 | 13 | 40 | 53 | 957 | 1，043 | 2， 000 |
| Mississipp | 85 | 93 | 93 | 186 | 1，565 | 1，916 | 3， 472 | 80 | 125 | 205 | 2， 384 | 2，283 | 4，667 |
| Lonisiana | 20 | 37 | 51 | 88 | 560 | 1，195 | 1， 755 | 20 | 32 | 52 | 266 | 246 | 512 |
| Texas | 192 | 358 | 242 | 600 | 4，790 | 7， 053 | 11，813 | 101 | 194 | 295 | 2， 273 | 2，562 | 4，835 |
| Arkansas | 48 | 78 | 40 | 118 | 1， 204 | 1，582 | 2，786 | 29 | 66 | 95 | 511 | 529 | 1，040 |
| Oklahoma | 2 | 3 | 4 | 7 | 97 | 149 | 246 |  |  |  |  |  |  |
| Indian Territory．－ | 3 | 5 | 4 | 9 | 76 | 23 | 98 |  |  |  | 281 | 97 | 381 |
| North Central Divi－ sion ： |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio | 598 | 911 | 647 | 1，558 | 17，601 | 23， 207 | 40， 808 | 203 | 328 | 531 | 6，573 | 6， 768 | 13,341 |
| Indiana | 349 | 628 | 355 | 983 | 10， 042 | 12， 770 | 22， 812 | 139 | 178 | 317 | 2， 854 | 3，106 | 5，970 |
| Illinois | 328 | 636 | 631 | 1，267 | 13， 921 | 21， 147 | 35，068 | 122 | 223 | 345 | 1，523 | 1， 733 | 3，256 |
| Michigan | 282 | 411 | 588 | 999 | 11， 650 | 15， 808 | 27， 458 | 43 | 57 | 100 | 2， 200 | 2， 467 | 4，667 |
| Wisconsil | 182 | 282 | 327 | 609 | 7， 339 | －9，457 | 16，796 | 10 | 10 | 20 | －668 | 2， 661 | 1，329 |
| Minnes | 112 | 178 | 326 | 504 | 4，780 | 6， 930 | 11，710 | 17 | 21 | 38 | 493 | 54.3 | 1，036 |
| Iowa． | 326 | 435 | 566 | 1，001 | 10， 959 | 15， 303 | 26， 262 | 31 | 51 | 82 | 2，754 | 2，803 | 5，562 |
| Missouri | 201 | 353 | 301 | 654 | 6，776 | 10， 367 | 17， 143 | 223 | 458 | 681 | 1， 015 | 1，074 | 2，089 |
| North Dak | 24 | 25 | 25 | 50 | 360 | 548 | 1908 | 2 | ， | 4 | 1， 6 | 1，${ }^{6}$ | 12 |
| South Dakot | 29 | 33 | 35 | 68 | 677 | 938 | 1，615 | ， |  | 2 | 131 | 147 | 278 |
| Nebraska | 225 | 286 | 225 | 511 | 5，381 | 8， 022 | 13， 403 | 13 | 27 | 40 | 2，485 | 2，532 | 5， 017 |
| Kansas ．－．．．．．．．．． | 176 | 256 | 178 | 434 | 4，677 | 6，918 | 11，595 | 109 | 233 | 312 | 2， 843 | 1，062 | 1，905 |
| Western Division： Montana | 15 | 16 | 23 | 39 | 365 | 531 | 896 | 2 | 4 | 6 | 11 | 11 | 1， 22 |
| Wyoming | 5 | 6 | 6 | 12 | 137 | 170 | 307 | 2 | 2 | 4 | 94 | 91 | 185 |
| Colorado | 39 | 110 | 98 | 208 | 1，963 | 2，935 | 4，928 | 9 | 27 | 36 | 56 | 81 | 137 |
| New Mexic | ， | 5 | 2 | 7 | 48 | 79 | 127 |  |  |  | 7 | 18 | 25 |
| Arizol | ， | $\bigcirc$ | 3 | 8 | 65 | 91 | 156 |  |  |  |  |  |  |
| Utah | 4 | 17 | 16 | 33 | 371 | 520 | 891 | 3 | 2 | 5 | 37 | 34 | 71 |
| Nevada | 8 | 6 | 17 | 23 | 191 | 318 | 509 |  |  |  | 3 | 2 | 5 |
| Idaho |  | 8 | 15 | 23 | 141 | 205 | 346 | 0 | 3 | 3 |  |  |  |
| Washingto | 36 | 59 | 42 | 101 | 1，044 | 1，586 | 2,630 | 2 | 7 | 9 | 192 | 239 | 431 |
| Oregon．．． | 13 | 25 | 22 | 47 | ${ }^{6} 638$ | － 956 | 1，594 | 3 | 1 | 4 | 40 | 45 | 85 |
| California | 96 | 232 | 246 | 478 | 5，061 | 7，559 | 12， 620 | 8 |  |  | 80 | 84 | 164 |

Table 2．－－Public high schools－Number of secondary students in college preparatory coursze ted number of graduates and college preparatory students in graduating class in 1897－98．

| State or Territory． | Secondary students preparing for college． |  |  |  |  |  | Graduates in class of 1898 ． |  |  | College prepar－ atory students in graduating class of 1898. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Classical courso． |  |  | Scientific courses． |  |  |  |  |  |  |  |  |  |
|  | $\stackrel{\oplus}{\stackrel{\oplus}{y}}$ |  |  | 突 |  | $\begin{aligned} & \text { ت゙ं } \\ & \text {-1 } \end{aligned}$ |  |  | E | － | 守 | cis ¢ ¢ |  |

United States．．．．
North Atlantic Divi－ sion South Atlantic Divi． sion $\cdot \ldots$ ．．．．．．．．．．．．．．．．．
South Central Divi－ sion $\ldots . . . . . . . . . . . . . . ~$
$\qquad$ Western Division．．．
North Atlantic Divi－ sion： Maine...........
New Hampshire．．
Vermont．．．．．．．．．．．
Massachusetts．
Rhode Island．
Conneeticnt．．．．．．．．．
New Yurk．．．．．．．．．．
New Jersey ．
Pennsylvania O．．．．．

## sion：

Delaware
Maryland
District of Columbia
Virginia
West Virginia
North Carolina．
South Carolina．．．．
Georgia
Florita－．．．．．．．．．．．．．
South Central Divi．
sion：
Kentucky
Alaberna．
Mississippi
Lonisiana ．．．．．．．．．．．
Texas．．
Arkansas
Okthoma ．．．．．．．．．
Indian Territory．．
Nortlı Central Divi．
sion
Ohio
Indian
Mlinois．
Michigan
Mimesota
Iowa．．．．
North Dakota．．．．．．．
South Dakota
Nebraska．
Kansas．．．．．．．．．．．
 $=$ ，
$13,57514,36027,93512,05611,07523,13119,24733,775,53,0226,6997,85314,5529,032$

 | 781 | 812 | 1,593 | 283 | 193 | 476 | 775 | 1,773 | 2,548 | 251 | 338 | 589 | 696 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


$4,8556,17411,0296,0056,75312,75810,04817,40427,4523,4214,3697,7901,683$ $\begin{array}{lllllllllllllllll}638 & 914 & 1,552 & 1,170 & 1,191 & 2,361 & 1,142 & 2,056 & 3,198 & 539 & 743 & 1,282 & 969\end{array}$

| 563 | 490 | 1，053 | 206 | 73 | 279 | 361 | 677 | 1，038 | 137 | 154 | 291 | 262 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 177 | 128 | 305 | 94 | 44 | 138 | 159 | 281 | 440 | 47 | 58 | 105 | 246 |
| 106 | 82 | 188 | 138 | 152 | 290 | 124 | 197 | 321 | 70 | 63 | 133 | 89 |
| 2， 212 | 2，147 | 4，359 | 1，199 | 302 | 1， 501 | 1， 867 | 3， 044 | 4， 911 | 631 | 610 | 1，271 | 3， 881 |
| 333 | 206 | 539 | 39 | 5 | 44 | 128 | 201 | 329 | 80 | 53 | 133 |  |
| 386 | 209 | 595 | $2 \downarrow 9$ | 46 | 295 | 372 | 575 | 947 | 163 | 62 | 225 | 26 |
| 1，449 | 1，067 | 2， 516 | 1，089 | 943 | 2，（132 | 1，470 | 2， 370 | 3，840 | 546 | 518 | 1，064 | 444 |
| 351 | 205 | 556 | 310 | 249 | 559 | 451 | 789 | 1，240 | 118 | 134 | 252 | 60 |
| 549 | 581 | 1，130 | 442 | 269 | 711 | 1，387 | 2， 609 | 3，996 | 349 | 228 | 577 | 23 |
| 18 | 26 | 41 | 12 | 0 | 12 | 40 | 88 | 128 | 12 | 13 | 25 | 16 |
| 51 | 21 | 72 | 13 | 0 | 13 | 114 | 266 | 380 | 34 |  | 41 |  |
| 23 | 18 | 41 | 28 | 5 | 33 | 127 | 224 | 351 | 23 | 20 | 43 | 458 |
| 152 | 116 | 208 | 45 | 34 | 79 | 100 | 305 | 405 | 31 | 31 | 62 |  |
| 4. | 49 | 93 | 13 | 17 | 30 | 59 | 155 | 214 | 18 | 26 | 44 |  |
| 24 | 25 | 49 | 5 | 4 | 9 | 23 | 71 | 94 | 14 | 30 | 44 |  |
| 210 | 234 | 444 | 67 | 42 | 109 | 109 | 190 | 299 | 57 | 84 | 141 | 99 |
| 245 | 306 | 551 | 93 | 85 | 178 | 175 | 403 | 578 | 52 | 116 | 168 | 80 |
| 14 | 17 | 31 | 7 | 6 | 13 | 28 | 71 | 90 | 10 | 11 | 21 | 43 |
| 112 | 90 | 202 | 124 | 94 | 218 | 159 | 231 | 390 | 60 | 48 | 108 | 336 |
| 207 | 249 | 456 | 144 | 126 | 270 | 218 | 371 | 589 | 72 | 94 | 166 | 79 |
| 83 | 69 | 152 | 52 | 18 | 70 | 58 | 173 | 231 | 23 | 45 | 68 | 60 |
| 194 | 277 | 471 | 164 | 200 | 364 | 60 | 142 | 202 | 24 | 43 | 67 | 14 |
| 20 | 36 | 56 |  | ， | 12 | 82 | 157 | 239 | 11 | 20 | 31 | 37 |
| 436 | 457 | 893 | 251 | 327 | 578 | 292 | 588 | 880 | 107 | 192 | 299 |  |
| 107 | 167 | 274 | 74 | 87 | 161 | $8 \cdot$ | 116 | 198 | 43 | 45 | 88 | 55 |
| 16 | 0 | 16 | 14 | 0 | 11 | 9 | 6 | 15 | 4 | 0 | 4 | 72 |
| 1，248 | 1，208 | 2， 456 | 943 | 1，043 | 1，986 | 1，959 | 3， 293 | 5，245 | 557 | 679 | 1，236 | 282 |
| 339 | 350 | 689 | 418 | 295 | 713 | 1， 002 | 1，510 | 2， 512 | 270 | 269 | 539 | 131 |
| 716 | 1．080 | 1，796 | 854 | 931 | 1，785 | 1， 450 | 2． 870 | 4，320 | 458 | 579 | 1，037 | 137 |
| 313 | 363 | 679 | 775 | 756 | 1， 531 | 1，107 | 1，993 | 3， 097 | 352 | 545 | 897 | 38 |
| 369 | 392 | 761 | 457 | 346 | 803 | 823 | 1， 241 | 2，064 | 294 | 320 | 614 | 35 |
| 98 | 124 | 222 | 752 | 1，167 | 1，919 | 504 | 858 | 1，362 | 282 | 425 | 707 | 94 |
| 623 | 968 | 1，591 | 588 | 596 | 1．184 | 1，381 | 2， 134 | 3，515 | 477 | 493 | 970 | 367 |
| 368 | 492 | 860 | 410 | 518 | 928 | 591 | 1，302 | 1，893 | 183 | 275 | 458 | 79 |
| 33 | 43 | 76 | 34 | 36 | 70 | 27 | 54 | 81. | 15 | 24 | 39 |  |
|  | 14 | 22 | 13 | 21 | 34 | 85 | 142 | 227 | 30 | 43 | 73 |  |
| 341 | 540 | 881 | 516 | 704 | 1，220 | 622 | 1， 140 | 1， 662 | 263 | 397 | 660 | 420 |
| 399 | 597 | 996 | 245 | 340 | 585 | 504 | 870 | 1，374 | 2.10 | 320 | 560 | 100 |
| 46 | 61 | 107 | 41. | 46 | 87 | 30 | 73 | 103 | 11 | 21 | 32 | 71 |
| 8 | 10 | 18 |  |  | 6 | 11 | 32 | 43 | 8 | 20 | 28 |  |
| 141 | 172 | 313 | 312 | 345 | 657 | 218 | 387 | 605 | 80 | 113 | 193 | 714 |
| 0 | 1 | 1 | 4 | 6 | 10 | 4 | 24 | 28 | 0 | 5 | 5 |  |
| 2 | 10 | 12 | 4 | 3 | 7 | 5 | ， | 12 | ， |  | 12 | 15 |
|  |  |  |  |  |  | 18 | 48 | 66 | 12 | 18 | 30 |  |
| 6 | 21 | 27 | 16 | 11 | 27 | 28 | 69 | 97 | 14 | 27 | 41 |  |
| 20 | 21 | 41 | 28 | 12 | 40 | 9 | 21 | 30 | 5 | 3 | 8 | 33 |
| 76 | 105 | 181 | 59 | 93 | 152 | 136 | 231 | 367 | 28 | 43 | 71 | 48 |
| 30 | 47 | 77 |  |  |  | 64 | 129 | 193 | 6 | 8 | 14 |  |
| 309 | 466 |  |  |  | 1，364 | 619 | 1，035 | 1，654 | 370 | 478 | 848 | 88 |

Table 3.-Public high schools-Number of secondary students pursuing certain studies in 1597-98.

| State or Territory. | Latin. |  |  |  | Greek. |  |  |  | French. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \stackrel{0}{\mathrm{~J}} \\ & \underset{\sim}{\mathrm{~J}} \end{aligned}$ |  |  |  | 商 |  | $\begin{aligned} & \dot{5} \\ & \stackrel{5}{0} \\ & \text { H } \end{aligned}$ |  |  |  | E |
| United States | 4,483 | 87, 529 | 135, 778 | 223, 307 | 997 | 7, 656 | 6,365 | 14, 021 | 809 | 12, 006 | 21, 911 | 33, 917 |
| North Atlantic Division | 1, 211 | 26,355 | 40, 792 | 67, 147 | 577 | 4,902 | 3,688 | 8, 590 | 528 | 9,088 | 14,890 | 23,978 |
| South Atlantic Division | 364 | 6,434 | 9,320 | 15, $75 \frac{1}{4}$ | 79 | 391 | 235 | 626 | 92 | 834 | 1,455 | 2,289 |
| South Central Division | 501 | 6,982 | 11,555 | 18,537 | 93 | 496 | 232 | 728 | $5 \frac{1}{2}$ | 448 | 1, 242 | 1,690 |
| North Central Division | 2, 217 | 42, 427 | 65, 909 | 108, 336 | 209 | 1, 541 | 1,670 | 3, 211 | 105 | 1,313 | 3,356 | 4,669 |
| Western Division. | 195 | 5,331 | 8,202 | 13, 533 | 39 | 326 | 540 | 866 | 30 | 323 | 958 | 1,291 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine .... | 133 | 1,559 | 2,382 | 3, 941 | 78 | 473 | 466 | 939 | 67 | 690 | 1,109 | 1,799 |
| New Hamp | 48 | 726 | 1, 151 | 1, 877 | 25 | 162 | 160 | 322 | 32 | 414 | 629 | 1,043 |
| Vermont... | 53 | 539 | 822 | 1, 361 | 29 | 112 | -89 | 201 | 31 | 138 | 267 | 405 |
| Massachusett | 225 | 6,284 | 10, 305 | 16, 589 | 155 | 1, 799 | 1,459 | 3, 258 | 189 | 5, 608 | 7, 703 | 13, 311 |
| Rhode Island | 13 | 614 | 795 | 1,409 | 9 | 176 | 141 | 317 | 10 | 244 | 553 | 797 |
| Connecticut | 66 | 1,635 | 2, 055 | 3, 690 | 29 | 347 | 149 | 496 | 29 | 405 | 719 | 1, 124 |
| New York | 357 | 7,881 | 10, 793 | 18, 674 | 170 | 1,099 | 771 | 1,870 | 142 | 1, 127 | 2,669 | 3,796 |
| New Jersey | 60 | 1, 480 | 2,398 | 3, 878 | 21 | 219 | 132 | 351 | 12 | 197 | 364 | , 561 |
| Pennsflyania | 256 | 5,637 | 10,091 | 15, 728 | 61 | 515 | 321 | 836 | 16 | 265 | 877 | 1, 142 |
| South Atlantic Division: <br> Delaware | 13 | 349 | 515 |  | 1 | 2 | 0 | 2 |  |  |  |  |
| Maryland | 43 | 1,234 | 1, 281 | 2,518 | 12 | 88 | 5 | 93 | 11 | 269 | 86 | 355 |
| District of | , | 523 | 794 | 1,317 | 4 | 62 | 42 | 104 | 4 | 122 | 298 | 420 |
| Virginia | 64 | 3, 042 | 1. 801 | 2, 843 | 6 | 11 | 0 | 11 | 27 | 126 | 307 | 433 |
| West Virginia | 24 | 249 | 452 | 701 |  |  |  |  |  |  |  |  |
| North Carolina | 14 | 332 | 403 | 735 | 4 | 14 | 30 | 44 |  |  |  |  |
| South Carolina | 79 | 878 | 1,221 | 2, 099 | 18 | 40 | 32 | 72 | 22 | 38 | 104 | 142 |
| Georgia | 103 | 1,593 | 2, 546 | 4,139 | 32 | 164 | 122 | 286 | 26 | 271 | 608 | 879 |
| Florida | 20 | 234 | 304 | 538 | 2 | 10 | , | 14 | 2 | 8 | 52 | 60 |
| South Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky | 57 | 1,165 | 1,884 | 3, 049 | 10 | 190 | 21 | 211 | 7 | 10 | 45 | 55 |
| Tennessee | 78 | 1,059 | 1,608 | 2, 667 | 20 | 54 | 51 | 105 | 4 | 15 | 75 | 90 |
| Alabama. | 47 | 601 | 1,038 | 1, 639 | 11 | 104 | 12 | 116 | 12 | 40 | 124 | 164 |
| Mississipp | 78 | $73 \frac{1}{4}$ | 1,031 | 1, 765 | 17 | 48 | 24 | 72 | 2 | 3 | 3 | 6 |
| Louisiana. | 18 | 464 | 1, 023 | 1, 487 | 2 | 6 | 15 | 21 | 10 | 294 | 835 | 1,129 |
| Texas | 171 | -, 226 | 3, 921 | 6,147 | 22 | 68 | 93 | 161 | 13 | 69 | 124 | 193 |
| Arkansas | 47 | 633 | 942 | 1,575 | 11 | 26 | 16 | 42 | 6 | 17 | 36 | 53 |
| Oklahoma | 2 | 63 | 102 | 165 |  |  |  |  |  |  |  |  |
| Indian 'Territory | 3 | 37 | , | 43 |  |  |  |  |  |  |  |  |
| North Ceutral Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio. | 465 | 8, 396 | 12, 2 22 5 | 20,621 | 56 | 465 | 446 | 911 | 17 | 185 | 470 | 655 |
| Indi:nd | 323 | 6,477 | 8,575 | 15, 053 | 8 | 55 | 56 | 111 | 3 | 31 | 122 | 153 |
| Illinois | 262 | 6, 360 | 11,093 | 17, 453 | 30 | 247 | 275 | 522 | 21 | 377 | 1, 152 | 1,529 |
| Michigan | 181 | 3, 781 | 5, 658 | 9,439 | 32 | 221 | 251 | 472 | 25 | 238 | 578 | 816 |
| Wisconsin | 99 | 1,692 | 2,461 | 4, 153 | 13 | 82 | 68 | 150 | 5 | 33 | 34 | 67 |
| Minnesota | 107 | 2,651 | 4,215 | 6, 866 | 21 | 82 | 131 | 213 | 10 | 176 | 410 | 586 |
| Iowa. | 232 | 4, 063 | 6, 713 | 10,776 | 12 | 57 | 63 | 120 | 6 | 60 | 162 | 222 |
| Missouri. | 158 | 3,282 | 5, 681 | 8,963 | 14 | 209 | 205 | 411 | 8 | 118 | 272 | 390 |
| North Dakota | 22 | 241 | 421 | 662 | 4 | 9 | 3 | 12 |  |  |  |  |
| Sonth Dakota | 21 | 265 | 391 | 656 | 2 | 4 | 9 | 13 | 1 | 2 | 3 | 5 |
| Nebrask | 188 | 2, 730 | 4, 615 | 7, 345 | 9 | 65 | 102 | 167 |  | 78 | 125 | 203 |
| Kansas | 159 | 2, 489 | 3,860 | 6,349 | 8 | 45 | 61 | 106 | 5 | 15 | 28 | 43 |
| Western Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana | 13 | 241 | 321 | 562 | 1 | 1 | 6 | 7 | 1 | 9 | 17 | 26 |
| Wyoming | 5 | 58 | 101 | 159 |  |  |  |  |  |  |  |  |
| Colorado. | 36 | 1, 272 | 1,944 | 3, 216 | 10 | 124 | 149 | 273 | 6 | 83 | 294 | 377 |
| New Mexico. | 3 | 9 | 32 | 41 |  |  |  |  |  |  |  |  |
| Arizona | 2 | 26 | 53 | 79 |  |  |  |  |  |  |  |  |
| Utah | 2 | 166 | 235 | 401 | 1 | 4 | 10 | 11 | 1 | 24 | 30 | 54 |
| Nerada | 6 | 89 | 188 | 277 |  |  |  |  | 1 | 10 | 15 | 25 |
| Idaho. | 6 | 50 | 110 | 160 |  |  |  |  |  |  |  |  |
| Washington | 19 | 437 | 718 | 1, 155 |  |  |  |  | 1 | 8 | 38 | 46 |
| Oregon | 8 | 249 | 285 | -534 |  |  |  |  |  |  |  |  |
| California | 94 | 2,734 | 4,215 | 6,949 | 27 | 197 | 375 | 572 | 20 | 189 | 574 | 763 |

Table 4.-Public high schools-N゙umber of secondary students pursuing certain studies in 1897-98.


Table 5．－P＇ablic high schools－Vamber of secondary students pursuing certain studies in 1897－93．

| State or Territory． | Trigonometry． |  |  |  | Astronomy， |  |  |  | Physies． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 淢 | $\underset{\sim}{c}$ | $\begin{aligned} & \text { ت゙ } \\ & \stackrel{3}{3} \\ & \hline \end{aligned}$ |  | $\stackrel{\stackrel{\rightharpoonup}{7}}{\stackrel{\sim}{n}}$ | $\underset{\sim}{\stackrel{0}{\pi}}$ | $\begin{aligned} & \text { 淢 } \\ & \stackrel{3}{2} \end{aligned}$ |  | $\stackrel{\dot{5}}{\text { E }}$ | $\stackrel{\stackrel{ \pm}{E}}{\underset{E}{E}}$ | $\stackrel{\text { ®̃ }}{\sim}$ |
| United States | 7804 | 4，966 | 5， $23+1$ | 10,2001 | 1，127 | 6,351 | 10，819 | 17，170 | 4， 444 | 39， 493 | $53,5 \pm 5$ | 93，038 |
| North Atlantic Division | 2241 | 1，584 1 | 1，276 | 2， 800 | 447 | 2． 156 | 3， 947 | 6， 103 | 1，093 | 1， 5711 | 14， 135 | 25，706 |
| South Atlantic Dirision | 98 | 577 | 685 | 1，262 | 54 | 314 | 657 | 971 | 234 | 2， 646 | 4， 078 | 6， 724 |
| South Central Division | 153 | 7901 | 1， 217 | 2， 007 | 88 | 565 | 974 | 1，539 | 472 | 4，132 | 5，600 | 9，732 |
| North Central Division | 2331 | 1，569 | 1，692 | 3， 261 | 511 | 3， 112 | 4，933 | 8，045 | 2， 454 | 18， 886 | $2{ }^{\text {c }}$ ， 4.6 | 45，332 |
| Western Dirision． | 72 | 446 | 364 | 810 | 27 | 204 | 308 | 512 | 191 | 2，258 | 3，286 | 5，544 |
| North Atlantie Division： <br> Maine | 7 | 28 | 7 | 35 | 63 | 270 | 439 | 709 | 121 | 799 | 976 | 1，775 |
| New Hampshire | 6 | 26 | 16 | 42 | 27 | 113 | 128 | 241 | 34 | 402 | 420 | 822 |
| Vermont．．．． |  |  |  |  | 23 | 87 | 129 | 216 | 43 | 221 | 265 | 486 |
| Massachusetts | 38 | 275 | 65 | 340 | 121 | 661 | 1， 329 | 1，990 | 209 | 3， 497 | 3， 764 | 7， 261 |
| Rhode Island | 5 | 52 | 20 | 72 | 9 | 57 | 106 | 163 | 14 | 303 | 393 | 696 |
| Commecticut | 16 | 139 | 55 | 194 | 26 | 178 | 258 | 436 | 53 | 498 | 670 | 1，168 |
| New Tork | 91 | 453 | 591 | 1，044 | 111 | 416 | 703 | 1，119 | 294 | 2， 430 | 2， 756 | 5， 186 |
| New Jerser | 14 | 86 | 125 | 211 | 25 | 142 | 353 | 495 | 81 | 833 | 1，160） | 1，993 |
| Pennsylvania．．．．．．．．． | 47 | 525 | 397 | 922 | 37 | 232 | 502 | 734 | 214 | 2， 588 | 3，731 | 6,319 |
| South Atlantic Division： <br> Delaware | 2 | 23 | 5 | 28 | 1 | ， | 5 | 5 | 13 | 159 | 215 | 374 |
| Maryland | 21 | 201 | 197 | 398 | 8 | 99 | 157 | 256 | 45 | 855 | 1，279 | 2，134 |
| District of | 4 | 72 | 16 | 88 |  |  |  |  | 4 | 262 | 338 | 600 |
| Virginia | 18 | 96 | 96 | 192 | 4 | 19 | 37 | 56 | 38 | 369 | 507 | 876 |
| West Virgini | 7 | 22 | 39 | 61 | 3 | 7 | 13 | 20 | 20 | 115 | 219 | 334 |
| North Carolina |  |  |  |  | 3 | 8 | 19 | 27 | 4 | 95 | 138 | 233 |
| South Carolin | 8 | 28 | 119 | 147 | 6 | 20 | 132 | 152 | 38 | 307 | 663 | 970 |
| Georgia | 30 | 84 | 171 | 255 | 24 | 113 | 253 | 366 | 57 | 412 | 617 | 1， 029 |
| Florida ．．．．．．．．．．．．． | 8 | 51 | 42 | 93 | 5 | 48 | 41 | 89 | 15 | 72 | 102 | 174 |
| South Central Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Tentucky－ | 18 | 140 | 179 75 | 324 | $\stackrel{1}{16}$ | 96 112 | 203 | 305 <br> 282 | 77 | 600 587 | 741 | 1， 11308 |
| Alabama． | 17 | 159 | 234 | 443 | 10 | 135 | 251 | － 386 | 40 | 332 | 553 | 885 |
| Mississippi | 14 | 31 | 44 | 75 | 9 | 53 | 63 | 116 | 76 | 625 | 767 | 1， 392 |
| Louisiana． | 1 | 8 | 11 | 19 | 3 | 9 | 24 | 33 | 19 | 163 | 417 | 580 |
| Texas． | 72 | 265 | 461 | 726 | 25 | 149 | 234 | 383 | 177 | 1，526 | 2， 243 | 3，769 |
| Arkausas | 9 | 120 | 163 | 283 | 4 | 9 | 21 | 30 | 33 | 261 | 341 | 602 |
| Oklahoma |  |  |  |  |  |  |  |  | $\frac{2}{2}$ | 18 | 26 | 44 |
| Indian Territory |  |  |  |  | 1 | 2 | 2 | 4 | 2 | 40 | 2 | 42 |
| North Ceutral Division： <br> Ohio | 91 | 626 | 572 | 1，198 | 141 | 771 | 1，150 | 1，921 | 469 | 3， 339 | 4，332 | 7，671 |
| Indiana | 19 | 101 | 144 | 245 | 21 | 222 | 1， 275 | － 497 | 253 | 2，148 | 2，630 | 4，778 |
| Illinois | 22 | 199 | 159 | 358 | 91 | 641 | 1，269 | 1，910 | 315 | 2，985 | 4，217 | 7，202 |
| Michigan | 17 | 111 | 113 | 224 | 61 | 305 | 445 | － 750 | 259 | 1，991 | 2，932 | 4，953 |
| Wisconsin | 6 | 38 | 35 | 73 | 4 | 35 | 33 | － 68 | 178 | 1， 120 | 1，545 | 2， 665 |
| Minnesota | 3 | 39 | 27 | 66 | 22 | 155 | 224 | 379 | 91 | 756 | 1，094 | 1，850 |
| lowa． | 20 | 97 | 115 | 212 | 93 | 510 | 832 | 1，372 | 301 | 2， 288 | 3， 298 | 5，586 |
| Missouri | 24 | 228 | 331 | 559 | 31 | 193 | 264 | 457 | 165 | 1，541 | 2， 277 | 3，818 |
| North Dakota | 1 | 2 | 2 | 4 | 1 | 4 | 10 | － 14 | 19 | 61 | 97 | 161 |
| South Dakota | 5 | 23 | 21 | 44 | 4 | 34 | 46 | － 80 | 26 | 146 | 214 | 360 |
| Nebraska | 18 | 69 | 132 | 201 | 16 | 74 | 126 | ． 200 | 212 | 1，305 | 2， 081 | 3，386 |
| Kansas | 7 | 36 | 41 | 77 | 26 | 138 | 259 | － 397 | 166 | 1，203 | 1，699 | 2，902 |
| Western Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana．．．． | 3 | 8 | － 19 | 20. | $\stackrel{2}{2}$ | 5 | 11 | 16 | 12 | 93 | 111 | 204 |
| Wyoming | 1 | 0 | － 5 | 5 | 2 | 6 | 10 | 16 | 4 | 23 | 51 | 74 |
| Colorado． | 14 | 130 | 82 | 212 | 7 | 87 | 139 | 226 | 38 | 503 | 715 | 1，218 |
| New Mexico |  |  |  |  | 1 | 15 | 15 | 30 | 2 | 15 | 25 | 40 |
| Arizona | 1 | 4 | 9 |  |  |  |  |  | 2 | 16 | 16 | 32 |
| Utah | 2 | 28 | 20 | 48 | 1 | 2 | 6 | 8 | 3 | 55 | 66 | 121 |
| Neyada |  |  |  |  | 1 | 0 | 3 | 3.3 | 7 | 102 | 209 | 311 |
| Idaho |  |  |  |  | 2 | 3 | 10 | 13 | 4 | 8 | 26 | 34 |
| Washington | 2 | 10 | ） 19 | 29 | 2 | 29 | 37 | 66 | 23 | 181 | 304 | 485 |
| Oregon ．－． | 3 | 25 | 27 | 52 | 4 | 19 | 35 | 54 | 9 | 124 | 201 | －325 |
| California． | 46 | 241 | 130 | 431 | 5 | 38 | 42 | － 80 | 87 | 1，138 | 1，562 | 2，700 |

Table 6．－Public high schools－Number of secondary students pursuing certain studies in 1897－98．

| State or Territory． | Chemistry． |  |  |  | Physical geography． |  |  |  | Geology． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 守 |  | $\begin{aligned} & \text { ت⿹丁口 } \\ & \text { H. } \end{aligned}$ |  | $\stackrel{\oplus}{\text { ® }}$ |  | $\begin{aligned} & \text { تีं } \\ & \text { Eै } \\ & \text { E } \end{aligned}$ |  | 感 |  | $\begin{aligned} & \text { تีं } \\ & \text { i } \\ & \text { H. } \end{aligned}$ |
| United | 1，837 | 16,450 | 20，879 | 37， 329 | 4， 272 | 47， 074 | 65， 059 | 112， 133 | 1，147 | 7，725 | 11，921 | 19，646 |
| North Atlantic Division | 629 | 5， 934 | 6， 964 | 2， 898 | 1，026 | 11， 416 | 15， 541 | 26， 957 | 492 | 157 | 5， 154 | 8， 311 |
| South Atlantie Division | 79 | 914 | 1， 072 | 1，986 | 302 | 3，121 | 4，407 | 7，528 | 36 | 277 | 507 | 784 |
| South Central Division | 143 | 1，195 | 1，612 | 2，807 | 418 | 5，048 | 6，953 | 12， 001 | 126 | 956 | 1，304 | 2， 260 |
| North Central Division | 849 | 7，061 | 9，470 | 16，531 | 2，385 | 25， 541 | 35， 285 | 60，826 | 441 | 2，969 | 4， 415 | 7，384 |
| Western Division． | 137 | 1，346 | 1，761 | 3， 107 | 141 | 1，948 | 2，873 | 4，821 | 52 | 366 | 541 | 907 |
| North Allantie Division： Haine | 67 | 364 | 446 | 810 | 108 | 709 | 838 | 1，5 | 65 | 305 | 5 | 0 |
| New Ham | 27 | 228 | 249 | 477 | 30 | 161 | 193 | 354 | 21 | 84 | 136 | 220 |
| Vermont．． | 23 | 115 | 91 | 206 | 41 | 337 | 424 | 761 | 23 | 106 | 140 | 246 |
| Minssachuset | 168 | 1，890 | 2， 302 | 4， 102 | 133 | 1，432 | 1，662 | 3， 094 | 110 | 738 | 1，091 | 1，829 |
| Rhode Island | 12 | 224 | 249 | 473 | 8 | 115 | 84 | 199 | 7 | 42 | 93 | 141 |
| Connecticut | 34 | 281 | 381 | 652 | 49 | 530 | 690 | 1，220 | 22 | 152 | 277 | 429 |
| New Kork | 168 | 1， 485 | 1， 061 | 2，546 | 326 | 3，815 | 5， 136 | 8， 951 | 173 | 957 | 1， 870 | 2，827 |
| New Jersey | 48 | 363 | 618 | 981 | 61 | 897 | 1，698 | 2，595 | 21 | 206 | 454 | 660 |
| Pennsylyania | 82 | 1，074 | 1，567 | 2，641 | 270 | 3，420 | 4，816 | 8，236 | 50 | 567 | 622 | 1，189 |
| South A tlantic Division： <br> Delaware | 5 | 61 | 73 | 134 | 11 | 204 | 300 | 504 |  |  |  |  |
| Maryland | 5 | 239 | 16 | 255 | 35 | 330 | 473 | 803 | ${ }^{\cdots \cdots} 1$ | 34 | 0 | 34 |
| District of C | 4 | 131 | 105 | 236 |  |  |  |  | 1 | 2 | 33 | 35 |
| Vircrinia | 18 | 217 | 265 | 482 | 55 | 668 | 817 | 1， 485 | 4 | 52 | 31 | 83 |
| West Virgini | 10 | 33 | 69 | 102 | 27 | 313 | 499 | 812 | 6 | 24 | 35 | 59 |
| North Carolina | 4 | 49 | 101 | 150 | 10 | 88 | －103 | 191 | 4 | 53 | 66 | 119 |
| South Caroli | 6 | 17 | 115 | 132 | 70 | 615 | 1，021 | 1，636 | 5 | 17 | 165 | 182 |
| Georgia | 23 | 145 | 291 | 436 | 73 | 726 | 977 | 1， 703 | 12 | 84 | 158 | 242 |
| Florida | 4 | 22 | 37 | 59 | 21 | 177 | 217 | 394 | 3 | 11 | 19 | 30 |
| South Central Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky ．．．．．．．．． | 21 | 233 | 232 | 465 | 42 | 447 | 516 | 963 | 15 | 61 | 109 | 170 |
| Tennessee | 18 | 155 | 180 | 335 | 49 | 540 | － 749 | 1，289 | 50 | 354 | 404 | 758 |
| Alabama | 16 | 174 | 290 | 464 | 30 | 368 | －558 | 924 | 10 | 141 | 253 | 394 |
| Mississipp | 9 | 56 | 3 54 | 110 | 56 | 546 | － 740 | 1，283 | 6 | 36 | 47 | 83 |
| Louisiana | 8 | 120 | ） 273 | 393 | 17 | 265 | － 378 | － 643 | 1 | 5 | 8 | 13 |
| Texas | 54 | 277 | 415 | 692 | 180 | 2， 353 | 3，273 | 5， 626 | 36 | 205 | 335 | 540 |
| Arkansas | 13 | 133 | 147 | 280 | 41 | 470 | －690 | 1， 160 | 5 | 107 | 140 | 247 |
| Oklahoma． | 2 | 12 | 19 | 31 | － 2 | 31 | 49 | 80 | 1 | 7 | 6 | 13 |
|  | 2 | 35 | － 2 | 37 | 1 | 30 | － | 30 | 2 | 40 | 2 | 42 |
| North Central Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Indiana | 93 | 857 | 1，110 | 1，977 | 276 | 2， 615 | 3， 167 | 5，782 | 39 | 338 | 419 | 757 |
| Illinois | 135 | 1，105 | 1，415 | 2， 520 | 263 | 3， $8 \pm 2$ | 6， 090 | 9，932 | 49 | 406 | 867 | 1，273 |
| Michigan | 156 | 1，118 | 1，476 | 2， 594 | 236 | 2， 477 | 3，376 | 5，853 | 58 | 246 | 374 | 620 |
| Wisconsi | 29 | 278 | 270 | 548 | 178 | 2， 477 | 3， 2.35 | 5，712 | 12 | 122 | 126 | 248 |
| Minnes | 67 | 502 | 652 | 1， 154 | 41 | 644 | ＋919 | 1，563 | 10 | 62 | 78 | 140 |
| Iowa． | 64 | 496 | 68. | 1，176 | 287 | 2，947 | 4， 257 | 7，204 | 86 | 605 | 881 | 1，486 |
| Missouri | 54 | 562 | 792 | 1，354 | 163 | 1，821 | 2，465 | 4，286 | 38 | 362 | 478 | 840 |
| North Mako | 3 | 11 | 18 | 29 | 17 | 86 | － 98 | 184 | 1 | 4 | 2 | 6 |
| South Dako | 8 | 47 | 55 | 102 | 28 | 250 | ） 336 | － 586 | 8 | 52 | 84 | 136 |
| Nebraska | 71 | 505 | 860 | 1，365 | 198 | 1，731 | 2，538 | 4，269 | 22 | 117 | 184 | 301 |
|  | 36 | 252 | － 386 | 638 | 167 | 1，866 | （ 2， 698 | 4，564 | 37 | 181 | 253 | 434 |
| Western Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Wyoming | 2 | 6 | － 9 | 15 | － 3 | 33 | － 27 | 60 | 2 | 6 | 6 | 12 |
| Colorado | 32 | 317 | 485 | 802 | － 26 | 335 | － 408 | 743 | 24 | 216 | 317 | 533 |
| New Mexico | 1 | 3 | 38 | 11 | 4 | 23 | 44 | 67 | 1 | 1 | 13 | 14 |
| Arizona | 1 | 7 | 76 | 13 | 2 | 15 | 5 18 | 33 | 1 | 4 | 4 | 8 |
| Utah | 2 | 14 | 410 | － 24 | － 3 | 67 | － 110 | 177 | 1 | 12 | 18 | 30 |
| Nerada | 7 | 55 | 120 | 175 | －8 | 86 | －139 | 225 |  |  |  |  |
| Idaho | 2 | 7 | 719 | 26 | － 5 | 91 | 115 | 206 | 1 | 2 | 4 | 6 |
| Washington | 4 | 54 | $4 \begin{array}{r}82 \\ \hline 125\end{array}$ | 136 | －35 | 410 | － 710 | 1，120 | 5 | 28 | 36 | 64 |
| Oregon | 3 | 78 | 8． 125 | － 203 | 13 <br> 30 | 195 | 302 <br> 850 | ， 497 | 3 | 13 | 20 | 33 |
| California． |  | 732 | － 828 | 1，560 | － 30 | 561 | － 850 | 1，411 | 8 | 59 | 78 | 137 |

TABLE 7.-Public high schools-Nimber of secondary students pursuing certain studies in 1597-9S.

| State or Territory. | Physiology. |  |  |  | Psychology. |  |  |  | Rhetoric. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 守 |  | $\begin{aligned} & \frac{\text { 玉ु }}{8} \\ & \text { B } \end{aligned}$ |  | $\frac{9}{\square}$ |  |  |  | $\stackrel{\dot{\text { ® }}}{\stackrel{y}{\Delta}}$ |  | - |
| United States | 4, 063 | 57.392 | 77,393 | 134,785 | 840 | 4,355 | 7,970 | 12, 325 | 4,567 | 66, 949 | 94, 775 | 161, 724 |
| North Atlantic Dirision | 965 | 16,351 | 22, 242 | 38, 593 | 115 | 596 | 1,458 | 2,054 | 1, 126 | 20,602 | 25,330 | 45,932 |
| South Atlantic Dirision | 276 | 3, 259 | 4, 660 | 7,919 | 46 | 273 | , 690 | 963 | 318 | 3, 613 | 6, 475 | 10, 088 |
| South Central Division | 463 | 6,901 | 8, 687 | 15,648 | 177 |  | 1,558 | 2,510 | 477 | 5,413 | 8,188 | 13, 631 |
| North Central Dirision | 2, 269 | -99,487 | 39,97i | 69, 464 | 475 | 2, 364 | 3, 9:8 | 6,302 | 2, 455 | $33,032=$ | 47,905 | 80, 937 |
| Western Dirision. | 90 | 1,334 | 1,827 | 3,161 | 27 | 170 | 326 | - 496 | 191 | 4,259 | 6,877 | 11, 136 |
| North Allantic Division: $\quad$ - |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 96 | 759 | 811 | 1,600 | 21 | 88 |  | 236 | 121 | 978 | 1,381 | 2, 359 |
| New Hampshir | 27 | 157 | 235 | 392 | 2 | 6 | 11 | 17 | 45 | 554 | 649 | 1, 203 |
| Vermont. | 26 | - 163 | ${ }_{2} 237$ | - 400 | 16 | 42 | 77 | 119 | 48 | ${ }^{350}$ | - 475 | 825 |
| Massachusett | 145 | 2, 288 | 2, 987 | 5, 275 | 11 | 77 | 106 | 183 | 199 | 6, 004 | 8, 330 | 14,334 |
| Rhode Island | 3 | 13 | 26 | 39 | 3 | 3 | 87 | 90 | 15 | 698 | 7.46 | 1,444 |
| Connecticut | 35 | 414 | 597 | 1, 011 | 3 | 13 | 31 | 44 | 60 | 1,237 | 1,593 | 2,830 |
| New York | 355 | 6,929 | 9, 721 | 16,650 | 11 | 63 | 397 | 460 | 309 | 4,241 | 5,699 | 9,940 |
| New Jersey | 62 | 1, 053 | 1,859 | 2,912 | 10 | 38 | 165 | 203 | 72 | 1, 269 | 2, 021 | 3,290 |
| Pennsylvania | 216 | 4,575 | 5,739 | 10, 314 | 38 | 266 | 436 | 702 | 257 | 5, 271 | 4,436 | 9,707 |
| South Atlantic Division: <br> Delaware | 11 | 244 |  | 613 | 1 | 4 | 4 | 8 | 13 | 166 | 232 | 398 |
| Maryland | 38 | 468 | 1,069 | 1,537 | 5 | 29 | $1 \pm 6$ | 175 | 38 | 494 | 1, 482 | 1, 976 |
| District of Columl |  |  |  |  |  |  |  |  | 4 | 461 | 612 | 1,073 |
| Virginia | 53 | 675 | 759 | 1, 434 | 5 | 41 | 115 | 156 | 50 | 591 | 898 | 1. 489 |
| West Virgini | 24 | 312 | 417 | 729 | 3 | 12 | 14 | 26 | 26 | 175 | 325 | 500 |
| North Carolina | 10 | 138 | 178 | 316 | 2 | 12 | 16 | 28 | 9 | 93 | 144 | 237 |
| South Carolina | 58 | 595 | 837 | 1, 452 | 5 | 41 | 151 | 192 | 69 | 431 | 925 | 1,356 |
| Georgia. | 62 | 699 | 731 | 1, 360 | 13 | 83 | 162 | 245 | 86 | 965 | 1,527 | 2,492 |
| Tlorida | 20 | 198 | 280 | 478 | 12 | 51 | 82 | 133 | 23 | 237 | 330 | 567 |
| South Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky ---.-...... | 47 | 902 | 889 | 1,791 | 24 | 143 | 267 | 410 | 52 | 770 | 1, 115 | 1, $\varepsilon 85$ |
| Tennessee | $70^{\circ}$ | 1,020 | 1,076 | 2, 096 | 12 | 68 | 54 | 122 | 84 | 822 | 1, 142 | 1,964 |
| Alabama | 38 | 560 | 771 | 1,331 | 8 | 33 | 252 | 285 | 42 | 478 | 813 | 1,291 |
| Mississip | 73 | 862 | 1, 110 | 1. 972 | 11 | 47 | 72 | 119 | 61 | 508 | 725 | 1,233 |
| Louisiana | 15 | 275 | 481 | 756 | 2 | 8 | 15 | 23 | 20 | 378 | 698 | 1. 076 |
| Texas | 169 | 2,648 | 3, 553 | 6, 201 | 108 | 528 | 771 | 1,299 | 175 | 1,972 | 3, 068 | 5, 040 |
| Arkanss | 41 | ${ }^{6} 116$ | 774 | 1,390 | 9 | 103 | 113 | 216 | 39 | 425 | 565 | 5, 930 |
| Oklahoma |  | 21 | 25 | 46 | 2 | 8 | 14 | 22 | 2 | 50 | 60 | 110 |
| Indian Territory | 3 | 57 | 8 | 65 | 1 | 14 | 0 | $1{ }^{4}$ | 2 | 40 | 2 | 42 |
| North Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio | 514 | 6, 409 | 7.974 | 14, 383 | 89 | 423 | 562 | 985 | 435 | 6,006 | 8,647 | 14, 653 |
| Indian | 200 | $\stackrel{2}{2}, 193$ | 2,549 | 4,742 | 68 | 361 | 490 | 851 | 310 | 4, 986 | 6, 281 | 11, 167 |
| Illinois | 305 | 5,203 | 7,275 | 12, ${ }^{17} 88$ | 21 | 140 | $26:$ | 401 | 295 | 5, 155 | 7, 776 | 12, 931 |
| Micligan | 25.3 | 2,84.5 | 3,873 | 6,718 | $5 \frac{1}{4}$ | 24.4 | 490 | 734 | 255 | 3, 413 | 4, 752 | 8,155 |
| Wisconsin | $17 \pm$ | 1,827 | 2,378 | 4, 205 | 111 | 460 | $65!$ | J. 114 | 138 | 1, 352 | 1,690 | 3, 012 |
| Minnesota | 72 | 1,019 | 1, 621 | $2,6 \pm 0$ | 3 | 17 | 33 | 50 | 95 | 1,285 | 1, 937 | 3,222 |
| Iow | 257 | 3,293 | 4,737 | 8, 033 | 28 | 163 | 214 | 377 | 300 | 3, 771 | 5, 295 | 9, 066 |
| Missouri | 157 | 2, 820 | 3, 870 | 6,690 | 59 | 335 | 821 | 1,156 | 182 | 2, 786 | 4, 811 | 7,597 |
| North Da | 16 | 136 | 180 | 316 | 3 | 13 | 15 | 28 | 21 | 137 | 177 | 314 |
| Soath Dakota | 24 | 25. | 374 | 632 | 1 | 0 | 4 | 4 | 25 | 214 | 310 | $52 \frac{1}{1}$ |
| Nebraska | 170 | 2,033 | 3,011 | 5, 044 | 4 | 12 | 44 | 56 | 182 | 2,334 | 3, 617 | 5,951 |
| Kansas | 127 | 1,44s | 2, 135 | 3,583 | 34 | 196 | 350 | 546 | 156 | 1,693 | 2, 612 | 4,305 |
| Western Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana | 11 | 126 | 154 | 280 | 1 | 1 | 11 | 12 | 13 | $1+3$ | 174 | 317 |
| W yomin | 3 | 48 | 39 | -87 | 1 | 1 | 6 | 7 | 5 | 51 | 71 | 122 |
| Colorado | 19 | 238 | 263 | 501 | 10 | 93 | 177 | 270 | 35 | 713 | 1,013 | 1,726 |
| New Mexic | 3 | 40 | 59 | 99 |  |  |  |  | 3 | 21 | 43 | 64 |
| Arizona | 1 | 10 | 23 | 33 |  |  |  |  | 1 | 10 | 12 | 23 |
| Utah | , | 12 | 26 | 38 | 2 | 16 | 35 | 51 | 3 | 201 | 275 | 476 |
| Nera | , | 87 | 150 | 237 | 1 | 0 | 8 | 8 | 7 | 92 | 174 | 266 |
| Idaho | 5 | 74 | $9]$ | 165 |  |  |  |  | 4 | 29 | 30 | 53 |
| Washingtor | 17 | 21. | 302 | 516 | 11 | 58 | $8 \frac{1}{2}$ | 142 | 28 | 393 | 650 | 1,043 |
| Oregon... | 8 | 132 | 188 | 320 | 1 | 1 | 5 | 6 | 10 | 141 | 312 | 453 |
| California | 16 | 353 | 532 | 885 |  |  |  |  | 82 | 2,465 | 4,123 | . 6,588 |

Table 8.-Public high schools-Number of secondary students pursuing certain studies in 1897-98.

|  | English literature. |  |  |  | History. |  |  |  | Civics. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| State or Territory. |  | $\frac{\dot{0}}{\underset{\sim}{3}}$ |  | $\begin{aligned} & \dot{\pi} \\ & \underset{y y y}{0} \\ & \hline \end{aligned}$ |  | $\frac{\dot{3}}{\frac{3}{3}}$ |  |  |  | 令 |  | ¢ \# E |

United states.....
$4,35674,014106,142180,1564,50469,63699,842169,4784,13343,99758,245102,242$

| Nortli Atlantie Division | 1, 086 | 27, 811 | 34, 373 | 62, 184 1 | 1, 088 | 4, 364 | 31, 828 | 56, 1921 | 1, 052 | 1, 631 | 13, 962 | 25,593 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| South Atlantic Division | 271 | 4, 64t | 7,204 | 11, 848 | 318 | 4,850 | 7, 668 | 12,518 | 147 | 1,447 | 1,591 | 3, 038 |
| South Central Division | 404 | 4,772 | 7,569 | 12, 341 | 421 | 5, 715 | 9, 366 | 15, 081 | 375 | 3, 991 | 5, 484 | 9,475 |
| Nortli Central Division. | 2, 387 | 30, 328 | 46, 800 | 77, 1282 | 2, 474 | 29,472 | 42, 626 | 72, 0982 |  | 25, 067 | 34, 286 | 59,353 |
| Western Division | 208 | 6, 459 | 10,196 | 16, 655 | 203 | 5,235 | 8, 35 t | 13,589 | 179 | 1,861 | 2, 322 | 4,783 |
| North Atlantic |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine | 110 | 1,206 | 1,649 | 2, 855 | 112 | 1, 259 | 1,639 | 2, 898 | 103 | 671 | 856 | 1, 527 |
| New Ham | 43 | 6.8 | 861 | 1,499 | 43 | 567 | 693 | 1, 260 | $30^{\prime}$ | 189 | 253 | 442 |
| Vermont. | 40 | 156 | 302 | 458 | 41 | 323 | 480 | 803 | 45 | 320 | 397 | 717 |
| Massachin | 218 | 9,895 | 12, 837 | 22, 732 | 215 | 8,006 | 10,207 | 18, 213 | 171 | 2,136 | 2, 290 | 4,426 |
| Rhode Island | 15 | 833 | 1, 331 | 2,164 | 15 | 749 | 880 | 1, 629 | 14 | 202 | 169 | - 371 |
| Connecticu | 62 | 2,003 | 2, 463 | 4,466 | 62 | 1,306 | 1,688 | 2, 394 | 40 | 292 | 488 | 780 |
| New York | 276 | 4,109 | 5,324 | 9,433 | 306 | 4, 59: | 8,118 | 12,710 | 336 | 3,767 | 4, 394 | 8,161 |
| New Jerse | 73 | 1,999 | 3, 379 | 5,378 | 73 | 1, 831 | 2, 861 | 4,742 | 64 | 747 | 1,145 | 1,892 |
| Pennsylyania | 249 | 6,972 | 6,227 | 13,169 | 221 | 5, 681 | 5, 262 | 10,943 | 249 | ?,307 | 3, 970 | 7,277 |
| South Atlantic Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Delaware | 11 | $\stackrel{99}{ }$ | , 172 | , 271 | 14 | 143 | 235 | ${ }^{379}$ | 11 | 76 | 132 | 208 |
| Maryland ........... | 42 | 1,190 | 1,547 | 2, 743 | 40 | 1, 093 | 1,555 | 2,648 | 15 | 180 | 89 | 269 |
| District of Columbi | 5 | 1, 120 | 1,684 | 2,804 | 4 | 506 | 919 | 1, 4:5 | 1 | 3 | 4 | 7 |
| Virginia | 47 | 520 | 887 | 1, 407 | 51 | 898 | 1, 208 | 2,206 | 16 | 170 | 116 | 286 |
| West Virgini | 23 | 272 | 490 | 762 | 29 | 286 | 452 | 738 | 24 | 203 | 299 | 502 |
| North Carolina | 11 | 302 | 383 | 685 | 13 | 285 | 359 | 644 | 6 | 192 | 216 | 408 |
| South Carolina | 57 | 311 | 742 | 1,053 | 72 | 584 | 1,111 | 1,695 | 28 | 241 | 313 | 554 |
| Georgia | 61 | 667 | 1,098 | 1,765 | 79 | 923 | 1,560 | 2. 483 | 31 | 267 | 284 | 551 |
| Florida | 14 | 157 | 201 | 358 | 16 | 132 | 168 | 300 | 15 | 115 | 138 | 253 |
| South Central Division |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentueky | 54 | 1,004 | 1, 163 | 2,167 | 47 | 930 | 1, 502 | 2, 432 | 51 | 543 | 652 | 1, 200 |
| Tenuessee | 58 | $5 \cdot 57$ | 811 | 1,358 | 62 | 786 | ], 078 | 1,864 | 50 | 445 | 518 | 963 |
| Alabama | 38 | 340 | 759 | 1,099 | 33 | 344 | 715 | 1,059 | 18 | 210 | 343 | 553 |
| Mississip | 63 | 637 | 914 | 1,551 | 60 | 606 | 822 | 1,428 | 55 | 484 | 678 | 1,162 |
| Louisian | 17 | 211 | 717 | 928 | 18 | 394 | 1,055 | 1,451 | 14 | 151 | 317 | 468 |
| Texas | 135 | 1,617 | 2, 723 | 4, 340 | 161 | 2, 242 | 3,646 | 5,888 | 154 | 1, 816 | 2,593 | 4,409 |
| Arkans | 33 | 361 | 455 | 816 | 37 | 374 | 510 | 914 | 30 | 278 | 357 | 635 |
| Oklahoma | 2 | 22 | 21 | 43 | , | 1) | 8 | - 18 | 1 | 40 | 20 | C0 |
| Indian Territory... | 2 | 33 | 6 | 39 | 2 | 27 | 0 | 27 | 2 | 19 | 6 | 25 |
| Noth Central Division: <br> Ohio | 489 | 5,706 | 313 | 14,049 | 481 | 5,476 |  | 13, 047 | 523 | 4, 417 |  |  |
| India | 305 | 4, 510 | 5,843 | 10,353 | 314 | 3, 567 | 4. 592 | 8,159 | 265 | 2, 740 | 3, 368 | 6, 108 |
| Illinois | 301 | 6, 606 | 11,282 | 17, 948 | 296 | 4,094 | 6, 578 | 10,67: | 277 | 3, 267 | 4,575 | 7,812 |
| Michigan | 247 | 1, 859 | 3, 119 | 4,978 | 269 | 3,699 | 4,746 | 8, 445 | 244 | 2, 836 | 3,976 | 6,812 |
| W isconsi | 166 | 1, 477 | 2,245 | 3, 722 | 175 | 1,687 | 2, 255 | 3,942 | 165 | 1, 690 | 2, 282 | 3,972 |
| Min | 93 | 842 | 1,939 | 2, 181 | 93 | 1,446 | 2. 195 | 3, 641 | 66 | 629 | 806 | 1,435 |
| Iow | 279 | 3, 604 | 5, 550 | 9, 151 | 298 | 3, 489 | 5.327 | 8, 816 | 300 | 3, 364 | 4,821 | 8,185 |
| Missouri | 167 | 1, 905 | B, 130 | 5,035 | 173 | 2, 434 | 3,875 | 6,309 | 143 | 2, 071 | 2, 964 | 5,035 |
| North Da | 20 | 164 | 270 | 434 | 18 | 161 | 199 | 560 | 19 | 130 | 168 | 298 |
| South Da | 23 | 111 | 225 | $\begin{array}{r}336 \\ \hline 800\end{array}$ | 25 | 220 | 344 | 564 | 25 | 198 | 299 | 497 |
| Nebrask | 162 | 2, 021 | 3, 208 | 5,229 | 180 | 1,666 | 2, 690 | 4, 356 | 203 | 1,964 | 2, 852 | 4,816 |
| Kansas. | 144 | 1,453 | 2,276 | 3, 709 | 152 | 1,533 | 2, 254 | 3,787 | 150 | 1,761 | 2, 582 | 4,343 |
| Western Division: Montana...... |  | 123 | 184 |  |  | 132 | 187 | 319 | 0 | 126 | 204 | 330 |
| Wrom | 15 | 68 | 100 | 168 | 14 | 40 | - 55 | ${ }^{35}$ | , | 57 | 78 | 135 |
| Colorado | 37. | 1,376 | 2,050 | 3,426 | 37 | 1,355 | 1,981 | 3,336 | 23 | 331 | 514 | 815 |
| New Me | 2 | 11 | 25 | 36 | 2 | 9 | 18 | 27 | 3 | 8 | 26 | 34 |
| Arizona | 2 | 40 | 50 | 90 | 2 | 20 | 27 | 45 | . | 29 | 20 | 49 |
| Utah | 4 | 156 | 244 | 400 | 3 | 78 | 98 | 176 | 3 | 36 | 46 | 82 |
| Nevad | , | 144 | 236 | 380 | 7 | 119 | 214 | 333 | 6 | 71 | 135 | 206 |
| Idaho | 6 | 53 | 100 | 153 | 4 | 55 | 81 | 136 | 5 | 67 | 94. | 161 |
| Washingt | 28 | 402 | 645 | 1,047 | 23 | 299 | 497 | 796 | 29 | 204 | 310 | 514 |
| Oregon | 10 | 106 | 265 | 371 | 13 | 229 | 463 | 692 | 9 | 120 | 224 | 344 |
| California | 92 | 3, 980 | 6,297 | 10,277 | 93 | 2, 899 | 4,733 | 7,632 | 86 | 812 | 1,271 | 2, 083 |

Table 9.-Public high schools-Iroportion of male and female students, per cent of students pursuing certain courses, per cent of graduates, ctc., in 1897-9S.

| State or Territory | Total secoudary students. | Per cent of total number. |  |  |  |  | Per cent of grarluates prepared for college. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Males. | Femates. | College <br> classical <br> prepara1ory <br> studenits. | College scientifie preparatory students. | Gracinates in 1898. |  |
| Tnited States | 449,600 | 42.08 | 57.92 | 6.21 | 5.15 | 11.79 | 27.45 |
| North Atlantic Division | 141, 747 | 43. 49 | 56.51 | 7.93 | 4. 13 | 12.04 | 23.74 |
| South Atlantic Division. | 24,383 | 39.95 | 60.05 | 6.53 | 1.95 | 10.45 | 23.12 |
| South Central Division. | 32, 888 | 41.37 | 58.63 | 7. 66 | 5.13 | 8.40 | 30.41 |
| North Central Division | 225, 578 | 41.74 | 58.26 | 4.89 | 5. 66 | 12. 17 | 28.38 |
| Western Division. | 25, 004 | 40.09 | 59.91 | 6. 21 | 9. 44 | 12. 79 | 40.09 |
| North Atlantic Division: |  |  |  |  |  |  |  |
| Maine................. | 8,568 | 45.20 | 54.80 | 12. 29 | 3. 26 | 12. 11 | 28.03 |
| New Hamp | 3, 325 | 44.12 | 55.88 | 9.17 | 4.15 | 13. 23 | 23.86 |
| Vermont | 3. 156 | 42. 71 | 57.29 | 5.96 | 9.19 | 10. 17 | 41.43 |
| Massachusetts | 33,322 | 43.83 | 56.17 | 13.08 | 4.50 | 14. 74 | 25.88 |
| Rhode Island | 3, 149 | 42.52 | 57.48 | 17.12 | 1. 40 | 10.45 | 40.43 |
| Connecticut | 6, 881 | 45.14 | 54.83 | 8.65 | 4.29 | 13.76 | 23.76 |
| New York. | \$6,574 | 46. 14 | 53.86 | 5.40 | 4. 36 | 8. 24 | 27.71 |
| New Jersey | 9,690 | 39.65 | 60.35 | 5.74 | 5.77 | 12. 80 | 20.32 |
| Pennsylvania ........ | 27,082 | 39.07 | 60.93 | 4.17 | 3.63 | 14. 76 | 14.44 |
|  |  |  |  |  |  |  |  |
| Delaware.............. | 1, 104 | 40.67 | 59.33 | 3.99 | 1.09 | 11.59 | 19.53 |
| Maryland . ${ }_{\text {District of }}$ | 3, 922 | 39. 09 | 60. 91 | 1. 84 | 0.33 | 9.69 | 10.79 |
| District of Columbia | 2,956 | 40.70 | 59. 30 | 1.39 | 1. 12 | 11.87 | 12. 25 |
| Virginia.... | 3, 911 | 41.29 | 5871 | 6.85 | 2.02 | 10.36 | 15.31 |
| West Virginia | 1,778 | 36. 22 | 63.78 | 5. 23 | 1. 69 | 12.04 | 20.56 |
| North Carolina | 892 | 4.4.73 | 55.27 | 5.49 | 1.01 | 10.54 | 46.81 |
| South Carolina | 3,312 | 39.19 | 60.81 | 13.41 | 3. 29 | 9.03 | 47.16 |
| Georgia | 5,454 | 39.84 | 60. 16 | 10.10 | 3. 26 | 10.60 | 29.07 |
| Florida...-....-..... | 1,05! | 40.61 | 59.39 | 2.94 | 1. 23 | 9.39 | 21.21 |
| Sonth Central Division: ${ }^{\text {S }}$ ( ${ }^{\text {S }}$ |  |  |  |  |  |  |  |
| Kentacky. | 4,754 | 41.75 | 58.25 | 4. 25 | 4. 59 | 8.20 | 27.69 |
| Tennessee | 5,357 | 42.80 | 57.20 | 8.51 | 5.04 | 10.93 | 28.18 |
| Alabama | 2, 577 | 40.20 | 59.80 | 5.90 | 2.72 | 8.96 | 29.44 |
| Mississippi | 3, 479 | 45.10 | 54.90 | 13.57 | 10.48 | 5. 82 | 33. 17 |
| Louisiana | 1,755 | 31.91 | 68.09 | 3.19 | 0.68 | 13.52 | 12. 97 |
| Texas | 11, 843 | 40.45 | 59.55 | 7.54 | 4. 88 | 7. 43 | 33.98 |
| Arkansas | 2, 784 | 43.22 | 56.78 | 9.83 | 5.78 | 7.11 | 44.44 |
| Oklahoma ----. | 246 | 39.43 | 60.57 | 0. 00 | 0. 00 | 7.32 | 50.00 |
| Indian Territory. | 98 | 77.55 | 22.45 | 16.33 | 14.29 | 15. 31 | 26.67 |
|  |  |  |  |  |  |  |  |
| Ohio.... | 40,808 | 43.13 | 50.87 | 6.02 | 4.87 | 12.85 | 23.57 |
| Indiana | 22,812 | 44.02 | 55.98 | 3.02 | 3.13 | 11.01 | 21.46 |
| Illinois. | 35, 068 | 39.70 | 60.30 | 5.12 | 5.09 | 12.32 | 24.00 |
| Michigan. | 27, 458 | 42.43 | 57.57 | 2. 47 | 5. 58 | 11. 28 | 28.96 |
| Wisconsin | 16, 796 | 43.69 | 56.31 | 4. 53 | 4. 78 | 12. 29 | 29.75 |
| Minnesota. | 11, 710 | 40.82 | 59.18 | 1.90 | 16. 39 | 11.63 | 51.91 |
| Iowa. | 26, 262 | 41.73 | 58.27 | 6. 08 | 4.51 | 13.38 | 27.59 |
| Missouri | 17, 143 | 39.53 | 60.47 | 5.02 | 5. 41 | 11.04 | 24.19 |
| North Dakota | ${ }^{9} 908$ | 39. 65 | 60.35 | 8.37 | 7.71 | 8.92 | 48. 15 |
| South Dakota | 1,615 | 41.92 | 58.08 | 1.36 | $\cdots .11$ | 14.06 | 32. 16 |
| Nebraska | 13,403 | 40.15 | 59. 85 | 6.57 | 9.10 | 13.15 | 37.46 |
| Kansas.-...... | 11,595 | 40.34 | 59.66 | 8.59 | 5.05 | 11.85 | 40.76 |
| Western Divisiou: |  |  |  |  |  |  |  |
| Montana. | 836 | 40.74 | 59. 26 | 11. 914 | 9.71 | 11.50 | 31.07 |
| Wyoming | 307 | 44.63 | 55.37 | 5.86 | 1.95 | 14.01 | 65.12 |
| Colorarlo :-. | 4. 928 | 39.83 | 60.17 | 6.35 | 13.33 | 12. 28 | 31.90 |
| New Mexico | 127 | 37.80 | 62.20 | 0.79 | 7. 87 | 22.05 | 17.86 |
| Arizona | 156 | 41.67 | 58.33 | 7.65 | 4. 49 | 7.69 | 100.00 |
| Utah. | 891 | 41. 64 | 58.36 | 0.00 | 0.00 | 7.41 | 45.45 |
| Nevala | 509 | 37.52 | 62.48 | 5.30 | 5.30 | 19.06 | 42. 27 |
| Itaho | 346 | 40.75 | 59.25 | 11.85 | 11. 56 | 8.67 | 26. 67 |
| Washington | 2. 630 | 39.70 | 60.30 | 6.88 | 5.78 | 13.95 | 19.35 |
| Oregon..... | 1,594 | 40.03 | 59.97 | 4. 83 | 0.69 | 12. 11 | 7.25 |
| California | 12, 620 | 40.10 | 59.90 | 6.14 | 10.81 | 13.11 | 51.27 |

Table 10.-Public high schools-Percentages of secondary students pursuing certain studies in 1897-98.


Table 11.-Public high sehools-Percentages of secoudary students pursuing certain studies in 1897-9S.

| State or Territory: | Per cent of total sccondary students. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Chemistry. | Plysical geog. raphy. | Geology. | Physiology. | Psy-chology. | Rhetoric. | English litera. ture. | His. tory. | Civies. |
| United States. | 8. 30 | 24.94 | 4. 37 | 29.98 | 2.74 | 35.97 | 40.07 | 37. 70 | 22.74 |
| North Atlantic Divisio | 9.10 | 19.02 | 5. 86 | 27. 23 | 1.45 | 32. 40 | 43.87 | 39.64 | 18.06 |
| South Atlantic Division | 8.15 | 30.87 | 3. 22 | 32.48 | 3.95 | 41.37 | 48.59 | 51.34 | 12.46 |
| South Central Division | 8.53 | 36.48 | 6.87 | 47.56 | 7.63 | 41.43 | 37.51 | 45.84 | 28. 80 |
| Nortli Central Dirision | 7.33 | 26.97 | 3.27 | 30.80 | 2. 79 | 35.88 | 34. 19 | 31.96 | 26.31 |
| Western Dirision ... | 12.43 | 19.28 | 3.63 | 12. 64 | 1.98 | 44.54 | 66.61 | 54.35 | 19.13 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |  |
| New Hamps | 14.35 | 10.65 | 6. 62 | 11. 79 | 0.51 | 36.18 | 45.08 | 37. 89 | 13. 29 |
| Termont... | 6.53 | 24.11 | 7. 79 | 12. 67 | 3.77 | 26.14 | 14.51 | 25.44 | 22. 72 |
| Massachusetts | 12. 31 | 9.29 | 5.49 | 15.83 | 0.55 | 43. 02 | 68. 22 | 54. 66 | 13. 28 |
| Rhode Island | 15.02 | 6.32 | 4.48 | 1. 24 | 2.86 | 45. 86 | 68.72 | 51.73 | 11. 78 |
| Connecticut | 9.62 | 17. 73 | 6. 23 | 14. 69 | 0.64 | 41.13 | 64.90 | 43.51 | 11. 34 |
| New York | 5.47 | 19. 22 | 6.07 | 35. 75 | 0.99 | 21.34 | 20.25 | 27.29 | 17.52 |
| New Jersey | 10.12 | 26. 78 | 6. 81 | 30.05 | 2. 09 | 33.95 | 55.50 | 48.94 | 19. 53 |
| Pennsylrania | 9.75 | 30.41 | 4.39 | 38.08 | 2. 59 | 35.84 | 48.74 | 40.41 | 26. 87 |
| South Atlantic Division: |  |  |  |  |  |  |  |  |  |
| Delaware --....-. .- | 12.14 | 45.65 | 0.00 | 55.53 | 0. 72 | 36. 05 | 24.55 | 34.33 | 13. 84 |
| Maryland | 6.50 | 20.47 | 0.87 | 39.19 | 4.46 | 50.38 | 69.94 | 67.52 | 6.86 |
| District of Colam | 7.98 | 0.00 | 1.18 | 0.00 | 0. 00 | 36. 30 | 94. 86 | 48. 21 | 0.24 |
| Virginia. | 12.32 | 37.97 | 2.12 | 36.67 | 3.99 | 38.07 | 35.98 | 56.41 | 7.31 |
| West Virgin | 5.74 | 45.67 | 3.32 | 41. 00 | 1. 46 | 28.12 | 42.86 | 41.51 | 28. 23 |
| North Carolina | 16.82 | 21.41 | 13.34 | 35. 43 | 3. 14 | 26.57 | 76. 79 | 72. 20 | 45. 74 |
| South Carolina | 3.99 | 49. 40 | 5.50 | 43.84 | 5.80 | 40.91 | 31.79 | 51. 18 | 16. 73 |
| Georgia. | 7.99 | 31.22 | 4. 44 | 24.94 | 4. 49 | 45. 69 | 32. 36 | 45.53 | 10.10 |
| Florida | 5.60 | 37.38 | 2. 85 | 45.35 | 12.62 | 53. 80 | 33.97 | 28.46 | 24.00 |
|  |  |  |  |  |  |  |  |  |  |
| Kentucky | 9.78 6.25 | 20. 26 24.06 | 3.58 14.15 | 37.67 39.13 | 8.62 2.28 | 39.65 36.66 | 45.58 25.35 | 51.16 34.80 | 25.24 17.98 |
| Alabama | 18.01 | 35.86 | 15. 29 | 51. 65 | 11.06 | 50.10 | 42. 65 | 41.09 | 21.46 |
| Mississipp | 3. 17 | 37.04 | 2. 39 | 56. 80 | 3.43 | 35.51 | 44. 67 | 41.13 | 33.47 |
| Louisiana. | 22. 23 | 36.37 | 0.74 | 42.76 | 1.30 | 60.86 | 52.49 | 82. 07 | 26. 47 |
| Texas | 5.84 | 47.50 | 4.56 | 52.36 | 10.97 | 42.56 | 36. 65 | 49.72 | 37. 23 |
| Arkansas | 10.05 | $41.6 \pm$ | 8.87 | 49.89 | 7.75 | 35.53 | 29. 29 | 32.81 | 22.79 |
| Oklahoma | 12.60 | 3).53 | 5. 28 | 18. 70 | 8.94 | 44. 72 | 17.48 | 7.32 | 24. 39 |
| Indian Territory .... | 37.76 | 30.61 | 42.86 | 66.33 | 14. 29 | 42.86 | 39.80 | 27.55 | 25.51 |
| North Central Division: |  |  |  |  |  |  |  |  |  |
| Indiana | 8. 67 | 25.35 | 3.32 | 20. 79 | 3.73 | 48.95 | 45. 38 | 35. 77 | 26.78 |
| Illinsis | 7.19 | -3. 32 | 3. 63 | 35.58 | 1.14 | 36.87 | 51.18 | 30.43 | 22.36 |
| Michigan | 9.45 | 21.32 | 2. 26 | 24.47 | 2. 67 | 29. 74 | 18.13 | 30.76 | 24.81 |
| W isconsi | 3.26 | 34.01 | 1. 48 | 25.04 | 6. 63 | 18. 11 | 22. 16 | 23. 47 | 23.65 |
| Minnesota | 9.85 | 13. 35 | 1. 20 | 22.51 | 0.43 | 27.51 | 18. 63 | 31.09 | 12. 25 |
| Iowa | 4.48 | 27.46 | 5.66 | 30.62 | 1.44 | 34.55 | 34.89 | 33.60 | 31. 20 |
| Missouri | 7.90 | 25.00 | 4.90 | 39.02 | 6. $7 \frac{1}{4}$ | 44.32 | 29.37 | 36.80 | 29.37 |
| North Dako | 3. 19 | $\because 0.25$ | 0.65 | 34.80 | 3.08 | 34.58 | 47.80 | 39.65 | 32.82 |
| South Dakota | 6.32 | 36. 28 | 8.42 | 39.13 | 0.25 | 32.45 | 20.80 | 34.92 | 30.77 |
| Nebraska | 10.18 | 31.85 | 2. 25 | 37. 63 | 0.42 | 44.40 | 39.01 | 32. 50 | 35. 93 |
| Kansas | 5.50 | 39.36 | 3. $7 \frac{1}{4}$ | 30.90 | 4.71 | 37.13 | 31.99 | 32. 66 | 37.46 |
| Western Division: |  |  |  |  |  |  |  |  |  |
| Montana | 15.85 | 31.47 | 7. 81 | 31. 25 | 1. 34 | 35.38 | 34. 26 | 25.60 | 36. 83 |
| IV yoming | 4. 89 | 19.54 | 3.91 | 28.34 | 2. 28 | 39. 74 | 54.72 | 30.94 | 43.97 |
| Colorado | 16. 27 | 15.08 | 10.82 | 10.17 | 5. 48 | 35.03 | 69.52 | $\stackrel{67.69}{ }$ | 17.15 |
| New Mexi | 8. 66 | 52. 76 | 11. 02 | 77.95 | 0.00 | 50.39 | 28.35 | 21. 26 | 26.77 |
| Arizona | 8. 33 | 21.15 | 5.13 | 21.15 | 0.00 | 14.10 | 57. 69 | 30.13 | 31.41 |
| Utalı | 2. 69 | 19.87 | 3.37 | 4. 26 | 5. 72 | 53.42 | 44.89 | 19.75 | 9.20 |
| Nevad | 34.38 | 44.20 | 0.00 | 46.56 | 1.57 | 52.26 | 74.66 | 65.42 | 40.47 |
| Idaho.. | 7.51 | 59.54 | 1.73 | 47. 69 | 0.00 | 17.05 | 44.22 | 39.31 | 46.53 |
| Washington | 5.17 | 42.59 | 2. 43 | 19.62 | 5.40 | 39.66 | 39. 81 | 30.27 | 19.54 |
| Oideron. | 12.74 | 31.18 | 2. 07 | 20.08 | 0.38 | 28. 42 | 23.27 | 43.41 | 21.58 |
| California | 12. 36 | 11.18 | 1.09 | 7.01 | 0.00 | 52.20 | 81.43 | 60.48 | 16.51 |

Table 12.-Statistics of public high schools in cities of $s, 000$ population and orer.

| State or Territory. | Schools. | Secondary instructors. |  |  | Secondary piopils. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male. | Female. | Total. | Male. | Female. | Total. |
| United States | 700 | 2, 669 | 4,211 | 6,880 | 85, 009 | 123, 766 | 208,775 |
| North Atlantic Division | 252 | 1, 048 | 1,829 | 2,877 | 36, 210 | 46, 684 | 82, 894 |
| South Atlantic Division. | 56 | 157 | 258 | 415 | 4,467 | 8,144 | 12,611 |
| South Central Dirision | 74 | 175 | 206 | 381 | 3,827 | 7,227 | 11,054 |
| North Central Division | 280 | 1,090 | 1,665 | 2,755 | 34, 893 | 53, 123 | 88, 016 |
| Western Division...... | 38 | 199 | ${ }^{1} 253$ | ${ }^{2} 452$ | 5,612 | 8,588 | 14, 200 |
| North Atlantic Division: |  |  |  |  |  |  |  |
| Maine. | 9 | 25 | 42 | 67 | 931 | 1,174 | 2, 105 |
| New Hampshire | ${ }_{7}$ | 18 | 35 | 53 | 711 | 941 | 1,652 |
| Vermont | 2 | 4 | 12 | 16 | 183 | 287 | 470 |
| Massachusetts | 71 | 339 | 584 | 923 | 10, 846 | 13, 681 | 24, 527 |
| Rhore Island | 9 | 60 | 71 | 131 | 1,119 | 1, 544 | 2,663 |
| Connecticut. | 17 | 69 | 124 | 193 | 2,136 | 2,512 | 4,648 |
| New York | 63 | 268 | 540 | 806 | 12, 385 | 13,335 | 25, 720 |
| New Jerser. | $\stackrel{21}{53}$ | 59 208 | 136 | 195 | 2, 249 5,650 | 3,616 9,594 | 5, 865 |
| South Atlantic Division: |  |  |  |  |  |  |  |
| Dclaware. | 1 | 5 | 15 | 20 | 260 | 362 | 622 |
| Maryland | 9 | 30 | 41 | 71 | 914 | 1,633 | 2, 547 |
| District of Columbia | 5 | 49 | 73 | 122 | 1,203 | 1,753 | 2,956 |
| Virginia.. | 14 | 24 | 52 | 76 | 877 | 1,482 | 2,359 |
| West Virginia | 6 | 9 | 14 | 23 | 226 | 483 | 709 |
| North Carolina | 4 | 9 | 7 | 16 | 213 | 293 | 506 |
| South Carolina. | 5 | 6 | 14 | 20 | 104 | -617 | 721 |
| Georgia | 11 | 22 | 39 | 61 | 630 | 1,416 | 2, 046 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Kentucky. | 18 | 53 | 56 | 109 | 1, 6.5 | 1,726 | 2, 791 |
| Temmessee | 10 9 | ${ }_{11}^{21}$ | 35 <br> 24 <br> 1 | 56 | 555 | 1,199 | 1,754 |
| Mississippi | 5 | 7 | 11 | 18 | 210 | 617 | 1, 010 |
| Louisiana. | 6 | 16 | 32 | 48 | 313 | 808 | 1, 121 |
| Texas. | 19 | 50 | 40 | 90 | 1,009 | 1,978 | 2, 987 |
| Arkansas | ${ }^{6}$ | 16 | 6 | 22 | 254 | 452 | 706 |
| Oklahoma.......... | 1 | 1 | 2 | 3 | 58 | 86 | 144 |
| North Central Division: |  |  |  |  |  |  |  |
| Ohio ........... | 56 | 212 | 295 | 507 | 6, 802 | 10. 132 | 16, 934 |
| Indiana. | 37 | 136 | 148 | 284 | 3, 793 | 5,345 | 9, 138 |
| Illinois.. | 49 | 257 | 314 | 571 | 6. 747 | 11,647 | 18,394 |
| Michigan | 28 | 107 | 215 | 322 | 4,347 | 6, 010 | 10.357 |
| Wisconsin | 27 | 87 | 140 | 227 | 2, 814 | 3,717 | 6,531 |
| Minnesota. | 16 | 58 | 168 | 226 | 2, 527 | 3,756 | 6, 283 |
| Iowa. | 23 | 72 | 141 | 213 | $\bigcirc{ }^{2}, 627$ | 3, 785 | 6,412 |
| Missouri | 21 | 94 | 126 | 220 | 2, 593 | 4, 726 | 7,319 |
| North Dakota | 1 | 2 |  | 4 | 29 | 69 | 98 |
| South Dakota | 1 | 2 | 5 | 7 | 102 | 148 | 250 |
| Nebraska. | 10 | 39 | 69 | 108 | 1,469 | 2,190 | 3,659 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Wroming | 1 | 2 | 4 | 6 | 67 | 73 | 140 |
| Colorado. | 10 | 23 | 58 | 111 | 1,232 | 1,912 | 3,144 |
|  |  |  |  |  |  |  |  |
| Arizona.. |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Washington |  | 21 | 24 | 45 | 586 | 916 | 1,502 |
| Oregon | 2 | 10 | 15 | 25 | 417 | 660 | 1,077 |
| Califormia..... | 17 | 95 | 132 | 227 | 2, 833 | 4,335 | 7,168 |

Table 13.-Statistics of public high schoots outside of cities of $\mathcal{S}$, 000 population and orer.

| State or Territory. | Schools. | Sccondary instructors. |  |  | Secondary pupils. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male. | Female. | Total. | Male. | Female. | Total. |
| United States | 4,615 | 5, 873 | 5,188 | 11, 061 | 104, 178 | 136, 647 | 240, 825 |
| Nortl Atlantic Division | 1,064 | 1,197 | 1,612 | 2,809 | 25, 441 | 33, 412 | 58,853 |
| South Atlantic Division. | 331 | 355 | 306 | 661 | 5,275 | 6, 497 | 11, 772 |
| South Central Division | 478 | 687 | 494 | 1,181 | 9,780 | 12, 054 | 21,834 |
| Nortl Central Division | 2, 552 | 3,344 | 2,539 | 5,883 | 59,270 | 78, 292 | 137, 562 |
| Western Division. | 190 | 290 | 237 | 527 | 4,412 | 6,392 | 10,804 |
| Nortlı Atlantic Division: |  |  |  |  |  |  |  |
| Maine.-.............. | 145 | 145 | 120 | 265 | 2, 942 | 3,521 | 6,463 |
| New Hampshire | 45 | 40 | 52 | 92 | , 756 | . 917 | 1,673 |
| Vermont -..... | 53 | 51 | 74 | 125 | 1,165 | 1. 521 | 2, 686 |
| Massachusetts | 156 | 156 | 277 | 433 | 3, 758 | 5,037 | 8,795 |
| Rhode Island.. | 7 | 13 | 11 | 24 | 220 | 266 | 486 |
| Connecticut | 51 | 43 | 71 | 114 | 970 | 1,263 | 2,233 |
| New York | 304 | 350 | 658 | 1,008 | 9,106 | 11, 748 | 20, 854 |
| New Jersey | 64 | 75 | 144 | 219 | 1,593 | 2,232 | 3,825 |
| Penusylvania | 239 | 324 | 205 | 529 | 4,931 | 6,907 | 11,838 |
| South Atlantic Division: |  |  |  |  |  |  |  |
| Delaware. ..... | 13 | 11 | 16 | 27 79 | 189 | 293 | 482 |
| Maryland District of Columl | 37 | 45 | 27 | 72 | 619 | 756 | 1,375 |
| Virginia.. | 52 | 46 | 44 | 90 | 738 | 814 | 1,552 |
| West Virginia | 22 | 27 | 29 | 56 | 418 | 651 | 1, U69 |
| North Carolina | 10 | 13 | 8 | 21 | 186 | 200 | 386 |
| South Carolina | 80 | 87 | 70 | 157 | 1,194 | 1,397 | 2, 591 |
| Georgia | 94 | 94 | 82 | 176 | 1,543 | 1,865 | 3,408 |
| Florida... | 23 | 32 | 30 | 62 | 388 | 521 | 909 |
| Sonth Central Division: |  |  |  |  |  |  |  |
| Kentucky........... | 43 | 50 | 55 | 105 | -920 | 1,043 | 1,963 |
| Temnessee. | 83 | 109 | 58 | 167 | 1,738 | 1,865 | 3, 603 |
| Alabama | 39 | 44 | 38 | 82 | 673 | . 894 | 1,567 |
| Mississippi | 80 | 86 | 82 | 168 | 1,356 | 1,575 | 2,931 |
| Louisiana | 14 | 21 | 19 | 40 | 247 | 387 | 634 |
| 'Texas ... | 173 | 308 | 202 | 510 | 3,781 | 5,075 | 8,856 |
| Arkansas | 42 | 62 | 34 | 96 | 950 | 1,130 | 2, 080 |
| Oklahoma | 1 | 2 | 2 | 4 | 39 | 63 | 102 |
| Indian 'Territory | 3 | 5 | 4 | 9 | 76 | 22 | 98 |
| Nortli Central Division: |  |  |  |  |  |  |  |
| Ohio-..- | 542 | 699 | 352 | 1,051 | 10,799 | 13, 075 | 23, 874 |
| Indiana | 312 | 492 | 207 | 699 | 6,249 | 7,425 | 13, 674 |
| Illinois. | 279 | 379 | 317 | 696 | 7,174 | 9,500 | 16, 674 |
| Michigan. | 254 | 304 | 373 | 677 | 7, 303 | 9,798 | 17, 101 |
| Wisconsin | 155 | 195 | 187 | 382 | 4,525 | 5, 740 | 10, 265 |
| Minnesota. | 96 | 120 | 158 | 278 | 2,253 | 3, 174 | 5,427 |
| Iowa --- | 303 | 363 | 425 | 788 | 8,332 | 11, 518 | 19,850 |
| Missouri | 180 | 259 | 175 | 434 | 4,183 | 5,641 | 9,824 |
| North Dakota | 23 | 23 | 23 | 46 | 331 | 479 | +810 |
| South Dakota | 28 | 31 | 30 | 61 | 575 | 790 | 1,365 |
| Nebraska | 215 | 247 | 156 | 403 | 3,912 | 5,832 | 9, 744 |
| Kansas.. | 165 | 232 | 136 | 368 | 3,634 | 5,320 | 8,954 |
| Western Division: |  |  |  |  |  |  |  |
| Montana | 13 | 11 | 18 | 29 | 228 | 321 | 549 |
| Wyoming | 4 | 4 | 2 | 6 | 70 | 97 | 167 |
| Colorado :-.. | 29 | 57 | 40 | 97 | 731 | 1, 053 | 1,78t |
| New Mexico. | 4 | 5 | 2 | 7 | 48 | 79 | 127 |
| Arizona... | 2 | 5 | 3 | 8 | 65 | 91 | 156 |
| Utah | 2 | 4 | 1 | 5 | 31 | 38 | 69 |
| Nevada | 8 | 6 | 17 | 23 | 191 | 318 | 509 |
| Idaho | 6 | 8 | 15 | 23 | 141 | 205 | 346 |
| Washington. | 32 | 38 | 18 | 56 | 458 | 670 | 1,128 |
| Oregon ... | 11 | 15 | 7 | 22 | 221 | 296 | , 517 |
| California | 79 | 137 | 114 | 251 | 2,228 | 3,224 | 5,452 |

Thile 14．－dverage number of teachers to a public high school，students to a teacher，and students to a school，in cities and outside of cities of $\mathcal{S}, 000$ population．

| State or Territory． |  |  | Average teach－ ers to a high school． |  | Average students to a teacher． |  | A verage students to a high school． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
| United States | 4，695 | 620 | 9.8 | 2.4 | 30.3 | 21.8 | 298.3 | 52.2 |
| North Atlantic Division | 1，211 | 105 | 11.4 | 2.6 | 28.8 | 21.0 | 328.9 | 55.3 |
| South Atlantic Division． | 297 | 90 | 7.4 | 2.0 | 30.4 | 17.8 | 225.2 | 35.6 |
| South Central Division | 420 | 132 | 5.1 | 2.5 | 29.0 | 18.5 | 149.4 | 45.7 |
| North Central Division | 2， 583 | 249 | 9.8 | 2． 3 | 31.9 | 23.4 | 314.3 | 53.9 |
| Westeru Division | 184 | 44 | 11.9 | 2.8 | 31.4 | 20.5 | 373.7 | 56.9 |
| North Atlantic Division： |  |  |  |  |  |  |  |  |
| Maine | 133 | 21 | 7.4 | 1.8 | 31.4 | 24.4 | 233.9 | 44.6 |
| New Hampshire | 47 | 5 | 7． 6 | 2． 0 | 31.2 | 18.2 | 235.0 | 37.2 |
| Vermont．．．．．． | 54. | 1 | 8.0 | 2.4 | 29.4 | 21.5 | 235.0 | 50.7 |
| Massachusetts | 214 | 13 | 13.0 | 2． 8 | 26.6 | 20.3 | 345.5 | 56.4 |
| Rhode Island | 15 | 1 | 14.6 | 3.4 | 20.3 | 20.3 | 295.9 | 69.4 |
| Connecticut | 58 | 10 | 11.4 | 2.2 | 24.1 | 19.6 | 273.4 | 43.8 |
| New York． | 318 | 49 | 12.8 | 3.3 | 31.9 | 20.7 | 408.3 | 68.6 |
| New Jersey | 83 | 2 | 9.3 | 3.4 | 30.1 | 17.5 | 279.3 | 59.8 |
| Pennsylvania | 289 | 3 | 9.3 | 2． 2 | 30.9 | 224 | 287.6 | 49.5 |
| South Atlantic Division： |  |  |  |  |  |  |  |  |
| Delaware． | 13 | 1 | 20.0 | 2． 1 | 31.1 | 17.9 | 622.0 | 37.1 |
| Maryland | 35 | 11 | 7.9 | 1.9 | 35.9 | 19.1 | 283.0 | 37.2 |
| District of Columbia | 5 |  | 24.4 |  | 24.2 |  | 591.2 |  |
| Virginia． | 52 | 14 | 5.4 | 1． 7 | 30.9 | 17.2 | 168.5 | 29.8 |
| West Virginia | 26 | 2 | 3.8 | 2.5 | 30.8 | 19． 1 | 118.2 | 48.6 |
| North Carolina | 12 | 2 | 4.0 | 2.1 | 31.6 | 18.4 | 126.5 | 38.6 |
| South Carolina | 57 | 28 | 4.0 | 2． 0 | 36.1 | 16.5 | 144.2 | 32.4 |
| Georgia． | 77 | 28 | 5.5 | 1.9 | 33.5 | 19.4 | 186.0 | 36.3 |
| Florida | 20 | 4 | 6.0 | 2.7 | 24.2 | 14.7 | 145.0 | 39.5 |
| South Central Division： |  |  |  |  |  |  |  |  |
| Kentucky ．．． | 56 | 5 | 6.1 | 2.4 | 25.6 | 18.7 | 155.1 | 45.7 |
| Temnesse | 66 | 27 | 5.6 | 2． 0 | 31.3 | 21.6 | 175.4 | 43.4 |
| Alabama | 29 | 19 | 3.9 | 2.1 | 28.9 | 19.1 | 112.2 | 40.2 |
| Mississippi | 49 | 36 | 3.6 | 2.1 | 30.1 | 17.4 | 108． 2 | 36.6 |
| Louisiana | 14 | 6 | 8． 0 | 2.9 | 23.4 | 15.9 | 186.8 | 45.3 |
| Texas | 161 | 31 | 4.7 | 2.9 | 33.2 | 17． 4 | 157.2 | 51.2 |
| Arkansas． | 43 | 5 | 3． 7 | 2.3 | 32． 1. | 21.7 | 117.7 | 49.5 |
| Oklahoma． | 2 |  | 3.0 | 4． 0 | 48．0 | 25.5 | 144.0 | 102.0 |
| Indian＇I＇erritory |  | 3 |  | 3.0 |  | 10.9 |  | 32． 7 |
| North Central Division： |  |  |  |  |  |  |  |  |
| Ohio | 541 | 57 | 9.1 | 1． 9 | 33.4 | 22.7 | 302.4 | 44.0 |
| Indiana． | 310 | 39 | 7.7 | 2.2 | 32.2 | 19.6 | 247.0 | 43.8 |
| Illinois | 308 | 20 | 11.7 | 2.5 | 32.2 | 24.0 | 375.4 | 59.8 |
| Michigan | 257 | 25 | 11.5 | 2． 7 | 32.2 | 25.3 | 369.9 | 67.3 |
| Wisconsin | 173 | 9 | 8.4 | 2.5 | 28.8 | 26.9 | 241.9 | 66.2 |
| Minnesot | 101 | 11 | 14.1 | 2．9 | 27.8 | 19.5 | 392.7 | 56.5 |
| Iowa． | 272 | 54 | 9.3 | 2.6 | 30.1 | 25.2 | 278.8 | 65.5 |
| Missouri | 195 | 6 | 10.5 | 2． 4 | 33.3 | 22.6 | 348.5 | 54.6 |
| North Dakota | 24 |  | 4． 0 | 2． 0 | 24.5 | 17.6 | 98.0 | 35.2 |
| South Dakota． | 29 |  | 7.0 | 2.2 | 35.7 | 22.4 | 250.0 | 48.8 |
| Nebraska． | 204 | 21 | 10.8 | 1．9 | 33.9 | 24.2 | 365.9 | 45.3 |
| Kansas | 169 | 7 | 6.0 | 2.2 | 40．9） | 24.3 | 240.1 | 54.3 |
| Western Division： |  |  |  |  |  |  |  |  |
| Montana．．．．． | 15 |  | 5． 0 | 2.2 | 34.7 | 18.9 | 173.5 | 42.2 |
| Whoming． | ． 5 |  | 6.0 | 1.5 | 23.3 | 27.8 | 140.0 | 41.8 |
| Colorado．．．．． | 39 |  | 11.1 | 3.3 | 28.3 | 18.1 | 314.4 | 61.5 |
| New Mexico | 4 |  |  | 1． 8 |  | 18． 1 |  | 31.8 |
| Arizona． | 2 |  |  | 4． 0 |  | 19.5 |  | 78． 0 |
| Utah ．． <br> Nerada | 3 | 1 | 14.0 | 2.5 2.9 | 29.4 | 13.8 | 411.0 | 34.5 63.6 |
| Idaho．． | 4 | 2 |  | 2.9 3.8 |  | 15． 0 |  | 63.6 57.7 |
| Washington | 36 |  | 11.3 | 1.8 | 33.4 | 20.1 | 375.5 | 35.3 |
| Oregon ：－ | 13 |  | 12.5 | 2． 0 | 43.1 | 23.5 | 538.5 | 47． 0 |
| California | 55 | 41 | 13.4 | 3.2 | 31.6 | 21.7 | 421.6 | 69.0 |

TABLE 15.-Public high schools-Equipment, income, benefactions, and endorments.

| State or Territory. | Libraries. |  | Grounds, buildings, scientific apparatus, ete. |  | State and munic <br> - ipal aid. |  | Tuition fees. |  | $\begin{aligned} & \text { Productive } \\ & \text { funds. } \end{aligned}$ |  | Income from other sources and unelas. sified. |  | Total income from all sources. |  | Benefactions. |  | Total money value of ${ }^{\prime}$ endowment. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Volumes. |  | Value. | en E. 0 0 0 0 0 0 0 0 0 0 | Amount. |  | Amount. |  | Amount. |  | Amount. |  | Amount. |  |  |  | Amount. |
| United State | 4,341 | 2, 380, 895 | 4, 300 | \$83, 096, 050 | 1,905 | \$1, 816, 237 | 1,646 | \$552, 932 | 202 | \$209, 847 | 786 | \$1, 630, 831 | 2, 141 | \$7, 209, 817 | 51 | \$50, 631 | 109 | \$1, 381, 993 |
| North Atlantic Divisio | 1,078 | 860, 703 | 948 | 27, 845, 325 | 502 | 1, 749, 169 | 409 | 163, 354 | 69 | 41,546 | 256 | 698, 654 | 557 | 2,652, 723 | 28 | 31,683 | 67 | 1, 016, 351 |
| South Atlantic Division | 190 | 79,896 | 311 | 2, 937,260 | 209 | 356, 491 | 147 | 65, 684 | 15 | 10, 383 | 55 | 37,872 | 232 | 470, 430 |  |  |  | 5, 250 |
| South Central Division | 321 | 120, 054 | 486 | 5, 053, 530 | 314 | 497, 813 | 273 | 121,637 | 28 | 20, 022 | 73 | 43, 977 | 331 | 683, 449 | 5 | 13,742 | , | 92, 930 |
| North Central Division | 2,546 | 1, 224, 07.4 | 2,361 | 41, 239,483 | 801 | 1, 742, 587 | 750 | 164, 111 | 85 | 130, 426 | $\stackrel{68}{ }$ | 700, 562 | 911 | 2, 737, 686 | 14 | 4,851 | 22 | 119, 804 |
| Western Division | 206 | 96, 168 | 194 | 6,020,452 | 79 | 470, 177 | 67 | 38, 146 | 5 | 7,470 | 34 | 149, 766 | 110 | 665. 559 | 1 | 65 | 9 | 147, 598 |
| North Atlantic Division: | 78 | 16.895 | 105 | 698, 710 | 103 |  | 49 | 3, 584 | 10 | 3, 597 |  | 38,126 | 107 | 119, 884 | 3 | 1,250 | 4 | 55,015 |
| New Hamp | 35 | 11,957 | 40 | 1, 149,675 | 15 | 30, 100 | 17 | 2, 204 | 5 | 3,200 | 8 | 6,530 | 20 | 42, 034 | 4 | 25, 497 | 6 | 75, 725 |
| Vermont | 42 | 13, 054 | 39 | 452, 055 | 14 | 22, 073 | 12 | 4,155 | 4 | 630 | 6 | 4, 875 | 17 | 31, 733 | 3 | 125 | 1 |  |
| Massachusetts | 187 | 104, 356 | 154 | 8, 072,391 | 53 | 264, 850 | 45 | 22,468 | 19 | 13,458 | 33 | 173, 766 | 81 | 474, 542 | 9 | 1,800 | 23 | 517, 917 |
| Rhode Istand | 12 | 8,428 | 8 | 298,500 | 4 | 18, 501 | 5 | 2, 113 | 1 | 4, 000 | 2 | 1,387 | 5 | 26, 001 |  |  | 1 | 90, 000 |
| Connecticut | 65 | 45, 541 | 45 | 1, 805, 250 | 19 | 47, 407 | 14 | 4, 075 | , | 3,758 | 7 | 9,321 | 24 | 64, 561 | 2 | 1,035 |  | 73, 100 |
| New York | 349 | 454, 722 | 321 | 8, 778, 706 | 196 | 811,172 | 191 | 71,776 | 19 | 10,670 | 128 | 430, 539 | 201 | 1, 324, 157 | 6 | 1,076 | 22 | 177, 286 |
| New Jersey | 72 | 50,551 | 64 | 2, 055, 241 | 18 | 174, 618 | 11 | 34, 056 |  |  | 5 | 4,724 | 21 | 213,398 |  |  |  |  |
| Pennsylvania | 238 | 155, 199 | 172 | 4, 53i, 797 | 80 | 305, 871 | 65 | 18, 923 | 5 | 2, 233 | 24 | 29,386 | 81 | 356, 413 | 1 | 900 | 4 | 27, 278 |
| South Atlantic Division: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Delaware | 8 | 1,775 | 13 | 184,650 | 10 | 34, 578 | 6 | 668 | 1 | 1,052 | 4 | 2, 745 | 10 | 39, 043 |  |  |  |  |
| Maryland........... | 34 | 8,724 | 31 | 562, 850 | 13 | 52,479 | 4 | 1,616 |  |  | 6 | 5,760 | 17 | 59, 855 |  |  |  |  |
| Distriet of Columb | 5 | 10,080 | 2 | 140,800 | 1 | 25, 975 |  |  |  |  |  |  | 1. | 25, 97.5 |  |  |  |  |
| Virginia....-. | 25 20 | 6.935 | ${ }_{22}^{48}$ | 272,900 344,770 | 28 8 3 | $5 \pm, 122$ 4,300 | 18 1 | 7, 199 | 6 | 1,320 | 5 1 | 1,521 3,000 | 32 4 | 64,862 7,494 |  |  |  |  |
| North Carolina | 8 | 16, 268 | 12 | 133, 750 | 7 | 3,544 | 7 | 1,805 |  |  | 3 | 2,250 | 8 | 7,599 |  |  | 1 | 5,000 |
| South Caro | 37 | 12, 297 | 70 | 272, 175 | 57 | 66,343 | 49 | 20,169 | 2 | 850 | 17 | 6, 861 | 63 | 94, 223 | 2 | 190 |  |  |
| Georgia. | 40 | 14,788 | 91 | 907, 390 | 76 | 85, 506 | 58 | 32, 633 | 4 | 2, 975 | 12 | 7,921 | 81 | 129, 035 | 1 | 100 | 1 | 250 |
| Florida. | 13 | 3, 079 | 22 | 117, 975 | 11 | 29, 614 | 4 | 700 | 2 | 4,186 | 7 | 7,814 | 16 | 42,344 |  |  |  |  |
| South Central Division: | 42 | 19, 307 | 57 | 1, 151,900 | 25 | 77, 283 | 20 | 11,859 | 2 | 1,200 | 9 | 6,060 | 27 | 96,402 |  |  | 1 | 15, 000 |
| Tennessee | 47 | 17,413 | 84 | 548,460 | 47 | 65,386 | 44 | 19,715 | 4 | 900 | 10 | ¢, 000 | 53 | 90, 001 |  |  | 1 | 2,500 |
| Alabama | 21 | 14, 281 | 38 | 253,610 | 32 | 24, 289 | 29 | 17, 140 | , | 125 | 8 | 6,518 | 33 | 48, 072 |  |  | 1 | 50 |
| Mississippi | 40 | 12, 597 | 77 | 421,062 | 58 | 56, 232 | 52 | 20, 129 | 6 | 1,215 | 18 | 3, 105 | 61 | 80, 681 | 2 | 850 | 1 | 300 |

Table 15.-Public high schools-Equipment, income, benefactions, and endowments--Continued.

| State or territory. | Libraries. |  | Grounds, buildings, scientific apparatus, etc. |  | State and municipal aid. |  | Tuition fees. |  | Productive funds. |  | Income from other sources and unclas. sified. |  | Total income from all sources. |  | Benefactions. |  | Total money value of endowment. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Volumes. |  | Value. |  | Amount. |  | Amount. |  | Amount. |  | Amount. |  | Amount. |  |  |  | Amount. |
| South Cent'l Division-Cont'd. <br> Louisiana | 16 | 6,766 | 12 | \$125, 200 | 7 | \$14,845 | 3 | \$950 |  |  | 2 | \$3, 550 | 8 | \$19,345 |  |  | 1 | \$540 |
| Texas | 122 | 38, 121 | 171 | 1,968, 967 | 116 | 207, 883 | 102 | 44, 458 | 10 | \$8, 132 | 17 | 12, 227 | 119 | 272,700 | 2 | \$12, 010 | 3 | 74, 000 |
| Arkansas | 28 | 10,619 | 43 | 416,331 | 28 | 33, 895 | 23 | 7,386 | 3 | 7,450 | 9 | 8,517 | 29 | 57, 248 | 1 | 882 | 1 | 600 |
| Oklahoma | 2 | 400 | 2 | 118, 000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Indian Territory | 3 | 550 | 2 | 50, 000 | 1 | 18, 000 |  |  | 1 | 1,000 |  |  | 1 | 19, 000 |  |  |  |  |
| Narth Central Division: | 479 | 184, 001 | 490 | 7,386, 855 | 152 | 328, 261 | 142 | 36,879 | 23 | 36,583 | 66 | 101,345 | 181 | 503, 068 | 3 | 650 | 4 | 2,700 |
| Indiana | 308 | 142, 206 | 281 | 3,850, 568 | 109 | 232, 266 | 88 | 20,561 | 6 | 3,979 | 37 | 99,541 | 127 | 356, 347 |  |  | 2 | 1,995 |
| Illinois | 312 | 141,327 | 282 | $5,753,185$ | 77 | 214,595 | 84 | 25,506 | 11 | 24, 872 | 39 | 104,878 | 95 | 369, 851 | 3 | 2,500 | 5 | 16, 151 |
| Michigan | 262 | 203, 679 | 240 | 4, 585, 990 | 98 | 240, 042 | 109 | 24, 466 | 12 | 19,119 | 66 | 114, 988 | 114 | 398, 615 |  |  | 2 | 12, 050 |
| Wisconsin | 170 | 110,462 | 153 | 3, 164, 393 | 77 | 131, 905 | 74 | 18,875 | 6 | 2,680 | 42 | 67,638 | 80 | 221, 098 | 2 | 324 | 2 | 2, 300 |
| Minnesota | 107 | 85, 723 | 96 | 3, 24, 3,126 | 40 | 136, 739 | 16 | 1,964 | 4 | 12, 996 | 12 | 23, 985 | 41 | 175, 684 |  |  | 2 | 65, 000 |
| Iowa. | 302 | 107, 625 | 274 | 4, 853, 032 | 58 | 108, 416 | 62 | 12,927 | 6 | 4,946 | 18 | 31, 656 | 66 | 157, 945 | 3 | ], 094 | 1 | 1,390 |
| Missouri | 186 | 90,320 | 177 | 3,331, 626 | 55 | 179, 771 | 53 | 8,096 | 8 | 11,656 | 24 | 39, 846 | 59 | 239, 369 |  |  | 1 | 15,000 |
| North Dakota ....-........ | 23 | 11,902 | 20 | 300,500 | 3 | 8,150 | 3 | 508 |  |  |  |  | 3 | 8,658 |  |  |  |  |
| South Dakota | 28 | 10,478 | 21 | 374,894 | 2 | 3,800 | 1 | 112 |  |  |  |  | 2 | 3,912 |  |  |  |  |
| Nebraska | 203 | 72, 193 | 189 | 2, 548, 699 | 76 | 74, 976 | 71 | 9,239 | 3 | 3,308 | 39 | 68, 057 | 84 | 155, 580 | 1 | 63 | 1 | 18 |
| Kansas | 166 | 64, 158 | 138 | 1,846, 615 | 54 | 83, 666 | 47 | 4,978 | 6 | 10,287 | 25 | 48,628 | 59 | 147, 559 | 2 | 220 | 2 | 3,200 |
| Western Division : <br> Montana ...... | 14 | 5, 023 | 14 | 573, 500 | 2 | 10,000 | 1 | 21 |  |  |  |  | 2 | 10, 021 |  |  |  |  |
| Wyoming | 4 | 5,350 | 4 | 104,500 |  | 10,000 |  |  |  |  | 1 | 400 | 1 | 10, 400 |  |  |  |  |
| Colorado..................... | 36 | 26, 471 | 30 | 1,846,600 | 9 | 25,060 | 10 | 18,384 | 1 | 1,700 | 4 | 44,575 | 11 | 89,719 |  |  | 2 | 3,000 |
| New Mexico................ | 4 | 665 | 4 | 69,000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Arizona | 1 | 250 | 2 | 60,000 | 1 | 10, 000 |  |  |  |  |  |  | 1 | 10,000 |  |  |  |  |
| Utah | 2 | 324 | 3 | 97, 500 | 3 | 31,800 | 3 | 412 |  |  |  |  | 3 | 32, 212 |  |  |  |  |
| Nevada | 7 | 2,780 | 6 | 84, 761 |  |  |  |  |  |  | 1 | 3,567 | 1 | 3,567 |  |  |  |  |
| Idaho | 4 | 2,926 | 6 | 220, 000 | -1 | 15, 000 | 2 | 650 |  |  | 1 | 3,000 | - 2 | 18,650 |  |  |  |  |
| Washington | 31 | 7, 933 | 29 | 738, 320 | 5 | 12, 350 | 2 | 108 | 1 | 2,600 | 3 | 9,384 | 8 | 24,442 |  |  |  |  |
| Oregon | 12 | 4,117 | 8 | 169,306 | 2 | 3,650 | 1 | 55 |  |  |  |  | 2 | 3, 705 |  |  |  |  |
| California | 91 | 40,329 | 88 | 2, 056, 965 | 56 | 362, 317 | 48 | 18,516 | 3 | 3,170 | 24 | 88, 840 | 79 | 472,843 | 1 | 65 | 7 | 144, 598 |

Table 16.-Private hight schools and academies-Number of schools, secondary instructors, secondary students, and elementary pupils in 1897-98.

|  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

Table 17.-Prirate high schools and academies-Number of secondury students in college preparatory course, number of graduates and college preparatory students in graduating class in 1897-9S.

| State or 'Territory. | Secondary students preparing for college. |  |  |  |  |  | Graduates in the class of 1898. |  |  | College preparatory students in graduating class of 1898. |  |  | $\begin{gathered} \text { Students in mili- } \\ \text { tary tactics. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Classical course. 'Scientific course. |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\underset{\sim}{\underset{\sim}{\leftrightarrows}}$ |  |  | $\begin{aligned} & \stackrel{\dot{\Xi}}{\pi} \\ & \stackrel{\pi}{\pi} \end{aligned}$ |  | $\begin{gathered} \underset{\sim}{\pi} \\ \underset{\sim}{\pi} \end{gathered}$ |  |  | $\begin{aligned} & \text { ت゙ } \\ & \text { تु } \\ & \text { H } \end{aligned}$ | $\stackrel{\dot{\Xi}}{\stackrel{\rightharpoonup}{\pi}}$ |  | $\begin{aligned} & \text { ت゙ं } \\ & \stackrel{\text { sin }}{0} \end{aligned}$ |  |
| United States | 11, 128 | ธ, 233 | 16,361 7 | 7, 429 | 2,903 | 10,332 | 6, 202 | 5, 846 | 12, 148 | 3,628 | 1,760 | 5,338 | 7,854 |
| North Atlantic Division. | 5,611 | 1.794 | 7,4053 | 3, 865 | 1,104 | 4, 969 | 3, 338 | 2,570 | 5, 908 | 2, 095 | 699 | 2,794 | 3, 459 |
| South Atlantic livision. | 1., 883 | 1, 016 | 2, 899 | 835 | 279 | 1,114 | 713 | 851 | 1,564 | 368 | 238 |  | 1,191 |
| South Central Division.. | 1,590 | 1,168 | 2,758 | 964 | 594 | 1,558 | 724 | 816 | 1, 510 | 393 | 318 | 711 | 910 |
| North Central Division.. | 1,674 | 1, 032 | 2,7061 | 1, 259 | 716 | 1, 975 | 1,302 | 1,379 | 2,681 | 637 | 437 | 1,074 | 1,869 |
| Western Division .-.-. - | 370 | 223 | 593 | 506 | 210 | 716 | 225 | 230 | 455 | 135 | 68 | 203 | 425 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine. | 368 | 176 | 54. | 106 | 17 | 123 | 183 | 201 | 384 | 110 | 54 | 164 | 171 |
| New Hamp | 360 | 47 | 407 | 188 | 29 | 217 | 214 | 90 | 304 | 143 | 23 | 166 | 28 |
| Vermont | 97 | 63 | 160 | 72 | 33 | '105 | 137 | 143 | 280 | 49 | 34 | 83 | 96 |
| Massachusetts | 1, 131 | 358 | 1, 489 | 634 | 246 | 880 | 507 | 385 | 892 | 422 | 164 | 586 | 142 |
| Rhode Island | 154 | 34 | 188 | 56 | 44 | 100 | 46 | 55 | 101 | 31 | 25 | 56 | 95 |
| Commecticut | 372 | 119 | 491 | 272 | 65 | 337 | 232 | 200 | 432 | 135 | 64 | 199 | 51 |
| New York | 1,363 | 545 | 1,908 1 | 1,042 | 249 | 1. 291 | 931 | 775 | 1,706 | 545 | 163 |  | 1,818 |
| New Jersey | 749 | 154 | 903 | 477 | 173 | 650 | 375 | $2: 3$ | 607 | 271 | 58 | 329 | 488 |
| Pennsylyania .-..... | 1,017 | 298 | 1,315 1 | 1,018 | 248 | 1,266 | 713 | 489 | 1,202 | 389 | 114 | 503 | 570 |
| South Atlantic Division: <br> Delaware. | 11 | 3 |  |  | 1 | 11 | 15 | 20 | 35 | 7 | 4 | 11 | 0 |
| Maryland | 111 | 95 | 206 | 89 | 14 | 103 | 118 | 132 | 250 | 69 | 59 | 128 | 103 |
| District of Columbia. | 123 | 18 | 141 | 44 | 5 | 49 | 43 | 61 | 104 | 33 | 8 | 41 | 52 |
| Virginia. | 425 | 185 | 610 | 162 | 77 | 239 | 60 | 127 | 187 | 34 | 9 | 43 | 334 |
| West Virginia | 57 | 41 | 98 | 30 | 17 | 47 | 37 | 29 | 66 | 17 | 8 | 25 | 110 |
| North Carolina | 670 | 334 | 1, 004 | 370 | 87 | 457 | 183 | 99 | 282 | 114 | 44 | 158 | 2.49 |
| South Carolina | 133 | 76 | 209 | 71 | 16 | 87 | 180 | 183 | 363 | 44 | 20 | 64 | 138 |
| Georgia | 350 | 257 | 607 | 59 | 62 | 121 | 75 | 193 | 268 | 50 | 86 | 136 | 205 |
| Florida....---.... | , | 7 | 10 |  |  |  | 2 | 7 | , |  |  |  | 0 |
| South Central Division: |  | 157 | 435 |  | 95 | 252 |  |  | 313 | 68 | 38 | 106 | 155 |
| Tennessee | 366 | 203 | 569 | 210 | 95 105 | 315 | 185 | 162 | 347 | 122 | 66 | ; 88 | +21 |
| Alabama | 329 | 269 | 598 | 139 | 74 | 213 | 59 | 88 | 147 | 32 | 29 | 61 | 192 |
| Mississipp | 33 | 26 | 59 | 98 | 59 | 157 | 102 | 101 | 203 | 48 | 49 | 97 | 89 |
| Louisiana | 73 | 65 | 138 | 60 | 54 | 114 | 51 | 79 | 130 | 34 | 56 | 90 | 50 |
| 'Texas | 402 | 369 | 771 | 203 | 131 | 334 | 130 | 189 | 319 | 68 | $5 \overline{1}$ | 123 | 325 |
| Arkansas | 78 | 61 | 139 | 82 | 57 | 139 | 37 | 25 | 62 | 18 | 17 | 35 | 78 |
| Oklahoma | 10 | 7 | 17 | 4 | 2 | 16 | 3 | 2 | 5 | 3 | 2 | 5 | 0 |
| Indian Territor | 21 | 11 | 32 | 11 | 7 | 18 | 1 | 13 | 14 | 0 | 6 | 6 | 0 |
| North Central Division: Ohio | 160 | 102 | 262 | 145 | 111 | 256 | 128 |  | 270 | 109 | 56 | 165 | 53 |
| Indiana | 68 | 151 | 219 | 96 | 119 | 145 | 128 | $1: 38$ | 206 | 103 | 30 | 53 | 374 |
| Illinois | 236 | 198 | 434 | 254 | 172 | 4:6 | 224 | 292 | 516 | 120 | 106 | 226 | 278 |
| Michigan | 29 | 21 | 50 | 56 | 33 | 89 | 49 | 84 | 133 | 27 | 26 | 53 | 161 |
| Wisconsin | 294 | 46 | 340 | 98 | 10 | 108 | 148 | 110 | 258 | 36 | 35 | 71 | 113 |
| Minnesot | 97 | 65 | 162 | 78 | 26 | 104 | 165 | 122 | 287 | 68 | 29 | 97 | 312 |
| Iowa | 192 | 124 | 316 | 109 | 95 | 204 | 213 | 187 | 400 | 69 | 58 | 127 | 2.5 |
| Missouri | 466 | 217 | 683 | 334 | 150 | 484 | 229 | 212 | 441 | 135 | 55 | 190 | $\checkmark 35$ |
| North Dakota | 16 | 5 | 21 | 0 | 0 | 0 | 6 | 2 | 8 | 7 | 0 | 7 | 0 |
| South Dakota | 42 | 20 | 62 | 8 | 3 | 11 | 13 | 28 | 41 | 8 | 8 | 16 | 0 |
| Nebraska | 32 | 37 | 69 | 32 | 24 | 56 | 26 | 26 | 52 | 19 | 19 | 38 | 72 |
| Kansas | 42 | 46 | 88 | 49 | 43 | 92 | 33 | 36 | 69 | 16 | 15 | 31 | 46 |
| Western Division Montana |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana | 0 | 4 | 4 | 0 2 | 55 0 |  |  | 8 | 8 | 0 | 4 | 4 | 0 |
| Colorado | 7 | 8 | 15 | 9 | 6 | 15 | 9 | 0 | 9 | 5 | 0 | 5 | 19 |
| New Mexic | 4 | 0 | 4 |  |  |  | 2 | 3 | 5 | 2 | 0 | 2 | 11 |
| Arizona | 0 | 8 | 8. |  |  |  | - 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Utah | 55 | 34 | 89 | 39 | 13 | 52 | 56 | 36 | 92 | 22 | 13 | 35 | 48 |
| Nevada |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Irlaho | 16 | 8 | 24 | 9 | 10 | 19 | 5 | 10 | 15 | 1 | 0 | 1 | 0 |
| Washingto | 14 | 13 | 27 | 10 | 22 | 32 | 2 | 13 | 15 | 2 | 7 | 9 | 0 |
| Oregon | 88 | 56 | 144 | 79 | 76 | 155 | 39 | 41 | 80 | 17 | 11 | 28 | 92 |
| California | 186 | 92 | 278 | 358 |  | 386 | 112 | 118 | 230 | 86 |  | 118 | 255 |

Table 18.-Private high schools and academies-Number of secondary students pursing certain studies in 189\%-98.

| State or Territory. | Latin. |  |  |  | Greek. |  |  |  | French. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\stackrel{\oplus}{\text { Hi }}$ |  |  |  | $\stackrel{\oplus}{\text { ®゙ }}$ |  |  |  | $\stackrel{\oplus}{\stackrel{\oplus}{\top}}$ |  | $\begin{aligned} & \text { ت゙ं } \\ & \text { H } \\ & \text { H } \end{aligned}$ |
| United States | 1,851 | 27,908 | 23,078 | 50,986 | 957 | 8,983 | 1,999 | 10,973 | 1,130 | 8,682 | 15,566 | 24,248 |
| North Atlantic Division | 642 | 12. 341 | 8, 996 | 21, 337 | 409 | 5, 117 | 941 | 6,058 | 536 | 6,133 | 8, 943 | 15, 076 |
| South Atlantic Division | 353 | 5, 264 | 4,108 | 9,372 | 165 | 1, 221 | 141 | 1,362 | 198 | 1,101 | 2, 220 | 3, 321 |
| South Central Division. | 403 | 4,702 | 4,372 | 9, 074 | 176 | , 971 | 428 | 1,399 | 151 | 401 | 1,150 | 1,551 |
| North Central Division | 348 | 4,767 | 4,628 | 9,395 | 166 | 1, 429 | 390 | 1, 819 | 177 | 861 | 2,352 | 3, 213 |
| Western Division. | 105 | 834 | 974 | 1,808 | 41 | 245 | 90 | 335 | 68 | 186 | 901 | 1,087 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine .-....-.-....-. | 32 | 560 | 589 | 1,149 | 31 | 294 | 143 | 437 | 27 | 136 | 305 | 441 |
| New Hampsh | 25 | 838 | 303 | 1,147 | 18 | 528 | 43 | 571 | 25 | 614 | 254 | 868 |
| Vermont. | 23 | 284 | 292 | 576 | 16 | 105 | 39 | 144 | 16 | 74 | 207 | 281 |
| Massachasett | 96 | 2,013 | 1, 537 | 3, 550 | 65 | 1, 018 | 211 | 1, 229 | 93 | 1,381 | 1,569 | 2,950 |
| Rhode Island | 13 | 179 | 246 | 425 | 8 | 79 | 23 | 102 | 13 | 139 | 318 | 457 |
| Connecticut | 60 | 939 | 748 | 1,687 | 37 | 378 | 77 | 455 | 50 | 409 | 779 | 1,188 |
| New York | 197 | 3, 062 | 2, 524 | 5, 386 | 116 | 1, 161 | 187 | 1,348 | 172 | 1,9.13 | 3,750 | 5,693 |
| New Jersey | 67 | 1,535 | 758 | 2, 293 | 36 | 649 | 48 | 697 | 51 | 504 | 713 | 1. 217 |
| Pennsylyauia.... | 128 | 2,931 | 1,993 | 4, 924 | 82 | 905 | 170 | 1,075 | 86 | 933 | 1,048 | 1,981 |
| South Atlantic Division: <br> Delaware | 5 | 110 | 76 | 186 | 2 | 25 | 7 | 32 | 2 | 45 | 44 | 89 |
| Maryland | 34 | 614 | 561 | 1, 175 | 14 | 131 | 15 | 146 | 25 | 217 | 542 | 759 |
| District of Columbia | 17 | 200 | 215 | 415 | 7 | 66 | 1 | 67 | 16 | 111 | 319 | 430 |
| Virginia. | 76 | 979 | 802 | 1,781 | 28 | 166 | 1 | 167 | 54 | 205 | 423 | 688 |
| West Virginia | 13 | 171 | 203 | 374 | 8 | 79 | 8 | 87 | 12 | 51 | 114 | 165 |
| North Carolina | 107 | 1,557 | 779 | 2,336 | 48 | 311 | 20 | 331 | 43 | 102 | 213 | 315 |
| South Carolina | 32 | 543 | 388 | 831 | 19 | 197 | 39 | 236 | 17 | 207 | 280 | 487 |
| Georgia | 67 | 1,075 | 1,054 | 2,129 | 38 | 246 | 49 | 295 | 27 | 102 | 268 | 370 |
| Florida ............... | 4 | 15 | 30 | 45 | , | 0 | 1 | 1 | 2 | 1 | 17 | 18 |
| South Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky | 76 | 753 | 793 | 1,546 | 34 | 230 | 62 | 292 | 36 | 64 | 248 | 312 |
| Tennessee | 100 | 1,382 | 1, 129 | 2, 511 | 48 | 341 | 191 | 532 | 23 | 47 | 180 | 227 |
| Alabama | 63 | 734 | 582 | 1,316 | 29 | 105 | 12 | 117 | 24 | 65 | 118 | 183 |
| Mississippi | 44 | 422 | 448 | 870 | 14 | 62 | 34 | 96 | 11 | 35 | 73 | 108 |
| Louisiana | 22 | 173 | 217 | 390 | 6 | 29 | 22 | 51 | 19 | 122 | 247 | 369 |
| Texas. | 65 | 830 | 879 | 1, 709 | 28 | 131 | 70 | 201 | 33 | 63 | 276 | 339 |
| Arkansas | 23 | 312 | 219 | 531 | 12 | 46 | 25 | 71 | 4 | 5 | 6 | 11 |
| Oklahoma | , | 20 | 19 | 39 | 1 | 4 | 0 | 4 | 1 | 0 | 2 | 2 |
| Indian Territory. | 8 | 76 | 86 | 162 | 4 | 23 | 12 | 35 |  |  |  |  |
| North Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio.... | 5.2 | 629 | 669 | 1,298 | 25 | 284 | 44 | 328 | 35 | 130 | 465 | 595 |
| Indiana | 26 | 122 | 473 | 895 | 11 | 93 | 24 | 117 | 14 | 74 | 261 | 335 |
| Illinois | 57 | 849 | 1,096 | 1,945 | 32 | 201 | 110 | 311 | 33 | 202 | 691 | 893 |
| Michigan | 17 | 197 | 269 | 466 | 7 | 40 | 35 | 75 | 10 | 70 | 187 | 257 |
| Wisconsin | 24 | 525 | 112 | 637 | 14 | 254 | 17 | 271 | 18 | 103 | 96 | 199 |
| Minnesot | 26 | 363 | 313 | 676 | 10 | 103 | 4 | 107 | 16 | 56 | 174 | 230 |
| Iowa | 39 | 415 | 410 | 825 | 15 | 100 | 57 | 157 | 9 | 18 | 40 | 58 |
| Missouri | 73 | 1, 011 | 933 | 1,944 | 31 | 240 | 52 | 292 | 31 | 195 | 304 | 499 |
| North Dakota | 2 | 17 | 16 | 33 | 1 | 0 | 2 | 2 | 1 | 2 | 30 | 32 |
| South Dakota. | 7 | 60 | 54 | 114 | 5 | 25 | 15 | 40 | 2 | 0 | 20 | 20 |
| Nebraska | 10 | 99 | 112 | 211 | 7 | 30 | 18 | 48 | 3 | 0 | 43 | 43 |
| Kansas........ | 15 | 180 | 171 | 351 | 8 | 59 | 12 | 71 | 5 | 11 | 41 | 52 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Wroming ..... | 1 | 4 | 2 | - 6 |  |  |  |  | 1 | 0 | 28 | -8 |
| Colorado. |  | 14 | 11 | 25 | 2 | 6 | 1 | 7 | 1 | 5 | 0 | 5 |
| New Mexico | 3 | 4 | 3 | 7 |  | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Arizona | 1 | 0 | 8 | 8 |  |  |  |  |  |  |  |  |
| Utah | 11 | 97 | 117 | 244 | 4 | 15 | 14 | 29 | 3 | 16 | 57 | 73 |
| Nevada |  |  |  |  |  |  |  |  |  |  |  |  |
| Idaho | 5 | 25 | 26 | 51 | 1 | 4 | 1 | 5 | 1 | 0 | 8 | 8 |
| Washington | 10 | 41 | 92 | 133 | 6 | 9 | 12 | 21 | 7 | 16 | 108 | 124 |
| Oregon | 17 | 193 | 204 | 397 | 7 | 77 | 32 | 109 | 13 | 30 | 153 | 183 |
| California | 51 | 456 | 458 | 914 | 20 | 133 | 30 | 163 | 42 | 119 | 547 | 666 |

Table 19．－Private high schools and academies－Number of secondary students pursuing certain studies in 1897－98．

| State or＇Territory． | German． |  |  |  | Algebra． |  |  |  | Geometry． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 采 | $\begin{aligned} & \dot{9} \\ & \text { ⿷匚 } \\ & \text { g } \\ & =1 \end{aligned}$ | $\begin{aligned} & \text { ت゙ } \\ & \text { Hi } \end{aligned}$ |  |  |  | $\begin{aligned} & \text { जूं } \\ & \text { H. } \end{aligned}$ | $$ | $\begin{aligned} & \dot{9} \\ & \underset{\text { ت゙ }}{n} \end{aligned}$ | － | ¢ ¢ |
| United States | 1，121 | 9， 719 | 9，698 | 19， 417 | 1， 941 | 29，470 | 24， 927 | 54， 397 | 1， 700 | 14， 791 | 10， 911 | 25， 702 |
| North Atlantic Division | 488 | 5， 200 | 5， 204 | 10， 404 | 654 | 12， 133 | 8． 463 | 20，596 | 589 | 6， 945 | 4.331 | 11，2i6 |
| South Athantic Division | 136 | 818 | 693 | 1，513 | 367 | 5， 605 | 4，284 | 9，859 | 29 | 2，382 | 1，573 | 3， 955 |
| South Central Division | 147 | 674 | 731 | 1， 405 | 428 | 5， 985 | 5，991 | 11， 886 | 372 | 2，433 | 2． 258 | 4， 691 |
| North Central Divisi | 287 | 2，855 | 2，505 | 5， 360 | 373 | 4，488 | 4，873 | 9，361 | 339 | 2，215 | 2， 169 | 4， 384 |
| Western Division | 63 | 172 | 563 | 735 | 119 | 1，259 | 1，406 | 2， 665 | 105 | 816 | 580 | 1，396 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| New Hampsl | 13 | 191 | 66 | 257 | 29 | 856 | 280 | 1，136 | 25 | 420 | 131 | 551 |
| Vermont． | 10 | 39 | 69 | 108 | 23 | 289 | 292 | 581 | 17 | 107 | 132 | 239 |
| Massachuset | 73 | 604 | 719 | 1， 323 | 96 | 1，704 | 1，296 | 3,000 | 90 | 1，174 | 693 | 1，867 |
| Rhode Island | 10 | 30 | 103 | 133 | 13 | 210 | 162 | 372 | 12 | 144 | 100 | 244 |
| Connecticut | 47 | 307 | 454 | 761 | 60 | 840 | 586 | 1，426 | 52 | 482 | 359 | 841 |
| New York． | 169 | 2，043 | 2，076 | 4， 119 | 198 | 3， 176 | 2， 502 | 5，678 | 185 | 2， 020 | 1，454 | 3，474 |
| New Jersey | 56 | 648 | 479 | 1，127 | 68 | 1， 524 | 685 | 2， 209 | 58 | 774 | 327 | 1，101 |
| Pennsylvania． | 103 | 1， 326 | 1，215 | 2， 541 | 133 | 2， 914 | 1，999 | 4， 913 | 120 | 1，490 | 851 | 2， 341 |
| South Atlantic Division | 3 | 33 | 20 | 53 | 3 | 82 |  | 135 | 3 | 36 | 31 | 67 |
| Maryland | 27. | 294 | 192 | 486 | 38 | 596 | 657 | 1，263 | 36 | 442 | 373 | 815 |
| District of | 12 | 78 | 122 | 200 | 19 | 187 | 203 | 390 | 17 | 135 | 78 | 213 |
| Virginia | 44 | 202 | 150 | 352 | 76 | 1，181 | 699 | 1，8：0 | 69 | 609 | 251 | 860 |
| West Virgini | 9 | 42 | 58 | 100 | 14 | 174 | 185 | 359 | 12 | 91 | 66 | 157 |
| North Carolina | 22 | 94 | 46 | 140 | 110 | 1，609 | 846 | 2，455 | 67 | 437 | 198 | 635 |
| South Carolin | 10 | 59 | 28 | 87 | 34 | 649 | 487 | 1，136 | 26 | 176 | 115 | 291 |
| Georgia． | 8 | 16 | 65 | 81 | 67 | 1，117 | 1， 065 | 2， 182 | 60 | 456 | 433 | 889 |
| Florida | 1 | 0 | 14 | 14 | 6 | 10 | 79 | 89 | 5 | 0 | 28 | 23 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky ．．．．． | 48 28 | 107 | 215 | ${ }_{213}^{439}$ | 86 100 | 1,000 1,447 | 794 1,341 | 1,794 2,788 | 68 89 | 349 491 | 263 | ${ }_{919} 912$ |
| Alabama． | 14 | 54 | 66 | 120 | 65 | 889 | 740 | 1，629 | 60 | 411 | 274 | 685 |
| Mississippi | 6 | 20 | 30 | 50 | 48 | 516 | 681 | 1，197 | 41 | 223 | 253 | 476 |
| Louisiana | 5 | 3 | 9 | 12 | 25 | 202 | 289 | 491 | 22 | 101 | 120 | 221 |
| Texas． | 34 | 221 | 258 | 479 | 70 | 1，405 | 1，630 | 3， 035 | 65 | 729 | 808 | 1， 537 |
| Arkansas | 8 | 38 | 20 | 58 | 24 | 422 | 325 | 747 | 20 | 108 | 82 | 190 |
| Oklahoma | 2 | 7 | 21 | 28 | 2 | 14 | 14 | 28 | 2 | 7 |  | 15 |
| North Central Dirision： |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio | 46 | 441 | 451 | 892 | 52 | 474 | 563 | 1，037 | 50 | 286 | 264 | 550 |
| Indiana | 17 | 224 | 188 | 412 | 29 | 472 | 439 | 911 | 26 | 184 | 196 | 380 |
| Illinois． | 43 | 399 | 507 | 906 | 61 | 610 | 949 | 1，559 | 55 | 357 | 486 | 843 |
| Michigan | 13 | 124 | 130 | 254 | 21 | 206 | 385 | 591 | 20 | 102 | 143 | 245 |
| Wisconsin | 26 | 505 | 188 | 691 | 25 | 406 | 204 | 610 | 24 | 329 | 121 | 450 |
| Minues | 26 | 276 | 216 | 492 | 30 | 324 | 317 | 641 | 27 | 207 | 159 | 366 |
| Iowa． | 34 | 241 | 240 | 481 | 42 | 490 | 509 | 999 | 39 | 204 | 205 | 409 |
| Missouri | 54 | 552 | 350 | 902 | 76 | 1， 194 | 1，109 | 2， 303 | 70 | 419 | 445 | 861 |
| North Dak |  | 1 |  | 5 | 2 | 11 | 31 | 42 |  | 1 | 15 | 16 |
| South Dako | 5 | 25 | 43 | 68 | 6 | 67 | 50 | 117 | 5 | 30 | 20 | 50 |
| Nebraska | 10 | 29 | 86 | 115 | 14 | 84 | 144 | 228 | 10 | 38 | 53 | 91 |
| Kansas | 12 | 38 | 104 | 142 | 15 | 150 | 173 | 323 | 12 | 58 | 62 | 120 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana． Wroming | 1 | 0 | 28 | 28 | 4 | 9 | 50 3 | 12 |  | 3 |  | 9 |
| Colorado | 3 | 8 | 12 | 20 | 4 | 37 | 51 | 88 | 4 | 15 | 14 | 29 |
| New Mex | 1. |  | 2 | 2 | 3 | 15 | 16 | 31 | 3 | 13 | 4 | 17 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Idaho | 2 | 5 | 10 | 15 | 4 | 25 | 31 | 56 | 3 | 6 | 7 | 13 |
| Washin | 8 | 16 | 71 | 87 | 11 | 61 | 125 | 186 | 11 | 34 | 54 | 88 |
| Oregon | 14 | 63 | 184 | 247 | 18 | 203 | 193 | 402 | 17 | 83 | 64 | 147 |
| Californi | 27 | 46 | 192 | 2.88 | 61 | 620 | 718 | 1，338 | 56 | 460 | 318 | 778 |

Table 20．－Priate high schools and academies－Number of secondary students pursuing certain studics in 1597－98．

| Siate or Territory． | Trigonometry． |  |  |  | Astronomy． |  |  |  | Physics． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\stackrel{\oplus}{\underset{\sim}{E}}$ |  |  |  | $\stackrel{\dot{3}}{\stackrel{y}{4}}$ | $\begin{gathered} \stackrel{\text { ® }}{\stackrel{1}{5}} \\ \text { E. } \\ =1 \end{gathered}$ |  | $\begin{aligned} & \text { 密 } \\ & 0.0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | 害 |  | $\begin{aligned} & \text { ت゙ } \\ & \text { 5 } \\ & \text { B } \end{aligned}$ |
| United States | 761 | 3， 447 | 2，072 | 5，519 | 778 | 2， 188 | 5，075 | 7，263 | 1，429 | 10， 230 | 10，382 | 20， 612 |
| North Atlantic Division | 224 | 1，382 | 347 | 1， 729 | 269 | 801 | 1，912 | 2，713 | 492 | 3， 875 | 3.476 | 7，351 |
| South Atlantic Division | 137 | 516 | 290 | 806 | 107 | 267 | 630 | 897 | 231 | 1， 698 | 1，581 | 3， 279 |
| South Central Division | 207 | 749 | 794 | 1，543 | 157 | 495 | 1，032 | 1，527 | 279 | 2， 170 | 2， 383 | 4，553 |
| North Central Division | 147 | 556 | 508 | 1，064 | 189 | 543 | 1，177 | 1，720 | 326 | 2，000 | 2， 268 | 4，268 |
| Western Division | 46 | 244 | 133 | 377 | 56 | 82 | 324 | 406 | 101 | 487 | 674 | 1，161 |
| North Atlantic Division： <br> Maine | 4 | 11 | 15 | 26 | 18 | 82 | 129 | 211 | 28 | 199 | 211 | 410 |
| New Hamps | 9 | 78 | 24 | 102 | 10 | 63 | 34 | 27 | 21 | 280 | 80 | 360 |
| Vermont． | 2 | 8 | 0 | 8 | 14 | 56 | 73 | 129 | 17 | 119 | 144 | 263 |
| Mlassachusett | 28 | 179 | 25 | 204 | 34 | 82 | 177 ： | 259 | 69 | 644 | 392 | 1，036 |
| Rhode Island | 5 | 27 | 21 | 48 | 6 | 18 | 58 | 76 | 13 | 82 | 111 | 193 |
| Connecticut | 24 | 74 | 19 | 93 | 25 | 74 | 174 | 248 | 41 | 252 | 259 | 511 |
| New York | 71 | 492 | 85 | 577 | 89 | 153 | ¢59 | 812 | 158 | 1，042 | 1，238 | 2， 280 |
| Now Jersey | 23 | 182 | 39 | 221 | 25 | 49 | 184 | 233 | 44 | 330 | 305 | 685 |
| Pennsylvania． | 58 | 331 | 119 | 450 | 48 | 224 | 424 | 618 | 101 | 927 | 736 | 1，663 |
| South Atlantic Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Delaware． | 3. | S | 6 | 14 | 1 | 0 | 3 | 3 | 3 | 28 | 27 | 55 |
| Maryland． | 16 | 121 | 33 | 154 | 12 | 2 | 141 | 143 | 31 | 191 | 272 | 463 |
| District of Columbia | 9 | 13 | 17 | 30 | 12 | 1 | 68 | 69 | 15 | 52 | 148 | 200 |
| Virginia | 38 | 130 | 56 | 186 | 23 | 62 | 99 | 161 | 51 | 352 | 260 | 612 |
| West Virginia | 9 | 38 | 22 | 60 | 7 | 18 | 50 | 68 | 12 | 88 | 93 | 181 |
| North Carolina | 23 | 76 | 18 | 94 | 23 | 128 | 71 | 199 | 54 | 564 | 226 | 790 |
| South Carolina | 9 | 46 | 33 | 79 | 10 | 22 | 90 | 112 | 21 | 223 | 252 | 475 |
| Georgia． | 30 | 84 | 105 | 189 | 14 | 34. | 64 | 98 | 39 | 195 | 254 | 449 |
| Florida． |  |  |  |  | 5 |  | 44 | 44 | 5 | 5 | 49 | $5 t$ |
| South Central Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky． | 38 | 143 | 106 | 249 | 34 | 101 | 170 | 271 | 46 | 208 | 26.5 | 473 |
| Tennessee | 50 | 162 | 161 | 323 | 34 | 101 | 205 | 306 | 64 | 342 | 321 | 663 |
| Alabama | 33 | 149 | 112 | 261 | 20 | 73 | 106 | 179 | 49 | 310 | 313 | 623 |
| Mississipp | 19 | 59 | 53 | 112 | 19 | 56 | 98 | 154 | 44 | 355 | 414 | 769 |
| Louisiana． | 12 | 27 | 24 | 51 | 9 | 12 | 110 | 122 | 20 | 95 | 158 | 253 |
| Texas | 43 | 190 | 317 | 507 | 33 | 115 | 319 | 434 | 33 | 666 | 757 | 1，423 |
| Arkansas | 8 | 18 | 9 | 27 | 6 | 37 | 18 | 55 | 16 | 159 | 126 | 285 |
| Oklahoma | 1 | 0 | 5 | 5 | 1 | 0 | 4 | 4 | 2 | 5 | 3 | 9 |
| Indian＇lerritory ．．． | 3 | 1 | 7 | 8 | 1 | 0 | 2 | 2 | 5 | 30 | 26 | 56 |
| North Central Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Indiana．． | 16 | 48 | 63 69 | 161 | 28 | 27 | 185 | 259 | 46 | 274 116 | 305 183 | 579 299 |
| Illinois | 23 | 98 | 106 | 204 | 34 | 98 | 216 | 314 | 53 | 354 | 454 | 808 |
| Michigan | 3 | 20 | 28 | 48 | 12 | 17 | 114 | 131 | 18 | 59 | 173 | 232 |
| Wisconsin | 11 | 53 | 19 | 72 | 7 | 8 | 46 | 54 | 21 | 205 | 112 | 317 |
| Minnesota | 5 | 13 | 5 | 18 | 9 | 14 | 54 | 68 | 23 | 127 | 130 | 257 |
| Iowa | 16 | 62 | 51 | 113 | 23 | 91 | 96 | 187 | 41 | 316 | 248 | 564 |
| Missouri． | 43 | 138 | 152 | 290 | 48 | 167 | 278 | 445 | 69 | 410 | 453 | 863 |
| North Dakota | 1 | 0 | 1 | 1 | 1 | 1 | 5 | 6 | 1 | 2 | 7 | 9 |
| South Dakota． | 1 | 5 | 6 | 11 | 1 | 1 | 1 | 2 | 7 | 34 | 40 | 74 |
| Nebraska | 4 | 9 | 6 | 15 | 5 | 15 | 34 | 49 | 9 | 34 | 60 | 94 |
| Kansas．． | 5 | 13 | 2 | 15 | 7 | 32 | 41 | 73 | 13 | 69 | 103 | 172 |
| Western Division：${ }^{\text {W }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana． | 1 | 0 | 2 | 2 |  |  |  |  | 2 | 0 | 24 | 24 |
| W yoming |  |  |  |  |  |  |  |  |  |  |  |  |
| Colorado | 1 | 4 | 0 | 4 | 2 | 0 | 16 | 16 | 3 | 16 | 12 | 28 |
| New Mexico | 1 | 0 | 4 | 4 | 1 | 0 | 6 | 6 | 1 | 0 | 6 | 6 |
| Arizona |  |  |  |  |  |  |  |  | 1 | 0 | 8 | 8 |
| Utah | 3 | 11 | 11 | 22 | 2 | 2 | 17 | 19 | 12 | 114 | 106 | 220 |
| Nevada |  |  |  |  |  |  |  |  |  |  |  |  |
| Idaho | 0 | 0 | 0 | 0 | 2 | 2 | 5 | 7 | 2 | 2 | 9 | 11 |
| Washington | 4 | 5 | 24 | 29 | 6 | 15 | 39 | 54 | 10 | 35 | 71 | 106 |
| Oregon． | 12 | 35 | 29 | 64 | 10 | 20 | 23 | 43 | 15 | 52 | 67 | 119 |
| California | 24 | 189 |  | 252 | 33 | 43 | 218 | 261 | 55 | 268 | 371 | 639 |

Table 21．－Private high schools and academies－Number of secondary students pursuing certain studies in 1897－98．

| ลैtate or Territors． | Chemistry． |  |  |  | Physical geography． |  |  |  | Geology． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { 䳎 } \end{aligned}$ |  |  |  |  | $\begin{aligned} & \dot{\oplus} \\ & \text { 玉 } \\ & \text { E } \\ & \text { Hy } \end{aligned}$ | $\begin{aligned} & \text { gig } \\ & \text { Hi } \end{aligned}$ |  | $\frac{\dot{\Xi}}{\stackrel{\rightharpoonup}{4}}$ |  | $\begin{aligned} & \text { ज़゙ } \\ & \text { से } \end{aligned}$ |
| United States | 929 | 4， 9915 | 5，128 | 10， 119 | 1，411 | 10， 555 | 12， 294 | 22， 849 | 609 | 2， 506 | 3， 699 | 6，205 |
| North Atlantic Division | 338 | 2， 234 | 1， 955 | 4， 189 | 451 | 3，218 | 3， 759 | 6，977 | 178 | 785 | 1，307 | 2，092 |
| South Atlantic Division | 128 | 671 | 707 | 1，378 | 287 | 2，112 | 2， 145 | 4， 257 | 67 | 252 | 431 | 683 |
| South Central Division | 175 | 760 | 996 | 1，756 | 296 | 2， 560 | 2， 817 | 5， 377 | 143 | 634 | 798 | 1，432 |
| North Central Division | 216 | 1， 036 | 1， 172 | 2， 208 | 284 | 2， 100 | 2，647 | 4，747 | 167 | 569 | 990 | 1，559 |
| Western Division | 72 | 290 | 298 | 538 | 93 | 565 | 926 | 1，491 | 54 | 266 | 173 | 439 |
| North Atlantic Division ： |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine | 21 | 110 | 129 | 239 | 23 | 173 | 201 | 374 | 16 | 86 | 117 | 203 |
| New Hamps | 16 | 145 | 98 | 243 | 21 | 225 | 119 | 344 | 9 | 73 | 35 | 108 |
| Vermont | 12 | 83 | 45 | 128 | 16 | 108 | 128 | 236 | 12 | 51 | 63 | 114 |
| Massachusett | 53 | 302 | 371 | 673 | 45 | 307 | 299 | 606 | 27 | 71 | 257 | 328 |
| Rhode Island | 7 | 42 | 51 | 93 | 10 | 58 | 108 | 166 | 2 | 7 | 19 | 26 |
| Connecticut | 22 | 73 | 155 | 228 | 37 | 234 | 259 | 493 | 15 | 79 | 128 | 207 |
| New York | 120 | 667 | 582 | 1， 249 | 142 | 798 | 1，424 | 2，222 | 56 | 199 | 432 | 631 |
| Now Jersey | 27 | 254 | 98 | 352 | 45 | 357 | 298 | －655 | 9 | 32 | 59 | 91 |
| Pennsylvania． | 60 | 558 | 426 | 984 | 112 | 958 | 923 | 1，881 | 32 | 187 | 197 | 384 |
| Maryland | 20 | 139 | 119 | 258 | 33 | 212 | 383 | 595 | 11 | 22 | 82 | 104 |
| District of C | 12 | 6 | 93 | 99 | 15 | 17 | 132 | 149 | 7 | 12 | 62 | 74 |
| Virginia | 33 | 159 | 95 | 254 | 56 | 358 | 298 | 656 | 16 | 79 | 73 | 152 |
| West Virginia | 0 | 63 | 46 | 109 | 13 | 80 | 136 | 216 | 3 | 32 | 20 | 52 |
| North Carolina | 18 | 95 | 123 | 218 | 90 | 745 | 476 | 1，221 | 12 | 81 | 40 | 121 |
| South Carolina | 12 | 126 | 64 | 190 | 30 | 291 | 275 | 566 | 6 | 13 | 32 | 45 |
| Georgia． | 18 | 65 | 128 | 193 | 42 | 380 | 359 | 739 | 10 | 13 | 97 | 110 |
| South Central Division： |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky | 41 | 125 | 167 | 292 | 58 | 465 | 423 | 888 | 32 | 134 | 125 | 259 |
| Tennessee | 28 | 100 | 163 | 263 | 54 | 316 | 363 | ${ }^{679}$ | 41 | 191 | 215 | 406 |
| Alabama． | 27 | 140 | 93 | 233 | 43 | 364 | 362 | 726 | 14 | 75 | 85 | 160 |
| Mississippi | 22 | 108 | 111 | 219 | 34 | ${ }^{214}$ | 334 | 548 | 12 | 59 | 92 | 151 |
| Louisiana． | 15 | 60 | 128 | 188 | 23 | 142 | 211 | 353 | 9 | 27 | 47 | 74 |
| Texas．． | 35 | 158 | 281 | 439 | 62 | 752 | 918 | 1，670 | 28 | 116 | 204 | 320 |
| Arkansas | 5 | 69 | 48 | 117 | 17 | 259 | 143 | 402 | 6 | 32 | 25 | 57 |
| Oklahoma | 1 | 0 | 3 | 3 | 1 | 0 | 11 | 11 | 1 | 0 | ， | 5 |
| Indian Territory | 1 | 0 | 2 | 2 | 4 | 48 | 52 | 100 | 0 | 0 | 0 | 0 |
| North Central Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Indiana | 21 | 102 | 134 | 236 | 26 | 149 | 313 | 462 | 17 | 46 | ${ }_{99}$ | 145 |
| Illinois | 38 | 173 | 246 | 419 | 47 | 307 | 476 | 783 | 29 | 76 | 209 | 285 |
| Michigan | 11 | 50 | 85 | 135 | 14 | 68 | 199 | 267 | 8 | 21 | 55 | 76 |
| Wiscensin | 12 | 67 | 55 | 122 | 19 | 112 | 119 | 231 | 9 | 80 | 49 | 129 |
| Minnesot | 11 | 82 | 60 | 142 | 21 | 203 | 164 | 367 | 4 | 9 | 28 | 37 |
| Iowa． | 24 | 130 | 97 | 227 | 35 | 278 | 322 | 600 | 26 | 103 | 96 | 199 |
| Missouri | 54 | 210 | 280 | 490 | 58 | 508 | 515 | 1， 023 | 45 | 138 | 262 | 400 |
| North Dakot | 1 | 1 | 4 | 5 | 2 | 0 | 3 | 3 | 1 | 1 | 3 | 4 |
| South Dako |  |  |  |  | 6 | 52 | 56 | 108 |  |  |  |  |
| Nebraska．．．．．．． | 6 | 13 | 28 | 41 | 9 | 17 | 60 | 77 | 1 | 5 |  | 9 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| W yoming | 1 |  | 1 |  | 1 | ， | ， | 3 | 1 | 4 | 5 |  |
| Colorado． | 1 | 4 | 0 | 4 | 4 | 23 | 29 | 52 | 1 | 0 | 5 | 5 |
| New Mex | 1 | 0 | 6 | 6 | 2 | 12 | 12 | 24 | 1 | 0 | 6 |  |
| Arizona | 1 | 0 | 8 | ， | 1 | 1 | 8 | ， |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Washing | 1 | 4 | 37 | 41 | 7 | 30 | 74 | 104 | 7 | 3 | 38 | 41 |
| Oregon．． | 12 | 42 | 46 | 88 | 18 | 61 | 125 | 186 | 11 | 24 | 31 | 65 |
| California | 41 | 192 |  | 369 | 40 | 200 | 434 | 634 | 24 | 23 | 150 | 173 |

Table 22.-Private high schools and academies-Tumber of secondary students pursuing certain st:dies in 1897-98.

| State or Territory. | Physiology. |  |  |  | Psychology. |  |  |  | Ihetoric. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\frac{5}{5}$ |  |  |  | $\begin{aligned} & \dot{\Phi} \\ & \text { 馬 } \end{aligned}$ | $\begin{gathered} \stackrel{\oplus}{\underset{y y y}{2}} \\ \underset{\sim}{5} \end{gathered}$ |  |  | $\frac{\dot{0}}{\stackrel{y}{4}}$ | $\begin{aligned} & \dot{9} \\ & \text { 部 } \\ & \text { D } \\ & =1 \end{aligned}$ | तु |
| United States | 1,389 | 12, 561 | 15, 644 | 28, 205 | 675 | 2,814 | 5, 059 | 7,873 | 1,652 | 15, 164 | 18,960 | 34, 124 |
| North Atlantic Division | 435 | 3,670 | 4, 465 | 8, 135 | 188 | 663 | 1,605 | 2,268 | 550 | 5, 915 | 6,949 | 12,864 |
| South Atlantic Division | 228 | 2, 063 | 2,219 | 4, 292 | 85 | 376 | 666 | 1,042 | 275 | 2,571 | 2, 893 | 5, 464 |
| South Central Division | 327 | 3, $78 \frac{1}{1}$ | 4, 082 | 7, 866 | 164 | 738 | 1,114 | 1, 852 | 367 | 3, 046 | 3,887 | 6, 933 |
| North Central Division | 310 | 2, 452 | 3,737 | 6, 189 | 190 | 803 | 1,365 | 2, 168 | 347 | 2,872 | 4,094 | 6, 966 |
| Western Division | 89 | 592 | 1,141 | 1,733 | 48 | 231 | 309 | 543 | 113 | 760 | 1,157 | 1,897 |
| North Atlantic Division : |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine | 23 | 148 | 207 | 355 | 10 | 48 | 72 | 120 | 29 | 256 | 382 | 638 |
| New Hampshir | 19 | 211 | 149 | 360 | 9 | 20 | 38 | 58 | 27 | 467 | 212 | 679 |
| Vermont... | 16 | 75 | 175 | 250 | 8 | 20 | 45 | 65 | 19 | 156 | 207 | 363 |
| Massachusetts | 45 | 248 | 382 | 630 | 19 | 67 | 175 | 242 | 79 | 775 | 1,106 | 1,881 |
| Rhode Island | 10 | 81 | 104 | 185 | 6 | 15 | 67 | 82 | 13 | 121 | 207 | 328 |
| Connecticut | 35 | - 255 | 227 | 482 | 11 | 6 | 127 | 133 | 44 | 38.2 | 490 | 872 |
| New Tork | 146 | 1.136 | 1,637 | 2, 773 | 59 | 51 | 454 | 505 | 172 | 1,455 | 2,105 | 3, 560 |
| New Jersey | 40 | 262 | 374 | 636 | 15 | 44 | 90 | 134 | 56 | 862 | 675 | 1,537 |
| Pennsylvania | 101 | 1, 251 | 1,210 | 2, 464 | 51 | 392 | 537 | 929 | 111 | 1,441 | 1,565 | 3,006 |
| South Atlantic Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Delaware. | 2 | 14 | 13 | 27 | 2 | 0 | 10 | 10 | 3 | 46 | 35 | 81 |
| Maryland | 25 | 130 | 211 | 341 | 7 | 2 | 140 | 142 | 32 | 330 | 453 | 783 |
| District of Columbia | 13 | 24 | 117 | 141 | 8 | 6 | 58 | 64 | 15 | 41 | 185 | 226 |
| Virginia. | 45 | 309 | 311 | 620 | 23 | 45 | 128 | 173 | 65 | 473 | 457 | 930 |
| West Virginia. | 12 | 97 | 96 | 193 | 9 | 29 | 43 | 72 | 13 | 99 | 179 | 278 |
| North Carolina | 86 | 912 | 714 | 1,626 | 16 | 168 | 80 | 248 | 94 | 758 | 611 | 1,369 |
| South Carolina | 23 | 208 | 272 | 480 | 5 | 73 | 47 | 120 | 28 | 298 | 269 | 567 |
| Georgia | 16 | 354 | 392 | 746 | 10 | 53 | 133 | 186 | 20 | 522 | 637 | 1,159 |
| Florida | 6 | 15 | 93 | 108 | 5 | 0 | 27 | 27 | 5 | 4 | 67 | 71 |
| South Central Division : |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky | 73 | 695 | 747 | 1, $4 \pm 2$ | 36 | 201 | 296 | 497 | 73 | 585 | 790 | 1,375 |
| Tennessee | 68 | 692 | 683 | 1,375 | 30 | 89 | 124 | 213 | 80 | 576 | 667 | 1,243 |
| Alabama | 33 | 590 | 491 | 1,051 | 18 | 30 | 80 | 110 | 58 | 492 | 582 | 1,074 |
| Mississippi | 42 | 424 | 592 | 1,016 | 14 | 28 | 75 | 103 | 41 | 334 | 428 | 762 |
| Louisiana. | 21 | 134 | 242 | 1,376 | 8 | 23 | 50 | 73 | 22 | 124 | 261 | 388 |
| Texas | $6{ }^{1}$ | 857 | 971 | 1, 828 | 45 | 278 | 407 | 685 | 65 | 693 | 927 | 1,620 |
| Arkansas | 18 | 323 | 274 | 1, 597 | 9 | 83 | 39 | 122 | 21 | 184 | 145 | 1, 329 |
| Oklahoma | 1 | 0 | 10 | 10 | 1 | 0 | 32 | 32 | 1 | 0 | 12 | 12 |
| Indian Territory | 7 | 69 | 72 | 141 | 3 | 6 | 11 | 17 | 6 | 58 | 72 | 130 |
| Nortl Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio | 38 | 260 | 370 | 630 | 23 | 68 | 146 | 214 | 47 | 396 | 534 | 930 |
| Indiana | 26 | 248 | 407 | 655 | 15 | 117 | 118 | 235 | 28 | 228 | 421 | 649 |
| Illinois | 48 | 273 | 662 | 935 | 27 | 67 | 228 | 25 | 58 | 560 | 801 | 1,361 |
| Michigan | 14 | 88 | 228 | 316 | 10 | 26 | 160 | 186 | 21 | 131 | 309 | 440 |
| Wisconsi | 20 | 149 | 162 | 311 | 6 | 28 | 49 | 77 | 23 | 244 | 238 | 482 |
| Minnesot | 23 | 186 | 261 | 547 | 10 | 56 | 51 | 107 | 28 | 203 | 356 | 559 |
| Iowa | 37 | 349 | 477 | 726 | 19 | 96 | 115 | 211 | 37 | 305 | 374 | 679 |
| Missouri | 71 | 629 | 756 | 1,385 | 58 | 273 | 391 | 664 | 70 | 586 | 710 | 1,296 |
| North Dakota | 2 | 13 | 31 | 44 | 2 | 2 | 3 | 5 | 1 | 2 | 20 | 1, 22 |
| South Iakota | 6 | 93 | 107 | 200 | 5 | 15 | 19 | 34 | 7 | 22 | 42 | 64 |
| Nebraska..... | 11 | 48 | 83 | 131 | 5 | 13. | 17 | 30 | 12 | 64 | 113 | 177 |
| Kansas | 14 | 116 | 193 | 309 | 10 | 42 | 68 | 110 | 15 | 131 | 176 | 307 |
| Western Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana. | 2 | 0 | 28 | 28 |  |  |  |  | 3 | 0 | 41 | 41 |
| Wyoming | , | 7 | 5 | 12 |  |  |  |  | 1 | 1 | 2 | 3 |
| Colorado | 4 | 18 | 36 | 54 | 2 | 26 | 39 | 65 | 3 | 15 | 19 | 34 |
| New Mexico | 2 | 0 | 16 | 16 |  |  |  |  | 3 | 13 | 6 | 19 |
| Arizona | 1 |  |  |  |  |  |  |  |  |  |  |  |
| Utah | 12 | 251 | 214 | 465 | 7 | 113 | 105 | 218 | 10 | 162 | 126 | 288 |
| Nevada |  |  |  |  |  |  |  |  |  |  |  |  |
| Idaho. | 4 | 14 | 29 | 43 | 1 | 9 | 1 | 10 | 6 | 34 | 40 | 74 |
| Washington | 10 | 26 | 119 | 145 | 10 | 8 | 28 | 36 | 10 | 18 | 98 | 116 |
| Oregon -. | 16 | 63 | 146 | 209 | 9 | 21 | 28 | 49 | 18 | 103 | 125 | 228 |
| Calitornia |  | 213 | 548 | 761 | 19 | 57 | 108 | 105 | 59 | 414 | 680 | 1,094 |

Table 23.-Private high schools and academies-Number of secondary students pursuing certain siudies in 1897-98.

| State cr Territory. | English literature. |  |  |  | History. |  |  |  | Civics. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\stackrel{\dot{9}}{\stackrel{\text { ®N }}{5}}$ |  |  |  |  |  | $\begin{aligned} & \dot{5} \\ & \stackrel{5}{0} \\ & H \end{aligned}$ |  | $\underset{\sim}{\stackrel{5}{\pi}}$ |  |  |
| United Stat | 1,609 | 15, 709 | 19,945 | 35, 654 | 1, 699 | 18,346 | 21,210 | 39,556 | 981 | 7, 975 | 8, 590 | 16,565 |
| North Atlantic Division | 557 | 7,395 | 7, 782 | 15,177 | 577 | 7,354 | 7, 836 | 15, 190 | 317 | 2, 436 | 2,741 | 5,177 |
| South Atlantic livision | 273 | 2, 244 | 2,801 | 5, 045 | 310 | 3, 668 | 3, 625 | 7,293 | 119 | 934 | 981 | 1,915 |
| South Central Division | 319 | 2. 452 | 3, 610 | 6,062 | 351 | 3, 181 | 4, 123 | 7,304 | 231 | 2,244 | 1,952 | 4, 196 |
| Nortlı Central livisio | 344 | 2, 727 | 4, 355 | 7, 082 | 349 | 3, 384 | 4,270 | 7, 654 | 242 | 2, 022 | 2,377 | 4,399 |
| Western Division | 116 | 891 | 1,397 | 2, 288 | 112 | 759 | 1,356 | 2,115 | 72 | 339 | 539 | 878 |
| North Atlantic Division : <br> Maine | 28 | 378 | 474 | 852 | 30 | 302 | 458 | 760 | 20 | 113 | 146 | 259 |
| New Hami | 25 | 681 | 306 | 987 | 26 | 627 | 186 | 813 | 16 | 165 | 52 | 217 |
| Vermont. | 18 | 70 | 151 | 221 | 20 | 167 | 209 | 376 | 18 | 141 | 149 | 290 |
| Massachusetto | 87 | 1, 269 | 1,566 | 2, 835 | 83 | 1,187 | 1, 190 | 2,377 | 42 | 296 | 274 | 570 |
| Rhode Island | 13 | - 57 | 1, 223 | 280 | 13 | 173 | 239 | -412 | 6 | 63 | 36 | 99 |
| Connecticut | 47 | 575 | 566 | 1, 141 | 51 | 581 | 558 | 1,139 | 28 | 151 | 136 | 287 |
| New York. | 173 | 1,683 | 2,350 | 4,033 | 182 | 1, 878 | 2, 768 | 4,646 | 121 | 883 | 1, 214 | 2,097 |
| New Jersey | 57 | 1,042 | 662 | 1, 704 | 57 | 1,595 | 682 | 1,277 | 15 | 91 | 133 | 224 |
| Pennsylvania........ | 109 | 1,640 | 1,484 | 3, 124 | 115 | 1,844 | 1,546 | 3,390 | 51 | 533 | 601 | 1, 134 |
| South Atlantic Division <br> Delaware | 3 | 34 | 36 | 70 | 3 | 47 | 43 | 90 | 1 | 15 | 5 | 30 |
| - Maryland. | 32 | 326 | 609 | 935 | 34 | 430 | 629 | 1,059 | 19 | 117 | 300 | 417 |
| District of Colun | 17 | 92 | 281 | 373 | 16 | 100 | 303 | 403 | 8 | 18 | 134 | 152 |
| Virginia | 61 | 468 | 340 | 808 | 67 | 754 | 581 | 1, 335 | 19 | 189 | 76 | 265 |
| West Virgini | 13 | 90 | 142 | 232 | 14 | 151 | 222 | , 373 | 9 | 101 | 73 | 174 |
| North Carolina | 73 | 688 | 599 | 1,287 | 89 | 1,097 | 735 | 1,832 | 27 | 304 | 145 | 449 |
| South Carolin | 24 | 223 | 306 | 529 | 30 | 449 | 386 | 835 | 14 | 52 | 81 | 133 |
| Georgia | 44 | 313 | 383 | 701 | 52 | 625 | 631 | 1, 256 | 19 | 132 | 126 | 258 |
| Florida ............... | , | 10 | 100 | 110 | 5 | 15 | 95 | 110 | 3 | 6 | 31 | 37 |
| South Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky ... | 74 | 450 | 687 | 1,137 | 73 | 630 | 839 | 1, 469 | 52 | 519 | 459 | 978 |
| Tennessee | 69 | 561 | 624 | 1, 185 | 74 | 689 | 586 | 1,275 | 45 | 435 | 277 | 712 |
| Alabama. | 47 | 313 | 506 | 819 | 53 | 472 | 615 | 1,087 | 23 | 210 | 188 | 398 |
| Mississipp | 39 | 308 | 405 | 713 | 42 | 380 | 485 | 865 | 27 | 239 | 259 | 498 |
| Louisiana | 8 | 107 | 219 | 326 | 22 | 136 | 301 | 437 | 23 | 67 | 87 | 154 |
| 'Texas | 61 | 510 | 926 | 1, 436 | 66 | 669 | 1, 127 | 1. 796 | 49 | 621 | 545 | 1,166 |
| Arkansa | 15 | 170 | 189 | 359 | 16 | 188 | 130 | - 318 | 8 | 122 | 94 | 216 |
| Oklahoma | 2 | 14 | 27 | 41 | 1 | 0 | 18 | 18 | 1 | 0 | 12 | 12 |
| Indian Territory | 4 | 19 | 27 | 46 | 4 | 17 | 22 | 39 | 3 | 31 | 31 | 62 |
| North Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio................... | 43 | 411 | 523 | 934 | 49 | 449 | 610 | 1, 059 | 29 | 182 | 297 | 429 |
| Indiana | 27 | 185 | 454 | 639 | 27 | 239 | 405 | 644 | 17 | 131 | 220 | 351 |
| Illinois | 57 | 536 | 965 | 1,501 | 59 | 727 | 961 | 1,688 | 40 | 177 | 342 | 519 |
| Michigan | 21 | 98 | 316 | 414 | 18 | 116 | 310 | 426 | 10 | 138 | 188 | 326 |
| Wisconsi | 23 | 189 | 222 | 411 | 21 | 242 | 214 | 456 | 8 | 85 | 89 | 174 |
| Minneso | 27 | 210 | 347 | 557 | 26 | 358 | 303 | 661 | 21 | 337 | 156 | 493 |
| Iowa | 37 | 304 | 377 | 681 | 39 | 300 | 305 | 605 | 39 | 354 | 305 | 659 |
| Missouri | 74 | 643 | 800 | 1, 443 | 73 | 753 | 817 | 1,570 | 49 | 441 | 485 | 926 |
| North Dakota | 2 | 14 | 31 | 15 | 2 | 1 | 12 | 13 | 2 | 12 | 6 | 18 |
| Sonth Dak | 6 | 26 | 64 | 90 | 6 | 63 | 96 | 159 | 6 | 71 | 83 | 154 |
| Nebraska | 14 | 47 | 131 | 178 | 14 | 51 | 119 | 170 | 12 | 53 | 92 | 145 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana. Wyoming | 3 |  | 50 |  | 1 | 0 2 | 21 | 21 | 1 | 0 3 | 1 | 28 4 |
| Colorado | 5 | 44 | 64 | 108 | 3 | 11 | 33 | 44 | 2 | 11 | 5 | 16 |
| New Mexic | 3 | 13 | 16 | 29 | 3 | 15 | 12 | 27 | 1 | 0 | 12 | 12 |
| Arizona |  |  |  |  |  |  |  |  |  |  |  |  |
| Utah .- | 13 | 131 | 128 | 259 | 13 | 174 | 147 | 321 | 7 | 83 | 55 | 138 |
| Nevada Idaho.. | 5 | 44 | 51 | 95 | 6 | 23 | 22 | 45 | 3 | 16 | 19 | 35 |
| Washington | 11 | 30 | 105 | 135 | 9 | 15 | 100 | 115 | 9 | 31 | 76 | 107 |
| Oregon | 16 | 94 | 131 | 225 | 17 | 99 | 161 | 260 | 8 | 31 | 42 | 73 |
| California. |  | 535 | 852 | 1,387 |  | 420 | -858 | 1,278 | - 39 | 164 | 301 | 465 |

Table 24.-Private high schools and academies-Proportion of male and female students, per cent of students pursuiny certain courses, per cent of graduates, etc., in 1897-98.

| State or Territory. | Total nnmber of secondary students. | Per cent of total number. |  |  |  |  | Per cent of graduates prepared for college. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male. | Female. | College <br> classical <br> preparatory students. | College scientitic preparatory students. | Graduates in 1898. |  |
| United States | 105, 225 | 49.58 | 50.42 | 15. 55 | 9. 82 | 11.56 | 44.35 |
| North Atlantic Division | 40,314 | 51.04 | 48.96 | 18. 37 | 12. 33 | 14.65 | 47. 29 |
| South Atlantic Division | 16,909 | 51.13 | 48.87 | 17.14 | 6.59 | 9.25 | 38.75 |
| South Central Division. | 21,098 | 48.85 | 51.15 | 13.07 | 7.38 | 7.30 | 46.17 |
| North Central Division | 21, 667 | 47. 36 | 52.64 | 12.49 | 9.12 | 12.37 | 40.06 |
| Western Division | 5,237 | 43.59 | 56.41 | 11.32 | 13.67 | 8.65 | 44.62 |
| North Atlantic Division: |  |  |  |  |  |  |  |
| Maine........-.----- | 2,885 | 46.52 | 53.48 | 18. 93 | 4. 26 | 13. 31 | 42. 71 |
| New Hamp | 2,018 | 65.96 | 34.04 | 20.17 | 10.75 | 15.06 | 54. 61 |
| Vermont | 2,076 | 48.94 | 51.06 | 7.71 | 5.06 | 13.49 | 29.64 |
| Massachusetts | 5,574 | 50.20 | 49. 80 | 26.71 | 15. 78 | 16. 00 | 16. 01 |
| Rhode Island | 762 | 42.65 | 57.35 | 24.67 | 13. 12 | 13. 25 | 55.45 |
| Connecticnt | 2, 734 | 45.83 | 54.17 | 17.96 | 12. 32 | 15.80 | 46.05 |
| New York | 11, 964 | 46.30 | 53.70 | 15. 95 | 10.79 | 14.26 | 41.50 |
| New Jersey | 3, 683 | 60.11 | 89.89 | 24.52 | 17.59 | 16. 48 | 54. 20 |
| Pennsylvania .-.... | 8,618 | 55.21 | 44.79 | 15.25 | 14.69 | 13.95 | 41.85 |
| South Atlantic Division: |  |  |  |  |  |  | 31.43 |
| Delaware | 229 | 55.46 | 44.54 | 6.11 | 4.37 | 15. 28 | 31. 43 |
| Maryland | 1,896 | 44. 09 | 55.91 | 5. 43 | 13.18 | 10.81 | 51.20 |
| Virginia. | 3, 146 | 57.18 | 42.82 | 19. 39 | 7. 60 | 5.94 | 22.99 |
| West Virginia | 655 | 43.36 | 56.64 | 14.96 | 7.18 | 10.01 | 37.88 |
| North Carolina | 5,142 | 57.74 | 42. 26 | 19.57 | 8.89 | 5. 48 | 5. 60 |
| South Carolina | 1. 474 | 52.73 | 47.27 | 14. 18 | 5. 90 | 24. 63 | 17.63 |
| Georgia | 3, 390 | 48.64 | 51.36 | 17.90 | 3.57 | 7. 10 | 5.07 |
| Florida....-.-...... | 139 | 10.79 | 89.21 | 7.19 | 0 | 6.47 | 0 |
| South Central Division: |  |  |  |  |  |  |  |
| Kentucky | 3, 621 | 48. 77 | 51. 23 | 12. 02 | 8. 64 | 6.96 | 33. 87 |
| Tennessee | 4,899 | 52.46 | 47.54 | 11. 61 | 6.43 | 7.08 | 5. 42 |
| Alabama. | 2,761 | 53.75 | 46. 25 | 21.66 | 7.71 | 5.32 | 41.49 |
| Mississipp | 2,415 | 44.18 | 55.82 | 2.45 | 6. 50 | 8.41 | 47.78 |
| Louisiana. | 987 | 42.25 | 57.75 | 13.98 | 11.55 | 13. 17 | 69.23 |
| 'Texas. | 4, 746 | 44. 82 | 55.18 | 16.25 | 7.04 | 6.72 | 38.56 |
| Arkansas | 1,208 | 53.39 | 46.61 | 11.50 | 11.50 | 5.13 | 56.45 |
| Oklahoma ....- | 45 | 46.67 | 53.33 | 37.78 | 35.56 | 11. 11 | 6. 67 |
| Indian Cerritory. | 416 | 50.48 | 49.52 | 7.69 | 4.33 | 3.37 | 42. 85 |
| North Central Division: |  |  |  |  |  |  |  |
| Ohio ... | 2, 689 | 42. 84 | 57.16 | 9.74 | 9.52 | 10. 04 | 61.11 |
| Indiana | 2,048 | 43.46 | 56.54 | 10.69 | 7.08 | 10.06 | 25. 73 |
| Illinois. | 4,022 | 44. 85 | 55.15 | 10.79 | 10.59 | 12. 83 | 43. 80 |
| Michigan | 1,207 | 36.87 | 63.13 | 4.14 | 7.37 | 11.02 | 39. 85 |
| TVisconsin | 1,200 | 60.58 | 39.42 | 28.33 | 9.00 | 21.50 | 27.52 |
| Minnesota | 1,565 | 57.96 | 42.01 | 10.35 | 6.65 | 18. 34 | 33.80 |
| Iowa .-. | 2, 776 | 49.39 | 50.61 | 11.38 | 7.35 | 14.41 | 31.75 |
| Missouri | 4,466 | 50.25 | 49.75 | 15. 29 | 10.84 | 9.87 | 43. 08 |
| North Dakota | 48 | 35.42 | 64.58 | 43. 75 | 0 | 16. 67 | 86.25 |
| South Dakota | 370 | 43.78 | 56. 22 | 16. 76 | 2. 97 | 11. 08 | 39.02 |
| Nebraska | 513 | 38. 20 | 61.80 | 13.45 | 10.91 | 10.14 | 73.08 |
| Kansas.-.-.... | 763 | 45.09 | 54.91 | 11.53 | 12.06 | 9.04 | 44.93 |
| Weestern Division: ${ }^{\text {W }}$ |  |  |  |  |  |  |  |
| Montana | 124 | 2. 42 | 97.58 | 3.22 | 44.35 | 6.45 | 50.00 |
| Wyoming | 23 | 47.83 | 52.17 | - | 8.69 | ${ }^{0}$ | - 0 |
| Colorado .-. | 139 | 44. 60 | 55.40 | 10.79 | 10.79 | 6.47 | 55.55 |
| New Mexico. | 75 | 78.66 | 21.34 | 5.33 | 0 | 6. 67 | 40.00 |
| Arizona | 8 | ${ }^{0}$ | 100 | 100.00 | 0 | 12. 50 | 100.00 |
| Utah... | 1,174 | 47.96 | 52.04 | 7.58 | 4. 43 | 7.84 | 38.04 |
| Nevada |  |  |  |  |  |  |  |
| Idaho | 176 | 39.77 | 60.23 | 13.10 | 10.80 | 8.52 | 6. 67 |
| Washington | 419 | 34. 84 | 65.16 | 6. 44 | 7.64 | 3.58 | 60.00 |
| Oregon -.. | $\begin{array}{r}861 \\ \hline 808\end{array}$ | 56. 79 | 43. 21 | 16. 72 | 18. 00 | 9.29 | 35.00 |
| California | 2,238 | 39.32 | 60.68 | 12. 42 | 17.25 | 10.28 | 51.30 |

Table 25.-Pricatehigh schools and academies—Percentages of secondary students pursuing certain studies in 1897-98.

| State or 'Territory. | Per cent of total number of secondary students. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Latin. | Greek. | French. | German. | $\begin{aligned} & \text { Alge. } \\ & \text { bra. } \end{aligned}$ | Geome try. | $\begin{aligned} & \text { Trigo- } \\ & \text { nom- } \\ & \text { etry. } \end{aligned}$ | $\begin{gathered} \text { Astron } \\ \text { omy. } \end{gathered}$ | $\begin{aligned} & \text { Phys. } \\ & \text { ics. } \end{aligned}$ |
| ited Stat | 48.45 | 10.43 | 23.04 | 18.45 | 51.70 | 24. 43 | 5. 25 | 6.91 | 19.59 |
| North Atlantic Division | 52.93 | 15. 03 | 37.40 | 25.81 | 51.09 | 27.97 | 4.29 | 6. 73 | 18.23 |
| South Atlantic Division .: | 㐌. 43 | 8. ${ }_{66}{ }^{5}$ | 19.64 | 8. ${ }_{66} 94$ | ${ }^{58.48}$ | 2. ${ }^{23.39}$ | 4.761 | 5.3. | 19, 39 |
| South Central Division ... | 43.01 43.36 | 6.63 8.40 8 | 7. <br> 14.85 | 6.66 24.74 | 56.34 43.20 | -2.23 ${ }_{20}^{23}$ | 7.31 <br> 4.91 | 7.24 7.85 | 21.58 <br> 19.70 |
| Western Division | 34.33 | 6.39 | 20.76 | 14.03 | 50.88 | 26. 66 | 7.20 | 7.75 | 22.17 |
| Atlantic Divisi |  |  |  |  |  |  |  |  |  |
| Mew Hampslire | 33.82 56.84 | ${ }_{28.29}^{15.15}$ | ${ }_{43.01}^{15.29}$ | ${ }_{12.21}^{12}$ | $\begin{array}{r} 44.40 \\ 56.29 \end{array}$ | ${ }_{27 .}^{21.43}$ | 0.90 5.05 | 7.31 4.81 | 14.21 |
| Vermont | 27.75 | 6.94 | 13. 54 | 5. 20 | 27.99 | 11.51 | 0.39 | 6. 22 | 12.67 |
| Massachusett | 63. 69 | 22. 05 | 52. 92 | 23.74 | 53. 80 | 33. 50 | 3.66 | 4. 65 | 18.59 |
| Rhode Istand | 53.77 | 13. 39 | 59.97 | ${ }^{17.45}$ | 48. 82 | ${ }^{32.02}$ | 6. 29 | 9. 97 | 25. 33 |
| Connecticat | ${ }^{61.70}$ | 16. 64 | ${ }^{43} 59$ | 27. 83 | 5.16 16 | 30. 76 | 3. 40 | 9. 101 | 18.69 |
| New York | 46. 69 | 11. 26 | 47.59 | ${ }^{34.43}$ | 47.46 | 29. 03 | 4.82 | 6. 78 | 19.05 |
| New Jersey | 62. 25 | 18. 92 | 33. 04 | 30.60 | 59.97 | ${ }^{29.89}$ | 6. 00 | 6. 35 | 17. 24 |
| Peunsylvania South Atlantic Division: | 57.13 | 12.47 | 22.98 | 29.49 | 57.01 | 27. 16 | 5.22 | 52 | 13.30 |
| South Atlantic Division: | 81.22 | 13.97 | 38.86 | 23.14 | 58.95 | 29. 26 | 6.11 |  |  |
| Maryland | 61.97 | 7. 70 | 40.03 | 25.63 | 66. 61 | 42. 98 | 8.12 | 7.54 | 24. 42 |
| District of Columbi | 49. 52 | 7. 99 | 51. 31 | 23.87 | 46. 53 | 25. 42 | 3. 58 | 8. 23 | ${ }^{23.87}$ |
| Virginia | 56. 61 | 5. 31 | 21.87 | 11.19 | 59. 76 | 27.34 | 5.91 | 5. 11 | 19.45 |
| West lir | 57.10 | 13.28 | 25. 19 | 15. 26 | 54. 81 | 23. 97 | 9. 16 | 10. 38 | 27.63 |
| Nouth1 Caroli |  | ¢6.01 | 6.13 <br> 33.04 <br> 18 | 2.72 | 47.74 70.28 | -12.35 | 1.83 5.35 | 3.87 |  |
| Georgia | 63. 80 | 8.70 | 10.14 | 2.39 | 64. 37 | 26. 22 | 5.58 | 2.89 | 13.25 |
|  | 32.37 | 0.72 | 12.95 | 10.07 | 64.02 |  | 0 | 31.65 | 38.85 |
| South Central Divisioit: | 42.70 | 8.06 | 8.62 | 12.12 | 49. 54 | 38 |  |  | 13.06 |
| Temnesse | 26 | 10. 86 | 4.63 | 4.35 | 56.91 | 18.76 | 6. 59 | 6. 25 | 13.53 |
| Alabama | 47. 66 | 4. 24 | 6. 63 | 4.35 | 59. 00 | 24.81 | 9. 45 | 6. 48 | 22.56 |
| Mississippi | ${ }^{36.02}$ | 3. 98 | 4. 47 | 2. 07 | 49.57 | 19.71 | ${ }^{4.64}$ | 6.38 | 31. 84 |
| Louisiana | 39.52 | 5. 27 | 37. 39 | 1. 22 | 49. 57 | 23.40 | 5.17 | 12. 36 | 24. 63 |
| Texas | 36.01 | 4.24 | 7. 14 | -10.01 | ${ }^{63.95}$ | 32. 39 | 10.68 | 9. 14 | 29.98 |
| Arkausas | 43.96 | 5.87 | 0.91 | 4.80 | 61.84 | ${ }^{15.73}$ | 2. 21 | 4. 55 | 23. 59 |
| Oklahoma | 86.67 | 8.89 | 4.41 | 62. 22 |  | 33. 33 | 17.78 | 4. 44 | 12.44 |
| Indiau Territory | 38.94 | 8.41 |  | 14.42 | 42.55 | 8.65 | 1.92 | 0.48 | 13.46 |
| North Central Divisi |  |  |  |  | 38.56 | 20.45 | 5.99 |  | 21.53 |
| Indiana | 43.01 | 5. 71 | 16.36 | 20.17 | 44.48 | 18.55 | 5. 66 | 6. 45 | 14.59 |
| Illinois | 48.36 | 7. 73 | 22. 20 | 22. 53 | 38.76 | 20.96 | 5.07 | 7.81 | 20. 69 |
| Michigan | 38.61 | 6.21 | 21. 29 | 21.04 | 48.96 | 20.22 | 3.98 | 10.85 | 19.22 |
| Wisconsin | 53. 08 | 22.58 | 16. 58 | 57. 58 | 50.83 | 37. 50 | 6. 00 | 4. 50 | 26.42 |
| Minnesota | 43.13 | 6. 83 | 14.70 | 31.43 | 40.96 | 23. 39 | 1.10 | 4.35 | 16.42 |
| Iowa | 29.72 | 5. 66 | 2. 09 | 17.33 | 35.99 | 14.73 | 4.07 | 6.73 | 20.32 |
| Missouri | 43. 53 | 6. 53 | 11.17 | 20. 20 | 51.57 | 19.35 | 6.49 | 9. 96 | 19.32 |
| North Da | 68.75 | 4.17 | 66.67 | 10.42 | 87. 50 | 33.33 | 2.08 | 12. 50 | 18.75 |
| South D | 30. | 10.81 | 5.41 | 18. 38 | 31.62 | 13.51 | 2.97 | 0. 54 | 20.00 |
| Nebraska | ${ }^{41.13}$ | 9. 36 | 8.38 | 22.42 | 44.44 | 17.74 | 2.92 | 9.55 | 18. 32 |
| Kansas. | 36.00 | 9.31 | 6. 82 | 18.61 | 42. | 15.73 | 1.97 | 9.57 | 22.54 |
| stern Divi |  |  |  |  |  |  |  |  |  |
| W yomili | ${ }^{18.55}$ | 0 | 22.58 | 22.58 | ${ }_{51}^{41.93}$ |  | 1.61 | 0 | 19.35 |
| Colorado | 17. 99 | 5.04 | 3. 60 | 14.39 | 63. 31 | 20. 86 | 2.88 | 11.51 | 20.14 |
| New Mexico | 9.33 | 1.33 | 0 | 2.67 | 41.33 | 23. 67 | 5.33 |  | 8.00 |
| Arizon | 10.09 |  | 0 | 0 | 10.00 |  |  | 0 | 10.00 |
| Uta | 20.78 | 2.47 | 6. 22 | 8.35 | 41.91 | 26.83 | 1.87 | 1. 62 | 18.74 |
| Idaho | 98 | 2.84 | 4.55 | 8.52 | 31.8 | 739 |  | 3.94 | 6.25 |
| Washingt | 31.74 | 5.01 | 29.59 | 20.76 | 44.39 | ${ }^{21.00}$ | 6.92 | 12. 89 | 25. 30 |
| Orego | 46.11 | 12. 66 | ${ }^{21.25}$ | 28.69 | 46. 69 | 17.07 | 7.43 | 4. 99 | 13.82 |
| California | 40.84 | 7.28 | 29.76 | 10.64 | 59.79 | 34.76 | 11. 26 | 11.66 | 28.55 |

TABLE 26.-Private high schools and academies-Percentages of secondary students pursuing certain studies in 1897-98.

| State or Territory. | Per cent of total number of secondary students. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Chem- } \\ & \text { istry. } \end{aligned}$ | $\begin{gathered} \text { Phys- } \\ \text { ical } \\ \text { geogra } \\ \text { phy. } \end{gathered}$ | $\begin{gathered} \text { Geol- } \\ \text { ogy. } \end{gathered}$ | Physiology. | Psy. chology | Rhet oric. | English literature. | History. | Civies. |
| United States | 9.62 | 21.79 | 5.90 | 26. 80 | 7. 48 | 32. 43 | 33.88 | 37.53 | 15.7t |
| North Atlantic Division | 10,39 | 17.31 | 5.19 | 21. 18 | 5.63 | 31.91 | 37.65 | 37.69 | 12. 81 |
| South Atlantic Division. | 8.15 | 25.18 | 4. 04 | 25.32 | 6.16 | 32.31 | 29.84 | 43.13 | 11. 33 |
| , South Central Division. | 8.32 | 25.49 | 6.79 | 37. 28 | 8.78 | 32.86 | 28.73 | 34. 62 | 19.89 |
| North Central Division | 10. 19 | 21.91 | 7. 20 | 28. 56 | 10.01 | 32.15 | 32. 69 | 35. 33 | 20. 30 |
| Western Division.. | 11.23 | 28.47 | 8.38 | 32.90 | 10.37 | 36.03 | 43.67 | 40.38 | 16. 77 |
| North Atlantic Dirision : <br> Maine. | 8.58 | 12.96 | 7. 04 | 12.32 | 4. 16 | 22.11 | 29. 53 | 26. 34 | 8. 98 |
| New Hamps | 12.04 | 17.05 | 5.35 | 17.84 | 2. 87 | 33. 65 | 48.91 | 40.29 | 10.75 |
| Vermont . | 6.17 | 11.37 | 5.49 | 12.04 | 3.13 | 17. 49 | 10.65 | 18.11 | 13. 97 |
| Massachusetts | 12. 07 | 10.87 | 5. 88 | 11,30 | 4. 34 | 33.75 | 50.86 | 42.64 | 10. 23 |
| Phode Island | 12.20 | 21.79 | 3.41 | 24.28 | 10. 76 | 43.04 | 36.75 | 54.07 | 12.99 |
| Connecticut | 8.34 | 18. 03 | 7. 57 | 17. 63 | 4.86 | 31.89 | 41.73 | 41.66 | 10. 50 |
| Nerv York. | 10.44 | 18.58 | 5.36 | 23.17 | 4. 22 | 29.75 | 33.71 | 38.83 | 17. 53 |
| New Jersey | 9.56 | 17.78 | 2. 47 | 17. 26 | 3.64 | 41.73 | 46.03 | 34. 67 | 6.08 |
| Pennsylvania | 11.41 | 21.83 | 4.45 | 28. 59 | 10.77 | 34.88 | 36.25 | 39.34 | 13.16 |
| Sonth Atlantic Division: <br> Delaware | 12. 23 | 6. 99 | 0 | 11.79 | 4.37 | 35.37 | 30.57 | 39.30 | 13.10 |
| Maryland | 13.61 | 31.38 | 5. 48 | 17.98 | 7.49 | 41.30 | 49.31 | 55.85 | 21.99 |
| District of Columbia | 11.81 | 17. 78 | 8.83 | 16. 82 | 7. 63 | 26.97 | 44.51 | 48.09 | 18.1t |
| Virginia | 8. 07 | 20.85 | 4. 83 | 19.71 | 5.50 | 29.56 | 25.68 | 42.43 | 8.42 |
| West Virgi | 16.64 | 32.98 | 7.94 | 29.46 | 10.99 | 42. 44 | 35.42 | 56.95 | 26.56 |
| North Caroli | 4.24 | 23.3. 75 | 2.35 | 31. 62 | 4. 82 | 26.62 | 25.03 | 35.63 | 8.73 |
| South Carolin | 12. 89 | 38.40 | 3.05 | 32.56 | 8. 14 | 38.47 | 35.89 | $56 \cdot 66$ | 90. 2.3 |
| Georgia | 5.69 | 21.80 | 3. 25 | 22.01 | 5. 48 | 34.19 | 20.68 | 37.05 | 7.61 |
| Florida. | 20.86 | 71.22 | 17.98 | 77.70 | 19.42 | 51.08 | 79.13 | 79.13 | 26.62 |
| South Central Division : <br> Kentucky | 8. 06 | 24.52 | 7.15 | 39.82 | 13.73 | 37.97 | 31. 40 | 40.57 | 27.01 |
| Tennessee | 5. 37 | 13. 86 | 8. 29 | 28.07 | 4.35 | 25.37 | 24.19 | 26.03 | 14.53 |
| Alabama | 8.44 | 26. 29 | 5. 79 | 39.15 | 3.98 | 38.90 | 29. 66 | 39.37 | 14.41 |
| Mississippi | 9.07 | 22. 69 | 6.25 | 42.07 | 4.27 | 31.55 | 29.52 | 35.82 | 20.62 |
| Louisiana. | 19.05 | 35. 77 | 7. 49 | 38.11 | 7. 40 | 39.31 | 33.02 | 44. 28 | 15.60 |
| Texas. | 9.25 | 35.19 | 6. 74 | 38.52 | 14.43 | 34.13 | 30.26 | 37.84 | 24.57 |
| Arkansas | 9.68 | 33.28 | 4. 71 | 49.42 | 10.10 | 27. 24 | 29.72 | 26. 32 | 17.88 |
| Oklahoma | 6.67 | 24.44 | 11.11 | 23.22 | 71.11 | 26.67 | 91.11 | 40.00 | 26.67 |
| Indian 'Territory | 0.48 | 24.04 | 0 | 33.89 | 4.09 | 31.25 | 11.06 | 9.38 | 14.90 |
| North Central Division: <br> Ohio | 13.05 | 22. 72 | 5.21 | 23.42 | 7.96 | 34.59 | 34. 73 | 39.38 | 15.95 |
| Indiana | 11.52 | 22.56 | 7.08 | 31.98 | 11.47 | 31.69 | 31.20 | 31.45 | 17. 13 |
| Illinois | 10.42 | 19. 47 | 7.09 | 23. 25 | 7.33 | 33.84 | 37.32 | 41.97 | 12.90 |
| Michigan | 11.18 | 22. 12 | 6. 30 | 26.18 | 15.41 | 36.45 | 34.30 | 35. 29 | 27.01 |
| W isconsin | 10.02 | 19.25 | 10.75 | 25.92 | 6.42 | 40. 17 | 34. 25 | 38.00 | 14. 50 |
| Minnesot | 9.67 | 23.45 | 2. 36 | 34.95 | 6.84 | 35.72 | 35.59 | 42. 24 | 31.50 |
| Iowa | 8.18 | 21.64 | 7.17 | 26.15 | 7. 60 | 24. 46 | 24. 53 | 21. 79 | 23.74 |
| Missouri | 10.97 | 22.91 | 8. 96 | 31.01 | 14.85 | 29. 01 | 32. 31 | 35.16 | 20.73 |
| North Dakota | 11.04 | 6.25 | 8. 33 | 9.17 | 10.42 | 45. 83 | 93. 75 | 27.08 | 37.50 |
| South Dakota | 0 | 29.19 | 0 | 54.05 | 9.19 | 17.30 | 24.32 | 42.97 | 41. 62 |
| Nebraska | 7. 99 | 15. 01 | 1.75 | $25.5 \pm$ | 5.85 | 34.50 | 34. 70 | 33.14 | 28.27 |
| Kansas | 5. 24 | 28.18 | 17.69 | 40.05 | 14.4 | 40.23 | 24. 77 | 26.61 | 26.87 |
| Western Dirision: |  |  |  |  |  |  |  |  |  |
| Montana | 0 | 24. 19 | 9.67 | 22.58 | 0 | 33.06 | 40.32 | 16. 93 | 22.58 |
| Wyoming | 17.39 9 | 13.04 | 39. 13 | 52. 17 | 46. ${ }^{0}$ | 13.04 | - 0 | 17.39 | 17. 39 |
| Colorado | 2.88 | 37.41 | 3. 60 | 38.85 | 46. 76 | 24.46 | 77.90 | 31.65 | 11.51 |
| New Mexico | 8. 00 | 32.00 | 8. 00 | 11.33 | 0 | 25.33 | 38.67 | 36.00 | 16.00 |
| Arizona | 10.00 | 10.00 | 0 | 0 | 0 | 0 | 0 | 0 | - 0 |
| Utah | 5.45 | 34.24 | 10.65 | 39. 61 | 18.57 | 24.53 | 22.06 | 27.34 | 11.76 |
| Nevada |  |  |  |  |  |  |  |  |  |
| Idaho | 2. 27 | 27.27 | 1. 70 | 24.43 | 5. 68 | 42.05 | 53.98 | 25.57 | 19.89 |
| Washington | 9.79 | 24. 82 | 9.79 | 34.61 | 8. 59 | 27.69 | 32. 22 | 27.47 | 25.54 |
| Oregon. | 10. 22 | 21. 60 | 7. 55 | 24.27 | 5.69 | 26. 48 | 26.13 | 30.20 | 8. 48 |
| California | 16. 49 | 28. 33 | 7.73 | 34.00 | 70.38 | 48.88 | 61.98 | 57.11 | 29.78 |

State or Territory.



Talle 28.-Denominational schools included in the tables of private high schools and acaclemies.


Table 29.-Denominational sehools included in the tables of private hifh schools and acatemies.


Table 30.-Averages of mumber of teachers, students, and graduates to the public high school, and like averages for the pricate high school and academy.

| State or Territory. | Public high schools. |  |  |  |  | Private high schools. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { i } \\ & \text { 8 } \\ & \text { E } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  | $\begin{aligned} & \text { Secondarystudents } \\ & \text { to a teacher. } \end{aligned}$ | Elementary pupils to a school. |  | o 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |  | Secondary students to a teacher. | Elementary pupils to a school. |  |
| Uuited State | 3.4 | 84.6 | 251 | 17.3 | 10.0 | 4. 7 | 53.9 | 11.2 | 627 | 6.1 |
| North Atlantic Division | 4.3 | 107.7 | 24.9 | 11.1 | 13.0 | 6.3 | 604 | 9.6 | 479 | 8.8 |
| South Atlantic Division | 2.8 | 63.0 | 22.7 | 35.2 | 6.6 | 3.3 | 45.3 | 13.1 | 66.5 | 4. 1 |
| South Ceutral Division | 2.8 | 59.6 | 21.1 | 33.2 | 5.0 | 3.1 | 46.1 | 154 | 70.5 | 3.5 |
| North Central Division | 3.1 | 79.7 | 26.1 | 15.7 | 9.7 | 5.0 | 53.0 | 11.3 | 64.9 | 7.0 |
| Westeru Division. | 4.3 | 109.7 | 25.5 | 4.9 | 11.0 | 4.5 | 40.7 | 9.0 | 96.4 | 3.5 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |  |  |
| Maine | 2. 2 | 55.6 | 25.8 | 12.1 | 6. 7 | 4.2 | 82.4 | 19.8 | 11.3 | 11.0 |
| New Hampshir | 2.8 | 63.9 | 22.9 | 10.5 | 8.5 | 5.5 | 63.6 | 12.7 | 75.8 | 10.5 |
| Vermont.. | 2.6 | 57.4 | 23.4 | 17.5 | 5.8 | 5.1 | ¢0.3 | 17.7 | 47.4 | 12.2 |
| Massachusett | 6. 0 | 146.8 | 24.6 | 3.7 | 21.6 | 7.1 | 58.1 | 8.6 | 19.7 | 9.3 |
| Rhode Island | 9.7 | 196.8 | 29.3 | 0.0 | 20.6 | 8.1 | 53.6 | 6. 6 | 47.1 | 7.8 |
| Connecticut | 4.5 | 101.2 | 22.4 | 4.5 | 13.9 | 5.0 | 44. 2 | 8.8 | 18.9 | 6.8 |
| New York | 4.9 | 126.9 | 25.7 | 20.5 | 10.5 | 7.0 | 58.4 | 8.2 | 65.5 | 8.3 |
| New Jersey | 4.9 | 114.0 | 23.4 | $\because .0$ | 14.6 | 5.4 | 52.6 | 98 | 44.8 | 8.7 |
| Pennsylvania | 8.5 | 92.7 | 26.5 | 8.0 | 13.7 | 6.3 | 63.8 | 10.1 | 60.4 | 8.9 |
| South Atlantic Division: |  |  |  |  |  |  |  |  |  |  |
| Delaware. | 3.4 | 78.9 | 23.5 | 7.4 | 9. 1 | 5.3 | 76.3 | 14.3 | 59.0 | 11.6 |
| Maryland. | 3.1 | 85.3 | 27.4 | 28.1 | 8.3 | 5.1 | 486 | 96 | 43.5 | 6.4 |
| District of Columbia | 24.4 | 591.2 | 24.2 | 0.0 | 70.2 | 7.1 | 44.1 | 6.2 | 65.7 | 5.5 |
| Virginia | 2.5 | 59.3 | 23.5 | 42.0 | 6. 1 | 3.5 | 39.3 | 113 | 39.0 | 2.3 |
| West Virginia | 2. 8 | 63.5 | 22.5 | 10.2 | 7. 6 | 4.0 | 46. 8 | 11.7 | 57.1 | 4.7 |
| North Carolina | 2.6 | 63.7 | 24.1 | 27.6 | 6.7 | 2.7 | 46.3 | 17.1 | 66.2 | 2.5 |
| South Carolina | 2.1 | 39.0 | 18.7 | 418 | 3.5 | 29 2 | 43.5 | 14.9 | 67.4 | 10.7 |
| Georgia. | 2.3 | 51.9 | 23.0 | 40.4 | 5.5 | 2.1 | 50.6 | 176 | 104. 2 | 4. 0 |
| Florida | 2.8 | 43.9 | 15.5 | 41.6 | 4.1 | 2.8 | 23.2 | 8.2 | 248.1 | 1.5 |
| South Central Division: <br> Kentucky |  |  |  |  |  |  |  |  |  |  |
| Kentucky <br> Tennesseo | 3.5 2.4 | 77.9 57.6 | 22.2 24.0 | 13.9 43.7 | 6.4 6.3 | 3.5 2.7 | 41.6 48.0 | 11.8 | 54.3 70.0 | 3.6 3.4 |
| Alabama. | 2.4 | 53.7 | 22.0 | 41.7 | 4.8 | 2.5 | 41.8 | 16.8 | 58.1 | 2.2 |
| Mississipp | 2.2 | 40.8 | 18.7 | 54.9 | 2.4 | 2.9 | 48.3 | 16.8 | 88.0 | 4.1 |
| Louisiana. | 4.4 | 87.8 | 19.9 | 25.6 | 12.0 | 3.5 | 39.5 | 11.3 | 765 | 5.2 |
| Texas | 3.1 | 61.7 | 19.7 | 2. 2 | 4.6 | 4.0 | 66.8 | 166 | 81.4 | 4.5 |
| Arkansa | 2.5 | 58.0 | 23.6 | 21.7 | 4.1 | 3.1 | 50.3 | 16.1 | 6 4. 9 | 2.6 |
| Oklahoma | 3.5 | 123.0 | 35.1 | 0.0 | 9.0 | 4.5 | $2 \because 5$ | 5.0 | 45.0 | 2.5 |
| Indian Territory | 3.0 | 32.7 | 10.9 | 127.0 | 5.0 | 2.7 | 46.2 | 17.3 | 145.0 | 1.5 |
| North Central Division Ohio | 2.6 | 68.2 | 26.2 | 22.3 | 8.8 | 5.4 | 49.4 | 9.1 | 46.5 | 5.0 |
| Indiana | 2.8 | 65.4 | 23.2 | 17.1 | 7.2 | 5. 7 | 70.6 | 12.4 | 95.2 | 7. 1 |
| Illinois | 3.9 | 106.9 | 27.7 | 9.9 | 13.2 | 5.6 | 61.9 | 11.5 | 58.5 | 8.3 |
| Michigan | 3.5 | 97.4 | 27.5 | 16.5 | 11.0 | 4.9 | 57.5 | 11.7 | 147.2 | 6. 3 |
| Wiscousin | 3. 3 | 92.3 | 27.6 | 7.3 | 11.:3 | 5.6 | 46.2 | 83 | 53.9 | 9.9 |
| Minnesota | 4.5 | 104.6 | 23. 2 | 9.3 | 12.2 | 5.7 | 52. 2 | 8.1 | 85. 8 | 9.6 |
| Iowa. | 3.1 | 80.6 | 25.2 | 17.1 | 10.8 | 4.0 | 63.1 | 15.7 | 71.6 | 9.1 |
| Missouri. | 3.3 | 853 | 20.2 | 10.4 | 9.4 | 4.3 | 55.8 | 13.0 | 43.3 | 5.5 |
| North Dakota | 2.1 | 37.8 | 18. 2 | 0.5 | 3.4 | 4.0 | 24.0 | 6.0 | 152.0 | 4. 0 |
| South Dakota | 2.3 | 55.7 | 23.8 | 9.6 | 7.8 | 4.1 | 52. 8 | 12.8 | 74.8 | 5.8 |
| Nebraska | 2.3 | 53.6 | 26.2 | 22.3 | 78 | 44 | 36.6 | 8.4 | 61.1 | 3. 7 |
| Kansas. | 2.5 | 65.9 | 26.7 | 10.8 | 7.8 | 4.2 | 50.9 | 12.1 | 44.3 | 4.6 |
| Western Division: |  |  |  |  |  |  |  |  |  |  |
| Montana.... | 2. 6 | 59.7 | 23. 0 | 1. 5 | 6.9 | 3.5 | 31.0 | 8. 9 | 131.0 | 2. 0 |
| Wyoming | 2.4 | 61. 4 | 25.6 | 37.0 | 8.6 | 3. 0 | 22.5 | 7.6 | 34.0 | 0. 0 |
| Colorado. | 5.3 | 126.4 | 23.7 | 3.5 | 15.5 | 3.4 | 27.8 | 8. 2 | 135.0 | 1.8 |
| New Mexico | 1.8 | 31.8 | 18.1 | 6. 3 | 7.0 | 2.7 | 25.0 | 9.4 | 73.6 | 1. 6 |
| Arizona | 4. 0 | 78.0 | 19.5 | 0.0 | 6.0 | 2.0 | 80.0 | 4. 0 | 70.0 | 1. 0 |
| Utah. | 8.3 | 222.8 | 27.0 | 17.8 | 16.5 | 6.2 | 83.9 | 13.5 | 95.5 | 6.6 |
| Nevada | 2. 9 | 63.6 | 23.1 | 0.6 | 12.1 |  |  |  |  |  |
| Idaho. | 3.8 | 57.7 | 15.0 | 0.0 | 5 | 2.4 | $2 \overline{5} .1$ | 10.4 | 74.5 | 2.1 |
| Washington | 2. 8 | 73.1 | 26.0 | 12.0 | 10.2 | 4.3 | 34.9 | 8.1 | 63.6 | 1.2 |
| Oregon .-. | 3.6 | 122.6 | 33.9 | 6.5 | 14.8 | 4. 6 | 45.3 | 9.9 | 82.4 | 4.2 |
| California | 5.0 | 131.5 | 26.4 | 1. 7 | 17.2 | 4.7 | 35.4 | 7.6 | 106.9 | 3.7 |

Table 31.-Combined statistics of public high schools and private high schools and acude-mies-Number of schools, instructors, and students in 1897-9S.

| Stato or Territory. | Total schools. | Total secondary teachers. | Total secondary students. | Male. |  | Female. |  | Classical preparatory students. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Num ber. | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | Number. | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | Per cent. |
| United States | 7, 305 | 27,298 | 554,825 | 241,359 | 43.50 | 313, 466 | 56.50 | 44, 296 | 7.99 |
| North Atlantic Division | 1,984 | 9,886 | 182, 061 | 82, 227 | 45.16 | 99, 834 | 54.84 | 18,646 | 10.24 |
| South Atamtic Division | 760 | 2,368 | 41,292 | 18, 487 | 44.77 | 2\%, 805 | 55.23 | 4,492 | 10.88 |
| South Central Division. | 988 | 2,932 | 53,986 | 23, 914 | 44.30 | 30, 072 | 55.70 | 5,278 | 9.78 |
| North Central Division | 3,216 | 10, 553 | 247, 245 | 104,424 | 42.24 | 142, 821 | 57.76 | 13,735 | 5.55 |
| Western Division. | 357 | 1,559 | 30,241 | 12,307 | 40.70 | 17,934 | 59.30 | 2,145 | 7.09 |
| Nortlı Atlantic Division: <br> Maine. $\qquad$ | 189 | 478 | 11, 453 | 5,215 | 45.53 | 6, 238 | 54. 47 | 1,597 | 13.91 |
| New Hampsi | 81 | 304 | 5, 343 | 2, 798 | 52.37 | 2,515 | 47. 63 | 1,712 | 13.33 |
| Vermont... | 78 | 258 | 5, 232 | 2, 364 | 45.18 | 2, 868 | 54.82 | 348 | 6. 65 |
| Massachusett | 323 | 2,004 | 38,896 | 17, 102 | $4 \frac{4}{4} .74$ | 21,494 | 55. 26 | $5,8 \pm 8$ | 15.04 |
| Rhote Island | 29 | 271 | 3, 911 | 1, 604 | 42.55 | 2, 247 | 57. 45 | 727 | 18.59 |
| Connecticut | 130 | 619 | 9, 615 | 4,359 | 45.34 | 5,256 | 54.66 | 1,086 | 11.30 |
| New York | 572 | 3, 274 | 58, 538 | 27, 030 | 46.18 | 31,508 | 53.82 | 4, 424 | 7.56 |
| New Jersey | 155 | 800 | 13, 373 | 6, 056 | 45. 29 | 7,317 | 54. 71 | 1, 459 | 10.91 |
| Penusylvania | 427 | 1,878 | 35,700 | 15,339 | 42.97 | 20,361 | 57.03 | 2, 445 | 6.85 |
| South Atlantic Division: <br> Delaware ............. | 17 | 63 | 1,333 | 576 | 43.21 | 757 | 56.79 | 58 | . 35 |
| Maryland | 85 | 340 | 5,818 | 2, 369 | 40.72 | 3, 449 | 59. 28 | 278 | 4. 78 |
| District of C | 24 | 257 | 3,794 | 1,506 | 39.69 | 2, 288 | 60.31 | 182 | 4.80 |
| Virginia | 146 | 444 | 7,057 | 3, 414 | 48. 38 | 3, 643 | 51.62 | 878 | 12.44 |
| West Virginia | 42 | 135 | 2, 433 | 928 | 38.14 | 1,505 | 61.86 | 191 | 7.85 |
| North Carolina | 125 | 338 | 6, 034 | 3,368 | 55.82 | 2. 666 | 44. 18 | 1,053 | 17. 45 |
| South Carolina | 119 | 276 | 4,786 | 2, 061 | 43.06 | 2,725 | 56.94 | ${ }^{1} 653$ | 13.64 |
| Georgia | 172 | 430 | 8,844 | 3, 822 | 43. 22 | 5, 022 | 56.78 | 1,158 | 13.09 |
| Florida............... | 30 | 85 | 1,193 | 443 | 37.13 | 750 | 62.87 | 41 | 3.44 |
| South Ceutral Division: |  |  |  |  |  |  |  |  |  |
| Kentucky | 148 | 520 | 8,375 | 3, 751 | 44. 79 | 4, 624 | 5.5. 21 | 637 | 7.61 |
| Tennessee | 195 | 497 | 10, 256 | 4, 863 | 47.42 | 5,393 | 52.58 | 1,025 | 10.00 |
| Alabama | 114 | 281 | 5,338 | 2, 520 | 47.21 | 2, 818 | 52. 79 | 750 | i4. 05 |
| Mississipp | 135 | 330 | 5, 887 | 2, 633 | 44.73 | 3, 254 | 55. 27 | 530 | 9. 00 |
| Louisiana | 45 | 175 | 2, 742 | 977 | 35.63 | 1,765 | 64.37 | 194 | 7.07 |
| Texas | 263 | 887 | 16,589 | 6, 917 | 41.70 | 9, 672 | 58.30 | 1,664 | 10.03 |
| Arkansas | 72 | 193 | 3,994 | 1, 849 | 46.29 | 2, 145 | 53.71 | 413 | 10.34 |
| Oklahoma | 4 | 16 | 291 | 118 | 40.55 | 173 | 59.45 | 17 | 5. 81 |
| Indian T'erritory | 12 | 33 | 514 | 286 | 55.64 | $2 \because 8$ | 44.36 | 48 | 9.34 |
| North Central Division: Ohio | 652 |  |  |  | 43. 11 |  | 56.89 |  |  |
| Indiana | 378 | 1, 148 | 24, 860 | 10,932 | 43.11 43.97 | 13,928 | 50. ${ }^{\text {a }}$ ( 56. | 2,718 908 | 6. 25 |
| Illinois | 390 | 1,616 | 39,090 | 15, 725 | 40.23 | 23, 365 | 59.77 | 2,230 | 5. 70 |
| Michigan | 303 | 1,102 | 28, 665 | 12,095 | 42.19 | 16,570 | 57.81 | 729 | 2.54 |
| Wiscousin | 208 | 754 | 17,996 | 8, 066 | 44.82 | 9, 930 | 55.18 | 1,101 | 6.12 |
| Minnesota | 142 | 681 | 13, 275 | 5,687 | 42.84 | 7,588 | 57.16 | 384 | 2. 89 |
| Iowa... | 370 | 1,178 | 29, 038 | 12,332 | 4.47 | 16,706 | 57.53 | 1,907 | 6. 57 |
| Missouri | 281 | 998 | 21, 609 | 9, 020 | 41. 74 | 12, 589 | 58.26 | 1,543 | 7. 14 |
| North Dakot | 26 | 58 | , 956 | , 377 | 39.44 | , 579 | 60.56 | 97 | 10.15 |
| South Dakota | 36 | 97 | 1,985 | 839 | 42.27 | $1,1 \nmid 6$ | 57.73 | 84 | 4. 23 |
| Nebraska | 239 | 572 | 13,916 | 5,577 | 40.08 | 8,339 | 59.92 | 950 | 6. 83 |
| Kansas........ | 191 | 497 | 12, 358 | 5,021 | 40.63 | 7,337 | 59.37 | 1,084 | 8. 77 |
| Western Division : <br> Montana...... |  |  |  |  |  |  |  |  |  |
| Montana | 19 | 53 | 1,026 | 368 | 36.08 | 652 | 63.92 | 111 | 10.88 |
| Colorado | 44 | 225 | 5, 067 | 2,025 | 44.85 39.96 | 3, 042 | 55. 15 60.04 | 18 | 5.45 6.48 |
| New Mex | 7 | 15 | 5, 202 | -107 | 52.97 | - 95 | 47.03 | 5 | 2. 48 |
| Arizolla | 3 | 10 | 164 | 65 | 39.63 | 99 | 60.37 | 20 | 12. 19 |
| Utah | 18 | 120 | 2,065 | 934 | 45. 23 | 1. 131 | 51.77 | 89 | 4.31 |
| Nevada | 8 | 23 | 509 | 191 | 37.52 | 318 | 62. 48 | 27 | 5.30 |
| Idaho | 13 | 40 | 522 | 211 | 40.42 | 311 | 59.58 | 65 | 12.45 |
| Washingto | 48 | 153 | 3, 049 | 1,190 | 39.03 | 1,859 | 60.97 | 208 | 6.82 |
| Oregon... | 32 | 134 | 2,455 | 1,127 | 45.91 | 1,328 | 54. 09 | 221 | 9. 00 |
| California | 159 | 771 | 14,858 | 5,941 | 39.99 | 8,917 | 60.01 | 1,053 | 7.09 |

Table 32.-Combined statistics of public high schools and private high schools and academies-College preparatory students and graduates in 1897-98.

| State or Territory | $\begin{gathered} \text { Scientific } \\ \text { preparatory } \\ \text { students. } \end{gathered}$ |  | Total college preparatory students. |  | $\begin{aligned} & \text { Graduates } \\ & \text { in } 1898 . \end{aligned}$ |  | Graduates prepared for college. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | Num. ber. | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | Number. | Per cent. |
| United States | 33,463 | 6.03 | 77, 759 | 14.02 | 65,170 | 11.75 | 19, 940 | 30.60 |
| North Atlantic Division | 10,818 | 5.94 | 29,464 | 16.18 | 22,970 | 12.62 | 6,845 | 29.80 |
| South A tlantic Division | 1,590 | 3.85 | 6, 082 | 14.73 | 4,112 | 9.96 | 1,195 | 29. 06 |
| South Central Division | 3, 245 | 6.01 | 8, 523 | 15. 79 | 4, 3u2 | 7.97 | 1,551 | 36.05 |
| North Central Division | 14,783 | 5. 96 | 28, 468 | 11.51 | 30, 133 | 12.19 | 8, 864 | 23.42 |
| W'estern Division | 3,077 | 10.18 | 5, 222 | 17.27 | 3,653 | 12.08 | 1,485 | 40.65 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |
| Maine --.......... | 402 | 3. 51 | 1,999 | 17.45 | 1,422 | 12. 42 | 455 | 32.00 |
| New Hampshir | 355 | 6. 64 | 1, 067 | 19.97 | 744 | 13. 92 | 271 | $36.42$ |
| Vermont .. | 305 | 7.55 | 743 | 14. 20 | 601 | 11.49 | 216 | 35.94 |
| Massachuseits | 2, 381 | 6.12 | 8, 229 | 21. 16 | 5, 803 | 14.92 | 1,857 | 32. 00 |
| Rhode Island | 144 | 3.68 | 8,871 | 22. 27 | 5 430 | 10.99 | ${ }^{1} 189$ | 43.95 |
| Connecticut | 632 | 6.57 | 1,718 | 17.87 | 1,379 | 14.34 | 424 | 30.75 |
| New York | 3,323 | 5.67 | 7,747 | 13. 23 | 5,546 | 9.47 | 1,772 | 31.05 |
| New Jersey | 1,209 | 9.04 | 2, 668 | 19.95 | 1,847 | 13.81 | , 581 | 31.46 |
| Pennsylvania.... | 1,977 | 5.54 | 4,422 | 12.39 | 5,198 | 14.56 | 1,080 | 20.78 |
| South Atlantic Dirision: <br> Delaware | 23 | 1. 73 | 81 | 6.08 | 163 | 12. 23 | 36 | 22.09 |
| Maryland | 116 | 1.99 | 394 | 6. 77 | 630 | 10.83 | 169 | 26.83 |
| District of Columbi | 82 | 2.16 | 264 | 6. 96 | 455 | 11. 39 | 84 | 18. 46 |
| Virginia | 318 | 4.51 | 1,196 | 16. 85 | 592 | 8.39 | 105 | 1773 |
| West Virginia | 77 | 3.17 | 1. 268 | 11.03 | 280 | 11. 51 | 69 | 24. 64 |
| North Carolina | 466 | 7.72 | 1. 519 | 25.17 | 376 | 6.23 | 202 | 53.72 |
| South Carolina | 196 | 4.10 | 1.819 | 17. 74 | 662 | 13.83 | 205 | 30. 97 |
| Georgia | 299 | 3.38 | 1,457 | 16.47 | 846 | 9.57 | 304 | 35.93 |
| Florida ............ | 13 | 1.09 | 54 | 4.53 | 108 | 9.05 | 21 | 19.44 |
| South Central Divisiou |  |  |  |  |  |  |  |  |
| Kentucky ........... | 470 | 5. 61 | 1,107 | 13. 22 | 703 | 8.39 | 214 | 30.44 |
| Tennessee | 585 | 5. 70 | 1,610 | 15.70 | 936 | 9.13 | 354 | 37.82 |
| Alabama | 283 | 5. 30 | 1,033 | 19.35 | 378 | 7.08 | 129 | 34.13 |
| Mississipp | 521 | 8.85 | 1,051 | 17.85 | 405 | 6.88 | 164 | 40.49 |
| Louisiana. | 126 | 4. 60 | , 320 | 11. 67 | 369 | 13.46 | 121 | 32. 79 |
| Texas. | 912 | 5.50 | 2,576 | 15.53 | 1,199 | 7. 23 | $42 \%$ | 35. 20 |
| Arkansas. | 300 | 7.51 | 713 | 17.85 | - 260 | 6.51 | 123 | 47.31 |
| Oklahoma | 16 | 5. 50 | 33 | 11.34 | 23 | 7.90 | 14 | 60.87 |
| Indian Territory ... | 32 | 6. 22 | 80 | 15.56 | 29 | 5.64 | 10 | 31.48 |
| North Central Dirision : |  |  |  |  |  |  |  |  |
| Ohio | 2, 212 | 5. 15 | 4,960 | 11.40 | 5,515 | 12.68 | 1, 401 | 25.46 |
| Indiana | -858 | 3.45 | 1, 766 | 7. 10 | 2,718 | 10.93 | , 592 | 21.78 |
| Illinois | 2, 211 | 5.66 | 4, 441 | 11.36 | 4. 836 | 12.37 | 1,263 | 26.12 |
| Michigan. | 1, 620 | 5.65 | 2, 349 | 8. 19 | 3, 230 | 11. 27 | 950 | 29.41 |
| Wisconsin | 1,911 | 5. 06 | 2,012 | 11.18 | 2, 322 | 12.90 | 685 | 29. 50 |
| Minnesota | 2, 023 | 15. 24 | 2, 407 | 18.13 | 1, 649 | 12.42 | 804 | 48. 76 |
| Lowa. | 1,388 | 4. 78 | 3,295 | 11.35 | 3,915 | 13.48 | 1,097 | 28. 02 |
| Missouri. | 1, 412 | 6. 53 | 2,955 | 13. 67 | 2,334 | 10.80 | 1648 | 27.70 |
| North Dakota | 70 | 7. 32 | 167 | 17.47 | 89 | 9.31 | 46 | 51. 69 |
| South Dakota | 45 | 2. 27 | 129 | 6. 50 | 268 | 13.50 | 89 | 33.21 |
| Nebraska. | 1, 276 | 9.17 | 2,226 | 16.00 | 1,814 | 13.04 | 698 | 38.48 |
| Kansas | 677 | 5.18 | 1,761 | 14.25 | 1,443 | 11. 68 | 591 | 40.96 |
| Western Division: |  |  |  |  |  |  |  |  |
| Montana... | 142 | 13.92 | 253 | 24. 80 | 111 | 10.88 | 36 | 32.43 |
| Wroming | 8 88 | 2. 42 | - 26 | 7. 88 | 43 | 13.03 | 28 | 65.12 |
| Colorado.. | 672 | 13. 26 | 1,000 | 19.74 | 614 | 12. 12 | 198 | 32.25 |
| New Mexico | 10 | 4. 95 | . 15 | 7. 43 | 33 | 16. 34 | 7 | 2121 |
| Arizona | 7 | 4. 27 | 27 | 16.46 | 13 | 7.93 | 13 | 100.00 |
| Utah | 52 | 2.52 | 141 | 6.83 | 158 | 7.65 | 65 | 41.14 |
| Nevada | 27 | 5.30 | 54 | 10.60 | 97 | 19.06 | 41 | 42.27 |
| Idaho.-.... | 59 | 11.30 | 124 | 23. 75 | 45 | 8. 62 | 9 | 20.00 |
| Washington | 184 | 6. $0 \frac{1}{5}$ | 392 | 12.86 | 282 | 12.53 | 80 | 20. 94 |
| Oregon - | 166 | 6. 76 | -387 | 15.76 | . 273 | 11.12 | 42 | 15.38 |
| California. | 1,750 | 11.78 | 2,803 | 18.87 | 1,88. | 12.68 | 966 | 51.27 |

Table 33.-Combined statistics of public high schools and private high schools and academies-Secondury students in certain studies in 1897-93'.


Taible 34.-Combined statistics of public high schools and prirate high schools and academies-Secondary students in certain studies in 1897-9S.

| State or 'Jerritory. | German. |  |  | Algebra. |  |  | Gcometry. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Schools reporting. | $\begin{gathered} \text { Num- } \\ \text { ber. } \end{gathered}$ | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | Schocis reporting. | $\begin{aligned} & \text { Num- } \\ & \text { ler. } \end{aligned}$ | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | Schools report ing. | $\underset{\text { ber. }}{\substack{\text { Num }}}$ | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ |
| United States | 2, 626 | 78, 994 | 14.24 | 7,293 | 306, 755 | 55. 29 | 6, 420 | 147, 515 | 26. 59 |
| North Atlantic Division | 1, 062 | 33, 996 | 18.67 | 1, 959 | 92, 551 | 50.84 | 1, 812 | 48, 698 | 26.75 |
| South Atlantic Division. | 186 | 4,442 | 10.76 | 754 | 26,972 | 65.32 | 600 | 12, 054 | 29.19 |
| South Central Division | 214 | 3, 023 | 5. 60 | 979 | 36, 041 | 66.76 | 857 | 15, 846 | 29.35 |
| North Central Division | 1,014 | 33,628 | 13. 60 | 3, 185 | 133, 595 | 54.03 | 2, 839 | 60. 784 | 24.58 |
| Western Division | 150 | 3, 905 | 12. 91 | 346 | 17,596 | 58.19 | 312 | 10, 133 | 33.51 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |  |
|  | 16 | 140 | 1. 22 | 186 | 5, 703 | 49.79 | 168 | 2, 848 | 24.87 |
| New Hamp | 22 | 371 | 6. 94 | 80 | 2,723 | 51.08 | 74 | 1,575 | 29. 48 |
| Vermont | 19 | 181 | 3.46 | 78 | 2, 089 | 39.93 | 65 | 905 | 17. 30 |
| Massachusetts | 166 | 4,738 | 12.18 | 320 | 18,803 | 48.34 | 311 | 11,869 | 30.51 |
| Rhode Island. | 21 | 542 | 13. 86 | 29 | 2,083 | 53.26 | 25 | 1,051 | 26.87 |
| Connecticut | 91 | 2, 229 | 23. 18 | 128 | 4, 611 | 48. 27 | 112 | 2,828 | 29.41 |
| New York | 439 | 14. 181 | 24.23 | 565 | 24,975 | 42.66 | 531 | 13, 064 | 22. 32 |
| New Jersey | 92 | 3.751 | 28.05 | 152 | 9,267 | 69. 30 | 138 | 3,47ı | 25.98 |
| Peunsylvania | 196 | 7,863 | 22. 03 | 421 | 22, 261 | 62.36 | 388 | 11,084 | 31.05 |
| South Atlantic Division: |  |  |  |  |  |  |  |  |  |
| Delaware. | ${ }_{3}^{6}$ | 90 1,558 | $\begin{array}{r}6.75 \\ 26.78 \\ \hline\end{array}$ | 17 81 | 931 4,243 | 69.84 72.93 | 16 <br> 82 | 426 3,462 | 31.96 59.50 |
| District of | 16 | 1,123 | 29.60 | 23 | 1,309 | 34.50 | 21 | ${ }^{3} 778$ | 20.51 |
| Virginia | 63 | 1, 026 | 14.54 | 142 | 4,608 | 65. 30 | 117 | 1,926 | 27.29 |
| West Virginia | 13 | 221 | 9.08 | 42 | 1,652 | 67.90 | 37 | 646 | 26.55 |
| North Carolina | 22 | 140 | 2. 32 | 124 | 3, 047 | 50.50 | 78 | 834 | 1382 |
| South Carolina | 16 | 122 | 2.55 | 120 | 3. 69. | 77. 10 | 83 | 961 | 20.08 |
| Georgia | 10 | 118 | 1.33 | 172 | 6, 670 | 75.42 | 142 | 2, 687 | 30.38 |
| South Central Division: |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Kentucky | 67 | 1, 192 | 14.23 | 147 | 5,334 | 63. 69 | 119 | 1,972 | 23.55 |
| Teunessee | 35 | 329 | 3.21 | 193 | 6, 168 | 6.1. 14 | 175 | 2, 850 | 27. 79 |
| Alabana | 17 | 170 | 3.18 | 112 | 3,623 | 67.87 | 100 | 1,726 | 32.33 |
| Mississippi | 7 | 56 | 0.95 | 133 | 3,441 | 58.45 | 103 | 1,016 | 17.26 |
| Luuisiana | 5 | 12 | 0.44 | 45 | 1,710 | 63.36 | 41 | 1,044 | 38.67 |
| Texas | 60 | 1, 012 | 6.10 | 262 | 12,556 | 75.69 | 248 | 6, 130 | 36.95 |
| Arkansas | 18 | 143 | 3. 58 | 72 | 2, 776 | 69. 50 | 61 | 950 | 23. 79 |
| Oklahoma | 3 | 103 | 35.40 | 4 | 193 | 66. 32 | , | 72 | 24.74 |
| Indian Territory ... | 2 | 6 | 1. 17 | 11 | 240 | 46. 69 | 6 | 86 | 16. 73 |
| North Central Division: |  |  |  |  |  |  |  |  |  |
| Ohio ... | 171 | 5,805 | 13.35 | 645 | 24, 887 | 57.22 | 549 | 10,852 | 24.95 |
| Indiana | 70 | 2,442 | 9.82 | 378 | 15, 834 | 63. 69 | 309 | 6,121 | ${ }^{24 .} 62$ |
| Illinois | 130 | 5, 810 | 14. 86 | 385 | 18. 651 | 47. 71 | 357 | 9,962 | 25.48 |
| Michigan | 137 | 4,518 | 15.76 | 301 | 14, 594 | 50. 91 | 284 | 5, 675 | 19.80 |
| Wisconsin | 143 | 4, 834 | 26. 86 | 204 | 7, 808 | 43. 39 | 204 | 4, 247 | 23. 60 |
| Minnesota | 77 | 2, 307 | 17. 38 | 142 | 5,853 | 44.11 | 135 | 3,734 | 28.13 |
| Iowa. | 85 | 2, 683 | 9.24 | 365 | 14,960 | 51.52 | 315 | 6,566 | 22.61 |
| Missouri | 87 | 2, 559 | 11.84 | 276 | 13, 774 | 63.74 | 244 | 5,275 | 24.41 |
| North IJako | 3 | 10 | 1.05 | 25 | 573 | 59.94 | 24 | 269 | 28.14 |
| South Dakota | 13 | 230 | 11.59 | 35 | 927 | 46. 70 | 29 | 433 | 21.81 |
| Nebraska | 41 | 1,284 | 9.23 | 239 | 8,480 | 60. 94 | 229 | 4, 227 | 30.38 |
| Kansas. | 56 | 1,146 | 9. 27 | 190 | 7, 252 | 58. 68 | 160 | 3,423 | 27.70 |
| Western Divisiou: |  |  |  |  |  |  |  |  |  |
| Montana |  | 177 20 | 17.35 6.06 | 19 | 604 168 | 59.22 50.91 | 14 4 | 242 139 | 23.73 42.12 |
| Colorato. | 27 | 1,101 | 21.73 | 42 | 2, 700 | 53. 29 | 42 | 1, 906 | 37.62 |
| New Mexico | 1 | 1,101 | 0.99 | 7 | -125 | 61.88 | 7 | 7 | 36.63 |
| Arizona |  |  |  | 3 | 127 | 77. 44 | 2 | 26 | 15.85 |
| Utah | 10 | 271 | 13.12 | 16 | 1,094 | 52.98 | 12 | 503 | 24.36 |
| Nevada |  |  |  | 8 | 4.4 | 83. 30 | 9 | 251 | 49.31 |
| Idaho | 2 | 15 | 2. 87 | 10 | 281 | 53.83 | 9 | 109 | 20.88 |
| Washing | 13 | 393 | 12.89 | 47 | 1,788 | 58.64 | 39 | 912 | 29.91 |
| Oregon. Californ | 15 | 422 | 17. 19 | 31 | 1,422 | 57.92 | 26 | 484 | 19.71 |
| Californi | 77 | 1,594 | 10. 12 | 157 | 8,863 | 59.65 | 150 | 5, 487 | 36. 93 |

Table 35.-Combined statistics of pablic high schools and prirate high schools and academies-Secondary students in certain studies in 1897-93.

| State or 'erritory. | Trigonometry. |  |  | Astronomy: |  |  | Ihysics. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Schools reporting. | Nilm. ber. | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | Schools report 11 g . | Number. | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | Schools reporting. | Number. | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ |
| Cnited States | 1,541 | 15,719 | 2.83 | 1,905 | 24,433 | 4.40 | 5, 873 | 113, 6:0 | 20.48 |
| North Atlantic Division | 448 | 4,589 | 2. 52 | 716 | 8, 816 | 4.84 | 1,5s5 | 3.3,057 | 18. 16 |
| South Atlantic I) ivision. | 235 | 2,068 | 5.01 | 161 | 1,868 | 4.52 | 465 | 10, 003 | 24.23 |
| South Central Divisıon. | 360 | 3, 550 | 6.58 | 245 | 3,066 | 5.68 | 751 | 14, 285 | 26.46 |
| North Central Division | 380 | 4,325 | 1. 75 | 700 | 9,765 | 3.95 | 2, 780 | 49,600 | 20.06 |
| Western Division.. | 118 | 1,187 | 3.93 | 83 | 918 | 3.04 | 292 | 6,705 | 22.17 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |  |
|  | 11 | 61 | 0.53 | 86 | 920 | 8. 03 | 149 | 2,185 | 19.08 |
| New Hampsuir | 15 | 144 | 2.70 | 37 | 338 | 6. 33 | 55 | 1, 182 | 22. 12 |
| Vermont . | 2 | 8 | 0.15 | 37 | 345 | 6.59 | 60 | 749 | 14.32 |
| Massachusett | 66 | 54 | 1. 40 | 155 | 2, 249 | 5.78 | 278 | 8,297 | 21. 33 |
| Rhode Island | 10 | 120 | 3.07 | 15 | 239 | 6.11 | 27 | 889 | 22. 73 |
| Connecticut | 40 | 287 | 2.98 | 51 | $68 \frac{1}{4}$ | 7.11 | 94 | 1, 679 | 17. 46 |
| New York. | 162 | 1,621 | 2. 77 | 200 | 1,931 | 3. 00 | 452 | 7,466 | 12. 75 |
| New Jersey | 37 | 432 | 3. 23 | 50 | 728 | 5.44 | 125 | 2, 628 | 19. 65 |
| Pennsylyania | 105 | 1,372 | 3.81 | 85 | 1,382 | 3.87 | $3+5$ | 7,982 | 22. 36 |
| South Atlantic Division: | , | 42 | 3.1.) | 2 | 8 | 0. 60 | 16 | 429 | 32.18 |
| Maryland | 37 | 552 | 9. 49 | 20 | 399 | 6.85 | 76 | 2,597 | 41.64 |
| District of Columb | 13 | 118 | 3.11 | 12 | 69 | 1.82 | 19 | - 800 | 21.09 |
| Virginia | 56 | 378 | 5.36 | 27 | 217 | 3.07 | 89 | 1,488 | 21.09 |
| West Virginia | 16 | 121 | 4. 97 | 10 | 88 | 3.62 | 32 | 515 | 21.17 |
| North Carolina. | 23 | 94 | 1.56 | 26 | 226 | 3.75 | 58 | 1, 023 | 16. $¢ 5$ |
| South Carolina | 17 | 226 | 4.72 | 16 | 261 | 5.52 | 59 | 1,445 | 30. 19 |
| Georgia | 60 | 444 | 5.02 | 38 | 464 | 5.25 | 99 | 1,478 | 16. 71 |
| Florida. | 8 | 93 | 7. 80 | 10 | 133 | 11.15 | 20 | 228 | 19.11 |
| South Central Division: |  |  |  |  |  |  |  |  |  |
| Kentucky* | 60 | 573 | 6. $8 t$ | 54 | 576 | 6. 88 | 92 | 1,583 | 18.90 |
| 'Tennessee | 68 | 460 | 4. 49 | 50 | 588 | 5.73 | 141 | 1,971 | 19.22 |
| Alabama | 50 | 704 | 13. 19 | 30 | 565 | 10.58 | 89 | 1,508 | 28.25 |
| Mississippi | 33 | 187 | 3.18 | 28 | 270 | 4.59 | 120 | 2, 161 | 36. 71 |
| Louisiana | 13 | 70 | 2.55 | 12 | 155 | 5. 65 | 39 | 833 | 30.38 |
| 'Iexas | 115 | 1,233 | 7.43 | 58 | 817 | 4.92 | 210 | 5,192 | 31.30 |
| Arkansas | 17 | 310 | 7.76 | 10 | 85 | 2. 13 | 49 | 887 | 22. 21 |
| Cblahoma | 1 | 5 | 1.72 | 1 | 4 | 1. 37 | 4 | 52 | 17.87 |
| Indian '1erritory | 3 | 8 | 1.56 | 2 | 6 | 1.17 | 7 | 98 | 19.07 |
| North Central Division: |  |  |  |  |  |  |  |  |  |
| Ohio | 110 | 1,359 | 3.12 | 169 | 2, 180 | 5.01 | 515 | 8, 250 | 18.97 |
| Indiana | 35 | 361 | 1. 45 | 35 | 629 | 2. 53 | 278 | 5, 077 | 20.42 |
| Illinois. | 45 | 582 | 1.44 | 125 | 2, 224 | 5. 69 | 368 | 8, 010 | 20. 49 |
| Michigan | 20 | 272 | 0.95 | 73 | 881 | 3.07 | 277 | 5, 185 | 18.09 |
| W iscousin | 17 | 145 | 0.81 | 11 | 122 | 0.68 | 199 | 2, 982 | 16.57 |
| Minnesota | 8 | $8!$ | 0.63 | 31 | 447 | 3.37 | 114 | 2, 107 | 15.87 |
| Jowa | 36 | 325 | 1. 12 | 116 | 1, 559 | 5.37 | 342 | 6,150 | 21.18 |
| Missouri | 67 | 849 | 3.93 | 79 | 902 | 4.17 | 234 | 4, 681 | 21.66 |
| North Dakota | 2 | 5 | 0.52 | 2 | 20 | 2. 69 | 20 | 170 | 17. 78 |
| South Dakota | 6 | 55 | 2. 77 | 5 | 82 | 4.13 | 33 | 434 | 21.86 |
| Nebraska | 22 | 210 | 1.55 | 21 | 249 | 1. 79 | 221 | 3, 480 | 25.01 |
| Kansas.. | 12 | 92 | 0.74 | 33 | 470 | 3.80 | 179 | 3, 074 | 24.87 |
| Western Division: |  |  |  |  |  |  |  |  |  |
| Montana ....-. | 4 | 22 | 2.16 | 2 | 16 | 1.57 | 14 | 228 | 2 2. 35 |
| Wyoming | 1 | 5 | 1.52 | 2 | 16 | 4.85 | 4 | . 74 | 2.2. 42 |
| Colorado | 15 | 216 | 4.26 | 9 | 242 | 4. 78 | 41 | 1,246 | 2土. 59 |
| New Mexico | 1 | 4 | 1.98 | 2 | 36 | 17.82 | 3 | 46 | 22. 77 |
| Arizona.. | 1 | 13 | 7.93 |  |  |  | 3 | 40 | 24.39 |
| Utah | 5 | 70 | 3.39 | 3 | 27 | 1.31 | 15 | 341 | 16.51 |
| Nevada |  |  |  | 1 | 3 | 0.59 | 7 | 311 | 61.10 |
| Idaho |  |  |  | 4 | 20 | 3. 83 | 6 | 45 | 8.62 |
| Washington | 6 | 58 | 1.90 | 8 | 120 | 3.94 | 33 | 591 | 19. 38 |
| Oregon... | 15 | 116 | 4. 73 | 14 | 97 | 3.95 | 24 | 444 | 18.09 |
| California | 70 | 683 | 4.60 | 38 | 341 | 2.30 | 142 | 3,339 | 22.47 |

Table 33.-Combinerl statistics of public high schools and private high schools and acad-emies-Secondary students in certain studies in 1897-98.

| Stato or Territory | Chemistry. |  |  | Physical geograplyy. |  |  | Geology. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Schools reporting. | Num- | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | Schools reporting. | Num. ber. | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | Schools reporting. | Num. ber. | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ |
| United States | 2, 766 | 47, 448 | 8.55 | 5, 683 | 134, 982 | 24.33 | 1,756 | 25, 851 | 4.66 |
| North Atlantic Division | 967 | 17,087 | 9.39 | 1,477 | 33, 934 | 18.64 | 670 | 10, 403 | 5.71 |
| South Atlantic Jivision | 207 | 3, 364 | 8.15 | 589 | 11,785 | 28.54 | 103 | 1,467 | 3.55 |
| South Central Division. | 318 | 4,563 | 8.45 | 714 | 17,378 | 32.19 | 269 | 3,692 | 6.81 |
| North Central Division | 1, 065 | 18,739 | 7. 58 | $\because, 669$ | 65,573 | 26.52 | 608 | 8, 943 | 3. 62 |
| Western Division | 209 | 3,605 | 12.22 | 234 | 6,312 | 20.87 | 106 | 1,346 | 4.45 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |  |
| New Lampshir | 43 | 1, $7 \because 0$ | 13.48 | 51 | 1,908 | 13. 06 | 30 | 328 | 6.14 |
| Vermont. | 35 | 334 | 6.38 | 57 | 997 | 19.06 | 35 | 360 | 6. 88 |
| Massachusetts | 221 | 4,775 | 12.28 | 178 | 3,700 | 9.51 | 137 | 2, 157 | 5.55 |
| Thode Island | 19 | 566 | 14.47 | 18 | 365 | 9.33 | 9 | 167 | 4.27 |
| Connecticut | 56 | 890 | 9.26 | 86 | 1, 713 | 17.82 | 37 | 636 | 6.61 |
| New Jork | 288 | 3, 795 | 6. 48 | 468 | 11, 173 | 19.09 | 229 | 3,458 | 5.91 |
| New Jersey | 75 | 1,333 | 9.97 | 106 | 3,250 | 24.30 | 30 | - 751 | 5. 62 |
| Pennsylvania........ | 142 | 3,625 | 10.15 | 382 | 10, 117 | 28.34 | 82 | 1,573 | 4. 41 |
| South Atlantic Division: |  |  |  |  |  |  |  |  |  |
| Delaware | 95 | 162 | 12. 15 | 13 | 520 | 39.01 | 12 | S | 2.37 |
| District of | 16 | 335 | 8. 83 | 15 | 1,149 | 3.93 | 8 | 109 | 2.87 |
| Virginia | 51 | 736 | 10.43 | 111 | 2,141 | 30.34 | 20 | 235 | 3.33 |
| West Virgini | 19 | 211 | 8. 67 | 40 | 1,028 | 42.25 | 9 | 111 | 4.56 |
| North Carolina | $\because 2$ | 368 | 6.10 | 100 | 1, 412 | 23.40 | 10 | 240 | 3. 98 |
| South Carolin | 18 | 322 | 6.73 | 100 | 2,202 | 46.01 | 11 | 227 | 4. 74 |
| Georgia | 41 | 629 | 7. 11 | 115 | 2, 442 | 27.61 | 22 | 352 | 3.98 |
| Florida | 8 | 88 | 7.38 | 27 | 493 | 41.32 | 5 | 55 | 461 |
| Soutli Central Division: |  |  |  |  |  |  |  |  |  |
| Kentucky ............ | 62 46 | 757 598 | 9.04 5.83 | 160 103 | 1,851 1,968 | 22.10 19.19 | 47 91 | 1. $\begin{array}{r}429 \\ \hline\end{array}$ | 5.12 11.35 |
| Tennessee | 46 43 | 598 | 5.83 13.06 | 103 | 1,968 | 19.19 30.91 | 91 24 | 1, 164 | 11.35 10.38 |
| Mississippi | 31 | 329 | 5.59 | 99 | 1,834 | 31.15 | 18 | 234 | 3.97 |
| Lonisiant. | 23 | 581 | 21.19 | 40 | 996 | 36.32 | 10 | 87 | 3. 17 |
| Texas | 89 | 1,131 | 6.82 | 242 | 7, 296 | 43.98 | 64 | 860 | 5.18 |
| Arkansas | 18 | 897 | 9.94 | 53 | 1, 56: | 39.11 | 11 | 304 | 7. 61 |
| Oklahoma | 3 | 34 | 11. 68 | 3 | $\bigcirc 1$ | 31.27 | 2 | 18 | 6.19 |
| Indian 'Merritory. | 3 | 39 | 7.59 | 5 | 130 | 25.29 | 2 | 42 | 8.17 |
| North Central Division: |  |  |  |  |  |  |  |  |  |
| Ohio ... | 165 | 3,425 | 7.87 | 566 | 11,502 | 26.44 | 98 | 1,233 | 2. 95 |
| Indiana | 114 | 2,213 | 8.90 | 302 | 6, 244 | 25.12 | 56 | 902 | 3.63 |
| Illineis. | 173 | 2,939 | 7.52 | 310 | 10,715 | 27.41 | 78 | 1,558 | 3.99 |
| Michigan | 167 | 2, 729 | 9.52 | 250 | 6,12. | 21.35 | 66 | 1,686 | 2. 43 |
| Wisconsin | 41 | 670 | 3.72 | 197 | 5,943 | 33.02 | 21 | 377 | 2. 09 |
| Minnesota | 78 | 1,296 | 9.76 | 62 | 1, 9:30 | 14.54 | 14 | 177 | 1. 33 |
| Iowa.. | 88 | 1,403 | 4. 83 | 322 | 7, 804 | 26.88 | 112 | 1,685 | 5.80 |
| Missonri | 108 | 1,844 | 8.53 | 221 | 5,309 | 24.57 | 83 | 1,240 | 5.74 |
| North Dakota | 4 | 31 | 3. 56 | 19 | 187 | 19.56 | 8 | 10 | 1.05 |
| South Dakota | 8 | 102 | 5. 14 | 34 | 694 | 31. 96 | 8 | 136 | 6.85 |
| Nelraska | 77 | 1, 406 | 10.10 | 207 | 4, 346 | 31.23 | 23 | 310 | 223 |
| Kansas.. | 42 | 678 | 5. 49 | 179 | 4,779 | 38. 67 | 47 | 569 | 4. 60 |
| Western Division: |  |  |  |  |  |  |  |  |  |
| Montana | 6 | 142 | 13.92 | 1 t | 312 | 30.59 | 8 | 82 | 8. 04 |
| Wyoming | 3 | 19 | 5.76 | 4 | 63 | 19.09 | 3 | 21 | 6.36 |
| Colorado | 33 | 806 | 15.91 | 30 | 795 | 15.69 | 25 | 538 | 10.62 |
| New Mexico | $\stackrel{2}{9}$ | 17 | 8. 42 | ${ }_{6}$ | 91 | 45.05 | 2 | 20 | 9.99 |
| Arizona. | 2 | 21 | 12.80 | 3 | 41 | 25.00 | 1 | 8 | 4. 88 |
| Utah... | 9 | 88 | 4.26 | 16 | 579 | 28.04 | 7 | 155 | 7.51 |
| Nevada | 7 | 175 | 34. 38 | 8 | 225 | 44.20 |  |  |  |
| Idaho | 3 | 30 | 5.75 | 10 | 251 | 48. 63 | 2 | 9 | 1.72 |
| Washington | 11 | 177 | 5.81 | 42 | 1,224 | 40.14 | 12 | 105 | 3.44 |
| Oregon.... | 15 | 291 | 11.85 | 31 | -683 | 27. 82 | 14 | 98 | 3. 99 |
| Calitornia.. | 118 | 1,989 | 12.98 | 70 | 2,045 | 13.76 | 32 | 310 | 2.09 |

Table 37.-Combined statistics of public high schools and private high schools and acad-emies-Secondary students in certain studies in 1897-98.

| State or Territory. | Physiology. |  |  | Psychology. |  |  | Rhetoric. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Schools rejorting. | Num. ber. | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | Schools reporting. | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | Schools report ing. | Nium. ber. | Per cent. |
| United States. | 5,452 | 162, 990 | 29.38 | 1,515 | 20, 198 | 3. 64 | 6,219 | 195, $8 \pm 8$ | 35.30 |
| North Atlantie Division | 1. 400 | 46,728 | 25.67 | 303 | 4,322 | 2.37 | 1, 0.6 | 58,796 | 32. 29 |
| South Atlantie J hivision | 504 | 12, 201 | 29.55 | 131 | 2,005 | 4.86 | - 593 | 15, 552 | 37.66 |
| South Central isivision. | 790 | 23, 514 | 43.56 | 341 | 4,362 | 8.08 | 814 | 20, 564 | 38.09 |
| North Contral Division | 2, 579 | 75, 653 | 30.60 | 665 | 8,470 | 3. 43 | 2, 802 | 87, 903 | 35.55 |
| Western Division... | -179 | 4,894 | 16.18 | 75 | 1, 039 | 3.44 | $30 \pm$ | 13, 033 | 43.10 |
| North Atlantic Division: <br> Maine | 119 | 1,955 | 17.07 | 31 | 356 | 3.11 | 150 | 2,997 | 26. 17 |
| New Hampsh | 46 | 752 | 14.07 | 11 | 75 | 1.40 | 72 | 1,882 | 35.22 |
| Vermont. | 42 | 650 | 12. 42 | 21 | 184 | 3.52 | 67 | 1,188 | 22. 71 |
| Massachusetts | 190 | 5,905 | 15.18 | 30 | 425 | 1.09 | 278 | 16, 215 | 41.69 |
| Rhode Lsland | 13 | 224 | 5.73 | 9 | 172 | 4. 40 | 28 | 1, 772 | 45.31 |
| Connecticut | 70 | 1,493 | 15.53 | 14 | 177 | 1.84 | 104 | 3, 702 | 38.50 |
| New York | 501 | 19, 423 | 33. 18 | 70 | 965 | 1. 65 | 481 | 13, 500 | 23.06 |
| New Jersey | 102 | 3,548 | 26.53 | 25 | 337 | 2.52 | 128 | 4,827 | 36.10 |
| Pennsylvania | 317 | 12,778 | 35.79 | 89 | 1, 631 | 4.57 | 368 | 12,713 | 35.61 |
| South Atlantic Division: <br> Delaware | 13 | $6 \frac{1}{4} 0$ | 48.01 | 3 | 18 | 1.35 | 16 | 479 | 35.93 |
| Maryland | 63 | 1, 878 | 32. 28 | 12 | 317 | 5. 45 | 70 | 2,759 | 47.42 |
| District of Columbi | 13 | 141 | 3. 72 | 8 | 6. | 1. 69 | 19 | 1,239 | 31. 24 |
| Virginia. | 98 | 2, 054 | 29.11 | 28 | 329 | 4.66 | 115 | 2,419 | 34.28 |
| West Virginia | 36 | 922 | 37.90 | 12 | 98 | 4. 03 | 39 | 778 | 31.98 |
| North Carolin | 96 | 1,942 | 32.18 | 18 | 276 | 4.57 | 103 | 1,606 | 26.62 |
| South Carolina | 81 | 1, 932 | 40.37 | 10 | 312 | 6.52 | 97 | 1,923 | 40.18 |
| Georgia | 78 | 2, 106 | 23.81 | 23 | 431 | 4.87 | 106 | 3,651 | 41. 28 |
| Florida. | 26 | 586 | 49.12 | 17 | 160 | 13.41 | 28 | (3) | 53.48 |
| South Central Division: |  |  |  |  |  |  |  |  |  |
| Kentucky | 120 | 3,233 | 38.60 | 60 | 907 | 10.83 | 125 | 3, 260 | 38.93 |
| Tennessee | 14.4 | 3, 471 | 33.84 | 42 | 335 | 3.27 | 164 | 3,207 | 31.27 |
| Alabama | 71 | 2,412 | 45.19 | 26 | 395 | 7. 40 | 100 | 2, 365 | 44.30 |
| Mississippi | 115 | 2,988 | 50.76 | 25 | 222 | 3. 77 | 102 | 1,995 | 33. 89 |
| Louisiana. | 36 | 1,132 | 41.28 | 10 | 96 | 3.50 | 42 | 1,464 | 53.39 |
| Texas | $23: 3$ | 8,029 | 48.40 | 153 | 1,98ı | 11.96 | 240 | 6,660 | 40.15 |
| Arkansas | 59 | 1,987 | 49.75 | 18 | 338 | 8.46 | 60 | 1,319 | 33.02 |
| Oklahoma. | 2 | ${ }^{56}$ | 19.24 | 3 | 54 | 18.56 | 3 | 122 | 41.92 |
| Indian Territory | 10 | 206 | 40.08 | 4 | 31 | 6.03 | 8 | 172 | 33.46 |
| North Central Division: |  |  |  |  |  |  |  |  |  |
| Ohio ... | 552 | 15,013 | 34. 52 | 112 | 1,199 | 2. 76 | 542 | 15,583 | 35.83 |
| Indian: | 226 | 5,397 | 21. 71 | 83 | 1,086 | 4. 37 | 338 | 11, 816 | 47.53 |
| Illinois | 353 | 13, 413 | 34.31 | 48 | 696 | 1.78 | 354 | 14, 292 | 36.56 |
| Michigan | 267 | 7, 034 | 24. 54 | 64 | 920 | 3.21 | 276 | 8, 605 | 30.02 |
| Wisconsin | 194 | 4,516 | 25.09 | 117 | 1,191 | 6.62 | 161 | 3, 52. | 19.58 |
| Minnesota | 95 | 3,187 | 24.01 | 13 | 157 | 1.18 | 123 | 3,781 | 28.48 |
| Iowa. | 294 | 8, 759 | 30.16 | 47 | 588 | 2.02 | 337 | 9,745 | 33.56 |
| Missouri | 228 | 8,075 | 37.37 | - 117 | 1,820 | 8. 42 | 252 | 8,893 | 41.15 |
| North Dakota | 18 | 360 | 37.66 | 5 | 33 | 3.45 | 22 | 336 | 35.15 |
| South Dakota | 30 | 832 | 41.91 | 6 | 38 | 1.91 | 32 | 588 | 29.62 |
| Nebraska | 181 | 5,175 | 37.19 | 9 | 86 | 0.62 | 194 | 6, 128 | 44.04 |
| Kansas. | 141 | 3, 89\% | 31.49 | 44 | 656 | 5.31 | 171 | 4,612 | 37.32 |
| Western Division: |  |  |  |  |  |  |  |  |  |
| Montana. | 13 | 308 | 30.20 | 1 | 12 | 1.18 | 16 | 358 | 35.10 |
| Whoming | - 4 | 99 | 30.00 | 1 | ${ }^{7}$ | 2. 12 | 6 | 125 | 37.88 |
| Colorado New Mexic | 23 | 555 | 10.95 | 12 | 335 | 6.61 | 38 | 1, 760 | 34.73 |
| New Mexic Arizona.. | 4 | 115 | 56. 93 |  |  |  | 6 | 83 | 41.09 |
| Arizoua | 1 | 33 | 20. 12 |  |  |  | 1 | 22 | 13.41 |
| Utah.. | 14 | 503 | 24. 36 | 9 | 269 | 13.03 | 13 | 764 | 37.00 |
| Nerada | 5 | 237 | 46.56 | 1 | 8 | 1.57 | 7 | 266 | 52. 26 |
| Idaho.. | 9 | 208 | 39.85 | 1 | 10 | 1.92 | 10 | 133 | 25. 48 |
| Washingto | 27 | 661 | ${ }^{2} 1.68$ | 21 | 178 | 5. 84 | 38 | 1,159 | 38.01 |
| Oregon . . | 24 | - 529 | 21.55 | 10 | 55 | 2.24 | 28 | 681 | 27.74 |
| California | 55 | 1,646 | 11.08 | 19 | 165 | 1.11 | 141 | 7,682 | 51.70 |

TABLE 38.-Combined statistics of public high schools and private high schools and acad-emies-Secondary students in certain studies in 1897-98.

| State or Territory. | English literature. |  |  | History. |  |  | Civics. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Schools reporting. | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | Schools report ing. | Num. ber. | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | Schools reporting. | $\begin{aligned} & \text { Num. } \\ & \text { ber. } \end{aligned}$ | Per cent |
| United Stat | 5,963 | 215, 810 | 38.90 | 6, 203 | $\bigcirc 09,034$ | 37.68 | 5,114 | 118, 807 | 21.41 |
| North Atlantic Division | 1,613 | 77,361 | 42.49 | 1, 665 | 71,382 | 39. 21 | 1, 369 | 30, 770 | 16.90 |
| South Allantic Division | $54!$ | 16, 893 | 40.91 | 628 | 19,811 | 47.98 | 266 | 4,953 | 1200 |
| South Central Division | 723 | 18, 403 | 31. 69 | $77^{2}$ | $2 \cdot 385$ | 41.46 | 600 | 13, 671 | 25. 32 |
| North Central Division | 2, 731 | 84, 210 | 34.06 | 2, 823 | 79, 752 | 32.26 | 2,622 | 63, 752 | 25.78 |
| Westeru Division | 324 | 18, 943 | 62. 64 | 315 | 15, 704 | 51.93 | 251 | 5, 661 | 18.72 |
| North Atlautic Division: |  |  |  |  |  |  |  |  |  |
| Maine. | 138 | 3, 707 | 32.37 | 142 | 3, 658 | 31. 94 | 123 | 1,786 | 15. 59 |
| New Hampshia | 68 | 2, 486 | 46. 53 | 69 | 2,173 | 38. 80 | 46 | -659 | 13. 33 |
| Vermont | 58 | 679 | 12.98 | 61 | 1,179 | 22. 53 | 63 | 1,007 | 19. 25 |
| Massachusett. | 305 | 25,567 | 65.73 | 298 | 20, 590 | 52. 94 | 213 | 4, 9993 | 12.84 |
| Rhode Island. | 28 | 2, 444 | 62.43 | 28 | 2,041 | 52. 19 | 20 | 470 | 12.02 |
| Connecticut | 109 | 5, 607 | 58.32 | 113 | 4,133 | 42.98 | 68 | 1,067 | 11.10 |
| New York | 449 | 13, 466 | 23.00 | 488 | 17,356 | 29.65 | 457 | 10,258 | 17. 52 |
| New Jersey | 130 | 7,082 | 52. 96 | 130 | 6, 019 | 45.01 | 79 | 2,116 | 15.82 |
| Pennsylvania | 358 | 16,323 | 45.72 | 336 | 14,333 | 40.15 | 300 | 8,411 | 23. 56 |
| South Atlantie Division: |  |  |  |  |  |  |  |  |  |
| Delaware. <br> Maryland | 14 | 341 3,678 | 25.58 63.22 | 17 | 3, $\begin{array}{r}469 \\ \hline\end{array}$ | 35.18 63.72 | 12 34 | ${ }_{688}^{238}$ | 17.85 |
| District of | 22 | 3,177 | 83.74 | 20 | 1,828 | 48. 18 | 9 | 159 | 4.19 |
| Virginia. | 108 | 2,215 | 31.39 | 121 | 3, 541 | 50.18 | 35 | 551 | 7.81 |
| West Virginia | 36 | 994 | 40.85 | 40 | 1,111 | 45. 66 | 33 | 676 | 27. 78 |
| North Caroliu | 84 | 1,972 | 32.68 | 102 | 2, 476 | 41.63 | 33 | 857 | 14. 20 |
| South Carolin | 81 | 1,582 | 33.05 | 102 | 2, 5:30 | 52. 86 | 42 | 687 | 14.35 |
| Georgia | 105 | 2, 466 | 27.88 | 131 | 3, 7:39 | 42.28 | 50 | 809 | 9.15 |
| Florida | 2) | 468 | 39.23 | 21 | 410 | 34.37 | 18 | 290 | 24.31 |
| South Central Division: |  |  |  |  |  |  |  |  |  |
| Kentucky | 128 | 3, 304 | 39.45 | 120 | 3, 901 | 46. 58 | 103 | 2,178 | 26. 01 |
| Temnessee | 127 | 2, 543 | 24.80 | 136 | 3,139 | 30. 61 | 95 | 1,675 | 16. 33 |
| Alabama | 85 | 1,918 | 35.93 | 86 | 2, 146 | 40.20 | 41 | 951 | 17.82 |
| Mississippi | 104 | 2,264 | 38.46 | 102 | 2, 293 | 38. 95 | 82 | 1,660 | 2820 |
| Louisiana | 25 | 1, 254 | 45.73 | 40 | 1,888 | 68.85 | 37 | $6: 2$ | 22. 68 |
| Texas | 196 | 5,776 | 34.82 | 227 | 7, 684 | 46.32 | 203 | 5,575 | 33.61 |
| Arkansas | 48 | 1, 175 | 29.42 | 5.3 | 1,232 |  | 38 | 851 | 21. 31 |
| Oklahoma. | 4 | $8 \pm$ | 28.87 | 2 | 36 | 12.37 | 2 | 72 | 24.74 |
| Indian Territory | 6 | 85 | 16. 54 | 6 | 66 | 12.84 | 5 | 87 | 16.93 |
| North Central Division: |  |  |  |  |  |  |  |  |  |
| Ohio.................. | 523 | 14, 983 | 34.45 | 530 | 14, 106 | 32.43 | 559 | 10, 439 | 24.00 |
| Indiana Illinois. | 332 | 10, 932 | 44.22 | 341 | 8,803 | 35.41 | 28. | 6, 459 |  |
| Illinois... | 358 | 19,449 | 49.75 | 355 | 12, 360 | 31.62 | 317 | 8,361 | 21.39 |
| Michigan. | 268 | 5,392 | 18.81 | 287 | 8,871 | 30.95 | 254 | 7, 138 | 24. 90 |
| Wisconsin | 189 | 4, 133 | 22.97 | 196 | 4, 398 | 24.44 | 173 | 4, 146 | 23. 04 |
| Minnesota | 120 | 2,738 | 20.63 | 119 | 4, 302 | 32.41 | 87 | 1,928 | 14.52 |
| Iowa. | 316 | 9,835 | 33.87 | 337 | 9, 421 | 32.44 | 339 | 8,844 | 30. 46 |
| Missonri | 241 | 6, 478 | 29.98 | 246 | 7,879 | 36. 46 | 192 | 5,961 | 27.59 |
| North Dako | $\stackrel{29}{ }$ | 479 | 50.10 | 20 | 373 | 39.02 | 21 | 316 | 33. 05 |
| South Dak | 29 | 426 | 21. 46 | 31 | 723 | 36. 42 | 31 | 651 | 32. 80 |
| Nebraska | 176 | 5,407 | 38.85 | 19.4 | 4, 526 | 32. 52 | 215 | 4,961 | 35.65 |
| Kansas. | 157 | 3,898 | 31.54 | 167 | 3,990 | 32. 29 | 159 | 4,518 | 36. 80 |
| Western Division: |  |  |  |  |  |  |  |  |  |
| $W_{\text {yoming }}$ | 5 | 168 | 50.91 | 6 | 99 | 30.00 | 5 | 139 | 42. 12 |
| Colorado | 42 | 3, $53 \pm$ | 69.75 | 40 | 3, 380 | 66.71 | 25 | 861 | 16. 99 |
| New Mexico | 5 | $6_{5}$ | 32.18 | 5 | 54 | 26.73 | 4 | 46 | 22.77 |
| Arizona. | 2 | 90 | 54.88 | 2 | 47 | 28.60 | 1 | 49 | 29.88 |
| Utah | 17 | 659 | 31.91 | 16 | 497 | -4. 07 | 10 | 220 | 10.65 |
| Nevada | 7 | 380 | 74. 66 | 7 | 333 | 65.42 | 6 | 206 | 40. 47 |
| 1 daho | 11 | 248 | 47.51 | 10 | 181 | 34.67 | 8 | 196 | 37. 5.5 |
| Washington | 39 | 1,182 | 38.77 | 32 | 911 | 29.88 | 38 | 621 | 20.37 |
| Oregon..... California. | r 26 |  | $24.28$ | 30 151 | $9 \% 2$ 8,910 | 38.78 59.97 | 17 125 | 417 2,548 | 16.99 17.15 |
| California | 152 | 11, 664 |  | 151 | 8,910 | 59.97 | 125 | 2, 548 | 17.15 |

Table 39.-Distribution of secondary students in public and private institutions of all classes reporting to the United States Bureau of Education for

| State or Territory. | Total public and private secondary students. |  |  | In public institutions. |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | In public high sehools. |  |  | In preparatory departments of pablie uni. versities and colleges. |  |  | Secondary students in publie normal schools. |  |  | Total publie secondary students. |  |  |
|  | Male. | Female. | 'Total. | Male. | Female. | Total. | Male. | Female. | Total. | Male. | Female. | Total. | Male. | Female. | Total. |
| United States | 284,379 | 341, 736 | 626, 115 | 189, 187 | 260, 413 | 449, 600 | 4, 797 | 1,846 | 6, 64.3 | 1,258 | 2,312 | 3,570 | 195,242 | 264, 571 | 459,813 |
| North Atlantic Division | 90, 424 | 104, 188 | 194, 612 | 61, 651 | 80,096 | 141, 747 | 891 | 2 | 893 | 36 | 975 | 1,397 | 62,90t | 81,073 | 193, 977 |
| South Atlantic Division | 22, 290 | 25,810 | 48, 100 | 9,742 | 14, 611 | $2 \cdot 2,383$ | 783 | 131 | -914 | 79 | 353 | 432 | 10, 604 | 15, 125 | 25, 729 |
| South Central Division - | 31,277 | 35, 254 | 67,131 -2, | 13,607 | 19,281 | 32, 888 | 919 | 28.3 | 1,202 | 294 | 274 | 568 | 14, 820 | 19, | 34,658 |
| North Central Division | 124.491 | 155, 429 | 279, 220 | 94, 163 | 131,415 | 225, 578 | 1,036 | 821 | 1, 6.57 | 467 | 656 | 1, 123 | 95, 666 | 132, 692 | 228, 358 |
| Western Division | 15,897 | 20,455 | 86,352 | 10, 024 | 14, 980 | 25, 004 | 1,168 | 809 | 1,977 | 56 | 54 | 110 | 11,248 | 15, 843 | 27, 091 |
| North Atlantic Division: <br> Maine | 5,215 | 6,525 | 11, 740 | 3,873 | 4,695 | 8,568 | 0 | 0 | 0 |  |  |  | 3,873 | 4. 695 | 8,568 |
| New Hampshire | 2,847 | 2,585 | 5,432 | 1,467 | 1, 858 | 3,325 | 7 | 0 | 7 | 30 | 40 | 70 | 1, 504 | 1,898 | 3,402 |
| Vermont ...... | 2,364 | 2,868 | 5,232 | 1,348 | 1, 808 | 3,156 | 0 | 0 | 0 | 0 | 0 | 0 | 1,348 | 1,808 | 3,156 |
| Massachusetts | 17,879 | 21,527 | 39,406 | 14,604 | 18,718 | 33, 322 | 0 | 0 | 0 | 0 | 0 | 0 | 14, 604 | 18,718 | 33, 320 |
| Rhode Island | 1,987 | 2,347 | 4, 3334 | 1,339 | 1,810 | 3,149 | 0 | 0 | 0 | 0 | 0 | 0 | 1,339 | 1, 810 | 3,149 |
| Connecticut | 4,359 31,978 | 5,256 | 9,615 | \%, 106 | 3,775 | 6,881 | 0 | 0 | 0 801 |  |  |  | 3, 106 | 3, 775 | 6, 881 |
| New York | 31, 978 | 34, 283 | 66, 261 | 21,491 | 25, 083 | 46,57t | 801 | 0 | 801 | 123 | 648 | 771 | 22,415 | 25.731 | 48,146 |
| New Jersey .- | 6,523 | 7,511 | 14,034 | 3,842 | 5, 848 | -9,690 | 45 | 0 | 45 | 74 | 10.7 | 179 | 3, 961 | 5,953 | 9, 914 |
| Pennsylvania | 17, 272 | 21,286 | 38,558 | 10,581 | 16,501 | 27,082 | 38 | 2 | 40 | 135 | 182 | 317 | 10,754 | 16,685 | 27, 439 |
| South Atlantic Division: <br> Delaware | 630 | 766 | 1,396 | 449 | 655 | 1,104 | 19 | 9 | 28 | 0 | ${ }^{0}$ | 0 | 468 | 664 | 1,132 |
| Maryland | 2,936 | 3,743 | 6, 679 | 1, 533 | 2,389 | 3,922 | 23 | 0 | 23 | 2 | 17 | 19 | 1,558 | 2,406 | 3,964 |
| District of Columbia | 1,891 | 2,315 | 4,205 | 1,203 | 1,753 | 2,956 | 102 | 27 | 129 | 0 | 0 | 0 | 1,305 | 1,780 | 3, 685 |
| Virginia .-. | 3,980 | 4,220 | 8,200 | 1,615 | 2, 296 | 3, 911 | 0 | ${ }^{0}$ | 0 | 37 | 0 | 37 | 1,652 | 2, 296 | 3,948 |
| West Virginia | 1,157 | 1,575 | $\stackrel{\bullet}{2}, 732$ | 644 | 1, 134 | 1,778 | 158 | 16 | 174 | 3 | 1 | 4 | 805 | 1,151 | 1,956 |
| North Carolina | 4, 041 | 3, 452 | 7,493 | $\begin{array}{r}399 \\ \hline \cdot 998\end{array}$ | - 493 | 892 3 | 36 | 31 | 67 | 37 | 108 | 145 | 472 | 632 | 1,104 |
| South Carolina | 2,518 | 3,151 | 5,669 | 1,298 | 2,014 | 3,312 | 240 | 0 | 240 | 0 | 81 | 81 | 1,538 | 2, 095 | 3. 633 |
| Georgia | 4, 372 | 5,603 | 9, 975 | 2, 173 | 3, 281 | 5, 45.4 | 140 | 20 | 160 | 0 | 146 | 146 | 2, 313 | 3,447 | 5, 760 |
| Florida......-.-..... | 765 | 985 | 1,750 | 428 | 626 | 1,054 | 65 | 23 | 93 |  |  |  | 493 | 654 | 1,147 |
| South Cenitral Division: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky. | 5,349 6,691 | 5,868 6,912 | 11,217 13,603 | 1,985 2,293 | 2, 769 3,064 | 4,754 | 67 0 | 14 0 | 81 | 76 47 | 47 40 | 123 87 | 2,128 2,340 | 2,830 3,104 | 4,958 5,44 |
| Alabama | 3,118 | 3,391 | 6,509 | 1,036 | 1,541 | 2,577 | 29 | 0 | 29 | 94 | 99 | 193 | 1,159 | 1,640 | 2,793 |
| Mississippi | 3,208 | 3,878 | 7,086 | 1, 566 | 1,904 | 3,472 | 315 | 2 | 317 | 59 | 69 | 128 | 1. 940 | 1, 97? | 3,917 |
| Louisiana | 1.309 | 1. 943 | 3, 252 | 560 | 1,195 | 1,755 | 88 | 0 | 88 | 0 | 0 | $\left.{ }^{( }\right)$ | 6 +8 | 1,195 | 1,843 |
| Texas | 8466 | 10,649 | 19, 115 | 4,790 | 7,053 | 11, 843 | 0 | 0 | 0 | 18 | 19 | 37 | 4,808 | 7,072 | 11, 889 |
| Arkansas | 2, 375 | 2,526 | 4,901 | 1,204 | 1,589 | 2, 786 | 175 | 83 | 258 |  |  |  | 1,379 | 1, 065 | 3, 014 |
| Oklahoma . | 42.2 | 412 | 834 | 97 | 149 | 246 | 245 | 184 | 429 |  |  |  | 342 | 333 | 675 |
| Indian Territory... | 339 | 275 | 614 | 76 | 22 | 98 | 0 | 0 | 0 |  |  | .... | 76 | 22 | 98 |

Table 39.-Distribution of secondary students in public and prirate institutions of all classes

| State or Territory. | Total public and private secondary studezts. |  |  | In public institutions. |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | In prublie high sehools. |  |  | In preparatory departments of public universities and colleges. |  |  | Secondary students in publie normal schools. |  |  | Total pubie secondary students. |  |  |
|  | Mate. | Female. | Total. | Male. | Female. | Total. | Male. | Semale. | Total. | Male. | Fernale. | Total. | Male. | Female. | Total. |
| North Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio ................ | 23, 018 | 27,029 | 50,047 | 17,601 | 23, 207 | 40,808 | 260 | 123 | 383 | 46 | 64 | 110 | 17, 907 | 23,394 | 4:1,301 |
| Indiana . | 12, 475 | 14, 634 | 27, 109 | 10, 042 | 12, 770 | 22, s12 | 0 | 0 | 0 |  |  |  | 10,042 | 1:,770 | 22,812 |
| Illinois.. | 19, 190 | 25,336 | 44,526 | $13,9 \% 1$ | 21, 147 | 35, 068 | 145 | 54 | 199 | 69 | 55 | 134 | 14, 135 | 21. 256 | 35, 391 |
| Michigan. | 12,940 | 17,066 | 30, 006 | 11, 650 | 15, 808 | 27, 458 | 0 | 0 | 0 | 16 | 70 | 86 | 11, 666 | 15,878 | 27,544 |
| Wisconsin | 8,727 | 10,399 | 19,126 | 7,339 | 9,457 | 16,796 | 0 | 0 | 0 | 20 | $\because 6$ | 46 | 7,359 | 9,483 | 16, 842 |
| Minnesota . | 6,359 | 7,977 | 14,336 | 4,780 | 6,930 | 11, 710 | 0 | 0 | 0 | 0 | ${ }^{1}$ | 0 | 4,780 | 6,930 | 11, 710 |
| lowa...... | 14,560 | 18,332 | 32, 892 | 10, 959 | 15,303 | 26, 262 | 45 | 26 | 71 | 116 | 130 | 246 | 11, 120 | 15,459 | 26, 579 |
| Missouri .. | 11, 422 | 14, 175 | 25,597 | 6, 776 | 10, 367 | 17, 143 | 0 | 0 | 0 | 130 | 140 | 270 | 6,906 | 10,507 | 17, 413 |
| North Dakota. | 8:3 | 1905 | 1,718 | 360 | 548 | 1,908 | 27.4 | 179 | 453 | 0 | 0 | 0 | 6331 | 127 | 1,361 |
| Sonth Dakota. | 1,146 | 1,432 | 2,578 | -677 | 938 | 1,615 | 148 | 136 | 284 | 0 | ${ }^{0}$ | 0 | 825 | 1, 07. | 1,899 |
| Nebraska | 6,825 | 8, 354 | 16, 179 | 5,281 | 8,022 | 13, 403 | 102 | 88 | 190 | 70 | 171 | 241 | 5, 55: | 8,281 | 13, 8.4 |
| Kansas........ | 7,016 | 8,790 | 15,806 | 4,077 | 6,918 | 11,595 | 62 | 15 | 77 |  |  |  | 4,739 | 6,933 | 11,672 |
| Western Division : <br> Montana | 550 | 861 | 1,431 | 365 | 531 | 89f | 150 | 143 | 293 | 20 | 32 | 58 | 541 | 706 | 1,247 |
| Wyoming | 198 | 238 | 1,431 | 137 | 170 | 307 | 50 | 56 | 106 | - | 32 | 58 | 187 | 226 | 1, 413 |
| Colorato .-... | 2, 453 | 3, 343 | 5,796 | 1,963 | 2,965 | 4, 928 | 148 | 170 | 318 | 0 | 0 | 0 | 2, 111 | 3, 135 | 5,245 |
| New Mexico | - 254 | -159 | 413 | -48 | - 79 | 127 | 112 | 37 | 149 | 13 | 7 | 20 | 173 | 123 | 296 |
| Arizona | 237 | 256 | 493 | 65 | 91 | 156 | 58 | 41 | 99 | 0 | 0 | 0 | 123 | 132 | 255 |
| Utah | 1,445 | 1,410 | 2,855 | 371 | 520 | 891 | 294 | 119 | 413 |  |  |  | (885) | 639 | 1,304 |
| Nevada | 269 | 372 | $6+1$ | 191 | 318 | 509 | 58 | 34 | 92 |  |  |  | 249 | 352 | 601 |
| Idaho.. | . 305 | -386 | ${ }^{691}$ | 141 | , 205 | -346 | 92 | 69 | 161 | 2 | 6 | 8 | -235 | 280 | $\begin{array}{r}515 \\ \hline 837\end{array}$ |
| Washington | 1,711 | 2, 146 | 3, 857 | 1,044 | 1,586 | 2,630 | 12 x | 83 | 207 | 0 | 0 | 0 | 1, 168 | 1,669 | 2, 837 |
| Orexon... | 1, 52.6 | 1,675 | 3,201 16,538 | 638 5,061 | 956 7.559 | 1,594 12,620 | S2 | 57 0 | 139 0 | 15 0 | 9 0 | 24 | 735 5,061 | 1,022 | 1, 757 12, 620 |
| California | 6,929 | 9, 609 | 16,538 | 5,061 | 7,559 | 12, 620 | 0 | 0 | 0 | 0 | 0 | 0 | 5,061 | 7,559 | 12, 620 |

Table 40.-Distribution of secondary students in public and prirate instititions of all classes reportiny to the Thited siates ITureau of Rducalion for
In private institutions.

| In private high schools. |  |  | In preparatory dopartments of pricate univer. sities and colleges. |  |  | In. preparatory departments of colleges for women. | Secondary students in private normal schools. |  |  | Secondary students in manaal-training schools. |  |  | Total private secondary students. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Male. | Fenale. | Total. | Male. | Female. | Total. |  | Male. | Female. | Total. | Male. | Female. | Total. | Male. | Female. | Total. |
| 52, 172 | 53, 053 | 105,225 | 28,849 | 12, 978 | 41, 827 | 5,004 | 4,095 | 3,242 | 7,337 | 4,021 | 2, 888 | 6, 909 | 89, 137 | 77, 165 | 166,302 |
| 20,576 | 19,738 | 40,314 | 5, 024 | 687 | 5, 711 | 1,132 | 163 | 154 | 317 | 1, 757 | 1,404 | 3,161 | 27,520 | 233, 115 | 50, 635 |
| 8,7.5 | 8, 164 | 16,909 | 2,349 | 758 | 3, 107 | 1,212 | 346 | 395 | 741 | 246 | 156 | 402 | 11,686 | 10,685 | 22, 371 |
| 10,307 | 10,791 | 21,098 | 5,328 | 3,198 | 8, 526 | 1, 390 | 693 | 514 | 1,207 | 129 | 123 | 252 | 16,457 | 16. 016 | 32, 473 |
| 10, 261 | 11.406 | 21,667 | 14,363 | 7,336 | 21, 699 | 1,113 | 2, 836 | 2,107 | 4,943 | 1,365 | 775 | 2, 140 | 28, 825 | 22, 737 | 51,562 |
| 2,283 | 2,954 | 5,237 | 1,785 | 999 | 2,784 | 157 | 57 | 72 | 129 | 524 | 430 | 954 | 4,649 | 4,612 | 9,261 |
| 1,342 | 1,543 | 2,885 |  |  |  | 287 | 0 | 0 | 0 |  |  |  | 1,342 | 1,830 | 3,172 |
| 1,331 | , 687 | 2, 018 | 12 | 0 | 12 |  |  |  |  |  |  |  | 1,843 | 1, 687 | 2,030 |
| 1,016 | 1,060 | 2, 076 |  |  |  |  |  |  |  |  |  |  | 1,016 | 1,060 | 2, 076 |
| 2,798 | 2,776 | 5, 574 | 477 | 19 | 496 | 14 |  |  |  |  |  |  | 3, 275 | 2, 809 | 6, 481 |
| -325 | , 437 | -762 |  |  |  |  |  |  |  | 323 | 100 | 423 | 618 | , 5:37 | 1,185 |
| 1, 25.5 | 1,481 | 2,734 |  |  |  |  |  |  |  |  |  |  | 1,273 | 1,481 | 2,734 |
| 5,539 | 6, 425 | 11,964 | 2, 689 | 219 | 2, 908 | 511 | 87 | 93 | 180 | 1,248 | 1,304 | 2,552 | 9, 56:3 | 8,552 | 18,115 |
| 2, 214 | 1,469 | 3,683 | 318 1,498 | 39 410 | $\begin{array}{r}387 \\ \hline\end{array}$ | 50 |  |  |  |  |  |  | 2, 562 | 1,558 | 4, 120 |
| 4,758 | 3,860 | 8,618 | 1,498 | 410 | 1,908 | 270 | 76 | 61 | 137 | 186 | 0 | 186 | 6,518 | 4, 601 | 11,119 |
| 127 | 102 | 229 |  |  |  |  |  |  |  | 85 | 0 | 35 | 162 | 102 | 264 |
| 836 | 1,060 | 1,896 | 452 | 73 | 525 | 141 |  |  |  | 90 | 60 | 150 | 1,378 | 1,337 | 2,715 |
| $\begin{array}{r}303 \\ \hline\end{array}$ | 535 | -838 | 283 |  | 283 |  |  |  |  |  |  |  | 586 | 535 | 1, 121 |
| 1,799 | 1,347 | 3, 146 | 279 | 85 | 36.4 | 282 | 135 | 145 | 280 | 115 | 65 | 180 | 2,308 | 1,924 | 4,252 |
| 28t | -371 | 655 | 5 5 | 5 | 10 | 10 | 63 | 38 | 101 |  |  |  | 352 | 424 | . 776 |
| 2, 969 | 2, 173 | 5, 142 | 559 | 262 | 821 | 322 | 35 | 32 | 67 | 6 | 31 | 37 | 3,569 | 2, 820 | 6, 389 |
| 763 | , 711 | 1,474 | 180 | 51 | 231 | 1.94 | 37 | 100 | 137 |  |  |  | $98 i$ | 1,056 | 2, 036 |
| 1,649 | 1,741 | 3, 390 | 402 | 149 | 551 | 260 | 8 | ${ }^{6}$ | 14. |  |  |  | 2, 059 | 2,150 | 4, 215 |
| 15 | 124 | 139 | 189 | 133 | 322 |  | 68 | 74 | 142 |  |  |  | 272 | 331 | 603 |
| 1,766 | 1,855 | 3,621 | 1,146 | 695 | 1,841 | 244 | 239 | 176 | 415 | 70 | 68 | 138 | 3,221 | 3, 038 | 6, 259 |
| 2,570 | 2,329 | 4,899 | 1, 546 | 959 | 2, 505 | 38.2 | 235 | $1: 8$ | 873 |  |  |  | 4, 351 | 3, 8, 8 | 8, 159 |
| 1,48: | 1, 277 | 2,761 | 468 | 292 | 760 | 141 | 7 | 41 | 48 |  |  |  | 1,959 | 1,751 | 3,710 |
| 1. 067 | 1, 348 | 2.41 .5 | 155 | 85 | 249 | a 457 | 46 | 11. | 57 |  |  |  | 1, 268 | 1,901 | 3, 169 |
| - 417 | . 570 | 987 | 232 | 126 | 358 | 56 | 12 | 6 | 18 |  |  |  | 661 | 748 | 1, 409 |
| 2,127 | 2,619 | 4. 746 | 1,428 | 787 | 2,215 | 70 | 103 | 101 | 20.4 |  |  |  | 3,658 | 3,577 | 7,235 |



> orth Atlantic Division South Athantic Division South Central Division.
North Central Division. Wentern Division......... North Atlautic Division : New Hampshire. Massachusetts Conodecticut. South Atlantic Division : Maryland Vistrict of Columbia. Virginia ........ North Carolina
Sonth Carolina Georgia.
Florida. South Central Division
$a$ Iuchudes 197 students in the Nississippi Industrial Iustitute and College.
Table 40.-Distribution of secondary students in public and prirate institutions of all classes reporling to the Cnited States Burcan of Education for

| State or Territory. | In private institutions. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | In private high schools. |  |  | In preparatory departments of private unlversities and colleges. |  |  | In preparatory departments of colleges for women. | Secondary students in private normal schools. |  |  | Secondary students in manual traming schools. |  |  | Total private secondary students. |  |  |
|  | Male. | Female. | Total. | Male. | Female. | Total. |  | Male. | Female. | Total. | Male. | Female. | 'Total. | Male. | Female. | Total. |
| South Central Division-Cont'd. <br> Arkansas | 645 | 563 |  | 300 | 207 | 507 | 50 |  | 41 | 92 |  |  |  |  |  |  |
|  | 645 21 | 563 24 | 1, 43 | 300 | 207 | 507 | 50 | 51 | 41 | 92 | 59 | 55 | 114 | 996 80 | 861 79 | 1,857 159 |
| Indian Territory | 210 | 206 | 416 | 53 | 47 | 100 |  |  |  |  | - | - | 11 | 263 | 25.3 | 516 |
| North Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio | 1,152 | 1.537 | 2,689 | 2,488 | 1,148 | 3,636 | 220 | 1, 277 | 730 | 2,007 | 194 | 0 | 194 | 5, 111 | 3, 635 | 8,746 |
| Indiana | 1,890 | 1,158 | 2,048 | 1, 068 | 1,358 | 1.426 |  | 475 | 348 | 823 |  |  |  | 2. $4: 3$ | 1. 861 | 4,297 |
| Illinois. | 1,804 | 2, 218 | 4,022 | 2,736 | 1,380 | 4, 116 | 217 | 140 31 | 148 | 288 | 375 | 117 | 492 | 5, 055 | 4, 080 | 9,135 |
| Michigan .--... . . . . . . . . . . . . | 145 | 762 | 1,207 | 798 | -399 | 1,197 | - - | 31 | 27 | 58 |  |  | , | 1,274 | 1,188 | 2,462 |
| Wisconsin ...---.............. | 727 | 473 | 1,200 | 641 | 97 | 738 | 144 |  |  |  | 0 2 | 202 | 202 | 1,368 | , 916 | 2, 284 |
| Minnesota | 907 | 658 | 1,565 | 436 | 175 | ${ }^{611}$ | 22 | 4 | 0 | 4 | 232 | 192 | 424 | 1,579 | 1,047 | 2, 626 |
| Iowa....- | 1,373 | 1,403 | 2,776 | 1,678 | 1,017 | 2,695 | $\cdots$ | 389 | 453 | 842 |  |  | .-....... | 3,440 | 2.873 | 6,313 |
| Missouri....................... | 2,244 | 2. $2: 2$ | 4, 466 | 2,059 | 1,047 | 3, 106 | 399 | 5 11 | 0 7 | 5 18 | 208 55 | 0 33 | 208 | 4,516 179 | 3, 668 | 8, 184 |
| North Dakota ................... | 17 | $\begin{array}{r}31 \\ \hline 08\end{array}$ | 48 | 96 | 107 | 203 |  | 11 | 7 | 18 | 55 | 33 | 88 | 179 | 178 | 357 679 |
| South Dakota. Nebraska | 162 196 | 208 317 | 370 513 | 159 718 | 150 562 | 309 1,310 | . | $\begin{array}{r}0 \\ 328 \\ \hline 17\end{array}$ | 0 | 0 5 5 | . | - |  | $\begin{array}{r}321 \\ 1,272 \\ \hline\end{array}$ | 178 1,073 1,85 | 679 2,345 |
| Kansas. | 344 | 419 | 763 | 1. 456 | 896 | 2,352 | 111 | 176 | 200 | 376 | 301 | 231 | 532 | 2,277 | 1,857 | 2,345 4,134 |
| Western Division : |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana. | 3 | 121 | 124 | 26 | 34 | 60 |  |  |  |  |  |  |  | 29 | 15.5 | 184 |
| Wyoming | 11 | 12 | 23 |  |  |  |  |  |  |  |  |  |  | 11 | 12 | 23 |
| Colorado. | 62 | 77 | 139 | 262 | 99 | 361 |  | 7 | 32 | 39 | 11 | 0 | 11 | $3!2$ | 208 | 550 |
| New Mexico | 59 | 16 | 75 |  |  |  |  |  |  |  | 22 | $\bigcirc 0$ | 42 | 81 | 36 | 117 |
| Arizona ..................-.- | 0 | ${ }_{611}^{8}$ | ${ }^{8}$ |  |  |  |  |  |  |  | 114 | 116 | 230 | 114 | 124 | 238 |
| Utalı... | 563 | 611 | 1,174 | 167 | 120 | 287 |  | 50 | 40 | 90 |  |  |  | $7 \times 0$ | 771 | 1,551 |
| Nerada |  |  |  |  |  |  |  |  |  |  | 20 | 20 | 40 | 20 | 20 | 40 |
| Iraho....... | 76 | 100 | 176 |  |  |  |  |  |  |  |  |  |  | 70 | 106 | 176 |
| Washington ..-- . . . . . . . . . . | 146 | 273 | 419 | 397 | 204 | 601 |  |  |  |  |  |  |  | 543 | 477 | 1,020 |
| Oregon.-........................- | 489 | $\begin{array}{r}372 \\ \hline 185\end{array}$ | $\begin{array}{r}861 \\ \hline 8.8\end{array}$ | 302 | 281 | $583$ |  |  |  |  |  |  |  | $\begin{array}{r}791 \\ \hline\end{array}$ | -653 | 1,444 |
| California..................... | 880 | 1,358 | 2, 238 | 631 | 261 | 892 | 157 | 0 | 0 | 0 | 357 | 274 | 631 | 1,868 | 2,050 | 3,918 |

Table 41.-Number secondary students to each 1,000 inhabitants in each State in 1898; also number of stidents in higher education to each 1,000 of population.

| State or Territory. | $\begin{gathered} \text { Estimated } \\ \text { total popu- } \\ \text { lation } \\ \text { in } 1898 . \end{gathered}$ | Total number secondary students in 1898. | Number secourlary studeuts to each 1, (00 inhabitants. | Totalnum ber stuclents in higher education in 1898. | Number students in higher education to each $1,000 \mathrm{in}$ habitants. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| United States | 72, 737, 100 | 626,115 | 8.60 | 144,477 | 1. 98 |
| North Atlantie Division | $20,247,100$ | 194, 612 | 9.61 | 45, 788 | 2. 26 |
| Sonth Atlantic Division. | 9,868,500 | 48, 100 | 4.87 | 19,545 | 1.98 |
| South Central Division | 12, \&68. 6C0 | 67, 131 | 5. 16 | 18, 671 | 1. 45 |
| North Central Division | 25, 737, 600 | 279, 920 | 10.87 | 52, ,96 | 2. 62 |
| Western Division | 4,015,300 | 36,352 | 9.05 | 8,377 | 2.08 |
| Nortli Atlautic Division: |  |  |  |  |  |
| Maine | 655, 400 | 11,740 | 17. $¢ 2$ | 1, 324 | 2.02 |
| New Hampshire (1897) | 398. 700 | 5, 438 | 13.62 | 765 | 1.91 |
| Vermont | -334, 100 | 5, 232 | 15. 66 | 699 | 2.09 |
| Massachusetts | 2, 694, 000 | 39, 506 | 14. 62 | 11,290 | 4.19 |
| Rhode Islain. | 417, 000 | 4,33! | 10. 39 | 963 | 2. 30 |
| Connecticut | 803, 500 | 9. 615 | 11.12 | 3, 052 | 3.53 |
| New York (1897) | $6,851,000$ | 66, 261 | 9. 67 | 14, 131 | 2. 06 |
| New Jersey. | 1, 837,000 | 14, 034 | 7. 63 | 2, 220 | 1. 20 |
| Peunsylvauia | 6, 196, 000 | 38,558 | 6.22 | 11,344 | 1.83 |
| South Atlantic Division: |  |  |  |  |  |
| Delaware (1892) | 173,200 | 1,396 | 8.06 | 110 | 0.63 |
| Maryland ......... | 1,200, 100 | 6,679 | 5. 56 | 4,077 | 8. 39 |
| District of Columbia | 285, 300 | 4,206 | 14.75 | 2,200 | 7.71 |
| Virginia (1897). | 1,704,000 | 8, 200 | 4. 81 | 3, 825 | 2.24 |
| West Virginia | 866, 000 | 2, 732 | 3.15 | 727 | 0.83 |
| North Carolina | 1, 754,000 | 7,493 | 4.27 | 2,866 | 1. 63 |
| South Carolina (1897) | 1,274,000 | 5, ¢69 | 4. $4 \frac{1}{4}$ | 2,296 | 1. 80 |
| Georgia .............. | 2, 057,000 | 9,975 | 4.75 | 3,167 | 1.51 |
| Florida. | 515, 0c0 | 1,750 | 3.39 | 277 | 0.53 |
| South Central Division: |  |  |  |  |  |
| Kentucky (1897) - | 2. 016,000 | 11, 217 | 5. 56 | 3,992 | 1.98 |
| T'eunessee (1896) | 1, 877,000 | 13, 603 | 7. 24 | 5,478 | 2. 91 |
| Alabama (1897) .-. | 1,741,000 | 6,509 | 3. 73 | 2, 122 | 1. 21 |
| Mississippi (1897) | 1,448,000 | 7.086 | 4.89 | 1, 660 | 1.14 |
| Louisiana (1897) | 1,347,006 | 3,252 | 2. 41 | 1, 433 | 1.06 |
| Texas (1897). | 2, 8-1, 100 | 19,115 | 6.77 | 2,934 | 1.04 |
| Arkansas .- | 1,295, 000 | 4. 901 | 3.78 | 920 | 0.71 |
| Oklahoma. | 323,600 | 834 | 2.58 | 98 | 0.30 |
| Indian Territory |  | 614 |  | $3!$ |  |
| North Central Division: |  |  |  |  |  |
| Ohio.... | 3, 917,000 | 50, 047 | 12. 77 | 8,306 | 2.12 |
| Indiana | 2, 259,000 | 27,109 | 12.00 | 4,422 | 1.95 |
| Illinois | 5, 017,000 | 44,526 | 8.87 | 11,516 | 2. 99 |
| Michigan. | 2, 254,000 | 30,006 | 13.31 | 4,965 | 2. 20 |
| Wisconsin | 2, 107,000 | 19,126 | 9.07 | 2,835 | 1.31 |
| Minnesota. | 1, 766, 600 | 14,336 | 8.11 | 3,702 | 2. 09 |
| Iowa .... | 2, 101, 000 | 32, 892 | 15.65 | 4,363 | 2. 07 |
| Missouri .. | $3,062,000$ | 25,597 | 8.35 | 6, 188 | 2. 02 |
| North Dakota | 352, 300 | 1,718 | 4.88 | 182 | 0.51 |
| South Dakikta (1896) | 406,300 | 2,578 | 6.34 | + 598 | 1.47 |
| Nebraska | 1,167,000 | 16,179 | 13. 86 | 1,998 | 1.71 |
| Kansas.. | 1,329,000 | 15,806 | 11.89 | 3, 021 | 2.27 |
| Western Division: |  |  |  |  |  |
| Montana | 245, 900 | 1,431 | 5.81 | 101 | 0. 41 |
| W yoming | 112, 360 | - 436 | 3.89 | 61 | 0.54 |
| Colorado... | 584, 800 | 5, 796 | 9. 90 | 1, 233 | 2.10 |
| New Mexico. | 181,500 | 413 | 2.28 | 86 | 0.47 |
| Arizena | 87, 020 | $\begin{array}{r}493 \\ \hline\end{array}$ | 5. 66 | 58 | 0.66 |
| Utain | 264, 900 | 2,855 | 10.77 | 277 | 1.03 |
| Nerada | 41, C80 | 611 | 15.63 | 167 | 4.107 |
| Itaho. | 157, 200 | 691 | 4. 40 | $\varepsilon 7$ | 0.55 |
| W ashington | 472, 100 | 3, 857 | 8.17 | $65 \cdot$ | 1.38 |
| Oregon .- | 373, 400 | 3,201 | 858 | 945 | 2. 53 |
| California | 1,495,000 | 16,538 | 11.06 | 4,710 | 3.15 |

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Table 42.-Statistics of publio high schools in the Tnited States for the scholastic year 1897-98.


| $\begin{array}{l:} 8 \\ 8 \\ 8 \\ 8 \end{array}$ |  |  | $\begin{aligned} & 88 \\ & 88 \\ & 08 \\ & 080 \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 8 \\ & 0 \\ & 0 \end{aligned}$ | §8:888: | $\begin{aligned} & 18 \\ & \vdots 6 \\ & \vdots \end{aligned}$ |  |
|  |  |  | $\therefore 10$ | $\vdots \vdots \vdots \vdots$ |
| ぜ |  |  | － 4 | $\text { Nos: } \ddagger+\infty \operatorname{ONO}$ |
|  | 灾 | $0: \vdots!0 ; 0 \infty!0 \infty: 1000-\infty 00$ | －： | $0: 001: 010,0 \infty$ |
|  | $i 0$ | $0: \vdots \vdots 0 ; n 0 ; 0 \sim: i o 000000$ | 12 | $0: \vdots: 00: \infty \text { - }: \infty \text { - } 10$ |
| si |  | $010: 00: 0 \Omega G 0 \infty 0: 0000-1-00010$ | $1-\quad ;$ | $-10: 00: 021000.1 \mathrm{r}$ |
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| $\begin{gathered} \vdots \\ \text { ※ } \\ \text { \& } \\ \text { \& } \end{gathered}$ |  |  | $$ |  |



| $\begin{aligned} & 22 \\ & 23 \\ & 23 \end{aligned}$ | $\begin{aligned} & \text {. do } \\ & . ~ d o ~ \end{aligned}$ |
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| 24 | Montevallo |
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| 26 | Montgon |
| 27 |  |
| 28 | Mount Hop |
| 29 | New Decatu |
| 30 | Oaknan |
| 31 | Oneonto |
| 32 | Peacebur |
| 33 | Pelham |
| 34 | Phenix |
| 35 | Pollard |
| 36 | Pratt City |
| 37 | Rock Mill |
|  | Salitpa |
| 39 | Selma |
| 40 | Sheffield |
| 41 | Spring Gard |
| 42 | Sulligent |
|  | Talladega |
| 44 | Tuscumbia |
| 45 | Uniontown |
| 46 | Whistler |
| 47 | Woflord |
| 48 | Woodlaw |
|  | Arizona |
| 49 | Phœnix |
| 50 | Prescot |
|  | arkansas． |
| 51 | Augusta |
| 52 | Bellefont |
| 53 | Benton |
| 54 | Buckner |
| 55 | Charleston |
| 56 | Clarendon |
| 57 | Clarksvill |
| 58 | Conway |
| 59 | Dardane |
| 60 | Dover |
| 61 | Fayettevill |
| 62 | Fort Smit |
| 63 | ．．．．．do ． |

Table 42．－Statistics of public high schools in the United States for the scholastic year 1897－98－Continued．

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Table 42.-Statistics of public high schools in the Tnited States for the scholastic year 189\%-98—Continued.


Table 42.-Statistics of pullic ligh schools ill the United States for the scholastic year 189n-98-Continued.








[^88]Table 42.-Statistics of public high schools in the United States for the scholastic year 189\%-98-Continued.


Table 42．－Statistics of pablic high schools in the Cnitcd States for the scholastic year 1S97－9S—Contimued．

|  | nexmed |  y！̣q＇spunosĭ |  <br>  | ${ }_{\text {Ex }}^{\text {en }}$ |  | $\begin{aligned} & 808 \\ & \text { BOB } \\ & \text {-ig } \end{aligned}$ | $\begin{aligned} & 88 \\ & 80 \\ & 15 \% \\ & 15 \end{aligned}$ | ：ios <br>  | 号最 |
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Table 42.-Statistics of public high schools in the United States for the scholastic year 1897-9S—Continued.






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| y and Agricultural | m |
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| Male and Female Insti－ tute． <br> High School $\qquad$ | R．B．Danie |
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| High ischool | H．H．E |
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| Farmers High School | ， |
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| Male and Female Insti－ tute．＊ | Addison W． |
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| Providence High School． <br> Higli School． <br> Rock ville Academy | Chas．G．By |
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| High school ．．．．．．．．．．．．． |  |
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|  | Marshallville |
| 406 | Milledgevilie |
|  | Milner |
| 408 | Minera |
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| 412 | Norcros |
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| 419 | Rome |
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Table 42.-Statistics of public high schools in the United States for the scholastic year 189\%-9S-Continued.


Table 42.-Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.










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군 Geo. E. Clondenen Wm. Meier .......
Humh S. Weston. Edward B. Slater J. Stanley Brown
J. D. MeMeen.... Eugene C. Crosby H.S. Lpatham W. H. Outman..Wohn M. Morgan .. E.S. Wilkinson. Miss Louise C. Winner
T. C. Kohen...............
W. T. Tuttle ...........
Geo. N. Snapp .......... Ge. M. Moore.
B. E. Nelson. Jessie L. Smith J. E. Wooters. Clarence C. Faust John E. Nelson -.. Fred M. Kline. .... F. N. Allen ......... Miss E. Kate Carman. Hugh A. Owen A. S. Green ........ N. J. Hinton ........... Richaru Linter....-
Frank S. Bogardus.



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Table 42.-Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.







Table 42.-Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.


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| 740 741 | -....do .. | Wallace High School ... High School ............ | $\begin{aligned} & \text { Miss Harriet B. Estcr- } \\ & \text { ley. } \\ & \text { O.Sindsay .......... } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 742 | Streato | Township High School. | Alfived Baylis |
| 743 | Sugargrove | High School. | C. J. Posey. |
| 744 | Sullivan |  | d. M. Marti |
| 74.5 | Sumne |  | J. O. Smith. |
| 746 | Sycamor |  | A.J. Blanchar |
| 747 | Tablegro |  | Robt. D. Hill |
| 748 | Taylorville | Township High School. | William E. Andrews, A. M. |
| 749 | Thomson | High School | C. A. Alden .......... |
| 750 | Toledo. |  | Joseph O'Ncal |
| 751 | Tremont |  | A. B. Hiett. |
| 752 | Tuscola | do | Chas. S. Harle |
| 753 | Union |  | Eario E. Spoor |
| 754 | Upper Alton |  | Miss Gcorgia 'T. First |
| 755 | Urbana | Thornburn High School. | H. T. Willson. |
| 756 | Utica | High School | John Wylie. |
| 757 | Vandalia | do | J. G. Burnside |
| 758 | Vermont | North High School* | B. F. Schisler |
| 759 | Virden | High School | E. A. MacMillan |
| 760 | Virginia | do | Benj. H. Scudder |
| 761 | Warren. |  | M. C. Ladd. |
| 762 | Warsaw | do | John S. Anderson |
| 763 | Washington |  | H. W. Veach. |
| 764 | W aterloo | do | J. W. Jackson |
| 765 | Watseka |  | Ed.J. Blake |
| 766 | Waukegan | do | Miriam Besley |
| 767 | Waverly | do | A. F. Rolirer |
| 768 | Wellington |  | I. H. Yoder |
| 769 | Wenona |  | Geo. W. Reid |
| 770 | West Chicago | do | Marcellus Madison |
| 771 | Westfield | do | Johu D. Shoemake |
| 772 | West Saiem | do | G. H. Yelch |
| 773 | Wheatom |  | ${ }^{\text {J. B. Russell }}$ |
| 774 | Whitehall | do | C. II. Andrews |
| 775 | Wilmington |  | F. M. Crosby |
| 776 | Winchester |  | I M. Jeffords |
| 777 | TVindsor. | do | M. M. Rodenberg |
| 778 | Wimnebago |  | Geo. A. Chase |
| 779 | Winnetka |  | Mary Gillespie |
| 780 | Woodhull | do | N. E. Johnson |
| 781 | Woodstock |  | C. W. Hart |
| 782 | W yoming | South Side High School | J. M. Hutehinso |
| 783 | Yorkville | High School ............. | Richard Heyward |
|  | indiana. |  |  |
| 781 | Abingto | High School | W. D. Coo |
| 785 | Albany |  | Edwin F. Dye |

Table 42.-Statisiics of public hidh schools in the United States for the scholastic year 1897-98-Continued.


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 C．M．Plank．．．．．．．－． C．W．Kimmell，Supt．
J．E．Graham－．．．．．．．．
J．C．Blossom ．－．．．．． Herbert Charles．－
Winfield A．Denny Winfield A．Denny C．L．Mendenhall．
 Lewis Hoover Geo．H．Mingle W．A．Collings． H．C．Doles－ F．W．Love．．．． D．C．Shaff ．．．
Table 42．－Statistics of public high schools in the United States for the scholastic year 1897－98—Continued．

|  | State and post－ office． | Name． | Principal． | Depart－mentor in－depend－ent． | Second－ ary in－ struct ors． |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Second－ ary stu－ dents． |  | Elementary students． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepar－ atory stu－ dentsin the class that gradu－ ated in 1808. |  |  |  |  |  |
|  |  |  |  |  |  |  | Clas－ sical course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 坔 | 号 |  |  | $\begin{gathered} \underset{\sim}{\Xi} \\ \text { ت̈ } \end{gathered}$ | 宮 | $\begin{aligned} & \dot{\oplus} \\ & \stackrel{y}{c g} \\ & \stackrel{y}{c} \end{aligned}$ |  | $\stackrel{\ddot{y y}}{\stackrel{\text { g }}{4}}$ | $\begin{aligned} & \dot{9} \\ & \text { 卽 } \\ & \text { औ } \end{aligned}$ |  |  | $\begin{aligned} & \dot{\oplus} \text { 采 } \end{aligned}$ | $\stackrel{\dot{\circ}}{\stackrel{\text { c．}}{\text { an }}}$ |  |  |  |  | 守荘 |  |
|  | 1 | 2 | 3 | 4 | 5 | G | r | 9 |  |  | 9 | $\underline{16}$ | 11 | 12 | 12 | H2 4 | 13 | 16 | 18 | 19 | 19 | （1）${ }^{\text {d }}$ | 21 | き2 |
|  | indiana－cont＇d． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 860 | Cynthiana． | High School ． | E．C．Welborn＇． | Dept．． | 1 |  |  | 12 | 0 | 0 | 1 | 0 |  |  | 2 | 7 |  | 0 | 3 |  | 400 | \＄12， 000 |
| 861 | Dana ．．．．．． | ．．．．．do ．．．．．． | Isaac C．Reubelt．．．． | Dept．． | 1 | 3 | 29 | 43 | 0 | 0 | 0 | 0 | 3 | 0 | 5 | 7 | 3 | 0 | 4 |  | 300 | 12，540 |
| 862 | Danville | do | A．L．H．Mıller． | Dept．． | 2 | 0 | 27 | 24 | 0 | 0 |  |  |  |  | 3 | 3 | 3 | 3 | 4 |  | 50 |  |
| 863 | Decatur | ．${ }^{\text {do }}$ | Lelle M．Segar ．．．．．．． | Dept．． | 2 | 3 |  |  | 0 | 0 |  |  |  |  | ${ }^{0}$ | 0 |  |  | 4 |  |  | 3，700 |
| 864 | Delphi．． |  | W．S．Almond，Supt．． | Dept．． | 2 | $\stackrel{2}{2}$ | 30 | 44 | 0 | 0 |  |  | 14 | 16 | 5 | 2 | 3 | 1 | 4 |  | 1，900 | 25， 000 |
| 865 | Dillsboro | do | Ira A．Scripture ．－．．．－ | Dept．． | 1 | 2 | 7 | 10 | 0 | 0 | 4 | 4 |  |  |  |  |  |  |  |  | 132 | 2， 000 |
| 866 | Dublin |  | II．D．Nicewanger | Dept．． | $\stackrel{2}{2}$ | 0 | 22 | 22 | 0 | 0 |  |  |  |  | 1 | 3 |  |  |  |  | 1，400 |  |
| 867 | Dunkirk． | ．do | Frank C．Schofield | Dept．． | $\stackrel{2}{1}$ | 1 | 25 | 23 | 0 | ${ }^{0}$ | 1 | 2 |  |  | 2 | 3 |  |  | 4 |  | 450 | 5,000 10,000 |
| 868 | Earlpark | ．do | Lewis Lambert | Ind．．． | 1 | 0 | 5 | 20 | 75 | 80 | $\stackrel{?}{0}$ | 2 | 0 | 0 | 3 | 1 |  |  | 4 |  | 250 | 10，000 |
| 869 | East Chicago | do．＊ | J．M．Wood | Dept．． | 1. | 2 | 18 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | － | ${ }^{0}$ | 5 |  | 340 |  |
| 870 | Edinburg．．． |  | I．M．Foster | Dept．． | 1 | 4 | 30 | 37 | 0 | 0 | 3 | 8 |  |  | 5 | 5 | 2 | 3 | 4 |  | 400 | 15，000 |
| 871 | Elkhart | do | S．B．McCracken． | Dept． | 3 | 3 | 117 | 129 | 0 | 0 |  |  |  |  | 10 | 20 |  |  |  |  |  |  |
| 872 | Ellettsvill | do | J．W．Ray．．．．．．．．．． | Dept．． | ， | 0 | ${ }^{2}$ |  | 0 | 0 | 0 | 1. | 0 | 0 |  |  |  |  | 2 |  | 20 | 12， 000 |
| 873 | Elwood．． | do．＊ | L．D．Owens ．．．．．．．．．．． | Dept．－ | ${ }^{2}$ | 1 | 22 | 47 | 0 | 0 |  |  |  |  | 3 | 3 | 3 | 3 | 3 |  | 500 | 15， 000 |
| 874 | English． | ．．．do | G．B．Hammond．．．．．．． | Dept．－ | 1 | 0 | 8 | 7 | 46 | 55 |  |  |  |  | 2 | 0 |  |  | 2 |  | 37 |  |
| 875 | Eageno． | ．．．．．do ．．．．．．．．．．．．．．．．．．． | L．E．Stutsman．． | Dept．． | 1 | － | 3 | 7 | 63 | 67 |  |  |  |  |  |  |  |  | 3 |  | 50 |  |
| 876 | Evansville | Clark High School（col－ ored）． | John R．Blackburn，sr． | Dept．． | 3 | 1 | 36 | 42 | 0 | 0 |  |  |  |  | 5 | 3 |  |  | 4 |  |  |  |
| 877 | Fairmount | High School ．．．．．．．．．．．．． | M．E．Monahan． | Dept．． | 2 | 1 | 35 | 58 | 0 | 0 |  |  |  |  |  |  |  |  | 4 |  | 100 | 25， 200 |
| 878 | Farmland | ．．．．do ．．．．．．．． | G．C．Powers | Dept．． | 1 | 0 | 8 | 8 | 0 | 0 | 1 | 0 | ${ }_{0}^{0}$ | ${ }_{1}^{0}$ |  | 0 | 0 | 0 | 3 |  | 200 | 6，000 |
| 879 | Fishers Switch．． | Fishers High School | C．G．Kaegan． | Ind．．． | 1 | 0 | 9 | 8 | 47 | 42 | 3 | 2 |  | ， | 3 | 2 | 1 | 1 | 3 |  | 120 | 4，000 |
| 880 | Fort Branch | High School ．．．．． | E．J．Todd．．．－ | Dept．． | ${ }_{2}$ | 0 | 19 | 29 | 0 | 0 | 0 | 0 |  | 0 | 5 | 2 | 1 | 1 | 4 |  | 300 300 | 10,000 2 500 |
| ${ }_{881}^{881}$ | Fort Branch． | ．．．．do ． | William Smith | Ind．．． | 2 | 0 | 19 | 9 | 0 | 0 |  |  |  |  | 1 | 0 |  |  | 3 |  | 300 | 2， 500 10,000 |
| 882 883 | Fortville．．． | ．do | Will Myers．．． | Dept．． | 5 | 0 | 33 | 27 | 0 | 0 |  |  |  |  | 0 | 0 |  |  | 4 |  | 350 | 10， 000 |
| 883 | Fort Wayne． | do | Chester T．Lane | Dept．．． | 5 | 8 |  | 267 | 0 |  | 0 |  | 1 |  | 8 | 19 | 5 | 9 | 4 |  |  |  |



## Thomas F. Berry

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C. W. Sterens...
David IL. Major.
Kittio W. Palmer

James V. Deor...
J. B. Fagan, supt.

Vm. H. Johnson.
E. E. Lollar ............
Mrs. W.O. Warrick..
G. A. Christen .-..... J.J. Eekman.-......-. Miss Lola Hamilton. Jolin H. Carroll..... Martha J. Ridpath. May Pemberton ${ }^{\text {Ed }}$... W. C. Reynolds. .
James A. Robeson James A. Robeson
Morten C. Miller. C. E. Spanalding C. G. Bunnell -....
 Sanford Trippott Sanford Trippett. C. E. Jalkington

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High School. High School -..............
Union Township High
School.

 High School

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 Hayden. Hazleton

Huntingburg $\stackrel{8}{6}$ Indianapolis. Ingalls .-
 Jasper. .-.
Jeffersonville.
TABLE 42.-Statistics of mblic Jigh schools in the Onited States for the scholastic year 1897-98-Continued.





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 * Statistics of 1896-97.

| Miss Elizabeth G. Grimsley. |
| :---: |
| Clyde Wagner . . |
| Chas. Julian |
| P. B. Nye |
| Miss Minnie C. Fl |
| F. G. Smeltzly |
| J.C. Reyuolds |
| A.S. Fraley |
| F.B. Williams |
| B. M. Holaday |
| David C. Arthur |
| C. A. Hack. |
| Wm. M. Sheets |
| F.E. Addleman |
| Claud Brown |
| D. M. Deeg |
| Albert M. Arnold |
| ML. J. Bowman, jr |
| Virgil R. MeKnig |
| P.H. Beek |
| J. E. Robinson |
| J. H . Lons |
| Orange H. Bowma |
| L. C. Beeman |
| L. H. Kreke |
| Mary E. F. Stewa |
| Richard Vandervegr |
| Dan L. Kemper |
| J. L. Shauck |
| E. T. Forsvth |
| Mary D. Welch |
| D. H. Ellison, supt |
| Mrs. Nona Kent |
| S. K. Ganiard |
| J. C. Root |
| L. E. Wheeler |
| W. S. Bull |
| M. E. Smith |
| Elmer J. Davi |
| Theo. W. Garrison |
| Hiram B. Patten |
| E. E, Gard |
| Wm. E. Curry |
| Edward G. Bauma |
| J. B. Mortsolf. |
| William H. Mast |
| S. W. Baor |
| Joseph P. Fun |

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| 953 | Leesburg | - .-.do.*-.... |
| :---: | :---: | :---: |
| 954 | Lewisville | Rich Squaro Academy * |
| 655 | Liberty | High School ............ |
| 956 | Ligonier | . . . do |
| 957 | Lima. | Township High School |
| 958 | Lincolnville | High School .-. - - - - - - |
| 939 | Linden | .... do |
| 960 | Linton | .do.* |
| 961 | Livonia | . . . . do. ${ }^{*}$ |
| 962 | Loganspor | do |
| 963 | London. | -do. |
| 964 | Lowell | do |
| 965 | Iynn | . do |
| 966 | McCordsville | do |
| 967 | McCutchanville | High School |
| 968 | Macy | .-.. do -.-.- |
| 969 | Madison | -. - . do |
| 970 | Marion | .do |
| 971 | Markle | . do |
| 972 | Martinsville | do |
| 973 | Medaryville | HighSchool (dist. No.2) |
| 974 | Mentone... | High School ....... |
| 975 | Michigantown | -... do. |
| 976 | Middlebury . | do |
| 977 | Middletown. | do |
| 978 | Milford . | .do |
| 979 | Millersburg | do |
| 980 | Milroy .... | .do |
| 981 | Milton. | do |
| 982 | Mishawaka | . do |
| 983 | Mitchell | . do |
| 984 | Monon. | .do |
| 985 | Monroeville | . do |
| 986 | Monterey. | do |
| 987 | Monticello | . do |
| 988 | Montpelier | . do |
| 989 | Moorefield. | . do |
| 990 | Mooreland | . do |
| 991 | Mooresville | . do |
| 992 | Morristown | . .-. do |
| 993 | Mount Etna | .do |
| 994 | Mount Sterling | . do |
| 995 | Mount Vernon | .....dlo |
| 996 | Mublerry. | . do |
| 997 | Muncie.. | . do |
| 998 | Nappaneo | do |
| 998 | New Albany. | do |

Table 42.—Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.


## PUBLIC HIGH SCHOOLS.


Table 42.—Statistics of public high schools in the United States for the scholastic year 1897-98—Continued.


Table 42.—Statistics of public high schools in the United States for the scholastic year 1897-98—Continued.














## Bayard Beacon



[^90]Table 42.-Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.





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Table 42．－Statistics of public high schools in the United States for the scholastic year 1897－98—Continued．

|  | State and post－ office． | Name． | Principal． | Depart－mentor in－depend－ent． | Second－ ary in－ struct－ ors． |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  | Number of volumes in the library． | Value of grounds，buildings，furni－ture，and scientific apparatus． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Second－ ary stu－ dents． |  | Elementary students． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepar． atory stu－ dents in theclass that gradu－ ated in 1898. |  |  |  |  |  |
|  |  |  |  |  |  |  | Clas－ sical course． | Scien－ tific courso． |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 宫 |  |  |  | $\stackrel{\oplus}{\text { g }}$ | 宽 | 永 |  | 突 | 宊 | 产 | $\begin{aligned} & \dot{Q} \\ & \text { E. } \\ & \text { En } \\ & \text { E } \end{aligned}$ | $\frac{\dot{G}}{\pi}$ | $\frac{\dot{0}}{\stackrel{5}{5}}$ | 采 |  |  |  |  | $\begin{aligned} & \underset{50}{\tilde{E}} \\ & \text { ت } \\ & H \end{aligned}$ |
|  | 1 | ${ }^{2}$ | 3 | 4 | 5 | 6 | 7 | 8 |  |  | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 18 | 18 | 19 | $2(1)$ | 91 | 928 |
|  | IOWA－continued． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1282 | Kellogg | High School | S．T．Mell．． | Dept．－ | 1 | 2 | 25 | 28 | 0 | － 0 | 2 | 4 |  |  | 3 | 4 | 1 | 2 | 4 |  | 200 | \＄3，500 |
| $128: 3$ | Keokuk | －－－－do ．．．． | Geo．Edw．Marshall．．． | Dept．－ | 3 | 5 | 90 | 170 | 0 | 0 |  |  |  |  | 7 | 28 |  |  | 4 |  |  |  |
| 1284 | Keosauqua | ．do | F．E．Buck－．－－．．．－－ | Dept．． | 2 | 0 | 22 | 34 | 0 | 0 | 1 | 0 |  |  | 7 | 12 | 1 | 0 | 4 |  | 182 | 10， 530 |
| 1285 | Keota．．．．． | do | W．L．McKee | Dept．． | 1 | 0 | 13 | 24 | 0 | 0 |  |  |  |  | 7 | 8 |  |  | 3 |  | 100 | 7，000 |
| 1286 | Kingsley | ．do | Ernest Richards | Dept．． | 1 | 1 | 12 | 19 | 0 | 0 |  |  |  |  | 3 | 4 |  |  | 4 |  | 300 | 10，000 |
| 1287 | Kirkville | ．．do | J．F．Croft ．－．－ | Ind．．． | 0 | 3 | 9 | 10 | 61 | 65 |  |  |  |  | 1 | 1 | 1 | 0 | 2 |  | 200 | 2，500 |
| 1288 | Knoxville | －．do | Ralph W．Pratt．．．．．．． | Dept．． | 3 | 1 | 39 | 100 | 7 | 7 | 7 | 14 | 3 | 0 | ${ }^{6}$ | 20 | 3 | 10 | 4 |  | 1，026 | 25，000 |
| 1289 | Lake City | ． do | Miss Percis O．Horner． | Dept．． | 1 | 1 | 26 | 34 | 0 | 0 |  |  |  |  | 11 | 9 |  |  | 3 |  | 200 |  |
| 1290 | Lake Mills | ．do．＊ | L．A．Emery | Dept．． | 0 | 6 | 15 | 15 | 15 | 27 |  |  |  |  | 0 | 0 | 0 | 0 | 3 |  | 150 | 12，500 |
| 1291 | Lakeview． | do | J．M．Holaday | Dept．． | 1 | 2 | 15 | 15 | 0 | 0 | 3 | 1 |  |  | 3 | 2 | 3 | 1 | 4 |  | 22 | 4，000 |
| 1292 | Lamoni． | ．do | Geo．N．Briggs ．．．．．．． | Dept．． | 1 | 1 | 33 | 50 | 0 | 0 | 3 | 2 | 8 | 7 | 7 | 2 | 7 | 2 | 4 |  | 100 | 18，000 |
| 1293 | Lansing | ．do | J．B．KnoepHer－．－－－． | Dept．． | 1 | 1 | 39 | 27 | 0 | 0 |  |  |  |  | 14 | 8 |  | 2 | 3 |  | 400 | 6， 000 |
| 1294 | Laporte City | do | H．B．Lizer．．－．－．－－．－ | Dept．． | 1 | 2 | 31 | 40 | 0 | 0 | 6 | 3 |  |  | 3 | 5 | 1 | 2 | 3 |  | 390 | 21，500 |
| 1295 | Laurens ．．．． | ．do | C．C．Hodges－－－－－．－ | Dept．－ | 1 | 1 | 10 | 18 | 0 | 0 | 1 | 1 |  |  |  |  |  |  | 4 |  |  | 3.000 |
| 1296 | Lawler． | ．do | J．J．McFaul ．－．．．．．．． | Dept．． | 1 | 0 | 18 | 11 | 48 | 52 | 1 | 2 | 1 | 0 | 1 | 1 | 1 | 0 | 3 |  | 200 | 2，000 |
| 1297 | Leclaire | ．do | C．W．Bartine | Ind．．． | 1 | 0 | 4 | 12 | 74 | 66 |  |  |  |  |  |  |  |  | 4 |  |  |  |
| 1298 | Legrand | －．－do | Homer DeVitt | Dept．． | 1 | 0 | 8 | 5 | 12 | 21 |  |  |  |  | 0 | 0 |  |  | 3 |  | 300 | 5， 000 |
| 1299 | Lenox．． | －do | W．B．Moffett | Dept．． | 1 | 1 | 27 | 43 | 0 | 0 |  |  | 6 | 3 | 4 | 9 | 2 | 1 | 3 |  | 200 | 16，000 |
| 1300 | Leon．－ | do | Sam L．Darrah | Dept．． | 1 | 2 | 46 | 73 | 0 | 0 |  |  |  |  | 5 | 19 | $\stackrel{2}{0}$ | 3 | 4 |  | 200 |  |
| 1301 | Lewis．． | ．do | F．H．Beedle． | Ind．．． | 1 | 1 | 25 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 4 |  | 200 | 10，000 |
| 1302 | Limespring | ．do | D．L．Geonnis | Dept．． | 1 | 1 | 20 | 20 | 0 | 0 | 1 | 3 |  |  | 1 | 2 |  |  | 4 |  | 165 |  |
| 1303 | Lineville．． | ．do | S．L．Tipton． | Dept．． | 1 | 1 | 31 | 45 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 1 |  |  | 3 |  | 190 | 7，000 |
| 1304 | Lisbon．．． | Washington High Sichool． | J．R．Jamison |  | 1 | 1 | 14 |  | 0 | 0 |  |  |  |  | 1 | 2 | 1 | 0 | 3 |  |  | 12，000 |
| 1305 | Logan ． | High School ．．．．．．．．．．．．．． | J．M．Rapp． | Dept．． | 1 | 2 | 35 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 9 | 0 | 0 | 3 |  | 300 | 8， 000 |

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Table 42．－Statistics of public high schools in the United States for the scholastic year 189\％－98－Continued．

|  |  |  |  |  |  |  |  |  |  |  |  | uden | ts． |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { epari } \\ & \text { colle } \end{aligned}$ | $\begin{aligned} & \text { ing f } \\ & \text { ege. } \end{aligned}$ |  |  |  | Col pre |  |  |  | 受 | F. F |
|  | State and post－ office． | Name． | Principal． | Depart－ ment or in－ depend． ent． |  |  |  |  | Elem stud | atary ts． |  |  | $\begin{gathered} \text { Scie } \\ \text { titi } \\ \text { cour } \end{gathered}$ |  |  |  | $\begin{gathered} \text { sty } \\ \text { dent } \\ \text { the } \\ \text { thi } \\ \text { gra } \\ \text { ated } \\ 189 \end{gathered}$ |  |  |  |  |  |
|  |  |  |  |  | $\begin{gathered} \text { 号 } \\ \stackrel{y}{5} \end{gathered}$ |  | 帯 |  | $\underset{\underset{y y}{c}}{\stackrel{0}{c}}$ | $\begin{aligned} & \text { @ } \\ & \text { デ } \\ & \text { घ } \\ & \text { Hin } \end{aligned}$ | 离丞 |  |  | $\begin{gathered} \dot{\text { ® }} \\ \text { ت゙ } \\ \text { ت } \end{gathered}$ |  |  | 采 |  | $\begin{aligned} & \text { تٌ } \\ & \text { 苟 } \end{aligned}$ |  | $\begin{aligned} & \text { 岗 } \\ & \text { 首 } \\ & \text { n } \end{aligned}$ |  |
|  | 1 | 2 | 3 | 4 | 5 | 0 | 7 | 8 | （1） | 10 | 11 | 12 | 13 | 1. | 15 | 16 | 19 | 15 | 19 | 20 | P1 | 2\％ |
|  | Iowa－continued． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1355 | New London． | High School | D．H．Barton． | Dept．． | 2 | 0 | 11 | 20 | 0 | 0 |  |  |  |  | 0 | 2 |  |  | 3 |  |  |  |
| 1356 | New sharou． |  | Joseph W．Graham | Dept．． | 2 | ${ }_{0}$ | 31 | 39 | ${ }_{0}$ | 0 |  |  |  |  | 0 | 7 | 8 | 4 | 3 |  | 200 | 10，000 |
| 1357 | Newton． |  | E．J．H．Beard ．－．．．．． | Dept．． | 1 | 3 | 37 | 52 | 0 | 0 | 14 | 29 | 8 | 14 | 8 | 8 | 8 | 8 | ， |  | 809 |  |
| 1358 | Nora Springs． | do | Justus H．Sunckrath． | Dept．． | 1 |  | 22 | 18 | ${ }_{0}$ | 0 |  |  |  |  | 7 | 7 |  |  | 2 |  | 225 | 5，000 |
| 1359 | North English | do | C．E．Fleming．．－．．． | Dept．． | 1 | 4 | 9 | 40 | 0 | 0 |  |  |  |  | ${ }^{0}$ | $\pm$ | 0 | 2 | 4 |  | 518 | 10，000 |
| 1360 | Northwoot ．．． | do | E．W．G．Vogenitz． | Dept．． | 1 | 1 | 17 | 43 | 0 |  | 3 | 5 | 3 | 5 | ， | 6 |  |  | － |  | 300 | 15， 000 |
| 1361 | Norway | do | J．E．Johnston | Dept．－ | 1 | 1 | 19 | 30 | 0 | ， |  |  |  |  |  | 4 |  |  | 2 |  | 150 | 5，000 |
| 1362 | Oakland． | do | F．M．Allen ．．． | Dept．． | 1 | 1 | 36 | 34 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 23 | 300 | 7，000 |
| 1363 | Ochejedan | do | F．H．Dawson | Ind．．． | 1 | ， | ${ }^{6}$ | 12 | 0 | 0 | 0 | 0 | 0 | 0 | ， | 0 | 0 | 0 | 2 |  | 50 | 5，000 |
| 1361 | Odebolt． | ．do | Chas．Henry． | Dept．． | 1 | 1 | 31 | 45 | 0 | 0 |  |  |  |  | 3 | 7 |  |  | 4 |  | 149 | 7． 000 |
| 1365 | Oelvein | do | L．B．Motiett．．．． | Dept．－ | 1 | 1 | 24 | 40 | 0 | 0 | 0 | 3 | 2 | 2 | 0 | ${ }^{0}$ | 0 | 0 | 4 |  | 105 | 7， 500 |
| 1366 | Ogden． | ．do． | Clara E．Thompson．． | Dept．． | 0 | 1 | 21 | 29 | 0 | 0 |  |  |  |  | 3 | 7 |  |  | 3 |  | 150 | 16， 000 |
| 1367 | Orange City | ， | Goodwin R．Shoup． | Dept．． | 2 |  | 14 | 26 | 0 | 0 | 0 | 0 | 0 | 0 |  |  |  |  | 4 |  | 558 |  |
| 1368 | Osceola ．．．．． | do | I．N．Beard．．．．．．．． | Dept．－ | 1 | $\stackrel{3}{5}$ | ${ }^{60}$ | 95 | 0 | 0 |  |  |  |  | 10 | 16 | 10 | 16 | 4 |  | 409 | 40， 000 |
| 1369 | Oskaloosa | de． | Oliver E．Dixon． | Dept．． | 3 | 5 | 88 | 154 | 0 | 0 |  |  |  |  | 13 | 21 | 4 | 7 | 4 |  | 1，738 | 45， 000 |
| 1370 | Ottumwa | do | Miss Grwen Grifiths． | Dept．． | 0 | ， | 96 | 201 | 0 | 0 |  |  |  |  | 7 | 18 | $\stackrel{2}{1}$ | d | 3 |  |  |  |
| 1371 | Oxford．．．．．．．．．． | do | Eugene Heuely．．．． | Dopt．． | 1 | 1 | 23 | 22 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 4 | 1 | ${ }_{9}^{0}$ | 3 | 23 | 350 | ${ }^{6,000}$ |
| 1372 | Oxford Junction． | ．do | Daniel R．Perkins ． | Dept．－ | 1 | ， | 16 | 14 | 0 | 0 |  |  |  |  |  | ${ }_{6}$ | － | 2 | d |  | 200 | 6，000 |
| 1373 | Pacific Junction． | to | W．M．Moore． | Dept．． | ， | 0 | 15 | 20 | 0 | 0 |  |  |  |  | ${ }^{0}$ | ${ }^{0}$ | 0 | 0 | 3 |  | 40 |  |
| 1374 | Panora | do | L．Mi．Swindle | Dept．． | $\stackrel{2}{9}$ | 1 | 100 | 134 <br> 35 | 0 | 0 |  |  |  |  | 11 | ${ }_{6}^{12}$ |  |  | 4 |  | 700 500 | 30,000 14,000 |
| 1375 | Parkersburg | do | W．F．Barr．．． | Dept．－ | 2 | 1 | 30 | 35 | （1） | 0 |  |  | 5 | 6 | 5 | ${ }^{6}$ | 3 | 3 | 4 |  | 500 | 14，000 |
| 1376 | Pella | do | Carrie Edmand | Dept．－ | － | $\stackrel{2}{2}$ | 32 | 33 90 | 0 | 0 |  |  |  |  | 3 | 10 |  |  | 4 |  | 490 400 |  |
| 1377 | Perry－ | do． | II，S．Stein． | Dept．－ | 1 | 1 | 45 | 18 | 0 | 0 |  |  |  |  | ， | 12 |  |  | 4 |  | 400 | 36,200 10,600 |
| 1378 1379 | Pleasantville Pomeroy．．． | do | J．B．Woods | Dept．－ | 1 | 1 | ${ }_{35}^{12}$ | $\left\lvert\, \begin{aligned} & 18 \\ & 21\end{aligned}\right.$ | 0 | 0 | 0 | 0 | ${ }_{0}^{0}$ | 0 0 | 1 | 4 | ${ }_{1}^{0}$ | ${ }_{2}^{0}$ | 3 |  | 210 | 10,000 9,000 |




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Table 42.—Statistics of public high schools in the United States for the scholastic year 1897-98—Continued.


TABLE 42.-Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.


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## H. C. Ford .



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Table 42.-Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.






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|  | 或1－ | －줐口ニコ | 잉웅 |
| :---: | :---: | :---: | :---: |
|  |  | ¢ ¢ ¢ ¢ ¢ | 等曻 |
| H－000hm00n0－100hroh00－000 | 10706100000 | 00 |  |
|  | mommana |  |  |
|  |  <br>  |  | ฝัน ํ |


| 1596 | Phillipsbur |  |
| :---: | :---: | :---: |
| 1597 | Pittsburg． | －．．．do |
| 1598 | Plainville |  |
| 1599 | Pleasanton |  |
| 1600 | Pratt． | －．．．do |
| 1601 | Prescott | －－．．${ }^{\text {do }}$ |
| 1602 | Quenemo | －－－do |
| 1603 | Randall． | lo |
| 1604 | Reading | do |
| 1605 | Reserve | do．＊ |
| 1606 | Russell | do |
| 1607 | Sabetha | do． |
| 1608 | St．John | －－．．．do ． |
| 1609 | St．Mary | do |
| 1610 | Salina | do |
| 1611 | Scandia | do． |
| 1612 | Scranton |  |
| 1613 | Sedan | do |
| 1614 | Sedgwick | do |
| 1615 | Seneca．． | do |
| 1616 | Severance | do． |
| 1617 | Smith Cente |  |
| 1618 | Springhill |  |
| 1619 | Sterling． | －－．do |
| 1620 | Stockton | do．＊ |
| 1621 | Stroug | do ． |
| 1622 | Syracuse | do |
| 1623 | Thayer | －do |
| 1624 | Tribune | Greeley County High School． |
| 1625 | Valiey Falls | High School ．．．．．．．．．． |
| 1626 | Wakeeney | －．－．do．${ }^{\text {＊}}$ |
| 1627 | Walnut． |  |
| 1628 | Wamego |  |
| 1629 | Washington |  |
| 1630 | Wathena | Union High School |
| 1631 | Weir | High School＊ |
| 1632 | Wellington | School． <br> Sumner County High |
| 1633 | Wellsville | High School |
| 1634 | Wichita |  |
| 16.55 | Williamsburg |  |
| 1636 | Wilson | do |
| $16: 37$ | Yates Center |  |
|  | KENTCCEY． |  |
| 1638 | Ashland | High School |
| 1639 | Augusta | ．．．．do |
| 1640 | Barboursville | Graded School |

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Table 42．－Statistics of public high schools in the United States for the scholastic year 1897－98－Continued．

|  | State and post－ oftice． | Name． | Principal． | Depart－ ment or in－ depend－ ent． | Second－ ary in－ struct－ or＇s． |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 范 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Second－ ary stu－ dents． |  | Elementary students． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepar－ atory stu－ dents in the class that gradu． ated in 1898. |  |  |  |  |  |
|  |  |  |  |  |  |  | $\begin{gathered} \text { Clas- } \\ \text { sical } \\ \text { courso. } \end{gathered}$ | $\begin{aligned} & \text { Scien- } \\ & \text { tific } \\ & \text { course. } \end{aligned}$ |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 寍 | 空 |  |  | 悉 | 嵒 | ت゙ँ | 盛 |  |  | $\begin{aligned} & \text { 品 } \end{aligned}$ | 袻 | $\begin{aligned} & \text { 嶌 } \\ & \text { 馬 } \end{aligned}$ | $\begin{aligned} & \dot{0} \\ & \text { 采 } \\ & \text { n } \end{aligned}$ |  |  |  |  | 吕 | $\begin{aligned} & \text { 采 } \\ & \text { g } \\ & \text { En } \end{aligned}$ |
|  | 1 | 2 | 3 | 4 | 5 | 6 | \％ | 3 |  |  | 9 | $1{ }^{16}$ | 1通 | 12 | 13 | 宾 | 15 | 16 | 17 | 18 | 19 | 120 | 21 | 22 |
|  | IEENTUCEY．－cont＇d． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1641 | Benton． | Instituto | Mrs．C．M．Sperry | Dept．． | 1 | 1 | 12 | 20 | 0 | 0 | 5 | 4 | 7 | 6 |  |  |  | ．．． | 3 |  |  | \＄3，000 |
| 1642 | Plaino | High School＊ | G．Milton Elam． | Dept．． | 1 | 1 | 10 | 5 | 70 | 76 | 0 | 0 | 0 |  | 0 | 0 |  |  |  |  |  | 1，000 |
| 1643 | Boston． | Graded School | S．Edward Heizer ．－ | Dept．． | 1 | 1 | 8 | 7 | 20 | 15 | 0 | 0 | 0 | 0 | 1 |  |  |  |  |  |  | 5， 000 |
| 1644 | Carlisle ．．．．． | High School | Wm．F．Ramey，A．M． | Dept．． | 1 | 5 | 41 | 62 | 0 | 0 |  |  |  |  | 1 | 8 | 0 | 3 | 3 |  | 275 | 20， 000 |
| 1645 | Catlettsburg | ．．．．．do ．．．．． | J．B．Leech．．．．．．．．．．．． | Dept．． | 0 | 5 | 25 | 33 | 0 | 0 |  |  |  |  | 4 | 5 | 1 | 3 | 4. |  | 500 | 15， 000 |
| 1646 | Clay City | Graded School | D．A．Thomson | Dept．． | 1 | ， | 4 | 3 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  | 3，500 |
| 1647 | Cloverport | High School＊ | J． H ．B．Logan | Dept．． | 2 | 2 | 19 | 19 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  | 3，000 |
| 1648 | Corydon． | －．－．do ．．．．．．．． | C．I．Dudley | Dept．． | 1 | 1 | 22 | 14 | 0 | 0 |  |  |  |  | 1 | 7 |  |  | 2 |  | 200 | 6，000 |
| 1649 | Covington | ．do | H．R．Plaisdell | Dopt．－ | 2 | 1 | 64 | 131 | 0 | 0 |  |  |  |  |  | 17 |  |  | 4 |  | 300 | 15， 000 |
| 1650 | ．．．．do． | Wm．Grant High school （colored）． | Samuel I．Singer | Dept．． |  | 2 | 6 | 16 | 0 | 0 |  |  |  |  | 0 | 3 |  |  | 3 |  |  |  |
| 1651 | Crittenden．．．．．．．． | Male and Female Insti－ tute． | C．S．Ellis ． | Dept．． | 1 | 2 | 30 | 18 | 25 | 25 |  |  |  |  |  |  |  |  | 3 |  | 65 | 2，500 |
| 1652 | Cynthiana．．．．．．．． | Graded City School．．．．． | C．A．Leonard，A．M．． | Dept．． | 1 | 1. | 36 | 55 | 0 | 0 | 0 | 2 | 0 | 0 | ， | 5 | 0 | 3 | 4 | 36 | 1， 905 | 9， 000 |
| 1653 | Danville ．．．．．．．．．．．． | High School ．．．．．．．．．．．．．． | W．C．Grinstead ．．．．． | Dept．． | 1 | 1 | 19 | 21 | 0 | 0 |  |  | 11 | 10 | 4 | 7 |  |  |  |  |  | 17，000 |
| 1654 | Dayton－．．．．．．． |  | F．S．Alley ．．． | Dept．． | 0 | $\stackrel{2}{2}$ | 16 | 19 | 0 | 0 |  |  |  |  | 1 | 7 |  |  | 3 |  | 4 | 35,000 2,500 |
| 1655 | Elizabethtown．．．． | －Institute ．．．．． | A．R．Thomas | Dept．． | 1 | 0 | 7 | 16 | 0 | 0 | ${ }_{2} 1$ | 0 |  |  | 1 | 1 | 1 | 0 | 3 |  | 125 | 2,500 1,000 |
| 1656 | Frarmington ．．．．．． |  | S．V．Henson．． | Ind．．． | 2 | 0 | 10 | 17 | 70 | 53 | 2 | 0 |  |  |  |  |  |  | 4 |  |  | 1,000 50,000 |
| 1657 | Frankfort ．．．．．．．．． | High School | J．D．Coleman．．．．．．．．． | Dept．． | 1 | 2 | 42 | 63 | 0 | 0 |  |  |  |  | 6 | 12 |  |  | 3 |  | 300 | 50， 000 |
| 1653 | ．．do ．．．．．．．．．．．．． | $\begin{aligned} & \text { Clinton Street High } \\ & \text { School (colored). } \end{aligned}$ | Wm．H．Mayo ．．．．．．． | Dept．． | 1 | 2 | 6 | 26 | 0 | 0 |  | 14 | 2 | 7 | 0 | 3 | 0 | 3 | 3 |  | 152 | 15，000 |
| 1659 | Franklin ．．．．．．．．． | High School ．．．．．．．．．．．．． | V．O．Gilbert．． | Ind．．． | 0 | 1 | 7 | 2 | 103 | 88 | 1 | 0 | 5 | 3 | ， | 0 |  |  | 4 |  |  | 3，000 |
| 1660 | Fulton．．．．．．．．．．．．． | Carr Institute＊．．．．．．．．． | C．W．Oldham． | Dept．． | 1 |  | 35 |  | 0 | 0 |  |  |  |  | 2 | 2 |  |  |  |  | 1 | 10， 000 |
| 1661 | Glasgow．．．．． | High School ．．．．．．．．．．． | W．C．Turner | Dept．． | 2 |  | 30 |  | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 4 |  | 400 | 6，000 |


Table 42.-Statistics of public high schools in the United States for the scholastic ycar 1897-98—Continued.














Wodstock Free High
School.*


High School.............$i t h ~ P o r t l a n d ~ H i g h ~$

...do..

Table 42．－Statistics of public high schools in the United States for the scholastic year 1897－98－Continued．

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Table 42.-Statistics of public high schools in the Tnited States for the scholastic year 189\%-98-Continued.


TAble 42.-Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.




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Table 42.-Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.

|  | State and postoffice. | Name. | Principal. | Department or in-dependent. | $\begin{aligned} & \text { Second- } \\ & \text { ary in- } \\ & \text { struct- } \\ & \text { ors. } \end{aligned}$ |  | Students. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Second-ary stu-dents. |  | Elementary students. |  | Preparing for college. |  |  |  | Graduates in 1898. |  | College preparatorystudents in theclass that graduated in 1898. |  |  |  |  |  |
|  |  |  |  |  |  |  | Classical course. | $\begin{gathered} \text { Scien- } \\ \text { tific } \\ \text { course. } \end{gathered}$ |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | $\begin{aligned} & \dot{9} \\ & \stackrel{y}{\pi} \end{aligned}$ | 产 |  |  |  | ¢ | $\stackrel{\oplus}{\ddot{y g}}$ |  | 采 |  |  |  |  | $\begin{array}{\|l} \stackrel{\text { g }}{\text { g }} \\ \text { g } \\ \text { In } \end{array}$ |  |  |  |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|  | MASSACHUSETTScontinued. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1950 | Boston (Roxbury) | Roxbury High School .. | Charles M. Clay | Dept.. | 5 | 15 | 151 | 481 | 0 | 0 | 14 |  | 12 | 7 | 49 | 113 | 6 | 3 | 3 | 126 | 3, 000 | \$400, 000 |
| 1951 | Boston (Jamaica Plain). | West Roxbury High School. | George C. Mann | Dept. | 3 | 6 | 57 | 205 | 0 | 0 | 1 | 7 |  |  | 11 | 48 | 1 | 3 |  | 43 | 875 |  |
| 1952 | Bourne........... | High school ............. | C.W.Pierce | Dept. | 1 | 1 | 19 | 29 | 0 | 0 | 4 | 6 | 2 | 3 | 2 | 3 | 1 | 3 | 4 |  | 200 | 1,800 |
| 1953 | Bradford |  | Frank P. Morse.. | Ind... | 1 | 3 | 26 | 47 | 0 | 0 | 1 | 4 | 1 | 0 | 2 | 9 | 0 | 6 | 4 |  | 500 | 4, 200 |
| 1954 | Braintree. | do | Irving W. Horne | Dept.. | 1 | 3 | 36 | 59 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 12 |  |  | 4 |  | 350 | 35, 000 |
| 1955 | Brewster | do | Arthur L. Sampson... | Dept.. | 1 | 1 | 14 | 16 |  | 4 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 3 |  | 35 | 2, 000 |
| 1956 | Bridgewater |  | Melville A. Stone ..... | Dept.. | 1 | 4 | 38 | 40 | 0 |  | 5 | 2 |  |  | 2 | 10 | 0 | 3 | 4 |  |  |  |
| 1957 | Brockton | do | Edward Parker.. | Dept.. | 7 | 12 | 262 | 226 | 0 | 0 | 16 | 14 | 12 | 0 | 36 | 18 | 7 | 3 | 4 |  |  |  |
| 1958 | Brookfield | . .do.*.................. | Edward B. Hale | Dept.. | 1 | 1 | 22 | -35 | 0 | 0 | 3 | 4 |  | - | 3 | 11 | 1 | 1 | 4 | 32 | 150 | 11, 000 |
| 1959 | Brookline. |  | Daniel S. Sanford..... | Dept.. | 7 | 10 | 135 | 143 | 0 | 0 | 48 | 14 | 48 | 24 | 15 | 28 | 6 | 15 | 4 | 0 | 1,200 | 270, 178 |
| 1960 | Cambridge | English High School.... | Ray Greene Huling... | Dept.. | 4 | 17 | 325 | 388 | 0 | , |  |  | 51 | 5 | 35 | 56 | 19 | 2 | 4 |  | 3, 100 | 254,000 |
| 1961 | …do do.......... | Manual Training School | Charles H. Morse..... | Dept.. | 8 | 3 | 200 | 0 | 0 | 0 |  |  | 85 | 0 | 16 | 0 |  |  | 4 |  |  | 135,000 |
| 1962 | Cambridgeport... | Cambridge Latin School | William F. Bradbury - | Dept.. | 4 | 12 | 157 | 183 | 0 | 0 | 157 | 183 | 0 | 0 | 17 | 27 | 22 | 28 | 5 |  | 1,000 | 55, 900 |
| 1963 | Canton ........... | High School ........... | E. H. Brackett ....... | Dept.. | 1 | ${ }_{0}$ | 23 | 30 | 3 | 0 | 0 | 0 | 10 | 0 | 5 | 9 | 3 | 0 | 4 |  | 100 | 5, 000 |
| 1965 | Chathain |  | C. C. Richardson, A. M | Dept.- | 1 | 0 | 13 | 18 | 0 | 0 | 1 | 0 |  |  | 1 | 3 |  |  | 4 |  | 50 | 5, 000 |
| 1965 | Chelmsf | Center High School..... | C. W. Averell......... | Dept.. | , | 0 | 7 | 14 | 0 | 0 | 1 | 0 |  |  | 1 | 6 |  |  | 2 |  |  |  |
| 1967 | Cheshire | .....do ...... | Alton E. Briggs | Dept.. | 3 | 14 | 174 | - 28 | 0 | 0 | 25 | 40 | 25 | 0 | 2 | 8 | 18 | 17 | 4 | 50 | 50 | 125,000 10,000 |
| 1968 | Chicopee | Center High School | William C. Whiting .. | Dept.. | 3 | 5 | 70 | 89 | 0 | 0 | 13 | 25 | 10 | 0 | 4 | 8 | 2 | , | 4 |  | 1,560 | 40, 000 |
| 1969 | Clinton. | High School. | Andrew E. Ford. | Dept.. | 4 | 4 | 69 | 132 | 0 |  | 10 | 5 | 6 | 0 | 10 | 23 | 3 | 2 | 4 |  | 200 | 70,000 |
| 1970 | Cohasset | .....do ....... | C.F.Jacobs | Dept.. | 1 | 2 | 24 | 47 | 0 | 0 | 3 | 2 | 4 | 0 | 8 | 7 | 0 | 0 | 4 |  | 150 | 32,000 |
| 1971 | Concord | do | William L. Eaton | Ind... | 1 | 6 | 80 | 110 | 0 | 0 | 15 | 15 | 10 | 0 | 8 | 19 | 5 | 2 | 4 |  |  | 40, 000 |
| 1972 | Conway | do | Wilbur G. Chaffeo | Dept. | 1 | 1 | 18 | \| 19 | 0 | 0 | 2 | 2 |  |  | 3 | 1 | 0 | 1 | 4 |  | 100 | 1,500 |


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 * Statistics of 1896-97.
Table 42.-Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.


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| :---: | :---: | :---: | :---: | :---: |
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|  | Fiorace W．Rice，M．A |
| :---: | :---: |
| Kimball Hiol | William H．Godfrey |
| High School | Charles S．Moore |
| High and Puta am Schools． | Geo．A．Dickey |
| Tigh Schooi | E．L．Adams |
| Newton Eigh | Enoch C．Adams |
| Tigh School． | Franklin C．Jone |
| Drury High Sc | Horbert \＃．Gadsby |
| Hich School＊ | Clarence B．Roote |
| Johnson High School． | Chas．Talbot Wood－ bury． |
| High S | James W．Brehaut． |
|  | Wm．F．Sims |
| do | Edgar H．Gro |
|  | Everetti Skilling |
| Oliver Ames High School | Maitland C．Lamp |
| High School ．－．．．－．－．－．－ | Clara B．Holden． |
|  | Albin C．Russell |
|  | Charles L．Simmo |
| do | Frank E．Sanbo |
|  | Clarence L．Judk |
| do | A．C．Thompson |
|  | John M．Nichol |
| do | Sumner A．Chapn |
|  | Alfred O．Tower，A． |
| do | Charles A．Byr |
|  | G．Fay Hilton |
| 10 | Agnes W．Linds |
| do | Anna C．Mason |
| do | Ira A．Jenkins， |
|  | Frederic A．Tupp |
| do | F．E．Whittemol |
| do． | Theodore P．Far |
|  | W．A．Woodwar |
|  | Wilbur G．Chaffee |
| Classical and High | Frank M．Colleste |
| School． |  |
| High School | F．S．Stebbins |
| －．．．．do | Norris E．Adam |
| lo | Julius N．Mallo |
|  | F．S．Freeman， |
|  | Willian Ellis |
|  | Chester＇ I ．Porter |
| English Hi | C．T．C．Whitcom |
| Latin Eigh School． | George L．Baxter |
| High Grammar Schoo | M．H．Bridgman |
| Peters Kigh School＊ | F．A．Luce |
| High School | F．E．Corbin |
|  | Meredith D．M |

Natick．．．．．．．．．．．．．．
Needham
New Bed

North Andover．


Torti Reading
orwood
eabody．
Pepperell

Princeton
Provincetown

Rockport
Salem
Sandwich
Scituate
Shemela．－ Shrewsbury
Somerville． Southampton Southboro．．
Southbridge South Dartmouth．

[^92]Table 42.--Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.

|  | State and postofice. | Name. | Principal. | Depart ment or in-dependent. |  |  | Students. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Secondary stu dents. |  | Elementary students. |  | Preparing for college. |  |  |  | Graduates in 1898. |  | College preparatorystudents in the class that graduated in 1898. |  |  |  |  |  |
|  |  |  |  |  |  |  | Classical course. | Scientific course. |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | $\stackrel{\dot{\Xi}}{\stackrel{\rightharpoonup}{ت}}$ |  | $\frac{\stackrel{0}{\pi}}{\underset{\sim}{\pi}}$ |  | $\stackrel{\dot{9}}{\stackrel{y}{7}}$ |  | $\begin{aligned} & \dot{9} \\ & \stackrel{y}{4} \end{aligned}$ | $\dot{\otimes}$ a a $=1$ $=1$ | $\begin{aligned} & \dot{\Xi} \\ & \text { ت゙ } \end{aligned}$ |  |  |  |  |  | $\dot{\text { gi }}$ |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | $s$ |  |  | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | so | 21 | 28 |
|  | massachusettscontinued. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2091 | South Hadley Falls | High School. | Walter H. Young'. | Dept.. | 1 |  | 25 | 21 | 0 | 0 | 4 | 1 | 5 | 3 | 4 | 1 | 4 | 1 | 4 |  | 200 |  |
| 2092 | Sonth Weymouth. | South High School | Wm. D. Mackintosh | Ind... | 1 | 2 | 46 | 54 | 0 | 0 |  |  | 1 | 0 | 5 | 6 | 0 | 0 | 4 |  | 150 | \$10,000 |
| 2093 | Spencer........... | David Prouty High School ${ }^{*}$ | Edwin S. Tirrell ...... | Dept.. | 2 | 2 | 43 | 58 | 0 | , | 4 | 13 | 2 | 0 |  | 10 | 2 | 0 | 4 |  | 125 | 57,000 |
| 2094 | Springfield | High School ............ | Fred. W. Atkinson | Ind. | , | 17 | 253 | 316 | 0 | 0 | 53 | 45 | 42 | 0 | 26 | 56 | 26 | 18 | 4 |  | 500 | 127, 539 |
| 2095 | Sterling .... | .....do ........ |  | Dept.. | 0 | 2 |  |  | 11 |  | 0 | 0 | 0 |  | ${ }_{0}^{0}$ | 0 |  |  | 3 |  | 75 |  |
| 2096 | Stockbridge |  | Alfred W. Rogers, A.M | Dept.. | 1 | 1 | $\stackrel{2}{28}$ | 24 | 0 | 0 | ${ }_{2}^{2}$ | 0 | 0 | 0 | 3 | $\stackrel{2}{8}$ | 0 | 0 | 4 |  |  | 6, 000 |
| 2097 | Stoneham. |  | Charles J. Emersou ... | Dept.. | 1 | 3 | 58 | 64 | 11 | 13 | 2 | , | 3 | 0 | 6 | 8 | 2 | 3 | 4 | 51 | 293 | 74,000 |
| 2098 | Stoughton | - ${ }^{\text {Hedo }}$-......... | Arthur D. Arnold .... | Dept.. | 1 | 2 | 29 | 42 | , | 0 | 7 | 11 | 2 | 0 | 1 | 8 | , | 0 | 4 |  | 270 |  |
| 2099 | Stow.. | Hale High School | George F. Murdock... | Ind... | 1 | 0 | 5 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 4 |  | 25 | 3,000 |
| 2100 | Sudbury | High School | Frank O. Jones . . . . . | Dept.. | 1 | 1 | 10 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | ${ }_{2}^{2}$ | 5 | 0 | 0 | 4 | 0 |  |  |
| 2101 | Sutton.. |  | Sarah E. Wedge ...... | Dept.. | 0 | ${ }_{2}^{2}$ | 11 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 4 |  | 17 |  |
| 2102 | Swampscott ...... | Phillips Figh School ... | Gardner P. Balch..... | Dept.. | 1 | 2 | 25 | 36 | 0 | 0 | 2 | 5 | 3 | 0 | 3 | 5 | 2 | 0 | 4 |  | 200 |  |
| 2103 | Taunton.......... | High School ............. | John P. Swinerton, A. M. | Dept.. | , | 4 | 158 | 215 | 0 | , | 14 | 9 | 2 | 0 | 25 | 24 | 4 | 4 |  | 50 | 150 | 70,000 |
| 2104 | Templeton. |  | Grace E. Blodgett .... | Dept.. | 0 | 2 | 15 | 16 | 0 | 0 |  |  |  |  | 2 | 6 | 0 | 1 | 4 |  | 30 |  |
| 2105 | Tewksbury | do | Ida C. Gleason......... | Dept.. | 0 | , | 25 | 21 | 0 | 0 | 0 | 2 | 1 | 0 | 4 | 4 | 1 | 2 | 4 |  | 150 | 13,500 |
| 2106 | Topsfield |  | Roy E. Mooar | Dept.. |  | 1 | 17 | 18 | 0 | 0 | 1. | 0 |  |  | 1 | 5 | 1 | 0 | 3 |  | 75 | 5 5,100 |
| 2107 | Townsend ... | do | Amy S. Lane.......... | Dept.. | 0 | 4 | 17 | 22 | 0 | 0 | , | 0 |  |  | 1 | 1 | 1 | 0 | 4 |  | 50 | 5,000 |
| 2108 | Turners Falls. | do | Lucas Lee Baker...... | Dept.. | 1 | 2 | 15 | 41 | 0 | 0 | $\stackrel{2}{2}$ | 3 | ${ }_{2}^{2}$ | 1 | 4 | 4 |  |  | 4 |  | 300 |  |
| 2109 | Upton.. | do | Elmer L. Fargo ....... | Dept.. | 1 | 2 | 34 | 36 | 0 | 0 | ${ }_{2}^{2}$ | 1 | 2 | 2 | 8 | 9 | 1 | 2 | 4 |  | 60 | 23, 000 |
| 2110 | Uxbridge. |  | Charles H. Bates...... | Dept.. | 1 | ${ }_{2}^{2}$ | 45 | 36 | 0 | 0 | 3 | 2 | 1 | 0 | 7 | 4 | 0 | 1 | 4 | -- | 200 | 32, 000 |
| 2112 | Vineyard Haven.. | Tisbury High School... | Mary Wyatt Cross ... | Dept.. | 0 | $\frac{2}{5}$ | 13 | ${ }_{100}^{18}$ | 0 | 0 | ㄱ.. |  | 5 |  | ${ }_{13}^{1}$ | 4 | 0 5 | 4 | 4 | 60 | 100 | 4,500 |


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Table 42.—Statistics of public high schools in the United States for the scholastic year 1897-98-Continued












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Table 42．－Statistics of public high schools in the United States for the scholastic year 1897－98－Continued．

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TABLE 42.-Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.










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Thble 42．—Statistics of public high schools in the United States for the scholastic year 1897－98—Continued．

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TABLE 42.-Statistics of public high schools in the United States for the scholastic year 1897-98—Continued.








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Table 42.-Statistics of public high schools in the United States for the scholastic year 1897-98—Continued.



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|  | MISSOURI－cont＇d． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2657 | Centralia． | High School |  | Dept．． | 2 | 1 | 45 | 53 | 0 | 0 |  |  |  |  | 2 | 6 | 0 | 0 | 4 |  | 800 | \＄12， 000 |
| 2658 | Charleston |  | A．R．Boone | Dept．． | 2 |  | 8 | 16 | 0 | 0 | 2 | 2 | 0 | 0 | 3 | 4 | 1 | 2 | ${ }_{2}^{4}$ |  | 250 | \＄12，00 |
| 2658 | Chillicothe | Central High School． Garrison High School | J．M．Barton ．．． | Dept．． | 1 | 4 | 63 | 111 | 0 | 0 | 2 | 1 | 3 | 7 | 6 | 12 | $\stackrel{1}{2}$ | 3 | 4 |  | 7，000 | 50， 000 |
| 2660 |  | Garrison High School （colored）． | Joe E．Herriford | Dept．． | 1 | 1 | 6 | 4 | 64 | 70 |  |  | 3 | 2 | 1 | 1 | 1 | 1 | 2 |  | 400 | 6， 000 |
| 2661 | Clinton | High School＊．．．．．．．．．．． | F．B．Owen． | Dept．． | 3 | 1 | 60 | 110 | 0 | 0 | 20 | 30 | 10 | 12 | 0 | 11 |  |  | 4 |  | 1，200 |  |
| 2662 |  | Lincoln High School （colored）． | A．W．Freem | Dept． | 1 | 0 | ， | 12 | 0 | 0 | ， | ， | 0 | 1 | 1 | 6 | 0 | 0 | 4 |  | － 72 | 5，000 |
| 2663 | Coffeyburg ．．．．． | Salem High School．．．．． | W．T．Dougherty | Dept． | 1 | 0 | 4 | 6 | 47 | 54 |  |  | 2 | 0 | 0 | 6 | 0 | 2 | 3 |  | 80 | 2，000 |
| 2664 | Columbia ．．．．．．．． | High School ．．．．．．．．．．．．． | R．H．Enberson． | Dept．． | 4 |  | 82 | 63 | 0 | 0 | 18 | 2 | 21 | 16 | 10 | 11 |  |  | 4 |  | 500 | 40， 000 |
| 2665 | Corder．．．．．．．． | ．．．．．do ${ }^{\text {do }}$ | H．M．Cassell．． | Dept．． | 1 | 0 | 14 | 12 | 0 | 0 |  |  |  |  | 2 | 5 | ． | ． | 3 |  | 26 | 3， 000 |
| 2666 | Crystal City． | do | G．O．Nations A．H．Smith． | Dept．． | 1 | 1 | 4 | 11 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | ， | 1 |  | 10 | 5，000 |
| 2668 | Desoto．．．．．． |  | Daniel B．Veazey | Dept．． | 1 | 0 | ${ }^{3}$ | 8 | 14 | 17 |  |  |  |  | 7 | 8 |  |  | 2 |  | 200 | 2， 000 |
| 2669 | Doniphan | do． | J．R．Johnson．． | Dept．． | 2 | 1 | ${ }_{16}^{24}$ | 41 | 7 0 | 14 | 0 | 0 | － | $\stackrel{2}{2}$ | 7 | ${ }^{9}$ | 2 | ， | 3 |  | 618 | 18，000 |
| 2670 | Edina．－ | do | Charles S．Davis | Dept．． | 1 | 1 | 20 | 22 | 0 | 0 | 3 | ${ }_{3}$ |  |  | 0 | 0 | 0 | 0 | 3 |  | 100 | 6，000 |
| 2671 | Eldorado Springs | do | J．A．Burke | Dept．． | 1 | 1 | 23 | 42 | 0 | 0 | $\stackrel{2}{2}$ | 0 | 1 | 0 | 2 | 7 | 1 | 2 | 3 |  |  |  |
| 2072 | Elsberry ．．．．．．．．． | ．do | James W．Grave | Dept．． |  | 1 | 13 | 20 | 7 | 4 | 4 | 8 | 1 | 0 | 1 | 5 | 1. | 4 | 2 |  | 300 |  |
| 2673 | Excelsior Springs | do． | T．Jennie Green | Dept．． | ， | 1 | 20 | 30 | 0 | 0 | 0 | 0 | 1 | 1 |  | 3 | 0 | 0 |  |  | 1， 542 | 2， 000 |
| 2674 | Fairfax | do | J．H．Gaffney | Dept．． | 1 | 0 | 20 | 15 | ， | 0 |  |  |  |  | 2 | ， | 0 | 0 | 2 |  | 120 | 7， 000 |
| ${ }_{2676}$ | Farley ．．．．． | do | J．W．Farley | Dept．． | 1 | 1 | 12 | 24 | 25 | 28 | 4 | 9 | 8 | 15 | 3 | 4 |  |  | 3 |  |  |  |
| 2677 | Fayette．．．．． |  | A．H．Akers | Dept．． | 1 | 1 | 16 | 15 | 0 | 0 |  |  |  |  |  | 0 |  | 0 | 3 |  | 600 | 9，000 |
| 2678 | Ferguson．．．．．．．．．． |  | J．A．Miller | Dept．． | 1 | ${ }_{0}^{2}$ | 3 | 19 17 | 0 | 0 | 0 | 0 | 0 | 0 | ${ }_{6}^{6}$ | 7 | 6 | 7 | 2 |  | 500 75 | 25， 000 |
| 2679 | Forest City－．．．．． | do | Minnie Norris | Ind．．． | 1 | 1 | 10 | 9 | 75 | 56 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 2 |  | 240 | 15,000 1,000 |


Table 42.—Statistics of public high schools in the Thited Slates for the scholastic year 189\%-9S—Continued.







Table 42．—Statistics of public high schools in the Cnited States for the scholastic year 189i－98－Continued．

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Talle 42.-Statistics of public high schools in the Tnited States for the scholastic year 189\%-98—Continued


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Table 42．－Statistics of public high schools in the United States for the scholastic year 1897－98－Continued．

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Table 42.-Statistics of public high schools in the United States for the scholastic year 189\%̈-38-Continued.


Table 42.-Statistics of public high schools in the Tnited States for the scholastic year 1897-98-Continued.






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| Eugene J. Dean |
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| Bianclie L. |
| Alfred E. Up |
| Frank O. Chelli |
|  |
| Warren E.F |
| Paul R. Jenk |
| John H. Bartlett |
| Harry S. Clarl |
| E.A. Pugsley |
| Edward S. |
| Nellie L. W |
| H. S. Richa |
| Alfred L. Saben |
| enry M. L |
| a B. Roby |
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TAbLe 42.—Statistics of public high schools in the Unitch States for the scholastic year 1897-9S—Continueat.


Table 42.-Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.








|  | Bainbriage |  | Fred. W. Crumb Leland C. Larriers. John Kennedy....... Wm. M. Good, A. M. Claude A. Durall Fred. W. Gray... <br> Wm. B. Chriswell. Samuel G. Landon. Walter T. Couper, $\Delta$. B., A. M. H. В. Baun <br> H. G. Recd. T. Tiam D. Morrow Frank Stanbro Walter B. Gunnison Calvin Patterson . Charles D. Larkins Frederick A. Vogt Frank S. Fosdick Ernest E. Smith Schuyler F. Herron, J. M. A. Norris, A. M., Ph. D. Corbin. Gcorge H. Ottaway . C. F. Walker.......... M. R. Smit Georgo H. Stratton N.Julia Bates C. O. Du Bois E. J. Manley S. Mckee Smith |
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|  | Ratavia-juluc. | ${ }_{\text {Union Scl }}$ |  |
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| $0^{3244}$ |  |  |  |
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| ${ }_{\substack{3246 \\ 3248}}^{\substack{346}}$ |  | $\xrightarrow{\text { Contral Hig }}$ Higl School |  |
|  | Bo |  |  |
| ${ }_{\infty} \mathbf{0} 249$ | Brasher | Brathor and Stockholm |  |
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| 56 |  | Girls High Schoo |  |
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|  | Su | Masten Park High |  |
|  | Camb | High |  |
| ${ }_{3262}^{3261}$ | Camden |  |  |
| 3263 | Canandai | do |  |
| 3261 | Ca |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  | Cape Vin | Union |  |
| ${ }_{3271}^{3270}$ | Carthago |  |  |
|  | Castskiil: | Hig |  |
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Table 42．－Statistics of public high schools in the United States for the scholastic year 1897－98－Continued．

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|  | State anl post－ ofice． | Name， | Principal． | Depart－ ment or in depend－ ent． |  |  |  |  | Elem stud | $\begin{aligned} & \text { ntary } \\ & \text { ints. } \end{aligned}$ |  |  |  |  |  |  | $\begin{gathered} \text { st } \\ \text { dent } \\ \text { thec } \\ \text { th } \\ \text { grat } \\ \text { ated } \\ 188 \end{gathered}$ | $\begin{aligned} & \text { u } \\ & \text { isin } \\ & \text { class } \\ & \text { at } \\ & \text { detu. } \\ & \text { din } \\ & 98 . \end{aligned}$ |  |  |  |  |
|  |  |  |  |  | $\stackrel{\dot{8}}{\stackrel{y}{\mathrm{~s}}}$ |  | $\begin{aligned} & \text { 感 } \end{aligned}$ |  | స్త゙ | $\begin{aligned} & \text { a゙ } \\ & \text { ज゙ } \\ & \text { gun } \end{aligned}$ | $\stackrel{\stackrel{y y}{y}}{\underset{y y y}{y}}$ |  | $\begin{aligned} & \text { B } \\ & \text { 培 } \end{aligned}$ |  | $\begin{aligned} & \text {. } \\ & \text { 馬 } \end{aligned}$ | $\begin{aligned} & \text { 采 } \\ & \text { a } \\ & \text { an } \end{aligned}$ | 采 |  |  |  | $\begin{gathered} \text { H } \\ \text { 药 } \end{gathered}$ |  |
|  | 1 | 卫 | ：${ }^{\text {b }}$ | 4 | 5 | 6 | 7 | 8 | ¢ | 10 | 且1 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 80 | ［11 | 2x |
|  | NEW YORK－cont＇d． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3279 | Chester | Academv＊ | John F．Barringer | Dept．． |  |  | 22 |  | 0 |  | 0 | 0 |  |  |  |  |  |  | 4 |  |  |  |
| 3280 | Chittenango | Yates High Sc | William M．Fort． | lud．．． | 1 | 3 | 14 | 57 | 0 | 0 | 2 | 0 | 4 | 2 | 2 | 2 | 2 | 2 | 4 |  | 2，500 | \＄12，000 |
| 3281 | Churchville | Union School． | N．Lee ．．．．．．．．．． | Dept．． | 1 | 1 | 16 | 16 | 26 | 13 | － | 2 | 4 | $\stackrel{\square}{0}$ | 4 | 3 | 1 | 2 | 4 |  | － 600 | 13，564 |
| 3282 | Cincinuatus |  | Lemuel R．Brown ．．． | Dept．． | 1 | 1 | 23 | 24 | 50 | 43 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |  | 356 | 4， 4 255 |
| 3283 | Clarence | Parker High | Geo．A．Bulles，A．M． | Ind．．． | 1 | 2 | 30 | 38 | 0 | 0 | 4 | 1 | 2 | 0 | 2 | 5 | 1 | 4 | 4 |  | 1，700 | 40， 000 |
| 3284 | Clayton | Union School | Hiram D．Hall ．．． | Hept．． | 1 | 2 | 45 | 49 | 0 | 0 |  |  | 4 | 1 | 3 | $\stackrel{3}{2}$ | 0 | 1 | 4 |  | $3 \pm 0$ | 26， 919 |
| 3285 | Clayville | $\cdots$ | Stanard D．Butler | Ind．．． | 1 | 2 | 42 | 42 | 58 | 58 | 0 | 1 | 1 | 1 | 1 | 2 | 1 | ， | 4 |  | 659 | 8，770 |
| 3286 3287 | Cliiton Springs | High School | H．G．Wolcot t | Dept．． | 1. | 2 | 25 | 27 | 0 | 0 |  |  |  | 2 | 0 | 1 | 0 | 1 | 4 |  | 561 | 3．855 |
| 3288 | Clyde．． |  | Eerey L．Wight | Dept．． | 3 | 2 | 29 | 33 44 | 0 | 30 | 14 | 1 | 5 | 1 | 2 | $?$ | ${ }_{2}$ | 0 | 4 |  | 1，700 | 38， 110 |
| 3289 | Cobleskill | do | Charles E，Allen．． | Dept．． | 1 | 2 | 41 | ${ }^{44}$ | 30 | 30 | 4 | 2 | 8 | 3 | 4 | 4 | 0 | 1 | 4 |  | 1， 809 | 40， 269 |
| 3290 | Cohoes | Egherts High | George M．Strout． | Dept．． | 1 | 4 | 35 | $6{ }^{6}$ | 0 | 0 | 4 | $\stackrel{2}{4}$ | 8 | 10 | 3 | ${ }_{15}^{5}$ | 8 | 1 | 4 |  | 1，300 | 31， 854 |
| 3：91 | Cold Spring ．．．．．． | Haldane High | Otis Montrose ．． | Dept． | ， | 2 | 24 | 26 | 0 | 0 | 0 | 1 | 2 | 0 | 3 | 1 | 2 | 0 | 4 |  | 2，250 | 26,200 40,000 |
| 3292 | Cooperstown | High School | W．D．Johnson | Dept．． | 1 | ， | 88 | 83 | 0 | 0 | 5 | 2 |  |  | 3 | 8 | 1 | 1 | 4 |  | 2， 991 | 33， 000 |
| 3293 | Copenhagen | ．－．．．do ．．．．．． | F．A．Walker | Dept．． | ， | 1 | 30 | 35 | 30 | 45 | 4 | 2 |  |  | 0 | 8 | 1 | 0 | 4 |  | ${ }^{900}$ | 4， 200 |
| 3294 | Corfu | Union School | La Fayette Clapp | Ind．．． | 1 | 1 | 14 | 18 | 44 | 42 |  |  |  |  | 0 | 1 |  |  | 4 |  | 300 | ${ }_{3,000}$ |
| 3295 | Corinth． | High School | A．M．Hollister | Dept．． | 1 | 3 | 15 | 21 | 47 | 14 | 2 | 0 | 0 | 0 | 4 | 14 | 2 | 0 | 4 |  | 948 | 35， 659 |
| 3296 | Corning ．．．．．．．．．． | Academy ．．． | Leigh R．Hunt．．．．．．．． | Dept．． | 1 |  | 49 | 72 | 0 | ， |  | ， |  |  | 1 | 10 |  |  | 4 |  | 1，185 |  |
| 3297 | Cornwall on the Hudson． | High School | G．H．Baskervilio，A．B | Dept．． | 2 | 2 | 39 | 42 | 0 | 0 |  |  | 5 | 9 | 4 | 5 | 2 | 3 | 4 |  | $5 \pm 0$ | 8,800 |
| 3298 | Cortland．．． | Union School | F．E．Smith | Dept．． | 1 | 4 | 22 | 45 | 25 | 40 |  |  |  |  | 10 | 22 |  |  | 3 |  | 991 | 53， 000 |
| 3299 | Coxsackie | High school | Geo．Wm．Fairgrieve | Dept．． | 1 | 1 | 20 | 35 | 0 | 0 | 2 | 1 |  |  | 4 | 9 | 2 | 1 | 4 |  | 7210 | 28， 000 |
| 3300 | Crownpoin | －${ }^{\text {d }}$ do．${ }^{*}$ ．．．．． | A．A Lavery ．．．．．．．． | Dept． | 1 | 1 | 10 | 12 | 65 | 8. | 0 | 0 | 5 | 8 | 0 | 0 | 0 | 0 | 4 | 10 | 1，100 | 6， 450 |
| 3301 | Cuba | Union School | J．E．Dewey．． | Dept．． | ， | 3 | 57 | 78 | 0 | 0 | 10 | 15 | 20 | 25 | 3 | 8 | 2 | 5 | 4 |  | 5.36 | 17，925 |
| 3302 | Dansville | ．．．．do | W．G．Carmer | Dept．． | － | 4 | 52 | 77 | 0 | 0 | ， | ， | 11 | 5 | 2 | 0 | 2 | 0 | 4 |  | 329 | 30，930 |



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| Charles Goldsmi |  |
|  |  |
| Dwight 13．Williams， A．M． | Dept． |
| William H．Dyer |  |
|  |  |
| Nelson L．Coleman |  |
| Joln W．Chandlee ．．． |  |
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| Charlos W．Evan |  |
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| G．A．Jacobs |  |
| Arthur C．S |  |
| J．S．Wright |  |
| S．J．Ellswor |  |
| Frank J．Hon |  |
| Wdward B．Du Mond． |  |
|  |  |
| John H．Clark |  |
| Charles A．Coo | Dept． |
| A．C．Anderson |  |
| ${ }_{\text {Ernest }}$ Robinins |  |
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| Russell H．Bellows ．．． |  |
| Samuel J．Slawson ．．． |  |
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| Henry Wheaton，A．B． <br> Frank F．Cudelec ． |  |
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| W．H．Truesdale ．．．． |  |
| C．Van Ing |  |
|  |  |
| Charles H．Welle |  |
| John C．Blies，A．I |  |
| R．E．Brown，Ph． |  |
| William N．H |  |
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TAble 42.-Statistics of public high schools in the Cnited States for the scholastic year 1807-98-Continued.



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J．C．Benedict，Ph．B
E．T．Graves．．．．．．．．．． Louis S．Odell．
L．S．Minckley A．D．Weeks．．． C．H．Warficld ．．．．
Manford D．Green
Idward Hay ward Id ward Mayward P．E．Demarest．．．．．．
Arthur M．Johuson W．H．Kinney E．11．Niles－．．．
Wm．D．Miller




 Wm．M．Marvin Leon J．Cook ．．．．．．．．．．
Fred．R．Stevenis．．．．．
James F．Tuthill．．．．
Herbert F．Reynolds．
S．D．McClollan ．．．．．．
S．A．Watson，A．I ．
Rouben Fraser．．．．．．．
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Table 42.-Statistics of public high schools in the Uuited States for the scholastic year 1897-98-Continued.



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Table 42.-Statistics of public high schools in the Tnited States for the scholastic year 189\%-9S-Continued.


State and post-


Table 42．－Statistics of public high schools in the United States for the scholastic year 1897－98－Continued．

|  | State and post－ office． | Name． | Principal． | Depart－ ment or in－ depend－ ent． | $\begin{aligned} & \text { Second- } \\ & \text { ary in- } \\ & \text { struct- } \\ & \text { ors. } \end{aligned}$ |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  | Second ary stu－ dents． |  | Elementary students． |  | Preparing for college． |  |  |  | $\begin{aligned} & \text { Gradu- } \\ & \text { ates in } \end{aligned}$$1898 .$ |  | College prepar－ atory dents in the class that gradu－ ated in 1898. |  |  |  |  |  |
|  |  |  |  |  |  |  | Clas－ sical course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | $\frac{8}{y y}$ | ¢ |  |  | $\stackrel{\text { ® }}{\underset{\sim}{\mathrm{N}}}$ |  | -デ |  | $\begin{aligned} & \dot{9} \\ & \text { 荘 } \end{aligned}$ | $\underset{\sim}{\text { ت゙ }}$ | 采 |  | $\begin{aligned} & \text { 采 } \\ & \text { 和 } \end{aligned}$ |  |  |  |  |  | 总 |  |
|  | 1 | ¢ | 3 | 4 | 3 | 6 | 7 | 8 |  |  | 9 | 10 | 11. | 12 | 13 | 14 | 15 | 16 | 18 | 13 | 19 | 20 | 21 | 22 |
|  | NORTH DAKOTA－ continued． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3606 | Hillsboro ．． | High School ． | E．L．Whitney ． | Dept．－ |  |  |  |  | 0 | 0 |  | ， |  |  | 0 | 0 |  |  | 4 |  | 967 | \＄27， 000 |
| 3607 | Jamestown |  | Miss Gertrude Gibbs． | Dept．． | 1 | 2 | 16 | 43 | 0 | 0 | 0 | 0 |  | 3 | 2 | 7 | 1 | 2 | 4 |  | 600 | 2，000 |
| 3608 | Lamoure．．． | do | E．B．Wells ．．．．．．．．．．． | Dept．． | 1 | 0 | 10 | 20 | 0 | 0 | 0 | 4 | 2 | 0 | 0 |  | 0 | 0 | 4 |  | 350 | 5， 000 |
| 3609 | Larimore | ．do | P．S．Berg．－ | Dept．． | 1 | ， | 14 | 21 | 0 | 0 |  |  | 7 | 10 | 1 | 0 | 1 | 0 | 4 | ．．．． | 1， | 15， 000 |
| 3610 | Lisbon．． | $\ldots$ ．．．do | W．A．Tucker | Dept．． | 1 | 1 | 14 | 14 | － | 0 | 1 | ， | 2 | 0 | $\stackrel{2}{2}$ | 3 | 1 | 0 | 4 | ．．．． | 370 | 22， 000 |
| 3611 | Mandan | Lincoln High School．．． | Will H．Seitz | Dept．． | 1 | 1 | 7 | 9 | 0 | 0 | 0 | 0 | ， | 0 | 1 | 2 | 0 | 0 | 3 |  | 200 |  |
| 3612 | Minot | High School．．．．．．．．．．．．． | S．A．Danford．．．．．．．．． | Dept．． | 1 | 1 | 25 | 35 | 0 | 0 | 2 | 5 |  |  | 1 | 1 | 1 | ， | 4 |  |  | 16，000 |
| 3613 | Minto | ．．－．do ．．．．．．．．．． | James S．Carr ．．．．．．．． | Dept．． | 1 | 0 | 11 | 8 | 0 | 0 | ${ }_{6}$ | 4 |  |  | 1 | 2 | 0 | 0 | 3 |  | 200 | 12， 000 |
| 3614 | Oakes | ．do | Ira J．Bradley | Dept． | 1 | 0 | 3 | 10 | 0 | 0 | 2 | 4 | 0 | 0 | 1 | 1 | 1 | 1 | 4 | $\cdots$ | 170 | 5， 000 |
| 3615 | Park River | do | Mrs．J．A．Sanderson．． | Dept．． | 1 | 1 | 11 | 20 | 0 | 0 | 3 | 6 |  | ， | 1 | 7 | 0 |  | 3 |  | 500 |  |
| 3616 | Pembina． | do | W．A．God ward．．．．．．． | Dept．． | 1 | ， | 10 | 15 | 0 | 0 |  |  | 4 | ${ }_{1}^{1}$ | 0 | 0 | 0 | 0 | 3 | ．．． | 250 | 12， 000 |
| 3617 | St．Thomas | ．do | George Martin | Dept．． | 1 | 0 | 12 | 8 | 0 | 0 |  |  | 3 | 1 | 0 | 0 |  |  | 3 |  | 700 | 7， 500 |
| 3618 | Valley City | ．do | J．E．McCartney | Dept．． | 1 | 3 | 20 | 25 | 0 | 0 | 4 | 0 | 6 | 10 | 4 | $\stackrel{2}{2}$ | 3 | ${ }_{2}^{2}$ | 4 |  | 540 | 30， 000 |
| 3619 | Wahpeton． | ．do | H．G．Klepper ．．．．．．．．． | Dept．． | ， | 1 | 20 | 30 | 0 | ， | 6 | 10 |  |  | 3 | 2 | 3 | 2 | 4 | $\ldots$ | 350 | 30，000 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3620 | Aberdeen．．． | High School ．．．．．．．．．．．．． | C．F．Hanselman． | Dept．． | 1 | 0 | 8 | 12 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 3 |  |  | 10，000 |
| 3621 | Adamsville． | ．．．．do ．．．．．．．．．．．．．．．．．．．． | Edward Spencer．．．．．． | Dept．． | 1 | 0 | 23 | 12 | 0 | 0 | 1 | 0 | 1 | 3 | 4 | 1 |  |  | 4 | ．．s | 20 | 3， 000 |
| 3622 | Akron． | do | Wilbur V．Rood ．．．．．． | Dept．． | 5 | 11 | 223 | $2{ }^{\text {20 }}$ | 0 | 0 | 10 | 12 | 15 | 5 | 8 | 22 | 3 | 4 | 4 |  | 450 | 160，${ }^{\text {co }} 0$ |
| 3623 | Alliance | ．．．do | J．W．Guthrie． | Dept．． | 2 | 2 | 70 | 90 | 0 | 0 |  |  |  |  | 7 | 16 |  |  | 3 | $\cdots$ | 2， 000 | 60， 000 |
| 3624 | Alpha | Beaver Creek High | M．J．Flannery．．．．．．．． | Dept．． | 1 | 1 | 30 | 35 | ， | 0 | 2 | 1 |  |  | 4 | 5 |  |  | 4 |  | 300 | 6，000 |
| 3625 | Andover．． | High School． | R．P．Clark | Ind． | 2 | 2 | 47 | 50 | 3 | J | 4 | 8 | 5 | 10 | 2 | 3 | 1. | 2 | 4 | $\ldots$ | 300 |  |


Table 42.-Statistics of public high schools in the L'mited States for the scholastic year 1897-98-Continued.

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Table 42.-Staitistics of public high schools in the United States for the scholastic year 1897-9S—Continued.




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Table 42.-Statistics of public high schools in the Cnited States for the scholastic year 1S97-9S—Continued.


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| 3838 | Hamden Junction |  | M．E．Wilson |
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| 3839 | Hamersville ．．．． | Clark Township High school． | E．V．Stephan |
| 3840 | Hamilton． | High School ．．．．．．．．．．．． | W．P．Cope |
| 3841 | Hanging Rock |  | C．A．Woodwor |
| 3842 | Hanover | do | Everett Breks |
| 3843 | Hanoverton |  | Pert Li．Babeac |
| 3844 | Harrisburg |  | G．E．McCarty |
| 3845 | Harrison． |  | E．E．Wllis |
| 3846 | Harrisonville |  | John H．Peyt |
| 3847 | Harrisville |  | W．N．Beetham |
| 3848 | Hartford． |  | W．C．Leftingwe |
| 3849 | Hartwell |  | J．L．Trisler |
| 3850 | Haveysburg |  | Ira F．Bigony |
| 3851 | Hayesville． |  | 1）．K．Andrew |
| 3852 | Hebron |  | F．E．Slabangh |
| 3853 | Hemlock | \％． | F．P．Reed |
| 3854 | Hicksvill |  | W．A．Salie |
| 3855 | Highland | New Lexingtun Migh school． | D．S．Ferguso |
| 3856 | Hilliard | High School | II．E．Axli |
| 3857 | Holgate |  | W．H．Richa |
| 3858 | Homer | Burlington Township High School． | Ben Jo |
| 3859 | Hoytville． | High School． | F．P．Riogl |
| 3860 | Tubbard | Central High School | L．＇T．McCarin |
| 3861 | Hudson | High School | W．B．Randolp |
| 3862 | Huntsbur | do | Wm．P．Dunle |
| 3863 | Huntsvill | do | E．M．Day |
| 3864 | Huron | do | 3．B．Hall |
| 2865 | Independence |  | Geo．P．Ke |
| 3866 | Jackson |  | John R．Smith |
| 3867 | Jackson Ceute |  | Chas．A．Sagcr |
| 3868 | Jacksontown |  | W．L Atwell |
| 3869 | Jacksonville |  | Geo．W．Hixso |
| 3870 | Jamestown | Village High Sch | H．S．Lawyer |
| 3871 | Jefferson | Educational Institute | Clame S Lar |
| 3872 | Jeffersonville | High School | G．W．Hoffma |
| 3873 | Jorome | do | Z．X．Corey |
| 3874 | Jerry City |  | J．C．Buto． |
| 3875 | Jersey． | do | F．P．Houshol |
| 3876 | Jeweth | do | Geo．W．Griss |
| 3877 | Johnstown |  | G．A．Wyly，su |
| 3878 | Junction City | do | R．M．Smal |
| 3879 | Kalida．．．．．． |  | George K．Mil |
| 3880 | Kelloys Island | Central High Schoo | J．F．Hertlein |
| 3881 | Kent | High School | C．A．Niman |
| 3882 | Kenton |  | J．A．Culler |
| 3883 | Killbuck |  | I．L．Wood |
| 3884 | Kinga Creek |  | David C．Bry |

Table 42.—Statistics of public high schools in the Tnited States for the scholastic year 1897-98-Continued.



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| 3907 | Lindsey | do | C． N ．Helter． |
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| 3908 | Lisbon |  | W．H．Van Fossall ．．． |
| 3909 | Litchtield． |  | A．W．Breyley |
| 3910 | Lithopolis |  | Henry C．Bailey |
| 3911 | Lockbourne | Hamilton Township High School． | W．H．Huffiman． |
| 3912 | Lockington | High School． | J．A．Kirby |
| 3913 | Lockland．． | do | S．T．Dial |
| 3914 | Locustgrove |  | E．G．Tener |
| 3915 | Lodi． |  | 3．F．Hoover |
| 3916 | Log |  | Charles L．Boy |
| 3917 | London |  | Miss Frances Baker． |
| 3918 | Lorain | do | Elizabeth N．McCon－ nell． |
| 3919 | Loudonville | do．＊ | J．W．Scott |
| 3920 | Louisville |  | H．C．Koehler |
| 3921 | Loveland |  | O．M．Patton |
| 3922 | Lowellville |  | H．H．Bower |
| 3923 | Loyaloak | Norton High School | D．C．Cooper |
| 3924 | Lucas | High School | John P．Kramer |
| 3925 | Lucasvil | do | J．H．Fipney |
| 3926 | Lynchburg | － | U．L．Mnnce |
| 3927 | Lyons | do | J．B．Kahle |
| 3928 | Lytle | do | W．E．Keever |
| 3929 | MeArthu | do | M．A．Henson |
| 3930 | McComb | do | C．J．Foster |
| 3931 | McConnelsvil | do | H．M．Finley |
| 3932 | Macksburg | do | F．P．Wheeler |
| 3933 | Madison | do | Homer N．Kimbal |
| 3934 | Madisonvill | do | F．B．Dyor |
| 3935 | Magnolia |  | H．A．Richardson |
| 3936 | Maineville | do | R．C．Schlotman |
| 3937 | Malta． | do． | Mott H．Arnold |
| 3938 | Malvern |  | C．H．Carlisle |
| 3939 | Mancheste | do | D．S．Clinger |
| 3940 | Mansfield | do | D．C．Meek |
| 3941 | Mantua |  | Frank A．Turner |
| 3942 | Mantua St | do | D．W．McGlenen |
| 3943 | Marengo． |  | R．P．Gage |
| 3944 | Marietta | do | H．E．Smith |
| 3945 | Marion |  | Anna M．Eato |
| 3946 | Marlboro |  | H．C．Knowles |
| 3947 | Marshallvill | ．do | R．A．Leisy |
| 3948 | Marshfield |  | A．H．Dixon |
| 3949 | Martinsburg． |  | C．V．Trott |
| 3950 | Martins Ferry |  | Edward D．Meek |
| 3951 | Martinsville． |  | R．13．Fairley－ |
| 3952 | Marysville |  | L．B．Demores |
| 3953 | Massillon． |  | Williani John |
| 3954 | Maumee | do | C．E．Geve ． |

Table 42.-Statistics of public high schools in the United States for the schoiastic year 1S97-9S—Continued.



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Table 42.-Statistics of public high schools in the United States for the scholastic year 1897-9S—Continued.











TABLE 42.-Statistics of public high schools in the Tniter States for the scholastic year 189\%-98—Continued.

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TABLE 42.-Statistics of pubiic high schools in the United States for the scholastic year 1S97-9S—Continned.


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Table 42．－Statistics of public high schoots in the Lnited States for the scholastic year 1897－98—Continued．

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Table 42.-Statistics of public high schools in the United States for the scholastic year 1897-9s-Continued.


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Trable 42.-Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.


Table 42.—Statistics of public high schools in the United States for the scholastic year 1S07-28-Continned.


Table 42.—Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.


TABLE 42.-Statistics of mublic high schools in the United States for the scholastic year 1597-38-Continued.





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| Samuel J. Farri |
| Geo. C. Appleby |
| A.J. Brandon |
| F. M. Bolling |
| Walter Frankl |
| P. H. Eley |
| F. W. Chatfield, supt |
| John I3. Hamilton. |
| E. Cr. Musgrove |
| J. W. Saxon |
| Prof. B. R. Powell |
| W. W. Witt. |
| W. H. Bruce, Ph. D |
| M. V. Looney |
| J.E. Pearce |
| J. N. Ellis. |
| P.S. Halleck |
| C. W. Feuge |
| D. S. Furman |
| Davidson and Deand |
| J. M. Quarles |
| J. H. Wadkin |
| H. G. Reed |
| Mrs. T. J. Crawford |
| Herman W. Goodwi |
| W. N. Ellis |
| W. F. Doughty |
| J. W. De Shazo |
| Miss Mary Rial |
| P. IL. Bledsoe |
| J. F. Cummings |
| Thos. G. Adams |
| S. N. Chennault |
| S. H. Hickma |
| Arthur H. Colw |


Table 42.-Statistics of public high schools in the Thited States for the scholastic year 1S9\%-98-Contimied.


Table 42．—Statistics of public high schools in the Cnited States for the scholastic year 1897－9S—Continued．

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E. L. Dohoney, jr......
I. F. Scott.............
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F. V. Garrison J.I. Moreland

J. H. Horton.
G. D. Bcason. G.P. Miller
M. Z. Spohr
 C. M. Skinner
 C. C. Glenn..........
H. B. Griffin, supt.
E. O. MeNew -....
P. Worn, supt T. A. Partlow . J. McBride Justin F. Kimball
M. B. Brown ......
Table 42.-Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.


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Table 42.—Statistics of public high schools in the United States for the scholastic year 1897-98-Continued.





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High Schoor....... Edgewood High School High School* (colored).

Cumberland College..... Washington Institute
High School ...........



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Table 42.-Statistics of public high schools in the United Slates for the scholastic year 1897-9S—Continued.







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 A. W. Burton A. W. Burton
B. O. Dodge.
Edward W. Pr E. C. Roberts ..
W. H. Pearson.
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[^97]TABLE 42.-Statistics of public high schools in the United States for the scholastic year 1837-3S-Continued.


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Table 42．－Statistics of public high schools in the United States for the scholasitic ycar 189\％－98－Continued．

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TABLE 43.-Siatistics of private high sehools, endowed academies, seminaries, ${ }^{\prime}$

and other private sccondary schools for the scholastic year 1897－98．

| Religious denomina－ tion． |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  | Length of course in years． |  | -Кxexq!i u! səunโos јо ләquañ | Value of grounds， build－ ings， furni－ ture， and sci－ entific appa－ ratus． |  |
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|  |  |  | Second－ ar．jstil－ dents． |  | Elemen－ tary stu－ dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara－ tory stu－ dentsin the class that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． sical course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |  |
|  | $\frac{\stackrel{\text { g }}{\Xi}}{\text { ت }}$ |  |  |  | $\begin{aligned} & \dot{9} \\ & \text { 永 } \end{aligned}$ |  | $\stackrel{\dot{3}}{\stackrel{\text { जै }}{\text { जै }}}$ |  | 号 |  | 号 |  | $\stackrel{\stackrel{\circ}{3}}{\underset{\sim}{3}}$ |  |  |  |  |  |  | $\begin{gathered} \text { gig } \\ \text { giv } \\ \text { 島 } \end{gathered}$ |  |
| 4 | 5 | 6 | \％ | 8 |  |  | （3） | 1 131 | 1廹 | 18 | 133 | 14 | 185 | 162 | 18 | 118 | 19 | 20 | 21 | 38 |  |
| Nonsect ． | 1 | ｜ 2 | 15 | 32 | 20 | 35 | 10 |  |  |  | 0 | 5 |  | 4 |  |  | 200 | \＄2， 000 |  |
| Nonsect | 1 | 0 | 20 | 19 | 66 | 33 | 6 |  | 2 | 5 |  |  |  |  | 4 | 0 |  | 600 |  |
| Nonsect | 1 | 0 | 9 | 5 | 3 | 8 |  |  |  |  |  |  |  |  |  | 0 |  | 1， 000 | 3 |
| Nonsect | 0 | 4 | 0 | 85 | 0 | 50 |  |  |  |  | 0 | 12 |  |  | 5 |  | 300 | $15,0 \leqslant 0$ | 4 |
| Nonsect． | 1 | 0 | 18 | 3 | 0 | 0 | 7 | 3 | 6 | 0 |  |  |  |  |  | 0 | 400 | 3，500 | 5 |
| Nonsect． | 1 | 1 | 16 | 10 | 12 | 4 |  |  |  |  | 1 | 4 | 1 | 4 | 4 |  | 1，200 |  | 6 |
| Nonsect | 1 | 1 | 20 | 21 | 37 | 39 | 1 | ， | 1 | 0 | 0 | 1 |  | 0 | ， | 0 | 1，500 | 1，000 | 7 |
| Nonsect | 1 | 3 | 25 | 18 | 12 | 10 | 20 | 15 |  |  | 7 | 5 |  | ， | ， | 0 |  | －200 | 8 |
| Nonsect ． | 1 | 1 | 8 | 9 | 18 | 22 | 6 |  | 1. |  | 2 |  | 2 |  | 3 | 0 |  | 3，000 | 9 |
| Nonsect ．． | 1 | 1 | 19 | 18 | 34 | 44 | 3 | 2 |  |  | 2 | 3 | 2 | 3 | 3 | 0 |  | 800 | 0 |
| Nonsect ．－ | 2 | 2 | 50 | 40 | 15 | 15 |  |  |  |  |  |  |  |  | 4 | 0 |  | 3， 500 | 11 |
| Nonsect ．－ | 1 | 1 | 22 | 18 | 32 | 30 | 5 | 8 | 3 | 0 | 3 | 0 |  | 0 | ， |  | 60 | 2，500 | 12 |
| Nonsect ．． | 1 | 1 | 20 | 30 | 40 | 20 | 6 | 4 | 2 | 1 | 3 | 2 | 3 | 1 | 6 | 0 | 100 | 100 | 13 |
| Nonsect．． | 2 | 1 | 38 | 28 | 13 | 18 | 28 | 18 | 10 | 10 | 0 |  |  |  |  |  | 1，200 | 160，000 | 14 |
| Nonsect．． | 1 | 3 | 59 | 24 | 18 | 28 |  |  | 8 |  |  |  |  |  | 4 | 16 | 500 | 4， 100 | 15 |
| Baptist．．． | 2 | 1 | 45 | 53 | 15 | ， |  |  |  |  | 3 | 2 |  |  | 2 | 0 | 150 | 5， 000 | 16 |
| Nonsect | 1 | 2 | 55 | 0 | 2 | 0 | 15 |  | 10 | 0 |  |  |  |  |  |  |  |  | 17 |
| Nonsect ．． | 1 | 0 | 20 | 10 | 50 | 50 |  |  |  |  | 2 | 0 | 1 | 0 |  |  | 25 | 2，500 | 18 |
| Nonsect． | 1 | 1 | 30 | 50 | 0 | 0 | 0 |  |  |  | 0 | 0 |  |  |  | 0 |  | 500 | 19 |
| Nonsect．． | 1 | 1 | 21 | 15 | 51. | 43 | 2 |  | 3 | 4 |  | 0 | 0 | 0 | 2 |  | 3，645 | 2，000 | 20 |
| Meth | 1 | 1 | 10 | 15 | 25 | 30 | 2 |  |  |  | 0 | 0 |  |  | 3 | 0 |  | 3，500 | 21 |
| Nonsect | 0 | 1 | 6 | 7 |  |  | 2 | 3 | 2 | 3 | － | 0 | 0 | 0 | 3 | 0 | 25 | 1，500 | 22 |
| Nonsect | 1 | 1 | 10 | 10 | 30 | 28 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 2， 000 | 23 |
| Nonsect | 2 | 1 | 40 | 32 | 26 | 30 | 4 |  | 10 | 0 | 8 | 9 |  |  | 3 | 0 | 8，000 | 6， 000 | 24 |
| Nonsect | 5 | 2 | 3 | 15 | 5 | 41 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 3 | ） | 200 | 5，000 | 25 |
| Nonsect | 1 | 1 | 19 | 11 | 13 | 15 | 8 |  | 1 | 0 |  | 3 |  |  |  | 0 | 0 |  | 26 |
| Cum．Presb | 1 | 0 | 38 | 24 | 40 | 34 | 8 | 1 | 3 | 5 | 0 | 0 |  |  | 4 | 24 | 25 | 13， 000 | 27 |
| Nonsect | 1 | 0 | 8 | 2 | 12 | 13 |  |  |  |  |  |  |  |  |  |  |  | 500 | 28 |
| Nonsect | 1 | 2 | 30 | 40 | 40 | 60 | 2 | 3 | 10 | 15 | 2 | 7 |  |  |  | 0 | 100 | 4，000 | 29 |
| Baptist．．． | 1 | 0 | 4 | 8 | 12 | 8 |  |  |  |  |  |  |  |  |  | 0 | 12 | 2， 000 | 30 |
| Nonsect．． | 1 | 0 | 11 | 3 | 9 | 6 | 11 | 8 |  |  |  |  |  |  |  | 0 |  |  | 31 |
| Nonsect | 2 | 0 | 15 | 1 | 12 | 3 | 8 | 0 |  |  |  |  |  |  | 4 | 0 | 460 |  | 32 |
| Cong ． | 1 |  | 11 | 3 | 82 | 70 | 0 |  |  |  |  | 0 | 0 |  | 4 | 0 | 200 | 2，000 | 33 |
| Nonsect ．． | 1 | 1 | 10 | 14 | 85 | 90 |  |  |  |  | 0 | 0 | 0 |  | ， |  | 200 | 500 | 34 |
| Nonsect | 1 | 1 | 20 | 9 | 41 | 35 | 2 |  |  |  | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1，500 | ， |
| Nonsect | 6 | 0 | 98 | 0 | 0 | 0 | 0 |  | 0 |  | 7 | 0 |  |  |  | 98 | ．．．． | 50，000 | 36 |
| Baptist | 1 | ${ }_{6}^{1}$ | 16 | 13 | 14 | 32 | 0 | 6 | 3 |  |  |  |  |  | ， | 0 | 3．．．． | 2，500 | 37 |
| R．C． | 0 | 6 | 0 | 23 | 0 | 24 | 0 |  | 0 | 0 | 0 | 7 | 0 | 0 | 3 | 0 | 3,500 |  | 38 |
| Nonsect | 0 | 2 | 0 | 10 | 0 | 36 | 0 | 10 |  |  | 0 | 0 |  |  | 4 | 0 |  | 1，000 | 39 |
| R．C | 0 | 1 | 0 | 16 | 0 | 164 |  |  |  |  | 0 | 4 |  |  | 4 |  |  | 1，000 | 40 |
| Nonsect | 1 | 1 | 8 | 17 | 17 | 11 |  |  |  |  | 0 | 4 | 0 | 4 | 5 | 0 | 0 | 1，200 | 41 |
| R．C．．．．．． | 0 |  | 0 | 70 | 0 | 50 | 0 |  | 0 | 0 | 0 | 0 |  | 0 | 4 | 0 | 500 | 200，000 | 42 |
| Nonsect ．－ | 4 | 0 | 72 | 0 | 14 | 0 | 3 |  | 16 | 0 | 0 | 0 |  |  |  | 0 |  | 8．000 | 43 |
| Cong ．．．． | 1 | 0 | 15 | 16 | 45 | 37 | 0 | 0 | 4 | 2 | 0 | 0 |  |  | 4 | 0 | 700 | 2，575 | 44 |
| Nonsect | 1 | 0 | 13 | 11 | 10 | 7 | 2 | 1. | 0 | 0 | 0 | 0 |  | 0 | 4 | 0 |  |  | 45 |
| Nonsect | 0 | 1. | 6 | 8 | 19 | 17 | 2 |  | 3 |  |  |  |  |  | 4 | 0 | 0 | 1，500 | 46 |
| M．E．So ．－ | 1 | 1 | 25 | 20 | 25 | 20 | 6 | 8 |  |  |  |  |  |  | 4 |  |  | 3， 000 | 47 |
| Cum．Presb | 2 | 1 | 17 | 23 | 43 | 47 |  |  |  |  | 0 | 2 |  |  | 5 |  | 203 | 25，000 | 48 |
| Nonsect ．． | 1. | 1 | 12 | 16 | 18 | 14 | 8 |  |  |  |  |  |  |  |  | 0 |  | 600 | 49 |
| Nonsect ．． | 2 | 1 | 12 | 10 | 50 | 48 | 10 |  |  |  | 0 | 0 | 0 |  |  | 0 |  | 500 | 50 |

Table 43.-Statistics of private high schools, endoued academies, seminaries


[^98]and other private secondary schools for the scholastic year 1897－3S－Continued．

| Religious denomina－ tion． | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  | Length of courso in years. |  | -א.texq!! u! semnjos jo xəqumn | Value of grounds， build． ings， furni－ ture， and sei－ entitic appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Sec. } \\ \text { ond- } \\ \text { ary } \\ \text { in- } \\ \text { struct. } \\ \text { ors. } \end{gathered}$ |  | Second－ ary sta－ dents． |  | Elemen－ tary stu－ dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara－ torystu－ dentsin theclass that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． sical course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & \text { 号 } \\ & \text { 馬 } \end{aligned}$ |  |  |  | $\stackrel{\dot{9}}{5}$ |  | $\stackrel{\stackrel{3}{5}}{\stackrel{y}{\mathrm{~s}}}$ |  | $\begin{gathered} \text { ज゙ } \\ \text { ज゙ञ } \end{gathered}$ |  | $\begin{gathered} \dot{9} \\ \text { 初 } \end{gathered}$ |  |  |  |  |  |  |  | $\stackrel{\oplus}{\text { ® }}$ |  |  |
| 4 | 5 | $4{ }^{\circ}$ | 7 | 8 |  |  | （3） | 1818 | 111 | 19 | 18 | 且遥 | 15 | 16 | 17 | 18 | 188 | 23 | 21 | $8{ }^{2}$ |  |
| Nonsect． | 1 | $1{ }^{1}$ | 18 | 16 | 4 | 2 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |  | 0 |  | \＄600 | 51 |
| Nonsect． | 2 | 3 | 63 | 63 | 140 | 75 | 40 | 30 | 12 | 8 | 2 | 1 |  |  | 4 |  | 300 | 20，000 | 52 |
| Nonsect． | 2 | 0 | 40 | 39 | 20 | 25 | 2 | 4 | 3 | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 600 | 53 |
| Nonsect． | 2 | 1 | 30 | 10 |  | －．－． | 0 | 0 |  |  | 0 | 0 | 0 | 0 |  | 0 | 100 | 6，500 | 54 |
| Nonsect． | 1 | 11 | 11 | 11 | 36 | 32 |  |  |  |  |  | 0 | 0 | 0 |  | 0 | 50 | 4，000 | 55 |
| Nonsect．． | 2 | 21 | 15 | 28 | 20 | 27 |  |  | 3 |  |  |  |  |  | 4 | 0 |  | 5， 000 | 56 |
| Cong ．．．．． | ， | 32 | 20 | 26 | 199 | 277 | 15 | 1 | ， |  | 0 | 3 |  | － |  | 0 | 2，000 | 126，992 | 57 |
| Nonsect | 2 | 21 | 29 | 24 | 45 | 47 | 9 | 7. | 7 | 4 | 4 | 3 | 3 | 4 |  | 0 |  | 2，000 | 58 |
| Nonsect．． | 1 | 10 | 15 | 5 | 20 | 25 | 10 | 5 | 0 | 0 | 0 | 0 |  |  | 4 | 0 |  | 1，500 | 59 |
| Nonsect ．． | 0 | 1 | 0 | 10 | 0 | 20 |  |  |  |  |  |  |  |  |  |  |  |  | 60 |
| Nonsect ． |  |  | 50 | 0 | 35 | 0 | 20 | 10 | 10 | 0 |  |  |  |  | 4 | 30 | 500 | 10，000 | 61 |
| Nonsect． | 2 | 1 | 20 | 4 | 15 | 3 |  |  |  |  | 4 | 0 | 4 | 0 |  | 24 | 700 | 15，000 | 62 |
| Nonsect． | 2 | 2 | 35 | 32 | 15 | 38 | 35 | 32 |  |  |  | 0 | 0 | ， | 4 |  |  | 5， 000 | 63 |
| Nonsect | 1 | 12 | 20 | 15 | 20 | 20 |  |  | 3 |  |  | 0 | 0 | 0 |  | 0 | 0 | 500 | 64 |
| Nonsect | 1 | 1 | 42 | 38 | 36 | 32 | 8 | 6 | 3 | 2 |  | 1 | 5 | 1. | 4 | 0 | 1，000 | 3，500 | 65 |
| M．E．So ． | 1 | 1 | 18 | 19 | 37 | 22 |  |  |  |  | 1 | 1 | 1 | 1. | 4 | 0 | 34 | 1，300 | 66 |
| Christian． | 2 | 20 | 24 | 19 | 43 | 58 | 0 | 0 | 2 | 1 | 1 | 0 | 1 | 0 |  | 0 | 250 | 8，000 | 67 |
| A．M．E．．． | 1 | 1.1 | 9 | 12 | 23 | 30 | 1 | 0 | 0 | 0 |  |  |  | ． | － | 0 | 115 | 5，000 | 68 |
| Nonsect． | 2 | 21 | 14 | 11 | 69 | 55 |  |  |  |  |  |  |  |  | 3 | 0 | 25 | 2， 500 | 63 |
| Nonsect | 2 | 1 | 64 | 57 | 45 | 38 | 2 | 2 | 30 | 25 | 0 | 0 | 0 | 0 | 4 | 0 | 54 | 3,000 | 70 |
| Nonsect． | 2 | 2 | 30 | 20 | 20 | 35 | 5 | 4 | 3 | 2 | 5 | 4 | 3 | 4 | 4 | 0 | 550 | 5，000 | 71 |
| Nonsect ．． | 1 | 10 | 18 | 11 | 27 | 27 |  |  |  |  |  | 3 | 2 | ， | 2 | 0 |  |  | 72 |
| M．E．So ． | 2 | 2 | 40 | 35 | 22 | 29 | 20 | 15 | 12 | 10 |  | 2 | 4 | ， | 4 | 0 | 500 | 3，600 | 73 |
| Nonsect | 1 | $1{ }^{\text {a }}$ | 10 | 8 | 21 | 4.1 |  |  |  |  | 0 | 0 | 0 | － |  | 0 | 35 | 600 | 74 |
| Nonsect | 2 | 1 | 13 | 15 | 25 | 29 | 1 |  |  |  | ， | 4 | 0 | 4 | 3 | 0 | 0 | 4，000 | 75 |
| Nonsect | 1 | 1 | 10 | 17. | 20 | 24 | 6 | 5 |  |  |  |  |  |  | 3 | 0 |  | 8，000 | 76 |
| Baptist．． | 3 | 3 | 40 | 20 | 51 | 56 | 3 | 0 | 1 | 0 | 0 | 1 |  |  | 4 | 50 | 500 | 25,000 | 77 |
| Baptist．．． | 1 | 1.1 | 2 | 40 | 40 | 21 | 1 | 0 | 0 | 0 | I | 0 | 1 | 0 |  | 0 | 40 | 2，000 | 78 |
| Nonsect ．． | 1 | 1 | 6 | 13 | 44 | 46 | 0 | 1 |  |  |  |  |  |  | 4 |  | 250 | 3， 000 | 73 |
| Nonsect | 1 | 1 | 31 | 41 | 7 | 2 | 4 | 2 | 1 | 0 | 4 | 2 | 4 | 2 | 4 | 0 | 200 | C， 020 | 80 |
| Nonsect ．． | 0 | － 2 | 0 | 15 | 0 | 25 | 0 | 12 | 0 | 3 |  | 0 | 0 | 0 | 4 | 0 | 30 | 1，500 | 81 |
| Nonsect | 2 | 21 | 4.4 | 39 | 5 | 8 | 5 | 4 | 4 | 2 | 1 | 0 | 1 | 0 | 4 | 0 | 500 | 3， 000 | 82 |
| Nonsect．． | 2 | 2 | 65 | 50 | 57 | 50 |  |  |  |  | 10 |  |  |  | 2 |  | 400 | 6， 000 | 83 |
| Nonsect | 0 | 0 | 25 | 10 | 15 | 20 | 8 | 3 | 9 | 2 |  |  |  |  | 5 | 0 | 600 | 25，000 | 84 |
| Cong ．．．．． | 3 | 3 1 | 55 | 57 | 0 | 0 | 2 | 1 |  |  | 9 | 6 | 2 | 1 | 4 | 28 | 1，600 | 22，000 | 85 |
| Nonsect ．． | 4 | 40 | 49 | 0 | 23 | 0 |  |  |  |  |  |  |  |  |  |  |  | 50， 000 | 86 |
| Nonsect．． | 3 |  | 19 | 20 | 60 | 65 | 2 | 3 |  |  |  |  |  |  | 5 | 0 | 100 | 500 | 87 |
| Friends．．． | 3 | 3 | 12 | 15 | 73 | 65 |  |  |  |  | 0 | 1 | G | 1 | 4 | 0 | 1，200 | 27，000 | 88 |
| R．C．．．．．． | 6 | 60 | 30 | 0 | 0 | 0 | 10 | 0 | 10 | 0 | 0 | 0 | 0 | ， |  | 0 | 3， 000 |  | 88 |
| Nonsect．． | 3 | 30 | 35 | 38 | 70 | 60 |  |  | 10 | 12 |  | 0 | 0 | 0 | 2 | 0 | 300 | 5， 000 | 90 |
| IR．C | 0 | 2 | 0 | 8 | 30 | 40 | 0 | 8 |  |  | 0 | 1 | 0 | 1 | 4 |  |  |  | 91 |
| R．C．．．．．． | 0 | 2 | 0 | 20 | 0 | 100 |  |  |  |  |  |  | 0 | 0 | 3 |  |  |  | 92 |
| Nonsect．． | 5 | 5 | 37 | 0 | 13 | 0 | 2 | 0 | 17 | 0 | 6 | 0 | 6 | 0 | 4 | 0 |  | 8，000 | 93 |
| Cong | 7 | 1 | 66 | 1 | 23 | 0 | 6 | 0 | 29 | 0 | 14 | 0 | 14 | 0 | 4 | 67 | 1，200 | 150，000 | 94 |
| Nonsect ．． | 6 | 6 | 45 | 0 | 0 | 0 | 4 | 0 | 41 | 0 | 16 | 0 | 15 | 0 | 4 | 0 | 2，000 | 20，000 | 95 |
| Epis ．．．．．．． |  | 1． 13 | 0 | 52 | 11 | 32 | 0 | 12 | 0 | 1 | 0 | 12 | 0 | 5 | 4 | 0 | 1，700 | 30，000 | S6 |

Table 43.-Statistics of private high schools, endowed academies, seminaries,

and other private secondary schools for the scholastic year 189\%-99-Continued.

a See University table for statistics of Chaffey College.

TAble 43.-Statistics of private high schools, endowed academies, seminaries,

and other private secondary schools for the scholastic year 1897－98－Continued．

| Religious denomina－ tion． | Sec－ ond－ ary in－ struct ors． |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Value of grounds， build－ ings， furni－ ture， and sei－ entifie appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second－ ary sta－ dents． |  | Elemen－ tary stu－ dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara－ tory stu－ deuts in the class that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． sical course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | $\stackrel{\dot{9}}{\underset{y}{\leftrightarrows}}$ |  | $\frac{\stackrel{0}{5}}{\underset{\sim}{5}}$ |  | 舞 |  | $\begin{aligned} & \text { 采 } \\ & \text { 枈 } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
| 4 | 3 | 6 | \％ | 8 |  |  | （1） | 14 | 11 | 旦2 | 面號 | 1景 | 15 | 16 | 178 | 直： | 19 | 13 | P1 | 9\％ |  |
| Nonsect ．－ | 2 | 10 | 0 | 68 | 12 | 62 | 0 |  |  |  | 0 |  | 0 | 4 |  | 0 |  | \＄40， 000 | 136 |
| Nonsect．． | 2 | 3 | 0 | 20 | 0 | 20 | 0 | 2 |  |  | 0 | 0 |  | －．． | 3 | 0 | 500 |  | 137 |
| R．C ． | 5 | 0 | 73 | 0 | 47 | 0 | 26 | 0 |  |  | 2 | 0 |  |  |  |  | 300 |  | 138 |
| R．C | 0 | 1 | 0 | 7 | 0 | 93 |  |  |  |  |  |  |  |  | 3 |  |  |  | 139 |
| R．C ．．．．．． | 0 | 2 | 0 | 40 | 50 | 63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |  |  | 140 |
| P．E | 1 | 2 | 2 | 6 | 3 | 10 |  |  |  |  | 0 | 1 |  |  | 3 | 0 |  |  | 141 |
| Epis | 7 | 0 | 55 | 0 | 80 | 0 | 8 | 0 | 20 | 0 | 14 | 0 | 10 | 0 | 4 | 55 | 1，000 |  | 142 |
| R．C | 0 | 2 | 0 | 45 | 0 | 20 |  |  |  |  | 0 |  |  |  | 4 |  |  | 100， 000 | 143 |
| Presby ．．． | 8 | 2 | 56 | 0 | 29 | 0 | 8 | 0 | 40 | 0 | 11 | 0 | 8 | 0 | 4 | 56 | 2，000 | 50， 000 | 144 |
| Nonsect ．－ | 4 | 0 | 12 | 0 | 26 | 0 | 3 | 0 | 11 | 0 |  | 0 | 2 | 0 | 4 | 0 | 2，000 | 45， 000 | 145 |
| Nonsect | 2 | 2 | 15 | 8 | 14 | 8 | 3 | 0 | 13 | 0 | 3 | 2 | 3 | 2 | 4 | 0 | 400 | 7，000 | 146 |
| R．C | 0 | 2 | 0 | 16 | 0 | 134 | 0 | 0 | 0 | 0 | 0 | 0 |  | 0 | 3 | 0 |  |  | 147 |
| R．C．．．．．． | 0 | 5 | 0 | 20 | 0 | 180 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 600 | 50，000 | 148 |
| R．C ．．．．．．． | 0 | 4 | 0 | 18 | 0 | 7 |  |  |  |  | 0 | 3 |  |  |  |  |  |  | 149 |
| R．C | 0 | 5 | 0 | 40 |  |  |  |  |  |  | 0 | 2 |  |  | 4 | 0 | 500 |  | 150 |
| R．C | 0 | 3 | 0 | 37 | 32 | 269 |  |  |  |  | 0 | 7 |  |  | 4 | 0 |  |  | 151 |
| R．C | 1 | 0 | 28 | 0 | 122 | 0 |  |  |  |  | 3 | 0 |  |  | 3 | 0 |  |  | 152 |
| R．C | 0 | 3 | 16 | 27 | 180 | 207 | 16 | 27 |  |  |  | 6 |  |  | 3 | 43 |  |  | 153 |
| R．C | 0 | 4 | 0 | 18 | 0 | 60 |  |  |  |  | 0 | 2 |  |  |  |  | 780 |  | 154 |
| R．C | 0 | 2 | 5 | 11 | 23 | 26 | 0 | 3 | 0 | 0 |  |  | 0 | 0 | 4 | 0 |  | 40， 000 | 155 |
| R．C．．．．．． | 0 | 5 | 0 | 31 | 0 | 14 | 0 | 5 | 0 | － 5 | 0 | 0 |  |  |  |  |  |  | 156 |
| Presb． | 2 | 2 | 12 | 7 | 13 | 1 | 2 | 0 | ， | 1 | 5 | 0 | 1 | 0 | 4 | 0 | 2，700 | 12， 686 | 157 |
| R．C | 1 | 1 | 23 | 28 | 324 | 272 | 3 | ， |  |  |  |  |  |  |  |  |  |  | 158 |
| Epis．．．．．． | 4 | 0 | 19 | 0 | 2 | 0 | 2 | ， | 8 | 0 | 4 |  | 4 | 0 |  | 19 | 1，600 | 150,000 | 159 |
| R．C | 1 | 5 | 0 | 29 | 0 | 40 |  |  |  |  | 0 | 3 |  |  | 4 |  | 1，590 |  | 160 |
| Epis．．．．．． | 5 | 1 | 32 | 0 | 10 | 0 | 15 | 0 | 9 | 0 | 0 | 12 | 0 | 8 | 4 | 0 | 1，000 |  | 161 |
| Nonsect．． | 0 | 5 | 0 | 35 | 1 | 51 | 0 | ， |  |  | 0 | 2 | 0 | 1 | 4 | 0 |  |  | 162 |
| Nonsect．． | 2 | 1 | 33 | 0 | 22 | 0 | 7 | 0 | 16 | 0 | 10 | 0 | 10 | 0 | 5 | 0 | 2，000 | 28，000 | 163 |
| Nonsect．． | 6 | 1 | 46 | 0 | 29 | 0 | 25 | 0 |  |  | 3 | 0 | ， | 0 | 5 | 0 | 850 | 1，600 | 164 |
| Nonsect ． | 2 | 3 | 10 | 0 | 15 | 0 | 5 | 0 | 5 | 0 |  |  |  |  |  | 0 | 350 |  | 165 |
| P．E | 3 | 0 | 45 | 0 | 9 | 0 | 9 | 0 | 26 | 0 | 12 | 0 | 9 | 0 | 4 | 45 | 400 | 50，000 | 166 |
| Nonsect．． | 3 | 3 | 47 | 53 | 100 | 109 | 3 | 8 | 3 | 0 | 3 | 10 | 1 | 4 | 4 | 0 | 2，750 | 70，000 | 167 |
| Nonsect．． | 1 | 1 | 25 | 30 | 0 | 0 | 5 | 4 |  | － | 3 | 8 | 3 | 4 | 4 | 0 | 450 | 5，000 | 168 |
| Nonsect．． | 1 | 1 | 10 | 9 | 2 | 1 | 3 | 0 | 1 | 0 |  | 0 | 1 | 0 | 4 | 0 | 50 | 40，000 | 169 |
| Nonsect．． | 1 | 0 | 15 | 6 | 2 | 2 | 2 | 0 | 0 | 0 | ， | 0 | 2 | 0 | 4 | 0 | 297 |  | 170 |
| Nonsect ．． | 1 | 2 | 8 | 12 | 10 | 0 | 1 | 0 |  |  |  |  |  |  | 4 | 0 | 100 | 2，000 | 171 |
| Nonsect ．－ | 1 | 1 | 6 | 13 | 2 | 1 | 4 | 2 |  |  | 3 | 1 | 3 | 0 | 4 | 0 | 2， 500 | 20， 000 | 172 |
| Nonsect．－ | 0 | 10 | 0 | 80 | 0 | 30 |  |  |  |  |  |  |  |  |  |  | 3，000 |  | 173 |
| Nonsect ．． | 3. | 1 | 21 | 44 | 13 | 17 | 0 | 0 | 4 | 5 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 4，000 | 174 |
| Nonsect．． | 3 | 0 | 10 | 8 | 27 | 10 | 8 | 2 |  |  | 2 | 0 |  |  | 4 |  | ．．－ | 5， 000 | 175 |
| Nonsect．． | 1 | 1 | 3 | 3 | 4 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 6，000 | 176 |
| Epis ．．．．．． | 0 | 6 | 0 | 21 | 0 | 0 |  |  |  |  | 0 |  |  |  |  |  | 1，000 |  | 177 |
| Cong ．．．．． | 8 | 8 | 107 | － | 0 | 0 | 68 | 0 | 39 | 0 | 26 | 0 | 26 | 0 | 4 | 0 | 1， 091 | 250， 000 | 178 |
| Nonsect ．． | 1 | $1 \begin{aligned} & 4 \\ & 6\end{aligned}$ | 1 | 28 20 | 8 | 4 | 1 |  |  |  |  |  |  |  |  |  | 500 |  | 179 180 |

Table 43.-Statistics of private high schools, endowed academies, seminaries,

|  | State and post-office. | Name. | Principal. |
| :---: | :---: | :---: | :---: |
|  | 1 | $\mathfrak{2}$ | 3 |
|  | connecticut-continucd. |  |  |
| 181 | Mystic | Mystic Valley English and Clas- | John Knight Bucklyn |
| $\begin{aligned} & 182 \\ & 182 \end{aligned}$ | New Canaan <br> New Haven (18 Insurance | Now Canaan Institut | Mrs. E.F. Ayr Theo. B. Wilso |
|  | Building). |  |  |
| 184 185 | New Haven (High st.) ..... | Hopkins Grammar School Johnstone's (Miss) School | George L. Fox, rector........ |
| 186 | New Haven ( 57 Elm st.). | Orton and Nichols (Misses) School. | Rebecca Orton a |
| 187 | New Haven (56 Hillhouse | West End Institute, boarding and day school for girls. | Mrs. and Miss Cady |
| 188 | New Haven (33 Wall st.) .- | Whedon's (Miss) School for Girls | Miss Susan H. Whedon |
| 180 | New Haven (424 Temple st.) | Willard's (Miss) School for Girls.. | Miss Charlotte |
| 191 |  | Bukeley schoo- ${ }^{\text {Williams }}$ | Colin S. Buell |
| 192 | New Milford | Ingleside School. | Mrs. William D. Black |
|  |  | Rectory School. | Rev. Hayues L. Ever |
| 195 | New Preston | Upson Seminary... | Rev. Henry Ups H.H. Hovt. |
| 196 | Norfolk. | The Roubins School | Howard W. Cart |
| 197 | Northst | Edgar Mheeler Schoon | Miss Counelia F A Baird |
| 199 | Norwalk (Hillside) | Mead's (Mrs.) School for Girls | Mrs. Melville Emory M |
|  | Norwalk. ${ }^{\text {a }}$ - | Norwalk Preparatory Sc | Carl A. Harstrom, A. |
| 202 | Pomiret ................. | Pomfret School ........ | Wm. Beach olmstead |
|  | Putnam | Notre Dame A cademy |  |
| 205 | Reddin, |  | Miss F. C. Shepari |
| 206 | Saybrook | Mclean Seminary ............ | Johm B. McLean |
| 207 | Stamford | Aiken's (Miss) School for Young | Mrs. Harriet B. E. D |
| 208 | - ${ }^{\text {a }}$ do do .-................ | King's School for Boys. | Hiram U. King -............. |
| 20 | Stamford (5 and 7 Willow st.). | Low's (Miss) Boarding School | Miss Low and Miss Heywood. |
| 210 | Suffield. | Connecticut Literary Institution. | Harry L. Thompson, |
| ${ }_{212}^{211}$ | Washingtou | Rosemary Hall | Miss Caroine Ruait |
| 213 | Waterbury | Congregation de Notre Dam | Sister St. Stanislaus |
| 214 |  | St. Margaret's Sc | Miss Mary R. Hilla |
|  | Watertown | The rat schoo | Horace 1 |
| 216 | Westport | Staples Hig | Henry S. Pratt |
| 217 | Wilon | Wiiton Academy | Cawara Olmstead |
| 218 | Wininste | Gilbert School*............ | John Eastman Clarke, Pli. ${ }^{\text {a }}$. |
| 220 | Woodbury | Parker Academy | Hamilton Byron Moor |
| 221 | Woodstock | Woodstock Academy... | E. R. Hall, A. E . .... |
|  | delaware. |  |  |
| ${ }_{222}$ | Dover | Wilmington Conference Seminary | W. L. Gooding |
| ${ }_{224}^{223}$ | Wilmingtou | Friends School | Isaac T. Johnson. |
|  | district of columbia. |  |  |
| 225 |  | The Linthicum Institute | C. Balinger |
| 226 | Washington (Maryland ave. and 8th ist.SW.). | Academy of the Sacred He | Sister Mary Wilfrid, O.S.D.. |

and other private secondary schools for the scholastic year 1897-98-Continued.


TABLE 43.-Statistics of private high schools, endowed academics, seminaries,

and other private secondary schools for the scholastic year 189\％－3S－Continued．

| Religious denomina－ tion． | $\begin{aligned} & \text { Sec- } \\ & \text { ond- } \\ & \text { ary } \\ & \text { in- } \\ & \text { struct- } \\ & \text { ors. } \end{aligned}$ |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  | －Il！up Sxeq！！！ui u！dequmn | Number of volumes in library. | Value of grounds， build－ ings， furni－ ture， and sci－ entitic арра－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second－Elemen ary stu－tary stu－ dents．dents． |  |  |  | Preparing for collcge． |  |  |  | Gradu ates in 1898. |  | College prepara－ tory stu－ dents in the class that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas－ <br> sical course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | $\stackrel{\dot{9}}{\text { 텍 }}$ |  | $\frac{\stackrel{0}{5}}{\underset{\text { g }}{4}}$ |  | $\begin{aligned} & \dot{3} \\ & \text { 菏 } \end{aligned}$ |  |  |  |  |  | $\begin{aligned} & \stackrel{9}{5} \\ & \frac{5}{7} \end{aligned}$ |  | $\stackrel{\dot{\oplus}}{\stackrel{\oplus}{\pi}}$ |  |  |
| 4 | 5 | 6 | 7 | 8 | （1） | 10 | 1建 | 19 | 13 | 1迷 | 13 | 16 | 且8 | 1S | 19 | 8 81 | ${ }_{2} 1$ | 2 m |  |
| R．C | 0 | 10 | 0 | 70 | 0 | 20 |  |  |  |  | 0 |  | 0 | 0 |  |  |  |  | 227 |
| Meth | 2 | 2 | 1 | 22 | 2 | 5 | 0 | 2 |  |  | 0 |  |  |  | 5 | 0 | 500 |  | 228 |
| Nonscet ．－ | 1 | 1 | 45 | 0 | 15 | 0 | 15 | 0 | 10 | 0 | 14 | 0 | 8 |  | 4 | 0 | 400 |  | 229 |
| Nonsect ．－ | 2 | 1 | 7 | 5 | 3 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 4 | 0 |  |  | 230 |
| Nonsect | 2 | 8 | 34 | 33 | 84 | 40 | 3 | 2 | 7 | 3 | 2 | 5 | 2 | 3 | 4 | 0 | 500 | \＄65， 000 | 231 |
| Nonsect ．． | 5 | 15 | 0 | 45 | 0 | 0 | 0 | 3 |  |  | 0 | 2 | 0 | 2 |  |  |  |  | 232 |
| R．C | 0 | 7 | 0 | 55 | 0 | 75 |  |  |  |  | 0 | 6 |  |  | 4 |  |  |  | 233 |
| Nonsect．． | 0 | 14 | 0 | 40 | 0 | 15 |  |  |  |  | 0 | 10 | 0 | 1 |  |  | 2，00u |  | 234 |
| Nonsect ．－ | 0 | 4 | 0 | 80 | C | 45 | 0 | 5 |  |  | 0 | 13 |  |  |  |  | 2，000 |  | 235 |
| Nonscet | 4 | 0 | 25 | 0 | 8 | 0 | 6 | 0 | 10 | 0 | 5 | 0 | 5 | 0 | 4 | 0 | 1，000 |  | 236 |
| Nonsec | 0 | 5 | 0 | 16 | 0 | 11 |  |  |  |  | ， | 0 | 0 |  | 4 | 0 | 400 | 300 | 237 |
| R．C | 2 | 3 | 0 | 29 | 35 | 121 | 0 | 3 | 0 | 2 | 0 | 3 | 0 |  | ， | 0 | 1，200 |  | 238 |
| R．C | 6 | 0 | 73 | 0 | 42 | 0 | 73 | 0 | 0 | 0 | 10 | 0 | 10 | 0 | 4 | 0 | 3，500 | 150， 000 | 239 |
| R．C | 0 | 4 | 0 | 30 | 0 | 520 | 0 | 0 | 0 |  | 0 | 1 |  |  |  |  | 3,000 |  | 240 |
| Nonsect ．－ | 3 | 0 | 23 | ， | 11 | 0 | 7 | 0 | 16 | 0 | 3 | 0 | 3 | 0 |  | 0 |  |  | 241 |
| Nonsect．． | 0 | 15 | 0 | 54 | 0 | 6 |  |  |  |  | 0 | 6 |  |  |  |  | 2，000 | 125， 000 | 242 |
| Bapt． | 4 | 5 | 52 | 41 | 27 | 21 | 17 |  |  |  |  | 13 | 4 |  | 4 | 52 | 2，000 | 60，000 | 243 |
| P．E | 0 | 2 | 0 | 15 | 0 | 40 |  |  |  |  | 0 | 1 |  |  |  |  |  | 10，000 | 214 |
| A．M．E．．． | 1 | 1 |  | 7 | 47 | 39 | 0 | 0 | 0 |  |  |  | 0 | 0 | 4 | 0 | 109 | 25，000 | 245 |
| R．C | 0 | 2 | 0 | 26 | 56 | 135 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 300 | 50，000 | 246 |
| R．C | 0 | 2 | 0 | 23 | 153 | 429 |  |  |  |  | 0 | 2 |  |  |  |  | 300 | 75， 000 | 247 |
| P．C |  | 5 | 0 | 14 | 8 | 9 | 0 | 2 |  |  |  |  |  |  |  |  | 300 | 10，000 | 248 |
| R．C | 0 | 4 | 10 | 39 | 247 | 326 | 3 | 5 |  |  | 2 | 3 |  |  | 4 | 0 | 1，000 | 40， 000 | 24.9 |
| Bapt．． | 1 | 4 | 66 | 44 | 65 | 27 | 5 | 2 |  |  | 7 | 6 | 7 | 6 | 3 | 0 | 300 | 3,000 | 250 |
| Nonsect | 0 | 4 | 0 | 25 | 0 | 35 |  |  |  |  | 0 | 5 | 0 | 5 |  |  | 600 |  | 251 |
| Bapt． | 1 | 2 | 24 | 19 | 77 | 101 | 2 | 2 |  |  | 2 | 3 |  |  | 4 | －．－－ | 212 | 10，000 | 252 |
| Cong ．－．．． | 2 | 1 | 10 | 10 | 103 | 181 | 10 | 10 |  |  | 1 | 3 | 1 | 3 | 3 | 0 | 125 | 4，000 | 253 |
| Bapt．－．．．． | 0 | 9 | 0 | 53 | 0 | 397 |  |  | 0 | 6 | 0 | 8 | 0 | 0 | 4 | 0 | 3，300 | 160， 000 | 254 |
| Nonsect．． | 1 | 7 | 0 | 106 | 0 | 53 | 0 |  |  | ．．． | 0 | 18 | 0 | 4 | 4 | 0 | 3， 000 | 40， 000 | 255 |
| Bapt．． | 1 | 1 | 78 | 54 | 116 | 52 | 10 | 11 | 7 | 9 | 6 | 7 | 0 | 0 | 4 | 0 |  | 10， 000 | 256 |
| Nonsect | 5 | 0 | 101 | 0 | 0 | 0 |  |  |  |  | 0 | 13 |  |  | 4 | 101 |  | 75， 000 | 257 |
| R．C ．．．．．． | 0 | 4 | 0 | 32 | 0 | 153 |  |  |  |  | 0 | 5 | 0 | 3 | 4 |  |  |  | 258 |
| Nonsect．． | 1 | 2 | 14 | 7 | 41 | 53 | 4 | 3 | 7 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 1，200 | 7， 200 | 259 |
| M．E．So ．． | 1 | 1 | 17 | 24 | 33 | 30 | 3 | ， |  |  | 3 | 1 | 3 | 1 |  |  |  |  | 260 |
| Meth | 1 | 0 | 5 | 5 | 75 | 43 |  |  |  |  | 0 | 0 | 0 | 0 | 3 | 0 | 200 | 1，500 | 261 |
| Nonsect．． | 2 | 2 | 30 | 24 | 55 | 56 | 5 |  |  |  |  |  |  |  | 4 |  | 350 | 1，500 | 262 |
| Nonsect．． | 1 | 1 | 26 | 18 | 57 | 73 | 4 |  |  |  |  |  |  |  |  |  |  | 1，600 | 263 |
| Nonsect．．． | 1 | 1. | 10 | 40 | 20 | 20 | 2 | 6 | 1 | 0 | 0 | 6 | 3 | 2 | 4 | 0 | 1，000 | 8， 000 | 264 |
| Nonsect ．． |  |  | 17 | 13 | 62 | 40 |  | ．．．． | 1 | 3 | ， | 2 | 1 | ， | 3 | 0 | 1，000 | 25， 000 | 265 |

TABLE 43.-Statistics of private high schools, endowed academies, seminaries,


[^99]and other private secondary schools for the scholastic year 189\％－95－Continued．

| Religious denomina－ tion． | $\begin{gathered} \text { Sec- } \\ \text { ond } \\ \text { ary } \\ \text { in- } \\ \text { struct. } \\ \text { ors. } \end{gathered}$ |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  | Number in military drill． | Number of volumes in library. | Value of grounds， build－ ings， furni． ture， and sci－ entific appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second． ary stu－ dents． |  | Elemen－ tarystu． dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara－ tory stu－ dents in the class that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas－ sical course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{gathered} \text { 会 } \\ \text { 気 } \end{gathered}$ |  |  |  | $\begin{aligned} & \text { 总 } \\ & \text { 젹 } \end{aligned}$ |  | 俞 |  | $\begin{aligned} & \text { 感 } \\ & \text { ज } \end{aligned}$ |  | 鸰 |  | $\frac{0}{5}$ |  |  |  |  |  | $\frac{\dot{0}}{\sqrt{\pi}}$ |  |  |
| 4 | 5 | 6 | ＇97 | § |  |  | 3 | 真（1） | 直景 | 148 | 18 | 14 | 13 | 16 | 17 | 18 | 19 | 38 | 2\％ | ほ |  |
| Nonse | 1 | － 1 | 13 | 20 | 51. | 52 | 3 | 2 |  |  | 0 | 0 |  |  |  |  |  |  | 266 |
| Bapt | 1 | 1 | 19 | 21 | 54 | 65 | 8 |  | 11 | 16 | 5 | 3 | 5 | 3 | 3 | 38 |  | \＄25， 000 | 267 |
| Nonsect | 0 | 1 | 8 | 13 | 13 | 6 |  |  |  |  | 0 | 0 | 0 |  |  |  |  |  | 268 |
| Nonsect | 1 | 1 | 15 | 30 | 40 | 39 | 5 | 5 | 2 | 3 | 2 | 4 | 2 | 4 | 3 | 0 |  | 5，000 | 269 |
| Nonsect | 1 | 1 | 42 | 14 | 34 | －38 | 42 | 14 |  |  | 0 | 0 | 0 | 0 |  | 0 |  | 2，000 | 270 |
| Nonsect | 1 | 0 | 15 | 0 | 10 | － |  |  |  |  |  |  |  |  | 4 | 0 | 150 | 1，000 | 271 |
| Presb． | 0 | 11 | 0 | 113 | 0 | 107 |  |  |  |  | 0 | 1 |  |  | 4 |  | 1，200 | 100， 000 | 272 |
| Presb．．．．． | 3 | 0 | 30 | 0 | 65 | 0 | 10 | 0 |  |  | 5 | 0 | 3 | 0 | 3 | 0 | 750 | 5，000 | 273 |
| Nonsect．． | 1 | 0 | 11 | 9 | 15 | 12 | 11 | 9 |  | 0 |  |  |  |  |  |  |  |  | 74 |
| Nonsect． | 2 | 0 | 30 | 25 |  |  | 2 | 0 |  |  | 0 | 0 |  |  | 4 | 0 | 40 | 1，200 | 275 |
| Meth． | 2 | 3 | 40 | 41 | 110 | 106 | ， | 0 | 1 | 0 | 3 | 3 |  |  |  | 0 | 195 | 10，500 | 276 |
| Fonsect ．－ | 2 | 2 | 22 | 28 | 76 | 81 | 0 | 0 | 0 | 0 | 1 | 7 | 0 | 0 | 4 | 42 | 200 | 8，000 | 277 |
| Nonsect ．． | 0 | 2 | 29 | 27 | 46 | 41 | 15 | 14 | 0 | 0 | 0 | 0 |  |  |  | 0 | 50 | 10，000 | 278 |
| Nonsect ．． | 1 | 0 | 10 | 17 | 29 | 36 | 4 | 6 |  | 0 | 2 | 5 | 2 | 5 | 3 | 0 |  | 2，500 | 279 |
| Nousect ．－ | 0 | 1 | 14 | 18 | ， | ， | 5 |  |  |  |  |  |  |  |  | 0 |  | 8，060 | 280 |
| Nonsect．． | 0 | 3 | 47 | 60 | 93 | 112 | 2 | 4 |  |  | 3 |  | 2 | 4 |  |  | 300 | 5， 000 | 281 |
| Bapt． | 2 | 2 | 125 | 75 | 0 | 0 | 25 | 5 |  |  | 6 | 6 |  |  | 4 | 0 | 200 | 2， 000 | 282 |
| Nonsect ．． | 1 | 0 | 15 | 22 | 25 | 32 | 2 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 1， 000 | 283 |
| Nonsect．． | 2 | 2 | 50 | 50 | 70 | 100 |  |  |  |  |  |  |  |  | 4 | 0 |  | 6，500 | 284 |
| Nonsect．． | 2 | 1 | 30 | 50 | 40 | 61 |  |  |  |  | 0 | 0 | 0 | 0 | 3 | 0 | 300 | 18，000 | 285 |
| Protestant | 2 | 0 | 50 | 0 | 57 | 0 | 10 | 0 | 5 |  |  |  |  |  | 3 |  | 1，200 | 2，000 | 286 |
| Nonsect．－ | 1 | 0 | 25 | 21 | 100 | 105 | 10 | 2 | 0 | 0 | 0 | － | 0 | 0 |  | 0 | 0 | 5， 000 | 287 |
| Meth | 1. | 0 | 20 | 10 | 60 | 40 | 8 | 2 | 0 | 0 | 0 |  | 0 |  | 3 | 0 | 18 | 2，500 | 288 |
| Nonsect．．－ | 1 | 0 | 8 | 7 | 30 | 34 | 2 | 3 |  |  |  |  |  |  | 3 | 0 | 450 | 150 | 289 |
| Nonsect | 0 | 2 | 10 | 10 | 20 | 20 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 100 | 600 | 290 |
| Cong | 1 | 3 | 18 | 16 | 183 | 227 | 3 | 0 |  |  | 3 |  |  |  | 5 | 0 | 300 | 12， 000 | 291 |
| Meth | 2 | 2 | 42 | 39 | 59 | 77 | 5 | 0 | 5 | 0 | 2 | 0 | 1 | 1 | 4 | 0 | 250 | 16，000 | 292 |
| Con＠ | 1. | 2 | 18 | 52 | 107 | 271 | 1 | 1 |  |  | 0 |  |  | 1 | 5 | 0 | 3,000 | 35,000 | 293 |
| R．C．．． | 2 | 0 | 29 | 0 | 0 | 0 |  |  |  |  | 0 | 0 |  |  |  | 0 | 6，000 | 50， 000 | 294 |
| Nonsect．． | 1 | 0 | 18 | 25 | 0 | 0 | 2 | 10 |  |  | 0 | 5 | 0 | 5 | 3 | 0 | 375 | 2，500 | 295 |
| Nonsect．． | 2 | 0 | 15 | 15 | 45 | 55 | 5 |  |  |  | 1 |  | 1 | 2 | 5 | 0 | 100 | 3，500 | 296 |
| M．E．So | 0 | 2 | 16 | 18 | 64 | 72 | 6 |  |  |  |  |  |  |  |  | 0 |  | 6，000 | 297 |
| Nonsect．－ | 1. | 0 | 20 | 19 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |  | 1，000 | 298 |
| Nonsect．． | 0 | 1 | 5 | 25 | 65 | 60 | 2 | ， |  |  |  |  |  |  | 4 | 0 | 100 | 3， 000 | 299 |
| Cong | 0 | 2 | 5 | 30 | 95 | 145 |  |  |  |  |  | 16 |  |  | 2 | 0 | 100 |  | 300 |
| Nonsec | 2 | 0 | 17 | 0 | 20 | 0 | 16 | 0 | 0 |  |  |  |  |  | 4 | 0 | 250 | 12，000 | 301 |
| Bapt． | 3 | 0 | 30 | 17 | 57 | 32 | 12 | 7 | 0 |  |  |  |  |  | 4 | 24 |  | 3， 000 | 302 |
| Nonsect | 2 | 0 | 30 | 15 | 30 | 37 | 1 | 0 | ， | 6 | 3 | 0 | 3 | 3 | 2 | 0 | 0 | 2， 800 | 303 |
| Nonsect | 1 | 1 | 11 | 19 | 40 | 44 | 0 | 2 |  |  | 0 | 0 | 0 |  |  | 0 | 0 | 1，000 | 304 |
| Nonsect | 2 | 1 | 31 | 18 | 60 | 56 | 7 | 2 |  | 0 | 3 | 1 | 2 | 1 | 3 | 0 | 40 | 2， 000 | 305 |
| Nonsect | 0 | 1 | 7 | 7 | 32 | 36 | 2 | 3 |  |  | 0 | 3 | 3 | 0 | 4 |  |  | －600 | 306 |
| Nonsect | 2 | 0 | 23 | 39 | 20 | 34 |  |  |  |  | 0 | 4 | 0 | ， | 3 | 0 | 397 | 3， 000 | 307 |
| Nonsect ．． | 1 | 5 | 13 | 17 | 75 | 80 | 8 | 7 | 2 | 1 | 3 | 7 | 2 | 5 | 3 | 0 | 500 | 15，000 | 308 |
| Nonsect ．． | 2 | 2 | 28 | 37 |  |  |  |  |  |  | 3 | 10 | 2 |  |  | 0 | 200 | 9，000 | 309 |
| Nonsect | 1 | 6 | 52 | 22 | 61 | 49 | 8 |  |  | 3 | 0 | 4 | ， | 4 | 4 |  | 500 | 20，000 | 310 |
| Nonsect ．． | 0 | 5 | 30 | 34 | 52 | 68 | 24 |  |  |  | 2 | 1. | 2 | 1 | 4 | 0 | 250 | 4，000 | 311 |
| Nousect ．． | 1. | 2 | 26 | 42 | 48 | 34 | 12 | 20 |  |  | 2 | 10 | 2 | 10 | 3 | 0 | 250 | 6，000 | 312 |
| R．C．．． | 0 | 3 | 0 | 20 | 0 | 40 | 0 | 2 |  |  | 0 | 6 | 0 | 1 | 4 | 0 | 500 | ．．．．．． | 313 |
| Nonsect | 1 | 0 | － 17 | 20 | 58 | 55 | 10 | 16 |  | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 125 | 9， 000 | 314 |
| Nonsect | 1 | 1 | 30 | 15 | 20 | 15 | 3 | 5 |  |  | 3 | 5 | 3 | 5 | 4 | 0 | 0 | 750 | 315 |
| Meth | 1 | 1 | ． 40 | 25 | 100 | 60 | 5 | 2 |  |  | 0 | 0 | 0 | 0 | 4 | 0 | 315 | 3，500 | 316 |
| R．C． | 0 | 3 | 0 | 30 | 20 | 70 |  |  |  |  | 0 | 1 |  |  | 4 |  | 250 | 15， 000 | 317 |
| Presb | 3 | 1 | 20 | 30 | 0 | 0 | 5 | 4 | 0 |  | 1 | 6 | 1 | 0 | ， | 0 | 1，000 | 5， 000 | 318 |
| P．E． | 1 | 1 | 6 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | ．．．． | 0 | 0 | ， | 319 |

Table 43.-Statistics of pricate high schools, endowed academies, seminaries,


[^100]and other private secondary schools for the scholastic year 189\%-98-Continued.


Table 43.-Statistics of prirate high schools, endowed academies, seminaries,

|  | State and post-office. | Name. | Principal. |
| :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 |
|  | illinois-continued. |  |  |
| 369 370 | Mount Morris | Mount Morris | J. G. Roy |
| 371 | Onarga.. | Grand Prairie Seminary | Samuel Van Pelt, A. ${ }^{\text {M }}$ |
| 372 | Ottawa.. | St. Francis Xavier's Academy . | Rev. Mother M. Ursula |
| 373 | Paston | Rice Collcgiate Institute ....... | Harvey K. Coleman |
| 374 | Peoria | Academy of Our Lady of the Sacred Heart. | Sister D. Evelyn |
| ${ }_{376}^{375}$ | Port Byron Princeville | Port Byron Academy. Princeville Academy | Henry A. Ruger, A. B. |
| 377 | Quincy -- | St.Mary's Institute .... | Mother Mary Boniface |
| 378 | Springtield | Academy of Our Lady of the Sacred Heart. | Mother Mary Agnes... |
| 379 380 | do | Bettie Stuart Institute.......... | Mrs. A. M. Brooks |
| 381 | Sycamore | Waterman Hall.... | Rev. B. F. Fleetwood, |
| 382 | Toulon | Toulon Academy. | G. F. Loomis, B. A |
| ${ }_{3}^{383}$ | Upper Alton | Western Military Academy | A. M. Jackson |
| ${ }_{385}^{384}$ | Waynesville..... | Waynesville Academy ........ | W. H. Smith |
|  | indiava. |  |  |
| 386 | Bloomingdale. | Fricnds Bloomingdale Academy.. | Andrew F. Mitchel. |
| $\begin{aligned} & 387 \\ & 388 \end{aligned}$ | ${ }^{\text {Borden - }}$ College | Sorden Institute | Aus. Seifert |
| 389 | Culver... | Culver Military Academy | A. F . Fleet. |
|  | Elkhart.. | Elkhart Institute. | H. C. Heasley |
| 391 | Fairmount | Fairmount Academy and Normal School. | Elwood O. Elli |
| 392 | Ferdinand | Academy of the Immaculate Con- | Sister M. Salesia Ketzner, 0. |
| 393 | Fort Wayne. | St. Augustine's Academy | Sister St. Louise. |
| 394 |  | Westminster Scminary. | Miss C. B. Sharp and Mrs. D. |
| 395 | Indianapolis. | Classical School for C | May Wright Sewall |
|  | ....do .... | Knickerbacker Hall | The Misses Yerkes. |
| 398 | do | St. John's Academy* | SisterSuperior |
| 399 | Lafay ette | St. Ignatius' Academ | Sister Domitilla |
| 400 | La Porte | St. Rose's Academy | Wristers of the Hace Hammond. |
| 402 | Michigan City | St. Mary's Academy ${ }^{\text {T. }}$ | Mother Pacifica... |
| 403 | New Albany. | Holy Trinity Academy | Sister Mary Emerit |
| $40 \pm$ | North Manche | Manchester College* | E. S. Youn |
| 405 | Notre Dame | St. Mary's A cademy | Mother M. Pauline |
| ${ }_{407}^{406}$ | Oakland City | Oakland City College ............. | Wiiliam Prentice De |
| 408 | Plainfield. | Central Acadenyy............. | Sister Rert L. Kelly |
|  |  | Sugar Grove Academy | Benjamin J. Thom |
| 410 | St. Marys | St. Mary's,A A cademic Inst | Sister M. Alma. |
| 411 | South Bend | St. Joseph's Academy *. | S Sister Mary Amb |
| ${ }_{413}$ | Spiceland. | Spiceland Academy | Sister St. Cyr |
| 414 | ....do... | Vincennes University .............. | Albert H. Yoder.............. |
|  | indian territory. |  |  |
| 415 | Ardmore | Hargrove College | J. T. Johns |
| 416 |  | Atoka Baptist Academy | E. H. Rishel. |
| 418 | Chelsea | Chelsea A cadeni y ............. | Rev. T. B. Lunsford............ |

[^101]and other private secondary schools for the scholastic year 189\％－98－Continued．

| Religious denomina－ tion． | Sec－ ond－ ary in－ struct－ ors． |  | Students． |  |  |  |  |  |  |  |  |  |  |  | Length of course in years． |  | Number of volumes in library． | Value of grounds， build． ings， furni－ ture， and sci－ entific appa． ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Seconil－ ary stu－ dents． |  | Elemen－ tary sta－ dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara－ torystu－ dents in the class that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． sical course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | $\begin{gathered} \text { ※゙ } \\ \text { デ } \end{gathered}$ |  | 号 |  |  |  | 而 |  |  |  |  |  |  |  | $\frac{\dot{\oplus}}{\stackrel{y}{\text { ® }}}$ |  |  |
| 4 | 5 | 6 | 7 | 8 |  |  | ${ }^{(1)}$ | 10 | 面且 | ${ }_{1}^{118}$ | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 18 | 8是 | 28 |  |
| Ger．Bapt． | 11 | 4 | 140 | 80 | 20 | 10 | 30 | 22 | 43 | 35 | 11 |  | 11 |  |  |  | 20，000 | \＄60，000 | 369 |
| R．C | 0 | 5 | 0 | 56 | 0 | 54 |  | 1 | 0 | 2 | 0 | 14 | 0 | 2 | 4 | 0 |  |  | 370 |
| M．E． | 6 | 5 | 145 | 140 | 0 | 0 |  |  | 12 | 10 | 8 | 9 |  |  | 4 |  | 1，000 | 45， 000 | 371 |
| R．C ． | 0 | 4 | 0 | 50 | 0 | 150 |  |  |  |  | 0 | 13 |  |  | ， | 0 | 300 |  | 372 |
| Cong | 3 | 1 | 50 | 32 | 0 | 0 | 7 | 5 | 5 | 0 | 10 | 8 | 6 | 5 |  | 0 | 300 | 15，000 | 373 |
| R．C．．．．．． | 0 | 4 | 0 | 30 | 0 |  |  |  |  |  | ， | 4 |  |  |  | 0 | 200 | 125， 000 | 374 |
| Cong | 1. | 1 | 12 | 19 | 17 | 8 | 5 | 4 | 1 | 4 | 1 | 2 | 1 | 2 | 3 | 0 |  | 6，000 | 375 |
| Nonsect ．－ | 1 | 2 | 24 | 13 | 3 | 3 | 3 | 2 | 2 | 0 |  | 4 | 2 | 2 | 4 | 20 | 200 | 2，500 | 376 |
| R．C．．．．．． | 0 | 6 | 0 | 77 | 0 | 103 | 0 |  | 0 | 40 | 0 | 6 |  |  | 4 | 0 | 2，000 |  | 377 |
| R．C ．．．．．． | 0 | 3 | 0 | 22 | 0 |  |  |  |  |  |  |  |  |  | 4 | 0 | 1，000 | 30，000 | 378 |
| Nonsect ．． | 0 | 3 | 0 | 25 | 0 | 100 | 0 | 2 |  |  | 0 | 4 | 0 | 1 | 4 | 0 |  | 20，000 | 379 |
| Ev．Luth ． | 5 | 0 | 127 | 0 | 42 |  |  |  |  |  | 30 | 0 | 18 | 0 | 3 | 0 | 2， 500 | 175， 000 | 380 |
| P．E． | 0 | 10 | 0 | 65 | 0 | 15 | 0 | 2 |  |  |  | 7 | ， | 1 | 5 |  | 2，500 | 75， 000 | 381 |
| Nonsect | 1 | 4 | 30 | 50 | 0 | 0 | 2 | 1 | 7 | 3 | ， | 9 | 3 | 3 | 4 | 0 | 100 | 10， 000 | 382 |
| Nonsect | 6 | 0 | 70 | 0 | 10 | 0 | 3 | 0 | 6 | 0 | 10 | 0 | 5 | 0 | 4 | 70 | 500 | 100，0c0 | 383 |
| Friends． | 2 | 1 | 22 | 24 | 6 |  |  |  |  |  |  | 8 | 1 | 8 | 3 | 0 | 400 | 5，000 | 384 |
| Presb． | 2 | 0 | 16 | 14 | 1 | ， | 2 |  | 2 | 1 | 3 | ， | 1 | 2 | 4 | 30 |  |  | 385 |
| Friends．．． | 1 | 2 | 29 | 27 | 18 | 20 | 8 | 10 |  |  | 6 | ， | 1 | 1 | 3 |  | 800 | 18， 000 | 386 |
| Nonsect．． | 5 | 0 | 75 | 30 | 25 | 20 | 10 | 5 | 2 | 0 | 11 | 7 | 5 | 2 |  |  | 4，000 | 30， 000 | 387 |
| R．C ．－．．．． | 10 | 0 | 128 | 0 |  |  |  |  |  |  | 17 | 0 |  |  |  | 62 |  |  | 388 |
| Nonsect．． | 12 | 0 | 158 | 0 | 0 | 0 | 16 | 0 | 78 | 0 | 7 | 0 | 7 | 0 | 4 | 158 | 650 | 250，000 | 389 |
| Mennonite | 1 | 1 | 18 | 16 | 69 | 101 | 8 | 0 |  |  |  | ， |  |  | 4 | 0 | 600 | 9， 000 | 390 |
| Friends．．． | 4 | 3 | 87 | 76 | 0 | ， |  |  |  |  | 7 | 4 | 3 | 1 |  | 0 | 500 | 20，000 | 391 |
| R．C | 0 | 1 | 0 | 10 | 0 | ， | 0 | 0 | 0 | 4 | 0 | 0 |  | 0 |  | 0 |  | 80，000 | 392 |
| R．C | 0 | 3 | 0 | 40 | 65 | 260 | 0 | 25 | 0 | 15 | 0 | 2 |  |  | 4 | 0 | 1， 000 | 70， 000 | 323 |
| Presb | 0 | 11 | 0 | 50 | 0 | 10 |  |  |  |  | 0 | 7 |  |  |  |  | 1，000 | 20，000 | 394 |
| Nonsect ．－ | 1 | 10 | 0 | 78 | 3 | 84 |  |  |  |  | 0 | 13 |  |  | 5 |  | 500 | 20，000 | 395 |
| P．E ．．．．．． | 0 | 6 | 0 | 22 | 0 | 28 | 0 | 9 | 0 | 0 | 0 | 0 |  |  | 5 |  |  | 30，000 | 396 |
| R．C | 0 | 6 | 14 | 10 | 56 | 85 | 6 | 0 |  |  | ， | 0 |  |  | 4 |  | 125 |  | 397 |
| R．C | 0 | 5 | 0 | 110 | 0 | 215 | 0 | 80 | 0 | 30 | 0 | 14 | 0 | 14 | 4 | 0 |  |  | 398 |
| R．C | 0 | 3 | 0 | 50 | 110 | 85 |  |  |  |  |  |  |  |  | 4 |  |  |  | 399 |
| R．C | 0 | 3 | 2 | 13 | 13 | 22 |  |  |  |  |  |  |  |  | 4 | 0 |  |  | 400 |
| P．E | 8 | 0 | 52 | 0 | 18 | 0 | 2 | 0 | 4 | 0 | 6 | 0 | 2 | 0 | 4 | 52 | 1，000 | 100，000 | 401 |
| 12．C | 0 | 4 | 15 | 25 | 135 | 140 |  |  |  |  |  |  |  |  |  |  |  |  | 402 |
| R．C．．．．．． | 0 | 1 | 0 | 15 | 130 | 125 |  |  |  |  | 0 | 1 |  |  | 4 |  | 310 |  | 403 |
| Ger．Bapt． | 2 | 1 | 58 | 31. | 167 | 69 | 10 | 4 | 5 | 0 | － | 40 | 3 | 3 |  |  |  | 30，000 | 404 |
| R．C ．．．．． | 0 | 2 | 0 | 54 | 0 | 103 |  |  |  |  | ， | 8 |  |  | 4 |  | 4，500 |  | 405 |
| Bapt | 4 | 2 | 31 | 18 | 72 | 37 |  |  |  |  | 1 | 0 |  |  |  | 0 | 4，000 | 10，000 | 406 |
| R．C | 0 | 4 | 0 | 18 | 0 | 57 |  |  |  |  | 0 | 5 | 0 | 5 | 3 | 0 | 2，500 |  | 407 |
| Fricnds | 4 | 1 | 48 | 59 | 15 | 23 | 8 | 12 | 7 | 0 | 3 |  |  |  | 4 | 0 | 300 | 10，000 | 408 |
| Friends | 1 | 0 | 3 | 5 | 7 | 16 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | － 60 | －500 | 409 |
| R．C | 0 | 16 | 0 | 98 | 0 | 78 | 0 |  |  |  | 0 | 12 |  |  | 4 |  | 5，000 | 600， 000 | 410 |
| P．C ． | 0 | 3 | 0 | 100 | 0 | 15 |  |  |  |  |  |  |  |  |  |  |  |  | 411 |
| Friends | 3 | 1 | 38 | 50 | 30 | 32 |  |  |  |  | 8 | 5 |  |  | 3 | 0 | 3， 000 | 10， 000 | 41.2 |
| R．C ．．．．．． | 0 | 6 | 0 | 50 | 0 | 200 |  |  |  |  |  | 6 |  |  | 4 | 0 |  |  | 413 |
| Nonsect，．． | 10 | 4 | 131 | 103 |  |  |  |  |  |  | 2 | 4 | 2 | 4 | 6 | 102 | 6，805 | 30，000 | 414 |
| M．E．So ．． | 1 | 2 | 38 | 41 | 85 | 88 | 8 | 3 | 2 | 5 |  |  |  |  | 2 | 0 | 58 | 15， 000 | 415 |
| Baptist． | 1. | 1 | 10 | 15 | 96 | 107 | 3 |  |  |  |  |  |  |  | 4 | 0 | 300 | 8，000 | 419 |
| Presb．．．．． | 1 | 2 | 11 | 14 | 52 | 61 | 3 |  |  |  |  |  |  |  | 4 | 0 | 200 | 1， 800 | 417 |
| Cum．Presb | 1 | 0 | 10 | 10. | 50 | 60 | 0 | 0 | ．5 | 2 |  |  |  |  | 3 | 0 | 6 | 3，500 | 418 |

Table 43.-Statistics of private high schools, endowed academies, seminaries,

*Statistics of 1896-97.
and other private secondary schools for the scholastic year 1897－98－Continued．

| Religious denomina－ tion． | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Number of volumes in library. | Value of grounds， build． ings， firni－ ture， and sci－ entific appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Sec- } \\ & \text { ond. } \\ & \text { ary } \\ & \text { in- } \\ & \text { struct- } \\ & \text { ors. } \end{aligned}$ |  | Second－ ary stu－ dents． |  | Elemen． tary stu－ dents． |  | Preparing for college． |  |  |  | Gradu． ates in 1898. |  | College prepara． tory stu－ dents in the class that gradu ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． sical course． | $\begin{aligned} & \text { Scien- } \\ & \text { tific } \\ & \text { course. } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & \text { 坔 } \\ & \text { 게 } \end{aligned}$ | $\begin{aligned} & \text { 㡙 } \\ & \text { g } \\ & \text { r } \end{aligned}$ |  |  | 号 |  | $\begin{gathered} \dot{0} \\ \text { 侖 } \end{gathered}$ |  | $\begin{aligned} & \text { 采 } \\ & \text { 突 } \end{aligned}$ |  |  |  | 守 |  |  |  |  |  | $\begin{gathered} \stackrel{0}{\mathrm{~s}} \\ \stackrel{y}{\mathrm{c}} \end{gathered}$ |  |  |
| 4 | 5 | 6 | 7 | 8 |  |  | 9 | 10 | 是直 | 旺很 | 13 | 目 | 13 | 16 | 18 | 18 | 8 1 | 919 | 21 | 129 |  |
| M．E．So－ | 2 | 2 | 60 | 40 | 60 | 60 |  |  |  |  | 0 | 6 | 0 | 6 | 3 | 0 | 60 | \＄50，000 | 419 |
| Presb ．．． | 0 | 2 | 28 | 25 | 20 | 20 | 1 |  |  |  |  |  |  |  | 3 | 0 | 500 | 20，000 | 420 |
| Cum．Presb | 0 | 2 | 11 | 12 | 89 | 207 |  | 2 |  |  |  |  |  |  | 3 | 0 |  | 6，000 | 421 |
| M．E．So ．． | 2 | 3 | 17 | 23 | 78 | 82 |  |  |  |  |  | 4 |  |  | 4 |  | 300 | 50， 000 | 422 |
| Nonsect ．． | 1 | 1 | 25 | 26 | 35 | 55 | 2 | 0 | 4 | 0 | 1 | 3 | 0 | 0 | 4 | 0 | 200 | 20，000 | 423 |
| Nonsect ．． | 1 | 0 | 28 | 13 |  | 0 |  |  | 1 |  | 1 | 1 | 1 | 1 | 4 | 0 |  |  | 424 |
| Friends．．． | 1 | 2 | 9 | 12 | 8 | 5 |  |  | 1 | 1 | 1 | 2 | ， | 2 |  | 0 |  |  | 425 |
| Luth ．．．．． | 2 | 0 | 9 | 1 | 5 | 7 | 3 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 3 | 0 | 20 | 3,000 | 425 |
| R．C | 0 | 1 | 5 | 10 | 55. | 80 |  |  |  |  | 1 | 2 |  |  | 4 | 0 | 300 |  | 427 |
| Bapti | 0 | 3 | 12 | 48 | 0 | 0 | 12 | 13 |  |  | 1 | 4 |  |  | 4 |  | 5，000 | 25，000 | 428 |
| R．C． | 0 | 3 | 7 | 15 | 67 | 96 |  |  |  |  | 0 | 1 | 0 | 1 | 4 | 0 | 600 |  | 429 |
| Frionds．．． | 1 | 1 | 8 | 7 |  |  |  |  |  |  | 0 | 0 |  |  | 4 | 0 | 500 | 5，000 | 430 |
| R．C．．．．．． | 1 | 1 | 12 | 27 | 52 | 63 | 0 | 6 | 0 | 8 | 0 | 1 |  |  | 4 | 0 |  | 10，000 | 431 |
| R．C | 0 | 4 | 0 | 30 | 0 | 45 |  |  |  |  | 0 | 3 |  |  | 4 |  | 300 | 25，000 | 432 |
| R．C | 0 | 3 | 6 | 15 | 134 | 145 |  |  |  |  | 5 | 1 |  |  | 4 |  |  |  | 433 |
| Pres | 3 | 6 | 50 | 96 | 1 | 2 | 6 | 4 | 16 | 14 | 5 | 9 | 3 | 6 | 3 | 0 | 400 | 20，000 | 434 |
| R．C | 0 | 8 | 0 | 45 | 0 | 205 |  |  |  |  | 0 | 4 |  |  | 4 |  | 1，500 |  | 435 |
| R．C | 2 | 0 | 10 | 0 | 80 | 0 | 2 | 0 |  |  | 6 | 0 | 2 | 0 |  |  |  |  | 436 |
| R．C | 0 | 4 | 0 | 34 | 0 | 131 |  |  |  |  | 0 | 8 |  |  | 4 |  |  |  | 437 |
| R．C | 5 | 0 | 70 | 0 | 10 | 0 |  |  |  |  | 13 | 0 |  |  | 4 | 0 |  |  | 438 |
| Nonsect | 2 | 1 | 31 | 14 | 167 | 89 |  |  |  |  | 10 | 2 |  |  |  |  |  | 4，500 | 439 |
| Cong | 1 | 2 | 47 | 71 | 14 | 19 | 3 | 3 | 0 | 1 | 2 | 2 | 1 | 2 | 3 | 0 | 1，500 | 8，000 | 440 |
| Nonse | 0 | 3 | 3 | 15 | 4 | 2 | 3 | 0 | 1 | 6 | 0 | 1 | 0 | 1 | 4 | 0 |  |  | 441 |
| R．C | 0 | 5 | 0 | 20 | 0 | 140 |  |  |  |  | 0 | ， |  |  | ， |  |  |  | 442 |
| R．C | 0 | 3 | 0 | 25 | 0 | 175 |  |  |  |  | 0 | 1 |  |  | 4 |  | 600 | 30， 000 | 443 |
| Friends | 2 | 2 | 13 | 12 | 11 | 14 | 3 | 1 | 1 | 0 | 2 | 0 | 2 | 0 | 4 | 0 | 400 | 10，500 | 444 |
| Dan．Luth | 2 |  | 89 | 40 | 146 | 13 | 34 | 15 | 0 | 0 | 23 | 8 |  | 2 | 4 | 125 | 1，560 | 45， 000 | 445 |
| BT．E． | 4 | ， | 45 | 71 | 73 | 38 |  |  |  |  | 13 | 16 | 7 | 4 | 4 | ， | 1，700 | 50， 000 | 446 |
| Norsect | 4 | 1 | 30 | 25 | 75 | 20 | 15 |  | 3 | 2 |  |  |  |  | 3 |  | 450 | 3， 3 ，${ }^{\text {a }}$ | 447 |
| Friends． | 0 | 1 | 13 | 9 | 3 | 2 | 0 | 2 | 1 | 0 | 0 | 2 | ， | 0 | 4 | ， | ．．．．．． | 1，500 | 448 |
| Cong | 2 | 2 | 21 | 61 | 0 | 0 |  |  | 4 | 2 | 0 | 1 | 0 | 1 | 4 | 0 | 2，000 | 15，000 | 449 |
| Nonsect | 3 | 5 | 91 | 52 | 13 | 24 | 0 | 2 | 33 | 24 | 17 | 19 | 7 | 9 | 3 | 0 | 100 | 800 | 450 |
| Luth | 2 | 1 | 32 | 10 | 36 | 18 |  |  |  |  | 4 | 0 | 2 | 0 | 4 | 0 | 600 | 2，300 | 451 |
| R．C | 0 | 1 | 0 19 | 15 | 60 | 150 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 |  | 0 |  |  | 452 |
| L．D．S． | 2 | 1 | 19 | 17 | 31 | 33 |  |  |  |  | 1 | 0 |  |  |  | 0 | 1，000 | 35,000 | 453 |
| Friends．．． | 1 | 2 | 31 | 23 | 0 | 0 | 4 | 6 | 0 | 0 | 0 | 2 | 0 | 2 |  | 0 | 500 | 8， 000 | 454 |
| Christian． | 3 | 1 | 40 | 30 | 10 | 0 | 10 | 7 |  |  | 14 | 5 | 5 | 3 | 4 | 0 | 1，000 | 20， 000 | 455 |
| Friends．．． | 1 | 2 | 29 | 23 | 5 | 4 |  |  |  |  | 2 | 4 |  |  | 4 | 0 | 225 | 3，725 | 456 |
| Nonsect ．． | 7 | 7 | 213 | 220 | 0 | 0 | 5 | 7 | 3 | 6 | 24 | 33 | 8 | 13 | 2 | 80 | 200 | 10， 000 | 457 |
| Reformed． | 3 | 2 | 36 | 17 | 18 | 5 | 36 | 17 |  |  | 8 | 7 | 4 | 0 | 3 | 0 | 2，500 | 30， 000 | 458 |
| Baptist．．． | 1 | 2 | 100 | 68 | 40 | 30 | 30 | 27 | 26 | 18 | 18 | － 6 | ．．．． |  | 4 | 20 | 2，000 | 25，000 | 459 |
| Christian． | 1 | 2 | 8 | 3 | 9 | 7 |  |  | ， | 2 | 0 | 0 |  |  | 3 | 0 | 3，000 | 15，000 | $\triangle 60$ |
| Friends．．． | 1 | 2 | 35 | 35 | 3 | 2 | 2 | 2 | ， | 1 | 3 | 4 | 2 | 2 | 4 | 0 | 300 |  | 461 |
| Luth ．．． | 4 | 0 | 11 | 6 | 42 | 3 | 4 | 0 | 0 | 0 | 3 | 4 | 1 | 2 | 4 | 0 |  | 1，200 | 462 |
| Friends．．． | 3 | 1 | 59 | 53 | 8 | 7 | 6 | 4 |  | 3 | 2 | 1 | 0 | 0 | 4 | 0 | 300 | 20， 000 | 463 |
| Nonsect ．． | 4 | 2 | 42 | 26 | 126 | 75 | 12 | 8 | 9 | 6 | 12 | 6 | 10 | 6 |  |  | 1，000 | 30， 000 | 464 |
| Nonsect ．． | 1 | 2 | 32 | 48 | 0 | 0 |  |  |  |  | 8 | 10 |  |  | 4 |  |  | 5，000 | 465 |
| R．C ．．．．．． | 0 | 2 | 20 | 18 | 53 | 72 |  |  |  |  | 0 | 0 | 0 | 0 | 3 | 0 |  |  | 466 |
| Cong ．．．．． | 6 | 1 | 56 | 23 | 33 | 37 | 2 |  |  | 1 | 13 | 3 | 7 | 1 | 4 | 40 | 2，000 | 21，200 | 467 |
| R．C |  | 6 | 0 | 90 | 0 | 37 |  |  |  |  | 0 | 1 |  |  |  |  |  |  | 468 |
| R．C | 0 | 4 | 0 | 30 | 0 | 50 | 0 |  |  | 7 | 0 | 6 | 0 | 6 | 3 | 0 |  | 25，000 | 469 |
| Cong ．．．．． | 2 | 2 | 40 | 32 | 0 | 0 | 4 |  |  |  | 3 | 1 | 1 | 0 | 4 | 0 | $\cdots$ | 20， 000 | 470 |
| Friends．．． | 1 | 0 | 14 | 15 | 4 | 5 |  |  |  | 5 | 1 | 2 |  | 2 | 3 | 0 | 500 | 3，000 | 471 |
| Friends．．． | 1 |  | 21 | 9 |  |  |  |  |  |  |  |  |  |  | 4 | 0 | 600 | 3,500 | 472 |

[^102]Table 43.-Statistics of pricate high schools, endowed academies, seminaries,

and other private scondary schools for the scholastic year 1897-98-Continued.


Table 43.-Statistics of private high schools, endowed academies, seminaries,

|  | State and post-office. | Name. | Principal. |
| :---: | :---: | :---: | :---: |
|  | 1 | 9 | 3 |
|  | KENTUCKY-continued. |  |  |
| \$26 | Liver | Livermore High School**......... | M. H. Newton. |
| 527 | Londen. | Sue Benuett Diemorial School..... | J. C. Lewis..... |
| 528 | Loretto | Loretto Literary and Benevolent Institute. | Mother Praxedes |
| 529 | Louisrille (1071 3d are.)... | Allmond's University School ..... | Marcus Blakey Allmond, A. M., LL. D. |
| 530 | Louisville | Codar Grove Academy * ........... | Sister Mary Flaget ............. |
| 531 | - .-. do | Flexner's School..................... | Abrahan Flexner.. |
| 532 | .... do | Hampton Colleqe ................... | Mrs. L. D. Hampton Cowling.. |
| 533 534 | .....do $\qquad$ Louisville (cor. 4th and | Kentucky Home School for Girls.. Prosentation Academy. | Miss Belle S. Pcers............... Sister Eutropia |
| 534 535 | Louisville (cor. 4th and Breckinridge sts.). Louisville | Presentation Academy.............. St. Xavier's College ............... | Sister Eutropia................ Rev. Brother Stanislaus....... |
| 536 | Louisville (1225-1227 4th are.). | Somple Collegiate School ......... | Patty B. Semple. |
| 537 | Louisville ................... | State University .................... | Rev. C. L. Purce, D. D |
| 538 | -...do | University School of Kentucky * | D. A. Chenault.............. |
| 539 | Lyndon | Kentucky Military Institute...... | C. W. Fowler, M. A., C. E. . . |
| 540 541 | Magnolia ..................... | Classical and Normal College..... | S. A. Beanchamp, president. |
| 542 | .....do | St. Francis De Sales Academy*.. | Mother Frances Borg |
| 543 544 | Millersburg ................. | Millersburg Training School for Boys and Young Men.* <br> Millerstown Seminary | Carl M. Best............ |
| 545 | Millerstow <br> Miorgantow | Milicrstown Seminary....at........ | W.F. Nichols <br> J. C. Glasgow |
| 546 | Moniat Sterling | Goodwin's Male High School..... | M. J. Goodwin |
| 547 | Mount Vernon | Mount Vernon Collegiate Institutc.* | Luther M. Scroggs. |
| 548 | Nazareth | Nazareth Literary and Benevolent Institution. | Mother M. Cleophas Milis ... |
| 549 | Newpor | Mount St. Martin's Seminary .... | Mother Mary Leo, C.D. P |
| 550 | --..do .-........... | University High School. | Thomas J. Dodd, D. D..... |
| 551 | North Middletown ........ | Kentucky Classical and Business College. | M. G. Thomson .............. |
| 552 | Owingsvill | High School.......................... | C. V. Liming, A. M |
| 553 | Paris | Yerkes, W. L., Private School*... | W. L. Yerkes ....................- |
| 554 | Pikeville | Pikeville Collegiate Institute.... | Rev. J. Harvey Hanmet, A.M. |
| 555 | Princeton. | Princeton Collegiate Institute.... | John M. Richmond, D. D....... |
| 556 | Russellville | Sevier's (Miss) School * . .-. . . . . . . | Miss Elizabeth Sevier |
| 557 | St. Joseph | Mount St. Joscph Aca demy ...... | Mother Augustine. |
| 558 | St. Vincent | St. Vincent's Academy ............ | Sister Mary David |
| 559 | Scottsville .............. . . . . . | Scottsville Serninary ................ | J. V. Chapman .................. |
| 560 561 | Sharpsburg.................. Shelbyville .................. | Sharpsburg Male and Female College. <br> Science Hill School.................. | Mrs. Fannie B. Talbot ........ Mrs. W. T. Poynter ............ |
| 562 | Slaughtersville ............. | Van Horı Institute* ............... | J. L. Tait |
| 563 | Stanford | Stanford Male Academy | Hardin Craig |
| 564 | Taylorsville | Spencer Instituto ....... | Geo. C. Overstreet. |
| 565 | Vanccburg | Riverside Seminary | Lawrence Rolfe, A. B |
| 566 567 | Versailles .... | Rose Hill Seminary * ................ | Mrs. G. B. Crenshaw . |
| 567 568 | Vine Grove. <br> Wilmore. | Vine Grove High School............ | J. T. Nall .......... <br> Rev. J. W. Hughe |
| 569 | Williamsburg LOUISIANA. | Williamsburg icademy*............ | Charles M. Stevens ................. |
| 570 | Arcadia | E. A. Seminary | R. A. Smith. |
| 571 | Baldwin | Gilbert Academy and Industrial College. | A. E. Albert,A.M., M.D.,D.D. |
| 572 | Clinton | Clinton Female Institute *. . . . . . . | Mrs. S. E. Munday .-............ |
| 573 | Donaldsonville... | St. Vincent's Institute.... | Sister M. Clotilda................. |

[^103]and other pricate secondary schools for the scholastic year 1897-98-Continued.


Table 43.-Statistics of private high schools, eniowed academies, seminaries,

|  | State and post-office. | Name. | Principal. |
| :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 |
|  | Louisiana -continued. |  |  |
| 574 | Franklinton | Franklinton Central Institu | G. D. Free, A. M |
| 575 | Gibsland ... | Gibsland Normal Institute .. | J. A. Vobinson, M. |
| 576 | Houma | Houma Academy................-. | D. F. Ross, A. M., LL.] |
| 577 | Jackson | Feliciana Female Collegiate Institate. | Miss L.J. Catlett...... |
| 578 | Mount Lebanon | Mount Lebanon College --........ | J. Wolfe Carter........ |
| 579 | New Iberia.. | Fasnacht's (Miss) Graded Institute. | Miss Louise Fasnacht |
| 580 | New Orleans (St. Charles are.). | Academy of the Sacred Heart.. | Mme. E. Deighton |
| 581 | New Orleans (1727 Carondeletst.). | Dykers Institute | Miss Harriot V. Dykers |
| 582 | Now Orleans .-..-.......... | Holy Cross Colleg | Rev. Daniel J. Spellard. |
| 583 | New Orleans(1456 Camp st.) | Hone Instituto - .-..... | Miss Sophie B. Wright |
| 584 | Now Orleans (2308 Esplanado st.). | Matthey-Picard Instituto......... | Mrs. E. H. Matthey. |
| 585 | Now Orleans (Rampartand Esplanade sts.]. | St. Aloysias Commercial Institute | Brother Charles |
| 586 | Now Orleans (1321 Annuuciation st.). | St. Simeon's School*. | Sister Adelaide |
| 587 | New Orleans (2618 Coliseam st.). | Southern Academic Institute | Mrs. Kate C. Seaman. |
| 588 | New Orleans (1923 Colisoum st.). | University School .................. | T. W. Dyer |
| 589 | Now Orleans...............- | Ursuline Academy | Mother St. Stanislau |
| 590 | New Roads | Poydras Academy ................... | LeoM. Farrot |
| 591 | Olla ....... | Olla Male and Female Institute*.- | S. N. Young -........... |
| 592 593 | Opelousas Ruston | Academy of the Immaculate Conception. <br> Ruston Collepe* | Sister Mary of St. Veron |
| 594 | Spearsville | Everett Institute | Geo. W. Mason, B. A |
|  | MAiNE. |  |  |
| 595 | Athens | Somerset, Academy .-.............. | L. C. Williams.. |
| 596 | Bangor | Newman's (Miss) School | Miss Helen L. Newma |
| 597 | Bethel... | Gould Academy ......... | Frank E. Hanscom ... |
| 598 | Blue Hill | Blue Mill Academy*-.............. | Frank E. Briggs, A. B |
| 599 | Bucksport. | Fast Maine Conference Seminary - | Rev.J. F. Haley, A. M |
| 600 | Charleston. | Higgins Classical Instituto....... | H. Warren Foss ...... |
| 601 | Cherryfield......... | Cherryfield Academy . | Leroy S. Dewey |
| 602 | Cumberland Center | Greely Instituto. | E. L. Pennell... |
| 603 | Uresden Mills | Bridgo Academy -................... | Alonzo W. Morelen |
| 604 | East Machias. | Washington Academy ............. | Fred O. Small ..... |
| 605 | Farmington . | Abbott Family School ............. | A. H. Abbott, A. M |
| 606 | Fozcroft. | Foxcroft Academy | W. R. Fletcher.. |
| 607 | Gray | Pennell Instituto.. | Edwin B. Storens |
| 608 | Hampden | Hampden Acaders | George C. Webluer, A. B |
| 609 | Rebron.. | Hebron Academy ......... | W. E. Sargent ............. |
| 610 | Horlton | Ricker Classical Institute | Arthur M. Thomas, A. M |
| 611 | Lewiston | Bates Collegs* . .-.................... | Ivory F. Frisbee.. ....... |
| 612 | Limerick | Limerick Academy * | Willis B. Moore. |
| 613 | Limington......... | Limington Academy | Merbert L. Whitman, A. |
| 614 | Litchfield Corners | Litchfield Academy * | Thomas C. Tooker .-.... |
| 615 | New Castlo...... | Lincoln Academy .... | G. H. Larrabee, A. M... |
| 616 | New Gloucester | The Stevens School*. | M. B. and S. P. Stevens. |
| 618 | North Ansidgeton | Anson Academy... | W. C.Spratt ...... |
| 619 | Paris --........ | Paris Hill Academy | J. O. Wellman, A. ${ }^{\text {B }}$ |
| 620 | Pittsfield | Maine Central Institute | O. H. Drake ....... |
| 621 | Portland | St. Alizabeth's Academy | Mother M. Teresa |
| 622 | Saco | Thornton Academy -.................. | Edwin P. Sampson |

and other private secondary schools for the scholastic year 1897－98—Continued．

| Religions denomina－ tion． |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Value of grounds， build－ ings， furni－ ture， and sci－ entific appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second－ ary stu－ dents． |  | Elemen． tarystu－ dents． |  | Preparing for colloge． |  |  |  | Gradu－ ates in 1898. |  | College prepara－ tory stu－ dents in the class that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． sical course． | $\begin{aligned} & \text { Scien. } \\ & \text { tific } \\ & \text { course. } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & \stackrel{0}{0} \\ & \text { స్ㅈㄱ } \end{aligned}$ | $\begin{aligned} & \dot{g} \\ & \text { む } \\ & \text { gu } \\ & \text { 0 } \\ & =1 \end{aligned}$ |  |  | $\stackrel{\oplus}{\underset{y}{\mid c}}$ |  |  |  |  | $\begin{aligned} & \text { © } \\ & \text { 药 } \\ & 0 \end{aligned}$ | 帚 |  | 㡙 |  |  |  |  |  | $\stackrel{\dot{\Phi}}{\stackrel{5}{5}}$ |  |  |
| 4 | 5 | 6 | g | 9 |  |  | 9 | 10 | 11 | 且を | 13 | 144 | 15 | 16 | 直喿 | 18 |  | 39 | 21 | 32 |  |
| Nonsect | 1 | 12 | 46 | 27 | 26 | 53 | 2 | 0 | 24 | 20 | 3 | 6 | 3 |  |  | 0 | 60 | \＄2，000 | 574 |
| Christian． | 3 | 1 | 30 | 38 | 54 | 30 |  |  |  |  | 3 | 2 | 3 | 2 |  | 0 | 61 | 3， 000 | 575 |
| Bapt | 1 | 12 | 40 | 30 | 80 | 100 | 3 | 1 | 2 | 0 | 3 | 0 |  |  | 5 |  | 100 | 5，000 | 576 |
| Presb | 1 | 5 | 10 | 40 | 15 | 20 |  |  |  |  | 0 | 3 |  |  | 3 | 0 |  | 4，000 | 577 |
| Bapt | 0 | － 2 | 40 | 50 | 55 | 35 | 25 | ， | 18 | 18 | 10 | 12 | 10 | 12 |  | 0 | 500 | 50，000 | 578 |
| Nonsect ．－ | 0 | 1 | 10 | 6 | 7 | 12 | 3 | 1 |  |  |  |  |  |  |  |  |  |  | 579 |
| I．C | 0 | － 4 | 0 | 20 | 12 | 41 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 |  | 1，000 |  | 580 |
| Christian－ | 0 | 2 | 1 | 6 | 5 | 9 |  |  | 1 | 0 | 0 | 0 |  |  | 3 |  | 300 | 10，000 | 581 |
| R．（： | 5 | 0 | 50 | 0 | 20 | 0 | 5 | 0 | 3 | 0 | 3 | 0 |  |  | 3 |  | 15 | 500， 000 | 582 |
| Nonsect． | 0 | － 5 | 0 | 50 | 10 | 110 | 0 | 10 | 0 | 5 | 0 | 18 | 0 | 18 | 3 | 0 | 700 | 20， 000 | 583 |
| Nonsect． | 0 | 4 | 0 | 16 | 30 | 59 | 0 | 0 | 0 | 0 | 0 | 9 |  | 0 |  | ， | 200 | 15， 000 | 584 |
| R．C | 3 | 0 | 35 | 0 | 130 | 0 | 0 | 0 |  |  | 10 | 0 | 0 | 0 | 3 | 0 | 500 | 32，000 | 585 |
| R．C | 0 | － 3 | 0 | 35 | 45 | 165 |  |  |  |  | 0 | 9 | 0 |  |  |  |  |  | 586 |
| Nonsect ．－ | 0 | － 3 | 0 | 23 | 15 | 37 | 0 | 3 | 0 | 1 | 0 | 1 |  |  | 3 | 0 |  | 25，000 | 587 |
| Nonsect | 3 | 0 | 50 | 0 | 78 | 0 |  |  |  |  | 14 | 0 | 14 | 0 | 3 | 50 | 1，500 | 20，000 | 588 |
| R．C | 0 | 12 | 0 | 54 | 0 | 7 |  |  |  |  | 0 |  |  |  |  |  |  |  | 589 |
| Nonsect | 1 | 1 | 12 | 17 | 25 | 16 |  |  |  |  | 0 | 0 | 0 | 0 | 3 | 0 | 250 | 5，500 | 590 |
| Nonsect | 1 | 1 | 21 | 31 | 24 | 25 | 7 | 10 |  |  | 0 | 7 | 0 | 7 | 3 | 0 | 75 | 3， 000 | 591 |
| I．C ．． | 2 | 3 | 12 | 16 | 43 | 41 |  | ， | 0 |  |  |  |  |  |  |  |  |  | 592 |
| Nonsect | 1 | 1 | 20 | 25 | 37 | 33 | 10 | 15 | 1 | 0 | 1 | 0 |  |  |  | 0 | 140 | 5， 000 | 593 |
| Miss．Bapt | 1 | 1. | 12 | 13 | 18 | 22 | 2 | 3 |  |  | 1 | 3 | 1 |  |  | 0 | 10 | 2，000 | 594 |
| Nonsect－ | 1 | 1 | 21 | 32 | 4 | 3 | 6 | 6 | 1 |  | 0 | 0 | 0 | 0 |  | 0 | 20 | 4，000 | 595 |
| Nonsect．． | 0 | 2 | 3 | 6 | 8 | 16 | 3 | 3 | 0 |  |  |  |  |  |  | 0 | 200 | 400 | 596 |
| Nonsect ．． | 3 | 1 | 34 | 49 | 0 | 0 | 5 | 5 |  |  | 1 | 0 |  | 0 |  | 0 | 450 | 15，000 | 597 |
| Cong | 1 | 1 | 26 | 24 | 14 | 9 | 0 | 0 | 2 | 0 | 5 | 6 | 0 | 0 | 4 | 0 | 0 | 1，000 | 598 |
| M．E． | 3 | 4 | 74 | 70 | 0 | 0 | 15 | 6 | 10 | 4 | 13 | 12 | 5 | 0 |  | 144 | 6， 000 | 35,000 | 599 |
| Bapt： | 2 | 2 | 50 | 46 | 0 | 0 | 19 | 8 | 5 | 0 | 1 | 5 | 0 | 1 |  | 0 | 1，300 | 8，000 | 600 |
| Nonsect ．． | 2 | 1 | 47 | 53 | 8 | 22 |  |  |  |  | 5 | 9 | 2 | 2 |  | 0 | 75 | 3，000 | 601 |
| Nonsect | 1 | 4 | 71 | 81 | 7 | 6 | 2 | 1 | 2 | 0 | 4 | 8 | 0 | 1 |  | 0 | 875 | 7，000 | 602 |
| Nonsect． | 1 | 1 | 15 | 23 | 9 | 3 | 1 | 0 | 0 | 4 | 1 | 6 | 1 | 2 | 4 | 0 | 100 | 16，000 | 603 |
| Nonsect．－ | 2 | 1 | 35 | 45 | 0 | 0 | 8 | 6 | 2 | 0 | 4 | 0 | 4 |  | 4 | 0 | 200 | 5， 000 | 604 |
| Nonsect．． | 3 | 0 | 15 | 0 | 10 | 0 | 6 | 0 | 4 |  |  |  |  |  |  |  |  |  | 605 |
| Nonsect ．－ | 1 | 2 | 28 | 33 | 0 | 0 | 2 | 2 | 5 | 0 | 5 | 3 | 5 | 0 |  | 0 |  | 4，200 | 606 |
| Nonsect ．－ | 1 | $\stackrel{2}{2}$ | 14 | 37 | 8 | 4 | 1 | 10 | 0 | 0 | 0 | 3 | 0 | 3 |  | 0 | 752 | 15， 000 | 607 |
| Nonsect．．－ | 1 | 12 | 9 | 10 | 26 | 35 | 6 | 9 | 2 | 0 | 0 | 0 | 0 | 0 |  |  | 500 | 2，000 | 603 |
| Nonsect ．－ | 3 | 4 | 93 | 68 | 2 | 2 | 27 | 6 | 2 | 0 | 28 | 21 | 12 | 1 |  | 0 | 1，300 | 60，000 | 609 |
| Bapt．．．．．． | 2 | 4 | 79 | 130 | 7 | 3 | 20 | 10 | 1 | 0 | 8 | 9 | 6 | 2 |  | 0 | 1，000 | 90， 000 | 610 |
| Free Bapt． | 5 | 0 | 71 | 0 | 0 | 0 | 71 | 0 |  |  | 17 | 0 | 17 | 0 |  |  | 1，400 |  | 611 |
| Cong．．．．．． | 1 | 2 | 68 | 100 | 0 | 0 | 3 | 4 | 3 | 0 | 3 | 12 | 1 | 6 | 5 | 0 | 40 | 2，500 | 612 |
| Nonsect ．． | 1 | 1 | 26 | 28 | 0 | 0 | 6 | 2 |  |  | 5 | 6 | 4 | 0 |  | 0 | 200 |  | 613 |
| Cong | 1 | 1 | 10 | 25 | 4 | 1 | 3 | 5 | 1 | 0 | 0 | － 6 | 0 | 0 |  | 0 | ． | 2，000 | 614 |
| Nonsect | 1 | 3 | 16 | 23 | 26 | 21 | 6 | 2 |  |  | 6 | 5 | 3 | 0 |  | 0 | 320 | 13，000 | 615 |
| Nonsect ．． | 0 | 7 | 2 | 23 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 2 |  | 0 | 400 |  | 616 |
| Nonsect ．－ | 1 | 2 | 36 | 30 | 36 | 30 | 10 | 7 | 5 | 0 | 10 | 3 | 5 | 2 |  | 0 |  | 2， 500 | 617 |
| Nonsect．． | 2 | 3 | 36 | 25 | 0 | 0 | 6 | 2 | 16 | 2 | 5 | 2 | 4 | 0 |  | 0 | 700 | 12，500 | 618 |
| Nonsect ．． | 1 | 1 | 7 | 10 | 0 | 0 | 5 | 2 | 0 | 0 | 1 | 0 | 1 | 0 |  | 0 | 500 |  | 619 |
| Free Bapt． | 2 | 5 | 95 | 105 | 5 | 7 | 30 | 6 | 8 | 3 | 14 | 13 | 11 | 5 |  | 0 | 800 | 35，000 | 620 |
| R．C ．－．．．． | 0 | － 6 |  | 78 | 0 | 15 |  |  |  |  | 0 | 12 |  |  |  |  | 500 |  | 621 |
| Nonsect．．． | 3 | ｜ 6 | 90 | 99 | 0 | 0 | 22 | 22 | 20 | $0_{1}$ | 21 | 21 | 11 | 8 |  | 27 | 2， 400 | 36，000 | 622 |

Table 43.-Statistics of private high schools, endowed academies, seminaries,


[^104]and other private secondar: schools for the scholastic year 1897-98-Continued.

| Religious denomination. |  |  | Students. |  |  |  |  |  |  |  |  |  |  |  |  |  | Number of volumes in library. | Value of grounds, build. ings, furniture, and sci. entific apparatus. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Secondary students. |  | Elementary stadents. |  | Preparing for college. |  |  |  | Graduates in 1898. |  | College prepara tory situdents in theclass that gradu. ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas. sical course. | Scien. tific course. |  |  |  |  |  |  |  |  |  |  |
|  | $\underset{\sim}{\underset{\sim}{c}}$ |  |  |  | 骨 |  | $\stackrel{\oplus}{\underset{\sim}{5}}$ |  |  | $\begin{gathered} \text { s. } \\ \text { ci } \\ \text { g } \\ =1 \end{gathered}$ | $\frac{\stackrel{0}{c}}{\substack{5}}$ |  |  |  |  |  |  |  | $\frac{\stackrel{5}{c s}}{\stackrel{y}{c \mid}}$ |  |  |
| 4 | 5 | 6 | 8 | 8 |  |  | 9 | 141) | 1 ${ }^{\text {L }}$ | 12 | 1:3 | 1 | 15 | 16 | 18 | 18 | 19 | 630 | 9\% | 188 |  |
| Nonsect | 1 | 2 | 26 | 34 | 0 | 0 | 4 | 1 | 2 |  | 1 | 1 | 0 | 1 | 4 | 0 | 150 | \$6, 132 | 623 |
| Nonsect | 2 | 1 | 23 | 39 | 4 | 1 | 3 | 9 | 1 | 0 | 2 | 3 | 2 | 2 | 4 | 0 | 3,900 | S0, 500 | 624 |
| Nonsect | 1 | 2 | 25 | 25 | 15 | 10 |  |  |  |  | 2 | 3 |  |  | 3 | 0 | 350 | 3, 000 | 625 |
| Friends. | 3 | 3 | 47 | 43 | 2 | 8 | 1 | 0 |  |  | 4 | 7 | 0 | 1 | , | 0 | 2,000 | 20,000 | 626 |
| Bapt. | 4 | 5 | 93 | 78 | 0 | 0 | 61 | 37 | 5 | 0 | 13 | 23 | 11 | 12 | 4 | 0 | 1,800 | Co, 000 | 627 |
| Nonsect | 2 | 2 | 46 | 35 | 0 | 0 | 14 | 8 | 6 | 0 | 7 | 2 | 5 | 0 | 4 | 0 | 650 | 15,525 | 628 |
| Nonsect .. | 1 | 3 | 11 | 36 | 9 | 3 | 2 | 3 | 3 |  | 2 |  |  | 5 | 4 | 0 | 1,300 | 18,000 | 629 |
| R. C | 0 | 10 | 0 | 61 | 0 | 70 |  |  |  |  | 0 | 7 |  |  |  |  | 4,000 |  | 630 |
| Nonsect .. | 7 | 0 | 52 | 0 | 6 | 0 | 15 | 0 | 20 |  | 5 | 0 | 4 |  | 4 | 0 | 0 | 9, 000 | 631 |
| Epis...... | 2 | 0 | 7 | 0 | 23 | 0 |  |  |  |  |  |  |  |  |  | 0 | 600 |  | 632 |
| R. C | 6 | $0$ | 109 | 0 | 134 | 0 |  |  |  |  | 8 | 0 |  |  |  |  | 4,915 | 175, 000 | 633 |
| Nonsect | 3 | 0 | 13 | 0 | 28 | 0 |  |  |  |  | 0 | 0 |  |  |  | 0 | 0 |  | 634 |
| Nonse | $6$ | $0$ | 50 | 0 | 35 | 0 | 40 | 0 | 10 |  | 30 | 0 |  |  | 4 |  |  | 10, 000 | 635 |
| R. C | 8 | 0 | 52 | 0 | 13 | 0 | 17 | 0 | 13 | 0 | 14 | 0 | 14 | 0 | 5 | 0 | 400 | 150, 000 | 635 |
| M. E. | 0 | 8 | 0 | 261 | 0 | 29 | 0 | 45 |  |  | 0 | 35 | 0 |  | 4 |  | 1,138 |  | 637 |
| Nonsect | 4 | 0 | 28 | 0 | 10 | 0 | 6 | 0 | 3 |  | 3 | 0 | 3 | 0 | 4 | 0 |  |  | 638 |
| I. C | 0 | 8 | 0 | 50 |  |  |  |  |  |  | 0 | 5 |  |  |  |  | 5,000 |  | 639 |
| i. C | 4 | 0 | 40 | 0 | 62 | 0 |  |  | 23 |  | 0 | 0 | 0 | 0 | 4 | 0 | 6,000 | 95, 000 | 610 |
| Nonsect.. | 0 | 6 | 0 | 40 | 0 | 45 | 0 | 40 |  | 0 | 0 | 2 | 0 | 2 | , |  | 1,000 |  | 641 |
| 1R. C ...... | 0 | 5 | 0 | 20 | 0 | 20 |  |  |  |  |  |  |  |  |  |  |  |  | 642 |
| Nonsect .. | 0 | 8 | 0 | 96 | 0 | 44 | 0 | 1 | 0 | 0 | 0 | 8 | 0 | 1 | 4 | 0 |  |  | 643 |
| Nonsect | 10 | 0 | 165 | 0 | 2 |  |  |  |  |  | 20 | 0 |  |  | 4 | 0 | ,000 | 55,000 | 644 |
| Nonsect | 0 | 8 | 0 | 30 | 10 | 10 |  |  | 0 |  |  |  | 0 | 5 |  |  |  |  | 645 |
| Nonsect | 1 | 1 | 18 | 5 | 0 | 0 | 1 | 0 | 1 |  | 0 | 0 |  |  | 4 | 0 |  |  | 646 |
| Nonsect .- | 1 | 2 | 16 | 13 | 32 | 5 |  |  | , | 2 | 2 | 5 | 2 | 2 | 3 | 0 | 30 | 4,200 | 647 |
| R. C . . . . . | 0 | 9 | 0 | 30 |  |  |  |  |  |  | 0 | 2 |  |  |  |  | 4, 000 |  | 648 |
| Nonsect | 2 | 0 | 31 | 11 | 0 | 4 | 4 | 3 | 3 |  | 3 | $\pm$ | 3 | 0 | 4 | 0 | 200 | 10,000 | 649 |
| Nonsect .. | 1. | 1 | 8 | 4 | 23 | 15 | 0 | 0 | 0 | 0 | 4 | 15 | . |  | 3 | 12 |  | 15,000 | 650 |
| R. C...... | 0 | 5 | 0 | 40 | 0 | 47 |  |  |  |  | 0 | 10 | 0 |  |  |  | 2,000 |  | 651 |
| Nonsect | 0 | 3 | 0 | 114 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 1 | 5 | 0 | 1,000 | 75,000 | 652 |
| Nonsect | 2 | 0 | 28 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | , | 20 | 5,000 | 15,000 | 653 |
| R. C. | 2 | 0 | 10 | 0 | 66 | 0 | 4 | 0 |  |  |  |  |  |  |  |  | 2,000 |  | 654 |
| Nonsect | 0 | 4 | 0 | 25 | 0 | 17 |  |  |  |  |  |  |  |  | 4 |  |  |  | 655 |
| Epis...... | 1 | 4 | 0 | 24 | 6 | 16 | 0 | 0 | 0 | 0 | 0 | 3 |  | 0 | 4 |  |  |  | 656 |
| R. C . .-. .- | 0 | 2 | 0 | 18 | 11 | 49 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 5 | 0 | 500 | 6,000 | 957 |
| Nonsect | 9 | 0 | 71 | 0 | 80 | 0 | 0 | 0 |  | 0 | 25 | 0 | 0 | 0 | 5 | 71 | 3,000 | 350, 000 | 658 |
| Nonsect .- | 1 | 0 | 9 | 2 | 5 | 5 | 3 | 0 |  |  | 0 | 0 | 0 | 0 | 4 |  |  |  | 659 |
| R. C ...... | 0 | 8 | 0 | 40 | 0 | 35 |  |  |  |  | 0 | 2 |  |  | 6 |  | 1,000 |  | 660 |
| Nonsect .. | 6 | 6 | 46 | 56 | 205 | 253 |  |  | 3 | 0 | 4 | 6 |  | 0 | 4 |  |  | 106,208 | 661 |
| P.E | 2 | 7 | 0 | 39 | 0 | 27 |  |  |  |  | 0 | 7 |  |  | 3 |  | 272 | 60,000 | 662 |
| Friends... | 1 | 1 | 7 | 11 | 5 | 1. | 4 | 3 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 20 | 2,600 | 663 |
| Nonsect.. | 2 | 1 | 38 | 15 | 0 | 0 | 6 | 0 | 0 | 0 |  |  |  |  |  |  | 300 | 5,000 | 654 |
| Epis...... | 2 | 1 | 10 | 0 | 10 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | $\stackrel{3}{5}$ | 0 | 500 | 15, 000 | 665 |
| Nonsect .. | 0 | 1 | 0 | 26 | 0 | 6 | 0 | 0 | , | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 500 |  | 666 |
| Friends... | 0 | 3 | 10 | 4 | 12 | 18 | 2 | 0 |  |  |  |  |  |  |  | 0 | 100 |  | 667 |
| Nonsect .. | 1 | 1 | 18 | 25 | 70 | 75 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 150 | 3,000 | 668 |

Table 43.-Statistics of private high schools, endowed academies, seminaries,

|  | State and post-office. | Name. | Principal. |
| :---: | :---: | :---: | :---: |
|  | 1 | ஓ | - 3 |
|  | massachusetts. |  |  |
| 669 670 | Amherst | Oak Grove Home Schoo | Miss Vryling W. Buffu <br> Misa Lara |
| 671 |  | Phillips Academy | Cecil F. P. Bancroft, LL. |
| 672 |  | Punchard Free Scho | Frank 0 . Baldwin |
| 673 | Ashburnham | Cushing A cademy | Hervey S. Cowell ${ }^{\text {B. F. Harding, A. }}$ |
| 675 | Billeric | Howe School. | Earl C. Douis. |
| 677 | Boston (Back Bay) | Mitchell's Boys Boston A cademy of Notre Dame | M. C. Mitchell - ${ }^{\text {Sistor }}$ |
| 678 | Koston (618 Massachusetts are.). | Boston Female Academy of the Sacred Heart. | Madame R. B. Aitken.. |
| 679 | Boston (252 Marlboro st.).. | Bynner's (Hiss) Private School | Miss Carolino Naomi Bynner. |
| 680 | Boston (253 Common reealth ave.). | Chamberlayne's (Miss) School for | Miss Catharine J. Chamberlayne. |
| ${ }_{681} 68$ |  | Chauney Hall School | Tayior, DeMieritte, and Hagar |
|  | Boston (97 Beacon | Classical scbool |  |
| 683 | Boston (321 Commonwealth | The Commonwealth Arenue School. | Tho Misses Gilman (Hannah E. and Julia R.). |
| $\begin{aligned} & 684 \\ & 685 \end{aligned}$ | Boston (91 Nowbury st.). <br> Boston (85 Beacon st.) ... | Curtis's (Miss) Private School | M. D. Marsh, C.S. Street, C . F . |
|  | Boston ( ${ }^{\text {201 Peacon st.) }}$ | Home and Day School for Girls... | Curtis. <br> Miss Frances $\nabla$. Eme |
| 687 | 13oston (25 Chestrut st.) | Hersey's (Miss) School for Girls* | Miss Heloise E. H |
| 688 | Roston (21 Harliooro st.) | Bradford Academy | Miss Ina C. Allen...inor... |
| 690 |  | Carleton School.. | Isaac N. Carleton, Ph. D....... |
| 691 | Brighton | Mount St. Joseph Academy | Sister Superior |
| ${ }_{693}^{692}$ | Brimield ..... | ${ }^{\text {Hitchcock }}$ A cademy ${ }^{*}$ *...... | Georga H. Browne, A. M.... |
| 694 | Cambridge ( 34 and 36 Con- cord are.). | The Cambridge School for Girls | Arthur Gilman, M. A., direct- <br> or. |
| 695 | Cambridge ham st.). | Private Fitting School for Boys and Girls. | Miss K. V. Smith. |
| $\begin{aligned} & 696 \\ & 697 \end{aligned}$ | Canbridgoport .... | Day and Family School for Boys * Concord School | Joshua Kendall |
| 698 | Connway. | Hill View school. | Mrs. E. C. Per |
| 699 | Danvers (cor. Maple and Poplar sts.). | Willard Hall Scıool for Gir | Mrs. Sarah M. |
| 700 | Deeritild.... | Deerfield Academy and Dickin- | D. T. Carpenter |
| 1 | Dorchester (23 Allston st.). | Shawmut Scho | Miss Ella G. T |
| 703 | Ducter ${ }^{\text {Dux }}$ | The Alden School for Gir | Mary T. Jenking |
| $70 \pm$ | do | Partridge Academy | Thos. H. H. Knight, A. B....... |
| ${ }_{7} 705$ |  | Powder Point School | F. B. Knapp, S. B . . . 1 ....... |
| 707 | East Northifiel | whistou seminary. | Evelyn S. Hall, B |
| 708 | Everett. | Homo School. | Mrs. A. P. Potter |
| 709 | Fall River | La Ste. Union des Sacrés Cœurs | Sister Mary Aidan |
| 711 | Franklin | Dean Academy | Arthur W. Peirc |
| 712 | Great sarringt | Hedgwiek Insti | Edward J. Va |
| 713 | eenfi | Prospect Hill School ........... | ter and Caroline P |
| ${ }_{715}^{714}$ | $\mathrm{Gr}_{\mathrm{Hr}}^{\mathrm{H}}$ | Groton School | Rev. Endicottreabory, LL.M. |
| 5 |  | Hopkins A cad | Hi. M. Thayer, B. A |
| 7 | Hi | Sn | Miss Lilla |

[^105]and other private secondary schools for the scholastic yoar 1897－98－Continued．

| Religious denomina－ tion． | $\begin{gathered} \text { Sec- } \\ \text { oud- } \\ \text { ary } \\ \text { in- } \\ \text { struct- } \\ \text { ors. } \end{gathered}$ |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  | Number of volumes in library． | Value of grounds， build－ ings， furni－ ture， and sci－ entific appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second ary stu－ dents． |  | Elemen－ tary stu－ dents． |  | Sreparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara－ torystu－ dentsin the class that gradn－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． <br> sical <br> course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & \text { 号 } \\ & \text { 馬 } \end{aligned}$ | $\left\lvert\, \begin{aligned} & \text { © } \\ & \text { जु } \\ & \text { जg } \\ & \text { F } \end{aligned}\right.$ |  |  |  |  | $\frac{0}{\mathrm{~J}}$ |  |  |  |  |  | 寄 |  |  |  |  |  | $\frac{\dot{3}}{\stackrel{y}{4}}$ | $\begin{gathered} \text { 官 } \\ \text { g్ర } \\ \text { En } \end{gathered}$ |  |
| 4 | 5 | 6 | \％ | 8 |  |  | （1） | 16 | 11． | 18 | 18 | 見退 | 15 | 显6 | 县哭 | 且才 | 39 | 189 | ${ }^{\text {S }}$ 宜 | 93 |  |
| Nonsect | 0 | ， | 0 | 9 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 2 | 0 | 2 | 4 |  | 600 |  | 669 |
| Nonsect． | 1 | 14 | 0 | 126 | 0 | 0 | 0 | 8 | 0 |  | 0 | 14 |  |  |  | 0 | 4， 500 | \＄1 140,000 | 670 |
| Nonsect | 18 | 0 | 407 | 0 | 0 | 0 | 229 | 0 | 178 | 0 | 122 | 0 | 122 | 0 | 4 | 0 | 3， 100 | 200， 000 | 671 |
| Nonsect | 1 | 13 | 38 | 46 | 0 | 0 | 4 | 7 | 4 | 0 | 10 | 8 | ， | 2 | ， |  | 500 | 40，000 | 672 |
| Nonsect． | 5 | 5 | 78 | 71 | 12 | 8 | 14 | 6 | 6 | 0 | 13 | 11 | 8 | 5 | 4 | 0 | 1，000 | 123， 100 | 673 |
| Epis． | 4 | 4 | 14 | 0 | ， | 0 | 12 | 0 | 2 | 0 | 4 | 0 | 3 | 0 | 4 | 0 | 2，000 | 50， 900 | 674 |
| Nonsect | 2 | 1 | 29 | 25 | 0 | 0 | 1 | 2 | 3 | 2 | 2 | 8 | 1 | 2 | 4 | 0 | 90 | 9， 000 | 675 |
| Nonsect | 4 | 0 | 20 | 0 | 20 | 0 | 1 | 0 | 9 | 0 | 1 | 0 |  |  | 4 | 20 | 200 | 50，000 | 676 |
| IR．C | 0 | 5 | 0 | 75 | ， | 100 |  |  |  |  | 0 | 11 | 0 | 0 | 4 | 0 | 5，000 | 200， 000 | 677 |
| R．C | 0 | 8 | 0 | 41 | 0 | 24 |  |  |  |  |  |  |  |  |  |  | 1，250 | 65， 300 | 678 |
| Nonsect ．－ | 1 | 10 | 0 | 34 | 0 | 6 | 0 | 5 |  |  |  |  |  |  | 4 |  | 3，000 |  | 679 |
| Nonsect． | 4 | 4 | 0 | 25 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  |  | 680 |
| Nonsect ．． | 3 | 2 | 53 | 24 | 34 | 117 | 10 | 5 |  | 0 |  |  |  |  | 4 | 0 | 750 | 600 | 681 |
| Jronsect ．． | 6 | 0 | 110 | 0 | 40 | 0 | 100 |  |  | 0 | 17 | 0 | 17 | 0 | 5 | 0 | 200 |  | 682 |
| Nensect．． | 0 | － 3 | 0 | 25 | 0 | 10 | 0 |  |  | 3 | 0 |  | 0 | 1 |  | 0 |  |  | 683 |
| Nonsect ．－ | 0 | 7 | 0 | 50 | 30 | 30 | 0 | 10 |  |  | 0 | 3 | 0 | ， |  |  |  |  | 684 |
| Nousect．． | 4 | － 0 | 20 | 0 | 30 | 0 | 20 | 0 | 8 | 0 | 20 | 0 | 20 | 0 | 4 | 0 | 250 |  | 683 |
| Nonsect | 1 | 8 | 0 | 35 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  |  | 686 |
| Epis． | 0 | 12 | 0 | 82 | 0 | 14 |  |  |  |  | 0 | 14 |  |  |  |  |  |  | 687 |
| Nonsect ．． | 0 | 13 | 0 | 72 | ， | 16 | 0 | 26 | 0 | 0 | 0 | 20 | 0 | 12 | 5 | 0 |  |  | 688 |
| Nonsect ．． | 8 | 11 | 0 | 115 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 19 | 0 | 0 |  | 0 | 5，000 | 100， 000 | 689 |
| Cong ．．．．． | 2 | 2 | 14 | 0 | 2 | 0 | 1 | 0 |  |  |  |  |  |  |  |  | 1，000 | 15， 000 | 690 |
| R．C．．．．．． | 0 | － 5 | 0 | 20 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 2 | ， | 0 | 4 | 0 | 1，5 50 | 130， 009 | 001 |
| Nonsect ．－ | 2 | 1 | 25 | 30 | 0 | 0 | 10 | 20 | 0 | 0 | 0 | 8 | ， | 3 | 4 | － | 2，000 | 12， 000 | 692 |
| Nonsect ．． | 7 | 0 | 47 | 0 | 16 | 0 | 40 |  | 2 | 0 | 9 | 0 | 9 | 0 | 5 | 0 | 800 | 40，000 | 693 |
| Nonsect | 0 | 10 | 0 | 65 | 0 | 19 |  |  |  |  | 0 | 7 | 0 | 7 |  | 0 |  |  | 694 |
| Nonsect | 0 | 4 | 6 | 4 | 2 | 4 | 5 | 2 |  |  | 0 | 0 |  |  |  | 0 |  |  | 695 |
| Nonsect．． | 1 | 1 | 4 | 0 | 0 | 0 | 4 | 0 |  | 0 |  |  |  |  |  |  |  |  | 696 |
| Nonsect ．． | 4 | 0 | 14 | 0 | 4 | 0 | 8 | 0 | 5 | 0 | 4 | 0 | 2 | 0 |  | 0 | 500 | 30，000 | 697 |
| NTonsect ．． | 0 | 3 | 1 | 4 | 1 | 4 | 0 | 2 |  | 0 | 0 | 0 | 0 | 0 | 3 | ， |  | 3,000 | 698 |
| Cong ．．．．． | 0 | ， | 0 | 11 |  |  | 0 | 2 |  |  | 0 | 0 |  |  |  |  | 300 | 15， 000 | 699 |
| Nonsect | 2 | 1 | 14 | 19 | 0 | 0 |  |  |  |  | 2 | 5 | 1 | 2 | 4 | 0 | 3，000 | 16，000 | 700 |
| Nonsect ．． | 0 |  | 0 | 16 | 0 | 2 |  |  | ， |  |  |  |  |  | ， |  |  |  | 701 |
| Nonsect．． | 2 | 2 | 30 | 34 | 0 | 0 | 10 | 10 | 0 | 0 | 4 | 3 | 2 | 0 | 4 | 0 | 3,200 | 150， 000 | 702 |
| Nonsect ．． | 0 | 2 | 1 | 5 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | 0 | 700 | 12， 000 | 703 |
| Nonsect．．． | 1 | 1 | 17 | 25 | 9 | 9 | 0 | 1. |  |  | 3 | 10 | 0 | 0 | 3 | 18 | 500 | 8，000 | 704 |
| Nonsect．．． | 5 | 3 0 | 25 | 0 | 10 | 0 | 10 | 0 |  | 0 | 4 | 0 | 2 | 0 | 4 | 0 | 1，000 | 25， 000 | 705 |
| Cong ．－．．． | 9 | 0 | 101 | 3 | 0 | 0 | 34 | 3 |  |  | 16 | 0 | 12 | 0 | 4 | 0 | 3， 500 | 150，c00 | 706 |
| Nonsect．． | 2 | 23 | 0 | 234 | 0 | 148 | 0 | 38 | 0 | 39 | 0 | 32 | 0 | 11 | 4 | 0 | 5，444 | 356， 000 | 707 |
| Bapt． | 0 | 4 | 0 | 25 | 0 | 5 | 0 | 7 |  | ．．－． | 0 | 5 | 0 | 3 | 4 | 0 | 500 | 20，000 | 708 |
| R．C． | 0 | 4 | 0 | 15 | 0 | 33 | $\stackrel{0}{0}$ | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 4 | 0 |  |  | 709 |
| Univ ．．．．． | 6 | 5 | 53 | 41 | 0 | 0 | 15 | 10 | 10 | 0 | 13 | 9 | 9 | 4 | 4 | 0 | 1， 500 | 135， 000 | 710 |
| Nonsect．． | 0 | 1 | 0 | 14 | 5 | 16 | 0 | 3 |  |  | 0 | 6 | 0 | 3 |  |  | 150 |  | 711 |
| Nonzect ．． | 4 | 3 | 19 | 0 | 9 | 0 | 9 | 0 | 10 | 0 | 7 | 0 | 4 | 0 |  | 0 |  | 30， 000 | 712 |
| Nonsect．． | 0 | 5 | 0 | 13 | 0 | 3 | 0 | 3 |  |  | 0 | 2 |  |  |  |  | 400 | 30， 000 | 713 |
| P，E ．．．．．． | 13 | 0 | 90 | 0 | 37 | 0 | 90 | 0 |  |  | 18 | 0 | 15 | 0 | 4 | 0 | 3，000 | 300，000 | 714 |
| Nonsect．． | 1 | 1 | 13 | 25 | 0 | 0 | 1 | 5 | 2 | 2 | 0 | 3 | 0 | 0 | 4 | 0 | 250 |  | 715 |
| Nonsect．． | 0 | 4 | 7 | 13 | 0 | 0 | 0 | 0 |  | 2 | 0 | 5 | 0 | 1. | 4 |  | 2，000 | 25， 0 （60 | 716 |
| Nonsect ．．． | 1 | 2 | 25 | 25. | 0 | 0 | 2 | 3 |  |  | 3 | ． | 2 | 0 |  | 0 | 500 | 24，712 | 717 |

Table 43.-Statistics of privaie high schools, endowed academies, seminaries,

|  | State and post-office. | Name. $\mathfrak{B}$ | Principal. |
| :---: | :---: | :---: | :---: |
|  | Massachusetts-cont'd. |  |  |
| 718 | Hinghan | Derby Academy * | Saralı G. Robins |
| 719 | Leicester | Leicester Academ | Corwin F. Palmer |
| 720 | Lowell. | The Rogers Hall School for Girls | Eliza P. Underbill |
| 721 | Marion | Tabor Academy | Dana M. Dustan, A. |
| 722 | Middlebor | Eaton School... | Amos H. Eaton.... |
| 723 | Milton. | Milton Academy | Harrison Otis Apthorp, A. M. |
| 724 | Monson. | Monson Academy | Arthur Newell Burko.......... |
| 725 | Mount Hermon | Mount Hermon School for Boy | Henry I'. Cutler, B. A.......... |
| 723 | Nantucket. | Admiral Sir Isaac Coffin's L̇Lancasterian School. | E. B. Fox and Miss Gertrude M. King. |
| 727 | Natick | Walnut Hill School for Girls . . . . | Charlotte H. Conant, B. A., Florenco Bigelow, M. A. |
| 728 | New Bedf | Friends' Academy | Thomas H. Ecizfeldt |
| 720 |  | Home Preparatory School | Charles E. L. Mosher. |
| 730 | Newton | Cutler's Preparatory School ...... | Edward H. Cutler, A. M...... |
| 731 722 | - $\mathrm{Northampton......................}$. | Newton Privato School............. <br> Mary A. Burnham School for | Anna M. Goodmon. ............ <br> Miss B. 'I'. Capen |
| 732 733 | Northampto Norton ... | Mary A. Burnham School for Girls. <br> Wheaton Female Seminary | Miss B. 'L'. Capen ............... Samuel V. Cole ................. |
| 734 | Pittsfield | The Berkshire School............. | Arthur J. Clough, A. M |
| 735 | -....do. | Family and Day School for Girls*. | Miss Mary E. Salisbury |
| 736 | Quincy | Adams Acadeny* .-.............. | William Royall 'Tyler ......... |
| 737 | ....do | Woodward Seminary.............. | Miss Carrie E. Small........... |
| 738 | Roxbury | Notre Damo Acarlemy . . . . . . . . . . | Sister Julia...................... |
| 739 | -...do | Roxbury Latin School | William C. Collar, A. M . . . . . . |
| 740 | Sherborn | Sawin Academy and Dowse High School. | Charles S. Webb.................. |
| 741 | Southboro | St. Mark's School................ . . . | Rev. Wm. G. Thayer, A. M. |
| 742 | South Braintre | Thayer Academy. | William Gallaghor, Ph. D..... |
| 743 | South Byfield. | Dummer Academy ....... | Perley Leonard Horne, A. M.. |
| 744 | South Lancaster | South Lancaster A cadem | Joseph H. Haughey ............ |
| 745 | South Wrorthington | The Conwell Academy-............. | C. Burnham.................... |
| 746 | Springfield ......... | The "Elms" Home Day and Mnsic Schools (Girls). | Miss Chariotte W. Porter..... |
| 747 | . . do | MacDuffie's School for Girls..... . | John MacDuffie, Ph. D......... |
| 748 | Taunton | Bristol Academy.. | Win. A. Lackey. |
| 749 | Waban | The Waban School* ............... | Charles Everett Fish, A. M... |
| 750 | Waltham | Walcham New Church School | Benjomin Worcester........... |
| 751 | Wellesley | Dana Hall School........ | Misses Eastman.. |
| 752 | - .... do...... | Wellesley School for Boys | Edward A. Benze |
| 753 | West Boxford | Barker Free School* | N. 13. Sargent ................... |
| $75 \pm$ | West Bridgewater | Howard Seminary .. | Ralph Waldo Gilford.......... |
| 755 | ivestford....... | Westford Academy...............- | William E. Frost |
| 756 757 | West Newton. | West Newton Lnglish and Classical school. | Nathanicl I. Alien ............ |
| 757 | Vilbraham. | Wcsleyan Academy Murdock School | William Pico Nowhall.. |
| 759 | Wollaston. | Quincy Mansion School for Girls. | Horaco Mann Willard ........... |
| 760 | Worcester | The Dalzell School for Boys ...... | Geo. A. Stearns, jr .............. |
| 761 | .....do | The Dalzell School for Girls...... | Rachel C. Fish.................. |
| 762 | . . . . do | The Highland Military A cademy. | Joseph Alden Shaw, A. M..... |
| 763 | . . . do | Kimball's (Miss) School for Girls. | Miss E. A. Kimball ............. |
| 764 | .....do. ............ | Worcester Acadomy ............... | D. W. Abercrombie, A. M., LL. D. |
| 765 | Ann Arbor | St. Thomas School | Sister M. Magdaleno |
| 766 | Benton Harbor | Benton Harbor College ............ |  |
| 767 | Birdsall. | Raisin Valley Seminary ............ | L. A delbert Baileg, A. M...... |
| 768 | Clarksville | Clarksville Academy .. | Charles J. Transue |
| 769 | Detroit (322 Jefferson ave.). | Academy of the Sacred Heart..... | Madame A. Pardow............ |
| 770 | Detroit (73 Stimson place).. | Detroit Home and Day School.... | Miss Ella M. Liggett, A. B.... |

* Statistics of 1896-97.
and other private secondary schools for the scholaslic year 1897-98-Continued.


TABLe 43.-Statistics of prirate ligh schools, cudowed academies, seminarics,


* Statistics of 1896-97.
and other private secondary schools for the scholastic year 1897－9S－Continaed．

| Religious denomina－ tion． |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Value of grounds， build－ ings， furni－ ture， and sci－ entific appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second－ ary stu－ dents． |  | Elemen－ tary stm－ dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara tory stu－ dents in theclass that gradu－ ated in 1898. |  |  |  | $\begin{gathered} \text { H } \\ \text { Hix } \\ \end{gathered}$ |  |  |
|  |  |  | Clas－ sical course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & \stackrel{9}{9} \\ & \text { ت゙ } \\ & \text { ت } \end{aligned}$ |  |  |  | 恖 |  |  |  | 興 |  | 㡙 |  | $\stackrel{\dot{9}}{\text { ت⿹\zh4龴 }}$ |  |  |  | $\underset{\text { ت゙ }}{\text { ت }}$ |  |  | $\begin{aligned} & \text { 亗 } \\ & \text { 宿 } \\ & \text { 学 } \end{aligned}$ |  |
| 4 | 5 | （3） | 7 | 5 |  |  | 3 | 1 10 | 冝1 | 19 | 13 | 14 | 15 | 16 | 星学 | 18 | 19 | 13 | 21 | （28 |  |
| Nonsect | 6 | $1)$ | 27 | 1 | 49 | 0 | 6 | ， |  | 0 | 5 | 0 | 5 | 0 | 4 | 0 | 1，000 | \＄ 60.000 | 71 |
| Nonsect．． | 0 | 7 | 0 | 45 | 13 | 53 | 0 | ， |  |  | 0 | 16 |  |  | 4 | 0 | 1，500 |  | 772 |
| R．C | 0 | 1 | 19 | 26 | 256 | 270 |  |  |  |  | 6 | 6 |  |  | 4 | 0 | 250 |  | 773 |
| Epis | 1 | 5 | 0 | 34 | 0 | 3 | 0 |  |  |  | 0 | 3 | 0 | 0 | 4 |  | 1，009 | 75， 000 | 774 |
| Nonsect | 1 | 1 | 15 | 14 | 4 | 1 | 15 |  |  |  |  |  |  |  |  |  |  |  | 775 |
| I． 0 |  | 5 | 0 | 60 | 0 | 0 |  |  |  |  | 0 | 3 |  |  |  |  | 1，500 |  | 776 |
| R．C＇ | 0 | 1 | 11 | 21 | 160 | 159 |  |  |  |  | 1 | 4 |  |  | 4 |  | 500 |  | 777 |
| R．C | 0 | 6 | 0 | 17 | 168 | 177 |  |  |  |  | 0 | 4 |  |  | 4 | 0 | 300 |  | 778 |
| 12．C | 0 | 4 | 10 | 14 | 165 | 236 |  |  |  |  |  |  |  |  |  |  |  |  | 779 |
| R．C＇ | 0 | 3 | 30 | 50 | 120 | 200 |  |  |  |  | 0 | 6 |  |  | 4 |  | 400 |  | 780 |
| R．C | 0 | 11 | 0 | 63 | 0 | 117 |  |  |  |  | 0 | 6 |  |  | 4 |  | 2，986 | 96，441 | 781 |
| Nonsect | 8 | 0 | 113 | 0 | 11 | 0 | 7 | 0 | 45 | 0 | 16 | 0 | 14 | 0 | 4 | 113 | 8，000 | 250，000 | 782 |
| R． 1. | ， | 3 | 0 | 30 | 75 | 100 |  |  |  |  | 0 | 6 |  | 6 | 4 |  | 100 |  | 783 |
| FreeMeth | 3 | 1 | 41 | 31 | 21 | 22 | 1 | 0 |  |  | 9 | 1 | 1 | 0 | 4 | 0 | 600 | 7，000 | 784 |
| R．C．．．．． | 0 | 2 | 9 | 16 | 76 | 84 |  |  |  |  | 0 | 0 |  | ， | 4 |  | 70 | 6，000 | 785 |
| Er．Luth． <br> U．Nor． | 2 | 2 | 24 | 16 | 59 | 51 |  |  |  | 0 | 9 | 10 | 8 | 0 | 2 | 0 | 1，000 | 3,500 | 786 |
| Nonsect． | 1 | 6 | 0 | 26 | 17 | 36 | 0 |  | 0 | 0 | 0 | 4 | 0 | 2 | 4 | 0 | 250 |  | 787 |
| R．（ | 0 | 4 | 0 | 30 | 0 | 60 |  | 6 | 0 | 7 | 0 | 0 |  | 0 | 4 | 0 | 725 | 10， 000 | 788 |
| R．C | 0 | 5 | 0 | 20 | 0 | 40 | 0 | 6 | 0 | 6 | 0 | 3 | 0 | 3 | 3 |  | 200 |  | 789 |
| P．E | 0 | 5 | 0 | 53 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 12 | － | 10 | 4 | 0 | 3，000 | 100，000 | 790 |
| P．E | 14 | 1 | 162 | 0 | 16 | 0 | 15 | 0 | 28 | 0 | 25 | 0 | 13 | $\theta$ | 4 | 162 | 3， 000 |  | 791 |
| Leth | 2 | 0 | 28 | 12 | 130 | 23 |  | 3 | 5 | ， | 17 | 6 | ， | 3 | 4 | 0 | 275 |  | 792 |
| $\begin{aligned} & \text { Luth. U. } \\ & \text { Nor. } \end{aligned}$ | 3 | 0 | 10 | 14 | 62 | 31 |  |  |  |  | 8 | 6 | ， | 0 | 2 | 0 | 300 | 30，000 | 793 |
| P．C．．．．．． | 0 | 3 | 0 | 27 | 0 | 109 |  |  |  |  | 0 | 4 |  |  | 4 |  | 720 | 75，000 | 794 |
| Ref．Presb | 5 | 1 | 89 | 22 | 10 |  |  |  |  |  | 19 | 7 | 18 | 5 | 4 | 0 | 300 | 25，000 | 795 |
| Nonsect | 5 | 9 | 5 | 33 | 5 | 30 |  |  |  |  |  |  |  |  | 4 |  |  |  | 796 |
| Cong | 3 | 3 | 30 | 20 | 50 | 40 | 8 |  | 6 | 5 | 2 | 6 |  |  | 4 | 0 | 700 | 20，000 | 797 |
| Bapt．． | 5 | 2 | 73 | 74 | 26 | 4 |  |  |  |  | 21 | 34 | 6 | 3 | 4 | 117 | 3， 163 | 125，000 | 798 |
| Ev．Luth ． | 6 | 0 | 105 | 0 | 35 | 0 |  |  |  |  |  |  |  |  | 4 | ．．．． | 500 | 25，000 | 799 |
| R．C．．．．．． | $\theta$ | 4 | 0 | 50 | 0 | 48 |  |  |  |  | 0 | 0 |  |  | 4 | 0 | 900 |  | 800 |
| Nonsect．． | 2 | 6 | 19 | 14 | 3 | 4 | 5 | 2 | 2 | 1 | 3 | 4 |  | 1 | 4 | 33 | 450 |  | 801 |
| Nonsect | ${ }^{2}$ | 0 | 12 | 0 | 7 | 0 |  |  | 3 | 1 | 0 | 0 |  | 0 | 5 |  | 5 623 | －300 | 802 |
| R．C．．．．．． | 11 | 0 | 111 | 0 | 0 | 0 |  |  |  |  |  |  |  |  |  |  | 5，000 | 70，000 | 803 |
| Ev．Luth ． | 6 | 0 | 61 | 0 | 0 | 0 | 41 |  | 20 | 0 | 13 |  | 9 | 0 | 3 | 0 | 40 | 100， 000 | 804 |
| R．C．．．．．． | 3 | 0 | 105 | 0 | 204 | 0 | 2 |  |  |  | 12 | ， |  |  | 3 | 0 | 500 | 4，500 | 805 |
| Epis | 0 | 9 | 0 | 28 | 0 | 39 | 0 |  |  | 0 | 0 | 5 |  | 0 | 4 | ， | 600 | 2，000 | 805 |
| R．C | 2 | 5 | 0 | 100 | 0 | 117 | 0 |  |  |  | 0 | 7 |  | 1 | 4 |  | 1，200 |  | 807 |
| R．C．．．．． | 0 | 8 | 10 | 19 | 222 | 279 | 0 | 0 |  | 0 | 0 | 0 |  |  | 4 | 0 | 300 | 46，000 | 808 |
| M．E．Ger－ | 4 | 4 | 18 | 6 | 52 | 24 |  | 0 |  | 0 | 13 | 3 |  | 1 | 3 | 0 | 900 | 41， 000 | 809 |
| R．C ．．．．－ | 2 | 8 | 0 | 40 | 0 | 20 |  | 14 |  |  | 0 | 2 |  |  | 5 |  | 5，000 | 175， 000 | 810 |
| Nonsect ．． | 3 | 0 | 10 | 6 | 72 | 6 |  |  |  | 4 | 8 |  |  |  |  | 0 | 400 | 1，300 | 811 |
| R．C | 0 | 1 | 0 | 10 | 50 | 90 |  |  |  |  | 0 | 1 |  |  | 4 |  | 500 |  | 812 |
| P．E | 1 | 0 | 13 | 5 | 77 | 33 |  |  | 1 | 1 | 0 | 0 |  | 0 | 3 | 0 | 300 | 11，000 | 813 |
| Luth | 2 | 1 | 22 | 8 | 204 | 45 |  |  |  |  | 13 | 2 |  |  | 4 | 0 |  | 20， 000 | 814 |
| R．C．．．．． | 0 | 6 | 0 | 25 | ， | 120 |  |  |  |  | 0 |  |  |  |  |  | 1，000 | 80， 000 | 815 |
| Nonsect ．． | 1 | 1 | 30 | 23 | 40 | 67 | 1 |  |  |  | 1 | 0 | 1 | 0 | 2 | 0 | 150 | 5， 000 | 816 |
| Nonsect．． | 1 | 1. | 35 | 32 | 20 |  |  | ．．． |  |  | 1 |  |  |  | 3 | 0 | 200 | 3，000 | 817 |

Table 43.-Statistics of private high schools, endoved academies, seminaries,


[^106]and other prirate secondary schools for the scholastic year 1897－98－Continued．

| Religious denomina－ tion． |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  | Length of course in years. |  | Number of volumes in library. | Value of grounds， build． ings， furni－ ture， and sci－ entitic appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Secoud－ ary stu－ dents． |  | Elemen－ <br> tarystu－ <br> dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara tory stu－ dents in theclass that gradn－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas sical course． | Scien tific course． |  |  |  |  |  |  |  |  |  |  |
|  | $\frac{\stackrel{9}{\pi}}{\underset{\pi}{7}}$ |  |  |  | $\frac{\stackrel{0}{5}}{4}$ |  | $\stackrel{0}{3}$ |  | $\stackrel{\oplus ்}{\text { だ }}$ |  |  |  | 荘 |  |  |  |  |  | $\stackrel{\dot{』}}{\stackrel{y}{5}}$ | $\begin{aligned} & \text { © } \\ & \text { g } \\ & 0 \end{aligned}$ |  |
| 4 | 5 | 6 | 7 | 8 |  |  | 9 | 10 | 11 | 19 | 13：3 | 14 | 15 | 16 | 17 | 18 | 19 | －${ }^{8}$ | 1 | 22 |  |
| Nonsect | 1 | 0 | 12 | 14 | 66 | 73 |  |  | 4 |  | 0 | 0 | 0 |  | 3 | 0 |  | \＄4， 000 | 818 |
| Nonsect | 2 | 0 | 17 | 10 | 68 | 65 | 10 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 100 | 1，200 | 819 |
| Nousect | 1 | 1 | 10 | 18 | 30 | 27 |  |  | 3 | 8 | 0 | 5 | 0 |  | 4 | 0 | 855 | 9，000 | 820 |
| Nonsect | 1 | 1 | 16 | 18 | 40 | 50 | 5 | 0 |  |  | 1 | ， | 1 | 2 | 4 | 0 | 1，500 | 9，000 | 821 |
| Nonsect | 2 | 2 | 20 | 30 | 40 | 60 | 3 | 10 | 4 | 0 |  |  |  |  |  |  | 200 | 2，000 | 822 |
| Nonsect | 2 | 0 | 55 | 50 | 20 | 25 |  |  |  |  | 0 | 0 | 0 |  | 3 | 0 | 200 | 1，000 | 823 |
| Nonsect | 2 | 0 | 17 | 5 | 76 | 62 |  |  |  |  | 9 | 0 | 1 | 0 | ， | 0 | 26 | 1，200 | 824 |
| 12．C | 0 | 2 | 0 | 15 | 9 | 21 |  |  |  |  | 0 | 1 |  |  | 3 |  | 150 |  | 825 |
| M．E | 1 | 1 | 9 | 25 | 34 | 43 | 2 | 3 |  |  | 1 | 3 | 1 | 3 | 3 | 0 |  | 1，500 | 826 |
| Nonsect | 0 | 3 | 1 | 24 | 8 | 46 |  |  |  |  |  |  |  |  |  |  |  | 25，000 | 827 |
| Presb． | 1 | 1 | 20 | 17 | 20 | 18 | 5 | 8 | 10 | 10 |  |  |  |  | 4 | 0 | 100 | 5，000 | 828 |
| Nonsect | 1 | 2 | 28 | 25 | 75 | 102 |  |  |  |  | 4 | 4 | 4 | 4 | 3 | 0 | 300 | 5， 600 | 829 |
| Nonsect | 1 | 2 | 12 | 23 | 41 | 42 |  |  | ， |  |  |  |  |  | 3 |  | － 200 | 2． 000 | 830 |
| Presb． | 2 | 1 | 38 | 0 | 14 | 0 | 5 | 0 |  | 0 | 3 | 0 | 3 | 0 | ， | 0 |  | 4，500 | 831 |
| Nonsect | 1 | 0 | 14 | 33 | 26 | 19 | 1 | 2 | 4 | 0 | 2 | 2 | 1 | 2 | 3 |  | 125 | 2，000 | 832 |
| M．E．So | 0 | 10 | 0 | 157 | 0 | 43 |  |  |  |  | 0 | 16 |  |  | 5 | ． | 600 | 40，000 | 833 |
| Nonsect | 0 | 2 | 42 | 29 | 44 | 48 |  |  |  |  | 10 | 1 |  |  |  |  | 200 | 4，000 | 834 |
| Nonsect | 2 | 4 | 20 | 35 | 60 | 59 |  |  |  |  | 0 | 0 |  |  | 3 | 0 | 2，000 | 1，500 | 835 |
| M．E．So | 0 | 3 | 0 | 20 | 0 | 60 |  |  |  |  | 0 | 5 | 0 | 5 |  | 0 | 40 | 1，000 | 836 |
| Presb．．． | 0 | 8 | 0 | 65 | 0 | 25 |  |  |  |  |  | ， |  |  |  | 0 | 250 | 1，60J | 837 |
| P．E | 6 | 0 | 48 | 0 | 6 | 0 | 46 | 0 | 2 | 0 | 6 | 0 |  |  | 5 | 48 | 2，000 | 25，000 | 838 |
| Nonsect | 4. | 6 | 56 | 60 | 125 | 145 |  |  |  |  |  | 11 | 5 | 8 | 2 | 0 | 600 | 10， 000 | 839 |
| Nonsect | 1 | 1 | 29 | 33 | 44 | 27 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 5 | 0 |  | 800 | 810 |
| Nonsect． | 1 | 1 | 6 | 16 | 37 | 32 |  |  |  |  | 0 | ， |  |  | 5 |  |  | 3， 000 | 841 |
| Nonsect ．． | 2 | 1 | 32 | 28 | 24 | 20 | 32 | 8 |  |  |  |  |  |  |  | 41 | 1，500 | 5，350 | 842 |
| Nonsect | 1 | 1 | 20 | 18 | 62 | 71 | 5 | 3 |  | 5 | 0 | 0 | 0 | 0 | 4 | 0 | 300 | 10，000 | 843 |
| Cong | 0 | 4 | 32 | 60 | 60 | 80 | 4 | 2 | 8 | 8 | 8 | 8 | 4 | ， |  | 0 | 300 | 2，000 | 814 |
| M．E．So | 1. | 2 | 40 | 45 | 80 | 120 | 2 | ， |  |  | 2 | 20 | 0 | 2 | 4 | 0 | ．．．． | 4，000 | 845 |
| Meth | 1 | 1 | 10 | 10 | 50 | 50 | 1 | 0 |  |  | 1 | 1 | 1 | 1 |  | 0 | ．．．－．． | 1，000 | 846 |
| Nonsect | 0 | 1 | 22 | 18 | 21 | 19 | 2 | 5 |  |  | 4 | 1 |  |  | 4 | 0 | 300 | 3，000 | 847 |
| R．C | 3 | 0 | 65 | 0 | 110 | 0 |  |  |  |  | 6 | 0 |  |  | 4 | 0 | 600 | 50，000 | 848 |
| Bapt | 1 | 2 | 12 | 13 | 41 | 86 | 2 | 3 |  |  | 4 | 4 | 2 | 3 |  |  |  | 12， 000 | 849 |
| R．C | 0 | 2 | 0 | 39 | 0 | 75 |  |  |  |  | 0 | 0 | 0 |  |  |  |  |  | 850 |
| Nonsect | 1 | 2 | 0 | 20 | 37 | 78 | 0 | 1 |  |  | 0 | 1 | 0 |  | 4 |  | 150 | 100， 000 | 851 |
| Nonsect | 0 | 2 | 21 | 19 | 50 | 46 | 2 | 1 |  |  |  | 0 | 0 | ， | 3 | 0 | 1，000 | 2，500 | 852 |
| Nonsect ． | 1 | 1 | 25 | 15 | 33 | 41 | 0 | 1 |  |  | 0 | 0 |  |  | 4 | 0 | 0 | 300 | 853 |
| Nonsect | 0 | 2 | 1 | 10 | 34 | 30 | 0 | 6 | 0 | 0 |  |  |  |  | 2 |  | 50 | 1，500 | 854 |
| Nonsect． | 0 | 2 | 0 | 32 | 0 | 65 |  |  |  |  | 0 | 0 | 0 | 0 | ， |  | 100 | 5，000 | 855 |
| Nonsect | 3 | 0 | 25 | 20 | 90 | 90 | 0 | 1 | 1 | 1 | 5 | 1 | 1 | 2 | 3 | 0 | 300 | 3，500 | 856 |
| Nonsect | 1 | 1 | 19 | 17 | 53 | 50 |  |  |  |  | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1，500 | 857 |
| Nonsect ．． | 1 | 0 | 14 | 13 | 48 | 30 |  |  | 3 | 1 | 0 | 0 |  |  | 3 | 0 | 250 | 1，200 | 858 |
| Nonsect ．－ | 2 | 1 | 45 | 44 | 60 | 68 | 12 | 8 | 14 |  | 6 | ， |  |  | 3 | 0 | 600 | 2，500 | 859 |
| Nonsect | 0 | 1 | 12 | 13 | 9 | 15 | 2 |  |  |  |  |  |  |  | 4 |  |  | 2，000 | 860 |
| Nonsect | 1 | 1 | 16 | 14 | 30 | 33 | 8 | 12 |  |  | 0 | 0 |  |  |  |  |  | 3，000 | 861 |
| Nonsect | 1 | 1 | 65 | 50 | 20 | 30 | 3 | 3 | 0 | 0 | 0 | 3 | 0 | 3 | 4 | 0 |  | 4．000 | 862 |
| Presb． | 1 | 4 | 0 | 19 | 0 | 85 |  |  |  |  |  |  |  |  |  | 0 | 500 | 45， 000 | 863 |
| Miss．Bapt | 1 |  | 30 | 25 | 60 | 95 | 8 | 3 | 20 | 5 | 26 | 6 | 16 | 7 | 4 | 0 | ， 500 | 2，500 | 864 |
| R．C．．．．．． | 0 | 2 | 26 | 29 | 10 | 21 |  |  |  |  | 0 | ， |  |  |  |  | 1，500 |  | 865 |
| Nonsect．． | 3 | 1 | 44 | 40 | 24 | 16 |  |  |  |  | 1 | 3 |  |  | 4 | 45 | 382 | 3，500 | 866 |
| R．C． | 0 | 1 | 0 | 32 | 0 | 11 | 0 | 11 |  |  | 0 | 0 |  |  |  |  | 1，200 |  | 867 |
| Nonsect．． | 1 | 1 | 35 | 45 | 5 | 5 | 6 | 8 |  | 0 | 0 | 2 | 0 | 2 | 4 | 0 | 1，200 | 10，000 | 868 |

Table 43.-Statistics of private high schools, endowed academies, seminaries,


* Statistics of 1896-97.
and other private secondary schools for the scholastic year 1897－98－Continued．

| Religious denomina－ tion． |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  | Number of volumes in library. | Value of grounds， build－ ings， furni－ ture， and sci－ entific appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second ary stu－ dents． |  | Elemon－ tarystu－ dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara－ tory stu－ dents in theclass that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． sical course． | Stien－ tilic course． |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 号 |  | $\begin{aligned} & \text { ぶ } \\ & \text { ぶ } \end{aligned}$ |  |  |  | 舞 |  |  |  |  |  |  |  |  |
| 4 | 56 | 6 | ${ }^{17}$ | 8 |  |  | 9 | 10 | 11 1 | 12 | 13 | 1 | 具5 | 16 | 18 | 18 | 19 | 36 | 21 | 938 |  |
| Nonscet | 1 | 1 | 32 | 30 | 3 | 2 | 2 | 2 |  |  | 0 |  | 0 | 0 | 4 | 0 |  | \＄3， 000 | 869 |
| Nonsect | 60 | 0 | 43 | 0 | 30 | 0 | 0 | 0 |  | 0 | ， | 0 | 6 | 0 | 4 | 43 | 2，000 | 60， 000 | 870 |
| Nonsect | 02 | 2 | 3 | 20 | 5 | 27 | 0 | 6 |  | 6 | 0 | ， | 0 | 0 | 4 | 0 | 500 | 10，000 | 871 |
| Presb． | 32 | 2 | 45 | 40 | 5 | 28 | 6 | 8 |  | 0 | 1 | ， | 0 | 1 |  | 0 | 500 | 20， 000 | 872 |
| Presb | 22 | 2 | 20 | 10 | 25 | 10 | 1 | 4 |  | 2 | 6 | 4 | 6 | 4 | 4 | 0 | 300 | 6，500 | 873 |
| Meth | 12 | 2 | 18 | 15 | 36 | 47 | 0 | 0 |  | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 1，000 | 15， 000 | 874 |
| Nonsect | 21 | 1 | 18 | 0 | 32 | 0 | 2 | 0 | 3 | 0 | 6 | 0 | 1 | 0 | 3 | 18 | ， 40 | 2，500 | 875 |
| Christian． | 28 | 8 | 0 | 110 | 0 | 0 | 0 | 19 |  | 27 | ， | 7 |  |  |  | 0 | 1，200 | 35,000 | 876 |
| R．C． | 02 | 2 | 0 | 16 | 0 | 80 | 0 | 2 |  | 4 | 0 | 0 | ， | 0 | 4 | 0 | 40 |  | 877 |
| M．E．So．． | 11 | 1 | 67 | 18 | 12 | 18 | 0 | 0 | 2 | 0 |  | 0 | 0 | 0 | 4 | 0 | 150 | 15， 000 | 878 |
| Nonsect． | 22 | 2 | 24 | 10 | 25 | 16 | 4 | 0 | 5 | 0 | 5 | 2 |  |  |  | 0 | 200 | 5，000 | 879 |
| Nonsect ．－ | 0 | 4 | 0 | 60 | 2 | 65 |  |  |  |  | 0 | 10 |  |  |  | 0 | 1，000 | 65， 000 | 880 |
| Nonsect．． | 511 | 1 | 86 | 18 | 4 | 0 | 13 | 4 | 20 | 6 | ， | ， | 9 | 1 |  |  | 1，000 | 4，000 | 881 |
| R．C．． | 130 | 0 | 35 | 0 | 0 | 0 | 34 |  |  | 0 | 3 |  |  |  | 0 |  |  |  | 882 |
| Ev．Luth | 40 | 0 | 47 | 0 | 0 | 0 | 47 | 0 | 47 | － | 13 | 0 | 13 | 0 | 3 | ， | 400 | 20，000 | 883 |
| Nonsect．． | 32 | 2 | 54 | 52 | 13 | 12 | ．．．． |  | 40 |  | 2 | 2 |  |  | 4 | 0 | 300 | 5，000 | 884 |
| Nonsect | 11 | 1 | 12 | 11 | 0 | 17 | 4 | 6 | 6 |  |  | 0 |  | 0 | 4 |  | 500 | 4，500 | 885 |
| M．E | 11 | 1. | 14 | 12 | 35 | 52 | 7 | 12 |  | 0 | 3 | 4 |  |  | 5 | 0 |  | 25，000 | 886 |
| Presb | $0 \quad 2$ | 2 | 0 | 20 | 10 | 50 |  |  |  |  | 0 | 7 |  |  |  | 0 | 500 |  | 887 |
| Miss．Bapt | ${ }_{2} 0$ | 0 | 24 | 24 | 11 | 5 | 13 | ， | 10 | 4 | 0 | 0 |  |  | ， | 0 | 100 | 12，000 | 888 |
| M．E．So－－ | 55 | 5 | 48 | 41 | 31 | 12 | 3 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | ， | 0 | 1，000 | 30， 000 | 889 |
| Christian． | 05 | 5 | ， | 47 |  |  |  |  |  |  | 0 | 13 |  |  |  |  | 500 | 40， 000 | 890 |
| Bapt．．．．．． | 12 | 2 | 33 | 42 | 62 | 43 | 20 | 22 | 20 | 15 | 2 | 0 |  |  | 4 | 0 | 18 | 37， 000 | 891 |
| Nonsect ．． | $20$ | 0 | 22 | 20 | 20 | 10 | 4 | 1 |  |  | 8 |  |  |  |  | 0 |  |  | 892 |
| R．C | 0 | 2 | 0 | 25 | 0 | 100 |  |  |  |  | 0 |  |  |  | 4 |  | 300 |  | 893 |
| M．E．So | 22 | 2 | 40 | 20 | 28 | 37 | 8 | 4 |  |  | 2 | 0 | 2 | 0 | 4 | 0 | 400 | 15， 000 | 894 |
| Cong | 13 | 3 | 15 | 13 | 35 | 37 | 3 | 1 | 10 | 10 | $\stackrel{0}{0}$ | 2 |  |  | 4 | 0 | 1，500 | 5，000 | 895 |
| Nonsect | 2 | 2 | 25 | 49 | 5 | 11 |  |  |  |  | 5 | 8 |  |  | 4 |  | 1，500 | 20， 000 | 896 |
| Nonsect | 21 | 1 | 37 | 38 | 8 | 2 | 3 | 3 |  |  | 1 | 1 |  | 1 | ， | 0 | 375 | 12， 000 | 897 |
| R．C | $0 \quad 2$ | 2 | 4 | 13 | 20 | 43 | 0 | 2 |  |  | 0 | ， |  |  | 4 |  | 250 | 30， 000 | 898 |
| R．${ }^{\text {C }}$ | $0 \quad 2$ | 2 | 0 | 23 | 0 | 246 |  |  |  |  | 0 | 0 |  |  | 4 |  |  |  | 899 |
| Cong ．．．．． | 42 | 2 | 40 | 63 | 10 | 12 | 4 |  | 0 | 1 | 8 |  |  | 6 | ， |  | 1， 500 | 35， 000 | 900 |
| Nonsect ．． | 31 | 1 | 22 | 7 | 26 | 0 | 5 | 0 |  |  |  |  |  |  | ， | ［9 | 500 | 25， 000 | 901 |
| Nonsect | 11 | 1 | 10 | 9 | 15 | 15 | 5 |  |  |  | 0 | ， |  |  | 3 | 0 | 34 | 2， 400 | 902 |
| Nonsect | $1 \begin{array}{ll}1 & 1\end{array}$ | 1 | 8 | 19 | 3 | 11 | 0 | 0 |  | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 350 | 2，500 | 903 |
| Nonsect | $9{ }^{9} 0$ | 0 | 89 | 0 | 30 | 0 | 20 | 0 | 15 | 0 | 15 | 0 | 8 | 0 | ， | 50 | 500 | 30，000 | 904 |
| Bapt． | 30 | 0 | 58 | 25 | 12 | 8 | 6 |  |  |  | 2 | 0 | 2 | ， | 3 | 0 | 200 | 5， 000 | 905 |
| M．E． | 4 1 | 1 | 52 | 61 | 16 | 4 | 3 | 0 | ${ }^{2}$ | 1 | 8 | 6 | 8 | 2 | 3 | 0 | 500 | 12， 000 | 906 |
| R．C | 0.3 | 3 | 0 | 16 | 0 | 0 | 12 | 34 | 0 | ， | 0 | 0 | 0 | 2 | 3 |  | 200 | 12， 000 | 907 |
| M．E． | 54 | 4 | 204 | 190 | 0 | 0 |  |  |  |  | 13 | 15 | 0 | 0 | 4 | 0 | 1，000 | 18，000 | 908 |
| R．C | 25 | 5 | 0 | 30 | 50 | 60 |  |  |  |  |  |  |  |  |  |  | 200 |  | 909 |
| Nonsect | 31 | 1 | 17 | 10 | 40 | 36 | 4 | 0 | 13 | 6 | 1 | 1 | 1 | 1 | 3 | 0 | 200 | 6，000 | 910 |
| Presb．．． | $0{ }^{0} 1$ | 1 | 17 | 8 | 6 | 6 | 6 | 3 |  |  | 7 | 2 | 7 |  |  | 0 |  | 5，000 | 911 |
| Nonscet | $\begin{array}{ll}0 & 2\end{array}$ | 2 | 5 | 25 | 20 | 50 | 3 | 7 |  |  | 0 | 3 | 3 | 0 | 4 | 0 | 800 |  | 912 |
| Nonsect．． | 21 | 1 | 25 | 24 | 6 | 3 | ， | 0 |  | 0 | 7 | 7 | 0 | 0 |  | 0 | 200 | 6，500 | 913 |
| Presb．So ． | $0{ }^{0} 1$ | 1 | 10 | 31 | 3 | 1. |  |  |  |  | 1 | 2 | 0 | 2 | 4 | 0 | 300 | 6，800 | 914 |
| Nonsect ． | 0 | 2 | 12 | 9 | 4 | 7 | 0 |  |  | 0 | 0 | 0 | 0 | 0 | 3 |  | 208 | 3，000 | 915 |
| Nonsect ．． | 111 | 1. | 18 | 10 | 12 | 10. |  | 4 |  |  | 8 | 7 | 8 | 7 | 4 | 0 | 500 | 4，000 | 916 |
| M．E．So ．． | 30 | 0 | 20 | 21 | 13 | 15 |  |  |  |  | 1 | 4 |  |  | 5 | 0 | 250 | 20， 000 | 917 |
| Bapt．．．．．． | 2 9 | 3 | 42 | 30 | 12 | 18 | 1 | 1 | 15 | 12 | ， | 5 | 1 | 3 | 4 | 20 | 1，000 | 20， 000 | 918 |
| Nonsect．－ | 23 | 3 | 34 | 52 | 6 | 18 |  |  |  |  | 1 | 1 |  |  | 4 | 0 | 250 | 6， 000 | 919 |
| Nonsect．．－ | 1.5 | 5 | 5 | 23 | 12 | 17 | 0 | 6 |  | 0 | 0 | 5 | 0 | 0 | 4 | 0 |  | 25， 000 | 920 |
| Ger．Bapt－ | 122 | 2 | 16 | 20 | 4 | 8 | 7 | 9 | 8 | 5 | 4 | 6 | 0 | 4 | 3 | 0 | $600$ | 12， 000 | 921 |
| Epis ．．．．． | 1.0 | 0 | 8 | 0 | 17 | 0 |  |  |  |  |  |  |  |  |  |  | 2，500 |  | 922 |
| Nonsect ．－ | 21 | 1 | 20 | 20 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  |  | 923 |
| Presb．．．． | 0 － 1 |  | 4 | 8 | 0 | 0 | 0 | 2 |  | 0 |  |  |  |  | 4 | 0 |  |  | 924 |
| M．E．So ．． | 50 | 0 | 58 | 56 | 24 | 391 |  |  |  |  | 4 | 7 |  |  | 4 | 0 | 1，500 | 40,000 | 925 |

TABLE 43.-Statistics of private hight sehools, endowed academies, seminaries,

and other private secondary schools for the scholastic year 1897－98－Continued．

| Religious denomina－ tion． | $\begin{gathered} \text { Sec- } \\ \text { ond- } \\ \text { ary } \\ \text { in- } \\ \text { struct. } \\ \text { ors. } \end{gathered}$ |  | students． |  |  |  |  |  |  |  |  |  |  |  |  |  | Number of volumes in library. | Value of grounds， build－ ings， furni－ ture， and sei． entific appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second－ arystu－ dents． |  | Elemen－ tary stu－ dents． |  | Preparing for college． |  |  |  | $\begin{aligned} & \text { Gradu- } \\ & \text { ates in } \\ & 1 \& 98 . \end{aligned}$ |  | College prepara－ torystu－ dents in theclass that gradu． ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas－ sical course． | Scien－ tifie course． |  |  |  |  |  |  |  |  |  |  |
|  | $\frac{\stackrel{9}{\pi}}{\underset{\sim}{\pi}}$ | $\frac{\stackrel{\oplus}{\approx}}{\underset{\sim}{\pi}}$ |  |  | $\frac{\stackrel{9}{5}}{7}$ |  | 覂 |  | $\stackrel{\dot{9}}{\stackrel{\rightharpoonup}{\sim}}$ | $\begin{gathered} \dot{9} \\ \text { 的 } \\ \text { 0 } \end{gathered}$ |  |  | 突 | $\stackrel{\stackrel{y y}{*}}{\underset{y y}{*}}$ |  |  |  |  | $\stackrel{\text { 号 }}{\underset{\sim}{x}}$ |  |  |
| 4 | 5 | 6 | 7 | 8 |  |  | 9 | 19 | 11 | 12 | 13 | 14 | 15 | 16 | 且7 | 18 | 19 | 20 | 11 | 2 B |  |
| R．C | 0 | 0 4 | 0 | 30 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 |  | 0 | 1，000 | \＄160， 000 | 926 |
| R．C | 0 | 10 | 0 | 40 | 30 | 70 | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 |  | 0 |  |  | 927 |
| R．C | 0 | 5 | 0 | 25 | 0 | 112 |  |  |  |  | 0 | 3 |  |  |  |  | 4，000 | 300,000 | 928 |
| P．E | 0 | － 7 | 0 | 26 | 0 | 70 |  |  |  |  | 0 | 5 |  |  | 4 | 0 | 2，000 | 65，000 | 929 |
| Nonsect．． | 0 | 12 | 0 | 50 | 0 | 56 | 0 | 12 |  |  | 0 | 10 | 0 | 5 | 1 |  | 600 | 25，000 | 930 |
| R．C．．．． | 0 | 3 | 0 | 23 | 0 | 62 |  |  |  |  | 0 | 2 |  |  |  |  |  | 50,000 | 931 |
| Nonsect | 2 | 1 | 21 | 0 | 10 | 0 | 10 | 0 | 6 | 0 | 6 | 0 | 3 | 0 |  | 0 |  | 25，000 | 932 |
| Nonsect | 1 | 3 | 0 | 7 | 24 | 43 | 0 | 1 |  |  |  |  |  |  | 4 | 0 | 300 | 500 | 933 |
| Nonsect ．． | － 7 | 0 | 36 | 0 | 121 | 0 | 1 | 0 | 8 | 0 | 13 | 0 |  |  | 4 |  | 1，420 | 32，000 | 934 |
| Nonsect ．． | 10 | 5 | 208 | 0 | 100 | 0 | 185 | 0 | 23 | 0 | 33 | 0 |  |  | 5 | 0 |  | 225， 000 | 935 |
| R．C | 0 | － 3 | 0 | 40 | 12 | 240 | 0 | 0 |  |  | 0 | 4 |  |  |  |  | 1， 250 | 76，000 | 936 |
| Luth | 5 | 0 | 97 | 18 | 0 | 0 |  |  |  |  | 10 | 5 | 6 |  | 4 | 0 | 400 | 60，000 | 937 |
| Nonsect ．－ | 4 | 4 | 66 | 86 | 0 | ， |  |  |  |  |  |  |  |  | 4 | 40 | 700 | 30，000 | 938 |
| M．E．So ．． | 2 | 2 | 35 | 31 | 55 | 65 | 7 | 3 | 13 | 5 | 1 | 3 | 0 | 0 |  | 0 | 2，500 | 70，500 | 939 |
| R．C．．．．． | 0 | － 10 | 0 | 45 | 0 | 52 |  |  |  |  | 0 | 10 |  |  |  |  | 2， 454 |  | 940 |
| Nonsect ．． | 2 | 0 | 41 | 32 | 22 | 16 |  |  |  |  | 0 | 0 | 0 | 0 | 2 | 0 | 37 | 2，500 | 941 |
| Nonsect．． | 2 | 2 | 22 | 18 | 8 | 2 | 3 | 4 | 5 | 2 | 0 | 0 |  |  |  | ， | 250 | 2，500 | 942 |
| Nonsect．． | 2 | 2 | 44 | 34 |  |  |  |  |  |  | 3 | 1 | 2 | 0 |  | 0 |  | 12，000 | 943 |
| Christian． | 2 | 2 1 | 19 | 20 | 34 | 20 |  |  |  |  | 4 | 0 |  |  |  |  | 400 | 7，000 | 944 |
| Nonsect．． | 1 | 1 | 16 | 16 | 28 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 250 | 8，000 | 945 |
| R．C | 0 | 4 | 0 | 55 | 20 | 15 |  |  | 0 | 55 |  |  |  |  | 4 |  | 200 |  | 946 |
| R．C | 0 | ， 4 | 0 | 28 | 0 | 272 |  |  |  |  | 0 | 4 | 0 | 4 | 4 | 0 | 1，000 |  | 947 |
| R．C | 0 | 1 | 0 | 17 | 0 | 25 |  |  |  |  |  |  |  |  |  |  | 230 |  | 948 |
| R．C |  | ） 5 | 3 | 21 | 65 | 129 | 0 | 4 |  |  | 0 | 4 |  |  |  | 0 | 160 | 20，000 | 949 |
| Cong．．．．．． | 2 | 2 | 17 | 7 | 6 | 6 | 1 | 0 | 6 | 0 | 5 | 1 | 2 | 2 |  | 0 |  | 13， 675 | 950 |
| R．C．．．．．．． | 1 | 3 | 2 | 9 | 110 | 95 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 4 | 0 | 285. | 30， 500 | 951 |
| Cong | 5 | 52 | 71 | 88 | 0 | 0 | 15 | 12 | 13 | 12 | 3 | 5 | 3 | 4 | 4 | 35 |  | 18，500 | 952 |
| Bapt | 4 | 42 | 22 | 17 | 56 | 38 | 10 | 3 | 5 | 7 | 0 | 4 | 0 | 4 | 3 | 37 | 1，600 | 60， 000 | 953 |
| R．U． | ${ }_{0}$ | － 3 | 0 | 8 | 0 | 47 |  |  |  |  |  |  |  |  | 4 |  | 40 |  | 954 |
| P．E．．．．．．． | 3 | 3 | 13 | 14 | 9 | 10 | 1 | 0 |  |  | 1 | 0 | 1 | 0 |  | 0 | 50 | 25，000 | 955 |
| R．C | 0 | － 2 | 2 | 7 | 43 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |  | 100 | －－．．．． | 956 |
| R．C．．．．．．． | 0 | － 4 | 0 | 28 | 0 | 35 |  |  |  |  |  |  |  |  | 4 |  | 3， 000 | 50，C00 | 957 |
| P．E．．．．．． | 1 | 1 6 | 0 | 33 | 0 | 21 | 0 | 1 |  |  | 0 | ． 3 |  |  | 4 |  | 1，500 | 150， 000 | 958 |
| R．C．．．．．．． | 0 | ） 5 | 0 | 20 | 26 | 50 | 0 | 14 |  |  | 0 | 0 | 0 | 0 | 4 | 0 | 300 | 1，000 | 959 |
| U．Presb．． | 0 | － | 26 | 27 | 38 | 42 | 2 | 4 | 3 | 2 | 0 | 2 | 0 | 2 | 4 | 0 | 225 | 20，000 | 960 |
| Ev．Lath． Swedish． | 5 | － 1 | 13 | 14 | 43 | 12 |  |  |  |  | 11 | 2 | 8 | 2 | 2 | ， | 1，300 | 20， 265 | 961 |
| Cong．．．．．． | 2 | 1 | 25 | 20 | 8 | 13 | 3 | 3 | 5 | 3 | 6 | 5 | 5 | 5 | 3 | 0 | 680 | 5， 585 | 962 |
| R．C．．．．．．． | 0 | 4 | 5 | 25 | 50 | 50 |  |  |  |  | 0 | 1 |  |  |  |  |  |  | 963 |
| Unitarian | 1 | 2 | 15 | 11 | 24 | 15 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1，500 |  | 964 |
| Cong．．．．．． | 1 | 0 | 9 | 4 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 1，500 |  | 965 |
| Free Bapt． | 1 | 0 | 4 | 10 | 9 | 7 | 1 | 0 |  |  |  |  |  |  | 4 | 0 | 30 | 6，000 | 966 |
| Nonsect．． | 1 | － 0 | 17 | 11 | 3 | 4 | 3 | 0 | 2 | 0 | 4 | 3 | 0 | 0 | 3 | 0 |  | 4，000 | 967 |
| P．E．．．．．． | 0 | ） 6 | 0 | 18 | 0 | 8 | ， | 6 |  | 2 | 0 | 3 |  |  | 4 |  |  | 25，000 | 968 |

Table 43.-Statistics of private high schools, endowed academies, seminaries,

and other private secondary schools for the scholastic year 1597－98－Continued．

| Religious denomina－ tion． | Sec－ ond－ ary in． struct－ ors． |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  | -K.rerqit u! seumºs jo ،oqum | Value of grounds， build． ings， furni－ ture， and sci－ entific appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second－ ary stn－ dents． |  | Elemen－ tary stu－ dents． |  | Preparing for college． |  |  |  | Gradu． ates in 1898. |  | College prepara－ tory stu－ dentsin the class that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． <br> sical <br> course． | Scien． titic course． |  |  |  |  |  |  |  |  |  |  |
|  | 感 |  |  |  | $\stackrel{\oplus}{\text { ® }}$ |  | $\stackrel{\otimes}{\stackrel{\circ}{3}}$ |  | $\begin{aligned} & \text { Bj } \\ & \stackrel{y}{7} \end{aligned}$ |  | 采 |  | 向 |  |  |  |  |  |  |  |  |
| 4 | 5 | 6 | 7 | 8 |  |  | 9 | 10 | 11 | 1： | 13 | 14 | 15 | 163 | 18 | 13 | 19 | 26 | 31 | 22 |  |
| P．E． | 36 | 0 | 300 | 0 | 33 | 0 | 109 | 0 | 51 | 0 | 67 |  | 48 | 0 |  |  | 12， 000 |  | 269 |
| Nonsect | 3 | 3 | 31 | 43 | 15 | 18 | 2 | 4 | 17 | 27 | 5 | 3 | 1 | 3 | 4 | 0 | 3， 670 |  | 970 |
| R．C．． | 2 | 2 | 50 | 0 | 175 | 25 | 3 | 0 | 0 | 0 | 4 | 0 | 3 | 0 | 3 | 0 | 500 | \＄15， 000 | 971 |
| Nousect | 11 | 0 | 255 | 0 | 0 | 0 | 155 | 0 | 75 | 0 | 59 | 0 | 45 | 0 | 4 | 0 | 1，600 | 192， 746 | 972 |
| Nonsect ．． | 1 | 9 | 0 | 134 | 0 | 100 | 0 | 12 |  |  | 0 | 23 | 0 | 3 | 4 | 0 | 950 | 100，000 | 973 |
| Nonsect ．－ | 1. | 0 | 10 | 11 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 450 | 8，000 | 974 |
| Cong．．．．．． | 2 | 1 | 21 | 19 | 49 | 46 | 3 | 3 |  |  | 3 | 3 | 1 | 1 | 4 | 0 | 250 | 30，000 | 975 |
| Nonsect ．． | 0 | 2 | 9 | 7 | 3 | 3 | 0 | 2 | 3 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 600 | 8，000 | 976 |
| Nonsect | 1 | 0 | 13 | 8 | 7 | 2 |  |  |  |  | 7 | 2 |  |  | 3 | 0 | 50 | 10， 000 | 977 |
| Nonsect | 1. | 3 | 30 | 27 | 16 | 14 | 4 | 0 | 1 | 0 | 7 | 6 | 3 | 2 | 4 | 0 | 1，600 | 70， 000 | 978 |
| R．C． | 3 | 0 | 76 | 0 | 419 | 0 | 5 | 0 | 4 | 0 | 8 | 0 | 8 | 0 | 3 |  | 560 | 20，000 | 979 |
| R．C． | 4 | 0 | 60 | 0 | 340 | 0 | 22 | 0 | 13 | 0 | 10 | 0 | 6 | 0 | 4 | 0 | 500 |  | 980 |
| Cong | 2 | 6 | 117 | 81 | 0 | 0 | 21 | 6 | 17 | 0 | 12 | 7 | 10 | 2 | 4 | 0 | 1，800 | 40，000 | 981 |
| Nonsect | 1. | 0 | 2 | 9 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 800 |  | 982 |
| R．C． | 2 | 0 | 28 | 0 | 320 | 0 |  |  |  |  |  |  |  |  | 4 | 28 |  | 70,000 | 983 |
| R．C．．．．．．． | 0 | 2 | 0 | 21 | 48 | 382 |  |  |  |  | － | 0 |  |  | 4 |  |  | 70，000 | 984 |
| F．If．Bapt． | 6 | 6 | 106 | 92 | 14 | 18 | 0 | 2 | 1 | 0 | 5 | 9 | 1 | 2 | 3 | 0 |  | 30，000 | 985 |
| Bapt | 5 | 3 | 12 | 20 | ， | 1 | 9 | 6 | 1 | 0 | 5 | 9 | 5 | 1 | 4 | 0 | 3， 700 | 40，000 | 986 |
| Cong | 2 | 2 | 11 | 12 | 1 | 4 | 2 | 2 | 1 | 0 | 3 | ， | 0 | 0 | 4 | 0 | 800 | 20，000 | 987 |
| Nonsect．． | 2 | 1 | 25 | 27 | 0 | 0 | 0 | ， | 0 | 0 | 1 | 1 | 1 | 1 | 4 | 0 | 1， 600 | 5， 000 | 988 |
| P． E | 4 | 0 | 25 | 0 | 6 | 0 | 20 | 0 |  |  | 2 | 0 | 2 | 0 |  | 0 | 1，700 | 55， 000 | 989 |
| Nonsect | 0 | 5 | 0 | 26 | 0 | 26 | 0 | 4 |  |  | 0 | 5 |  |  | 5 |  |  | 18，000 | 990 |
| Nonsect ．． | 1 | 2 | 10 | 11 | 4 | 5 |  |  |  |  | 1 | 3 |  |  |  | 0 | 450 | 5，000 | 991 |
| M．E．．．． | 6 | 4 | 95 | 85 | 6 | 14 |  |  |  |  | 10 | 10 | 9 | 5 | 4 | 0 | 3,000 | 75， 000 | 992 |
| Nonsect ．． | 1 | 5 | 15 | 45 |  |  |  |  |  |  | $\stackrel{2}{2}$ | 11 |  |  | 3 | 0 |  | 20， 000 | 993 |
| Presb．．．．． | 5 | 4 | 90 | 45 | ， | 0 |  |  |  |  | 15 | 11 |  |  | 4 | 0 |  | 300，000 | 994 |
| Presb． | 5 | 0 | 16 | 0 | ， | 0 | 16 | 0 |  |  | 8 | 0 | 8 | 0 | 4 |  | 4， 500 | 25，000 | 995 |
| Nonsect ．． | 4 | 0 | $3 \pm$ | 0 | 7 | 0 | 18 | 0 | 16 | 0 | 10 | 0 | 6 | 0 |  | 34 | 800 |  | 996 |
| Nonsect ．． | 0 | 7 | 0 | 16 | 0 | 9 | 0 | 9 |  |  | 0 | 2 | 0 | 2 | 3 | 0 | 500 |  | 997 |
| R．C | 1 | 1 | 0 | 12 | 3 | 25 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | ， | 4 | 0 | 280 |  | 998 |
| Nonsect ．． | 0 | 3 | 0 | 40 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 2 | 0 | ， | 4 |  |  |  | 999 |
| Bapt． | 2 | 1. | 80 | 41 | 50 | 10 | 30 | 10 | 0 | 40 | 14 | 12 | 10 | ， | 4 |  | 2，000 | 150，000 | 1000 |
| Presb | 5 | $\stackrel{2}{2}$ | 65 | 0 | $\stackrel{2}{9}$ | 0 | 15 | 0 | 35 | 0 | 9 | 0 | 8 | 0 | 4 | 65 | 2，500 | 60， 000 | 1001 |
| Presb．． | 0 | 2 | 9 | 15 | 9 | 5 |  | 10 |  |  | 0 | 2 | 0 | 0 |  | 0 | 2， | 60，000 | 1002 |
| Nonsect ．． | 0 |  | 0 | 32 | 15 | 17 | 2 | 10 |  |  | 0 | 6 | 0 |  |  |  |  |  | 1003 |
| Friends．．． | 0 | 2 | 3 | 9 | 8 | 6 |  |  |  |  | 0 | 1 | 0 | 1 |  | 0 |  |  | 1004 |
| Nonsect ． | 1 | 0 | 8 | 10 | 4 | 5 | 1. | $\stackrel{1}{2}$ |  |  |  |  |  |  | 4 |  |  | 8，000 | 1005 |
| Nonsect．． | 0 | 1 | 0 | 10 | 20 | 30 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 1 | 4 | 0 |  | 15，000 | 1006 |
| Nonsect ．． | 8 | 0 | 77 | 0 | 70 | 0 | 35 | 0 | 35 | 0 | 14 | 0 | 10 | 0 | 5 | 0 | 600 | 30， 000 | 1007 |
| Nonsect ．． | 2 |  |  | 41 | 0 | 0 | 0 | 1 | 0 | 10 | 0 | 12 | 0 | 4 | 4 | 0 | 800 |  | 1008 |
| Nonsect ．． | 0 | 8 | 0 | 35 | 0 | 15 | 0 | 20 | 0 | 0 | 0 | 8 | 0 | 8 | 6 |  |  |  | 1009 |
| Nonsect ．． | 0 | 4 | 0 | 34 | 17 | 84 |  | 5 | 0 | 28 | 0 | 6 | 0 | 2 | 4 |  |  | 30，000 | 1010 |
| Nonsect．． | 4 | 0 | 30 | 0 | 15 | 0 | 10 | 0 |  |  | 4 | 0 | 3 | 0 | 4 |  | 100 | 30，0c0 | 1011 |
| R．C．．．．．． | 0 | 4 | 0 | 30 | 0 | 38 |  | 10 | 0 | 0 | 0 | 0 |  |  | 4 | 0 | 1，600 | 120，000 | 1012 |
| Nonsect．． | 1 | 2 | 9 | 12 | 16 | 15 | 7 | 3 |  |  | 0 | 1 | 0 | 1 | 3 |  | 60 |  | 1013 |
| Meth．．．． | 5 | 3 | 152 | 76 | 18 | 37 | 49 |  | 33 | 33 | 35 | 16 | 23 | 4 | 4 | 0 | 2，000 | 230， 000 | 1014 |
| Bapt．．． | 7 |  | 94 | 31 | 6 |  | 30 |  |  |  |  |  | 15 | 3 | 4 | 25 | 5，320 | 255,0 | 1015 |

Table 43.-Statistics of private high schools, endowed academies, seminaries,

and other private secondary schools for the scholastic year 1897-98—Continued.


Table 43.-Statistics of private high schools, endowed academies, seminaries,

and other prirate secondary schools for the scholastic year 189\％－98－Continued．

| Religious denomina－ tion． | Sec－ ond－ ary in－ struct． ors． |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  | - Kxzxq!I ए! səun!os jo xəquñ | Value of grounds， build－ ings， furni－ ture， and sci－ entific арра－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second－ ary stu－ dents． |  | Elemen－ tarystu－ dents． |  | Preparing for college． |  |  |  | Gradu． ates in 1898. |  | College prepara－ torystu－ deuts in the class that gradu－ nated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． <br> sical course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |  |
|  | 而 |  |  |  |  |  | 鄢 | $\begin{aligned} & \stackrel{\text { ® }}{\tilde{y}} \\ & \text { ̈ } \\ & \text { H } \end{aligned}$ | 㡙 |  | 毝 | $\begin{aligned} & \text { 追 } \\ & \text { 恖 } \\ & \text { In } \end{aligned}$ | $\begin{aligned} & \text { 号 } \\ & \text { 势 } \end{aligned}$ |  |  |  |  |  |  | $\begin{aligned} & \text { 向 } \\ & \text { ज゙ } \\ & \text { む } \\ & \text { y } \end{aligned}$ |  |
| 4 | 5 | 6 | 7 | 8 |  |  | ¢ | $11(1)$ | 11 | $1{ }^{1}$ | 13 | 直是 | 15 | 16 | 18 | 18 | 13 | 23 | 21 | $2{ }^{2}$ |  |
| Nonsect． | 3 | 4 | 42 | 39 | ） 5 | 2 | 6 | 2 | 8 | 5 | 5 | 6 | 3 | 3 | 3 | 0 | 2，000 | \＄51， 200 | 1066 |
| Nonsect ．． | 7 | 2 | 138 | － | 53 |  | 60 | 0 | 60 | 0 | 10 | 0 | 0 | ， | 6 | 111 | 800 | 100，000 | 1067 |
| Nonsect ．． | 1 | 11 | 0 | 63 | 0 |  | 0 | 0 | 0 | 6 |  | 8 | 0 | 0 | 4 | 0 |  | 83，975 | 1068 |
| R．C | 5 | 0 | 100 | 0 | 152 | 5 | 28 | 0 |  |  | 22 | 0 | 5 | 0 | ， | 150 | 2， 240 | 56， 840 | 1069 |
| P．C．．．．．． | 0 | ） 5 | 0 | 55 |  |  | 0 | 0 | 0 | 0 | ， | 7 | 0 | 0 | 0 | 0 | 3，684 | 400， 460 | 1070 |
| R．C | 0 | ） | 1 | 45 | 8 | 53 |  |  |  |  |  |  |  |  | 4 |  | 1，125 | 34，487 | 1071 |
| Epis | 0 | 13 | 0 | 100 | 0 | 70 | 0 | 4 |  |  | 0 | 10 | 0 | 1 |  |  | 4，200 | 300， 000 | 1072 |
| R．C | 3 | 3 | 20 | 30 | 280 | 275 |  |  |  |  |  |  |  |  | ， |  | 1，065 | 46， 465 | 1073 |
| R．C | 0 | － 8 | 0 | 45 | 0 | 35 | 0 | 3 | 0 | 0 | 0 | 5 | 0 | 3 | 4 | 0 | 2，312 | 106， 035 | 1074 |
| R．C | 3 | 30 | 24 | 0 | 26 | 0 | 0 | 0 | 24 | 0 | 7 | 0 | 7 | 0 |  | 24 | 3， 000 | 175， 000 | 1075 |
| R．C | 0 | － 8 | 56 | 45 | 250 | 255 | 4 | 2 |  |  | 4 | 4 | 4 | 2 | ， | 0 | 1，000 | 80， 000 | 1076 |
| Nonsect．． | 1 | 13 | 13 | 20 | 4 | 13 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 4 | 0 | 570 | 33， 430 | 1077 |
| Nonsect | 2 | 2 | 34 | 0 | － 6 | 0 | 6 | 0 | 3 | 0 | 6 | 0 | 6 | 0 | 4 | 34 | 3，000 | 20，000 | 1078 |
| R．C | 0 | － 3 | 22 | 30 | 141 | 153 |  |  |  |  |  |  |  |  |  | 0 | 308 | 38，8？ 7 | 1079 |
| Nonsect． | 2 | 2 | 20 | 26 | 21 | 28 | 4 | 1 | 4 | 2 | 5 | 5 | 2 | 2 | 4 | 0 | 2， 200 | 18， 000 | 1080 |
| Nonsect． | 2 | 2 | 0 | 45 | 2 | 23 | 0 | 10 | 0 | 8 | 0 | 2 | 0 | 1 |  |  | 1， 000 | 30，000 | 1081 |
| R．C． | 0 | ） 3 | 6 | 23 | 8t | 142 | 6 | 23 |  |  | 0 | 0 | 0 | 0 | ， | 0 | 525 | 44， 040 | 1082 |
| Nonscet．． | 2 | 2 | 19 | 7 | － 4 | 0 | 0 | 1 | 1 | 0 | 1 | 3 | 1 | 3 | 3 | 0 | 200 | 3， 960 | 1083 |
| Nonsect． | 2 | 21 | 24 | 0 | 15 | 21 | 2 | 0 |  |  |  |  |  |  | 4 | 24 | 210 | 35，000 | 1084 |
| Nonsect． | 3 | － 8 | 0 | 56 | 23 | 176 | 0 | 8 | 0 | 0 | 0 | 6 | 0 | 2 | 6 | 0 | 2， 671 |  | 1085 |
| Nonsect | 1 | 10 | 47 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |  |  |  |  |  |  |  | 15，000 | 1086 |
| Nonsect． | I＇ | 10 | 0 | 39 | 0 | 31 | 0 | 5 | 0 | 0 |  | 4 | 0 | 2 | 4 | 0 |  |  | 1087 |
| Fonsect． | 1 | 1.1 | 2 | 15 | 4 | 20 | 0 | 0 | 0 | 0 |  |  |  |  | 4 |  |  |  | 1088 |
| R．C | 0 | 0． 12 | 0 | 25 | 0 | 58 |  |  |  |  | 0 | 4 |  |  | 4 | 0 | 2，000 |  | 1089 |
| Nonsect | 0 | 0 | 0 | 10 | 10 | 10 |  |  |  |  |  |  |  |  |  | 0 |  |  | 1090 |
| Nonsect | 7 | 70 | 80 | 0 | 20 | 0 | 60 | 0 | 20 | 0 | 25 | 0 | 20 | 0 | 4 | 0 |  | 50，000 | 1091 |
| Nonscet | 1. | 1.3 | 0 | 11 | 31 | 38 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 3 | 0 |  |  | 1092 |
| If．C．．．．． |  | 36 | 0 | 65 | 175 | 210 |  |  |  |  | 0 | 20 |  |  | 3 |  | 500 |  | 1093 |
| Nonsect ．． | 12 | 215 | 80 | 115 | － 0 | 0 | 0 | 0 | 14 | 18 | 0 | 1 | 0 | 0 | 4 | 0 | 70，00c |  | 1094 |
| R．C | 3 | 30 | 82 | 0 | － 405 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 2 | 0 | 3 | 0 |  |  | 1095 |
| IR．C | 0 | 03 |  | 40 | 30 | 45 | 0 | 0 | 0 | 0 | 0 | 8 |  |  | ， | 0 | 1，000 | －29， 212 | 1096 |
| R．C． | 1 | 16 | 0 | 50 | 0 |  |  |  |  |  | 0 | 5 |  |  | 5 | 0 |  | 125， 000 | 1097 |
| Nonsect．． |  | 14 | 0 | 87 | － 2 |  | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 7 | 4 | 0 | 1，944 | －83，612 | 1098 |
| Nonsect．． |  | 10 | 15 | 0 | ） 0 |  | 10 | 0 | 5 | 0 |  |  |  |  |  | 0 | 400 |  | 1099 |
| Nonsect．． |  | 40 | 35 | 0 | 0 5 | 0 | 3 | 0 | 25 | 0 | 3 | 0 | 2 | 0 | 4 | 0 |  | 50， 000 | 1100 |
| R．${ }^{\text {c }}$ |  | $0 \quad 9$ | 0 | 63 | 325 | 162 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 | 0 | 2，182 | 155，700 | 1101 |
| R．C．．．．．． |  | 60 | 65 | 0 | ） 20 | 0 | 30 | 0 | 15 | 0 | 8 | 0 | 4 | 0 | 4 | 0 | 2， 000 | 60，000 | 1102 |
| Nonsect |  | 2 9 | 0 | 60 | ） 2 | 102 | 0 | 3 | 0 | 6 | 0 | 17 | 0 | 3 | 4 | 0 | 986 | －74，712 | 1103 |
| R．C ． |  | $0 \quad 8$ | － | 43 | 375 | 116 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 4 | 0 | 500 | 162，330 | 1104 |
| Nonsect．． |  | 13 | 0 | 20 | ） 6 | 13 | 0 | 7 | 0 | 0 | 0 | 2 | 0 | 1 | 4 | 0 | 2， 500 | ：50，C00 | 1105 |
| Meth． | 0 | 0 5 | 0 | 33 | 30 | 10 | 0 | 2 | 0 | 2 | 0 | 11 | 0 | 3 | 4 | 1．．．． | 3，000 | －50，000 | 1106 |
| R．C |  | 02 | 28 | 23 | 3 74 | 101 |  |  |  |  | 0 | 6 |  |  | 1 | 0 | 350 | －15，000 | 1107 |
| M．E．．．．．． |  | 64 | 102 | 60 | ） 9 | 2 |  |  |  |  | 11 | 10 | 5 | 0 | 4 | 0 | 3，405 | ． $83,8 \pm 5$ | 1108 |

Table 43.-Statistics of private:high schools, endowed academies, seminaries,

|  | State and post-office. | Name. | Principal. |
| :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 |
|  | NEW YORK-continued. |  |  |
| 1109 | Chappaqua | Cha |  |
| 1111 | Clinton | Cottage Seminary | Rev. C. W. Hawley, A. M |
| 1112 |  | Houghton Seminar | A. G. Benedict, A. 11. |
| 1113 | Cohoes............. | St. Bernard's Academy |  |
| 1114 | Cornwall-on-Hudson | Cornwall Heights School...... | Carlos H. stone, Ph. D. |
| 1116 | Delhi | Dela ware A cademy * | W. D. Graves. |
| 1117 | Dobls Ferry | Westminster School... Dover Plains A cademy | W. L. Cushing, |
| 1119 | Dunkirk | St. Mary's A cademic Sch chol | Sister Agnes Soseph |
| ${ }_{1121}^{1120}$ | East Springtield | East Springtield Acalemy. | Edward C. Wiley .... O Lio.... |
| 1122 | Elbridge.. | Munro Collegiate Institute. | Milo D. Heiron ... |
| 1123 |  | Flushing Institute | Elias A. Fairchild, A. M |
| 1124 1125 | Flushing (242 Sanford ave.) | Flushing Seminary | Hans Schuler, |
| 1126 | Fort Edw | St. Joseph's A cademy ${ }^{*}$ *........... Fort El was Collegiate Institute. | Mother Mar Lonis Jos. E. King, Pl. ${ }^{\text {a }}$., |
| 1128 | Fort Plain | Clinton Liberal Instituto. | William C. Joslin |
| 1129 | Franklin | Dela ware Literary Institute | Elmer Ellsworth French |
| 1131 | Garten | St. Paul's Cathedral School. | Frederick L. Gamage, A |
| 1132 | Genera | De Lancer School for Gir | Mary S. Sm |
| 1133 | Glens Falls | $G$ Glens Falls A cademy | D. C. Farr. |
| 1134 1135 | Crenville | Greenville Acalemy Colgate Academy. | C.E. Button, A |
| 1136 | Hartwick | Hartwick Seminary | J.G. Traver. A. M |
| 1137 | Hempsteal | Hempstead Institute | Ephraim Hinds, A. M |
| 1138 | Irvington-on-Hualson | St. Ann's A cademile school...... | Rev. Arthur P. Parlow |
| 1140 | Ithaca ............... | Cascadilla school | C. V. Parsell |
| 11 | Ithaca (71 E. Seneca st.) | The University Preparatory | Chas. A. Stiles, B |
| 1142 | Keeseville | Mcauley Academ | M. Joseph Ca |
| 1143 1144 | Keuka College | Keuka Institnte.................. | John Kline...7... |
| 45 | Lockport | St. Josepb's Academy and Indus. trial Female School. | Sister Antoni |
| 1146 | Locust Valley | Friends' Academy ... | R. G. Benne |
| 1147 1148 | Mowville | Lowvile A cademy | Joine Hh G. Me Me |
| 1149 | Marion ....i. | Marion Collegiate Institut | William Carleton Titft, A. M.. |
| 1150 | Montour Falls. | Cook Academy | ${ }_{\text {R }}^{\text {R. W. W. Sweetland }}$ |
| 1151 1152 | Morial | Sherman Collegiate Institute.... | B. L. Lrown, A. M Miss L.H. Lockwo |
| 1153 |  | School for Girls. Concorlia Colleve. | C. Lock |
| 1154 | New Brighton. | Botsford's (Misses) school for | Laura H . Botsfori |
| 1155 |  | Staten Island Academy | Frederick E.Partington, A. M. |
| 1156 | Newburg | Mackie's (Miss) Seminary | Miss Eleanor J. |
| 1158 | do |  | Henry W. Siglar. |
| 1159 | New York (Riverdale). | A cademy of Mount St. Vincent | Ellen T. McClancey |
| 1160 | New York ( 5095 5th ave.)... | Allen school.... | Francis B. Allen |
| 1161 | New York (117-119 West 125th st.). | Barnard School for Boys | Wm. Livingston Stone |
| 162 | New York (841 St. Nicholas ave.). | Barnari | Katharine H. Dav |

анd other privatesecondary schools for the scholastic year 1897-9S-Continued.


Table 43.-Statistics of private high schools, endowed academies, seminaries,


* Statisties of 1896-97.
and other private secondary schools for the scholastic year 1897－98－Continued．

| Religious denomina－ tion． | $\begin{gathered} \text { S6c- } \\ \text { ond- } \\ \text { ary } \\ \text { in- } \\ \text { struct- } \\ \text { ors. } \end{gathered}$ |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Value of grounds， build－ ings， furui－ ture， and sci－ entific appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second－ ary stu－ dents． |  | Elemen－ tary stu dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara－ torystu－ dentsin the class that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas－ sical course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 商 |  | $\stackrel{\dot{\Xi}}{\stackrel{y}{\text { ®ig }}}$ |  | $\stackrel{\stackrel{0}{3}}{\underset{y y}{3}}$ |  | 䕀 |  | $\begin{aligned} & \text { 追 } \\ & \text { 号 } \end{aligned}$ |  |  |  |  |  |  |  |  |
| 4 | 5 | 6 | 7 | 8 |  |  | 9 | 10 | E 1 | $1{ }^{12}$ | 13 | 14 | 15 | 16 | 18 | 18 | 19 | 20 | ${ }^{2} 1$ | 98 |  |
| Nonsect | 12 | 0 | 100 | 0 | 130 | 0 | 50 | 0 | 50 |  | 24 | 0 | 20 | 0 | 3 | 100 | 1，200 | \＄750， 000 | 1163 |
| Nonsect ．－ | 2 | 26 | 0 | 128 | 0 | 62 | 0 | 6 | 0 | 0 | 0 | 25 | 0 | 6 | 5 | 0 | 4， 000 | 200，000 | 1164 |
| Nonsect ．－ | 0 | 7 | 0 | 55 | 3 | 125 | 0 | 7 | 0 | 48 | 0 | 32 | 0 | 7 |  |  |  |  | 1165 |
| Nonsect ．－ | 5 | 0 | 28 | 0 | 12 | 0 | 12 | 0 | 10 | 0 | 7 | 0 | 5 | 0 |  | 0 | 300 | 40，000 | 1165 |
| Nonsect ．－ | 5 | 1 | 27 | 0 | 33 | 0 | 18 | 0 | 6 | 0 | 6 | 0 | 5 | 0 | 4 | 0 |  |  | 1167 |
| Nonsect | 5 | 9 | 0 | 37 | 6 | 12 | 0 | 0 | 0 | 11 | 0 | 10 | 0 | 6 |  | 0 | 600 | 2，000 | 1168 |
| Nonsect．． | 6 | 2 | 51 | 0 | 92 | 0 |  |  |  |  | 5 | 0 | 5 | 0 | 4 | 51 | 500 |  | 1169 |
| Nonsect | 18 | 0 | 114 | 0 | 37 | 0 | 42 | 0 | 38 | 0 | 28 | 0 | 20 | 0 | 5 | 0 | 300 | 100，000 | 1170 |
| Nonsect | 9 | 3 | 93 | 0 | 55 | 0 | 56 | 0 | 37 | 0 | 11 | 0 | 9 | 0 | 3 | 93 | 300 | 139， 000 | 1171 |
| Nonsect ．． | 0 | 6 | 0 | 29 | 0 | 43 | 0 | 8 |  |  | 0 | 4 | 0 | 1 | －．．． |  | 1，200 |  | 1172 |
| Nonsect | 7 | 0 | 12 | 0 | 16 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 4 |  | 800 | 33,000 | 1173 |
| Nonsect ．． | 11 | 0 | 100 | 0 | 100 | 0 | 60 | 0 | 30 | 0 | 33 | 0 | 30 | 0 | 4 | 0 | 250 | 4，000 | 1174 |
| Nousect | 1 | 1 | 2 | 2 | 8 | 6 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 4. | 200 | 30，000 | 1175 |
| R．C | 14 | 0 | 160 | 0 | 65 | 0 |  |  |  |  | 20 | 0 | 14 | 0 | 4 | 150 | 3，000 | 450， 000 | 11 \％ 6 |
| Nonsect．． | 12 | 0 | 35 | 0 | 35 | 0 | 12 | 0 | 6 | 0 | 8 | 0 | 6 | 0 |  |  |  |  | 1177 |
| Nonsect．． | 14 | 0 | 98 | 0 | 0 | 0 |  |  |  |  | 40 | ， |  |  | 4 | 0 |  |  | 1178 |
| Presb | 8 | 22 | 0 | 150 | 0 | 0 | 0 | 15 |  |  | 0 | 12 | 0 | 2 |  | 0 | 2，500 | 425， 000 | 1179 |
| Nonsect ．－ | 3 | 7 | 0 | 23 | 0 | 25 | 0 |  | 0 | 9 | 0 | 5 | 0 | 3 |  | 0 | 500 |  | 1180 |
| P．C | 0 | 14 | 0 | 87 | 0 | 134 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 5 | 0 | 6，595 | 996， 825 | 1181 |
| Friends．．． | 3 | 6 | 15 | 26 | 61 | 59 | 5 | 3 | 5 | 1 | 4 | 4 | 2 | 0 | 3 | 0 |  | 200， 000 | 1182 |
| Nonsect ．－ | 9 | 1 | 40 | 0 | 20 | 0 | 20 | 0 | 10 | 0 | 12 | 0 | 12 | 0 | ．－．－ | 0 |  |  | 1183 |
| Nonsect ．． | 9 | 3 | 25 | 0 | 45 | 0 | 15 | 0 | 10 | 0 | 4 | 0 | 4 | 0 | 4 | 25 | 400 |  | 1184 |
| Nonsect ．． | 2 | 3 | 1 | 13 | 17 | 30 |  |  | 13 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 600 | 2，500 | 1185 |
| R．C | 0 |  | 0 | 55 | 45 | 120 | 0 |  |  |  | 0 | 3 |  |  | 6 | 0 | 1，500 |  | 1186 |
| Nonsect | 6 | 0 | 29 | 0 | 32 | 0 | 15 | ， | 11 | 0 | 8 | 0 | 8 | 0 | 4 | 0 | 500 | 27，000 | 1187 |
| R．C | 7 | 0 | 95 | 0 | 115 | 0 | 80 | 0 | 10 | 0 | 10 | 0 | 8 | 0 | 4 | 0 | 2，500 | 500， 000 | 1188 |
| Nonsect | 4 | 0 | 10 | 8 | 22 | 10 | 8 | 4 | 3 | 0 | 4 | 2 | 2 | 2 |  | － |  | 50， 000 | 1189 |
| Nonsect． | 4 | 13 | 14 | 92 | 25 | 61 | 0 | 4 | 0 | 0 | 0 | 2 | 0 | 1 | 4 | 0 |  | 2，000 | 1190 |
| Nonsect | 3 | 0 | 12 | 8 | 38 | 27 |  |  | 4 | 2 | 4 | 2 |  |  |  |  |  | 25，000 | 1191 |
| Nonsect ．－ | 6 | 2 | 33 | 0 | 19 | 0 | 14 | 0 | 2 | 0 | 9 | 0 | 9 | 0 | ．．．－ | 0 |  |  | 1192 |
| Protest．．． | 2 | 10 | 0 | 40 | 7 | 63 | 0 | 1 | 0 | 3 | 0 | 3 | 0 | 0 | 4 |  |  | 200 | 1193 |
| Nonsect ．－ | 3 | 12 | 0 | 97 | 0 | 30 |  |  |  |  | 0 | 14 | 0 | 2 | 4 | 0 |  |  | 1194 |
| Nonsect．． | 0 | 10 | 0 | 22 | 0 | 31 | 0 | 6 | 0 | 6 | 0 | 3 | 0 | 2 | 4 | 0 | 1，000 | 8，000 | 1195 |
| Epis．．．．．－ |  | 14 | 0 |  |  |  |  |  |  |  |  |  | 0 |  | 4 |  |  |  | 1196 |

Table 43.-Statistics of prirate high schools, endowed academies, seminaries,

|  | State and post-office. | Name. | Principal. |
| :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 |
|  | NEW YORK-continued. |  |  |
| 1197 | New York (84th st. and West Eud ave.). | Rugby Military Academy | F. V. N. Burling - |
| 1198 | New York (38 West 59th st.). | Sachs' Collegiate Institute (Boys) - | Dr. Julius Sachs |
| 1199 | New York (116 West 59th st.). | Sachs' Collegiate Institute (Girls). | to |
| 1200 | New York (152d st. and West Boulevard). | St. Catherine's A cademy ...... | Sister Mary de Pazzi |
| 1201 | New York (593 East 137th st.). | St. Jerome's Ursuline Academy ... | Mother Mi. Clara Ward. |
| 1202 | New York (231 East 17th st.). | St. John Baptist School | Sisters of St. John Baptist... |
| 1203 | New York (229-231 East Broadway). | St. Mary's Academy | Sister M. Frederica |
| 1204 | New York (6 and 8 East 46th st.). | St. Mary's School . .-................ . | Sister Anna |
| 1205 | New York (137 Henry st.).- | St. Teresa's Ursuline Academy.. | Mother M. Lucy . |
| 1206 | New York (6 West 48 th st.) - | Spence's (Miss) School for (xirls .. | Miss C. B. Spence |
| 1207 | New York (27 East 44 th st.). | Steru's School of Languages of New York City. | Sigmon M. Stern, director.... |
| 1208 | New York (147 West 91st st.). | Trinity School ............ | Rev. Ang. Ulmann, S. D. D.... |
| 1209 | New York (280 West 71st st.). | Van Norman Institute | Mme. Van Norman |
| 1210 | New York ( 160 West 74th st.). | Veltin's (Mlle.) School for Girls *.. | Mlle. Louise Veltin. |
| 1211 | New York (139 East 79th st.). | Villa Maria Academy .............. | Mother St. Celestine |
| 1212 | New York (148 Madison ave.). | Walker's (Miss) School for Girls. - | Miss Roberts |
| 1213 | New York (109-111 West 77th st.). | Weil's (Mrs.) School .............. . . | Mrs. Matilda Weil |
| 1214 | New York (22 and 24 East 91st st.). | Weingart Institute | S. Weingart |
| 1215 | New York (622 5th ave., near 50th st.). | Wilson and Kellogg School....... | Francis F. Wilson, A. M., John M. Kellogg, M. D. |
| 1216 | New York (417 Madison ave.). | Woodbridge School* | David A. Center, B. S. |
| 1217 | Niagara ..................... | De Veanx College | Wm. Stanley Barrows, M. A., B. 1). |
| 1218 | North Chili | The A. M. Chesbrough Seminary. | B. H. Roberts, A. M., and E. S. Roberts, A. M. |
| 1219 | Nyack-on-Hudso | Hudson River Military Institute. | Capt. J. Wilson, A. M ......... |
| 1220 | Oakfield | Cary Collegiate Seminary* | Rev. Curtis C. Grove, M. A ... Charles Unterreiner .-....... |
| 1222 | .....do | Mohegan Lake School | Henry Waters |
| 1223 | -... do | Peekskill Military Academy .... | Louis H. Orleman .-........... |
| 1224 | - ... do | St. Gabriel's School. . . . . . . . . . . . . | H. M. Cattell, instructor in mathematics. |
| 1225 | Pelham Mano | Snburban School for Girls | Mrs. and Miss Hazen |
| 1226 | Pike. | Pike Seminary | Wm. H. McClelland |
| 1227 | Plattsburg | D' Youville Academy | Sister St. Euplrrasia |
| 1228 | Port Henry.. | Champlain Institute................ | Sister M. Beatrice. . . . |
| 1229 | Poughkeepsie .............. | Lsindon Hall School for Young Ladies. | Samuel W. Buck, A. M....... |
| 1230 |  | Quincy School........................ | Mary C. Alliger................. |
| 1231 | -..do -... | Riverview Military Academy..... | Joseph B. Bisbee .-........... |
| 1232 | Randolph................... | Chamberlain Institute............. | Rev. E. A. Bishop, A. M., D. D. |
| 1233 | Rochester (2 Prince st.)... | Acadcmy of the Sacred Heart..... | Amelia Schulten, Mother Superior. |
| 1234 | Rocliester (401-404 Beckley Building). | Bradstreet School (Boys) ........... | J. Howard Bradstreet ........ . |

* Statistics of 1896-97.
and other pricate secondary schools for the scholastic year 189\％－98—Continued．

| Religions denomina－ tion． | $\begin{gathered} \text { Sec- } \\ \text { ond- } \\ \text { ary } \\ \text { in- } \\ \text { struct- } \\ \text { ors. } \end{gathered}$ |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  | - Axuiq!! u! sounโoд јо ләqum | Value of grounds， build－ ings， furni－ ture， and sei－ entific appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second－ ary stu－ dents． |  | Elemen－ tary stu－ dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara－ tory stu－ dentsin the class that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． sical course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |  |
|  | $\stackrel{\dot{9}}{\underset{\sim}{x}}$ |  |  |  | $\underset{\underset{y y y y}{c}}{\stackrel{\rightharpoonup}{y}}$ |  | $\frac{\dot{9}}{\stackrel{y}{x}}$ | $\begin{aligned} & \text { 感 } \\ & \text { घ } \end{aligned}$ | $\frac{\dot{3}}{\frac{\pi}{4}}$ |  | $\frac{\stackrel{8}{3}}{\frac{3}{4}}$ | $\begin{aligned} & \text { © } \\ & \text { تِ } \\ & \text { E } \end{aligned}$ | $\frac{\dot{9}}{\frac{\pi}{\pi}}$ |  |  |  |  |  | $\stackrel{\dot{0}}{\stackrel{0}{5}}$ | 跑 |  |
| 4 | 5 | 6 | $g$ | 8 |  |  | 9 | 10 | 14 | 18 | 是：3 | $1{ }^{4}$ | 15 | 16 | 17 | 18 | 13 | （1） | 21 | 2： |  |
| Nonsect ．． | 4 | 0 | 23 |  | 18 | 0 | 18 |  | 4 | 0 | 1 |  | 1 | 0 |  | 23 |  |  | 1197 |
| Nonsect．． | 13 | 1 | 90 |  | 60 | 0 | 30 |  | 20 | 0 | 22 | 0 | 16 | 0 | 4 | 0 | 500 |  | 1198 |
| Nonsect ．－ | 4 | 14 | 0 |  | 0 | 75 | 0 |  |  |  | 0 | 16 | 0 | 1 | 4 |  |  | \＄100， 000 | 1199 |
| R．C | 0 | 5 | 0 |  | 0 | 64 | 0 |  | 0 | 0 |  |  |  |  | 4 |  | 200 | 60，000 | 1200 |
| R．C | 2 | 4 | 0 |  | 25 | 65 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 200 |  | 1201 |
| Epis．．．．．． | 0 | 3 | 0 | 27 | 0 | 5 | 0 |  | 0 | 0 | 0 | 4 | 0 | 3 | 5 | 0 | 500 |  | 1202 |
| R．C | 1 | 3 | 0 |  | 14 | 16 | 0 | 7 | 0 | 0 | 0 | 0 |  |  | 4 | 0 | 200 |  | 1203 |
| Epis | 0 | 18 | 0 |  | 0 | 26 | 0 |  | 0 | 0 | 0 |  | 0 | 1 |  |  | 3，200 |  | 1204 |
| R．C | 0 | 6 | 0 | 57 | 7 | 27 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 |  | 0 | 800 | 40， 050 | 1205 |
| Nonsect | 0 | 22 | 0 | 130 | 0 | 56 | 0 |  | 0 | 6 | 0 | 14 | 0 | 2 | 5 |  | 600 | 4，000 | 1206 |
| Nonsect | 11 | 1 | 42 | 454 | 56 | 462 | 0 |  | 0 | 0 |  |  |  |  |  |  |  |  | 1207 |
| P．Epis ．．． | 14 | 0 | 320 | 0 | 62 | 0 | 72 | 0 | 75 | 0 | 16 | 0 | 14 | 0 |  | 0 | 350 | 288， 247 | 1208 |
| Nonsect | 0 | 6 | 0 | 19 | 0 | 11 |  |  |  |  | 0 | 0 |  |  | 4 |  | 1，200 |  | 1209 |
| Nonsect | 0 | 18 | 0 | 140 | 0 | 100 | 0 |  |  |  | 0 | 6 |  |  | 6 |  | 650 |  | 1210 |
| R．C | 0 | 5 | 0 | 129 | 0 | 54 | 0 | 0 | 0 | 0 | G | 0 | 0 |  | 3 | 0 | 1，430 |  | 1211 |
| Nonsect | 0 | 12 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 |  | 0 |  |  | 1212 |
| Nonsect ．． | 3 | 7 | 0 | 25 | 10 | 25 |  |  | 0 | 8 | 0 | 5 | 0 |  | 3 |  | 2，000 | 80， 000 | 1213 |
| Nonsect | 2 | 0 | 3 | 3 | 53 | 79 | 3 | 0 | 0 | 0 | 0 | 0 |  |  | 3 | 0 |  |  | 1214 |
| Nonsect | 4 | 0 | 25 | 0 | 48 | 0 | 13 | 0 | 7 | 0 | 25 | 0 | 13 | 0 | 3 | 0 | 500 |  | 1215 |
| Nonsect | 7 | 0 | 40 | 0 | 5 | 0 | 38 | 0 |  |  | 19 | 0 | 16 |  | 4 | 0 |  |  | 1216 |
| P．E | 4 | 0 | 20 | 0 | 6 | 0 | 4 |  | 2 | 0 | 1 | 0 | 1 | 0 | 4 | 20 | 1，000 | 150，000 | 1217 |
| Nonsect | 2 | 6 | 24 | 19 | 22 | 28 | 10 | 4 | 3 | 2 | 4 | 4 | 4 | 1 | 4 | 0 |  | 47，511 | 1218 |
| Nonsect | 4 | 1 | 20 | 0 | 18 | 0 | 2 | 0 | 3 | 0 |  |  |  |  |  | 20 | 1，000 |  | 1219 |
| Epis．．． | 3 | 2 | 25 | 32 | 3 | 2 | 0 | 0 | 0 | 0 | 2 | 4 | 2 | 2 | 4 | 0 | 892 | 20，000 | 1220 |
| Nonsect | 2 | 1 | 9 | 12 | 9 | 3 |  |  |  |  | 5 | 3 |  |  |  | 0 | 1，200 | 14，000 | 1221 |
| Nonsect | 3 | 0 | 29 | 0 | 20 | 0 | 15 | 0 | 10 | 0 | 5 | 0 | 5 | 0 | ， | 29 | 600 |  | 1222 |
| Nonsect ．． | 6 | 0 | 55 | 0 | 50 | 0 | 5 | 0 | 38 | 0 | 17 | 0 | 10 | 0 | 4 | 55 | 1，200 |  | 1223 |
| Epis．．．．．． | 0 | － 3 | 0 | 48 | 0 | 19 |  |  |  |  | 0 | 9 | 0 | 5 | 4 |  |  |  | 1224 |
| Protest．． | 2 | 8 | 0 | 70 | 10 | 15 |  |  |  |  | 0 | 18 | 0 | 2 | 4 | 0 | 1，500 | 100， 000 | 1225 |
| Nonsect | 1 | 1 | 27 | 19 | 20 | 22 | 1 | 1 | 1 | 0 | 4 | 3 | 2 | 1 | 4 | 32 | 750 | 14， 200 | 1226 |
| Nonsect ．． | 0 | 3 | 0 | 50 | 20 | 57 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 4 | 0 | 975 | 61，6．1 | 1227 |
| R．C ．．．．．． | 0 | 3 | 10 | 25 | 75 | 75 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 4 | 35 | 185 |  | 1228 |
| Nonsect ．． | 1 | －8 | 0 | 70 | 12 | 50 | 0 |  | 0 | 0 | 0 | 9 | 0 | 0 |  | ， |  |  | 1229 |
| Nonsect ．． | 0 | 4 | 5 | 20 | 61 | 80 | 0 |  | 0 | 10 |  |  |  |  | 3 |  | 300 |  | 1230 |
| Nonsect ．． | 2 | 0 | 105 | 0 | 34 | 0 | 27 | 0 | 18 | 0 | 9 | 0 | 5 | 0 | 5 | 105 |  | 75， 000 | 1231 |
| M．E．．．．．． | 3 | 3 | 57 | 101 | 5 | 1 | 11 | 3 | 0 | 1 | 2 | 7 | 2 | 1 | 4 | 0 | 2，211 | 82， 750 | 1232 |
| R．C．．．．．． | 0 |  | 0 | 38 |  |  |  |  |  |  | 0 | 6 |  |  | 4 | 0 | 1，580 | 117， 865 | 1233 |
| Nonsect ．． |  | 51 | 47 | 0 | 18 | 0 | 14 | 0 | 20 | 0 |  | 0 | 14 | 0 |  | 0 | 409 | 1．000 | 1234 |

Table 43.-Statistics of private high schools, endowed academies, seminaries,

and other private secondary sehools for the scholastic year 189\%-98-Continned.


Table 43.-Statistics of pricate high schools, endowed academies, seminaries,


* Statistics of 1896-97.
and other private secondary schools for the scholastic year 1897-98-Continued.


Table 43.-Statistics of private high schools, endowed academies, seminaries,

and other private secondary schools for the scholastic year 1897－98－Continued．

| Religious denomina－ tion． | $\begin{gathered} \text { Soc- } \\ \text { ond- } \\ \text { ary } \\ \text { in- } \\ \text { struct- } \\ \text { ors. } \end{gathered}$ |  | Students． |  |  |  |  |  |  |  |  |  |  |  | Length of course in years． |  |  | Value of grounds， build． ings， furni－ ture， and sci－ entific appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second－ arystu－ dents． |  | Elemen－ tary sta－ dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara－ torystu－ dentsin the class that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． sical course． | $\begin{aligned} & \text { Scien- } \\ & \text { tific } \\ & \text { course. } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & \text { 而 } \\ & \text { 枈 } \end{aligned}$ |  |  |  | $\begin{aligned} & \dot{0} \\ & \text { ज⿹\zh26灬 } \end{aligned}$ |  |  |  |  |  | － | 第 |  |  |  |  |  |  |  |  |  |
| 4 | 5 | 6 | 7 | 8 |  |  | （1） | 10 | 克㫫 | 建发 | 13 |  | 1朝 | 16 | 17 | 18 | 19 | 920 | 21 | 22 |  |
| Nonsect | 1 | 1 | 20 | 18 | 50 | 49 | 10 |  |  |  |  |  |  |  |  |  | 100 |  | 1342 |
| Nonsect． | 5 | 0 | 105 | 0 | 11 | 0 | 16 | 0 | 80 | 0 |  |  |  |  | 4 | 70 | 1，500 | \＄25， 000 | 1343 |
| Miss．Bapt | 1 | 0 | 12 | 8 | 40 | 42 | 5 | 2 |  |  |  |  |  |  | 2 | 0 |  | 400 | 1344 |
| Nonsect ． | 1 | 2 | 25 | 15 | 38 | 23 | 10 | 5 |  |  |  |  |  |  |  | 0 |  | 5，500 | 1345 |
| Bap | 1 | 0 | 13 | 19 | 10 | 8 | 3 | 5 |  |  |  |  |  |  |  | 0 |  | 450 | 1346 |
| Bapt | 0 | 2 | 20 | 15 | 19 | 16 | 5 | 2 | 2 | 0 |  |  |  |  |  |  | 300 | 2，500 | 1347 |
| Nonsect | 1 | 1 | 30 | 35 | 50 | 40 |  |  | 10 | 8 |  |  |  |  | 4 | 0 | 300 | 600 | 1348 |
| Nonsect | 1 | 9 | 0 | 152 | 0 | 23 |  |  |  |  | 0 | 8 |  |  |  |  |  |  | 1349 |
| Nonsect | 3 | 0 | 40 | 0 | 44 | 0 | 10 | 0 | 10 | 0 |  |  |  |  | 4 | 0 |  | 5， 000 | 1350 |
| Epis | 0 | 2 | 0 | 100 | 0 | 50 |  |  |  |  | 0 | 5 |  |  |  |  | 5，600 | 80，000 | 1351 |
| Nonsect | 1 | 1 | 10 | 10 | 55 | 50 |  |  |  |  |  |  |  |  | 6 | 0 |  |  | 1352 |
| Nonsec | 1 | 1 | 20 | 8 | 46 | 15 |  |  |  |  |  |  |  |  |  | 0 | 100 | 1，500 | 1353 |
| Presb． | 0 | 2 | 0 | 29 | 9 | 20 | 0 | 10 | 0 | 10 | 0 | 3 | 0 | 2 | 4 |  | 100 | 5，000 | 1354 |
| Nonsect | 1 | 2 | 35 | 10 | 5 | 2 | 20 | － |  |  |  |  |  |  |  | 0 |  | 20，000 | 1355 |
| Nonsect | 2 | 6 | 85 | 85 | 0 | 0 |  |  |  |  |  |  |  |  | 3 | 0 | 700 | 10，000 | 1256 |
| Nonsect | 0 | 1 | 20 | 20 | 20 | 20 |  |  |  |  |  |  |  |  | 3 | 0 |  |  | 1357 |
| Nonsect ．． | 2 | 1 | 32 | 8 | 46 | 6 |  | 0 | 4 | 1 | 0 | 0 | 0 | 0 |  |  |  | 1，500 | 1358 |
| Moravian． | 3 | 0 | 53 | 0 | 37 | 0 | 12 | 0 |  |  | 16 | 0 | 9 | 0 | 4 | 0 |  | 12，000 | 1359 |
| Nonsect | 0 | 2 | 10 | 25 | 95 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  | 0 | 550 | 4，700 | 1360 |
| Nonsect ．－ | 3 | 0 | 60 | 0 | 15 | 0 | 10 | 0 | 7 | 0 | 10 | 0 | 10 | 0 | 4 | 0 | 600 | 10，000 | 1361 |
| Nonsect | 0 | 1. | 4 | 4 | 18 | 9 | 0 | 0 | － | 0 | 0 | ， |  |  |  | 0 | 0 |  | 1362 |
| Nonsect ．－ | 1 | 0 | 8 | 6 | 65 | 53 | 10 | 10 |  |  |  |  |  |  |  | 0 | 100 | 4，000 | 1363 |
| Nonsect．． | 1 | 2 | 20 | 14 | 11 | 21 | ， | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 100 | 1，000 | 1364 |
| Nonsect ．． | 1 | 1 | 15 | 11 | 55 | 60 | 4 | 2 | 2 | 3 | 2 | 0 |  | 0 | 4 | 0 |  | 1，500 | 1365 |
| M．E．So ．． | 2 | 0 | 38 | 10 | 40 | 42 | 12 | 0 |  |  | 2 | 0 | 1 | 0 |  | 0 |  | 8， 000 | 1366 |
| Nonsect | 3 | 2 | 85 | 44 | 40 | 31 | 20 | 10 |  |  | 4 | 4 |  |  | 6 | 0 | 350 | 4，000 | 1367 |
| Nonsect | 2 | 2 | 20 | 25 | 33 | 25 | 12 | 13 |  |  | 1 | 2 | 1 | 2 | 2 | 0 | 40 | 3，500 | 1368 |
| M1．E．So ．． | 2 | 1 | 60 | 10 | 28 | 21 | 60 | 10 |  |  |  |  |  |  | 3 | 0 | 1，000 | 20，000 | 1369 |
| Christian． | 1 | 2 | 8 | 10 | 21 | 13 |  |  | 1 | 4 | 1 | 3 |  |  |  | 0 |  | 700 | 1370 |
| Bapt． | 1 | 0 | 15 | 10 | 11 | 10 | 2 | 0 | 0 | 0 | 0 | 0 |  |  | 4 | 0 |  | 1，000 | 1371 |
| Cong | 2 | 0 | 5 | 12 | 43 | 46 | 0 | 0 | ， | 0 | 0 | 0 | 0 | 0 |  | 0 |  | 1，300 | 1372 |
| Nonsect．． | 4 | 2 | 125 | 50 | 50 | 25 |  |  |  |  | 23 | 2 |  |  | 4 | 25 | 1，000 | 12， 000 | 1373 |
| Nonsect．． | 2 | 0 | 12 | 5 | 36 | 39 |  | 1 | 2 |  |  |  |  |  |  |  |  | 500 | 1374 |
| Nonsect | 0 | 1 | 20 | 20 | 20 | 25 | 3 |  |  |  | 3 | 4 |  | 4 | 3 | ， | 100 | 1，000 | 1375 |
| Nonsect．． | 0 | 1 | 11 | 12 | 12 | 20 | 6 | 5 |  |  |  |  |  |  | ， | 0 | 100 |  | 1376 |
| Nonsect ．． | 2 | 0 | 45 | 2 | 17 | 1 | ， | 0 | 5 | 0 | 5 | 1 |  |  | 4 | 0 | 200 |  | 1377 |
| Nonsect | 0 | 2 | 1 | 16 | 6 | 15 |  |  |  |  |  |  |  |  |  |  |  |  | 1378 |
| Nonsec | 1 | 2 | 15 | 20 | 15 | 36 |  |  |  |  |  |  |  |  |  |  |  | 5， 555 | 1379 |
| Bapt． | 3 | 2 | 43 | 65 | 68 | 53 |  |  |  |  | 1 | 3 | 1 | 3 |  |  | 250 | 10，800 | 1380 |
| Nonsect ． | 1 | 1 | 20 | 16 | 40 | 35 | 10 | 10 | 10 |  | 2 | ） |  |  |  | 0 | 350 | 2，500 | 1381 |
| R．C | 0 | － 3 | 5 | 25 | 20 | 75 | 4 |  |  |  | 0 | ， |  |  | 4 | 0 | 600 | 10，000 | 1.82 |
| Luth | 4 | 1 | 12 | c | 83 | 126 | 12 | 0 |  |  | 6 | 2 |  | 0 | 3 | 0 | 200 | 18，000 | 1383 |
| Cong | 4 | 3 | 44 | 66 | 0 | 0 |  |  |  |  | 7 | 3 |  | 3 | 3 | 0 | 2，000 | 20， 000 | 1384 |
| Friends．．． | 2 | 3 | 46 | 54 | 2 | 2 |  |  |  |  | 1 | 3 |  |  | 3 | 0 | 600 | 50,000 | 1385 |
| Nonsect．． | 0 | 4 | 0 | 20 | 5 | 3 | 0 | 10 |  |  | 0 |  | 0 |  |  |  | 200 |  | 1386 |
| R．C ．．．．．． | 8 | 8 | 90 | 0 | 0 | 0 |  |  |  |  |  |  |  |  |  | 0 | 6，000 | 90，000 | 1387 |
| Nonsect．． | 0 | 4 | 0 | 57 | 0 | 43 | 0 | 20 |  |  | 0 | 4 | 0 | 4 |  |  |  |  | 1388 |
| Nonsect． | 0 | － 6 | 0 | 18 | 4 | 17 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 500 |  | 1389 |
| Nonsect | 0 | － 7 | 0 | 28 | 0 | 12 | 0 |  | 0 |  | 0 | ， | 0 | 2 | 5 |  | 1． 000 | 22.000 | 1390 |

TABLE 43.-Statistics of private high schools, endowed academies, seminaries,


and other private secondary schools for the scholastic year 1897-98-Continued.

| Religions denomination. | $\begin{gathered} \text { Sec. } \\ \text { ond- } \\ \text { ary } \\ \text { in- } \\ \text { struct- } \\ \text { ors. } \end{gathered}$ | Students. |  |  |  |  |  |  |  |  |  |  |  | 'sxeə. |  | $\text { -4xexqII u! sourn}\left[O_{4}\right. \text { गo .xө quant }$ | Vialue of grounds. build. ings, furniture, and seientific apparatis. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Secondary sta. dents. |  | Elemen-tarystudents. |  | Preparing for college. |  |  |  | Graduates in 1898. |  | College preparatory stadents in the class that graduated in 1898. |  |  |  |  |  |  |
|  |  |  |  | Clas. sical <br> course. | Scien. tific course. |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | $\begin{gathered} \dot{9} \\ \text { 采 } \end{gathered}$ |  |  |  | $\frac{\dot{3}}{\underset{y y}{\mid c}}$ | $\frac{\stackrel{9}{\text { g }}}{\frac{1}{6}}$ |  |  |  |  |  |  |  |
| 4 | 56 | $g$ | 8 | 9 | 191) | 且 | 19 | 183 | 14 | 15 | 16 | 18 | 38 | 15 | 39 | ' ${ }^{1}$ | 28 |  |
| Nonsect | $0 \quad 4$ | 0 | 13 | 0 | 12 | 0 |  |  |  |  |  |  |  |  | 0 | 700 | \$28, 000 | 1391 |
| Nonsect .- | 23 | 10 | 13 | 7 | , | 7 |  | 3 | 1 | 3 | 2 | 0 | 1 | 4 | 0 | 500 |  | 1392 |
| Nonsect. | 50 | 60 | 0 | 25 | 0 | 30 | 0 | 15 | 0 | 15 | 0 |  | 0 | 4 | 0 | 500 | 20,000 | 1393 |
| Nonsect .. | $0 \quad 4$ | 1 | 15 | 1 | 3 | 1 |  |  |  |  |  |  |  | 4 | 0 | 3,000 |  | 1394 |
| Epis | 21 | 26 | 0 | 4 | 0 | 4 | 0 | 4 | 0 |  |  |  |  |  | 0 |  |  | 1395 |
| Nonsect | 112 | 0 | 40 | 0 | 12 |  |  |  |  | 0 | 7 |  |  |  |  | 2,000 |  | 1396 |
| R. C . | $0 \quad 3$ | 0 | 30 | 0 | 150 |  |  |  |  | 0 | 3 |  |  | 4 | 0 |  |  | 1397 |
| Nonsect .- | 50 | 34 | 0 | 6 | 0 |  |  |  |  |  |  |  |  |  | 34 | 1,000 | 100, 000 | 1398 |
| R. C | 0 9 | 0 | 37 | 0 | 15 |  |  |  |  |  | 5 |  |  |  |  | 1, 200 |  | 1399 |
| R. C | 80 | 103 | 0 |  | 0 |  |  |  |  | 16 | 0 | 12 | 0 | 5 | 0 | 1,230 | 50,000 | 1400 |
| R. C | 0 4 | 0 | 20 | 0 | 130 |  |  |  |  |  |  |  |  |  |  |  |  | 1401 |
| R. C ...... | 0 - 4 | 0 | 20 | $\stackrel{2}{2}$ | 40 |  |  |  |  | 0 | 0 | 0 | 0 | 4 |  |  | 2i, 000 | 1402 |
| Nonsect .. | $0 \quad 14$ | 0 | 57 | 12 | 51 | 0 | 1 | 0 | 25 |  |  |  | 5 | 4 | 0 | 1, 100 |  | 1403 |
| Nonscet .. | 312 | 0 | 94 | 21 | 69 | 0 | 3 | 0 | 7 | 0 | 13 | 0 | 4 | 4 | 0 | 2,400 |  | 1404 |
| Protestant | 160 | 112 | 0 | 81 | 0 | 33 | 0 | 47 | 0 | 23 | 0 | 23 | 0 | 4 | 0 | 1,200 | 250, 000 | 1405 |
| R. C...... | 08 | 0 | 88 | 0 | 162 |  |  |  |  | 0 | 2 |  |  | 4 |  |  |  | 1406 |
| Nonsect .. | $2 \quad 2$ | 16 | 5 | 3 | 0 | 8 | 3 | 4 | 0 | 8 | 0 | 8 | 0 | 4 | 0 | 1,000 |  | 1407 |
| Epis | 310 | 0 | 75 | 20 | 50 | 0 | 4 |  |  | 0 | 7 | 0 | 2 | 4 | 0 | 1,500 | 3, 500 | 1408 |
| R. C ...... | $0 \quad 5$ | 0 | 30 | 30 | 80 | 0 | 10 | 0 | 10 |  | 0 | 0 | 0 | 4 | 0 | 3, 000 | 30,000 | 1409 |
| Nonseet .. | 21 | 32 | 38 |  | 0 |  |  | 6 | 4 | 4 | 2 | 4 | 2 |  |  |  |  | 1410 |
| Nonsect | 11 | 30 | 28 | 15 | 12 | 2 |  |  |  |  |  |  |  | 4 |  | 50 | 35, 000 | 1411 |
| Frieuds | 1.1 | 40 | 18 | 20 | 13 | 6 |  |  |  | 1 | 1 | 1 | 1 | 4 |  | 300 | 7,000 | 1412 |
| R. C. | 0 | 0 | 18 |  | 96 | 0 | , | 0 | 4 | 0 | 1 | 0 | 0 | 4 | 0 | 400 |  | 1413 |
| Nonsect. | 1 | 13 | 6 | , | 0 | 2 |  | 7 | 1 |  |  |  |  |  | 0 | 800 |  | 1414 |
| R. C . | $9 \quad 0$ | 107 | 0 | 172 | 0 | 23 |  |  |  |  | 0 |  |  | 5 | 0 |  |  | 1415 |
| Nonsect .. | 11 | 23 | 15 | 36 | 17 | 3 | 2 | 5 | 3 | 5 | 3 | 2 |  | 4 |  | 800 | 12, 000 | 1416 |
| Epis...... | 08 | 2 | 50 | 3 | 5 | 2 | 0 | 0 | 12 | 0 | 12 | 0 | 2 | 4 | 0 | 1,500 | 100, 000 | 1417 |
| Nonsect .- | 20 | 19 | 0 |  | 0 |  |  |  |  | I | 0 |  |  |  | 19 | 1,400 | 35, 000 | 1418 |
| Presb. | 53 | 22 | 40 | 2 | 0 |  |  |  |  | 3 | 3 | 3 |  | 3 | 0 | 200 | 40, 000 | 1419 |
| Nonsect | 42 | 55 | 20 | 4 | 4 | 18 | 2 | 17 | 10 | 16 | 8 | 16 | 8 | 4 | 0 | 1,000 |  | 1420 |
| R. C ...... | 01 | 5 | 10 | 99 | 88 |  |  |  |  | 1 | 1 |  |  | 4 | 0 |  |  | 1421 |
| Nonsect .. | 10 | 8 | 8 | 37 | 45 | 3 | 2 | 7 | 5 | 2 | 0 | 2 | 0 | 3 | 0 | 260 | 2,000 | 1422 |
| R. C ...... | 0 | 0 | 28 | 0 | 41 |  |  |  |  | 0 | 1 |  |  | 5 | 0 | 763 | 26,800 | 1423 |
| Nonsect | 02 | 0 | 12 | 0 | 5 | 0 | 5 |  |  |  |  |  |  | 4 | 0 | 2,000 |  | 1424 |
| Nonsect | 20 | 35 | 25 | 10 | 5 | 4 | 2 | 5 | 0 | 4 | 3 | 3 | 1 | 3 | 0 |  | 10,000 | 1425 |
| Presb | 1.1 | 15 | 20 | 5 | 5 | 1 | 3 |  |  | 0 | 2 |  |  | 3 | 0 | 100 |  | 1426 |
| R. C . | 0 3 | 0 | 25 | 0 | 65 | 0 | 2 |  |  | 0 | 8 | 0 | 2 | 4 | 0 | 3,000 |  | 1427 |
| R. C | 0 - 7 | 0 | 30 | 0 | 28 |  |  |  |  | 0 | 6 |  |  | 4 | , |  |  | 1428 |
| Nonsect .. | 30 | 48 | 58 | 0 | 0 | 3 | 1 | 7 | 4 | 3 | 2 | 3 | 2 | 4 | 0 | 200 | 4, 000 | 1429 |
| Nonsect | 381 | 97 | 124 | 10 | 15 | 4 | 4 | 6 | 8 |  |  |  |  |  |  | 748 | 20, 000 | 1430 |
| Presb.. | $2{ }^{2} 1$ | 20 | 18 | 14 | 2 | 3 | 3 |  |  | 6 | 3 | 1 | 0 | 3 | 0 | 1,500 | 5, 000 | 1431 |
| Nonsect .- | $\begin{array}{ll}0 & 3\end{array}$ | 0 | 9 | 5 | 21 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 4 | 0 | ..... |  | 1432 |
| R. C...... | 05 | 0 | 40 | 0 | 160 |  |  |  |  | 0 | 2 |  |  | 4 | 0 | 800 |  | 1433 |
| R. C | 06 | 0 | 40 | 0 | 300 | 0 | 0 | 0 | 10 |  | 7 | 0 | 7 | 4 | - | 1, 500 |  | 1434 |
| New Ch... | $3 \quad 3$ | 13 | 25 | 20 | 25 | 0 | 0 | 10 | 0 | 1 | 2 | 1 | 2 | 3 | 0 | 8, 000 | 60,000 | 1435 |
| M. E...... | 2 l | 26 | 31 | 4 | 4 | 3 | 3 | 2 | 0 | 2 | 2 | 2 | 2 | 3 | 0 | 8, 500 | 10,000 | 1436 |
| Nonsect .. | $0 \quad 4$ | 0 | 30 | 0 | 20 |  |  |  |  | 0 | 7 |  |  | 5 | 0 | 5,000 |  | 1437 |

Table 43.-Statistics of private high schools, endoured academies, seminaries,

and other private secondary schools for the schotastic year 1897－9S—Contiuned．

| Religions denomina－ tion． | $\begin{aligned} & \text { Sec- } \\ & \text { ond- } \\ & \text { ary } \\ & \text { in- } \\ & \text { struct- } \\ & \text { ors. } \end{aligned}$ |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Value of grounds， build． ings， furni－ ture， and sci－ entific appa－ ratus． | － |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second－ ary stu－ dents． |  | Elemen－ <br> tary stu－ <br> dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara－ tory stu－ dents in the class that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． <br> sical <br> course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & \text { 采 } \\ & \text { His } \end{aligned}$ |  |  |  |  |  | 荘 | $\begin{aligned} & \dot{\Delta} \\ & \text { जू } \\ & \text { ज्ञ } \\ & \text { an } \end{aligned}$ | 感 |  |  |  | $\stackrel{\dot{4}}{\frac{3}{4}}$ |  |  |  |  |  |  | $\begin{gathered} \stackrel{8}{5} \\ \text { 感 } \end{gathered}$ |  |
| 4 | $\overline{5}$ | 6 | \％ | 5 |  |  | 9 | 1 （1） | 1 11 | 18 | 13 | 退建 | 15 | 46 | 17 | 且8 | 49 | \＄6 | 918 | 98 |  |
|  |  | 4 | 0 | 12 | 0 | 30 |  |  |  |  |  |  |  |  | 4 |  |  | \＄19， 000 | 1438 |
| Cong | 3 | 2 | 21 | 12 | 41 | 20 | 10 |  |  |  |  | 2 | 3 |  | 3 | 0 | 1，000 | 16，000 | 1439 |
| R．C | 0 | 1 | 0 | 10 | 20 | 25 |  |  |  |  |  |  |  |  | 3 |  |  |  | 1440 |
| Presb | 8 | 5 | 122 | 90 | 15 | 10 |  |  |  |  |  |  |  | 0 | ， | 0 | 1，500 | 45， 000 | 1441 |
| R．C ． | 0 | $\stackrel{2}{2}$ | ${ }_{6}$ | 12 | 30 | 88 |  |  |  |  | 0 | 1 |  |  | 4 | 0 | 400 | 20， 000 | 1442 |
| Nonsect | 1 | 2 | 2 | 4. | 33 | 32 | 2 | 4 |  |  | 0 | 0 | 0 |  | 4 | 0 |  | 7，000 | 1443 |
| Nonsect | 0 | 1 | 24 | 22 | 12 | 10 |  | 3 | ， | 2 |  | 0 | ， | 0 | 2 | 0 | 80 | 4，000 | 1444 |
| Nonsect | 2 | 2 | 14） | 20 | 0 | 0 |  |  | 1 | 2 | 0 | 2 | 0 | 2 | 3 | 0 | 150 | 4，000 | 1445 |
| M．E | 4 | 1 | 8 | 9 | 17 | 29 | 0 | 1 |  |  | 2 | 0 |  |  | 4 | 0 | 400 | 6，000 | 1446 |
| R．C | 0 | 4 | 0 | 15 | 70 | 74 |  |  |  |  | 0 | 1 |  |  | 4 | 0 | 2，084 | 33， 000 | 1447 |
| R．C | 11 | 0 | 51 | 0 | 40 | 0 | 15 | 0 | 0 | ， | 8 | 0 |  |  | 5 | 0 | 7，000 | 45， 000 | 1448 |
| R．C | 0 | 4 | 4 | 26 | 31. | 59 | 0 | 3 | 0 | 24 | 0 | 2 | 0 |  | 4 | 18 | 300 | 30， 000 | 1449 |
| P．E | 8 | 0 | 59 | 0 | 20 | 0 | 20 | 0 | 20 | ， | 5 | 0 | 3 | 0 | 4 | 59 | 1， 200 | 150， 000 | 1150 |
| Presl | 7 | 3 | 87 | 58 | 67 | 47 | 40 |  |  |  | 8 | 7 | 8 | 7 | 5 | 0 | 800 | 60， 000 | 1451 |
| P．E | 0 | 7 | 0 | 107 | 0 | 86 | 0 |  | 0 | 8 | 0 | ， |  |  |  |  | 480 | 90， 000 | 1452 |
| R．${ }^{\text {P }}$ | 0 | 4 | 0 | 50 | 0 | 250 |  |  |  |  |  | 5 |  |  | 1 |  |  |  | 1453 |
| R．C | 2 | 0 | 15 | 0 | 113 | 0 | 3 | 0 | 4 | 0 | 6 | 0 | 6 | 0 | 4 | 15 | 600 | 98， 000 | 1854 |
| R．C | 0 | 2 | 0 | 20 | 35 | 25 | 0 | 10 |  |  |  |  |  |  |  |  |  |  | 1455 |
| R．C | 0 | 2 | 0 | 12 | 30 | 100 |  |  | 3 | 4 |  |  |  |  | 4 |  | 445 | 2，000 | 1456 |
| ア．（） | 0 | 2 | 0 | 10 | 50 | 120 |  |  |  |  | 9 | 1 |  |  |  |  | 600 |  | 1457 |
| R．C | 1 | 1 | 3 | 1 | 12 | 15 | 4 | 7 |  |  | 2 | 4 |  |  |  | 0 | 500 | 1，150 | 1458 |
| Nonsect | 1 | 1 | 21 | 8 | 22 | 15 | 3 |  | 1 | 0 | 3 | 0 |  |  | 4 | $\bigcirc$ | 165 | 3，000 | 1459 |
| Nonsect． | 7 | 2 | 162 | 21 | 0 | 0 | 32 | 0 | 14 | 0 | 27 |  | 27 | 0 | 1 | 0 |  |  | 1460 |
| Nonsect | 0 | 7 | 7 | 17 | 12 | 4 | 0 | 1 |  |  | ， | 4 | 1 |  | 4 | 0 | 300 |  | 1461 |
| Nonsect | 1 | 0 | 25 | 26 | 20 | 20 | 1 | 0 | 1 | 0 | 3 | 1 |  |  |  |  | 25 |  | 1462 |
| Nonse | 2 | 2 | 19 | 23 | 31 | 17 | 10 | 0 |  |  | 6 | 1 | 5 | 1 | 4 |  | 400 | 1，200 | 1163 |
| R．C | 0 | 10 | 0 | 80 | 0 | 20 |  |  |  |  | 0 | 5 |  |  | ， | 0 | 1，000 |  | 1464 |
| M．E． | 0 | 4 | 1. | 42 | 19 | 97 | 3 | 0 | 1 | 1 | 5 | 24 |  |  | 4 | 0 | 1，500 | 80，000 | 1465 |
| Nonsect | 1 | 0 | 19 | 5 | 6 | ， | 7 |  |  | 0 | 7 | 0 |  | 0 | 4 | 0 |  |  | 1466 |
| Nonsect．． | 2 | 3 | 40 | 20 | 20 | 20 | 15 | 8 | 6 | 0 | ， | 0 | 5 | 0 |  | 0 |  | 25，000 | 1467 |
| Nonsect．． | 1 | 0 | 38 | 0 | 12 | 0 | 6 | 0 |  | 0 | 20 | 0 | 20 | 0 | 4 | 0 | 2， 000 |  | 1468 |
| Moravian． | 4 | 2 | 35 | 33 | 71 | 68 | 0 | 2 | 12 | 7 | 5 | 3 | 5 | 3 | 6 | 0 | 2，500 | 65， 000 | 1469 |
| Presb． | 0 | 5 | 0 | 25 | 0 | $3 \pm$ | 0 | 0 | 0 | 24 | 0 | $\stackrel{2}{2}$ | 0 | ， |  |  |  | 40，000 | 1470 |
| Nonsect．． | 0 | 3 | 0 | 31 | 0 | 49 | 0 |  |  |  | ， | ， |  |  |  |  | 1，500 | 25，000 | 1471 |
| Nonsect ．． | 2 | 0 | 30 | 21 | 28 | 29 | 3 |  |  |  |  |  |  |  |  | 0 |  |  | 1472 |
| Nonsect ．． | 2 | 22 | 0 | 125 | 0 | $5 \frac{1}{1}$ |  |  |  |  | 0 | 24 | 0 | 14 | 4 |  |  | 500， 000 | 1473 |
| Friends ．． | 0 | 3 | 17 | 20 | 58 | 40 |  |  | 1 | 0 | ${ }_{0}$ | 0 | ${ }^{0}$ | 0 |  | 0 |  | 10， 000 | 1474 |
| P．E．．．．．． | 5 |  |  | 0 | 21 | 0 |  |  |  |  |  |  |  |  | 4 | 0 | 600 | 45， 000 | 1475 |
| Presb． | 2 | 1 | 9 | 6 | 16 | 19 | 4 |  | 1 | 0 | 3 | 4. | 3 | 0 | 3 | C | 2，000 | 5，000 | 1476 |
| Nonsect | 0 | 8 | 0 | 65 | 0 | 9 |  |  |  |  | O | 3 |  |  |  | 0 |  |  | 1477 |
| Nonsect | 4 | 0 | 70 | 0 | 0 | 0 | 40 |  |  | 0 | 8 | 0 | 8 | 0 | 4 | 0 | 800 | 20，000 | 1478 |
| Nonsect | 1 | 3 | 1.9 | 21. | 5 | 1 | 1 |  |  |  | 1 | 3 | ， | 0 | ， | 0 | 700 | 15，000 | 1479 |
| R．C．．． | 0 | 3 | 11 | 13 | 58 | 60 |  |  |  |  | 0 |  |  |  | 3 |  | 1，027 |  | 1480 |
| Friends．．． | 5 | 1 | 21 | 0 | 20 | 0 | 2 |  |  |  |  |  |  |  | 4 | 0 | 2， 000 | 20，000 | 1481 |
| Protestant | 0 | 2 | 8 | 19 | 28 | 35 |  |  |  |  |  |  |  |  | 3 | 0 | 400 | 5，000 | 1482 |
| Nonsect．． | 1 | 1 | 7 | 5 | 28 | 28 |  |  |  |  |  | 0 | 0 | 0 | 5 | 0 | 50 | 3， 000 | 1183 |
| Nonsect．． | 1 | 2 | 45 | 40 | 11 | 16 |  |  |  |  |  |  |  |  |  | 0 | 50 | 300 | 1484 |
| Nonsect | 10 | 1 | 15 | 0 | 0 | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 4 | 0 | 500 | 50，000 | 1485 |
| Presb．．．．． | 1. | 0 | 8 | 7 | 9 | 7 |  |  |  |  |  |  |  |  |  | 0 | 0 | 1，300 | 1186 |
| Nonsect ．． | 3 | 1 | 45 | 22 | 3 | 3 | 18 |  | 15 | 0 | 2 |  | 2 | 2 | 3 | 0 | 300 | 11，000 | 1487 |
| Nonsect ．． | 0 | 1 | 51 | 4 | 7 | 4. | 26 | 1 | 5 | 0 | 9 |  |  |  |  | 0 | 150 |  | 1488 |

Table 43.-Statistics of private high schools, endowed academies, seminaries,

and other private secondary schools for the scholastic year 1897-98-Continued.


Table 43.-Statistics of private high schools, endowed academies, seminaries,

and other private secondary schools for the scholastic year 189\％－98－Continued．

| Religious denomina－ tion． | $\begin{gathered} \text { Sec- } \\ \text { obd- } \\ \text { ary } \\ \text { in- } \\ \text { struct- } \\ \text { ors. } \end{gathered}$ |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  | Number of volumes in library. | Value of grounds， build． ings， furni－ ture， and sci－ entific appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second－ ary stu－ dents． |  | Elemen－ tarystu－ dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara－ tory stu－ dents in the class that gradr－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． sical course． | Scien－ tific course． |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | $\underset{\text { ® }}{\substack{\text { ® }}}$ |  | $\begin{aligned} & \stackrel{9}{5} \\ & \text { ت⿹丁口⿹丁口㇒ } \end{aligned}$ |  |  |  | 㡙 |  | 商 |  |  |  |  |  | $\begin{aligned} & \dot{9} \\ & \stackrel{\text { ज゙ }}{4} \end{aligned}$ |  |  |
| 4 | 5 | 6 | $g$ | 8 |  |  | 9 | 10 | 是直 | 13 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 23 | 21 | 12 |  |
| Nonsect ．－ | 8 | 1 | 100 | 0 | 100 | 0 | 25 |  |  |  | 25 | 0 |  |  |  | 0 |  | \＄200， 000 | 1540 |
| Norisect ．． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonsect．． | 3 | 10 | 0 | 40 | 0 | 24 | 0 | 1 | 0 | 0 |  |  |  |  |  |  |  |  | 1541 |
| Nonsect ．． | 0 | 10 | 0 | 57 | 0 | 9 | 0 | 5 |  |  | 0 |  | 0 | 2 | 6 |  | 1，200 | 20，000 | 1542 |
| Friends．． | 2 | 22 | 153 | 314 | 0 | 0 |  | ＊ |  |  | 17 | 40 |  |  | 5 |  | 500 | 200， 000 | 1543 |
| Friends．．． | 4 | 10 | 34 | 64 | 85 | 146 |  |  |  |  |  |  |  |  |  |  |  |  | 1544 |
| Nonsect | 1 | 6 | 0 | 20 | 0 | 10 |  |  |  |  |  |  |  |  |  |  | 300 |  | 1545 |
| Nonscet．． | 22 | 1 | 239 | 0 | 1496 | 0 |  |  |  |  | 57 |  |  |  | 3 | 239 | 15，820 | 3，330，000 | 1546 |
| Nonsect ．． | 6 | － 0 | 40 | 0 | 60 | 0 | 40 | 0 | 40 | 0 | 12 | 8 | 11 | 0 |  |  |  | 50，000 | 1547 |
| Nonsect．． | 0 | 11 | 0 | 45 |  |  | 0 |  |  |  |  | $\varepsilon$ |  |  |  |  |  |  | 1548 |
| Friends．．． | 3 | 7 | 54 | 81 | 60 | 132 | 0 | 0 | 0 | 0 | 6 | 7 | 0 | 0 | 4 | 0 | 3，453 |  | 1549 |
| Nonsect | 0 | 14 | 0 | 119 | 0 | 36 | 0 | 9 |  |  | 0 | 11 | 0 | 1 |  | 0 |  |  | 1550 |
| R．C．．．．．． | 0 | $5$ | 0 | 35 | 15 | 30 |  |  |  |  | 0 |  |  |  | 4 |  | 4，000 | 300，000 | 1551 |
| R．C | 0 | 7 | 0 | 48 | 48 | 100 |  | 0 | 0 | 0 |  |  | 0 | 0 | 4 | 0 | 9，800 |  | 1552 |
| Ev．Luth．． | 2 | 2 | 0 | 11 | 0 | 27 | 0 |  | 0 | 0 | 0 | 2 |  |  |  |  |  |  | 1523 |
| Nonsect ．． | 1 | 4 | 0 | 7 | 6 | 10 | 0 | 0 | 0 |  | 0 | 0 | 0 |  | 3 |  | 500 |  | 1551 |
| Nonsect． | 0 | ） 5 | 0 | 15 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | \％ | 0 | 0 |  | 0 | 3，000 | 50，000 | 1555 |
| Friends．．． | 11 | 14 | 300 | 0 | 115 | 0 |  |  |  |  | 24 | 0 |  |  | 5 | 0 | 2，300 | 120，000 | 1556 |
| Nonsect | 1 | 6 | 0 | 40 | 10 | 45 |  |  |  |  | 0 | 6 | 0 | 6 |  |  |  |  | 1557 |
| Epis．．．．．． | 0 | 7 | 0 | 35 | 0 | 5 |  |  |  |  | 0 | 5 |  |  |  | 0 | 2，000 |  | 1558 |
| R．C．．．．．． | 0 | 7 | 0 | 37 | 0 | 78 | 0 | 2 |  |  | 0 | 3 |  |  |  |  | 1，200 |  | 1559 |
| Nonsect | 8 | 7 | 218 | 103 | 12 | 107 | 20 | 2 | 80 | 20 | 25 | 15 | 15 | 10 | 3 | 0 |  |  | 1560 |
| Nonsect ．． | 12 | 0 | 187 | 0 | 28 | 0 | 50 | 0 | 50 | 0 | 20 | 0 | 20 | － | 5 | ， | 1， 000 | 120， 000 | 1561 |
| Nonsect．． | 3 | 13 | 0 | 59 | 40 | 104 | 0 | 21 |  |  | 0 | 5 | 0 | 3 | ， |  | 1，000 |  | 1562 |
| R．C．．． | 0 | 5 | 0 | 40 | 0 | 35 | 0 | 40 |  |  | 0 | 5 | 0 | 5 |  |  | 3，000 | 60， 000 | 1563 |
| Nonsect | 2 | 0 | 20 | 20 | 25 | 17 |  |  |  |  | 3 | 0 | ．．．． |  | 3 | 0 | 300 | 1，500 | 1561 |
| Nonsect． | 17 | 0 | 150 | 0 | 25 | 0 | 70 | 0 | 80 | 0 | 30 | 0 | 30 | 0 | 4 | 150 | 4，500 | 405， 000 | 1565 |
| Nonsect．． | 2 | 0 | 42 | 24 | 20 | 20 | 5 |  |  |  |  |  |  |  | 4 | 24 |  | 1，700 | 1566 |
| Gor．Fief． | 1 | 1 | 23 | 23 | 10 | 12 | 5 | 2 | 3 | 0 | 3 | 6 | 2 | 0 | 4 |  | 3，000 | 25，000 | 1567 |
| Reformed． | 2 | 1 | 9 | 13 | 15 | 10 | 2 | 1 |  |  | 0 | 0 | 0 | 0 | 4 | 0 | 300 | 5，000 | 1568 |
| Nonsect ．－ | 1 | 2 | 15 | 25 | 15 | 20 | 2 | 0 |  |  | 0 | 0 | 0 | 0 | 4 | 0 | ．．．－． | 5，000 | 1569 |
| Nonsect．． | 5 | 1 | 65 | 0 | 15 | 0 | 25 | 0 | 35 | 0 | 20 | 0 | 20 | 0 | ， | 0 | 400 | 50， 000 | 1570 |
| R．C．．．．．． | 7 | 0 | 150 | 0 | 80 | 0 | 60 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 3，000 | 120,000 | 1571 |
| R．C． | 0 | 4 | 10 | 50 | 125 | 232 | 0 | 2 | 2 | 0 | 2 | 19 |  |  | 4 | 0 | 3，000 |  | 1572 |
| Presb． | 4 | 4 | 86 | 45 | 19 | 9 | 26 | 9 |  | 0 | 10 | 4 | 4 | 0 |  |  |  | 40，000 | 1573 |
| Bapt． | 2 | 2 | 24 | 16 | 8 | 8 | 1 | 0 | 1 | 0 | 3 | 2 | 0 | － | 3 | 0 | 3,000 |  | 1574 |
| Epis．．．．．． | 0 | 3 | 0 | 30 | 0 | 30 |  |  |  |  | 0 | 2 |  | 1 | 4 |  |  |  | 1575 |
| Nonsect ．－ | 1 | 1.0 | 16 | 0 | 1 | 0 | 2 | 0 | 1 | 0 |  |  |  |  |  |  |  |  | 1576 |
| U．Breth ．． | 2 | 2 | 10 | 32 | 47 | 128 | 8 | 2 | 8 | 12 | 1 | 1 | 0 | 1 |  | 0 | 2，000 | 22，000 | 1577 |
| Friends．．． | 3 | 3 | 41 | 22 | 2 L | 25 | 5 | 8 | 30 | 20 | 16 | 4 | 11 | 4 | 5 | 0 | 209 | 45.000 | 1578 |

TABI.E 43.-Statistics of private high schools, endowed academies, seminaries,


* Statistics of 1896-97.
and other private secondary schools for the scholastic year 1897－98—Continued．

| Religious denomina－ tion． | $\begin{aligned} & \text { Sec- } \\ & \text { ond- } \\ & \text { ary } \\ & \text { in- } \\ & \text { struct- } \\ & \text { ors. } \end{aligned}$ |  | Students． |  |  |  |  |  |  |  |  |  |  |  |  |  | Number of volumes in library． | Value of grounds， build． ings， furni－ ture， and sci－ ontific appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second－ arystu－ dents． |  | Elemen－ tarystu－ dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara． torystu dents in theclass that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． <br> sical course． | Scien． tific course． |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 号 |  | $\stackrel{\stackrel{0}{5}}{\underset{\sim}{5}}$ |  | $\begin{aligned} & \stackrel{9}{5} \\ & \underset{y}{7} \end{aligned}$ |  | $\frac{\dot{9}}{\frac{5}{7}}$ |  | $\begin{aligned} & \text { 足 } \\ & \text { 采 } \end{aligned}$ |  |  |  |  |  | $\begin{gathered} \stackrel{0}{\mathrm{~s}} \\ \stackrel{y}{\mathrm{~s}} \end{gathered}$ | $\begin{gathered} \text { 完 } \\ \text { 品 } \end{gathered}$ |  |
| 4 | 5 | 6 | g | 8 |  |  | （3） | 1 （1） | 面是 | H2 | 显 8 | 14 | 15 | 16 | 自7 | 18 | 19 | 20 | 11 | 23 |  |
| R．C． | 0 | 10 | 0 | 115 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |  |  |  |  | 2， 000 | \＄150， 000 | 1579 |
| Presb | 3 | 4 | 28 | 57 | 30 | 60 |  |  |  |  | 6 | 0 | 4 | 0 | 3 | 0 | 1， 000 | 35， 000 | 1580 |
| Epis． | 6 | 6 1 | 27 | 0 | 0 | 0 | 8 | 0 | 7 | 0 |  |  |  |  |  | 27 | 2，000 | 100，000 | 1581 |
| Nonsect | 0 | 4 | 0 | 45 | 0 | 150 |  |  |  |  | 15 | 18 | 0 | 3 | 4 |  | 2，000 | 60，000 | 1582 |
| Nonsect | 2 | 1 | 32 | 25 | 10 | 7 | 20 | 13 | 10 | 5 | 1 | 2 | 0 | 0 | 5 | 0 | － 500 | 10，000 | 1583 |
| Nonsect．． | 0 | 5 | 0 | 50 | ， | 10 | 0 |  | 0 | 3 |  |  | 0 | 2 | 3 | 0 | 1，000 | 25， 000 | 1584 |
| Nonsect | 1 | 0 | 7 | 4 | 23 | 21 | 5 | 2 | 2 | 0 | 4 | 2 | 4 | 2 | 3 | 0 | 20 | 50 | 1585 |
| Nonsect． | 2 | 1 | 10 | 28 | 30 | 62 |  |  |  |  | 0 |  |  |  |  | 0 |  |  | 1586 |
| Friends． | 9 | 10 | 47 | 43 | 43 | 37 | 0 | 2 | 3 | 0 | 13 | 9 | 3 | 2 | 4 | 0 | 5， 200 |  | 1587 |
| Nonssect ．． | 5 | 52 | 91 | 0 | 0 | 0 | 14 |  | 18 | 0 | 9 | 0 | 6 | 0 |  | 0 | 300 | 70，000 | 1588 |
| Nonsect ．． | 0 | 7 | 0 | 50 | 0 | 40 | 0 | 8 |  |  | 0 | 11 |  |  |  |  |  | 70，000 | 1589 |
| R．C－．－．． | 0 | 10 | 15 | 50 | 235 | 515 |  |  |  |  | 0 | 20 | 0 | 20 | 2 | 0 |  |  | 1590 |
| M．E．．．．．． | 5 | 2 | 60 | 50 | 67 | 114 | 12 | 3 |  |  | 23 | 22 | 10 | 1 | 4 | 0 |  | 200，000 | 1591 |
| Nonsect | 1 | 2 | 4 | 21 | 9 | 16 |  |  |  |  | 1 | 8 |  |  | 4 | 0 |  | 10，000 | 1592 |
| Presb | 4 | 3 | 54 | 44 | 0 | 0 | 15 | 4 | 10 | 6 | 8 | 4 | 8 | 4 | 5 |  | 3，000 | 105， 000 | 1593 |
| M．I．．．． | 4 | 8 | 49 | 47 | 32 | 30 | 1 | 0 | 3 | 1 | 5 |  | 4 | 2 | 4 |  |  | 64，500 | 1594 |
| Nonsect ．． | 2 | 1 | 17 | 5 | 51 | 7 | 2 | 0 | 7 | 1 | 7 | 0 | 3 | 0 |  | 0 | 350 | 6，000 | 1595 |
| Nonsect ．－ | 13 | 1 | 95 | 0 | 68 | 0 | 50 | ， | 15 | 0 | 16 | 0 | 7 | 0 | 4 | 95 | 1，100 | 100，000 | 1596 |
| R．C | 0 | 13 | 0 | 45 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 5 | 4 |  | 5， 000 |  | 1597 |
| Friends．．． | 7 | 4 | 60 | 75 | 15 | 17 | 17 | 20 | 31 | 37 | 8 | 21 | 8 | 18 | 4 | 0 | 6，500 | 524， 308 | 1598 |
| R．C |  | $8 \quad 0$ | 103 | 0 | 80 | 0 | 84 |  |  |  | 10 | 0 | 9 | 0 | 5 | 0 | 1，200 | 150，000 | 1599 |
| Nonsect ．－ | 1 | 1.6 | 0 | 60 | 0 | 30 | 0 | 6 |  |  | 0 | 5 |  |  | 4 |  |  | 2，000 | 1600 |
| R．C ．．．．．． |  | 5 | 0 | 56 | ， |  | 0 | 0 | 0 | 0 | 0 | 10 |  |  |  |  | 600 |  | 1601 |
| Nonsect ．－ | 0 | － 10 | 0 | 25 |  | 13 | 0 | 0 | 0 | 5 | ， | ， | 0 | 0 | 4 | 0 |  |  | 1602 |
| Nonsect．． | 6 | 10 | 0 | 60 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1603 |
| Nonscct ．． | 1 | 13 | 0 | 11 | 73 | 96 |  |  |  |  |  |  |  |  | 4 |  |  |  | 1604 |
| Nonsect．． | 3 | 7 | 0 | 35 | 0 | 25 | 0 | 8 |  |  |  |  |  |  |  |  |  | 30， 000 | 1605 |
| R．C ．．．．．． | 0 | 3 | 1 | 18 | ．．．－ |  |  |  |  |  |  |  |  |  |  | 0 |  | 30，000 | 1606 |
| Nonsect． | 1 | － 0 | 10 | 15 | 30 | 15 | 1 | 3 |  |  |  |  |  |  |  | 0 | 150 | 700 | 1607 |
| Nonsect ．－ | 3 | 0 | 23 | 29 | 99 | 72 | 3 | 4 | 2 | 0 | 5 | 10 | 2 | 4 | 3 | 0 | 200 | 15， 000 | 1608 |
| Nonsect ．－ | 4 | 4 | 60 | 0 | 18 | 0 | 1 | 0 | 1 | 0 | 7 | 0 | 1 | 0 | 3 | 10 | 1，000 | 15，000 | 1609 |
| Nonsect－ | 2 | － 0 | 30 | 21 | 60 | 42 | 12 | 6 | 4 |  |  |  |  |  |  |  |  |  | 1610 |
| Presb．．．．． | 2 | 21 | 5 | 11 | 74 | 99 | 1 |  |  |  | 5 | 11 |  |  | 3 | 0 | － | 6，000 | 1611 |
| M．E．．．．．． |  | － 2 | 10 | 20 | 40 | 80 |  |  |  |  |  |  |  |  | 3 | 0 | 200 |  | 1612 |
| R．C．．．．．． | 0 | 0 | 0 | 45 | 0 | 50 |  |  |  |  | 0 | 4 | 0 | 4 | 5 |  | 200 | 40，000 | 1613 |
| Nonsect．． | 5 | 50 | 158 | 0 | 24 | 0 | 15 | 0 | 30 | 0 | 13 | 0 | 13 | 0 | 4 | 0 | 100 | 30， 000 | 1614 |
| Nonsect．． | 0 | 10 | 0 | 36 | 0 | 7 |  |  |  |  | 0 | 1 |  |  | 4 | ．．．． | 210 | 500 | 1615 |
| Epis．．．．．． | 5 | 5 0｜ | 52 | 0 | 18 | 0 | 1 | 0 | 5 | 0 | 16 | 0 | 6 | 0 | 3 | 33 |  |  | 1616 |
| Epis．．．．．． | 0 | 2 | 0 | 66 | 0 | 35 | 0 | ， | 0 | 0 | 0 | 9 | 0 | 2 | 4 | 0 | 2，000 |  | 1617 |
| Epis．．．．．． | 2 | 2 | 25 | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 4 | 0 | 3 | 0 | 5 | 0 |  | 300 | 1618 |
| Presb．．．．－ | 2 | 1 | 1 | 9 | 83 | 82 | 1 | 0 |  |  | 3 | 11 |  |  | 3 |  | 300 | 10，000 | 1619 |
| Presb．．．．． | 3 | 3 4 | 18 | 42 | 48 | 57 |  |  |  |  | 0 | 9 |  |  | 4 | 0 | 5，559 | 60， 000 | 1620 |

Table 43.-Statistics of private high sciools, endowed academies, seminetries,


[^107]and other private secondary schools for the scholastic year 189\%-98-Continued.


Table 43.-Statistics of private high schools, endoucd academics, scminaries

*Statistics of 1896-97.
and other private secondary schools for the scholastic year 1897-98-Continued.


Table 43.-Statistics of private high schools, endowed academies, seminaries,


[^108]and other private secondary schools for the scholastic year 1897-98-Continued.


Table 43.-Statistics of private high schools, endowed academies, seminaries,


* Statistics of 1896-97.
and other private secondary schools for the scholastic year 1897－98－Continued．

| Religions denomina－ tion． | Sec－ond－aryin－structors． |  | Students． |  |  |  |  |  |  |  |  |  |  |  | $\qquad$ | Number in military drill. |  | Value of grounds， build－ ings， furni－ ture， and sci－ entific appa－ ratus． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second－ ary stu－ dents． |  | Elemen－ tary stu－ dents． |  | Preparing for college． |  |  |  | Gradu－ ates in 1898. |  | College prepara－ tory stu－ dents in that gradu－ ated in 1898. |  |  |  |  |  |  |
|  |  |  | Clas． sical course | $\begin{aligned} & \text { Scien- } \\ & \text { tific } \\ & \text { course. } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | $\begin{aligned} & \dot{9} \\ & \stackrel{y}{A J} \end{aligned}$ |  | 㘫 | $\begin{aligned} & \text { 恖 } \\ & \text { İ } \\ & \text { H } \end{aligned}$ | $\begin{aligned} & \text { 采 } \\ & \text { 年 } \end{aligned}$ |  | 䦐 |  |  |  |  |  | $\begin{aligned} & \text { 品 } \\ & \text { ゴ } \end{aligned}$ | $\begin{aligned} & \dot{9} \\ & \text { 采 } \\ & \text { a } \end{aligned}$ |  |
| 4 | 5 | 6 | 7 | 8 |  |  | （1） | 16 | 且1 | 12 | 18 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | $2{ }^{1}$ | を |  |
| Nonscet | 1 |  | 0 | 50 |  | 70 |  |  |  |  |  |  |  |  |  | 0 | 400 | \＄15， 000 | 1787 |
| Nonsect． | 2 | 0 | 17 | 14 | 30 | 38 | 6 | 4 | 3 | 2 | 2 | 2 | 2 | 1 | 3 | 0 | 75 | 3，500 | 1788 |
| Nonsect． | 2 | 1 | 25 | 15 | 60 | 60 | 2 |  |  |  |  |  |  |  | 4 | 0 | 200 | 3， 000 | 1789 |
| Nonsect． | 1 |  | 32 | 27 | 61 | 53 | 4 | 1 | 3 |  | 1 | 0 | 1 | 0 | 4 | 0 | 450 | 2， 500 | 1790 |
| Nonsect．． | 1 | 0 | 14 | 10 | 10 | 13 | 2 |  | 3 | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 800 | 1791 |
| Nonsect | 3 | 1 | 57 | 35 | 55 | 50 | 5 | 4 | 2 | 0 | 5 | 6 | 2 |  | 2 | 0 | 850 | 5， 000 | 1792 |
| Nonsect ．－ | 1 | 0 | 19 | 0 | 23 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 2，500 | 1793 |
| Bapt．．．． | 0 | 5 | 0 | 75 | 0 |  |  |  |  |  | 0 | 10 |  |  | 4 | 0 | 1，500 | 14， 000 | 1794 |
| Nonsect | $\stackrel{2}{2}$ | 0 | 26 | 38 | 42 | 41 | 1 | 8 | 0 | 8 | 1 | 3 |  |  | 4 | 0 | 150 | 3， 500 | 1795 |
| Nousect ．－ | 1 | 1 | 20 | 30 | 50 | 60 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 40 | 2， 000 | 1796 |
| Nonsect | 1 | 3 | 15 | 20 | 20 | 30 | 20 | 10 |  |  | 1 |  |  |  | 3 | 0 | 300 | 10， 000 | 1797 |
| Nonsect． |  | 1 | 22 | 18 | 64 | 66 |  |  | 0 | 2 | 1 |  |  |  |  |  | 40 | 4，000 | 1798 |
| Nonsect | 2 | 1 | 53 | 25 | 0 | 0 | 6 | 2 | 1 | 0 | 7 | 5 |  | 0 | ， |  | 150 | 25， 000 | 1799 |
| R．C ．．．． | 0 | 2 | 0 | 20 | 0 | 17 | 0 | 12 | 0 |  | 0 | 2 | 0 | 2 | 4 | 0 | 165 | 75， 000 | 1800 |
| Nonscct | 2 | 0 | 50 | 0 | 25 | 0 | 8 | 0 | 5 | 0 | 6 |  |  |  |  |  |  | 6， 000 | 1801 |
| R．C ． | 5 | 0 | 50 | 0 | 275 | 0 |  |  | 6 | 0 | 5 |  |  |  | 4 | 0 |  |  | 1802 |
| Nonsect | 5 |  | 50 | 13 | 23 | 5 | 10 | 0 | 12 | 0 | 8 | 1 |  | 1 | 4 | 0 |  |  | 1803 |
| M．E．So | 4 | 8 | 0 | 69 | 0 | 18 |  |  |  |  | 0 |  |  |  | 3 |  | 1， 000 | 20， 000 | 1804 |
| R．C ．． |  | 8 | 0 | 40 | 20 | 70 | 0 |  |  |  | 0 |  |  |  |  |  | 500 |  | 1805 |
| Epis．．． | 8 | 2 | 95 | 0 | 40 | 0 | 75 | 0 | 20 | 0 |  |  |  |  |  | 95 | 700 | 25， 000 | 1806 |
| M．E．So | 3 | 1 | 79 | 100 | 41 | 59 | 2 | 4 |  |  | 1 | 12 | 1 | 4 | 4 | 0 | 500 | 30， 000 | 1807 |
| R．C ．． | 1 |  | 8 | 22 | 40 | 38 |  |  |  |  | 0 |  |  |  | 4 |  | 2，000 | 40， 000 | 1808 |
| Nonsect | 4 | 9 | ， | 225 | 0 | 14 |  |  |  |  |  |  |  | 17 |  |  | 5， 000 | 75， 000 | 1809 |
| Meth ． | 3 | － | ， | 223 | 6 | 24 |  |  |  |  | 0 | 34 |  |  | 4 | 0 | 1，000 | 70， 000 | 1810 |
| Nonsect ．． | 1 | 1 | 65 | 0 | 20 | 0 | 6 |  | 5 | 0 | 3 |  |  | 0 | 4 |  |  |  | 1811 |
| Nonsect． | 5 | $\stackrel{8}{8}$ | 55 | 72 | 30 | 25 |  |  |  |  | 0 |  |  |  |  |  |  |  | 1812 |
| Nonsect | 1 |  | 20 | 21 | 100 | 159 | 10 | 10 | 10 | 11 | 0 |  |  |  |  |  |  | 8，000 | 1813 |
| R．C ． | 0 | ， |  | 35 | 0 | 165 |  |  |  |  | 0 |  |  |  |  |  | 1，100 | 20， 000 | 1814 |
| R．C ． |  |  | 17 |  | 90 |  |  | 0 |  |  |  |  |  |  |  | 0 | 500 | 40， 000 | 1815 |
| Nonsect | 2 | 0 | 19 | 23 | 16 | 10 | 4 | 0 | 14 | 6 | 0 | 0 |  |  | 3 | 0 | 550 | 4，500 | 1816 |
| Meth | 1 | ， | 29 | 54 | 102 | 53 | 11 | 9 | 5 | 4 | 2 |  |  |  |  | 0 | 39 | 2，000 | 1817 |
| M．E．So ．－ | 5 | 3 | 70 | 60 | 51 | 82 | 45 | 30 | 22 | 19 |  |  |  |  |  |  | 2，500 | 25， 000 | 1818 |
| Nonsect ．－ | 12 | ， | 170 | 107 | 121 | 49 | 41 | 26 | 12 | 6 | 6 | 3 | 2 | 1 | 4 | 162 | 4， 000 | 50， 000 | 1819 |
| Non | 0 | 3 | 0 | 15 | 0 | 35 | 0 |  |  |  | 0 | 2 | 0 | 2 | 4 | 0 | 150 | 2， 500 | 1820 |
| L．D．S． | 6 | 1 | 41 | 25 | 90 | 42 | 1 | 0 |  | 0 | 9 | 6 | 9 | 6 |  |  | 300 | 3，000 | 1821 |
| L．D．S． | 1 | 0 | 40 | 15 | 0 | 0 | 10 | 5 | 10 |  |  |  |  |  | 2 | 0 | 100 | 100 | 1822 |
| Presb． | 0 | 3 | 10 | 16 | 66 | 49 | 2 | 1 | 2 | 3 | 1 | 2 |  | 1 | 3 |  | 200 | 10， 000 | 1823 |
| Presb． | 1 | 2 | 20 | 30 | 45 | 55 | 4 |  | 5 | 0 | ， |  | 1 | 0 |  |  | 1，500 | 10， 000 | 1824 |
| L．D．S． | 5 | 1 | 13 | 12 | 115 | 66 |  |  |  |  | 4 |  |  |  | 4 |  |  | 36， 200 | 1825 |
| L．D． | 19 |  | 267 | 273 | 225 | 139 |  |  |  |  | 11 |  |  |  | 4 | 48 | 9，963 | 80， 000 | 1826 |
| Cong | 0 | 3 | ${ }^{11}$ | 13 | 0 | 0 | ${ }^{2}$ | 0 |  |  | 0 | ${ }^{4}$ | ${ }^{0}$ | 0 | 4 |  | 400 | 10， 000 | 1827 |
| R．C | 5 | 0 | 23 | 0 | 97 | 0 | 12 |  | 11 | 0 | 6 |  |  | ， | 4 |  | 10， 000 |  | 1828 |
| ${ }_{\text {Cong }}$ | ${ }^{2}$ | 3 | 15 | 20 | 4 | 4 | 5 | 5 |  |  | 0 | 0 | 0 | 0 | 3 | 0 | 2， 000 | 65， 000 | 1829 |
| L．D．S | 11 | 1 | 70 | 50 | 130 | 75 | 0 | 0 |  | 0 | 16 | 0 |  |  | 4 | 0 | 1，000 | 25， 000 | 1830 |
| Epis． | ， | 8 |  | 112 | 24 | 40 | 0 | 7 |  | 0 | 0 | 5 |  | 3 | 4 | 0 | 1，200 | 20， 000 | 1831 |
| Presb | ${ }^{2}$ | ${ }_{8}^{3}$ | 26 | 24 | 6 | 5 | 7 | 1 |  | 5 | $\stackrel{4}{2}$ | 3 | 3 <br> 0 | 0 | 4 | 0 | 500 | 65,400 | 1832 |
| Presb． | 0 |  |  |  |  |  |  |  |  | 0 | ， |  | 2 | 0 | 3 | 0 | 250 | 10， 000 | 1833 |
| L．D．S． | 2 | 0 | 21 | 15 | 40 | 20 | 12 | 13 |  |  | 1 | 3 | 1 | 3 | 2 | 0 | 300 | 2， 100 | 1834 |
| Nonsect ．． | 2 | 3 | 69 | 63 | 14 | 17 | 1 | 3 | 18 | 14 | 11 | 17 | 2 | 2 | 4 | 0 | 750 | 30，000 | 1835 |
| Univ | 4 | ， | 186 | 160 | 0 |  |  |  |  |  | 12 | 12 | 3 | 0 | 4 | 0 | 2， 000 |  | 1836 |
| Epis．．．．．． | 0 |  | 0 | 25 |  |  |  | 1 | 0 | 0 | ， | 1 |  |  | 4 | 0 | 500 | 66， 000 | 1837 |
| R．C．．．．．．． | 0 | 5 |  | 30 | 175 | 220 |  |  | 0 | 2 | 0 | 9 | 0 | 1 | 4 |  | 1， 800 |  | 1838 |
| Nonsect ．－ | 1 | 2 | 37 23 | 30 34 | 3 | ${ }^{2}$ |  | 1 | 1 6 | 0 <br> 4 | 1 3 |  | 0 | 0 | 4 | ${ }_{16}$ | 171 |  | 1839 |
| Nonsect ．． | 1 | ${ }_{2}^{2}$ | 23 13 | 34 13 | 17 5 | 22 |  | 0 | 2 | 1 | ${ }_{2}^{1}$ | ${ }_{1}$ | $\stackrel{3}{2}$ | 1 1 | 4 | 16 | 450 200 | 5,000 14,000 | 1840 1841 |

Table 43.-Statistics of private high schools, endowed academies, seminaries,


[^109]and other private secondary schools for the scholastic year 189\%-98-Continued.


Table 43.-Statistics of private high schools, endowed academies, seminaries,


* Statistics of 1896-97.
and other private secondary schoots for the scholastic year 1897-98-Continued.


Table 43.-Statistics of private high schools, endowed academies, seminaries,


* Statistics of 1890-97.
and other private secontary schools for the scholastic year 1897-8-Continued.


Table 44.-Public and private high schools for boys only, for girls only, and for both sexes.


## CHAPTER XLVII.

## CITY SCEOOL SYSTEMS. ${ }^{1}$

TABLE 1.-Summary of statistics of cities containing orer. 8,000 inhabitants, showing increase from previous year.

|  | 1896-97. | 1897-98. | Increase. | $\begin{aligned} & \text { Per cent } \\ & \text { of } \\ & \text { increase. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| Enrollment | 3, 594, 675 | 3,709, 881 | 205, 206 | 5. 71 |
| Aggregate number of days | 507, 622, 259 | 539, 048, 222 | 31, 425, 963 | 6. 19 |
| A verage daily attendance | 2, 693, 299 | 2, 843,445 | 150, 145 | 5.58 |
| Average length of school term in days | 188.5 | 189.6 | 1.1 |  |
| Enrollment in private and parochial scl | 82さ, 609 | 872, 406 | 47, 797 | 5. 79 |
| Number of supervising officers | 3, 998 | 4, 429 | 431 | 10.78 |
| Number of male teachers. | 5,773 | 6, 005 | 232 | 4.02 |
| Number of female teachers | 68, 344 | 72, 355 | 4,011 | 5. 87 |
| Whole number of teachers | 74, 117 | 78,360 | 4, 243 | 5. 72 |
| Number of buildings | 8,604 | 9,113 | 509 | 5.91 |
| Number of sittings. | 3, 383, 405 | 3, 500, 970 | 117, 565 | 3.48 |
| Value of school property | \$267, 425, 289 | \$289, 325, 791 | \$21, 900, 505 | 8.19 |
| Expenditure for tuition. | 48, 772, 485 | 52, 064,649 | 3, 292, 164 | 6. 75 |
| Total expenditure. | 84, 866, 092 | 88, 773, 647 | 3, 907, 555 | 4. 60 |

The statistical tables ${ }^{2}$ for 1897-98 show the usual increases of enrollment and attendance, the latter being relatively somewhat less than the former, indicating a slightly lower degree of regularity. The average school term increased by 1.1 days over 1896-97, the greater part of the increase coming from the North Atlantic Division. The average number of pupils in attendance to each teacher is less than in the previous year, since the number of teachers employed has increased more rapidly than the pupils. Supervising officers have increased at a disproportionate rate, in accordance with the tendency which has been marked for several years. By one of those combinations of circumstances which sometimes occur, the number of these officers did not show the usual increase in 1896-97, being in that year only 60 more than in 1895-96, though teachers iucreased by nearly 4,000 . During the year just passed, however, the supervisors were augmented by 431, which made them more numerous than ever before, not only in actual numbers but in proportion to the number of teachers employed. Women teachers are increasing more rapidly than menbut that is an old story.
The financial rewards of the profession of teaching are plainly increasing. The average salary of teachers and supervisors was greater during 1897-98 than in the year before, and, while it was still a few cents behind that of $1895-96$, the tendency is undoubtedly upward.
The average salaries for eight years past have been:

${ }^{1}$ By James C. Boykin.
${ }^{2}$ See also tables, pp. 2348 et seq.
${ }^{3}$ See also the tables of salaries on pp. 1704-1707 of this Report.

Important increases in salaries, more or less general, have been made recently in several of the large cities, notably in Boston, Chicago, and New York. In some other cities, on the contrary, lack of funds has necessitated reduction of teachers' incomes, either by reducing the rate of pay or by closing the schools prematurely, which means a reluction just as sarely.
In Boston the school committee formulated a new salary schedule in 1896, providing for certain gradual increases, the full effect of the schedule to be reached in 1900. The principal changes involved were stated by the salary committee to be as follows:
"Raising the minimum salary of a junior master in the high schools from $\$ 1,008$. to $\$ 1,476$, and carrying the maximum to $\$ 3,060$, an increase of $\$ 180$; starting assistants in high schools at $\$ 972$, an increase of $\$ 216$, and carrying the maximum to $\$ 1,620$, an increase of $\$ 240$; raising the maximum of masters in grammar schools from $\$ 2,880$ to $\$ 3,180$; raising the annual increase of submasters from $\$ 60$ to $\$ 120$; raising the maximum of first assistants in grammar schools $\$ 132$; abolishing the grade of second, third, and fourth assistant in grammar and primary schools, making the present incumbents' assistants dating from September 1, 1896; raising the minimum of assistants in grammar and primary schools $\$ 96$, and the maximum $\$ 192$; increasing the salary of kindergarten teachers about 10 per cent; increasing the salary of assistants in evening elementary schools from $\$ 1.50$ to $\$ 2$ per evening; making a new grade of first assistants in primary schools." ${ }^{1}$

The full salary schedule now in force in Boston, embodying these changes, is as follows: ${ }^{2}$
Superintendent .................................................................................................. \$4. 200.... 0
Six supervisors, each ......................................................................................................... 380.00
NORMAL SCHOOL.
Head master........................................................................................................ $\$ 3,780.00$
Master, first year, \$2,340; annual increase, \$144; maximum ........................................ 3, 060.00
Assistants, first year, $\$ 1,140$; annual increase, $\$ 60$; maximum .................................... $1,620.00$
LATIN AND HIGH SCHOOLS.
Head masters.................................................................................................. $\$ 3,780.00$

Junior masters, first year, $\$ 1,476$; annual increase (for eleven years), $\$ 144$; salary for the twelfth and subsequent jears, with the rank of master

3, 060.00
Assistant principal, Girls' High School................................................................. 2, 040.00
Assistant principal, Roxbury High School, first year, \$1,620; annual increase, $\$ 72$; maximum. 1,836.00
Assistants, first year, $\$ 972$; annual increase, $\$ 72$; maximum .................................... $1,620.00$
MECRANIC ARTS HIGH SCHOOL.
Head master................................................................................................... $\$ 3,780.00$


Instructors, first year, $\$ 1,500$; annual increase, $\$ 120$; maximum................................ 2, 340.00
Assistant instructors, first year, $\$ 972$; annual increase, $\$ 72$; maximum ......................... $1,620.00$
Instructor of metal working, first year, $\$ 1,800$; annnal increase, $\$ 60$; maxinum .............. $2,580.00$

## GRAMMAR SCHOOLS.

Masters, first year, $\$ 2,580$; anuual increase, $\$ 120$; maximum .................................... $\$ 3,180.00$
Submasters, firstyear, $\$ 1,500$; annnal increase, $\$ 120$; maximnm ..................................... $2,340.00$
First assistants, tirst year, $\$ 972$; annual increase, $\$ 48$; maximum ..................................... 1, 212. 00
Assistants, first year, $\$ 552$; annual increase, $\$ 48$; maximum .......................................... 936.00
PRIMARY SCHOOLS.
First assistants, first year, $\$ 984$; annual increase, $\$ 48$; maximum ................................... $\$ 1,080.00$
Assistants, first year, $\$ 552$; annual increase, $\$ 48$; maximum ........................................... 936.00
KINDERGARTENS.
Principals, first year, $\$ 600$; annual increase, $\$ 48$; maximum....................................................... $\$ 792.00$
Assistants, first year, $\$ 432$; annual increase, $\$ 48$; maximum .............................................. 624.00

[^110]EVENING SCHOOLS.
Principal, Evening High School (per week), first year, \$40; second year, \$45; third year and subsequently ..... $\$ 50.00$
Assistants, Evening High School (per evening) ..... 4.00
Principals, cvening elementary schools, in schools whero arerage attendance for month is 100 pupils or more (per evening) ..... 5.00
In schools where average attendance for month is less than 100 (per evening) ..... 4.00
First assistant, evening elementary schools, in schools where average aitendance for month is $\% 5$ pupils or more (per evening) ..... 2. 50
In schools where average attendance for month is less than 75 (per cyening) ..... 2.00
Assistants, evening elementary schools (per evening) ..... 2.00
Principals, evening drawing schools (per evening), first year, \$7; second year and subse- quently ..... 8.00
Assistants, orening drawing schools (per evening), first year, \$t; second year, \$3; third year and subsequently ..... 6. 00
SPECIAL INSTRECTORS.
Spceial instructors of music ..... $\$ 2,640.09$
Assistant instructors of music ..... 888.00
Director of drawing ..... 3, 900.00
Assistants to director of drawing (2) ..... 1,500. 00
Master of evening drawing schools ..... 1,200.00
Assistant to director of drawing ..... 800.00
Assistant to director of drawing 1 ..... 2,508. 00
Teacher of German, girls' high and girls' Latin schools ..... 1,500. 00
Teacher of chemistry, Girls' High School ..... 1,620.00
Laboratory assistant, Girls' High School ..... 804. 00
Laboratory assistant, Roxbury High School ..... 804.00
Teacher of physical training, Brighton High School. ..... 700. 00
Teacher of physical training, giris' high and girls' Latin schools ..... 900.00
Teacher of physical training and reading, girls' high and girls' Latin schools ..... 900.00
Teacher of physical training, East Boston High School ..... 300.00
Teacher of physical culture, Roxbury High School ..... 1,200. 00
Dizector of kindergartens ..... 2, 880.00
Assistant teacher of the theory and practice of the kindergarten, Normal School. ..... 1,380. 00
Teacher of songs and games, Normal School ..... 240.00
Director of French and German ..... 3, 000.00
Assistants ..... 1,500. 00
Director of physical training ..... 3,000. 00
Assistant ..... 2, 280.00
Horace Mann School for the Deaf:
Principal ..... 2, 880.00
Assistant principal, first year, $\$ 1,152$; annual increase, $\$ 72$; maximum ..... 1,440.00
Assistants, first year, $\$ 780$; annual increase $\$ 72$; maximum ..... 1,281. 00
Principal of manual training schools ..... 2, 508.00
Instructors in manual training sehools ..... 1,620.00
Instructors in manual training schools ..... 1,200.00
Assistant instructors in manual training schools, ifst year, $\$ 804$; annual increase, $\$ 48$; maximum. ..... 996.00
Principal of schools of cookery ..... 1,500. 00
Instructors in schools of cookery, first year, $\$ 552$; annual increase, $\$ 48$; maximum ..... 930.00
Instructor in school on Spectacle Island (including all expenses connected with the school, except for books) ..... 400.00
Instructor of military drill ..... 2,000. 00
Armorer ..... 1, 050.00
Teachers of sewing :
One division ..... 132.00
Two divisions ..... 228.00
Three divisions ..... 324.00
Four divisions ..... 408.00
Five divisions ..... 492.00
Six divisions. ..... 564.00
Seven divisions ..... 636.00
Eight divisions ..... 696.00
Nino divisions ..... 744.00
Teachers of sewing-Continued.
Ten divisions ..... $\$ 792.00$
Eleven divisions ..... 840.00
All over eleven divisions ..... 888.00
Special assistant teachers, first grade (per day) ..... 1.00
Special assistant teachers, kindergartens (per week) ..... 5.00
In Chicago an active crusade during the spring and summer of 1898 resulted in the adoption of the following schedule, ${ }^{1}$ which contained important advances, especially for teachers of the lower grades and for those of long service:
Per annum.
Superintendent of schools.................................................................................... $\$ 7,000$
District superintendent of schools, ${ }^{2}$ during the first two years of service in such position ..... 3, 500
District superintendent of schools, after two years of service in such position.................... 4, 000
SUPERVISORS.
Supervisor of modern languages....................................................................................................
Supervisor of singing (high school grades).......................................................................... 2, 400
Supervisor of singing (primary grades)....................................................................... 2, 400
Supervisor of drawing (high schools) ............................................................................ 2,500
Supervisor of drawing (grammar and primary grades).................................................... 2, 2, 800

Supervisor of schools for the deaf............................................................................... 1,500
Supervisor of manual training in grammer grades ...................................................... 2, 000
Assistant supervisor of drawing (grammar and primary grades) ....................................... 2, 200
Supervising principal of kindergartens............................................................................... 1, 200
TEACHERS OF SPECIAL STUDIES.
Special teachers of drawing and music in primary and grammar grades.
For first year of service............................................................................................ 1,000
For the second year.............................................................................................. 1, 200
For the third year ............................................................................................... 1,300
For the fourth year .......................................................................................... 1,400
For the fifth year ................................................................................................ 1, 500
For the sixth and subsequent years..................................................................................................... 1,600
high schools.
Grouping of principals.
First group.- $\$ 2,500$ the first year, increasing $\$ 100$ a year until a maximum of $\$ 3,000$ is reached.
Second group. $-\$ 2,000$ the first year, increasing $\$ 100$ a year until a maximum of $\$ 2,500$ is reached.

## Grouping of instructors.

First group.- $\$ 1,500$ the first year, increasing $\$ 100$ a year until a maximum of $\$ 2,000$ is reached. Second group. $-\$ 1,200$ the first year, increasing $\$ 100$ a year until a maximum of $\$ 1,500$ is reached.
Third group. $-\$ 850$ the first year, $\$ 900$ the second year, increasing $\$ 75$ a year until a maximum of $\$ 1.200$ is reached.

## Teachers of German, French, and drawing.

First group. $-\$ 1,200$ the first year, increasing $\$ 50$ a year until a maximum of $\$ 1,500$ is reached.
Second group.- $\$ 750$ the first year, increasing $\$ 50$ a year until a maximum of $\$ 1,200$ is reached.
High school substitutes, $\$ 4$ to $\$ 5$ per day, at the discretion of the superintendent. Substitutes to be paid for days of actual service.

CHICAGO NORMAL SCHOOL.
Principal, $\$ 5,000$. Substitutes to be paid the same as high school substitutes.

## PRINCIPALS OF ELEMENTARY SCHOOLS.

Principals of schools shall receive $\$ 1,200$ per annum for the first year's service, increasing $\$ 100$ a year to a maximum salary.

First group.-For schools having an average membership for the school year of 700 or more pupils the maximum salary shall be $\$ 2,500$ per annum.
Second group.-For schools having an average membership for the school year of 300 to 700 pupils the maximum salary shall be $\$ 2,200$ per annum.

[^111]Third group.-For schools having an average membership for the school year under 300 pupils the maximum salary shall be $\$ 1,500$ per annum.

Whenever the membership of a school is reduced by transfer of pupils to other schools, or by the opening of a new school, the salary of the principal shall not be reduced for two years on account of the reduced membership.

## Assistants to principals.

Assistants to principals, each, $\$ 1,175$ per annum.

## Head assistants.

For year beginning January $1,1898, \$ 975$, and adrancing $\$ 50$ each jear until a maximum salary of $\$ 1,175$ is reached. Head assistants who began service before January 1, 1898, to receive $\$ 75$ advance upon the schedule of 1897.

## Extra teachers.

For year beginning January $1,1898, \$ 925$, and advancing $\$ 50$ each year until a maximum salary of $\$ 1,175$ is reached.

## Eighth grade teachers.

For year beginning January $1,1898, \$ 925$, and adrancing $\$ 50$ each year until a maximum salary of $\$ 1,075$ is reached.

Assistant teackers in grammar grades.
For first year of service............................................................................................... $\$ 500$
For second year of service........................................................................................... 550
For third ycar of service................................................................................................. 625
For ̂̂ourth year of serviee .......................................................................................................... 675
For fifth year of service ................................................................................................................... 725
For sixth year of service....................................................................................................... 800
For seventh year of service................................................................................................ 825
After January 1, 1898, teachers who have completed the seventh year of service to receive an advance of $\$ 75$ for the first year and $\$ 50$ each additional year until a maximum salary of $\$ 1,000$ is reached.

A ssistant teachers in primary grades.
For first year of service.............................................................................................................. $\$ 500$
For second year of service......................................................................................... 550
For third year of service................................................................................................ 575
For fourth year of service ......................................................................................................... 650
For fifth year of service ............................................................................................................. 700
For sixth year of service.................................................................................................................... 775
For seventh year of service.................................................................................................. 800
After January 1, 1898, teachers who have completed the seventh year of service to receive an advance of $\$ 75$ for the first year and $\$ 50$ each additional year until a maximum salary of $\$ 1,000$ is reached.

TEACHERS IN KINDERGARTENS.
Morning sessions
Directors:
First year of service....................................................................................................... $\$ 500$
Second year of service............................................................................................ 550
Third year of service ............................................................................................ 600

Fifth and subsequent years. .................................................................................. 700
Assistants:
First year of service.................................................................................................. 350
Second year of service....................................................................................... 400
Third year of service ......................................................................................................... 450
Fourth and subsequent years ..................................................................................... 500
Directors in all-day sessions to be paid the same salaries as primary grade teachers to a maximum of $\$ 1,000$ per annum. Assistants in all-day sessions to be paid the same salaries as primary grade teachers to a maximum of $\$ 725$ per annum.

All changes in salary to take place at the commencement of the school month succeeding the expiration of the year's service.

Substitutes.-Experienced substitutes to be employed at the discretion of the superintendent at a compensation varying from $\$ 2.50$ to $\$ 2$ per day for each day of actual service, according to the experience of the substituto so employed.

Cadets.-Cadets who have completed the training course shall receive for cadet service at the rate of $\$ 20$ per month; as substitutes at the rate of $\$ 2.50$ per day.

Teachers of Latin.-Grade teachers having charge of Latin classes in seventh and eighth grades and grammar grade teachers who also teach German in connection with regular grade work to be paid
$\$ 50$ per annum, in addition to the regular schedule, provided that no such teacher shall receive more than the maximum salary of grade teachers.

Reserve teaciers.--Eight reserve teachers, one for each school district, to be employed at the discretion of the superintendent at a compensation of $\$ 800$ per annum each.

Compensation of acting principal.-An additional salary of 25 per cent to be added to the salary of a head assistant, or an eighth grade teacher, when such assistant acts as principal during the absence of the principal of the school.

Compensation for acting head assistants.- Any teacher acting as head assistant during her absence on account of sickness to be paid at the rate of $\$ 975$ per annum-the salary for the first year of service of said position-beginning two weeks after the absence of said head assistant.

The consolidation of the several municipalities forming Greater New York was followed by an advance in teachers' salaries in the boroughs other than that of Manhattan to bring them more nearly to the Manhattan standard. This involved heavy increases in many cases. The original consolidation law permitted the borough school boards to fix the salaries of superintendents and teachers, and left the whole matter to their discretion. The early increases mentioned, therefore, were due to local action. But in the spring of 1899 the matter was brought before the State legislature, and several bills were advocated with a view to prescribing a minimum salary, and that known as the "Ahearn bill" finally became a law. Following is its text:

Section 1. Section ten hundred and ninety-one of chapter three hundred and seventy-eight of the laws of eighteen hundred and ninety-seven is hereby amended to read as follows:

SEC. 1091. Each school board shall have the power to adopt by-laws fixing the salaries of the borough and associate superintendents, of principals and branch principals, and of all other members of the supervising and teaching staff, and such salaries shall be regulated by merit, by the grade of class taught, by the length of service, or by the experience in teaching of the incumbent in charge, or by such a combination of these considerations as the school board may deem proper. Said salaries need not be uniform throughout all the several boroughs, nor in any two of them, nor throughout any one borough. The salaries fixed and established and duly payable in the different schools of the territory hereby consolidated, as these salaries were on the first day of January, eighteen hundred and ninety-eight, shall be and remain the salaries in the schools of the several boroughs hereby constituted until the same shall be changed or modified as provided for in this section. No regular teacher in the public schools of any of the boroughs shall be paid a sum less than six hundred dollars per annum. No teacher shall, after ten years of service in the public schools of said boroughs, receive less than nine hundred dollars per annum; nor shall auy teacher, after fifteen years of service in said schools, receive less than twelve hundred dollars per annum; and no vice-principal, head of department, or first assistant in said schools shall be paid less than fourteen hundred dollars per annum; and no male teacher, after twelve years of service in said schools, shall receive less than two thousand and one hundred and sixty dollars per annum: Prorided, however, That the service of such teacher, vice-principal, head of department, or first assistant shall have been approved, after inspection and investigation, as fit and meritorious by a majority of the borough board of school superintendents. For all purposes affecting the increase of salaries of the teachers in any school, the principal of such school shall have a seat in the borough board of superintendents, with a vote on all increases of salaries of teachers in said school. The salaries of the women principals in said schools shall be increased, by the addition of two hundred and fifty dollars in each year, until they receive the sum of two thousand and five hundred dollars per annum; and the salaries of the male principals in said schools shall be increased, by the addition of two hundred and fifty dollars in each year, until they receive the sum of three thousand and five hundred dollars per annum; and no male principal, after ten years of service as principal in said schools, shall receive less than three thonsand five hundred dollars per annum; and no woman principal of ten years' service as principal in said schools shall receive less than twenty-five hundred dollars per annum: Procided, kowever, That the service of such principal shall have been approved, after inspection and investigation, as fit and meritorious by the borough board of superintendents; but these provisions shall not appiy to principals of schools of less than twelve classes. No salary now paid to any public school-teacher in the city of New York shall be reduced by the operation of this act.
SEc. 2. The board of estimate and apportionment is hereby authorized and required to direct the issue of revenue bonds for the purpose of providing funds to carry into effect the provisions of thisact.

SEC. 3. This act shall take effect immediately.

It is often said that the most favorable conditions for public education cxist in the city of moderate size; that is, with a population of about 40,000 . Withont going fully into the reasons for this vier, it may be said that in cities of this size the population is sufficiently compact to allow schools large enough for all purposes of grading and classification, which is not the case in the small city, the village, or the country district; and, on the other hand, the population is usually more homogeneous than in the great cities; there are not such extremes of wealth and poverty, and the people as a whole take more personal interest in the schools. It happens that the average population of all the cities in the country corresponds closely with that popalation which is cousidered most favorable fur school work, and the a verage of the educational conditions of all the cities substantially coincides with what may be expected in a city of that ideal size. A discussion of those averages, therefore, receives an added interest from that coincidence.

The average population of the cities of over 8,000 inhabitants in 1890 was 41,164, and at the present time it appears, from an estimate based on school enrollment, to be aboat the same, with probably an increase of a few hundred. The arerage of the enrollment for the 626 city systems in 1897-98 is 6,070 pupils in the public schools and 1,393 in the private and parochial institutions. Of the 6,070 public scheol children 4,542 is the average number in daily attendance. The number of superintendents and other supervising officers is 7 to a city, the proportion of the sexes being about 4 men to 3 women. 125 teachers, 9 or 10 of them being men, is the average number employed, each teacher averaging 36 pupils in attendance. The average city has 15 buildings, each worth, with its appurtenances, $\$ 31,748$, and accommodating 8 or 9 teachers and 312 pupils daily, but with seats for 72 other pupils. $\$ 141,810$ is the arerage amount spent for all purposes in a year, $\$ 83,170$ of it going to supervisors and teachers, the average salary of whom is $\$ 628.88$. The schools are open nine and one-half months of twenty days each, and the average time that each child attends is about two days more than seven months. For each day that a pupil is present he costs $16 \frac{1}{2}$ cents, of which $9 \frac{?}{3}$ cents are for his instruction.

These figures represent the average conditions of education in the cities. In contrast with them let ns place the statistics of the country schools and villages, which may be obtained by deducting the statistics of cities from those of the Unitcd States 2s a whole. In the great majority of schools other than city schools there is but a single teacher to a schoolhouse, the average for the United States being 1.4 teachers and 48.2 pupils enrolled for each building. The attendance is natarally less regular in the country than in the city; while three-fourths of the pupils may be expected to bo present every day in the town, only two-thirds of the conntry children manage to get to school regularly. City pupils have the advantage of an annual school term three and one-fourth months longer than that of their country cousins, and each enrolled child in the rural schools averages only eighty-three days of actual instruction a year.

The cost of country schoolhouses is ridiculously small as compared with the claborate city buildings, and the outlay required per pupil is only about one-fourth as much in the former case as in the latter. An average country schoolhouse, site, and all, costs only $\$ 872$.
The wages of the country schoolmaster are generally on the same plane of economy as the building he occmpies, for the average amount that he receives in a year is only $\$ 217$, or but little over a thiral as much as his more fortunate city brother receives. The word "brother" in this connection is somewhat out of place, for only 7.7 per cent. of tho city teachers are men; the proportion for the country is 38 per cent. Notwithstanding the difference in the annual salary of teachers, it costs nearly as much per day for the tuition of the country child as for the city child, the difference being about 2 cents. This is due, of course, to the greater number of pupils to a teacher in the city.

In regard to expenses other than for teaching, the per diem cost is relatively much greater in the urban schools. When the patrons of the school bring the wood, and the teachers make the fires and sweep the floors, the expense for fuel and janitor service cuts very little figure; and when the excessive ventilation through the cracks between the logs is a source of discomfort, the cost of rotary blowers and fresh-air chambers naturally does not cause any concern. Just such primitive conditions as these still prevail in many districts, and even where the accommodations are of the best that can be expected in a country school the contingent expenses are very low. Then when new houses are required the expense for them per pupil is only about one-fourth as much as it would be in the city. So that while the cities must spend 6.8 cents per day for cach pupil for purposes other than direct instruction, the rural districts need to spend only 3.6 cents, or slightly over half as much.

Having compared the average city school with the average country school, it may be well to add to the comparison some of the figures for the city of New York, not only the greatest city in the country in population, but that in which the typical conditions of cities in regard to expense of living and value of real estate exist in the most pronounced form. There the daily expense for each pupil attending is 24.4 cents, of which 10.9 cents are for instruction. The school property, which is still insufficient, is nevertheless worth $\$ 129$ per pupil, and the supervisors and teachers receive an average of $\$ 825$ a year. In Chicago this average is even higher, reaching $\$ 844$. In both New York and Chicago the average pay of teachers will soon show a considerable increase over even these figures, as the resur. ${ }^{+}$of recent legislation.

Comparison of city and country schools.


[^112]That is to say, while 31.6 per cent of the population live in cities of over 8,000 inhabitants, only 25.3 per cent of the public school enrollment is found in them. 27.6 per cent of the average attendance, etc.

## DISTRIBUTION OF PUPILS IN THE SEVEERAL GRADES.

The proportion of pupils in the several stages of advancement in the course of study has an important bearing on many questions in school administration. On the material side, the preparation of accommodations and facilities for instruction is largely influenced by the number in the different grades; but beyond this, many deeper considerations relating to course of study and plans with a view to holding pupils in school as long as possible must be based upon a knowledge of how many and what proportion of children are already in the various degrees of advancement. Following are two tables showing these facts for 24 typical cities. ${ }^{1}$

The existing conditions of life do not permit us to expect as great a number of children in school or out of school at the age of 17 as at the age of $6,{ }^{2}$ the highest and the lowest ages of the children for whom the ordinary course of study is designed. According to the best data available, ${ }^{3}$ the proportion of the number of each age to the whole number from 6 to 17, inclusive, in the United States is as follows:

|  | Per cent. |  | Per cent. |
| :---: | :---: | :---: | :---: |
| 6 Jears | ... 9.4 | 13 years.... | . 8.0 |
| 7 jears | ... 9.2 | 14 years. | . 7.9 |
| 8 jears | ... 8.9 | 15 years. | . 7.8 |
| 9 years | . 8.6 | 16 jears | . 7.8 |
| 10 years | . 8.4 | 17 jears | . 7.7 |
| 11 years | ...... 8. 2 |  |  |
| 12 years | .. 8.1 | Total. | 100.0 |

In contrast to the small differences in these percentages, the rapid falling off in the upper grades of the schools, as shown by the tables, stands forth in a strong light. Tho steady decrease in the actual number of children is relatively so small that mortality may be eliminated in considering the causes of the falling off in school attendance. Those causes must be sought elsewhere.

To make an average showing the mean rate of decrease from class to class for all the cities is an unsatisfactory undertaking because of the differences in the length of the course. But if we take only cities having at least 8 years in the elementary course and 4 in the high school, and omitting kindergartens, ninth grammar grades, and normal schools, we have the following totals and percentages for 21 cities:


[^113]Table 2.-Number of pupils in the several school grades in certain cities,

|  |  | Date. | 离 | Ilementary schools. |  |  |  |  |  |  |  |  |  | High schools. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{gathered} \dot{\tilde{y}} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ i \end{gathered}$ |  |  |  | $\begin{gathered} \dot{\tilde{y j}} \\ \text { N } \\ \text { y } \\ \text { yin } \end{gathered}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | $10)$ | 11 | 12 | 13 | $1{ }^{1} 1$ | 15 | 1818 | 18 | 18 | 119 | 20 | 21 |
| San Francisco, Cal | Number belonging. | June, 1898 |  | 5,520 | 4,445 | 4,420 | 4, 148 | 4,256 | 3,339 | 2,815 | 2,046 | 1,369 | 32, 358 |  |  |  |  | a2, 156 |  | 34, 647 |
| Denver, Colo. (District | Total enrollment | 1897-98 | 1,981 | 2,458 | 1,445 | 1,265 | 1,586 |  | 1,186 | 772 | 662 |  | 12, 650 |  |  |  |  | 1,242 |  | 13, 892 |
| Wilmington, Del....... | Number belonging. | Feb., 1898 |  | 1,802 | 1,444 | 1,241 | 1,170 | 984 | 827 | $55 \frac{1}{4}$ | 426 |  | 8,448 | 316 | 165 | 15 |  | 556 |  | 9,004 |
| Washington, D. C | Total enrollment ... | 1897-98. |  | 8. 919 | 6, 472 | 5, 761 | 5,426 | 4,743 | 4, 021 | 3, 163 | 2,892 |  | 41, 427 |  |  |  |  | 3,116 | 155 | 44, 698 |
| Chicago,111............. | A verage daily membership. | 1896-97 |  | 38, 943 | 32, 948 | 29,623 | 24, 656 | 22, 1211 | 15, 606 | 10, 846 | 7,422 |  | 182, 165 | 3,2662 | 2,141 | 1,453 | 987 | 7,847 | 460 | 190,472 |
| Louisville, Ky. b | Averagenumber belonging. | 1895-96. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Baltimore, Md | Number on roll. | Dec., 1895 |  | 18,134 | 11,127 | 8, 992 | 7,427 | 5,566 | 3,834 | 2,338 | 1,365 |  | 58,783 | 1,023 | 672 | 425 | 243 | c2, 488 |  | 61, 271 |
| Boston, Mass.. | Number belonging.. | Jan. 31, 1898. | 3, 925 | 12, 927 | 8, 919 | 7,410 | 7,815 | 7, 053 | 6,752 | 5,747 | 4,433 | 3, 492 | d70,625 | 2,044 1 | 1, 212 | 824 | 370 | e4, 667 | 269 | 75, 561 |
| Cambrilge, Mass | ....do ........ | Jec., 1897... | 583 | 2,363 | 1,681 | 1,499 | 1,169 | 1,133 | 1,020 | 830 | 685 |  | $f 12,207$ | 423 | 262 | 185 | 182 | g1, 103 |  | 13, 310 |
| Lowell, Mass.... |  | Sept., 1897 .. | 454 | 2, 046 | 1,312 | 1,165 | 1,017 | 1, 072 | 934 | 760 | 644 | 499 | 9,903 | 300 | 221 | 196 | 59 | 71, 776 |  | 10, 679 |
| Worchester, Mas | Total enrollment | 1897-98... | 563 | 2, 727 | 2,380 | 2,175 | 2,021 | 1,990 | 1,933 | 1,543 | 1,392 | 1,152 | 17, 876 | 770 | 560 | 405 | 534 | $h 2,334$ |  | 20, 210 |
| Minneapolis, Min | do | 1896-97 |  | 9, 026 | 4,824 | 4,370 | 3,425 | 3, 112 | 2, 274 | 1,787 | 1,227 |  | 30, 045 | 1,007 | 544 | 466 | 358 | 2,375 |  | 32, 420 |
| Kansas City, Mo |  | 1896-97 |  | 4,941 | 3,009 | 2, 760 | 2, 892 | 2, 205 | 1,925 | 1,690. |  |  | 19, 422 |  |  |  |  | 2,098 |  | 21,520 |
| St. Louis, Mo. | Number belonging.. | End of 1st | 6,109 | 13, 624 | 12, 245 | 11, 104 | 7,596 | 3, 940 | 3, 063 | 1,985 | 1,377 |  | 61, 043 | 601 | 410 | 290 | 190 | i1, 717 |  | 62, 760 |
| Omaha, Nebr | Total enrollment | ¢1897-93..... | 2,351 | 2,597 | 2, 075 | 2, 120 | 2,052 | 1,802 | 1,621 | 1,339 | 934 |  | 16, 891 | 681 | 407 | 154 | 107 | j1, 380 |  | 18, 271 |
| Jersey City, | Number belonging. | Nov.30, 1896. |  | 5,496 | 3,470 | 3,408 | 2,817 | 2, 182 | 1,474 | 1,050 | 740 |  | 20,637 | 272 | 155 | 99 | 73 | 599 | 58 | 21, 294 |
| Newark, N.J | Average enrollment. | 1896-97.... | a913 | 5, 731 | 4,363 | 4, 015 | 3, 082 | 2,325 | 1,678 | 1,304 | 900 |  | 24,311 | a569 | a303 | a128 | $\alpha 92$ | 1,092 | 67 | 25, 470 |
| Trenton, N.J | Number belonging.. | Nov. 30, 1897 |  | 2, 324 | 1,041 | 1,085 | ${ }_{5} 985$ | 706 | ${ }_{3} 561$ | 417 | 296 |  | 7,415 | 195 | 88 | 85 | 77 | 445 |  | 7, 860 |
| Buffalo, N. Y. | Total enrollment .. | $\begin{aligned} & \text { ist term } \\ & 1896-97 \text {. } \end{aligned}$ |  | 12,662 | 6,834 | 5,871 | 5,375 | 4,421 | 3,718 | 2,900 | 2, 116 | 1,643 | 45, 540 |  |  |  |  | 2,070 |  | 47, 610 |
| Cincinnati, Ohio | do | 1897-98. |  | 9,806 | 6,970 | 6,634 | 5,799 | 4,534 | 4,001 | 2, 701 | 1,701 |  | 42, 146 | 1,106 | 503 | 399 | 320 | 2, 328 | 125 | 44,599 |
| Cleveland, Ohio |  | 1897-98 |  | 11,373 | 8,074 | 7, 851 | 7, 267 | 5,875 | 4,637 | 3,478 | 2,373 |  | 51, 818 | 1,292 | 878 | 569 | 505 | 3,244 | 173 | 55, 235 |
| Philadelphia, P | Number belonging.. | 1 есе. 31, 1897. | 7,210 | 35, 203 | 24, 989 | 22, 659 | 16,790 | 12, 898 | 8,929 | 5,627 | 4, 129 |  | 138, 434 |  |  |  |  | 4,342 | 605 | 143,381 |
| Richmond, Va | Total enrollment.... | 1896-97. |  | 2,140 | 1, 881 | 1, 882 | 1,620 | 1, 593 | 1,095 | ${ }^{828}$ |  |  | 11, 039 | 570 | 404 | 249 |  | 1,223 |  | 12,318 |
| Milwaukee, W | Average enrollment | 1896-97 | 3,230 | 7,359 | 4,272 | 3,744 | 3,214 | , 2, 846 | 2,226 | 1,737 | 1,183 |  | 29,811 |  |  |  |  | 1,374 |  | 31,185 | $a$ Approximately.

$b$
The number of pupils in the several grades is not reported; the table following shows the percentages as giren in the printed reports.
$c 58$ in preparatory class of Polytechnic Insti-
tute and 76 in tifth year in City College.

Table 3.-Proportion of pupils in the several school grades in certain cities.

|  |  | Elementary schools. |  |  |  |  |  |  |  |  |  | High schools. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \dot{\tilde{y}} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ \text { in } \end{gathered}$ |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { تूँ } \\ & \text { E. } \end{aligned}$ |  |
| 1 | 4 | 3 | 4 | $\pm$ | 6 | g | 8 | Э | 19 | $1{ }^{1}$ | 13 | 13 | 14 | 15 | 16 | 17 | 18 |
|  | P.ct |  |  |  |  |  | P.ct | P.ct |  | P.ct | P.ct | P.ct | P.c | P.c | P. | P.ct | P.ct |
| San Francisco, Cal ..... |  |  |  | 12.8 |  |  | 9. 7 | 8. 1 | 5. 9 |  | 93.4 |  |  |  |  | 6. 2 | . 4 |
| Denver, Colo.(Dist. No. 1) | 14.3 | 17.7 20.0 | 10.4 | ${ }_{13}{ }^{1} 1$ | 11.4 | 9.3 10 9 | 8. 5 | 5. 6 | 4.8 |  | ${ }^{91.1}$ |  |  |  |  | 8. 9 |  |
| Washington, D. C |  | 20.0 |  |  |  | ${ }_{10.6}^{10.9}$ | 9.2 9.0 | ${ }^{6} \mathrm{C} .1$ | 6. 4 |  | 93.9 9 |  |  | 0.8 |  | 6. ${ }^{1}$ | . 3 |
| Chicago. Ill |  | 20.5 | 17.3 | 15.6 | 12.9 | 11.6 | 8.2 | 5.7 | 3. 9 |  | 95. 7 | 1.7 | 1.2 | 0. | 0.5 | 4.1 | 0.2 |
| Louisville, |  |  | 15.1 | 14.1 |  | 10.6 | 8.1 | 5.8 | 4.4 |  |  |  |  |  |  | 5.8 |  |
| Baltimore, M |  | 29.6 | 18.2 | 14.7 | 12.1 | 9.1 | 6. 2 | 3.8 | 2.2 |  | 95.9 | 1.8 | 1.1 | 0.7 | 0.4 | a4. 1 |  |
| Boston, Mass |  |  |  | 9.8 |  | 9.3 | 8.9 | 7.6 | 5. 9 |  | 693.4 | 2.7 | 1. 6 | 1.1 | 0.5 | 26. 2 | 0.4 |
| Cambridge, Ma |  |  | 12.6 | 11.3 |  |  | 7. 7 | 6.2 | 5. 1 |  | 291. 6 | 3.2 | 2. 0 | 1.4 | 1.4 | e8. 4 |  |
| Lowell, Mass. <br> Worcester, Ma |  |  | 11.8 |  |  |  | 8. 9 | 7. 7 | 6. 9 | 4. 7 | 98. 8 | 2.8 3.8 | 2.8 | 1.8 | 2. 6 | +11.5 |  |
| Minneapolis, Mi |  | 27.9 | 14.9 | 13.5 | 10.5 | 9.6 | 7.0 | 5.5 | 3. 7 |  | 92.6 |  |  |  |  | 7.4 |  |
| Kansas City, M |  | 23.0 | 14.0 | 12.8 | 13.4 | 10. 2 | 8.9 | 7.9 |  |  | 90.2 |  |  |  |  | 9.8 |  |
| St. Louis, Mo |  | 21.7 | 19.5 | 17. 7 | 12.1 | 6.3 | 4.9 | 3.2 |  |  | 97.3 | g1.1 | g0. 7 | g0. 6 | g0. 3 | 2.7 |  |
| Omaha, Nebr |  | 14.2 | 11.4 | 11.6 | 11.2 | ${ }_{10}^{9.9}$ | ${ }_{6}^{8.9}$ | 7.3 | 5.1 |  | 92.5 | 3.7 | 2.2 | 0.8 | ${ }^{0.6}$ | h7. 5 |  |
| Jersey City, |  | ${ }_{22.5}^{25}$ | 16.3 | 16.0 | 12.1 | 10.3 | 6. 6 | 4. 9 | 3.5 <br> 3.5 <br> 3 |  | 96.9 9 | 1.3 | 1. 1.2 | 0.5 | 0.3 0.4 | 2.8 | 0.3 0.3 |
| Trenton, N |  | 29.6 | 13. 2 | 13.8 | 12.5 | 9.0 | 7. 1 | 5.3 | 3.8 |  | 94.3 | , | 1 | 1.1 | 1. 0 | 5. |  |
| Buffalo, N. Y |  | 26.6 | 14.4 | 12.3 | 11.3 | 9.3 | 7.8 | 6.1 | 4. 4 | 3.5 | 95.7 |  |  |  |  | 4.3 |  |
| Cincinnati, Ohi |  | 22.0 | 15. 6 | 14.9 | 13. 0 | 10.2 | 9. 0 | 6. 0 | 3. 8 |  | 94.5 | 2.5 | 1.1 | 0.9 | 0.7 | 5.2 | (0. 3 |
| Cleveland, Ohio |  | 20.6 | 11. 6 | 14.2 | 13.2 | 10.6 | 8.4 | 6. 3 | 4. |  | 93. 8 | 2.4 | 1.6 | 1.0 | 0.9 | 5. 9 | 0.3 |
| Philadelphia, Pa |  | 17.6 | 17.4 | 15.8 | 11.8 | ${ }^{9.0}$ |  | 3. 9 |  |  |  |  |  |  |  | 3. 0 | $0 . \frac{4}{5}$ |
| Richmond, Va. |  |  | 15.3 |  | 13. 1 | 12. 9 |  |  |  |  |  |  |  | 2.0 |  | 9.9 | 0.5 |
| Milwaukee, W is | 10.4 | ${ }^{23.6}$ | 13.7 | ${ }^{12.0}$ | 10.3 | 9.1 |  |  |  |  |  |  |  |  |  | 4.4 |  |

a0.1 per cent in fifth year in Baltimore City Colloge.
$b 2.9$ per cent in grammar schools in ungraded classes.
$c 0.3$ per cent in Latin schools "out of course."
d5. 4 per cent in 4-year ceurse in grammar schuols.
e0.4 per cent in fifth-year Latin school.
$f 0.3$ per cent in fifth and sixth years in high school.
$g$ Approximately.
$h 0.2$ per cent in special courses in high school.

Table 4．－Summary，by States，etc．，of enrollment，attendance，supervising officers，and teachers in cities containing over 8，000 inhabitants．

| Cities of－ |  |  | ๘－ <br> ஸे <br>  <br> 60 <br> －in <br> と0 <br> 4 |  | Number of supervising officers． |  |  | Number of teachers． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\stackrel{\oplus}{\text { ज゙̇ }}$ |  | $\begin{aligned} & \text { ज़ं } \\ & \text { से } \end{aligned}$ |  |  | $\begin{aligned} & \text { त⿹\zh26灬 } \\ & \text { H } \end{aligned}$ |  |
| 1 | 2 | 3 | 4 | 5 | 6 | ＇ 7 | 8 | 9 | 10 | 11 | 12 |
| United S | 626 | 3，799， 881 | 539，048， 222 | 2，843， 445 | 2，316 | 2，113 | 4， 429 | 6， 005 | 72， 355 | 78， 360 | 872，406 |
| North Atlantic Division | 23 | 1, | 7 | 1，323， 545 | 1，016 | 1， 050 | 2，066 | 2， | 34， 341 | 6， 727 | 401， 655 |
| South Atlantic Division | 47 | 272， 108 | 36，536， 809 | 197， 166 | 130 | 148 | 278 | 597 | 4， 968 | 5,565 | 48， 168 |
| South Central Division ． | 54 | 203， 700 | 25，997， 085 | 149， 027 | 174 | 56 | 230 | 486 | 3，540 | 4， 026 | 49， 989 |
| North Central Division |  | 1，320， 934 | 190，896， 400 | 1，016， 647 | 819 | 738 | 1，557 |  | 25， 467 | 27，512 | 350， 462 |
| Western Division ．．．．． | 39 | 217， 351 | 29，103， 481 | 157， 060 | 177 | 121 | 298 | 8491 | 4， 039 | 4，530 | 22， 132 |
| North Atlantic Division： Maine． | 10 | 24，392 | 3，338， 049 | 19， 059 | 21 | 19 | 40 | 51 | 599 | 650 | 6，101 |
| New Hamp | 7 | 16，783 | 2，219，581 | 12，527 | 21 | 12 | 33 | 30 | 386 | 416 | 7， 160 |
| Vermont | 2 | 4， 275 | 608， 461 | 3， 254 | 2 | 2 | 4 | 7 | 108 | 115 | 2，124 |
| Massachuset | 56 | 333， 376 | 51，506， 755 | 267， 547 | 181 | 156 | 337 | 648 | 7，257 | 7， 905 | 58， 057 |
| Rhode Island | 9 | 52， 783 | 6，637， 894 | 35， 133 | 17 | 26 | 43 | 101 | 1，099 | 1，200 | 10， 729 |
| Connocticu | 21 | 78，116 | 11，395， 536 | 58，948 | 55 | 31 | 86 | 134 | 1，691 | 1，825 | 17， 041 |
| New York | 56 | 717， 349 | 101，251， 703 | 521， 458 | 418 | 623 | 1， 041 |  | 12， 961 | 13，589 | 176， 067 |
| New Jersey | 22 | 149， 405 | 20，204， 294 | 104， 629 | 114 | 61 | 175 | 109 | 2，699 | 2， 808 | 37， 267 |
| Pennsylvania....... | 53 | 409， 309 | 59，352， 174 | 300， 990 | 187 | 120 | 307 | 678 | 7， 541 | 8， 219 | 87， 109 |
| South Atlantic Division： Delaware | 1 | 10，769 | 1，544， 284 | $7,879$ | 2 | 3 | 5 | ） | 227 | 231 |  |
| Maryland | 4 | 84， 153 | 11，013， 031 | 56， 899 | 12 | 56 | 68 | 172 | 1， 728 | 1，900 |  |
| District of Columbia． | 2 | 44，698 | 6，342， 728 | 34， 383 | 21 | 43 | 64 | 129 | 915 | 1， 044 | 5， 300 |
| Virginia． | 11 | 36， 063 | 5，087， 272 | 27， 033 | 35 | 4 | 39 | 73 | 580 | 653 | 9， 963 |
| West Virginia | 4 | 12，115 | 1，637， 863 | 8，818 | 10 | 4 | 14 | 31 | 236 | 267 | 1， 925 |
| North Carolina | 8 | 16， 278 | 2，055， 292 | 11，767 | 9 | 3 | 12 | 32 | 250 | 282 | 1，380 |
| South Carolin | 4 | 13，528 | 2，016， 070 | 11，482 | 10 | 6 | 16 | 20 | 160 | 180 | 2，325 |
| Georgia | 9 | 43， 094 | 5，640， 393 | 31， 259 | 22 | 27 | 49 | 75 | 679 | 754 | 3，769 |
| Florida． | 4 | 11，410 | 1，199， 876 | 7， 646 | 9 | 2 | 11 | 61 | 193 | 254 | 4，600 |
| South Central Division： |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky | 12 6 | 50,633 <br> 31 | 7，261， 525 | 37,969 22,328 | 45 35 | 26 4 | 72 39 | 94 59 | ${ }_{9}^{946}$ | 1， 040 | 16,292 6,203 |
| Alabama | 6 | 16，312 | 1，796， 002 | 11， 896 | 11 | 1 | 12 | 47 | 322 | 369 | 4，900 |
| Mississippi | 5 | 8，216 | 1，040， 985 | 5，967 | 13 | 7 | 20 | 17 | 148 | 165 | 1，710 |
| Louisiana | 3 | 32， 542 | 3，703，687 | 23，498 |  |  |  | 38 | 650 | 688 | 7，618 |
| Texas | 17 | 50， 797 | 6，500， 722 | 37， 800 | 31 | 8 | 39 | 190 | 805 | 995 | 12， 144 |
| Arkansas | 4 | 12，349 | 1，506， 945 | 8， 673 | 6 | 1 | 7 | 37 | 157 | 194 | 972 |
| Oklahoma |  | 1，350 | 158， 649 | 896 | 1 | 0 | 1 | 4 | 21 | 25 |  |
| Indian Territory． | 0 |  | － | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 |
| North Central Division | 48 | 251， 294 | 37，714， 838 | 201， 154 | 153 | 101 | 254 | 452 | 4，972 | 5， 424 | 76，660 |
| Indiana | 32 | 115， 649 | 15，335， 214 | 83， 505 | 66 | 59 | 125 | 291 | 2， 002 | 2，293 | 23，129 |
| Illinois． | 42 | 339， 561 | 52，553， 065 | 267， 782 | 232 | 198 | 430 | 438 | 6，769 | 7， 207 | 111， 950 |
| Michigan | 30 | 133， 936 | 19，201， 330 | 100， 412 | 65 | 111 | 176 | 155 | 2， 564 | 2，719 | 32，302 |
| Wisconsin | 24 | 105， 661 | 14，793， 538 | 80， 279 | 84 | 44 | 128 | 187 | 2， 014 | 2， 201 | 35，829 |
| Minnes | 10 | 80，448 | 11，445， 806 | 63， 898 | 44 | 87 | 131 | 70 | 1，687 | 1，757 | 15，840 |
| Iowa | 22 | 70， 144 | 9，741，966 | 54， 351 | 48 | 43 | 91 | 107 | 1，518 | 1， 625 | 10，622 |
| Missouri | 17 | 138， 992 | 18，691， 523 | 100， 374 | 97 | 62 | 159 | 188 | 2， 465 | 2， 653 | 33， 305 |
| North Dak | 1 | 1，618 | 215， 832 | 1，189 | 1 | 2 | ， | 1 | 31 | 32 |  |
| South Dak | 1 | 2，009 | 275， 940 | 1，533 | 1 | 1 | 2 | 4 | 41 | 45 | 200 |
| Nebrask | 10 | 39， 815 | 5，393， 052 | 29，777 | 13 | 22 | 35 | 54 | 717 | 771 | 5，620 |
| Kansas． | 13 | 41，807 | 5，534， 296 | 32，363 | 15 | 8 | 23 | 98 | 687 | 785 | 4，575 |
| Western Division： |  |  |  |  |  |  |  |  |  |  |  |
| Montana | 3 | 8，497 | 1，067， 203 | 6， 124 | 5 | 4 | 9 | 23 | 159 | 182 | 680 |
| Wyoming | 1 | 1，070 | 142， 232 | 810 | 1 | 1 | 2 | 1 | 27 | 28 | 150 |
| Colorado | 10 | 39，635 | 5，012， 770 | 27， 334 | 33 | 22 | 55 | 79 | 693 | 772 | 2，145 |
| New Mex | 1 | 1，400 | 171， 676 | 1，028 | 2 | 0 | $\stackrel{2}{2}$ | 3 | 27 | 30 | 900 |
| Arizona | 0 |  |  | － | 21 | ${ }^{0}$ | ${ }^{0}$ | － 0 | 288 | 332 | 0 |
| Utah． | 3 | 17，582 | 2，510， 052 | 14， 267 | 21 | 6 | 27 | 44 | 288 | 332 | 902 |
| Idaho | ${ }_{0}^{0}$ | ${ }_{0}^{0}$ | ${ }_{0}^{0}$ | 0 | ${ }_{0}^{0}$ | 0 | ${ }_{0}$ | ${ }^{0}$ | ${ }_{0}^{0}$ | 0 | 0 |
| Washing | 4 | 21，511 | 2，850， 778 | 15，700 | 12 | 5 | 17 | 51 | 397 | 448 | 2，151 |
| Oregon | 3 | 14， 217 | 2，077， 961 | 10，972 | 16 | 4 | 20 | 44 | 289 | 333 | 1，650 |
| Californ | 14 | 113， 439 | 15，270， 809 | 80， 825 | 87 | 79 | 166 | － 246 | 2，159 | 2，405 | 13， 554 |

TABLE 5．－Summary，by States，etc．，of school property and expenditures in cities con－ taining over 8,000 inhabitants．

| Cities of－ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\mathfrak{2}$ | 3 | 4 | 5 | 6 |
| United States | 9，113 | 3，500， 970 | \＄289，325， 794 | \＄52，064，649 | \＄88，773， 647 |
| North Atlantic Division | 4，268 | 1，626， 891 | 149，529， 234 | 25，130， 926 | 48， 088,195 |
| South Atlantic Division． | 643 | 250， 248 | 11，335， 220 | $3,109,026$ | 4，390， 345 |
| South Central Division | 587 | 187， 662 | 10，195， 218 | 2，251， 220 | 2，994， 613 |
| North Central Division | 3， 037 | 1，245， 882 | 98，835， 750 | 17，878， 721 | 27，781， 526 |
| Western Division | 578 | 190， 287 | 19，430， 372 | 3，694， 756 | 5，518， 968 |
| North Atlantic Division： |  |  |  |  |  |
| Maine | 190 | 21， 976 | 1，706， 850 | 291， 702 | 461， 631 |
| New Hampshire | 107 | 16，087 | 1，375， 933 | 234， 835 | 338， 213 |
| Vermont | 23 |  | 358， 200 | 57， 623 | 82， 047 |
| Massachusetts | 1，301 | 323， 527 | 37，587， 716 | 5，570， 005 | 10，042， 421 |
| Rhode Island | 227 | 46， 188 | 4，136， 713 | 742， 117 | 1，458， 615 |
| Connecticut | 264 | 77，467 | 7，307， 209 | 1，155，452 | 2， 007,866 |
| New York | 974 | 623， 972 | 60，085， 235 | 10，409， 686 | 21，622， 307 |
| New Jersey | 259 | 127， 275 | 7，563， 929 | 1，757， 411 | 3，065， 204 |
| Pennsylvania－．．．．． | 923 | 382， 589 | 29，407， 449 | 4，912， 095 | 9，009， 891 |
| South Atlantic Division： | 28 | 10，838 | 675，505 | 115， 754 | 171， 962 |
| Maryland | 153 | 77， 683 | 3，134， 000 |  |  |
| District of Columbia | 112 | 42， 347 | $3,500,000$ | 764，271 | 1，185， 419 |
| Virginia． | 79 | 32， 366 | 1，112， 800 | 311， 808 | 412， 764 |
| West Virginia | 42 | 12，650 | 727， 460 | 121， 170 | 242， 941 |
| North Carolina | 27 | 13， 049 | 340,000 | 116，561 | 143， 584 |
| South Carolina | 18 | 10，550 | 267， 500 | 83， 907 | 105， 874 |
| Georgia | 124 | 38，315 | 1，425， 630 | 456， 167 | 544， 897 |
| Florida．．．．．．－．－．．．． | 60 | 12， 400 | 152， 325 | 80， 356 | 98， 438 |
| South Central Division： |  |  |  |  |  |
| Kentucky ．．．． | $\begin{array}{r}123 \\ 54 \\ \hline\end{array}$ | 52,419 28,140 | $2,377,048$ $1,558,756$ | 679,975 317,211 | 923,456 471,866 |
| Alabama | 114 | 14，999 | 1650， 000 | 144， 269 | 179， 929 |
| Mississippi | 18 | 7，600 | 296， 600 | 59， 540 | 75， 970 |
| Louisiana | 81 | 25，756 | 1，593， 110 | 352， 001 | 433， 160 |
| Texas． | 157 | 46，533 | 3，127， 704 | 572， 839 | 718， 221 |
| Arkansas | 36 | 10， 915 | 534， 000 | 115， 785 | 179， 811 |
| Oklahoma－ | 4 | 1，300 | 58， 000 | 9，600 | 12， 200 |
| Indian Territory ．．．． | 0 | 0 | 0 | 0 | 0 |
| North Central Division： <br> Ohio． | 558 | 254， 134 | 20，325， 706 | 3，518， 043 | 5，614， 807 |
| Indiana | 305 | 100， 848 | 7，820， 171 | 1，346， 423 | 2，110， 857 |
| Illinois． | 623 | 319， 142 | 27，874， 315 | 5，693， 589 | 8，791， 493 |
| Michigan | 345 | 118， 923 | 9，799， 397 | 1，507， 150 | 2，390， 730 |
| Wisconsin | 268 | 99， 925 | 6，110， 561 | 1，271， 247 | 1，756， 699 |
| Minnesota | 179 | 79， 256 | 7，393， 159 | 1，149， 740 | 1，659， 429 |
| Iowa． | 220 | 66，462 | 5，342， 700 | 852，715 | 1，384， 471 |
| Missouri | 285 | 127， 564 | 8，580，190 | 1，646， 517 | 2，627， 474 |
| North Dakot | 5 | 1，465 | 125， 000 | 21， 169 | 37， 188 |
| South Dakota | 10 | 1，845 | 240,000 | 20，142 | 31， 586 |
| Nebraska | 111 | 36，295 | $3,130,816$ | 467， 235 | 801， 545 |
| Kansas－．．．．．．． | 128 | 40， 023 | 2，093， 735 | 384， 751 | 575， 247 |
| Western Division： Montana | 42 | 8，454 | 1，040，000 | 136，213 | 281， 482 |
| W yoming | 5 | 1，100 | 1，150， 000 | 20， 452 | 27， 459 |
| Colorado | 89 | 32， 706 | 3，690， 802 | 657， 086 | 1，037， 066 |
| New Mexico | 15 |  | 150，000 | 20， 000 |  |
| Arizona | 0 | 0 |  |  |  |
| Utah．．． | 56 | 15，805 | 1，408， 979 | 205， 629 | 414， 748 |
| Nevada | 0 | 0 |  | 0 |  |
| Idaho ．．．．．． | 0 | 0 | 0 | 0 |  |
| Washington | 56 | 19， 091 | 2，155， 722 | 283， 866 | 538， 796 |
| Oregon．．．． | 41 | 14，913 | 1，246， 058 | 223， 975 | ，326，511 |
| California | 274 | 96，972 | 9，588， 811 | 2，147， 535 | 2，863， 036 |



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Table 7．－Summarized statistics of schools in cities of over 8，000 inhabitants from 1890－91 to 1897－98，inclusive．

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|  | $\cdots$ |  |  |  |  |
| $\begin{aligned} & \vdots \\ & \text { d } \\ & .0 \\ & .0_{0}^{2} \end{aligned}$ | $\cdots$ |  | $\square$ |  |  |


Table 8.-Comparative statistics of city school systems from 1891-92 to 1897-98, inclusive.

| Cities of- | Ratio of pri- vate school enrollment to enrollment in all schools, prblic and private. | Ratio of average attendance to enrollment (public schools). | A verage number of days' attendance of each pupil enrolled. | $\begin{array}{\|c} \text { A verage } \\ \text { length } \\ \text { of } \\ \text { school } \\ \text { term. } \end{array}$ | Average number of pupils in attendance to each teacher. | Average number of teachers to each supervising officer. | Average number of seats for each 100 pupils in attondance. | Average number of seats to a building. | Value of school property per capita of pupils in average attendance. | Cost of teaching and supervision per capita of pupils in average attendance. | Total cost of schools per capita of pupils in average attendance. | Averago cost per day of tuition for one pupil. | $\begin{aligned} & \text { Average } \\ & \text { daily } \\ & \text { expenili- } \\ & \text { ture per } \\ & \text { pnpil } \\ & \text { for all } \\ & \text { purposes. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\pm$ | S | 4 | 5 | 48 | g | 8 | 9 | 1 (1) |  | 14 | 113 | 14 |
| United States: | Per cent. | Per cent. | Days. | Days. |  |  |  |  |  |  |  | Cents. | Cents. |
| 1891-92 |  |  |  |  | 35.9 | 20.2 | 126.5 | 371 | \$97. 92 | \$16. 83 | \$28.80 | 8.79 | 15. 04 |
| 1892-93 | 21.2 | 71.9 | 137.0 | 190.6 | 35. 3 | 20.2 | 130.3 | 387 | 99. 32 | 18. 29 | 31.92 | 9. 69 | 16.75 |
| 1893-94 | 20.8 | 72.9 | 139.7 | 191.5 | 36. 2 | 18.7 | 127.1 | 374 | 100.15 | 17.85 | 30.64 | 9.32 | 16.00 |
| 1894-95 | 20.3 | 73.6 | 140.0 | 190.1 | 36.3 | 18.2 | 128.3 | 385 | 97.30 | 18.16 | 30.72 | 9.55 | 16.16 |
| 1895-96 | 19.6 | 73.5 | 140.7 | 191.4 | 36.4 | 17.9 | 131. 6 | 397 | 99.84 | 18. 26 | 31.26 | 9. 54 | 16. 34 |
| 1896-97 | 18.7 | 74.9 | 141.2 | 188.5 | 36.3 | 18.5 | 125.7 | 395 | 99.30 | 18.11 | 31.51 | 9.61 | 16.72 |
| 1897-98 | 18.7 | 74.8 | 141.8 | 189.6 | 35.9 | 17.8 | 123.1 | 384 | 101.78 | 18.31 | 31.22 | 9.66 | 16. 47 |
| North Atlantic Divisio 1891-92 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 1891-92 .- \\ & 1892-93 \end{aligned}$ | 21.0 | 71.1 | 138.5 | 194.7 | 35.0 | 21.5 | 128.5 | 383 | 102.25 | 18. 23 | 31.63 | 9.37 | 16. 24 |
| 1893-94 | 20.3 | 72.1 | 140.4 | 194.8 | 36.1 | 18.8 | 127.9 | 374 | 103.95 | 17.93 | 30.95 | 9.20 | 15.89 |
| 1834-95 | 19.8 | 72.6 | 141.5 | 194.8 | 35.9 | 19.9 | 126.8 | 381 | 102.37 | 18.44 | 32.17 | 9.46 | 16. 51 |
| 1895-96 | 18.5 | 72.4 | 141.5 | 195.6 | 36.2 | 18.5 | 127.7 | 384 | 105.85 | 17.93 | 34. 34 | 9. 60 | 17.56 |
| 1896-97 | 17.5 | 74.2 | 141.5 | 190.7 | 36.3 | 19.0 | 127.8 | 401 | 107.98 | 18.49 | 35.28 | 9.69 | 18.50 |
| 1897-98 | 18.4 | 74.2 | 143.6 | 193.8 | 35.3 | 18.2 | 122.9 | 381 | 112.95 | 18.98 | 36. 31 | 9.80 | 18.75 |
| South Atlantic Divisi 1891-92 | 17.8 | 72.0 | 137.3 | 190.7 | 37.3 | 28.9 | 121.9 | 407 | 58.37 | 14.79 | 23.08 | 7.75 | 12.10 |
| 1892-93 | 18.6 | 70.7 | 131.7 | 188.3 | 35.4 | 26.3 | 133.1 | 457 | 64.90 | 16.14 | 22.45 | 8.66 | 12.05 |
| 1893-94 | 18.8 | 71.6 | 134.0 | 187.3 | 26.0 | 23.5 | 130.4 | 426 | 68.85 | 16. 03 | 22.69 | 8.56 | 12.12 |
| 1894-95 | 17.8 | 72.5 | 133.6 | 184.2 | 35.2 | 26.9 | 127.8 | 373 | 60.31 | 15.88 | 21.84 | 8.62 | 11.86 |
| 1895-96 | 17.1 | 70.9 | 133.9 | 189.0 | 35.3 | 22.6 | 128.2 | 340 | 61.49 | 16.45 | 23.10 | 8.71 | 12. 23 |
| 1896-97 | 15.7 | 72.6 | 134.9 | 185.9 | 34.8 | ${ }_{2}^{23.1}$ | 133.4 | 373 | 59.86 | 16. 31 | 22. 74 | 8.77 | 12. 23 |
| 1897-98 .........- | 15.0 | 72.5 | 134.3 | 185.3 | 35.4 | 20.0 | 126.8 | 389 | 57.49 | 15.77 | 22.26 | 8.51 | 12.02 |
| South Central Divisio $1891-92 . . . . . . . . . . ~$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1891-92 ... | 24.4 22.5 | 70.7 | 131.2 133.9 | 185.5 184.2 | $38.5$ | 16.4 29.4 | $\begin{aligned} & 112.2 \\ & 126.0 \end{aligned}$ | 324 379 | 72. 01 | 15. 30 15.81 | 21.50 | 8. 25 |  |
| 1892-93 | 22.5 21.1 | 72.7 74.4 | 133.9 134.9 | 184.2 180.4 180 | 38.6 37.3 | 29.4 19.7 | 126.0 117.6 | 379 <br> 344 | 66.73 71.67 | 15.81 15.65 | ${ }_{22 .}^{21.62}$ | 8.58 8.48 8.8 | 11.74 12.46 |
| 1894-95 | 18.8 | 69.6 | 125.6 | 180.6 | 36.0 | 14.1 | 130.0 | 349 | 73. 24 | 16.72 | 23.49 | 9. 26 | 13.00 |
| 1895-96 | 20.1 | 72.7 | 129.2 | 177.8 | 37.8 | 18.7 | 138.6 | 412 | 66. 60 | 15.79 | 22.87 | 8.88 | 12.87 |
| $1896-97$ $1897-98$ | 19.6 19.7 | 73.6 73.2 | 131.0 127.6 | 178.2 174.4 | 38.1 37.0 | 18.3 17.5 | 128.3 125.9 | 394 320 | 65.17 68.40 | 14.96 15.10 | 19.47 20.10 | 8.40 8.66 | 10.93 11.52 |



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TABLE 9.-Statistics of population and school enrollment and attendance in cities of over 8,000 inhabitants, 1897-98.

|  | City. |  | Schoo ula <br>  | pop. tion. | Pupils in private and parochial schools (largely estimated). | Differe rolle day | nt pupi d in P schools. | ls enpublic <br>  |  | Number of days the public schools were actually in session. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 18 | 11 |
|  | ALABAMA. |  |  |  |  |  |  |  |  |  | - |
| 1 | Anniston * | 11,000 | 7-21 | 3,300 | 700 | 500 | 637 | 1. 137 | 936 | 176 | 164, 824 |
| 2 | Birmingham | 40,000 | 7-21 | 9,275 | 600 | 1, 254 | 1,445 | 2, 699 | 2,231 | 158 | 352, 498 |
| 3 | Huntsville | 10,000 | 7-21 | 2,290 | 200 | 417 | 456 | 873 | 636 | * 160 | a 101, 760 |
| 4 | Mobile (city and county) | 65, 000 | 7-21 | 24, 043 | 2,600 | 3, 912 | 4,180 | 8, 092 | 5, 449 | 144 | 784, 656 |
| 5 | Montgomery ......... | 25, 000 | 7-21 | 5,207 | 500 | 1, 132 | 1, 337 | 2,460 | 1,787 | 143 | 255, 144 |
| 6 | Selma. | 10,000 | $6-21$ | 2,900 | 300 | 542 | 500 | 1,042 | 857 | 160 | 137, 120 |
|  | AREANSAS. |  |  |  |  |  |  |  |  |  |  |
| 7 | Fort Smith | 18,000 | 6-21 | 4, 086 | 500 | 1, 178 | 1,353 | 2, 531 | 1,890 | 178 | 336, 420 |
| 8 | Hot Springs | 12,000 | 6-21 | 3, 614 | 60 | 1,316 | 1, 282 | 2,598 | 1,720 | 178 | 306, 160 |
| 9 | Little Rock | 38,500 | 6-21 | 8,824 | 300 | 2, 450 | 2, 754 | 5, 204 | 3,780 | $b 177$ | 641, 123 |
| 10 | Pinebluff.. | 20, 000 | 6-21 | 3, 499 | 112 | 909 | 1, 107 | 2, 016 | 1,283 | 174 | 223, 242 |
|  | CALIFORNIA. |  |  |  |  |  |  |  |  |  |  |
| 11 | Alameda | 15, 510 | 5-17 | 3, 460 | 211 | 1,564 | 1,515 | 3, 079 | 2,249 | 193 | 433, 211 |
| 12 | Perkeley | 13,000 | 5-17 | 2, 822 | 180 | 1, 475 | 1, 456 | 2,931 | 2, 010 | 193 | 387, 930 |
| 13 | Eureka | 7,000 | 6-17 | 1,841 | 28 | 798 | 823 | 1,621 | 1,396 | 194 | 268, 920 |
| 14 | Fresno*. | 12,000 | 5-17 | 1,814 | 45 | 878 | 965 | 1, 843 | 1,214 |  |  |
| 15 | Los Angele | 103, 079 | 5-17 | 23, 384 | 1,292 | 9, 557 | 10,091 | 19,648 | 14,708 | 183 | 2, 691, 532 |
| 16 | Oakland. | C0, 000 | 5-17 | 13, 857 |  | 6.320 | 5, 943 | 12, 263 | 8,588 | 198 | 1, 700,467 |
| 17 | Pasadena | 12,000 | 5-17 | 2,823 | 193 | 1,161 | 1, 202 | 2, 363 | 1,724 | 171 | 294, 770 |
| 18 | Sacramento .... | 32,000 | 5-17 | 5, 440 | 326 | 2,667 | 2,569 | 5,236 | 3,561 | 196 | 697, 956 |
| 19 | San Bernardino |  |  |  |  |  |  |  |  |  |  |
| 20 | San Diego | 17,000 | 5-17 | 3,617 | 175 | 1,996 | 1, 780 | 3,776 | 2, 689 | 180 | 484, 020 |
| 21 | San Francisco | 340, 000 | 5-17 | 74, 122 | 8, 473 | 24,986 | 25, 115 | 50,101 | 35, 116 | 198 | 6, 605, 320 |
| 22 | San Jose... | 22,000 | 5-17 | 5,360 | 364 | 2,057 | 2, 118 | 4,175 | 3, 038 | 194 | 624, 676 |
| 23 | Santa Cruz ${ }^{*}$ | 9,000 | 5-17 | 2,156 | 186 | 864 | 850 | 1, 724 | 1,232 | 190 | 233, 955 |
| 24 | Stockton | 20,000 | 5-17 | 3,569 | 427 | 1,571 | 1,528 | 3, 099 | 2,224 | 192 | 427, 077 |
|  | COLORADO. |  |  |  |  |  |  |  |  |  |  |
| 25 | Colorado Sprin | 25,000 | 6-21 | 4, 577 | 200 | 1, 919 | 1,954 | 3, 873 | 2,720 | 185 | 503, 200 |
| 26 | Cripplecreek.......... <br> Denver: | 20, 000 | 6-21 | 2, 100 | 40 | 700 | 700 | 1,400 | 1,250 | 174 | 217, 500 |
| 27 | District No. 1. | 75, 000 | 6-21 | 15, 005 |  | 6, 797 | 7, 095 | 13, 892 | 9, 081 | 185 | 1, 679, 985 |
| 28 | District No. 2. | 35, 000 | 6-21 | 8, 507 | 250 | 3, 439 | 3, 609 | 7,048 | 4,840 | 181 | 876, 118 |
| 29 | District No. 7 | 7,000 | 6-21 | 976 | 0 | 482 | 453 | 935 | 805 | 184 | 146,532 |
| 30 | District No. 17... |  | 6-21 | 5,532 |  | 2, 289 | 2,378 | 4,667 | 3, 223 | 188 | 615, 398 |
| 31 | Lead ville | 12, 000 | 6-21 | 1,977 | 600 | 904 | 914 | 1,818 | 1,249 | 174 | 219,348 |
| 32 | ```Pueblo: District No. 1....``` |  | (6-21 | 3, 949 | * 55 | 1, 124 | 1.133 | 2, 257 | 1,544 | 182 | 281, 082 |
| 33 | District No. 20... | 40, 000 | $\left\{\begin{array}{l}6-21 \\ 6-21\end{array}\right.$ | 2, 973 | 150 | 1, 159 | 1,165 | 2, 324 | 1,642 | 175 | 287, 350 |
| 34 | Trinidad*......... | 9,000 | 6-21 | 1,640 |  | 713 | - 708 | 1,421 | 1,980 | 190 | 186, 257 |
|  | CONNECTICUT. |  |  |  |  |  |  |  |  |  |  |
| 35 | Ansonia. | 13,000 | 4-16 | 2,801 | 128 | 1,149 | 1,129 | 2, 278 | 1,800 | 188 | 355, 178 |
| 36 | Bridgepor | 61, 634 | 4-16 | 14, 377 | 2,164 | 4,567 | 4,580 | 9,147 | 7, 280 | 181 | 1, 317, 723 |
| 37 | Bristol. | 8,736 | 4-16 | 1, 919 | 5 |  |  | 1,973 | 1,388 | 195 | 270, 660 |
| 38 | Danbury .............. | 20, 000 | 4-16 | 4, 735 | 1, 020 |  |  | 2, 863 | 2, 364 | 200 | 472, 800 |
| 39 | Greenwich c........... | 12,000 | 4-16 | 921 | J50 | 331 | 468 | 799 | 518 | d 85 | 95, 830 |
| 40 | Hartford.............. | 75,965 | 4-16 | 13, 809 | * 1, 600 |  |  | 10,445 | 7,124 | 191 | 1,360, 684 |

[^114]Table 9.-Statistics of population and school emollment and attendance in citics of over 8,000 inhabitants, 1897-98-Continued.


TABLE 9.-Statistics of population and school cnrollment and attendance in cities of over S,000 inhabitants, 1897-98-Continued.

*Statistics of 1896-97.

TABLE 9.-Statistics of population and school enrollment and attendance in cities of orer. 8,000 inhabitants, 1897-98-Continued.

|  | City. | $\text { Population in } 1897 \text { (estimated). }$ | School population. |  | $\begin{aligned} & \text { Pupils in private and parochial } \\ & \text { schools (largely estimated). } \end{aligned}$ | Different pupils enrolled in public day schools. |  |  | $\begin{aligned} & \text { Average daily attendance in public } \\ & \text { day schools. } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Children of school census age. |  |  | $\begin{aligned} & \text { é } \\ & \text { E. } \\ & \text { ̈ } \\ & \text { Hn } \end{aligned}$ | $\begin{aligned} & \dot{\text { Nं }} \\ & \text { O } \\ & \text { H } \end{aligned}$ |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 | \% | 3 | $(3)$ | 10 | 1 1 |
|  | InDIANA-continued. |  |  |  |  |  |  |  |  |  |  |
| 123 | Goshen | 10,000 | 6-21 | 2,002 | 50 | 783 | 861 | 1,647 | 1,327 | 180 | 238, 860 |
| 124 | Hammon | $14,000$. | 6-21 | 3, 143 | 880 | 723 | 706 | 1, 429 | 1, 060 | 130 | 203, 225 |
| 125 | Huntingto | 10, 000 | 6-21 | 2, 817 | 600 | 892 | 956 | 1, 848 | 1,497 | 177 | 264, 2כ็ |
| 126 | Indianapolis | 185, 000 | 6-21 | 36,805 | * 2,687 | 16, 829 | 17,024 | 33,853 | 20,250 | 187 | 3,786,788 |
| 127 | Jeffersonville | 14, 500 | 6-21 | 2, 964 |  | , 880 | 999 | 1,879 | 1,506 | 172 | 259, 032 |
| 128 | Kokomo. | 12,000 | 6-21 | 3, 069 | 150 | 1,137 | 1,153 | 2,290 | 1, 854 | 176 | 326, 304 |
| 129 | Lafayette | 20,000 | 6-21 | 5, 716 | 1,000 | 1, 725 | 1, 776 | 3, 501 | 2, 373 | 185 | 439, 005 |
| 130 | Laporte | 10,000 | 6-21 | 2,402 | 400 | 670 | 593 | 1, 263 | 1, 047 | 174 | 180, 165 |
| 131 | Logansport | 15,000 | 6-21 | 4,450 | 700 | 1,394 | 1,463 | 2,857 | 2,216 | 178 | 394, 448 |
| 132 | Madison ... |  |  |  |  |  |  |  |  |  |  |
| 133 | Marion. |  |  |  | 0 | 1,769 | 1,834 | 3, 603 | 2,589 | 180 | 466, 031 |
| 134 | Michigan City |  |  |  |  |  |  |  |  |  |  |
| 135 | Muncie*...... | 20, 000 | 6-21 | 5, 073 | 250 | 1,634 | 1,806 | 3, 410 | 2,516 | 180 | 452, 846 |
| 136 | New Albany | 25, 000 | 6-21 | 5,808 | 600 | 1,864 | 1,860 | 3, 724 | 3, 000 | 180 | 540, 600 |
| 137 | Peru .-...... | 8,000 | 6-21 | 2, 800 | 500 | 700 | 800 | 1,500 |  | 200 |  |
| 138 | Richmond | 20, 000 | 6-21 | 4,902 | 500 | 1,640 | 1,568 | 3, 208 | 2,606 | 188 | 488, 625 |
| 139 | Shelbyville | 8, 000 | 6-21 | 2,002 | 100 | 725 | 728 | 1, 463 | 1,131 | 175 | 197, 359 |
| 140 | South Bend* | 29,000 | 6-21 | 8, 663 | 2,300 | 1,761 | 1,752 | 3, 513 | 2, 853 | 177 | 504, 981 |
| 141 | Terre Haute | 38,500 | 6-21 | 10, 572 | 884 | 3, 462 | 3,414 | 6, 876 | 5, 205 | 195 | 1,014,975 |
| 142 | Valparaiso. | 8,000 | 6-21 | 1, 529 | 225 | 761 | 543 | 1,304 | 1,149 | 177 | 202, 729 |
| 143 | Vincennes | 12, 000 | 6-21 | 2,938 | 700 | 880 | 765 | 1,645 | 1,204 | 196 | 235, $98 \frac{1}{1}$ |
| 144 | Wabash | 10,500 | 6-21 | 2, 390 | , | 859 | 959 | 1,818 | 1, 582 | 190 | 300, 580 |
| 145 | Washington | 12,000 | 6-21. | 2,751 | 600 | 841 | 823 | 1,684 | 1, 582 | 176 | 224, 828 |
| 146 | Boone | 11,000 | 5-21 | 2,900 | 125 | 1,100 | 1,200 | 2,300 | 1, 750 | 175 | 296, 270 |
| 147 | Burlington | 30,000 | 5-21 | 8,150 | 1,000 | 2,194 | 2, 154 | 4,348 | 3, 620 | 186 | 673, 320 |
| 148 | Cedar hapi | 27, 000 | 5-21 | 7, 909 | 600 | 2,429 | 2,448 | 4, 877 | 4, 148 | 180 | 745, 560 |
| 149 | Clinton | 17,000 | 5-21 | 6,292 | 400 | 1,705 | 1, 841 | 3, 546 | 2,712 | 185 | 501, 720 |
| 150 | Council Blufi | 25, 000 | 5-21 | 7,823 | 783 | 2,359 | 2, 423 | 4,782 | 3, 605 | 175 | 630, 788 |
| 151 | Creston. | 9,000 | 5-21 | 2, 512 | 150 | 2,937 | 2,955 | 1, 892 | 1,361 | 177 | 240, 880 |
| 152 | Daveuport... <br> Des Moines: | 36,000 | 5-21 | 10, 935 | 1,000 | 2,968 | 2,906 | 5,874 | 4, 926 | 192 | 945, 830 |
| 153 | Des Moines: East side | 17,000 | 5-21 | 5,418 | 350 | 2,045 | 2,116 | 4,161 | 3, 054 | 176 | 537, 416 |
| 154 | North side |  | 5-21 | 1, 793 | *20 | 704 | -752 | 1, 456 | 1, 110 | 175 | 172, 022 |
| 155 | West side* | 30, 000 | 5-21 | 8, 059 | 400 |  |  | 4,697 | 3,380 | 177 | 597, 806 |
| 156 | Dubuque. | 42,000 | 5-21 | 12,747 | 2, 500 | 2, 769 | 2,689 | 5,458 | 4, 185 | 184 | 770, 040 |
| 157 | Fort Dodge. | 12,000 | 5-21 | 2, 410 | 250 | 791 | 815 | 1,606 | 1,279 | 180 | 230, 220 |
| 158 | Fort Madison | 10,000 | 6-21 | 2,958 | 690 | 736 | 744 | 1, 480 | 1,169 | 171 | 199, 847 |
| 159 | Iowa City* | 8,000 | 5-21 | 3, 689 | 500 |  |  | 1, 534 | 1, 088 | 185 | 201, 280 |
| 160 | Keokuk*. | 14, 287 | 5-21 | 4,741 |  |  |  | 2,571 | 2,164 | 180 | 389, 520 |
| 161 | Marshalltow | 12,500 | 5-21 | 3;164 | 150 | 1, 098 | 1,212 | 2,310 | *1, 752 | 175 | *306, 609 |
| 162 | Muscatine. | 13, 500 | 5-21 | 4,060 | 200 | 1,340 | 1,283 | 2,623 | 2,081 | 181 | 376, 694 |
| 163 | Oskalvosa* | 10, 500 | 5-21 | 2,927 | 20 | 1,989 | 1,049 | 2,038 | 1,532 | 176 | 269, 632 |
| 164 | Ottumwa. | 18, 000 | 5-21 | 4,805 | 150 | 1,985 | 2, 168 | 4, 153 | 3, 140 | 182 | 571, 490 |
| 165 | Sioux City .............. | 40,000 | 5-21 | 11, 29] | 800 | 2,881 | 2,850 | 5, 731 | 4,657 | 170 | 791,738 |
| 166 | East side* | 5, 244 |  |  |  |  |  | 1,764 | 985 | 180 | 177, 300 |
| 167 | West side gansas. |  | 5-21 | 1,186 | 24 | 457 | 486 | 1943 | 659 | 176 | 115,984 |
| 168 | Arkansas City |  |  |  |  |  |  |  |  |  |  |
| 169 | Atchison..... | 16,000 | 5-21 | 5, 123 | 500 | 1,034 | 1,169 | 2, 203 | 1,697 | 176 | 296, 388 |
| 170 | Emporia. | 8, 970 | 5-21 | 2, 835 | * 300 | 1, 026 | 1,090 | 2, 116 | 1,645 | 178 | 292, 810 |
| 171 | Fort Scott. | 11, 400 | 5-21 | 4,157 | 100 | 1, 203 | 1, 401 | 2, 604 | 1,997 | 160 | 337, 004 |
| 172 | Hutchinson | 10,000 | 5-21 | 2,743 | *50 | 1997 | 1,117 | 2, 114 | 1,676 | 170 | 284, 920 |
| 173 | Kansas City | 45, 090 | 5-21 | 13,397 | 915 | 3, 880 | 4,338 | 8,218 | 6, 174 | 178. | 1,020,450 |

Table 9．－Statistics of population and school enrollment and attendance in cities of over 8，000 inleabitants，1897－98－Continued．

|  | City． |  | School pop－ ulation． |  |  | Different pupils en－ rolled in public day schools． |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Children of school census age． |  | 灾 |  | $\begin{aligned} & \text { ت⿹\zh4灬 } \\ & \text { N. } \\ & \text { E. } \end{aligned}$ |  |  |  |
|  |  | 2 | 3 | 4 | 5 | 6 | $g$ | 8 | 9 | 10 | 11 |
|  | KANSAS－continued． |  |  |  |  |  |  |  |  |  |  |
| 174 | Lawrence． | 10， 958 | 5－21 | 4， 038 |  | 1，283 | 1，284 | 2，567 | 2， 150 | 175 | 376， 250 |
| 175 | Leavenwort | 19， 861 | 5－21 | 7，131 | 800 |  |  | 3，533 | 2，778 | ${ }^{176}$ | 488， 928 |
| 176 | Ottawa | 8， 005 | 5－21 | 2，613 | 300 | 798 | 951 | 1，749 | 1，353 | 173 | 234， 069 |
| 177 | Parsons＊ | 8，000 | 5－21 | 2，431 | 200 | 891 | 943 | 1，834 | 1，391 | 180 | 250， 380 |
| 178 | Pittsburg | 13，000 | 5－21 | 3，570 | 150 | 1，125 | 1，081 | 2， 206 | 1， 482 | 175 | 259， 350 |
| 179 | Topeka | 40， 000 | 5－21 | 9， 764 | 600 | 3， 131 | 3， 581 | 6， 712 | 5，218 | 170 | 887， 060 |
| 180 | Wichita | 25， 000 | 5－21 | 7， 282 | 500 | 2，128 | 2，228 | 4，356 | 3，352 | 175 | 584， 837 |
| 181 | Bowling Green＊ | 10，000 | 6－20 | 2， 484 | 200 | 674 | 741 | 1，415 | 1，055 | 185 | 195， 181 |
| 182 | Covington＊．．．．． | 60，000 | 6－20 | 17， 529 | 3，867 | 2， 090 | 2， 244 | 4，334 | 3，390 | 192 | 643， 880 |
| 183 | Frankfort： White schoo |  |  | 1，562 | ＊175 |  | 538 | 1，046 | 695 | 195 | 125，725 |
| 184 | Colored scho | 10，000 | 6－20 | 909 | 50 | 241 | 281 | 522 | 329 | 195 | 64， 155 |
| 185 | Henderson ．．． | 12， 000 | 6－20 | 3， 011 | 300 | 884 | 898 | 1，782 | 1， 005 | 200 | 201， 040 |
| 186 | Hopkinsville（white <br> only） | 8，000 | 6－20 | 970 | 50 | 339 | 466 | 805 | 603 ＂ | 198 | 119， 375 |
| 187 | Lexington＊ | 30， 000 | 6－20 | 9，857 | 1，525 | 2， 186 | 2， 308 | 4， 494 | 3,130 | 180 | 563， 400 |
| 188 | Louisville | 215， 000 | 6－20 | 55， 919 | 8，000 | 13，114 | 13， 815 | 26， 929 | 20， 588 | 193 | 3，973， 484 |
| 189 | Maysville＊ | 10，500 | 6－20 | 1，821 | 8， 250 | －409 | ， 371 | 780 | － 499 | 200 | 99， 800 |
| 190 | Newport＊． | 20， 000 | 6－20 | 9，071 | 1，200 | 1，814 | 1，865 | 3， 679 | 3，113 | 200 | 622， 600 |
| 191 | Owensboro | 14，000 | 6－20 | 3，093 | 525 | 1，022 | 1，061 | 2， 083 | 1，608 | 180 | 289， 445 |
| 192 | Paducah LOUISIANA． | 19，000 | $6-20$ | 4，647 | 150 | 1，304 | 1，460 | 2， 764 | 1， 954 | 186 | 363， 440 |
| 193 | Baton Rouge |  |  |  |  |  |  |  |  |  |  |
| 194 | New Orleans | 275， 000 | 6－18 | 75，000 | 7，066 | 14， 205 | 15，317 | 29，522 | 21，694 | a 157 | 3，405， 958 |
| 195 | Shreveport＊．． <br> maine． | 22，000 |  |  | 250 | 832 | 899 | 1， 731 | 873 | 173 | 151， 029 |
| 196 | Auburn | 14， 000 | 4－21 | 4，121 | 150 | 1， 113 | 1，485 | 2，598 | 1，941 | 180 | 349， 380 |
| 197 | Augusta | 12，000 | 4－21 | 3，111 | 260 |  |  | 1， 538 | 1，187 | 175 | 207， 725 |
| 198 | Bangor | 25， 000 | 4－21 | 6，111 | 700 | 1，654 | 1，807 | 3， 461 | 3， 155 | 175 | 553， 000 |
| 199 | Bath． | 8，500 | 4－21 | 2，497 | 0 | 931 | 876 | 1， 807 | 1， 442 | 167 | 301， 769 |
| 200 | Biddeford | 18，000 | 4－21 | 5， 266 | 1，400 |  |  | 1， 627 | 1，209 | 171 | 185， 877 |
| 201 | Calais | 8，500 | 4－21 | 2， 580 | ， 60 | 578 | 813 | 1，391 | 1，130 | 160 | 180， 860 |
| 202 | Lewiston | 25， 000 | 5－21 | 7， 645 | 1，656 |  |  | 3， 000 | 1，979 | 185 | 366， 115 |
| 203 | Portland． | 40， 000 | 4－21 | 11， 265 | 1，500 | 3， 497 | 2， 786 | 6， 283 | 4， 675 | 183 | 855， 525 |
| 204 | Rockland． | 8，000 | 4－21 | 2， 172 | 125 | 669 | 781 | 1， 450 | 1，183 | 155 | 183， 365 |
| 205 | Waterville |  | 4－21 | 2，775 | 350 | 579 | 658 | 1，237 | 1，158 | 167 | 154， 433 |
|  | MARYLAND． |  |  |  |  |  |  |  |  |  |  |
| 206 | Baltimore． | 500， 000 | 6－21 | 110， 731 | ＊16， 000 | 39，161 | 39，381 | 78，542 | 53， 209 | 194 | 10，322， 546 |
| 207 | Cumberland |  |  |  |  |  |  |  |  |  |  |
| 208 | Frederick | 9，000 |  |  |  | 704 | 777 | 1，481 | 898 | 167 | 149， 985 |
| 209 | Hagerstown |  |  |  |  |  |  |  |  |  |  |
|  | MASSACHUSETTS． |  |  |  |  |  |  |  |  |  |  |
| 210 | Adams． | 10，000 | 5－14 | 2， 134 | 75 |  |  | 2，235 | 1，723 | 184 | 317， 032 |
| 211 | Amesbury ．．．．．．．．．．．． | 9， 984 | 5－15 | 1，660 | 400 | 620 | 626 | 1， 246 | 1， 136 | 195 | 205， 514 |
| 212 | Attleboro ．．．．．．．．．．．．．． | 8，288 | 5－15 | 1，627 | 25 | 1， 030 | 998 | 2， 028 | 1， 412 | 197 | 278， 164 |
| 213 | Beverly ．．．．．．．．．．．．．．．． | 11， 802 | 5－15 | 2， 031 | 30 | －．．．．．． |  | 2， 145 | 1，723 | 200 | 242，900 |
| 214 | Boston．．．．－．．．．．．．．．．．． | 516， 256 | 5－15 | 83， 097 | 12， 681 | － 43,672 | 41， 648 | 85， 320 | 74， 936 | 2001 | 14，987， 200 |

＊Statistics of 1896－97．
$a$ The schools were opened later than usual because of the prevalence of fever．

TABLE 9.-Statistics of population and school enrollment and attendance in citics of orer 8,000 inhabitants, 1897-98-Continued.

|  | City. | $\text { Population in } 1897 \text { (estimated). }$ | School population. |  | Pupils in private and parochialschools (largely estimated). | Different pupils enrolled in public day schools. |  |  |  | Number of days the public schoolswere actually in session. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 0 80 0 0 0 0 0 0 0 8 0 0 0 0 | $\infty$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |  |  |  |  |  |  |  |
|  | 1 | ' | 3 | 寊 | 5 | 6 | 7 | 8 | $\ni$ | 19 | 11 |
|  | MASSACHUSETTS-con- <br> tinued. |  |  |  |  |  |  |  |  |  |  |
| 215 | Brockto | 35, 000 | 5-15 | 6,114 | 659 |  |  | *5, 872 | *5, 125 | 192 | a 984, 000 |
| 216 | Brookline | 17, 000 | 5-15 | 2, 694 | 189 | 1,705 | 1, 702 | 3,407 | 2,785 | 1.98 | 611, 028 |
| 217 | Cambridg | 88, 476 | 8-14 | 8,587 | 2,512 |  |  | 14,373 | 11, 397 | 200 | 2, 279, 400 |
| 218 | Chelsea.. | 33, 000 | 5-15 | 5, 771 | 950 | 3, 002 | 2,990 | 5, 992 | 4. 459 | 200 | 898, 400 |
| 219 | Chicope | 18,500 | 8-14 | 1, 746 | 731 | 1,437 | 1, 221 | 2, 658 | 1, 822 | 193 | 351, 704 |
| 220 | Clinton | 11, 497 | 5-15 | 2, 300 | 301 | 1,047 | 1,006 | 2,053 | 1, 688 | 193 | 325,784 |
| 221 | Danvers | 8, 700 | 5-15 | 1,356 | * 17 | 827 | 821 | 1,648 | 1, 291 | 190 | 245, 290 |
| 222 | Everett* | 18,575 | 5-15 | 3,638 | 0 |  |  | 4,837 | 3,432 | 166 | 569, 712 |
| 223 | Fall River | 101, 106 | 5-15 | 20,006 | 4, 438 | 8,356 | 7, 977 | 16,333 | 11,361 | 189 | 2,147,229 |
| 224 | Fitchburg | 30,000 | 5-15 | 5,527 | 1,500 | 2, 630 | 2, 434 | 5, 064 | 3, 611 | 183 | 850, 000 |
| 225 | Framingh | 10,000 | 5-15 | 1, 812 | 0 | 1,125 | 1,128 | 2, 253 | 1,871 | 175 | 327, 525 |
| 226 | Gardner.. | 10,000 | 5-15 | 1, 700 | 0 | 880 | , 922 | 1,802 | 1, 434 | 189 | 271, 001 |
| 227 | Gloucester | 29,000 | 5-15 | 4, 108 | * 300 | 2, 168 | 2, 271 | 4,439 | 4, 140 | 190 | 786, 600 |
| 228 | Greenfield | 8,000 | 5-15 | 1,197 | 14 | 717 | 781 | 1,493 | 1,171 | 197 | 230, 102 |
| 229 | Haverhill | 35, 036 | 5-15 | 5,819 | 1, 660 |  |  | 5, 330 | 4,289 | 183 | 782, 743 |
| 230 | Holyoke* | 44, 159 | 5-15 | 8,795 | 4,190 |  |  | 5,695 | 3, 983 | 1942 | 774, 694 |
| 231 | Hydepark | 14,000 | 5-15 | 2,190 | 675 | 793 | 789 | 1, 582 | 1,492 | 188 | 280, 496 |
| 232 | Lawrence | 57,000 | 5-15 | 9,816 | 2,200 |  |  | 8,037 | 6, 344 | 194 | 1,230,736 |
| 233 | Leominster | 3,211 | 5-15 | 1,555 | 0 |  |  | 1,849 | 1, 463 | 190 | 277, 970 |
| 234 | Lowell. | 90,000 | 5-15 | 14, 432 | 4,500 | 6, 862 | 6, 642 | 13,504 | 9,307 | 180 | 1, 675, 420 |
| 235 | Lynn. | 65, 000 | 5-15 | 10,297 | 1,000 | 5,148 | 5,323 | 10,471 | 8, 599 | 183 | 1,568,317 |
| 236 | Malden | 32, 000 | 5-15 | 5,303 | 934 |  |  | 5,897 | 4,501 | 190 | 855, 190 |
| 237 | Marlboro | 14,789 | 5-15 | 3,287 | 433 | 1,381 | 1, 418 | 2,799 | 2, 325 | 177 | 411, 525 |
| 238 | Medford | 15, 601 | 5-15 | 2, 678 | 25 | 1,806 | 1,850 | 3,666 | 2,617 | 198 | 518, 166 |
| 239 | Melrose* | 13, 050 | 5-15 | 2,359 | 20 |  |  | 2,251 | 1,999 | 193 | 385, 807 |
| 210 | Milford | 9,500 | 5-14 | 1,310 | 250 | 774 | 875 | 1,649 | 1,308 | $b 175$ | 241, 980 |
| 211 | Natick | 9,000 | 8-14 | 1, 932 | 6 | 887 | 981 | 1, 868 | 1,574 | 188 | 295, 991 |
| 242 | New Bedford | 62, 000 | 8-14 | 6,506 | 2,926 | 4,496 | 4,385 | 8,881 | 6, 733 | 186 | 1,252,338 |
| 243 | Newburyport | 14,554 | 5-15 | 2, 305 | 619 |  |  | 1,932 | 1, 533 | 200 | 326,600 |
| 244 | Newton...- | 28, 000 | 5-15 | 5, 054 | 762 | 2,828 | 2,799 | 5,627 | 4, 497 | 195 | 876, 915 |
| 245 | North Adams | 23,000 | 5-15 | 3, 985 | 1, 243 | 1,895 | 1,900 | 3, 795 | 2, 651 | 180 | 473, 180 |
| 246 | Northampton | 17, 800 | 5-15 | 2, 814 | 460 | 1,347 | 1, 32 S | 2,675 | 2, 151 | c195 | 404, 738 |
| 247 | Peabody ${ }^{*}$ | 11,000 | 5-15 | 1, 464 | 400 | 967 | 824 | 1,791 | 1,386 | 194 | 268, 874 |
| 248 | Pittsfield | 21, 226 | 5-15 | 3, 946 | 162 | 2,196 | 2, 225 | 4, 421 | 3, 307 | 191 | 607, 185 |
| 249 | Plymouth | 7, 956 | 5-15 | 1,314 | 0 | 857 | 812 | 1, 669 | 1,240 | 182 | 225, 680 |
| 250 | Quincy - | 23, 000 | 8-14 | 2, 711 | 225 | 2, 694 | 2, 406 | 5, 100 | 4, 124 | 181 | 846, 444 |
| 251 | Revere | 9, 000 | 5-15 | 2, 252 | 150 | 993 | 1, 173 | 2, 166 | 1, 700 | 187 | 317, 900 |
| 252 | Salem | 36,000 | 5-15 | 6,154 | 2, 219 | 2, 492 | 2,149 | 4,641 | 3, 603 | 200 | 720,600 |
| 253 | Somerrille | 56, 000 | 8-14 | 5, 449 | 1,386 | 4, 421 | 4, 656 | 9,077 | 8, 144 | 186 | 1,514,784 |
| 254 | Southbridg | 8,250 | 5-15 | 1, 708 | 531 | 648 | 627 | 1,275 | 817 | 182 | 148, 252 |
| 255 | Spencer. | 8,747 | 5-15 | 1, 744 | 483 | 609 | 725 | 1, 334 | 1,157 | c180 | 219, 830 |
| 256 | Springfiel | 56,689 | 5-15 | 8,814 | 1,405 | 4,979 | 4,482 | 9,461 | 7, 379 | 191 | 1,409, 427 |
| 257 | Taunton | 28, 000 | 8-14 | 2, 972 | ${ }^{613}$ | 2,317 | 2,103 | 4, 420 | 3,714 | c190 | 708,540 |
| 258 | Wakefield | 8,700 | 5-15 | ],563 | *20 |  |  | 1, 893 | 1,497 | 185 | 276, 945 |
| 259 | Waltham. | 22, 000 | 8-14 | 2,100 | 1,100 | 1,411 | 1, 583 | 2, 994 | 2, 463 | 186 | 458, 061 |
| 260 | Watertown | 8,000 | 5-15 | 1,244 | 400 | 575 | 715 | 1,290 | 968 | 190 | 245, 100 |
| 261 | Westfield | 11,000 | 8-14 | 1,106 | * 0 | 1,182 | 1, 143 | 2,325 | 1,723 | 193 | 332, 539 |
| 262 | West Springfield | 8,000 | 8-14 | 1, 253 | * 0 | 775 | 881 | 1,656 | 1, 259 | 183 | 119, 115 |
| 263 | Weymouth.. | 11,600 | 5-15 | 1,871 | 0 | 1,150 | 1,230 | 2,380 | 1, 810 | 190 | 313, 900 |
| 264 | Wobarn* | 14, 176 | 5-15 | 3, 135 | 205 | 1,514 | 1,254 | 2,768 | 2,239 | 200 | 447,800 |
| 265 | Worcester | 103, 000 | 5-15 | 18,940 | 2,033 | 10,233 | 9,771 | 20,004 | 15,134 | 182 | 2, 75t,388 |
|  | MICHIGAN. |  |  |  |  |  |  |  |  |  |  |
| 266 | Adrian. | 9,541 | 5-20 | 2,566 | 350 | 837 | 821 | 1,658 | 1,307 | 191 | 249, 248 |
| 267 | Alpena................. | 12,500 | 5-20 | 4,489 | 1,500 | 978 | 1, 085 | 2, 063 | 1,416 | 178 | 230, 513 |
| 268 | Ann Arbor............ | 12, 000 | 5-20 | 3, 063 | 320 | 1, 274 | 1,104 | 2,378 | 1,997 | 190 | 379, 346 |
| 269 | Battlecreek | 20,000 | 5-20 | ....... | *260 | 1,425 | 1, 600 | 3, 025 | 2, 412 | 193 | 465,516 |

[^115]Table 9.-Statistics of population and school enrollment and attendance in cities of over 8,000 inhabitants, 1897-98-Continued.

|  | City. |  | School population. |  | $\begin{aligned} & \text { Pupils in private and parochial } \\ & \text { schools (largely estimated). } \end{aligned}$ | Different pupils enrolled in public day schools. |  |  |  | Number of days the public schoolswere actually in session. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | $\begin{aligned} & \dot{9} \\ & \text { ボ } \\ & \text { g్ } \\ & \text { Hy } \end{aligned}$ |  |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 19 | 8 | 9 | 1 (1) | 11 |
|  | michigan - cont'd. |  |  |  |  |  |  |  |  |  |  |
| 270 | Bay City | 33, 000 | 5-20 | 9,409 | 2,000 | 2,662 | 2, 966 | 5, 628 | 4, 488 | 195 | 875, 145 |
| 271 | Detroit. | 300,000 | 5-20 | 75,569 | 15, 378 | 19, 395 | 17, 736 | 37,131 | 23, 529 | 192 | 5, 477, 568 |
| 272 | Escanal | 8,500 | 5-20 | 2,394 | 800 | 583 | 638 | 1,221 | 855 | 193 | 176, 150 |
| 273 | Flint | 11, 000 | 5-20 | 2,710 | 150 | 1,000 | 1, 150 | 2,150 | 1, 850 | 195 | 360, 750 |
| 274 | Grand Hare | 5,130 | 6-20 | 1,734 | 130 | 721 | - 649 | 1,370 | 1,196 | 188 | 219, 268 |
| 275 | Grand Rapi | 100, 000 | 5-20 | 25, 890 | 3,514 | 10, 705 | 10, 729 | 21, 434 | 12,437 | 195 | 2, 487, 421 |
| 276 | Holland. | 10,000 | 5-20 | 2, 458 | 0 | 938 | 901 | 1,839 | 1, 459 | 195 | 283, 009 |
| 277 | Iron Mountai | 10,000 | 5-20 | 2,732 | 0 | 935 | 886 | 1,821 | 1, 755 | 180 | 314,780 |
| 278 | Ironwood. | 10,000 | 5-20 | 2,525 | 500 | 1, 120 | 997 | 2,117 | 1,725 | 200 | 345,000 |
| 279 | Ishpeming* - ...... <br> Jackson: | 12,500 | 5-20 | 3,707 | 500 |  |  | 2,697 | *2, 139 | 198 | * 423,522 |
| 280 | District No.1* |  | 5-20 |  |  | 1, 187 | 1,160 | 2, 347 | 1,926 | 191 | 367, 866 |
| 281 | District No.17* | 25, 000 | \5-20 | 2,810 | 425 | 1,917 | 1, 886 | 1,803 | *1,240 | 186 | *230, 640 |
| 282 | Kalamazoo | 23, 000 | 5-20 | 5,542 | 800 | 1,933 | 2, 007 | 3,940 | 3, 225 | 172 | 641, 766 |
| 283 | Lansing | 20,000 | 5-20 | 4, 250 | 350 | 1, 492 | 1, 621 | 3, 113 | *2, 608 | 189 | 492, 912 |
| 284 | Ludington | 8,500 | 5-20 | 2,553 | 450 | 854 | 1,846 | 1, 700 | 1,448 | 176 | 261, 437 |
| 285 | Manistoe | 13, 500 | $5-20$ | 5, 095 | 650 | 1, 782 | 1,611 | 3, 393 | 2, 500 | 196 | 490, 000 |
| 286 | Marquetto | 10,000 | 5-20 | 2,825 | 400 | 1, 053 | 959 | 2,012 | 1, 408 | 188 | 270, 295 |
| 287 | Menominee | 14,000 | 5-21 | 4,040 | 300 |  |  | 2, 965 | 2, 300 | 190 | 437, 000 |
| 288 | Muskegon | 22, 000 | 5-20 | 6, 702 | *500 | 2,592 | 2,618 | 5,210 | 3, 626 | 173 | 627, 298 |
| 289 | Owosso* | 10,000 | 5-20 | 2, 340 | 300 |  |  | 2,120 | 1, 541 | 171 | 263, 511 |
| 290 | Port Huron | 19,300 | 5-20 | 5,804 | 875 | 1,800 | 1,689 | 3,489 | 2, 696 | 193 | 485, 363 |
| 291 | Saginaw: | 30,000 | 6-20 | 7,945 |  | 2,691 | 2,683 | 5,374 | 4, 026 | 192 | 772,992 |
| 292 | West side |  | 5-20 | 5,335 | 400 | 1, 801 | 1,849 | 3, 650 | 3, 420 | 200 | 684, 000 |
| 293 | Sault Ste. Mar | 8,000 | $5=21$ | 2, 193 | 200 | 765 | 890 | 1,655 | 1, 238 | 190 | 235, 190 |
| 294 | Traverse City. | 9,000 | 5-20 | 2, 123 | 300 | 883 | 997 | 1,880 | 1,533 | 180 | 267, 612 |
| 295 | West Bay City.. minnesota. | 14,000 | 5-20 | 4,170 | 250 | 1,368 | 1, 385 | 2,753 | 2,141 | 193 | 386, 212 |
| 206 | Brainerd | 10,000 | 5-21 | 1,998 | 0 | 601 | 1, 202 | 1,803 | 1, 366 | 180 | 245, 918 |
| 297 | Duluth* |  |  |  |  | 4, 674 | 4, 939 | 9,613 | 7, 376 | 195 | 1, 438, 320 |
| 298 | Faribault | 8,600 | 5-21 | 2,000 | 400 | 627 | 642 | 1, 269 | 914 | 175 | 162, 967 |
| 299 | Mankato |  |  |  |  |  |  |  |  |  |  |
| 300 | Minneapolis | 210, 000 |  |  | 3, 000 | 16, 779 | 16,894 | 33, 673 | 26,949 | 166 | 4, 483, 672 |
| 301 | Red Wing. | 8,000 | 5-21 | 2,000 | 150 | 892 | 837 | 1,729 | 1,427 | 180 | 256, 781 |
| 302 | St. Cloud | 9,127 | 6-21 | 3, 234 | 1,200 | 659 | 602 | 1, 261 | 1, 029 | 169 | 184,498 |
| 303 | St. Paul. | 150, 000 |  |  |  | 11,750 | 12, 040 | 23, 790 | 18, 659 | 190 | 3, 537, 955 |
| 304 | Stillwater. | 12, 000 |  |  |  |  |  | 2,066 | 1, 712 | 175 | 308, 164 |
| 305 | Winona MISSISSIPPI. | 22,000 | 5-21 |  | 1, 500 | 1,689 | 1,685 | 3,374 | 3,066 | 190 | 582,531 |
| 306 | Columbus | 6,000 | 5-21 | 2, 400 | 10 | 617 | 743 | 1,360 | 810 | 180 | 145, 800 |
| 307 | Jackson* | 10,000 | 5-21 | 2, 763 | 150 | 696 | 804 | 1,500 | 1, 050 | 180 | 189, 000 |
| 308 | MLeridian |  | 5-21 | 4,000 | 700 | 885 | 1,065 | 1, 950 | 1, 436 | 157 | 225, 405 |
| 309 | Natchez*. | 15,000 |  |  |  | 635 | 770 | 1, 405 | 833 | 180 | 149, 940 |
| 310 | Vicksburg* |  |  |  |  | 847 | 1,154 | 2,001 | 1,838 | 180 | 330, 840 |
|  | MISSOURI. |  |  |  |  |  |  |  |  |  |  |
| 311 | Carthago.. | 10,000 | 6-20 | 2,337 | 50 | 1, 011 | 1, 115 | 2, 126 | 1,558 | 180 | 280, 440 |
| 312 | Chillicothe | 8, 000 | 6-20 | 1,829 | 100 | 708 | 773 | 1, 481 | 1, 061 | 180 | 189, 000 |
| 313 | Clinton* | 7,000 | 6-20 | 2,167 | 25 | 776 | 834 | 1, 610 | 1,168 | 180 | 210,458 |
| 314 | Hannibal. | 15,000 | 6-20 | 4,313 | 300 | 1, 089 | 1,361 | 2, 450 | 1, 890 | 177 | 334, 416 |
| 315 | Independence | 8,000 | 5-20 |  | 200 | 805 | 815 | 1, 620 | 1, 127 | 176 | 197, 286 |
| 316 | Jefferson City | 9,000 | 6-20 | 2,630 | 450 | 560 | 580 | 1, 140 | 895 | 180 | 161, 100 |
| 317 | Joplis... | 20,000 | 6-20 |  | 60 | 1, $8 \pm 2$ ! | 1,859 | 3, 701 | 2,662 | 160 | 417, 486 |

[^116]Table 9.-Statistics of population and school enrollment and attendance in cities of over 8,000 inhabitants, 1897-98-Continued.


* Statistics of 1896-97.

TABLE 9.-Statistics of population and school enrollment and attendance in cities of over S,000 inhabitants, 1897-98-Continued.


Table 9.-Statistics of population and school enrollment and attendance in cities of over 8,000 inhabitants, 1897-98-Continued.


TABLE 9.-Statistics of population and school enrollment and attendarce in cities of over. 8,000 inhabitants, 1897-98-Continued.

a Estimated.

Table 9．－Statistics of population and school enrollment and altendance in cities of orer S，000 inhabitants，1897－98－Continued．

|  | City． |  | School pop－ ulation． |  |  | Different pupils en－ rolled in public day schools． |  |  | Averagedaily attendancein publicday schoois． | Number of days the public schoolswere actually in session． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \dot{0} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \ddot{0} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  | $\stackrel{\dot{B}}{\stackrel{y}{⿷ 匚}}$ |  | $\begin{aligned} & \text { जुं } \\ & \text { जें } \\ & \text { से } \end{aligned}$ |  |  |  |
|  | 1 | d | 8 | 4 | 3 | 6 | \％ | 8 | 9 | 19 | 11 |
|  | PENNSYLVANIA－ continued． |  |  |  |  |  |  |  |  |  |  |
| 511 | Lockharen＊ | 8，000 | 6－21 |  | 200 | 728 | 743 | 1，471 | 1，186 | 189 | 213， 480 |
| 512 | McKeesport． | 35，00： | 6－16 | 5， 500 | 1， 200 | 2，288 | 2， 405 | 4，693 | 3， 559 | 180 | （40，6\％0 |
| 513 | Mahanoy City | 13， 000 | 6－16 | 2， 800 | 300 | 1，050 | 1，200 | 2，250 | 1，790 | 180 | 322， 200 |
| $51 \pm$ | Meadmille | 10，500 | 6－21 | 2，150 | 150 | 946 | 1， 049 | 1，995 | 1，647 | 180 | 296， 460 |
| 515 | Mount Carmel | 14，000 | 6－18 |  | 700 | 979 | 1，065 | 2，044 | ．1，415 | 180 | 25： 700 |
| 516 | Nanticoke | 15，000 | 6－16 | 2，654 | 820 | 1， 027 | 1，090 | 2， 117 | 1，443 | 180 | 259，740 |
| 517 | New Brighto | 9，000 | 6－21 | 1，600 | 100 | 750 | 750 | 1，500 | 1，120 | 180 | 200，000 |
| 518 | Newcastle＊ |  |  |  | 500 | 1，562 | 1，554 | 3，116 | 2， 402 | 180 | 432， 360 |
| 519 | Norristown | 22，000 | 6－21 | 3，500 | 450 | 1，560 | 1，617 | 3， 177 | 2，36x | 200 | 472， 800 |
| 520 | Oil City＊ |  |  |  | 500 | 1， 106 | 1，196 | 2， 302 | 1，756 | 180 | 316，080 |
| 521 | Philadelphia | 1，556， 000 | 5－20 | 10， 176 | 4．2，000 |  |  | a，173，363， | a126，781 |  | a25，356，200 |
| 522 | Phcenixville | 9，000 |  |  | 300 | 583 | 578 | 1，166 | 808 | 190 | 165， 020 |
| 523 | Pittsburg＊ |  |  |  |  | 21， 474 | 21， 113 | 42， 587 | 32， 511 | 200 | 6，502， 200 |
| 524 | Pittston＊ |  |  |  |  | 602 | 966 | 1，568 | 1，069 | 180 | 192， 420 |
| 525 | Plymouth | 14，527 | 6－21 | 2，572 | 300 | 856 | 991 | 1，847 | 1，340 | 180 | 241， 200 |
| 526 | Pottstown | 13，009 | 6－21 |  | 185 | 1，372 | 1，349 | 2， 721 | 2， 055 | 200 | 411，000 |
| 527 | Pottsville |  |  |  | 200 | 1， 492 | 1， 453 | 2， 945 | 2，012 | 200 | 403， 400 |
| 528 | Reading． | 80，0¢0 | 6－21 |  | 2，000 | 6， 545 | 6，302 | 12，847 | 9， 555 | 197 | 1，882， 335 |
| 529 | Scranton | 100， 000 | 6－21 | 14， 000 | 6， 000 | 6， 595 | 7，111 | 13， 706 | ＊4，843 | 175 | a 1，722， 525 |
| 530 | Shamokin | 22， 000 | 6－21 |  | 1， 300 | 1， 829 | 1，887 | 3，716 | 2，702 | 180 | 486，360 |
| 531 | Shenandoah | 18.000 | 6－21 | 3， 940 | 250 | 1， 589 | 1， 692 | 3， 251 | 2，461 | 200 | 492， 200 |
| 532 | South Bethlehem | 12，500 | 6－21 | 2，400 | 600 | 840 | － 980 | 1， 820 | 1， $5 \pm 7$ | 203 | 309， 400 |
| 533 | Steelton＊ | 12， 000 |  |  | 225 | 901 | 889 | 1， 790 | 1， 560 | 180 | 290， 420 |
| 534 | Sunbury＊ | 11， 000 |  |  | 0 | 826 | 1，074 | 1，900 | 1，710 | 180 | 307， 800 |
| 535 | Titusville | 10，000 | 6－21 | 1，971 | 300 | 791 | － 809 | 1，600 | 1， 268 | 185 | 235， 818 |
| 536 | Uniontoter | 9，000 | 6－16 | 1， 400 | 100 | 809 | 816 | 1， 625 | 1，217 | 180 | 219，060 |
| 537 | Westehester | 10，500 | 6－21 | 2，105 | 200 | 725 | 861 | 1，586 | 1，209 | 200 | 241，800 |
| 538 | Wilkesbarre | 55， 000 | 6－16 | 10， 868 | 1，000 | 4， 029 | 4，006 | 8， 035 | 6，877 | 186 | 1，279， 122 |
| 539 | Williamspor | 35，007 |  |  | 700 | 2， 445 | 2，596 | 5， 041 | 4， 042 | 180 | 727， 560 |
| 540 | York．．．．． | $2 \vec{i}, 000$ | 8－16 | 5，139 | 640 | 2，183 | 2，226 | 4，409 | 3， 696 | 180 | 665， 372 |
|  | RHODE ISLAND． |  |  |  |  |  |  |  |  |  |  |
| 541 | Central Falls＊ | 16，000 | 5－15 | 3， 361 | 726 | 1，249 | 1， 201 | 2，450 | 1， 555 | 189 | 293， 895 |
| 542 | Cranston． | 10，575 | 5－15 | 2，083 | 5 | 1，086 | 712 | 1，798 | 1，459 | 195 | 284， 505 |
| 543 | Cumberland． | 8，900 | 5－15 | 1，869 | 423 | 748 | 726 | 1，474 | 905 | 190 | 183， 350 |
| 544 | East Providence＊． |  | 5－15 | 2， 161 | 75 | 1，110 | 1，176 | 2，286 | 1，, 786 | 193 | 309， 270 |
| 545 | Johnston | 11， 203 | 5－16 | 2， 643 | 42 | 1， 273 | 1， 198 | 2， 471 | 1， 790 | 200 | 300,000 |
| 546 | Newport | 21，537 | 5－15 | 4， 086 | 1， 148 | 1，575 | 1，551 | 3， 126 | 2， 436 | 195 | 415020 |
| 547 | Pawtucket | 34， 300 | 5－16 | 7， 070 | 2， 005 | 2， 978 | 2，873 | 5,851 | 3，778 | 195 | ． 736,905 |
| 548 | Providence | 154， 000 | 5－15 | 28，768 | 4，405 | 14， 985 | 14，479 | 29， 464 | 19， 099 | 188 | 3，590，612 |
| 549 | Woonsocket．．．．．． SOUTH CAROLINA． | 26，000 | 5－15 | 5，816 | 1， 900 | 2，044 | 1，819 | 3， 853 | 2，465 | 190 | 46i， 337 |
| 550 | Charleston | 60，000 | 6－21 | 7， 916 | 825 | 3，239 | 4， 677 | 7， 916 | 7，520 | 182 | 1，368， 640 |
| 551 | Columbia | 20，000 | 6－18 | 3， 700 | 550 | 1， 032 | 1，292 | 2，324 | 1，630 | 173 | 281， 985 |
| 552 | Greenville ． | 12，000 | 6－21 | 2， 200 | 500 | 825 | －919 | 1， 744 | 1， 248 | 150 | 187， 200 |
| 553 | Spartanbarg | 12， 000 | 6－18 | 2，000 | 450 | 740 | 804 | 1，54t | 1，08！ | 177 | 178,245 |
| 554 | SOUTII DAKOTA． Sioux Falls ．．．．．． | 12， 000 | 6－20 | 2，472 | 200 | 965 | 1， 044 | 2，009 | 1，533 | 180 | 275， 940 |
|  | TENNESSEE． |  |  |  |  |  |  |  |  |  |  |
| 555 | Chattanooga | 34， 000 | 6－21 | 8， 217 | 500 | 2，067 | 2， 347 | 4，414 | 2，977 | 170 | 506， 090 |
| 556 | Clarksville．． | 12， 000 | 6－21 | 3， 508 | 208 | 749 | 871 | 1，620 | 1，097 | 200 | 219，353 |
| 557 | Jackson |  |  |  |  |  |  |  |  |  |  |

Table 9.-Statistics of population and school enrollment and attendance in cities of over S,000 inhalitants, 1897-98-Continued.


[^117]Table 9.-Statistics of population and school enrollment and attendance in cities of orer 8,000 inhabitants, 1897-98-Continued.


* Statistics of 1896-97.
a Estimated.

TABLE 10.-Statistics of supervising officers, teachers, property, etc., in public schools of cities of over 8,000 inhabitants, 1897-98.


Table 10.-Statistics of supervising officers, teachers, property, etc., in public schools of cities of over 8,000 inliubitants, 1897-98-Continued.


Table 10.-Statistics of supervising offcers, teachers, property, etc., in public schools of cities of over 8,000 inhabitants, 1897-98-Continued.


* Statistics of 1896-97.

Table 10.-Statistics of supervising offeers, teachers, property, eic., in public schools of cities of orer 8,000 inhabitants, 1897-98-Continued.


[^118]Table 10.-Statistics of supervising officers, teachers, property, etc., in public schools of cities of over $\mathcal{S}, 000$ inhabitants, 1897-98-Continued.


Table 10.-Statistics of supervising officers, teachers, property, etc., in public schools of cities of over S,000 inhabitants, 1897-98-Continued.


* Statistics of 1896-97.

Table 10.-Statistics of supervising officers, teachers, property, etc., in public schools of cities of over 8,000 inhabitants, 189\%-98-Continued.


Table 10.-Statistics of supervising officers, teachers, property, etc., in public schools of cities of ocer 8,000 inhabitants, 1897-98-Continued.


* Statistics of 1896-97.
$a$ Fifteen kindergartens are managed by the Buftalo Free Kindergarten Association. Nine teachers' salaries ( $\$ 4,925$ ) aro paid by the school department.

TABLE 10.-Statistics of supervising officers, teachers, property, etc., in public schools of cities of over 8,000 inhabitants, 1897-98-Continued.

|  | City. | Supervising oficer ${ }^{*}$. |  |  | Regular teachers |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\stackrel{\dot{\pi}}{\stackrel{\oplus}{\pi}}$ |  | $\begin{array}{\|l\|l\|} \substack{\text { g } \\ \text { Hi }} \end{array}$ |  |  |  |  |  |  |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | (3) | 10 | 11 | 12 | 13 |
|  | NEW YORL-cont'd. |  |  |  |  |  |  |  |  |  |  |  |  |
| 390 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }_{392}^{391}$ | (istrict No.2* | 1 | 0 | 1 | ${ }_{2}^{2}$ | 18 <br> 13 <br> 8 | ${ }_{15}^{20}$ | ${ }^{\text {Ali }}$ | 0 | 0 | 1 | 1,000 | 50, 000 |
|  | District N | 1 | ${ }_{0}$ | ${ }_{1}^{4}$ | 1 | ${ }_{8}^{18}$ | 9 | 0 | 0 | ${ }_{0}$ | 1 | ${ }_{450}^{480}$ | 22, ${ }^{30} 0000$ |
|  | Lansingburg. | 1 | 0 | 1 | 1 | 62 | 63 | 0 | 5 | 0 | 5 | 1,925 | 138, 400 |
|  | Littlefalls | 1 | 0 | 1 | 4 | 27 | 31 |  |  |  | 4 | 1,300 | * 82, 350 |
|  | Lockport* |  |  |  | 5 | ${ }^{68}$ | 73 |  |  |  |  |  | $\begin{array}{r}303,150 \\ 7 \\ \hline\end{array}$ |
| 397 | Malone...... | 1 | ${ }_{2}^{1}$ | ${ }_{3}^{1}$ | 4 | ${ }_{46}^{31}$ | 33 50 | 0 | ${ }_{0}$ | 0 | 11 | 1,625 <br> 2,189 <br> 1 | 73,750 175,000 |
| 399 | Mount Verion | 4 | 0 | 4 | *2 | + 70 | 72 | ${ }^{0}$ | 2 | 0 | 8 | 3,718 | 450, 000 |
| 400 | Newburg..... | 5 | 2 | 7 | 8 | 82 | 90 | 8 to 12, in- | 0 | 0 | 6 | 3,357 | 323, 125 |
| 401 | $\begin{aligned} & \text { New Rochelle ...... } \\ & \text { New Yorls ........ } \end{aligned}$ | , |  | 10 | 404 | 7,517 | 7,921 |  | 61 | 50 | 5405 | 385, ${ }^{1,800}$ | 43, ${ }^{2577,550}$ |
| ${ }_{40}$ |  |  | 50 | 739 |  |  |  | Secondary, elementary and truant ools. |  |  |  |  |  |
| 403 | Niagara Falls ..... | ${ }_{3}^{4}$ | ${ }_{1}^{6}$ | 10 |  | 66394949 | 6941435 |  | 4 | ${ }_{3}^{1}$ | $\begin{array}{r} 8 \\ 5 \\ 10 \end{array}$ | 2,7731,790 | 116, 400 |
| ${ }_{405}^{404}$ | North ronavanda |  |  |  | 2 |  |  |  |  |  |  |  | 150,009 97,009 |
| 409 | Olean. |  | ${ }_{1}^{2}$ |  | 0 | ${ }_{3}^{1}$ | 45 <br> $8 \pm$ <br> 18 | ${ }_{87}^{46}$ | 0 | ${ }_{0}^{6}$ |  | ${ }^{6}$ | 2,4004,000 | 185,000205,800 |
| 407 | Oswego |  |  |  | 0 |  |  |  |  |  |  |  |  |  |
| 408 | Peokskitrict No. 7 | 1 |  | 23 |  | 31 | 18 | 819 |  | 0 | 2 | 700 | 12, 294 |  |
| 409 | (Distrum Hill). |  |  | 0 | 0 12 | 12 |  |  |  |  | 1 | 1 |  |  |
|  | (Oakside). |  |  |  |  |  |  |  | 2 | 0 |  |  |  | 60,000 |
| 410 | ${ }_{\text {Platisburg }}{ }_{\text {Port }}$ Chester | 1112 | $\begin{aligned} & 2 \\ & 3 \\ & 0 \end{aligned}$ | $\begin{aligned} & 1 \\ & 3 \\ & 4 \\ & 4 \\ & 4 \end{aligned}$ |  | $\begin{aligned} & 2 \\ & 0 \\ & 2 \\ & 2 \end{aligned}$ | $\begin{aligned} & 40 \\ & 31 \\ & 43 \\ & 85 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0 \end{aligned}$ |  | $3$ | - ${ }^{6}$ |  | 66, 309 |  |
| 412 | Port Jervis. |  |  |  |  |  |  | 0 | 1 | 1,400 <br> 1.856 <br> 18 |  | 100,00085,000153,488 |  |  |
| 413 | Poughkeepsie |  |  |  |  |  |  | ${ }^{85}$ | 0 | 0 | 0 |  | 12 | 3,000 |
|  | Renssela | 1211 | ${ }_{3}^{0}$ |  | 12011 | ¢ ${ }_{6}^{28}$ | ${ }_{7}^{714} 4$ | 0 | 17 | 2 | 4 | 21,000 | 1,414, 000 |  |
|  | Rochest |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 41 | Rome | 1 | 0  <br> 0 1 |  |  |  | $\begin{aligned} & 59 \\ & 66 \\ & 69 \end{aligned}$ |  | 5 | $\begin{array}{r} \cdots \\ 0 \\ 0 \end{array}$ |  | 2,5003,000 | 185 <br> 185000 <br> 17500 |  |
|  | Saratoga Sp |  |  |  | 6 <br> 1 <br> 1 |  |  |  |  |  | $\begin{array}{r} 7 \\ 6 \\ 7 \\ 2 \end{array}$ |  |  |  |
| 418 | Schenectady |  |  |  | ${ }^{2,947}$ |  |  |  |  |  |  | 74,184$1,322,500$ |  |  |
|  | Stracuse. |  | $\begin{aligned} & 6 \\ & 2 \\ & 2 \end{aligned}$ | $\begin{gathered} 26 \\ 3 \\ 3 \end{gathered}$ |  | $\begin{gathered} 20 \\ 1 \\ 1 \end{gathered}$ | $\begin{array}{r} 201 \\ 391 \\ 335 \\ \hline 181 \end{array}$ | $\begin{array}{r} 411 \\ 411 \\ 36 \end{array}$ | \#iolin school | ${ }_{9}$ | $\cdots$ |  | $\begin{array}{r} 2 \\ 32 \end{array}$ | 17,179 |
| 421 | Tonawanda |  |  |  | $\begin{array}{r} 32 \\ 50 \\ 20 \end{array}$ |  |  |  |  |  |  | 1,40088777 | 1, 322, 500 |  |
| 423 | Troy | 20 | 2 |  |  |  |  |  | 5 to 8. | 12 | . |  |  |  |
|  | Utica | 1 |  | $\begin{array}{c\|c} 7 & 12 \\ 3 & 12 \\ 3 & 4 \\ 7 & 2 \\ 7 & 6 \end{array}$ |  |  | $\begin{gathered} 212 \\ 101 \\ 32 \\ 139 \end{gathered}$ | 3 |  |  |  |  |  |  |
| 425 | Watervliet |  |  |  |  | $\bigcirc$ |  |  | 10 | 4, ${ }^{4}, 5000$ | $\begin{array}{r} 525,000 \\ 200,000 \\ 37,000 \\ 727,939 \end{array}$ |  |  |  |
| 426 | Yonkers. |  |  |  |  | 7 |  | 3 | 14 | 6,000 |  |  |  |  |
|  |  |  |  | $\begin{array}{r} 200 \\ 97 \\ 32 \\ 133 \end{array}$ | and gram. |  |  |  |  |  |  |  |  |  |
| 427 | Asheville | 1 | 0 |  |  | 1 | 5 | 25 | $\begin{aligned} & 30 \\ & 40 \\ & 44 \\ & 22 \end{aligned}$ | 0 | ${ }^{0}$ | 0 | + ${ }^{4}$ | 1,400$* 1,824$ | 50, 000 |
| ${ }_{429}^{428}$ | Durlam. | $\xrightarrow{3}$ | ${ }_{0}^{1}$ |  |  | $\begin{array}{r} \ddot{3} \\ 1 \\ 1 \end{array}$ | $\begin{array}{r} 3 \\ 2 \\ 2 \end{array}$ | $\begin{aligned} & 2{ }_{21}{ }_{20} \end{aligned}$ |  | $6 \text { to } 10$ |  |  |  |  | $\begin{aligned} & \because 0.000 \\ & 20.000 \end{aligned}$ |
| 4 | Goldsboro |  |  |  |  |  |  |  |  |  |  | 1,500 |  |  |  |
| 431 | Newbern | i | 0 |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }_{43}^{432}$ | Raleigh ${ }^{\text {Win }}$ |  |  | 1 | 3 | 38 | 41 | 1,2, and 3. | 0 | 0 | 5 |  | 50,000 |  |  |
| 434 | Winston |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | NORTH DAKOTA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 435 | Fargo ............. | 1 | 2 | 3 | 1 | 31 | 32 | 0 | 0 |  | 5 | 1,465 | 125, 000 |  |  |
|  | онио. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 436 | Akron |  | 5 | 10 |  |  |  |  | 0 | 0 |  |  |  |  |  |
| ${ }_{438}^{437}$ | Alliance*... | 3 | ${ }_{1}$ | 3 |  | ${ }_{24}^{26}$ | ${ }_{37}^{33}$ |  |  |  | ${ }_{7}^{6}$ | 1, 6 , 65 | 135, 000 |  |  |

*Statistics of 1896-97.

Table 10.-Statistics of supervising officers, teachers, property, etc., in public schools of cities of orer 8,000 inhabitants, 1897-98-Continued.


* Statistics of 1896-97.

Table 10.-Statistics of supervising officers, teachers, property, etc., in public schools of cities of over $\mathcal{S}, 000$ inhabitants, 1897-9S-Continued.


[^119]TABLE 10.-Statistics of supervising officers, teachers, property, etc., in public schools of cities of orer 8,000 inhabitants, 1897-98-Continued.

|  | City. | Supervising officers. |  |  | Regular teachers. |  |  |  |  | $\begin{aligned} & \text { Number of even- } \\ & \text { ing schools. } \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\underset{\substack{\text { c }}}{\substack{\text { c }}}$ | ¢ |  | $\stackrel{\stackrel{9}{\mathbf{E}}}{\underset{\sim}{4}}$ |  |  |  |  |  |  |  |  |
|  | 1 | 8 | : 3 | 4 | 5 | 6 | $\%$ | 8 | 9 | (1) | 11 | 18 | 13 |
|  | SOUTH CAROLINA. |  |  |  |  |  |  |  |  |  |  |  |  |
| 550 | Charleston | 7 | 6 | 13 | 7 | 87 | 94 | 00 | 0 | 0 | 6 | 6,000 | \$150, 000 |
| 551 | Columbia | 1 | 0 | 1 | 6 | 29 | 35 |  | 0 | 0 | 4 | 1,750 | 42, 500 |
| 552 | Greenville | 1 | 0 | 1 | 4 | 23 | 27 |  |  |  | 4 | * 1, 600 | 35,000 |
| 553 | Spartanburg ...... | 1 | 0 | 1 | 3 | 21 | 24 | 0 |  |  | 4 | 1,200 | 40, 000 |
|  | SOUTH DAKOTA. | 1 |  |  |  |  |  |  |  |  |  |  |  |
| 554 | Sioux Falls. | 1 | 1 | 2 | 4 | 41 | 45 |  | 1 |  | 10 | 1,845 | 240, 000 |
|  | TENNESSEE. |  |  |  |  |  |  |  |  |  |  |  |  |
| 555 | Chattanooga | 5 | 2 | 7 | 10 | 78 | 88 |  |  | . $\cdot$ | 6 |  | 500, 000 |
| 556 | Clarksville.. | 1 | 1 | 2 | 3 | 24 | 27 |  |  |  | 3 | 1, 204 | 39, 960 |
| 557 | Jackson.. |  | 0 |  |  |  |  |  |  |  |  |  |  |
| 558 | Knoxville | 1 |  | 7 | 8 | 65 | 73 | 0 | 0 | 0 | 11 | 3,700 | 180, 000 |
| 559 | Memphis | 20 | 0 |  | 13 | 123 | 136 | 0 | 0 | 1 | 13 | 5,581 | 350, 000 |
| 560 | Naskville .......... |  |  |  | 23 | 177 | 200 | 0 | 0 | 0 | 18 | 12,000 | 413, 796 |
|  | TEXAS. |  |  |  |  |  |  |  |  |  |  |  |  |
| 561 | Austin. | 2 | 1 | 3 | 13 | 64 | 77 | 9, 10, and 11. | 0 | 0 | 12 | 3, 359 | 121, 870 |
| 562 | Corsicana | 1 | 0 | 1 | 7 | 24 | 31 | - 0 | 0 | 00 | 5 | 1,200 | 80,000 |
| 563 | Dallas* | , | 0 | 3 | 12 | $\begin{array}{r} 101 \\ 39 \end{array}$ | 113 |  |  |  | 159 | 5,800 | $\begin{aligned} & 431,000 \\ & 292,500 \end{aligned}$ |
| 504 | Denison. | 1 | 2 | 36 | $\begin{aligned} & 2 \\ & 3 \end{aligned}$ |  | $\begin{aligned} & 41 \\ & 30 \end{aligned}$ | $0$ | 0 | . ... |  |  |  |
| 565 | E1 Paso. |  | 3 |  |  | $\begin{aligned} & 39 \\ & 27 \end{aligned}$ |  | ----.............. | 1 | -... | 6 | -950 | $\begin{array}{r} 292,500 \\ 74,440 \end{array}$ |
| 566 | Fort Worth* | 2 | 0 | 3 | 26 | 53 | 79 | - $\begin{array}{r}0 \\ 0\end{array}$ |  | 0 | 13 | 3, 931 | 253, 000 |
| 567 | Gaines ville* | 1 |  | 1 | 4 | $\begin{aligned} & 28 \\ & 89 \end{aligned}$ | 32112 |  | 0 0 | 0 | 5 | 1,505 | 125, 930 |
| 568 | Galreston... | 6 | 0 | 6 | 23 |  |  |  | 00 | , | 10 | 5, 0284,989 | 461, 283 |
| 569 | Houston*. |  |  | 2 | $\cdots$ | ..... | ...... |  |  |  | 17 |  |  |
| 570 | Laredo. | , | 1 |  |  | 25 | $\begin{aligned} & 29 \\ & 16 \end{aligned}$ | 0 | 0 | . 0 | 11 | 1,225$* 900$ | $\begin{array}{r} 365,650 \\ 5,000 \end{array}$ |
| 571 | Marshall | 2 | 0 | 2 | 5 | 11 |  | - 0 |  | . | 66 |  | $\begin{array}{r} 0,600 \\ 12,659 \\ 70,050 \end{array}$ |
| 572 | Paris. | 1 | 0 | 1 | $\begin{array}{r} 4 \\ 36 \end{array}$ | 43 | $\begin{array}{r} 47 \\ 119 \end{array}$ |  |  |  |  | 1, 200 |  |
| 573 | San Antonio |  |  | 1 |  | 83 |  |  |  |  | 17 | 6,377 | 318,672 |
| 574 | Sherman... | 1 | 0 | 1 | 3 | 32 | 35 |  | 0 |  | 4 |  | 85, 000 |
| 575 | Temple. | 1 | 0 | 1 | 5 | 20 | 25 | 0 | 0 | 0 | 5 | 1,350 | 72,650 |
| 576 | Tyler* | 1 | 0 | 1 | 7 | 22 | 29 | 0 | 0 | 0 | 5 | 1, 400 | 75, 000 |
| 577 | WVaco.. | 3 | 0 | 3 | 10 | 60 | 70 |  | 0 | 0 | 11 | 3,281 | 283, 000 |
|  | UTAH. |  |  |  |  |  |  |  |  |  |  |  |  |
| 578 | Ogden............. | 4 | 1 | 5 | 19 | 64 | 83 | 0 | 0 | 0 | 20 | 4, 000 | 300, 000 |
| 579 | Provo City .-...... | 2 | 0 | 2 | 9 | 15 | 24 | 0 | 0 |  | 7 | 1,460 | 61, 013 |
| 580 | Salt Lake City .... | 15 | 5 | 20 | 16 | 209 | 225 | 0 | 0 | 0 | 29 | 10,345 | 1,047,966 |
|  | VERMONT. |  |  |  |  |  |  |  |  |  |  |  |  |
| 581 | Burlington........ | 1 | 0 | 1 | 5 | 63 | 68 |  |  |  | 14 |  |  |
| 582 | Rutland........... | 1 | 2 | 3 | 2 | 45 | 47 | 0 |  |  | 9 | 2,185 | 179,000 |
|  | vinginia. |  |  |  |  |  |  |  |  |  |  |  |  |
| 583 | Alexandria ....... | 3 | 2 | 5 | 9 | 24 | 33 |  |  |  | 5 | 1, 200 | 35.000 |
| 584 | Danville .......... | 2 | 0 | 2 | 7 | 45 | 52 | 0 |  |  | 5 | 2,500 | 47, 000 |
| 585 | Lyachburg* ...... | 4 | 1 | 5 | 13 | 53 | 66 |  |  |  | 8 | 3, 100 | 95, 000 |
| 586 | Manchester*..... | 1 | 0 | 1 | 5 | 17 | 22 |  |  |  | 3 | 1,050 | 30, 000 |
| 687 | Newport News... | 1 | 0 | 1 | 3 | 24 | 27 | 0 | 0 |  | 5 | 945 | 35, 000 |
| 588 | Norfolk*.......... | 1 | 1 | 2 | 7 | 54 | 61 | 0 | 0 | 0 | 11 | 3, 250 | 135, 000 |
| 589 | Petersbarg**.... | 1 | 0 | 1 | 2 | 50 | 52 | 0 | 0 | 0 | 9 | 2, 500 | 75, 000 |
| 590 | Portsmouth .-.... | 1 | 0 | 1 | 3 | 28 | 31 | 0 |  |  | 4 | 1,508 | 33,300 |
| 591 | Richmond. | 19 | 0 | 19 | 9 | 228 | 237 | 0 |  | 2 | 19 | 11,513 | 442, 500 |
| 592 | Roanoke. | 1 | 0 | 1 | 9 | 35 | 44 | 0 | 0 | 0 | 7 | 3, 300 | 125, 000 |
| 593 | Staunton. | 1 | 0 | 1 | 6 | 22 | 28 | 6 to 12 inc. | 0 |  | 3 | 1,500 | 60, 000 |

[^120]TABLE 10．－Statistics of supervising officers，teachers，property，etc．，in public schools of cities of over 8，000 inhabitants，1897－98－Continued．

|  | City． | Supervising officers． |  |  | Regular teachers． |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { 品 } \\ & \text { 品 } \end{aligned}$ |  | $\begin{aligned} & \text { ज़⿹\zh26灬 } \\ & \text { से } \end{aligned}$ | $\begin{aligned} & \text { gig } \\ & \text { ज्ञ̃ } \end{aligned}$ | $\begin{aligned} & \text { gi } \\ & \text { g̈ } \\ & \text { ⿷匚 } \end{aligned}$ | $\begin{aligned} & \text { त⿹⿺⿻⿻一㇂㇒丶⿱口一心 } \\ & \text { Hi } \end{aligned}$ |  |  |  |  |  |  |
|  | 1 | 9 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 18 | 13 |
|  | Washington． |  |  |  |  |  |  |  |  |  |  |  |  |
| 594 | Seattle | 6 | 2 | 8 | 18 | 162 | 180 | High school． | 1 |  | 20 | 7， 213 | \＄672，525 |
| 595 | Spokane | 1 | 0 | 1 | 13 | 87 | 100 |  | 2 | 0 | 16 | 4， 518 | 577， 132 |
| 596 | Tacoma | 3 | 1 | 4 | 17 | 130 | 147 | 0 | 0 | 0 | 16 | 5，900 | 795， 06.5 |
| 597 | Walla Walla | 2 | 2 | 4 | 3 | 18 | 21 | 0 | 0 | 0 | 4 | 1，460 | 111，000 |
|  | West virginia． |  |  |  |  |  |  |  |  |  |  |  |  |
| 598 | Huntington＊． | 2 |  | ， | 1 | 43 | 44 |  |  | 0 |  | 2，100 | 78， 170 |
| 599 | Martinsburg． | 1 | 0 | 1 | 10 | 17 | 27 | 0 | 0 |  | 16 | 1，400 | 40， 940 |
| 600 | Parkersburg | 1 | 0 | 1 | 13 | 47 | 60 |  | 0 | 0 | 16 | 2， 850 |  |
| 601 | Wheeling ．． | 6 | 4 | 10 | 7 | 129 | 136 | 0 | 0 | 0 | 12 | 6，300 | 430， 000 |
|  | WISCONSIN． |  |  |  |  |  |  |  |  |  |  |  |  |
| 602 | Appleton． | 6 | 3 | ， | 5 | 53 | 58 | High school． | 1 | 0 | 9 | 3，500 | 280，510 |
| 603 | Ashland | 1 | 1 | 2 | 3 | 36 | 39 | d |  | 0 | 10 | 1，718 | 125， 000 |
| 604 | Baraboo | 1 | 0 | 1 | 2 | 33 | 35 |  | 4 |  | 6 | 1，450 | 65， 000 |
| 605 | Beloit． | 1 | 1 | 2 | 2 | 41 | 43 |  | 3 |  | 7 | 1，800 | 120， 000 |
| 606 | Chippewa Fall | 1 | 1 |  | 4 | 31 | 35 | － | 0 | 0 | 8 | 1，328 | 96，000 |
| 607 | Eau Claire | 1 | 1 | 2 | 11 | 80 | 91 | 7，8，and high | 0 | 0 | 15 | 4，000 | 160， 780 |
| 608 | Fond du Lac | 1 | 3 | 4 | 5 | 50 | 55 | High school． | 5 |  | 10 | 2，300 | 103，700 |
| 609 | Greenbay． | 1 | 1 | 2 | 4 | 70 | 74 | 0 | 0 | 0 | 12 | 3，500 | 183， 363 |
| 610 | Janesville | 1 | 0 | 1 | 5 | $\stackrel{49}{9}$ | 54 | High school． | 0 | 0 | 8 | 2， 246 | 200， 000 |
| 611 | Kenosha | 1 | 0 | 1 | 4 | 25 | 29 | 0 | 0 |  | 4 | 1，300 | 90， 000 |
| 612 | La Crosso | 2 |  | 4 | 9 | 111 | 120 | Trigh school． | 0 | 0 | 18 | 5， 302 | 193， 644 |
| 613 | Madison | 1 | 2 | 3 | 2 | 57 | 59 | 0 | 2 | 0 | 9 | 2，645 | 211， 825 |
| 614 | Manitoroc＊ | 5 | 0 | 5 | 7 | 31 | 38 | 0 | 1 | 0 | 5 | 1，961 | 119， 625 |
| 615 | Marinette | 1 | 1 | 2 | 6 | 46 | 52 |  |  |  | 6 | 2，530 | 120， 000 |
| 616 | Merrill＊． | 1 | 0 | 1 | 4 | 30 | 34 |  | 0 | 0 | 6 | 1，804 | 50， 000 |
| 617 | Milwankee | 42 | 11 | 53 | 47 | 737 | 784 | High school． | 42 | 0 | 50 | 38，424 | 2，500， 000 |
| 618 | Oshkosh | 7 | 2 | 9 | 14 | 99 | 113 | All． | 8 | 2 | 10 | 3， 300 | 248，500 |
| 619 | Racino． | 1 | 0 | 1 | 14 | 92 | 106 | 0 | 6 |  | 13 | 4，471 | 325， 000 |
| 620 | Sheboygan | 2 | 1 | 3 | 16 | 84 | 100 | 0 | 6 | 0 | 13 | 4，000 | 190， 000 |
| 621 | Stevens Poin | 1 | 3 | 4 | 3 | 40 | 43 | 0 |  | 0 | 12 | 1， 896 | 108， 000 |
| 622 | Superior ． | 2 | 8 | 10 | 10 | 121 | 131 | 0 | 9 | 0 | 16 | 5，500 | 350,000 |
| 623 | Watertown | ， | 1 | 1 | 2 | 25 | ${ }^{27}$ | 0 | 0 | 0 | 5 | 1，2e0 | 60， 000 |
| 624 | Waukesha | 1 | 1 | 2 | ， | 26 | 30 | 0 | 0 |  | 6 | 1，450 | 84， 114 |
| 625 | Wausau． | 2 | 2 | 4 | 4 | 47 | 51 | 0 | 3 | 0 | 10 | 2，300 | 125， 500 |
|  | wyoming． |  |  |  |  |  |  |  |  |  |  |  |  |
| 626 | Cheyenne．． | 1 | 1 | 2 | 1 | 27 | 28 |  |  |  | 5 | 1，100 | 150，000 |

[^121]Table 11.-Siatistios of receipts of public sckools of citics of over $\mathcal{B}, 000$ inhabitants.


Table 11.-Statistics of receipts of public schools of cities of orer 8,000 inhabitantsContinued.


[^122]$a$ District tazes.
$b$ Town taxes.

Tamle 11.-Statistices of receipts of public schools of cities of over s, noo inhabitants-Continued.

|  |  | Receipts for the school year 1897-1898. |  |  |  |  | $\stackrel{8}{8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | City. | 'soxeq do quour - aoģiodde oqeqs moxit |  | $\begin{gathered} \text { •สөxe7 } \\ \text { ләчı pur Sұunoo mo.s. } \end{gathered}$ |  | ت̈n - |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|  | ILLINO:S-continued. |  |  |  | - |  |  |
| 91 | Freeport |  |  |  |  |  | \$83, 636 |
| 92 | Galesburg | \$3, 337 | \$57, 750 |  | \$768 | 61, 855 | $79,126$ |
| 93 | Jacksonville | 2, 654 | 41, 680 |  | 1,562 | 45,897 | 48, 510. |
| 94 | Joliet....... | 7,325 | 100, 575 |  |  | 108, 905 | 162, 081 |
| 95 96 | Kankakee. | 2,207 | 32, 459 | \$333 | 570 | 35, 560 | 36, 60e. |
| 97 | Kewanee.. |  |  |  |  |  |  |
| 98 | Lincoln |  |  |  |  |  |  |
| 99 | Mattoon | 2,316 |  | 22,843 | 663 | 25, 822 | 31, 797 |
| 100 | Moline. | 1,771 | 0 | 75,711 | 2,039 | 79, 521 | 102, 231 |
| 102 | Monmouth |  |  |  |  |  |  |
| 102 | Oakpark |  |  |  |  |  |  |
| 104 | Ottawa. Pekin. | 2,183 | (36, 9 |  | 285 | 39, 444 | 98, 475 |
| 105 | Peoria. | 15. 466 | 292. 102 |  | 247 | 307, 816 | 418, 103 : |
| 106 | Quincy | 7,993 | 68, 700 |  | 200 | 76,893 | 82, 940 |
| 107 | Rockford | 5,200 | 77, 106 |  | 1,428 | 83, 734 | 185, 198 |
| 108 | Rock Island | 3,400 | 49,029 | 28, 079 | 539 | 81,047 | 156, 807 |
| 109 | Springfield. | 6, 480 | 119,433 | 1,671 | 7,237 | 131,821 | 157, 048 |
| 110 | Sterling: <br> The Lincoln schools* | 172 |  |  | 1,047 | 1,219 |  |
| 111 | The Sterling schools . | 871 |  | 10,635 | 669 | 12, 175 | $15,320$ |
| 112 | The W'allace schools |  |  |  |  |  |  |
| 113 | Streator................... |  | 50,990 |  |  | 50,990 | 74,700 |
|  | INDIANA. |  |  |  |  |  |  |
| 114 | Anderson | 15, 708 | 47, 830 |  | 1,159 | 61,697 |  |
| 115 | Bloomington* | 7,680 | 5, 840 | 0 | 1, 0 | 13, 520 | $13,52 \mathrm{C}$ |
| 116 | Brazil ... |  |  |  | 248 | 10, 729 |  |
| 117 | Columbus. | 6,078 |  | 21,328 | 1,317 | 28, 723 | 32, 790 |
| 118 | Craw fordsville | 4, 000 | 22,000 |  |  | 26, 000 | 26, 200 |
| 119 | Elkhart. | 11,307 | 24,328 |  |  | 285,635 179,203 | 38,564. |
| 121 | Fort Wayne |  |  |  |  | 179, 115,722 | 175, 728. |
| 122 | Frankfort.. | 6,589 |  | 18,833 | 382 | 25,804 | 29,640. |
| 124 | Goshen ... |  |  |  |  |  |  |
| 125 | Hammond | 7,944 | 14,673 | 9,858 |  | 32, 475 |  |
| 126 | Indianapolis | 115, 207 | 392, 329 |  | 16,548 | 524, 085 | 784, 085 |
| 127 | Jeffersonville |  |  |  |  |  | 20,776 |
| 128 | Kokomo...... | 8,374 | 30, 715 | 1,244 |  | 40, 333 | 61,537 |
| 129 | Lafayette | 47,617 | 22,260 | 1,214 | 1,701 | 71,578 | 106,747 |
| 130 | Laporte... | 6,394 | (16, 7 |  | 347 | 23, 530 | 23,530 |
| 131 | Logansport* | 30,732 | 3, 444 |  |  | 34, 176 | 54, 054. |
| 133 | Marion. |  |  |  |  | 51,311 | 69,953 |
| 134 | Michigan City |  |  |  |  | 51,311 | 60, |
| 135 | Muncie* | 14, 164 | 51,561 | 419 | 430 | 66, 574 | 102, 249 |
| 136 | New Albayy | 22, 789 | 2,321 | 25,142 | 0 | 50,252 | 79,115 |
| 137 | Peru......... |  |  |  |  |  |  |
| 138 | Richmond. |  |  |  |  | 75,335 | 115,589 |
| 139 | Shelbyville.. | 6,574 | 11,241 | 17 | 289 | 18, 120 | 22, 060 |
| 141 | South Bend* Terre Haute. |  |  |  |  | 72,709 129,155 | 80,728 |
| 142 | Valparaiso . | 36, 443 | 6,097 | 86, 477 | 138 | 129,155 | 146, 520 |
| 143 | Vincennes.. | 8,830 | 15,178 |  | 1,763 | 25, 771 | 49, 694 |
| 144 | Wabash. |  |  |  |  |  |  |
| 145 | Washington..... |  |  |  |  |  |  |

[^123]Table 11.-Statistics of receipts of publio schools of cities of orer s,000 inhabitantsContinued.


[^124]$\alpha$ District taxes.

Table: 11. - Statistics of receipts of public schools of cities of over s,000 inhabituntsContinued.

|  | City. | Receipts for the school year 1897-98. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  | 1 | $\boldsymbol{2}$ | 3 | 4 | 5 | 6 | \% |
| r | maine. |  |  |  |  |  |  |
| 196 | Anburn | \$10, 236 | \$36,500 | 0 | \$379 | \$47, 115 | \$47, 115 |
| 197 | Augusta* | 7,699 | 8, 422 |  | 10,544 | 26,665 | -33,169 |
| 198 | Bangor... | 14,504 | 39, 903 |  | 401 |  | 55, 078 |
| 199 | Bath .- | 6,302 | 16, 698 |  | 81 |  | 27, 081 |
| 200 | Biddeford | 12,763 | 18,300 |  | 394 | 31,457 | 31,457 |
| 201 | Calais.... | 6, 253 | 7,500 | \$546 | 750 | 15,049 | - 15, 049 |
| 202 | Lewiston | 19,865 | 27,500 | 246 |  | 47, 611 | 47, 611 |
| 203 | Portland | 27, 427 | 127, 772 | 0 | 0 | 155, 199 | 155, 199 |
| 204 | Rockland.. | 6,168 | 15,300 | 0 | 21 | 21,488 | 22, 017 |
| 205 | Waterville | 7,072 | 10, 000 |  | 143 | 17,215 | 20,682 |
|  | Maryland. |  |  |  |  |  |  |
| 206 | Baltimore... | 59, 423 | 1,356, 700 |  | 4, 300 |  | 1,420, 424 |
| 207 | Cumberland.. |  |  |  |  |  |  |
| $\stackrel{208}{209}$ | Frederick. <br> Hagerstown |  |  |  |  |  |  |
|  | massachusetts. |  |  |  |  |  |  |
| 210 | Adams . . | 0 | 36,455 | 0 | 0 | 36,455 | 36,455 |
| 211 | Amesbury | 0 | 21,500 | 0 | 32 | 21,532 | 21,532 |
| 212 | Attleboro. |  | 33, 526 |  |  |  |  |
| 213 | Beverly ... | 0 | 46,000 |  | 410 | 46, 410 | 46, 110 |
| 214 | Boston. | 0 | 3, 048,047 | 0 | 42,287 | 3, 090, 334 | 3, 090,334 |
| 215 | Brockton. |  | 116, 000 |  | 1,609 | 117, 609 | 117, 610 |
| 216 | Brookline . |  | 127, 129 |  | 3,385 | 130, 514 | 130, 514 |
| 217 | Cambridge |  | 468, 887 |  | 2, 442 | 471, 329 | 471, 329 |
| 218 | Chelsea... |  | 90, 025 | 9,880 | 5,752 | 105, 657 | 140, 657 |
| 219 | Chicopeo. |  |  |  |  | 41,168 | 68, 379 |
| 220 | Clinton.... | 0 | 38,500 | 0 | 0 |  | 38,502 |
| 221 | Danvers |  |  |  |  |  |  |
| 222 | Everett*. |  |  |  |  |  |  |
| 223 | Fall River |  | $\because 09,996$ |  |  |  | 359,316 |
| 224 | Fitchburg. | 0 | 114, 174 | 0 | 258 |  | 114.432 |
| 225 | Framingham |  | 57, 675 | 1,061 | 187 | 58, 923 | 58, 923 |
| 226 | Garduer..... | 0 | 36, 650 | 1, 0 | 1,477 | 38, 127 | 78, 951 |
| 227 | Gloucester |  | 83, 060 |  |  |  | 83,060 |
| 228 | Greenfield. |  |  |  |  |  |  |
| 229 | Haverhill.. | 231 | 116, 000 | 0 | 1,597 | 117, 828 | 117, 828 |
| 230 | Holyoke* |  | 137, 146 |  |  |  | 137, 146 |
| 231 | Hyde Park. |  | 44, 500 |  |  |  | 46,940 |
| 232 | Lawrence ......... |  | 159, 779 |  | 353 | 160, 133 | 160, 133 |
| 233 | Leominster ... |  |  |  |  |  |  |
| 234 | Lowell...... | 0 | 224,000 | 0 | 6,832 | 230, 832 | 487, 413 |
| 235 | Lynn... |  | 211, 911 |  |  | 211,911 | 231, 911 |
| 236 | Malden.. |  | 185, 307 |  | 9,343 | 194, 650 | 263, 650 |
| 237 | Marlboro | 0 | 52, 500 | 0 | 218 | 52, 718 | 117,718 |
| 238 | Medford. |  | 90, 450 |  |  | 90,450 | 90,450 |
| 239 | Melrose*. |  | 29, 100 |  | 30 | 56,348 29,130 | 56,400 29,130 |
| 241 | Natick |  | 33,300 |  | 208 | 33, 508 | 29, 33,508 |
| 242 | New Bedforl. |  | 246, 131 |  | 2,823 | 248, 954 | 251, 873 |
| 243 | Newbursport | 0 | 39, 100 | 0 | 1, 820 | 40,920 | 40,920 |
| 244 | Newton...... |  | 159, 129 |  | 2, 199 | 161,328 | 161, 328 |
| 245 | North Adams |  | 161, 060 | 699 |  |  | 161.759 |
| 246 | Northampton | 0 | - 75,476 | 1,107 | 860 | 77,443 | 77, 443 |
| 247 | Peabody**... | 0 | 33,650 |  | 600 | 34, 250 | 34, 250 |
| 248 | Pittsfield.. | 0 | 77, 996 | 0 | 0 | 77,996 | 163, 287 |
| 249 | Plymouth | 0 | 32,540 93,500 | 0 | 0 |  | 34, 480 |
| 251 | Revere.. |  | 93,500 |  |  | 93,500 44,463 |  |

* Statistics of 1896-97.

TABME 11.-Statistics of receipts of public schools of cities of orer $\mathcal{S}, 000$ inhabitantsContinued.

|  | City. | Receipts for the school year 1897-98. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | -soonnos neq7o [If mosk |  |  |
|  |  | 2 | 3 | 4 | 5 | 6 | 7 |
|  | MASSACHUSETTS-continued. |  |  |  |  |  |  |
| 252 | Salem |  | \$118963 | \$1,959 | \$286 | \$121, 208 | \$121, 208 |
| 253 | Somerville | 0 | 290,400 | 0 | 0 | 290, 400 | 290, 400 |
| 25. | Southbridge | 0 | * 17, 975 |  | 331 |  | * 19, 291 |
| 255 | Spencer .... |  | 26,935 |  | 491 | 27, 426 | 27, 426 |
| 256 | Springfield |  | 494, 641 |  | 1,426 | 496, 067 | 496, 067 |
| 257 | Taunton.. | 0 | 118, 000 | 0 | 1.768 | 118, 768 | 118, 768 |
| 258 | Wakefield |  | 32, 250 |  | 1,213 | 33, 463 | 33, 463 |
| 259 | Waltham... | 0 | 71, 327 | 0 | 0 | 71, 327 | 71,327 |
| 260 | Watertown |  |  |  |  |  |  |
| 261 | Westfield........ | 0 | 52,497 | 0 | 6,254 | 58,751 | 74,005 |
| 262 | West Springfield. |  |  |  |  |  | …- |
| 263 | Weymouth....... |  | 41,375 |  | 826 | 42, 201 | 101,876 |
| 264 265 | Woburn* ${ }_{\text {Worcester }}$ |  | 51,515 |  |  | 51,515 | 51,515 |
| 265 | W orcester $\qquad$ michigan. | 0 | 503, 278 | 0 | 1,692 | 504, 971 | 504, 971 |
| 266 | Adrian | \$3, 359 | 22, 281 | 658 | 1,169 | 27, 467 | 30, 990 |
| 267 | Alpena .... | 6,463 | 15,563 | 87 |  | 22, 113 | 26, 055 |
| 268 | Ann Arbor. | 3,697 | 39, 107 | 1, -999 | 6,473 | 50,576 | 55̄,936 |
| 269 | Battle Creek |  | 55, 185 | 5,781 | 1, 072 | 62, 038 | 71, 289 |
| 270 | Bay City | 14, 019 | 72,306 |  | , 576 | 86, 901 | 93, 504 |
| 271 | Detroit. | 108, 299 | 820,686 | 38,297 | 11,430 | 978, 712 | 978, 712 |
| 272 | Escanaba | 3,564 | 7,000 | 14, 151 |  | 24,715 | 27, 015 |
| 273 | Flint - ...... | 3, 689 | 34,577 |  | 1,919 | 40,185 | 45, 259 |
| 274 | Grand Haven | 2,507 | 14,821 |  | 4,649 | 21, 977 | 34, 607 |
| 275 | Grand Rapids | 35, 262 | 357, 140 |  | 35, 541 | 327, 943 | 384, 344 |
| 276 | Holland .... | 3,435 | 18, 630 |  | 72 | 22, 137 | 30,914 |
| 277 | Iron Mounta | 3,645 | 27, 780 | 7,297 | 168 | 38, 890 | 46, 587 |
| 278 | Ironwood .. | 3, 347 | 37, 789 |  | 2,313 | 43,449 | 43, 494 |
| 379 | Ishpeming ${ }^{\star}$. | 4,787 | 42, 000 | 780 | 1,845 | 49,412 | 49, 412 |
| 280 | District No. ${ }^{*}$ | 4, 084 | 29, 077 | 5,000 | 323 | 38, 484 | 44, 801 |
| 281 | District No.17* | 3,784 | 20, 436 | 697 | 98 | 25, 015 | 27, 128 |
| 282 | Kalamazoo | 15,397 | 54,567 | 1, 224 | 11,840 | 84, 028 | 112, 249 |
| 283 | Lansing... | 5,846 | 47, 457 | 296 | -923 | 54, 522 | 86, 116 |
| 284 | Ludington |  | 33, 682 |  | 7,014 | 40, 696 | 40, 794 |
| 285 | Manistee. | 6, 949 | 41, 555 | 156 | 815 | 49, 475 | 77, 118 |
| 286 | Marquette | 4,145 | 25, 934 |  |  | 30, 079 | 32, 991 |
| 287 | Menominee | 7,959 | 34, 054 |  |  | 41, 013 | 51,949 |
| 288 | Muskegon. | 9, 070 | 56,383 | 4, 013 | 16,687 | 86, 153 | 103, 653 |
| 289 | Owosso. | 1,170 | 27, 965 | 760 |  | 29,895 | 31, 304 |
| 290 | Port Huron | 8678 | 36, 032 |  | 405 | 45,115 | 45,115 |
| 291 | Saginaw: <br> East side. | 12, 067 | 78, 324 |  | 2,704 | 93, 095 | 93, 095 |
| 292 | West side | 8,670 | 46, 458 | 271 | 1,986 | 57, 385 | 68, 631 |
| 293 | Sault Ste. Marie | 6, 000 | 22, 900 |  |  | 29, 000 | 30, 801 |
| 294 | Traverse City. | 2, 773 | 23, 063 |  | 1,064 | 26, 900 | 27, 456 |
| 295 | West Bay City . | 6,208 | 37, 330 |  |  |  | 47, 378 |
|  | MinNesota. |  |  |  |  |  |  |
| 296 | Brainerd | 5,224 | 17, 458 | 1,209 |  | 23, 891 | 23, 891 |
| 297 | Duluth* | 31, 551 | 269, 115 | 863 | 7,871 | 309, 400 | 483, 581 |
| 298 | Faribault | 3,948 |  | 17,291 | 311 | 21,550 | 25, 375 |
| 299 | Mankato |  |  |  |  |  |  |
| 300 | Minneapolis | 103, 211 | 442,946 |  | 15,932 | 562, 089 | 723, 370 |
| 301 | Red Wing.. | 1,994 |  |  | 979 | 26, 998 | 42,877 |
| 302 | St. Cloud.. | 3,215 | (22, | 5) |  | 25, 230 | 25, 280 |
| 303 | St. Paul.. |  |  |  | 9,614 | 429, 614 | 430, 332 |
| 304 | Stillwater | 6,148 |  | 35,220 | 2,061 | 43, 429 | 81, 745 |
| 305 | Winona.. | 13,064 | 51, 183 | 6,577 | 606 | 71, 430 | 93, 844 |

* Statistics of 1896-97.

TADLE 11.-Statistics of receipts of public schools of cities of over $\mathcal{S}, 000$ inhabitants--. Continued.


Table 11.-Statistics of receipts of public schools of cities of over 8,000 inhabitantsContinued.

|  | City. | Receipts for the school year 1897-98. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | From city appropria- tions or taxes. |  |  | \% |  |
|  | 1 | 9 | 3 | 4 | 5 | 6 | 7 |
|  | NEW JERSEY-continued. |  |  |  |  |  |  |
| 353 | Harrison | \$11, 000 | \$5, 000 |  |  |  | \$16,000 |
| 354 | Hoboken* | 80, 292 | 63, 176 | \$2,110 |  | \$145, 578 |  |
| 355 | Jersey City | 255, 839 | 473, 564 |  |  | 729, 403 | 948, 933 |
| 356 | Long Branch | 20,459 | a 33, 000 |  |  | 53, 459 | 60, 371 |
| 357 | Millville.. | 11,646 | 12, 354 |  | \$3, 156 | 28, 156 | 28,156 |
| 358 | Morristown | 12, 317 | 26, 434 |  | 799 | 39,550 | 41, 579 |
| 359 | Newark*.......... | 348, 206 | 246, 000 |  | 278 | 594, 484 | 901, 200 |
| 360 | New Brunswick* | b 26, 751 | 21, 386 |  | 709 | 48, 846 | 48, 846 |
| 361 | Orange. | 36,696 | 18, 098 |  | 403 | 55, 197 | 55, 818 |
| 362 | Passaic. | b 26, 331 | 42, 552 |  | 1,300 | 70, 183 | 105, 183 |
| 363 | Paterson | 121, 893 | 117, 045 |  | 912 | 239, 850 | 244, 308 |
| 364 | Perth Amboy | 13, 977 | 16, 949 |  |  | 30, 926 | 48, 926 |
| 365 | Phillipsburg | 13, 665 | 18, 680 |  | 232 | 32,578 | 34, 671 |
| 366 | Plaintield | 20, 606 | 44, 465 |  | 16, 420 | 81,491 | 83, 504 |
| 367 | Rahway.... | 10, 594 | 10, 000 |  | 1,900 | 22, 494 | 57, 494 |
| 368 369 | Town of Union | 18,733 | 22, 600 |  |  | 41, 333 | 46, 572 |
| 369 | Trenton* $\qquad$ <br> new mexico. | b85,513 | 32, 613 |  | 78,470 | 196, 596 |  |
| 370 | Albuquerque |  |  |  |  |  |  |
|  | NEW YORK. |  |  |  |  |  |  |
| 371 | Albany | 46, 261 | 228, 535 |  | 3, 060 | 277, 856 | 374, 075 |
| 372 | Amsterdam | 8, 925 | 40, 280 | ,-..... | 1,534 | 50, 739 | 53, 454 |
| 373 | Auburn | 15, 734 | 70, 079 |  | 954 | 86,767 | 99, 148 |
| 374 | Batavia | 27, 146 | - | 0 | 1,577 | 28, 723 | 35, 225 |
| 375 | Binghamton | 25, 878 | 123, 264 |  | 1,269 | 150, 411 | 150, 997 |
| 376 | Buffalo.. | 161, 414 | 1, 071, 171 |  | 397 | 1, 232, 982 | 1, 764, 543 |
| 377 | Cohoes* | 10,583 | 34, 801 |  | 219 | 45, 603 | 47, 319 |
| 378 | Corning. | 5,348 | 23, 570 | 0 | 349 | 29, 267 | 30, 504 |
| 379 | Cortland | 4, 055 | 12,900 |  | 839 | 17, 794 | 19, 600 |
| 380 | Dunkirl | 7,105 | 33, 782 |  | 645 | 41,532 | 59,373 |
| 381 | Elmira. | 20, 355 | 86, 500 |  | 2, 106 | 108, 961 | 129, 374 |
| 382 | Genera | 7,976 | 27,370 | 0 | 501 | 35, 847 | 47, 964 |
| 383 | Glens Falls | 5, 115 | 25, 499 |  | 7,756 | 38, 370 | 54, 892 |
| 384 | Glovers ville* | 8, 831 | 35, 025 |  | 352 | 44, 208 | 49, 712 |
| 385 | Horuellsville* | 8,015 | 30, 372 | --.... | 301 | 38, 688 | 38, 688 |
| 386 | Hudson | 4,856 | 12, 000 |  | 1,935 | 18,791 | 30, 147 |
| 387 | Ithaca | 9,159 | 30, 800 |  | 4,351 | 44, 310 | 46,561 |
| 388 | Jamestown | 13, 980 | ${ }_{64,897}$ |  | 7,005. | 85, 882 | 85, 882 |
| 389 | Johnston.. | 5, 874 | 27,957 | 0 | 205 | 34, 036 | 36, 926 |
| 390 | Kingston school distri | 7,484 | 34, 855 | 0 | 1, 025 | 43,364 | 46, 370 |
| 391 | Dist. No. 2* | 3,342 | 14, 484 |  | 593 | 18, 419 | 19,685 |
| 392 | Dist. No.3. | ], 625 | 13, 105 |  |  | 14, 730 | 20, 257 |
| 393 | Dist. No. 4 | 1,101 |  | 6,311 | 30 | 7,442 | 7, 895 |
| 394 | Lansingburg | 8, 143 | 37, 683 |  | 72 | 45, 898 | 86, 336 |
| 395 396 | Little Falls* | 5, 049 | 20, 456 | 0 | 356 | 25, 871 | 25. 871 |
| 396 397 | Lockport". | 10,783 | 43, 436 |  | 15, 504 | 69, 723 | 77, 158 |
| 398 | Middleton | 7,654 | 31,875 | 0 | 1,185 | 40, 714 | 84, 270 |
| 399 | Mount Vern | 1,021 | 104, 249 |  | 3,407 | 108, 677 | 233, 999 |
| 400 | Newburgh | 12, 844 | $\begin{array}{r}72,087 \\ 67 \\ \hline 809\end{array}$ | 0 | 3,113 | 88, 044 | 88, 484 |
| 402 | New Rocherk. | 8,267 | 67, 809 | 1,179 |  | 77, 255 | $\begin{array}{r} 188,173 \\ 16,028,802 \end{array}$ |
| 403 | Niagara Falls | 8,324 | 53, 433 | 1,233 |  | 62, 990 | 99, 360 |
| 404 | North Tonawanda | 6,809 | 29, 177 |  | 112 | 36, 098 | 36, 098 |
| 405 | Ogdensburg* | 7, 666 | 19, 258 |  | 1, 077 | 28, 001 | 35,537 |
| 406 407 | Olean ....... | 6, 991 11,962 | 39,250 55,000 | 0 | 1,814 1,108 | 48,085 68,070 | 59,863 68,070 |
|  | * Statistics of 1896-97. | $a$ Dis | ict taxes. |  | and | ts taxes | - |

Tabria 11. -Statistics of receipts of public schools of cities of orer S,000 inhabitantsContinued.


Table: 11.-Statistics of receipts of public schools of cities of over 3,000 inhabitantsContinued.

|  |  | Receipts for the school year 1897-98. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | City. |  | From city appropria. tions or taxes. |  |  | - |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|  | OHO-continued. |  |  |  |  |  |  |
| 461 | Marietta | \$5, 023 | \$34, 285 |  | \$374 | \$39,682 | \$39, 682 |
| 462 | Marion * ....... |  |  |  |  |  | 55, 296 |
| 463 464 | Martins Ferry Massillon | 3,360 |  | \$20, 937 | 926 | 25, 223 | 31,576 50,634 |
| 465 | Middletown*. |  |  |  |  |  |  |
| 466 | Mt. Vernon. | 2, 891 | 16,711 |  | 1,336 | 20,938 | 27,952 |
| 467 | Nelsonville | 2,528 | 13,771 |  | 819 | 17, 118 | 28,573 |
| 468 | Newark. | 6,890 | 43, 027 |  | 529 | 50, 446 | 80,939 |
| 469 | Norwalk | 3,126 | 22, 927 |  | 691 | 26, 744 | 43, 834 |
| 470 | Piqua. | 6, 523 | 33, 667 |  |  | 40, 190 | 49,501 |
| 471 | Portsmouth ${ }^{\text {+ }}$ | 6, 864 | 32, 396 |  | 910 | 40, 170 | 73,229 |
| 472 | Salem. | 2,929 | 25, 330 |  | 1,580 | 29,839 | 54, 832 |
| 473 | Sandusky* | 4, 402 | 24, 012 |  | 527 | 28, 941 | 55, 261 |
| 474 | Springiold. | 14, 163 | 95, 961 | 312 | 722 | 111, 161 | 141, 909 |
| 475 | Stenbenville | 6,790 | 30,476 |  | 807 | 38, 073 | 60, 365 |
| 476 | Tiffin* | 4,932 |  | 28, 859 |  | 33, 791 | 49, 103 |
| 477 | Toledo. | 26, 009 | 244,313 | ....... | 2,495 | 272, 817 | 1, 001, 125 |
| 479 | Warren. | 4,089 | 25, 45 |  |  | 30,387 | 52, 422 |
| 480 | Wellston. | 19, 405 |  |  | 46 | 19,451 | 35, 844 |
| 481 | Xenia. |  |  |  |  |  |  |
| 482 | Youngstown | 18, 057 | 109, 023 |  | 1,190 | 128,270 | 209, 792 |
| 483 | Zanesville |  |  |  |  |  |  |
|  | oklahoma. |  |  |  |  |  |  |
| 484 | Oklahoma City | 1, 108 | 701 | 10,606 |  | 12,415 | 12,415 |
| 485 | Astoria* | 1,982 | 10, 090 | 10,230 | 138 | 22, 340 | 36, 892 |
| 486 | Portland | 20,316 |  | 242, 099 | 1,503 | 263, 918 | 411, 522 |
| 487 | Salem*.. | 3,003 | 11,511 | 11,517 | 38 | 26, 099 | 41,790 |
|  | Pennsylyania. |  |  |  |  |  |  |
| 488 | Allegheny | 97, 619 | 357, 533 |  | 28, 133 | 483, 284 | 871, 842 |
| 489 | Allentown | 33, 459 | 87, 246 | 727 | 322 | 121, 754 | 136, 747 |
| 490 | Altoona | 31, 035 | 92,793 | 0 | 929 | 124,757 | 148,495 |
| 491 | Beaver Falls | 8,879 | 18,961 |  | 970 | 28, 810 | 37, 256 |
| 492 | Traddock | 10, 175 | 52, 170 | 277 | 197 | 62, 819 | 62, 820 |
| 493 | Bradford | 11,785 | 43, 253 |  | 703 | 55, 741 | 101, 170 |
| 494 | Butler. | 9, 904 | 28,115 | 22 | 666 | 38,707 | 56, 842 |
| 495 | Carbondale | 12,504 | 28,475 |  | 240 | 41, 219 | 53, 952 |
| 496 | Carlisle | 10, 768 | 13, 125 |  | 196 | 24, 089 | 46, 404 |
| 497 | Chambersburg | 8,472 | 12,531 |  | 395 | 21, 398 | 21, 398 |
| 498 | Chester... | 22,088 | 54, 877 |  |  | 76, 965 | 143,786 |
| 499 | Columbia. | 11, 027 | 19,474 | 0 | 305 | 30, 806 | 30, 806 |
| 500 501 | Connellsville |  | 11,361 |  | 29 | 19,121 | 20,193 |
| 502 | Dunmore ${ }^{\text {* }}$ | 9,619 | 19,574 | 179 | 23 | 29,395 | 32,379 |
| 503 | Easton | 15, 957 | 62, 639 | 1,291 | 80 | 79,967 | 84, 984 |
| 504 | Erie. | 39, 642 | 149, 647 | 188 | 1,459 | 190, 927 | 296, 945 |
| 505 | Harrisburg | 37, 163 | 142, 990 |  | 49. | 180, 649 | 201, 913 |
| 506 | Hazelton -.... | 10,814 | 36,759 |  | 957 | 48,530 | 52,099 34,311 |
| 507 508 | Homestead ${ }^{*}$.. | 5,653 21,575 |  |  | 1,481 | 79,984 | 34,311 184,723 |
| 509 | Lancaster. | 34,745 | 64, 858 | 2,288 | 1,374 | 102, 265 | 112, 832 |
| 510 | Lebanon | 14,307 | 29,417 |  | 237 | 43,961 | 55, 427 |
| 511 | Lock Haven*. |  |  |  |  |  |  |
| 512 | McKeesport. | 19,985 | 68, 694 |  | 3,121 | ${ }^{91,800}$ |  |
| 513 | Mahanoy City. | 15, 271 | 14, 089 |  | -167 | 29,527 | 38, 096 |
| 514 | Meadville .... | 11,392 | 27, 483 |  | 2,078 | 40, 953 | 46, 023 |

* Statistics of 189697.

Trble 11. - Shatistics of receipts of public schools of cities of over S, NOD inhabitantsContinued.


TAble 11.-Statistics of receipts of public schools of citics of over $\mathcal{S}$, oco inhabitantsContinued.


Table 11.-Statistics of receipts of public schools of cities of oier $\mathcal{S}, 000$ inhabitantsContinued.


[^125]Tanle 12.-Statistics of expenditures of public schools of cities of over 8,000 inhabitants.


Table 12.-Statistics of expenditures of public schools of cilies of over 8,000 inhabitants-Continued.


[^126]Table 12.-Statistics of expenditures of public schools of cities of over 8,000 inhabitantsContinuer.

|  | City. | Expenditures for the school year 1897-98. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Permanent investments and lasting improvements. | Teaching and supervision. | Current and incidental expenses. | Evéning schools. | Total. |
|  | 1 | 2 | 3 | 4 | 5 | 6 |
|  | ILlinois-continued. |  |  |  |  |  |
| 109 | Springfield | \$39, 866 | \$60, 843 | \$15, 395 | 0 | \$136, 104 |
| 110 | Sterling: <br> Lincoln schools* | 11 | 1, 722 | 327 | 0 | 2, 060 |
| 111 | Sterling schools | 683 | 9,348 | 2,312 |  | 12, 343 |
| 112 | Wallace schools |  |  |  |  |  |
| 113 | Streator....... | 22,000 | 16,936 | 11, 665 |  | 50, 601 |
|  | indiana. |  |  |  |  |  |
| 114 | Anderson... | 26, 646 | 36, 985 | 8, 721 | 0 | 72, 352 |
| 115 | Bloomington | 1, 600 | 12, 240 | 1,300 | 0 | 15, 140 |
| 116 | Brazil.... | 309 | 10,987 | 4, 812 |  | 16, 108 |
| 117 | Columbus |  | 18, 243 | 7, 787 |  | 26, 030 |
| 118 | Crawfords ville |  | 20, 000 | 7, 000 |  | 27, 000 |
| 119 | Elkhart..... | 7,000 | 25, 213 | 3, 901 |  | 36, 114 |
| 120 | Evansville | 25,275 | 120, 990 | 35, 446 | \$604 | 182, 315 |
| 121 | Fort Wayne | 6, 858 | 75, 743 | 15, 728 | .......... | 98, 329 |
| 122 | Frankfort . . |  | 19,278 | 5,534 |  | 24,812 |
| 123 | Goshen ...... |  |  |  |  |  |
| 124 | Hammond | 3,000 | 21, 218 | 8,257 |  | 32,475 |
| 125 | Huntington. |  | 23, 690 |  | 0 | 58, 348 |
| 126 | Indianapolis. | 39,008 | 374, 357 | 169, 362 | 1,132 | 583, 859 |
| 127 | Jeffersonville |  | 20, 601 | 6,904 |  | 27, 505 |
| 128 | Kokomo | 14, 082 | 23, 365 | 4,720 | -...-. | 42,167 |
| 129 | Lafayette | 10,910 | 44, 005 | 12, 011 |  | 66, 926 |
| 130 | Laporte..... | - 0 | 19, 223 | 11, 316 |  | 30, 539 |
| 131 | Logansport* | 1,100 | 31,572 | 14, 160 | 0 | 46,832 |
| 132 | Madison... <br> Marion | 1,066 | 35,095 | 11,582 |  | 47,743 |
| 134 | Michigan City |  | 35, 05 | 11,58 |  | 4,743 |
| 135 | Muncie ${ }^{*}$...... | 4, 210 | 40,014 | 10, 233 | 0 | 54, 517 |
| 136 | New Albany | 0 | 36, 263 | 11,504 | 0 | 47, 767 |
| 137 | Peru......... |  | 16, 777 |  |  | 26, 273 |
| 138 | Richmond | 12,000 | 46, 319 | 27,774 |  | 86, 093 |
| 139 | Shelbyville |  | 18, 259 | 4,328 |  | 22,587 |
| 140 | South Bend* | 25,071 | 43, 842 | 10, 827 | 130 | 79, 870 |
| 141 | Terre Haute. | 7,062 | 97, 223 | 31, 275 | 0 | 135, 560 |
| 142 | Valparaiso |  | 14, 640 |  |  | 20, 570 |
| 143 | Vincennes ... | 24,000 | 15, 16ł | 7,218 | 0 | 46,382 |
| 144 | Wabash ..... |  |  |  |  |  |
| 145 | Washiigton. | 50, 000 |  |  |  |  |
|  | IOWA. |  |  |  | . |  |
| 146 | Boone.. |  | 22,000 |  |  | 39, 000 |
| 147 | Burlington | 16, 486 | 64, 050 | 18,316 |  | 98, 852 |
| 148 | Cedar Rapids | 9,200 | 53, 300 | 27, 400 | 0 | 89, 900 |
| 149 | Clinton | 2,192 | 38, 976 | 19, 341 |  | 60, 509 |
| 150 | Council Blafis | 0 | 60, 095 | 31,856 |  | 91, 951 |
| 151 | Creston..... |  | 18,120 | 8, 054 |  | 26, 174 |
| 152 | Davenport... | 40,815 | 82, 919 | 29,098 |  | 752, 742 |
| 153 | Des Moines: North side |  | 19,712 | 10,450 |  | 30, 162 |
| 154 | East side. | 4,903 | 46, 020 | 25,490 | 0 | 76,413 |
| 155 | West side* |  | 82, 996 | 30, 997 | 350 | 114, 343 |
| 156 | Dubuque... | 5, 527 | 64, 021 | 26,544 | 0 | 96, 092 |
| 157 | Fort Dodge... | 40,000 | 16, 000 | 5,800 |  | 61, 800 |
| 158 | Fort Madison |  | 13, 829 | 7,428 |  | 21, 257 |
| 159 | Iowa City* |  | 20,302 | 11, 281 | 0 | 31, 583 |
| 160 | Keokuk**..... | 4,403 | 28, 000 |  |  | 45,510 |
| 161 | Marshalltown Muscatine. | 2, $\begin{array}{r}0 \\ \hline\end{array}$ | 29,768 30,912 | 15,986 17,329 | 0 | 45,754 51,141 |
| 163 | Oskaloosa* | 2, 900 | 30,912 21,000 | 17,329 | 0 | 51,141 35,475 |
| 164 | Ottumwa* . |  | 40, 000 |  |  | 59,870 |
| 165 | Sioux City. |  | 77, 213 | 43, 090 |  | 120,303 |
| 166 | Waterloo: East side*. |  | 13,000 |  |  | 20,336 |
| 167 | West side. | .-.-.-...... | 10, 482 | 4,822 |  | 15,304 |

*Statistics of 1896-97.

Table 12.-Statistics of expenditures of public schools of cities of orer $\mathcal{S}, 000$ iuhabitantsContinued.

|  | City. | Expenditures for the school year 1897-98. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Permanent investments and lasting improvements. | ```Teaching and supervi- sion.``` | Current and incidental expenses. | Evening schools. | Total. |
|  | 1 | 2 | 3 | 4 | 5 | 6 |
|  | Kavsas. |  |  |  |  |  |
| 168 | Arkansas City. |  |  |  |  |  |
| 169 | Atchison .... | 0 | \$20, 145 | \$10, 214 | 0 | \$30, 359 |
| 170 | Emporia. | \$2, 800 | 22, 008 | 9, 822 |  | 34, 630 |
| 171 | Fort Scott | - 0 | 19,439 | 6,877 |  | 26, 316 |
| 172 | Hutchinson. |  | 17,755 | 4, 966 | 0 | 28,839 |
| 173 | Kansas City |  | 80,042 | 36, 243 |  | 129,489 |
| 174 | Lawrence... |  | 22, 700 | 3,000 |  | 25, 700 |
| 175 | Leavenworth | 10, 200 | 37,830 | 11, 7.42 |  | 59, 772 |
| 176 | Ottawa | 630 | 15,389 | 4, 214 | 0 | 20, 233 |
| 177 | Parsons* | 65 | 18, 256 | 2, 222 | 0 | 20, 543 |
| 178 | Pittsburg |  | 15, 615 | 4,459 | 0 | 20, 074 |
| 179 | Topeka... |  | 71, 719 | 39,501 | 0 | 111, 220 |
| 180 | Wichita | 0 | 43,853 | 24, 219 | 0 | 68, 072 |
|  | kentecky. |  |  |  |  |  |
| 181 | Bowling Green* |  | 12, 704 | 2,692 | 0 | 15, 396 |
| 182 | Covington* | 10, 605 | 75, 290 | 7,642 | 0 | 93, 537 |
| 183 | Frankfort (white schools) | 2, 500 | 10, 157 | 2, 054 | 0 | 14, 711 |
| 184 | Frankfort (colored schools) | 125 | 3,789 | 859 | \$50 | 4, 823 |
| 185 | Henderson.... |  | 14, 600 | 2,500 |  | 17, 100 |
| 186 | Hopkinsville. | 450 |  |  |  |  |
| 188 | Louisville . | 61, 043 | 403, 878 | 89, 148 | 8,841 | 662, 916 |
| 189 | Maysville* |  | 12, 700 | 2,008 |  | 14,708 |
| 190 | Newport* | 4, 041 | 41, 143 | 7, 813 | 0 | 52, 997 |
| 191 | Owensboro | 6, 250 | 21, 541 | 2, 528 | 0 | 30,319 |
| 192 | Paducah. | 10,646 | 25, 008 | 6, 027 |  | 41,681 |
|  | louistina. |  |  |  |  |  |
| 193 | Baton Rouge |  |  |  |  |  |
| 194 | New Orleans | 12, 000 | 321, 108 | 64, 892 |  | 398, 000 |
| 195 | Shreveport | 12, | 16, 950 |  |  | 18, 000 |
|  | A ${ }^{\text {aburn }}$ |  |  |  |  |  |
| 197 | Angusta. | 12, 169 | 19,089 | 10,574 |  | 41. 832 |
| 198. | Bangor |  | 38,950 | 16, 128 |  | 55, 078 |
| 199 | Bath. |  | 20,795 | 6, 266 |  | 27, 061 |
| 200 | Biddeford |  | 25, 006 | 5, 723 | 630 | 31, 409 |
| 201 | Calais | 0 | 12, 476 | 2,573 |  | 15, 049 |
| 202 | Lewiston |  | 31, 711 | 12,970 | 1,576 | 47, 537 |
| 203 | Portland. | 31, 190 | 87,755 | 34, 781 | 1,473 | 155, 199 |
| 204 | Rockland | 2,723 | 14, $7 \pm 7$ | 3,247 |  | 20, 717 |
| 205 | Waterville |  | 13, 371 | 7,311 |  | 20,682 |
|  | mapyland. |  |  |  |  |  |
| 206 | Baltimore. | 85,000 | 993, 762 | 303, 795 | 9,749 | 1,392, 3 ®6 |
| 207. | Cumberland ... |  |  |  |  |  |
| 208 | Frederick.... |  |  |  |  |  |
| 209 | Hagerstowц |  |  |  |  |  |
|  | massachusetts. |  | . |  |  |  |
| 21.0 | Adams .... | 1,375 | 24, 000 | 11,080 |  | 26, 455 |
| 211 | Amesburg | 1,219 | 16, 601 | 6, 900 | 0 | 24, 720 |
| 212 | Attleboro. |  | 21,793 | 9, 922 |  | 31, 720 |
| 213 | Beverly.. | 6,160 | 27, 332 | 12, 708 | 166 | 46,366 |
| 214 | Boston... | 605, 887 | 1, 761, 665 | 658, 913 | 63, 809 | 3, 090, 334 |
| 215 | Brockton | 12,500 | 193,667 | 37, 193 |  | 143, 360 |
| 216 | Brookline. | 5, 250 | 89, 499 | 34,787 | 978 | 130, 514 |
| 217 | Cambridge. | 137, 188 | 255, 398 | 74, 322 | ¢ ${ }^{4}, 421$ | 471, 329 |
| 218 | Chelsea. | 35,000 | 79, 800 | 24, 559 | 1,283 | 140, 642 |
| 219 | Chicopee | 19, 960 | 28,125 | 11, 252 | 1, 781 | 61,128 |
| 220 | Clinton. | 0 | 25, 263 | 12,657 | 573 | 38, 498. |

* Statistics of ${ }^{\text {1 }} 1896-97$.

Table 12.-Statistics of expenditures of public schools of cities of orer $\mathcal{S}, 000$ inhabitantsContinued.

|  | City. | Expenditures for the school year 1897-98. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Permanent investments and lasting improvements. | ```Teaching and supervi- sion.``` | Current <br> and incidental expenses. | Erening schools. | 'Total. |
|  | 1 | $\pm$ | 3 | 1 | 5 | 6 |
|  | massachicsett 3 - continued. |  |  |  |  |  |
| 221 | Danvers |  | \$20,513 |  |  | \$29, 762 |
| 222 | Everett* | \$39,506 |  |  |  | 119,541 |
| 223 | Fall River | 96, 822 | 181, 250 | \$71, 432 |  | 349, 504 |
| 224 | Fitchbury | 1,516 | 82, 317 | 27, 551 | \$3, 048 | 114,432 |
| 225 | Framingham | 12, 000 | 30, 278 | 15,407 | 1,196 | 58, 881 |
| 226 | Garduer .... | 38, 321 | 22, 230 | 11,794 | 443 | 72,788 |
| 227 | Gloucester. | 7,000 | 54,953 | 21, 107 |  | 83, 060 |
| 228 | Greenfield. |  | 21, 338 |  |  | 32, 268 |
| 229 | Haverhill. |  | 85, 774 | 22,983 | 2, 389 | 116,936 |
| 230 | Holyoke* | 4,039 | 99,662 | 30, 033 | 3,412 | 137, 146 |
| 231 | Hyde Park | 800 | 32, 247 | 12,303 | 690 | 46, 040 |
| 232 | Lawrence. | 36,529 | 120, 450 | 43, 646 | 6,151 | 206, 776 |
| 233 | Leominster* | ${ }^{608}$ |  |  |  | 35, 218 |
| 234 | Lowell. | 126, 870 | 195, 440 | 107, 107 | 23, 369 | 452, 786 |
| 235 | Lynn |  | 167, 893 | 62,566 | 1, 452 | 231, 911 |
| 236 | Malden. | 27, 270 | 104, 628 | 51, 692 | 3, 805 | 187,395 |
| 237 | Marlboro | 24,448 | 37, 590 | 15,380 | 487 | 77, 905 |
| 238 | Medford |  | 60,947 | 28, 208 | 931 | 90, 086 |
| 239 | Melrose |  | $36,25^{\circ}$ | 19, 166 | 0 | 55,418 |
| 240 | Milford | 1,000 | 20, 144 | 7,986 |  | 29, 130 |
| 241 | Natick |  | 23, 410 | 9,842 | 253 | 33,505 |
| 242 | New Bedford | 64, 804 | 113, 069 | 53, 808 | 4,952 | 236,633 |
| 243 | Newburyport | 10,400 | 24, 409 | 5, 838 | 273 | 40, 920 |
| 244 | Newton...... | 9,320 | 129,514 | 37, 361 | 874 | 177,072 |
| 245 | North Adams. | 101, 229 | 43, 75 a | 15, 112 | 1,663 | 161,759 |
| 246 | Northampton | 22,800 | 38, 079 | 15,647 | 917 | 77, 443 |
| 247 | Peabody*... | - 0 | 25, 782 | 9,281 | - 0 | 35, 063 |
| 248 | Pittsfield. | 66,212 | 52, 044 | 33, 837 | 1, 194 | 153, 287 |
| 249 | Plymouth | 974 | 24, 833 | 8,632 | , 0 | 34, 439 |
| 250 | Quincy |  | 69,331 | 22.654 | 1,515 | 93,500 |
| 251 | Revcre. | 48,000 | 31, 000 | 11,643 | 0 | 90,643 |
| 252 | Salem.. | 8, 020 | 83,291 | 27, 119 | 2, 778 | 121, 208 |
| 253 | Somerville | 46, 621 | 176,575 | 63,40.3 | 3, 801 | 290, 400 |
| 254 | Southbridge | 27, 248 | 14,345 | 4,321 | 634 | 46,548 |
| 255 | Spencer..... |  | 18, 133 | 8,957 | 378 | 27, 468 |
| 256 | Springtield | 244,312 | 175, 179 | 68, 826 | 5, 654 | 493, 971 |
| 257 | Taunton.. | 16,300 | 73, 084 | 26,373 | 1,557 | 117,314 |
| 258 | Wakefield |  | 28, 634 |  |  | * 32, 051 |
| 259 | Waltham.. | 17, 379 | 55, 312 | 20,732 |  | 93, 423 |
| 260 | Watertown |  | 23, 669 | -1 |  | 35, 003 |
| 261 | Westfield ....... | 12,448 | 40,583 | 8.981 | 190 | 62, 202 |
| 262 | West Springfield |  | -21, 263 |  |  | 30, 413 |
| 263 | Weymouth ...... | 50,000 | 31, 744 | 9,686 |  | 91, 430 |
| 264 | Woburn*.. | 9,326 173,752 | 38,982 | 10, 189 | -554 | 59, 051 |
| 265 | Worcester | 173, 752 | 331, 289 | 146,537 | 14, 048 | 695, 626 |
|  | michigan. |  |  |  |  |  |
| 266 | Adrian | 2,539 | 17, 648 | 8, 756 |  | 28, 943 |
| 267 | Alpena .... |  | 15,917 | 5, 499 |  | 21, 416 |
| 268 | Ann Arbor | 2,072 | 35,557 | 16,307 | 0 | 53, 936 |
| 269 | Battle Creek |  | 35, 250 | 15, 624 | 0 | 50, 874 |
| 270 | Bay City. | 2,500 | 52, 296 | 24, 620 | 0 | 79,416 |
| 271 | Detroit.. | 129,539 | 538, 129 | - 149,660 | 12,371 | 829, 699 |
| 272 | Escanaba |  | 13, 572 | 11, 982 |  | 25, 554 |
| 273 | Flint - . |  | 25,871 | 14,214 | 202 | 40, 287 |
| 274 | Grand Haven. | 4,596 | 11,560 | 5,341 |  | 21, 497 |
| 275 | Grand Rapids. | 21, 904 | 194, 655 | 77, 275 | 0 | 293, 834 |
| 276 | Holland......... | 3,382 | 12,956 | 9,131 15,546 |  | 25, 469 |
| 277 | Iron Mountain | 961 | 19,590 | 15,546 11,570 | 0 | 36,097 33,231 |
| 279 | Ironwood... | 6,829 | 21, 28, 217 | 11,570 13,267 | (a) 0 | 33,231 48,912 |
|  | Jackson: | 6,820 | 28, 81 | 13,267 | (a) | 48, |
| 280 | District No. $1^{*}$ - | 5,000 | 28,592 | 11, 209 |  | 44, 801 |
| 281 | District No.17* |  | 14, 790 | 10, 033 | 0 | 24, 823 |
| 282 | Kalamazoo | 48, 952 | 41, 354 | 17, 102 |  | 107, 409 |
| 283 | Lansing ... | 1, 164 | 33, 889 | 17, 326 | 0 | 52, 379 |
| 284 | Lndington. | 1723 | 16,368 | 21, 417 |  | 38,508 |
| 285 | Manistee. | 8,331 | 33, 171 | 12, 527 | 0 | 54, 029 |
| 286 | Marquette.. | 425 | 21,460 | 8,188 | 0 | 30,073 |

* Statistics of 1896-97. a The accounts of evening schools are not kept separate.

Table 12.-Statistics of expenditures of public schools of cities of over 8,000 inhabitantsContinued.

|  | City. | Expenditures for the school year 1897-98. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Permanent investments and lasting improvements. | ```Teaching and supervi- sion.``` | Current and incidental oxpenses. | Evening schools. | Total. |
|  |  | ${ }^{2}$ | 3 | 4 | 5 | 6 |
|  | michigan- continued. |  | , |  |  |  |
| 287 | Menominee | \$8, 241 | \$27, 364 | \$11,373 |  | \$46, 978: |
| 288 | Muskegon | 10, 125 | 42,836 | 21,780 | 0 | 74, 741 |
| 289 | Owosso.. | 0 | 17, 470 | 12,426 | 0 | 29, 896: |
| 290 | Port Huron |  | 32,505 | 13,790 |  | 46, 295 |
| 291 | Saginaw: <br> East side | 277 | 67, 837 | 23, 301 | 0 | 91, 415 |
| 292 | West side. | 8,321 | 37, 755 | 14,476 | 0 | 60,552 |
| 293 | Sault Sainte Marie | 0 | 17, 800 | 9, 100 |  | 26, 900 |
| 294 | Traverse City. | 2, 438 | 18,700 | 6, 296 |  | 27, 434 |
| 295 | West Bay City |  | * 31,780 |  |  | * 45, 332 |
|  | minnesota. |  |  |  |  |  |
| 296 | Brainerd. | 212 | 15,710 | 7,969 |  | 23, 892. |
| 297 | Duluth * | 31,995 | 161, 750 | 71, 909 | (a) | 265, 654 |
| 298 | Faribault.... |  | 15, 394 | 7,123 |  | 22,522 |
| 299 | Mankato |  |  |  |  |  |
| 300 | Minneapolis. | 44,036 | 476, 794 | 142, 744 |  | 663,574 |
| 301 | Red Wing .. | 14,532 | 21, 445 | 5, 187 | 0 | 41, 164 |
| 302 | St. Cloud | 0 | 18, 000 | 5, 280 | 0 | 23, 280 |
| 303 | St. Paul. | 7,514 | 329, 062 | 93, 756 | . ........ | 430, 332 |
| 304 | Stillwater | 14, 613 | 28,517 | 26,629 |  | 69, 759 |
| 305 | Winona. | 3, 739 | 47,060 | 16,482 |  | 67,281. |
|  | MISSISSIPPI. |  |  |  |  |  |
| 306 | Columbus. | 400 | 8,310 | 250 |  | 9, 060 |
| 307 | Jackson*. | 500 | 10, 000 | 3,000 | 0 | 13,500 |
| 308 | Meridian .. |  | 16,359 | 940 | 0 | 17, 299 |
| 309 | Natchez*... |  | 11,929 | 857 |  | 12,786 |
| 310 | Vicksburg* |  | 12,942 |  |  | 23,325 |
|  | MISSOURI. |  |  |  |  |  |
| 311 | Carthage | 1,867 | 19,385 | 7, 977 |  | 29, 229 |
| 312 | Chillicothe |  | 11,857 | 1,800 | 0 | 13,657 |
| 313 | Clinton ${ }^{*}$. | 2,697 | 13,315 | 4, 88.2 | 0 | 20, 891 |
| 314 | Hannibal.. |  | 26,614 | 8,501 |  | 35, 115: |
| 315 | Independence. |  | 14, 523 |  |  | 25, 649 |
| 316 | Jefterson City |  | -9,520 | 3, 743 | 0 | 13, 263 |
| 317 | Joplin ........ |  | * 25, 399 | * 12,049 |  | 38, 760 |
| 318 | Kansas City | 88, 246 | 316,629 | 193,844 |  | 598, 719 |
| 319 | Moberly *.. | 1,810 | 15, 138 | 5,915 | 0 | 22,863 |
| 320 | Nevada ....- |  | 14,400 | 2,460 |  | 16,860 |
| 321 | St. Charles* | 24,381 | 7,760 | 1,968 | 0 | 34, 109 |
| 322 | St. Joseph - | 4,662 | 98, 522 | 23, 568 | 0 | 126, 752 |
| 323 | St. Louis. | 147, 992 | 991, 476 | 323, 871 | \$8, 882 | 1, 472, 224 |
| 324 | Sedalia | 14, 758 | 34,119 | 52, 110 |  | 100, 987 |
| 325 | Springfield | 2, 065 | 26,945 | 14,824 |  | 43, 834 |
| 326 | Trenton ... |  | 11, 030 |  |  | 17, 858 |
| 327 | WFobb City |  | 9,885 | 6,816 |  | 16,702 |
|  | montana. |  |  |  |  |  |
| 328 | Butte* |  | 63, 813 |  | 0 | 158, 917 |
| 329 | Great Falls | 2,500 | 30, 000 | 23, 900 |  | 56, 400 |
| 330 | Helona. | 439 | 36, 400 | 29,326 |  | 66, 165. |
|  | NEBRASKA. |  |  |  |  |  |
| 331 | Beatrice.. |  | 18,599 | 7, 261 |  | $25,860$ |
| 332 | Tremont...... |  | 17, 798 |  |  | 25, 502. |
| 333 | Grand Island.. |  | 19,427 | 10, 199 | 0 | 29, 626 |
| 334 | Hastings |  | 17,907 | 4,308 | 0 | 22, 215 |
| 335 | Kearney |  | 11,305 | 16,167 | 0 | 27, 472. |
| 336 | Lincoln....... | 34, 453 | 73, 225 | 36,856 |  | 144, 534 |
| 337 | Nebraska City |  | 17, 228 |  |  | 23, 187 |
| 338 | Oraha ....... | 33,800 | 248,936 | 141, 942 |  | 424, 678: |
| 339 | Plattsmouth.. |  | 9,820 |  |  | 13, 972 |
| 310 | South Omaha. | 17,830 | 32,990 | 13, 679 | 0 | 64,49 |

* Statistics of 1896-97. a The accounts of evening schools are not kept separate.

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Table 12.-Statistics of expenditures of public schools of cities of orer 8,000 inhabitantsContinued.

|  | City. | Expenditures for the school year 1897-98. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Permanent investments and lasting improvements. | Teaching and supervision. | Current and incidental expenses. | Evening schools. | Total. |
|  | 且 | 3 | 8 | 4 | 5 | 6 |
|  | NEW MAMPSHIRE. |  |  |  |  |  |
| 341 | Concord (Union district) |  | \$33, 216 | \$16, 797 |  | \$50, 013 |
| 342 | Dorer . ................... | \$2, 663 | 23, 649 | 7,682 | \$345 | 34, 339 |
| 343 | Keene (Union district) | 4,611 | 14, 048 | 6,212 | 179 | 25, 050 |
| 344 | Laconia ....... |  | 22, 000 |  |  | 23, 000 |
| 345 | Manchester** | 7,693 | 72, 839 |  |  | 105,960 |
| 346 | Nashua...... | - 0 | 43, 317 | 19,331 | 0 | 62, 648 |
| 347 | Portsmouth** | 4,000 | 25, 766 | 7,443 | 0 | 37, 203 |
|  | NEW JERSEY. |  |  |  |  |  |
| 348 | Atlantic City |  | 35, 086 | 37, 181 | - 0 | 62, 267 |
| 349 | Bayonne..... | 9,939 | 64, 205 | 30, 171 | 2, 450 | 106, 765 |
| 350 | Bridgeton* |  | 18, 807 | 6,496 | 0 | 25, 303 |
| 351 | Camden... | 52, 350 | 130, 000 | 60,379 | 0 | 242, 729 |
| 352 | Elizabeth* |  | 65, 696 |  |  | 142, 782 |
| 353 | Harrison |  | 11, 000 | 4,400 | 600 | 16, 000 |
| $35 \frac{1}{5}$ | Hoboken* |  | 104, 532 |  | 1,240 | 156,167 |
| 355 | Jersey City. | 213, 386 | 327, 291 | 91, 957 | 7,476 | 640, 110 |
| 356 | Long Branch * | 5,430 | 31,928 | 18, 113 |  | 55, 471 |
| 357 | Millville..... | 1,521 | 19,589 | 3,919 | 185 | 25, 214 |
| 358 | Morristown | 4,527 | 19, 754 | 6, 800 |  | 31, 081 |
| 359 | Newark*... | 152, 806 | 428,581 | 142, 057 | 28,342 | 751, 786 |
| 360 | New Brunswick* |  | 31, 8:8 |  | 3,585 | 42, 662 |
| 361 | Orange | 4,874 | 34, 492 | 15, 509 |  | 54, 875 |
| 362 | Passaic. | 0 | 40,558 | 24,484 | 1,528 | 66, 570 |
| 363 | Paterson | 10 | 174, 869 | 50,620 | 5,292 | 230, 791 |
| 364 | Perth Amboy | 20, 759 | 18,758 | 4,119 | 0 | 43, 636 |
| 365 | Phillipsburg. | 1,093 | 19, 324 | 13, 860 | ...... | 34, 277 |
| 366 | Plaintield.. | 10,588 | 42, 257 | 25,697 |  | 78, 542 |
| 367 | Raliway ... | 35,000 | 16,000 | 4,509 |  | 55, 509 |
| 368 | Town of Union |  | 25, 088 | 12, 583 | 392 | 38,063 |
| 369 | Trenton* |  | 97, 768 |  | 371 | 164,604 |
|  | NEW Mexico. |  |  |  |  |  |
| 370 | Albuquerque |  | 20,000 |  |  |  |
|  | NEW YORK. |  |  |  |  |  |
| 371 | Albany | 11, 243 | 193, 521 | 63, 887 | 1,279 | 269, 931 |
| 372 | Anisterdan | 4,515 | 31, 715 | 10,335 | 0 | 46,565 |
| 373 | Auburn. | 13, 155 | 59, 191 | 13, 961 |  | 86, 307 |
| 374 | Batavia. | 544 | 15,450 | 19,816 | 0 | 35, 810 |
| 375 | Binghamton | 28,142 | 88, 485 | 33, 013 |  | 149,640 |
| 376 | Buftalo ..... | 374, 314 | 757, 670 | 221, 955 | 10,882 | 1,364, 821 |
| 377 | Cohoes* |  | 35, 516 | 11, 581 | (a) 0 | 47,097 |
| 378 | Corning | 0 | 18,963 | 9, 000 | 0 | 27, 963 |
| 379 | Cortland. | 2, 810 | 11, 708 | 3,099 |  | 17, 647 |
| 380 | Dunkirk | 8,393 | 24, 830 | 10,856 | 0 | 44, 081 |
| 381 | Elmira. | 25, 964 | 71, 141 | 23, 355 | 0 | 120,460 |
| 382 | Genera .-.... | 1, 635 | 24,719 | 6, 223 | 0 | 32, 577 |
| 383 384 | Glens Ealls.. | 17, 768 | 18,725 | 9, 176 | 0 | 45, 669 |
| 384 385 | Gloversville** | 1,909 | 30, 697 | 9, 458 | 0 | 42, 064 |
| 385 386 | Hornellsville* | 617 725 | 23,004 13,954 | 7, 5 5,708 | 0 | 30,992 20,387 |
| 386 387 | Ithaca .... | 725 386 | 13,954 30,870 | 5,708 12,148 |  | 20,387 43,404 |
| 388 | Jamestown | 2,939 | 51, 245 | 27, 517 | 0 | 81, 731 |
| 389 | Johnstown | 1,152 | 18,221 | 8,639 | 0 | 28, 012 |
| 390 | Kingston: Kingston school districter |  | 27, 295 | 8, 409 | 0 | 38,530 |
| 391 | District No. ${ }^{*}$ *...... | 2, 171 | 12, 950 | 4,482 | 0 | 17, 603 |
| 392 | District No.3.. | 2, 240 | 7,700 | 3, 867 | 0 | 13, 807 |
| 393 | District No. 4 | 1, 676 | 4,850 | 1, 017 |  | 7,573 |
| 394 | Lansingburg | 37,965 | 28,113 | 13, 351 | 0 | 79, 429 |
| 395 | Little Falls .- | * 882 | * 16, 875 | * 5,597 | 0 | 23, 436 |
| 396 | Lockport* |  | 36,435 |  |  | 67, 393 |
| 397 | Malone ..... |  | 16, 295 |  |  | 26, 428 |
| 398 | Middletown | 22,584 | 26,197 | 7, 900 |  | 56, 681 |
| 399 | Mount Vernon | 62, 364 | 60, 999 | 33, 910 | 0 | 157, 273 |

[^127]Table 12.-Statistics of expenditures of public schools of cities of over $\mathcal{E}, 000$ inhabitantsContinued.

|  | City. | Expenditures for the school year 1897-98. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Permanent investments and lasting improve. ments. | ```Teaching and superri- sion.``` | $\begin{aligned} & \text { Current } \\ & \text { and } \\ & \text { incidental } \\ & \text { expenses. } \end{aligned}$ | Erening schools. | Total. |
|  | 1 | \$ | 3 | 1 | 5 | 6 |
|  | NEW YORK-continued. |  |  |  |  |  |
| 409 | Newburgh. | \$5, 781 | \$51,067 | \$23, 803 |  | \$83, 651 |
| 401 | New Rochelle | 58,787 | 39,450 | 20,098 | 0 | 118, 335 |
| 402 | New York. | 5, 546, 859 | 7146,033 | 3, 092, 462 | \$211, 836 | 15, 997, 190 |
| 403 | Niagara Falls. | 33, 346 | 34, 048 | 21, 153 | 406 | 88, 953 |
| 404 | North Tonawauda | 1,573 | 22, 639 | 10,253 |  | 34, 456 |
| 405 | Ogdensburg* |  | 21, 442 |  |  | 31, 881 |
| 406 | Olean....... | 1,509 | 27, 880 | 15, 020 | 0 | 44,410 |
| 407 | Oswego...: | 14,908 | 36, 134 | 16,819 | 0 | 67, 861 |
| 408 | Peekskill: <br> District No. 7 | 12, 423 | 9, 809 | 3,366 | 0 | 25,598 |
| 409 | District No. 8 | 698 | 6,961 | 3,516 | 0 | 11, 175 |
| 410 | Plattsburg* | 6,853 | 18, 194 | 6,956 | 0 | 32, 003 |
| 411 | Port Chester |  | 21, 384 |  |  | 32, 273 |
| 412 | Port Jervis | 1,316 | 23, 012 | 7,567 |  | 31, 895 |
| 413 | Poughkeepsio* | 10,056 | 40, 049 | 20,489 | 0 | 70, 594 |
| 414 | Rensselaer..... |  | 16, 370 |  |  | 23, 836 |
| 415 | Rochester | 47,284 | 373, 201 | 79, 090 | 925 | 500,500 |
| 416 | Rome. |  | 22, 304 | 9,586 |  | 31,890 |
| 417 | Saratoga Springs | 467 | 33, 803 | 9,217 | 458 | 43, 945 |
| 418 | Schenectady .... | 2,508 | 32, 213 | 8, 948 |  | 43, 670 |
| 419 | Sing Sing ... | 2,286 | 15,782 | 5,755 |  | 23, 823 |
| 420 | Syracuse | 140, 812 | 243, 194 | 99, 225 | 187 | 483, 418 |
| 421 | 'ronawanda | 58,315 | 19, 238 | 8, 827 |  | 86, 380 |
| 422 | Troy | 4,446 | 123, 724 | 26, 505 |  | 154, 675 |
| 423 | Utica. | 45,322 | 106, 569 | 25, 239 | 1,615 | 178, 745 |
| 424 | Watertown |  | 41, 519 | 17,253 | 500 | 59, 272 |
| 425 | Watervliet | 5,550 | 13, 751 | 4,114 | 0 | 23, 415 |
| 426 | Yonkers.. | 93, 038 | 109, 591 | 68,871 | 3,654 | 275,154 |
|  | North Carolina. |  |  |  |  |  |
| 427 | Asheville | 3, 000 | 12,456 | 1,044 | 0 | 16,500 |
| 428 | Charlotte |  |  |  |  | 15, 340 |
| 429 | Durham.. |  | 13, 000 |  |  | 14, 840 |
| 430 | Goldsboro |  | 10,000 |  |  | 12,000 |
| 431 | Newbern |  |  |  |  |  |
| 432 | Raleigh* |  | 13,441 | 4, 769 | 0 | 18,250 |
| 433 | Wilmington ...... |  |  |  |  |  |
| 434 | Winston............. |  |  |  |  |  |
|  | NORTH DAKOTA. |  |  |  |  |  |
| 435 | Fargo. |  | 21, 169 |  |  | 37, 188 |
|  | OHIO. |  |  |  |  |  |
| 436 | Akron*. | 27, 394 | 78,570 | 41,311 | 0 | 147, 275 |
| 437 | Alliance* |  | 18, 650 | 6, 076 |  | 24, 727 |
| 438 | Ashtabula | 712 | 18, 614 | 6,495 |  | 25, 851 |
| 439 | Bellaire. | 0 | 16, 118 | 6,605 | 0 | 22, 723 |
| 440 | Cambridge |  | 15, 040 |  |  | 19, 290 |
| 441 | Canton-..... | 35, 154 | 64, 543 | 26,817 | 0 | 126, 514 |
| 442 | Chillicothe* |  | 28,550 |  |  | 37, 799 |
| 443 | Cincinnati... | 126, 435 | 779, 848 | 182, 977 | 9, 054 | 1, 098,314 |
| 444 445 | Circlevillo*. | 8,237 161,637 | 20,080 839,197 | 16,320 239,600 | 0 | 44,837 $1,240,434$ |
| 445 446 | Columbus. | 161,637 | 839,197 285 | 239, 108,114 |  | 1,240,434 |
| 447 | Dayton*. |  | 195, 569 | 79, 660 | $8 \div 1$ | 359, 027 |
| 448 | Defiance | 500 | 12, 184 | 12, 660 |  | 25, 344 |
| 449 | Delaware | 8,000 | 18,906 | 5, 002 |  | 31,908 |
| 450 | East Liverpool* | 0 | 17,910 | 10,000 | 0 | 27,910 |
| 451 | Elyria.......... | 1,900 | 17,319 | 11,333 | 0 | 30,552 |
| 452 | Findlay* |  | 30, 242 |  |  | 65, 945 |
| 453 454 | Fostoria |  | 16,361 17,712 | 8,301 6,546 | 0 | 24,662 24,258 |
| 455 | Hamilton** |  | 46, 236 |  |  | 24, 74.45 |
| 456 | Ironton*.. |  | 21,502 |  |  | 28, 064 |
| 457 | Lancaster* | 932 | 19, 677 | 4,032 | 0 | 24, 641 |
| 458 | Lima** |  | 36,329 |  | . .-. . . . . | 51,428 |

*Statistics of 1895-97.

TABLE 12.-Statistics of expenditures of public schools of cities of orer 8,000 inhabitantsContinued.


[^128]Table 12.-Statistics of expenditures of public schools of cities of orer $\mathcal{S}, 000$ inhabitantsContinued.


* Statistics of 1896-97.

TABLE 12.-Statistics of expenditures of public schools of cities of over 8,060 inhabitantsContinued.

|  |  | Expenditures for the schocl year 1897-98. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | City. | Permanent invest. ments and lasting improvements. | Teaching and supervi sion. | $\begin{aligned} & \text { Current } \\ & \text { and } \\ & \text { incidental } \\ & \text { expenses. } \end{aligned}$ | Evening schools. | Total. |
|  | 1 | $\pm$ | 3 | 4 | 5 | 6 |
|  | TEXAS-continued. |  |  |  |  |  |
| $\begin{aligned} & 576 \\ & 577 \end{aligned}$ | Tyler*.. Waco... | \$1, 250 | $\begin{array}{r} \$ 14,850 \\ 46,382 \end{array}$ | $\begin{array}{r} \$ 900 \\ 12,095 \end{array}$ | 0 | $\$ 17,000$ 58,477 |
|  | UTAH. |  |  |  |  |  |
| 578 579 | Ogden ..... | 6, 883 | 43,135 10,946 | 26, 217 | 0 | 76,235 19,863 |
| 580 | Salt Lake City. | 58,625 | 151, 548 | 108, 477 | 0 | 318,650 |
| 581 | vermont. | 1,247 | 30,581 | 13,338 |  |  |
| 582 | Rutland ........ | 156 | 27, 042 | 9, 683 |  | 36, 881 |
| 583 | Alexandria Vir........ |  | 16,750 | 3, 186 |  | 19, 936 |
| 584 | Danville.... |  | 21, 005 | 3,639 |  | 24, 644 |
| 585 | Lynchburg * | 4,391 | 27,524 | 5,610 | 0 | 37,526 |
| 586 | Manchester. |  | 8, 631 | 2,111 |  | 10,742 |
| 587 | Newport News |  | 10,350 |  |  | 14, 364 |
| 588 | Norfolk*... | 14, 552 | 40,000 | 5,318 | 0 | 59, 870 |
| 589 | Petersburg* | 0 | 17,780 | 5, 272 | 0 | 23, 052 |
| 590 | Portsinouth |  | 14, 000 | 3, 643 |  | 17,643 |
| 591 | Richmond | 161 | 125, 067 | 23, 889 | \$325 | 149,442 |
| 592 | Roanoke. | 18, 820 | 19, 242 | 3, 202 |  | 41, 264 |
| 593 | Staunton | 902 | 11,459 | 1,920 |  | 14,281 |
| 594 | Seattle.................. | 8, 058 | 1z9, 098 | 84,757 |  | 221, 913 |
| 595 | Spokane... | 43, 321 | 56,442 | 27, 272 | 0 | 127, 035 |
| ${ }_{5}^{596}$ | Tacoma.. | 27, 900 | 84, 253 | 57, 402 |  | 169, 555 |
|  | west virginia. | 1,142 | 14,063 |  |  | 20, 293 |
| 598 | Huntington* |  | 16,402 |  | 0 | 21, 807 |
| 599 | Martinsburg. |  | 9,817 |  |  | 12,600 |
| 600 | Parkersburg |  |  |  |  |  |
| 601 | Wheeling.. | 35, 812 | 67,331 | 50,014 |  | 153,157 |
|  | wisconsin. |  |  |  |  |  |
| 602 | Appleton..... | 24,723 | 33, 215 | 17, 805 | 0 | 75, 743 |
| ${ }_{604}^{603}$ | Ashland. | 4,537 | 23, 021 | 12,032 |  | 39,590 |
| 605 | Beloit.... | 7,000 | 18,683 | 7,990 | 0 | 23, 673 |
| 606 | Chippewa Falls |  | 17, 148 | 5, 036 |  | 22, 184 |
| 607 | Eau Claire. | 24, 012 | 45, 299 | 14, 464 | 0 | 83, 775 |
| 608 | Fond du Lac. | 2, 8.32 | 27, 829 | 11, 671 |  | 42,332 |
| 609 | Green Bay | 2, 513 | 35, 506 | 7,062 | 0 | 45, 081 |
| 610 | Janesville | 2, 779 | 23, 644 | 11, 169 | ........... | 37, 592 |
| 611 | Kenosha. |  | 14, 454 |  |  | 26, 641 |
| 613 | Madison. | 2, 759 | 66, 296 33,050 | 11, 195 |  | 89, 44,245 |
| 614 | Manitowoc* | 7,513 | 19,970 | 5,063 | 0 | 32,546 |
| 615 | Marinette |  | 25, 230 | 8,219 |  | 33,449 |
| 616 | Merrill | 894 | 14,261 | 4, 994 |  | 20,149 |
| 617 | Milwaukeg |  | 554, 904 | 89,563 |  | 644,467 |
| 618 | Oshkosh | 2, 272 | 57, 950 | 12, 521 | 280 | 73, 023 |
| 619 | Racine. | 25, 403 | 52, 737 | 13, 779 | ......... | 91,919 67868 |
| 620 | Sheboygan.. | 3,923 <br> 4,200 <br> 1 | 49,007 21,468 | 14,938 6,383 |  | 67, 868 |
| 622 | Superior. | 9, 011 | 67, 794 | 55, 303 |  | 132,108 |
| 623 | Watertown | 793 | 12,872 | 3,219 |  | 16, 884 |
| 624 | Waukesha. |  | 16,490 |  |  | 17,463 |
| 625 | Wausau | 1,017 | 24, 094 | 8,347 | 0 | 33, 458 |
| 628 | wyoming. |  | 20,452 | 7,007 |  | 27,459 |

[^129]Table 13.-Statistics of ebening schools in cities of $\mathcal{S}, 000$ inkabitants and over.


Table 13.-Stertistics of evening schools in cities of $\mathcal{S}, 000$ inhabitants and over-Cont'd.


Table 13.-Statistics of evening schools in cities of $\mathcal{S}, 000$ inhabitants and orer-Cont'd.

TAPLE 14．－－School slatistics of cities and villages containing betwecn 4，000 and 8 ， 000 inhabitants．

|  |  | \％ |  | $\begin{aligned} & \stackrel{\infty}{\infty} \\ & \infty \\ & \infty \end{aligned}$ |  |  | $\begin{gathered} \text { G} \\ \text { cis } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 象 |  | 0 |  | $\begin{aligned} & \text { O} \\ & \text { in } \end{aligned}$ |  |  <br>  | $\begin{aligned} & \text { 우 } \\ & \text { Hif } \end{aligned}$ |  |
|  |  | ${ }^{20}$ |  | $\begin{aligned} & 0.0 \\ & \mathbf{8} \end{aligned}$ | $\begin{aligned} & 8 \\ & 0 \\ & \text { 合 } \end{aligned}$ | 웅ㅇㅇㅇㅇㅇㅇㅇㅇ <br>  | $\begin{aligned} & 8 \\ & 8 \\ & 8 \end{aligned}$ | ：ళిరిరికిరి <br>  |
| 戠券 |  | $\pm$ |  | 8 | $\stackrel{8}{\circ}$ |  | $\stackrel{8}{0}$ | rin |
| $\begin{array}{r} \text { saso } \\ \text { nof pas } \end{array}$ | 1 Iooyos oupring <br> o！ptry | $\underset{z}{6}$ | c2000801 | ${ }^{61}$ | $\therefore$ | 10xパにす | ＊ | ーナヅか |
| $\begin{aligned} & \text { Reguiar teach- } \\ & \text { ers. } \end{aligned}$ | ＇［PłOL | 18 | さニシッロ | \＃゙ | $\stackrel{\square}{\square}$ |  | 81 |  |
|  | ＇pruex | a | O130った | $\stackrel{セ}{\square}$ | $\ddot{\sim}$ |  | 8 | ®め\％ |
|  | －ग¢ IK | $\stackrel{80}{8}$ | 10¢ $¢ \times \sim 1$ | － | $\because$ | 81才 005100 | $\because$ |  |
| －${ }^{\text {¢ }}$ | ә． <br> s！adadns | $\stackrel{e}{a}$ | c－H－s |  | $\therefore$ | －ボッローフー | － | －400－1 |
|  |  | $\approx$ |  | $\stackrel{\infty}{6}$ | \％ |  | $\stackrel{\text { à }}{\substack{--1}}$ |  |
|  |  | $\stackrel{*}{*}$ |  | $\begin{aligned} & \stackrel{\circ}{0} \\ & \text { Oib } \end{aligned}$ | $\begin{aligned} & \stackrel{8}{8} \\ & \stackrel{1}{9} \\ & \text { 今in } \end{aligned}$ |  |  |  |
|  |  | ค | 으구웅 | 9 | $\underset{\sim}{\sim}$ |  | 只 |  |
|  |  | 0 |  | $\stackrel{8}{\infty}$ | $\stackrel{\circ}{\circ}$ | シースースース | $\stackrel{\square}{\text { a }}$ |  |
|  |  | so | 号式第范 | － | $\stackrel{\infty}{\circ}$ |  | $\stackrel{7}{6}$ | 虽就产 |
|  | －¢¢JT | \％ |  | $\stackrel{4}{4}$ | 9 |  | $\stackrel{9}{6}$ |  |
|  |  | 18 | 응슝응 | P | $\stackrel{1}{\square}$ | BOB | 坔 | $\bigcirc$－¢ ¢0¢ |
| $\begin{aligned} & \text { School popula- } \\ & \text { tion. } \end{aligned}$ |  | － |  | 8 8 - | $\stackrel{\text { cion }}{\substack{\text { cion }}}$ |  | － | 종엉 운 앙 ーiデージージ |
|  |  | $\bigcirc$ | $\begin{aligned} & \text { नTヲ } \\ & 10150 \end{aligned}$ | $\stackrel{\infty}{6}$ | $\begin{aligned} & \text {-1 } \\ & 6 \end{aligned}$ |  | $\stackrel{\rightharpoonup}{7}$ | $\begin{aligned} & 0000 \\ & \text { THy } \end{aligned}$ |
|  |  | 6） |  |  |  | 응응잉윤 が心゙に゙らがに | 8 | ిిరిఠిరిః <br>  |
| 这 |  | Fa |  |  |  |  | $\begin{gathered} \vdots \\ \vdots \\ \vdots \\ \vdots \\ \text { I } \\ \text { E } \\ \frac{0}{4} \end{gathered}$ |  |
|  |  |  | －－ッチ | 15 | $\bullet$ |  | ® |  |


TABLE 14.-School statistics of cities and villages containing between 4,000 and $\mathcal{S}, 000$ inhabitants-Continued.


TABLE 14．—School statistics of cities and villages containing between 4，000 and $\mathcal{S}, 000$ inhabitants－Continued．

|  |  | ${ }_{6}$ |  <br>  |  <br>  | $\begin{aligned} & 0 \\ & \stackrel{0}{\infty} \\ & \text { जI } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\stackrel{\square}{\circ}$ |  <br>  |  <br>  | $\begin{aligned} & \text { ® } \\ & 0 \\ & = \\ & = \end{aligned}$ | 깅양융융 15050015 に |
|  |  | $\infty$ |  <br>  |  <br>  | $\begin{aligned} & 8 \\ & 8 \\ & 15 \end{aligned}$ |  |
|  |  | $\stackrel{y}{0}$ |  i i ri riri riri |  | － |  <br> －i |
| －sesod．nd［ooyos dof pesu ssu！pimg |  | $\ddot{v a y}$ |  | ＋001010000 | 15 | 20¢LOM： |
| $\begin{aligned} & \text { Iegular teach- } \\ & \text { ers. } \end{aligned}$ |  | 2 |  |  | त |  |
|  |  | $\underset{\sim}{*}$ | ผัละ15 |  | ํํ |  |
|  | $\cdot{ }^{\text {¢ }}$［JT | $\stackrel{e n}{n}$ |  | NNTH5－ATH | 81 | 129140718 |
|  |  | $\stackrel{e}{\\|}$ |  |  | $\infty$ | －n－Tos |
|  |  | $\Rightarrow$ |  |  | ก1 |  |
|  |  | $\theta$ |  <br>  |  | ¢ en and ar |  |
|  |  | $\bigcirc$ |  |  | $\stackrel{\sim}{\sim}$ | ¢으웅 |
|  |  | （a） |  ri ri ri riन riri |  नiriri | $\stackrel{\infty}{\sim}$ |  |
|  | －truex | \＄ |  |  | \％ |  |
|  | －•IEIV | － |  | 우굾엉국융 ： | 䦡 |  |
|  |  | 12 |  |  | 㫛 | －${ }^{\text {¢ }}$ 交： |
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|  |  | et |  <br>  |  デビに $0^{\circ}$ だが |  |  |
| $\stackrel{\stackrel{y}{*}}{\text { ث }}$ |  | ＊ |  |  |  |  |
| － |  |  |  | ¢ | 㥻 |  |


Table 14.-School statistics of cities and villages containing between 4,000 and 8,000 inhabitants-Continued.




| 美諰总 |  | G | $\begin{aligned} & \stackrel{e}{7} \\ & \substack{8 \\ \hline} \end{aligned}$ | 今気莒 กิ์ำจํ | $\stackrel{\text { 気 }}{\rightarrow}$ | $\begin{aligned} & \text { 운류 } \\ & \text { สix } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 令 |  | 茶気菜 ニ゙がご | $\stackrel{\infty}{\text { \％}}$ | $\begin{aligned} & \text { nop } \\ & \text { Min } \\ & \text { Fin } \end{aligned}$ | 佣 |  <br>  |
|  |  | 20 | $\begin{aligned} & \infty \\ & \stackrel{\infty}{c} \\ & \text { in } \\ & \text { in } \end{aligned}$ | 이ㄴㅏㅜㅇ施だ | $\begin{aligned} & \circ{ }_{2}^{\infty} \\ & \stackrel{1}{\circ} \end{aligned}$ |  | $\begin{aligned} & 8 \\ & \stackrel{8}{\circ} \\ & \hline \end{aligned}$ |  <br>  |
|  |  | $\cdots$ | － |  | \％ | ¢iote |  |  |
| －sosedinat pooŋos <br>  |  | － | $1 \cdot$ | 10000 | ＋ | 15 |  | 1008 61815100710600 |
|  | ${ }^{\text {［ }} \mathrm{P} 70 \mathrm{CL}$ | 10 | ๕ | 8\％ | 웍 | จิㄷ | $\stackrel{\sim}{\square}$ |  |
|  | ө甲виад | － | $\stackrel{\square}{-}$ | 大ง\％ | $\cdots$ | \％ 9 号 | $\stackrel{\sim}{\sim}$ |  |
|  |  | $\stackrel{\text { \％}}{\text { ¢ }}$ | $\bigcirc$ | sino | $\infty$ | 00 | 8 | －81 94mosanmio |
|  |  | 畣 | $\because$ |  | － | －－ | ${ }^{\circ}$ | बr－ H |
|  |  | ＝ | 꾼 | 8 | \％ | 管 | F |  |
|  |  | ※ | $\begin{aligned} & 8 \\ & \stackrel{8}{1} \\ & \text { in } \end{aligned}$ | 気：发 | $\begin{aligned} & \text { 융 } \\ & \stackrel{\circ}{7} \end{aligned}$ | Fif | \＆ \＆ $\infty$ $\infty$ |  |
|  |  | － | $\stackrel{\square}{\square}$ |  | $\stackrel{\infty}{\square}$ | 式奇 | 18 |  |
|  | ${ }^{[17 \% O L}$ | $\infty$ | $\stackrel{9}{80}$ | 馬第家 | R | 発佥 | $\stackrel{5}{6}$ |  riri |
|  | －9［puna | io | 5 | 哭： | $\stackrel{\infty}{\circ}$ | 该等 |  |  |
|  | －गbst | ＊ | 哭 | 成： | ！ | 管涨 |  |  |
|  |  | 13 |  |  | 橉 | $\bigcirc$ | 앙 |  |
|  |  | － | $\begin{gathered} \text { of } \\ \text { ci } \end{gathered}$ | － | －if | 䓵 | $\stackrel{\circ}{6}$ |  |
|  |  | 9 | $\stackrel{\infty}{\square}$ | 979 | 9 | नुণ | ¢ |  |
|  |  | 9 | 8 | $\begin{aligned} & \text { Sos } \\ & \vdots \\ & \text { cob } \\ & \hline \end{aligned}$ | \％ | $\begin{aligned} & \text { B్八ి } \\ & \text { Nis } \end{aligned}$ |  |  <br>  |
| 8 |  | ＝ | 总 |  |  |  |  |  |
|  |  |  | $\stackrel{9}{4}$ | 骨京器 | \％ | 谷喿 | \％ |  |

# CHAPTER XLVIII. 

MANUAL AND INDUSTRIAL TRAINING.

References to recent Reports of the United States Commissioner of Education, in which this subject las been treated or statistics published: Annual Report for 1888-89, pages 411-428, 1362-1367; 1889-90, pages $1148,1209-1212,1351-1356$; 1891-92, page 1197 ; 1892-93, pages $186-188,569-575 ; 1893-94$, pages $877-949,2093-2169 ; 1894-95$, page $2170 ; 1895-96$, pages $989-992,1001-1152,1321-1329,1510-1521$ (column 8) ; 1896-97, pages 193-197, 699-703, 2211-2222 (column 8), 2279-2294.

For the school year 1897-98 there were 114 manual or industrial training schools reporting to this office. This was an increase of 15 over the preceding year. Of the 114 schools, $2 \pm$ were industrial schools for Indian children.

In Table 3 the statistics of the two classes of schools are summarized. In the 114 schools there were employed 945 teachers, 507 men and 438 women. There were 30,683 pupils receiving manual and industrial trainiag, 19,152 boys and 11,531 girls.

The total expenditure for manual and industrial training by 86 of the 114 schools was $\$ 655,247$. Of this amount $\$ 440,572$ was paid teachers, $\$ 93,058$ for materials, $\$ 36,508$ for tools and repairs, and $\$ 85,109$ for incidentals and for items not classified.

Table 4 gives the statistics in detail of the 90 manual and industrial training schools other than Indian schools. In these 90 schools there were employed 673 teachers, 384 men and 289 women. In the same schools there were 25,893 pupils, 16,449 boys and 9,446 girls.

The detailed statistics of the 24 Indiau schools will be found in Talle 5 . There were 272 teachers employed in these schools, 123 men and 149 women. There were 4,700 pupils, 2,705 boys and 2,085 girls.

In Table 6 are shown the branches of manual training or the trades taught and the number of pupils in each branch, so far as reportect by the individual schools mentioned in Tables 4 and 5.

No attempt was made to ascertain the number of pupils receiving manual or industrial training in 1897-98 in institutions which are not distinctively manual or industrial training schools. This was done in 1893-94, and the statistics were printed in the Report of this office for that year, pages 2093 to 2169.

For a number of years the returns from city systems of public schools have shown in what grades manual training has been given if taught at all. The following table shows that in 1890 there were 37 cities of 8,000 population and over in whose public schools manual training other than drawing was tanght; in 1894 there were 93 cities; in 1896 there were 121 cities, and in 1898 there were 146 cities.

Table 1.-Cities of $\mathcal{S}, 000$ population and over in each State, in which manual training was taught.

| Geographical location. | 1890 | 1894 | 1896 | 1898 | Geographical location. | 1890 | 1894 | 1896 | 1898 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States. | 37 | 95 | 121 | 146 | South Central Division: |  |  |  |  |
| North Atlantic Division | 23 | 52 | 72 | 80 | Tennessee. | 1 | 2 | 2 | 3 |
| South Atlantic Division | 3 | 3 | ${ }_{6}$ | 5 | Mississippi. |  |  |  | 1 |
| South Central Division.. | 1 | 2 | 2 | 5 | Texas...... |  |  |  |  |
| North Central Division | 10 | 30 | 31 | 45 | North Central Division: |  |  |  |  |
| Western Division. |  | 8 | 10 | 11 | Ohio | 2 | 3 | 7 | 11 |
| North A tlantic Division: |  |  |  |  | Illinois. | 2 | 7 | 5 |  |
| Maine.......... |  | 2 | 1 | 4 | Michigan. | 2 | 2 | 4 | 3 |
| New Hampshire | 1 | 1 | 3 | 2 | Wisconsin | 2 | 5 | 4 | 8 |
| Massachusetts | 6 | 17 | 22 | 33 | Minnesota. | 1 | 4 | 5 | 5 |
| Rhode Island |  | 2 | 7 | 3 | Iowa. |  | 4 | 3 | 4 |
| Connecticut | 1 | 3 | 6 | 7 | Missouri. |  | 2 |  |  |
| New York | 6 | 10 | 18 | 16 | Nebraska... | 1 | 2 | 1 | 1 |
| New Jersey.. | 4 | 12 | 8 | 10 | Western Division: |  |  |  |  |
| Pennsylvania.......... | 5 | 5 | 7 | 5 | Colorado ... |  | 2 | 3 | 3 |
| South Atlantic Division: |  |  |  |  | Washington |  | 2 | 1 | 1 |
| Delaware Maryland |  |  | 1 | 1 | California |  | 4 | 6 | 7 |
| District of Columbia | 1 | 1 |  | , |  |  |  |  |  |
| Virginia ........... |  |  | 2 | 1 |  |  |  |  |  |
| North Carolina |  |  | 2 | 1 |  |  |  |  |  |

The table which follows gives the 146 cities in whose pullic schools manual training (other than drawing) was taught in 1897-98, and indicates the grades in each city system in which such instruction was given.

Table 2.-Cities in which manual training (other than drawing) was taught in 1897-98.

| Cities. | Grades in which manual training was taught. | Cities. | Grades in which manual training was taught. |
| :---: | :---: | :---: | :---: |
| california. |  | illinois. |  |
| Fresno | 7, 8, 9, and 10. | Canton | 4, 5, 6, and 7. |
| Los Ange | 6, 7, 8 , and 9 . | Champaigu | High school. |
| Oakland | 8 and 9. | Chicago | Grammar and high school. |
| San Diego | 6, 7, and 8. | Galesburs | 9,10 , and 11. |
| San Francisco | 6, 6,8 , and 9 . | Moline... | 7,8,9, and 10. |
| Santa Rarbara...... Santa Cruz | 5, 6, 7, and 8. $1,2,3,4,5,6,7,8$ | Oak Park <br> Ottawa | High school. |
| Santa Cruz | 3, 4, 5, 6, 7, 8 , | Rockford <br> Springficld | 11, 12, and high school. 7,8 , and 9 . |
| colorado. |  | indiana. |  |
| Colorado Springs.. | 1, 2, 3, 4, 5, 6, and 7. |  |  |
| Denver: |  | Frankfort | Primary. |
| District No. ${ }_{\text {District }}$ | Grammar and high school. | Indianapolis......... | 4, 5, 6, 7, and 8. |
| District No.17... | $1,2,3,4,5,6,7,8,9,10,11$, and 12. | IOWA. |  |
| Pueblo: ${ }_{\text {District }}$ No. 1. |  | Davenport. |  |
| District No.1.... <br> District No. 20... | 4, 5, 6, 7, and 8 . <br> $6,7,8,9$, and 10 . | Des Moines (WWest).. | $9 \text { and } 10 .$ |
| District No.20... |  | Iowa City............. | $9,10,11, \text { and } 12 .$ |
| Bristol | 5, 6, 7, and | kentucky. |  |
| Hartford | 6,7,8, and 9 . | nkfort (white |  |
| Manchester (South), ninth district. | 5, 6, 7, 8, and 9 . | schools).. | 1, 2, and 3 of high school. |
| Naugatuck .......... | 7,8, and high school. | Lexington | ${ }^{1,2, ~ a n d ~}{ }^{\text {High school. }}$ |
| New Britain | 8 and 9 . | Louisville | High school. |
| Now Haven. | 4, 5, 6, 7, and high school. | maine. |  |
| delaware. | T, 0 , | Ellsworth ............ Lewiston .............. | $1,2,3,4,5,6,7,8$, and 9 . $6,7,8,9$, and 1 of high |
| Wilmingtou | High srhool. | Portland | 7 7, 8, and 9 . |
| district of colembiA. |  |  | $5,6,7,8$ and 9. |
| Washington | 7, 8, and high school. | Baltimore.. | 9, 10, and 11. |

Table 2.-Cities in which manual training (other than drawing) was taught in 189\%-98Continued.


Table 3．－Summary of statistics of manual and industrial training schools in the United States in 1897－98．

| Slate or territory． | Number of schools． | Different teachers of manual and indus－ trial train－ ing． |  |  | Different pupils who received manual and in－ dustrial training． |  |  | Expenditure for manual and indus－ trial training during 1897－98 for 86 schools． |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 盛 | $\begin{aligned} & \text { ボ } \\ & \text { む̈ } \\ & \text { ¢ } \end{aligned}$ |  | $\frac{\dot{3}}{\frac{y}{y}}$ |  | $\begin{gathered} \dot{5} \\ \stackrel{y}{0} \\ \text { B } \end{gathered}$ |  |  |  |  | E |
|  | 1 | 8 | 8 | 4 | 5 | 4 | 7 | 8 | 9 | 19 | 11 | 12 |
| Uniter States．．．．．．． | 114 | 507 | 438 | 945 | 19，152， | 11， 531 | 30，683 | \＄410， 572 | \＄93， 058 | ，\＄36，508 | \＄85， 109 | \＄655， 247 |
| North A tlantic Division．． | 47 13 | 246 49 | 191 | 437 | 10，029 | 6， 712 | 16，741 | 229， 617 | 48， 285 | 18， 228 | 75， 471 | 371， 631 |
| South Atlantic Division．． | 13 | 49 | 36 | 85 | 1，179 | 552 | 1，731 | 22， 276 | 17， 866 | 6， 379 | 2， 250 | 48， 771 |
| South Central Division ．．． | 4 24 | 113 | 6 119 | 19 | 4， 489 | 2， 123 | 6， 729 | 12， 636 | 2， 11,946 | 816 | 472 | 16， 323 |
| North Central Division．．． <br> Western Division | 24 | 112 | 119 86 | 173 | 4,394 3,066 | 2， 1,816 | 6,722 4,882 | 85,825 90,188 | 11,946 12,562 | 6,499 4,586 | 4,627 2,289 | 108,897 109,625 |
| North Atlantic Division： <br> Maine ．．．．．．．．．．．．．．．．．．． |  |  |  |  |  |  |  |  |  |  |  |  |
| New Hampshire．．．．．． |  |  |  |  |  |  |  |  |  |  |  |  |
| Vermont． |  |  |  |  |  |  |  |  |  |  |  |  |
| Massachusetts | 9 | 35 | 80 | 115 | 1，977 | 1， 328 | 3，305 | 33， 133 | 13， 353 | 7， 080 | 1，482 | 55， 048 |
| Rhode Island | 5 | 22 | 13 | 35 | 1，094 | 947 | 2，041 | 10， 250 | 200 | 25 | 15 | 10， 490 |
| Connecticut | 3 | 8 | 4 | 12 | 252 | 170 | 422 | 6， 728 | 1，272 | 35 | 65 | 8，100 |
| New York | 19 | 103 | 68 | 171 | 3， 435 | 3， 134 | 6， 569 | 95， 154 | 14， 088 | 6，197 | 36， 258 | 151， 697 |
| New Jersey | 1 | 0 | 12 | 12 | 0 | 97 |  |  | －－．．．． |  |  | 10 |
| Pennsylvania | 10 | 78 | 14 | 92 | 3，271 | 1，036 | 4，307 | 81，372 | 19，372 | 4，891 | 37， 651 | 146， 286 |
| South Atlantic Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Maryland． | 5 | 26 | 5 | 31 | 788 | 285 | 1， 073 | 6，500 | 8，900 | 4，200 | 750 | 20，350 |
| District of Columbia | 2 | 3 | 13 | 16 | 46 | 82 | 128 | 1， 096 | 5，916 | － 29 |  | 7，041 |
| Virginia | 1 | 6 | 5 | 11 | 115 | 65 | 180 | 10， 000 | 3， 000 | 2，000 | 1，500 | 16，500 |
| West Virginia |  |  |  |  |  |  |  |  |  |  |  |  |
| North Carolina | 4 | 7 | 12 | 19 | 195 | 120 | 315 | 2，680 | 50 | 150 |  | 2， 880 |
| South Carolina |  |  |  |  |  |  |  |  |  |  |  |  |
| Georgia． |  |  |  |  |  |  |  |  |  |  |  |  |
| Florida． |  |  |  |  |  |  |  |  |  |  |  |  |
| South Central Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky | 2 | 8 | 1 |  | 305 | 68 | 373 | 7，966 | 1，324 | $27{ }^{\circ}$ |  | 9，565 |
| A labama． |  |  |  |  |  |  |  |  |  |  |  |  |
| Mississippi |  |  |  |  |  |  |  |  |  |  |  |  |
| Louisiana． | 1 | 1 | 0 | 1 | 120 | 0 | 120 | 300 | 75 | 80 | 20 | 475 |
| Texas． |  |  |  |  |  |  |  |  |  |  |  |  |
| Arkansas |  |  |  |  |  |  |  |  |  |  |  |  |
| Oklahoma | 1 | 4 | 5 |  | 59 | 55 | 114 | 4，370 | 1，000 | 461 | 452 | 6，283 |
| Indian Territory |  |  |  |  |  |  |  |  |  |  |  |  |
| North Central Division： |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio．．．．．．．．．．．．．．．．． | 3 | 16 | 3 |  | 803 | 109 | 912 | 7， 400 | 902 | 551 | 0 | 8，853 |
| Indiana | 2 | 18 | 7 | 25 | 587 | 533 | 1，120 | 15， 000 | 1，326 | 565 | 173 | 17， 064 |
| 1llinois | 4 | 13 | 4 | 17 | 1，483 | 350 | 1，833 | 17，950 | 2，538 | 656 | 2，979 | 24， 123 |
| Michigan | 2 | 4 | 15 | 19 | 109 | 176 | 285 | 4，925 | 50 |  | 64 | 5， 039 |
| Wisconsi | 4 | 7 | 19 | 26 | 75 | 282 | 357 | 2，570 | 2， 700 | 200 | 75 | 5，545 |
| Minneso | 4 | 7 | 22 |  | 289 | 332 | 621 | 10， 150 | 1，103 | 478 | 600 | 12，331 |
| Iowa | 1 | 1 | 1. | 2 | 66 | 27 | 93 | 2， 700 | 150 | 25 |  | 2， 875 |
| Missouri． | 1 | 6 | 0 | 6 | 208 | 0 | 208 | 6，700 | 477 | 113 | 186 | 7，476 |
| North Dakota | 1 | 8 | 10 | 18 | 165 | 100 | 265 | 9，600 |  | 3，311 |  | 12， 011 |
| Sonth Dako | 2 | 7 | 10 | 17 | 88 | 78 | 166 | 8，830 | 2， 700 | 600 | 550 | 12， 680 |
| Nebraska． |  |  |  |  |  |  |  |  |  |  |  |  |
| Kansas ．．．．．．．． |  | 25 |  |  | 521 | 341 | 862 |  |  |  |  |  |
| Western Division：${ }_{\text {W }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Colorado．．． | 4 | 23 | 19 | 42 | 1，028 | 332 | 1，360 | 9， 650 | 785 | 180 | 15 | 10， 630 |
| New Mexico | 2 | 11 | 5 |  | 245 | 190 | 435 | 9，860 | 125 | 35 | 70 | 10， 090 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nevada．．．．．．．．．．．．．．．．． | 2 | 3 | 4 |  | 80 | 70 | 150 | 2，780 |  |  |  | 2， 780 |
| Tlaho．．．．．．．．．．．．．．．．．． 1 |  | 2 | 2 |  | 44 | 29 | 73 | 800 |  |  |  | 800 |
| Washing |  |  |  |  |  |  |  |  |  |  |  |  |
| Oregon． |  |  |  |  |  |  |  |  |  |  |  |  |
| California |  | 31 | 31 | 62 | 1，239 |  | 2， 197 | 43，480 | 7，652 | 1， 221 | 2，194 | 54，547 |

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Location．} \& \multirow[t]{2}{*}{Name of institution．} \& \multirow[t]{2}{*}{President or director．} \& \multirow[t]{2}{*}{Grade of lit－ erary instruc－ tion．} \& \multicolumn{3}{|l|}{Different teachers of industrial training．} \& \multicolumn{3}{|l|}{Different pupils who receive in． dustrial training．} \& \multicolumn{5}{|l|}{Expenditure for industrial training during 1897－98．} <br>
\hline \& \& \& \& 年 \& ¢ \& ［ \& 哥 \& \％ \& E \&  \&  \&  \&  \& تٌ <br>
\hline 1 \& 98 \& ：${ }^{\text {a }}$ \& 1 \& 5 \& 6 \& \％ \& 6 \& 4 \& 10 \& 11 \& 直： \& 13 \& 14 \& 15 <br>
\hline Healdsburg，Cal． \& Healdsburg College．．． \& R．S．Owen．． \& Elementary； secondary； collegiate． \& 4 \& 2 \& 6 \& 29 \& 19
9 \& 48
448 \& \＄1，080 \& 1,400
393 \& $\$ 200$

101 \& \& $\$ 2,680$
4,168 <br>

\hline | Oaklandi，Cal． $\qquad$ |
| :--- |
| San Francisco，Cal | \& Central School（public）．．．．．．．．．．．．

California School of Mechanical \& P．Mr．Fisher
Geo．A．Merill \& Secondary ．．． \& 5 \& 1 \& 8 \& 223
228 \& 220
82 \& 448
310 \& 3,400
9,000 \& 393
3,934 \& 101
400 \& $\$ 274$
720 \& 4,168
14,054 <br>
\hline Do．－．－－－．．． \& Mechanics＇Institute ．．．．－．．．．．．．．． \& Ernst A．Denicke \& Elementary \& 1 \& 0 \& 1 \& 40 \& 30 \& 70 \& － 540 \& 0 \& 0 \& 0 \& － 540 <br>
\hline Do \& Polytechnic High School \& Walter N．Bush． \& Secondary．．． \& 2 \& 3 \& 5 \& 81 \& 119 \& 200 \& 5，800 \& \& \& \& 5，800 <br>
\hline Do \& I．C．O．Asylum（branch of） \& Sister Louise \& －．．．do \& 0 \& 6 \& 6 \& ${ }^{0}$ \& 50 \& 50 \& \& \& \& \& <br>
\hline Santa Barbara，Cal \& Manuai Training School（public） \& Miss Ednah A．Rich． \& Elementary．－ \& 0 \& 4 \& 4 \& 368 \& 296 \& 664 \& 2，900 \& \& \& 1，200 \& 4， 100 <br>
\hline Waterman，Cal．．． \& Preston School of Industry（boys） \& E．M．Preston．．．．． \& －．－．do ．．．．．． \& 13 \& 1 \& 14 \& 141 \& 0 \& 141 \& 18，360 \& 1，895 \& 500 \& \& 20，755 <br>
\hline 1）enver，Colo． \& Brightside School for Boys．．．．．．． \& Ralph Field ．． \& －．．．do ．．．．．．． \& 5 \& 1 \& 10 \& 650 \& 0 \& 650 \& \& \& \& \& <br>
\hline Do． \& Haish Manual Training School \& Edgar L．Brother \& Secondary ．．． \& 2 \& 1 \& 2 \& 11 \& ${ }_{192}^{0}$ \& 11 \& 1,600
8,050 \& 80
705 \& 120
60 \& \& 1,800
8,830 <br>
\hline Do． \& Manual Training Figh School． \& Charles A．Bradley \& －．．．．do．．．．．． \& 4 \& ， \& 8 \& 187 \& 192 \& 379 \& 8， 050 \& 705 \& 60 \& 15 \& 8，830 <br>
\hline Bridgeport，Conn \& Young Men＇s Christian Association．．．． \& I．De Ver Warner．． \& Elementary．． \& 5 \& 0 \& 5 \& 102 \& 0 \& 102 \& － 488 \& 15 \& 5 \& 5 \& $\begin{array}{r}513 \\ \hline\end{array}$ <br>
\hline New Haven，Conn \& Boardman Manual Training High School \& Thos．W．Mather \& Socondary．．． \& 3 \& \& 6 \& 150 \& 100 \& 250 \& 5,850 \& 1，200 \& \& \& 7， 050 <br>
\hline Ridgefield，Comm \& Manual Training School．．．．．．．．．．．．．．．．．． \& Nellio Dean ．． \& Elementary．． \& 0 \& I \& 1 \& 0 \& 70 \& 70 \& － 390 \& 57 \& 30 \& 60 \& $\begin{array}{r}537 \\ \hline\end{array}$ <br>
\hline Clayton，Del．．． \& St．Joseph＇s Industrial School for Col－ ored Boys． \& I．J．Welbers \& Flemontary and sec－ ondary． \& \& 1 \& 8 \& 35 \& 0 \& 35 \& 2，000 \& \& \& \& 2，000 <br>
\hline Wilmington，Del．．．．．．．．．．． \& Ferris Industrial School \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Washington，D．C \& Industrial Howe School \& J．Ormond Wilson．．． \& Elementary．． \& 3 \& 6 \& 9 \& 46 \& 14 \& 60 \& 1，096 \& 826
5,090 \& \& \& 1，922 <br>
\hline Do．．．．．．．．．．．．．．．．．．．．．． \& St．Rose＇s Industrial School \& Sister Clara Moloney－－ \& －－．do ．．．．．．． \& 0 \& 7 \& 7 \& 0 \& 68 \& 68 \& \& 5，090 \& 29 \& \& 5，119 <br>
\hline Chicago，Ill．（126－128 Jef－ ferson street）． \& Chicago English High and Manual Training School． \& Albert ${ }^{\text {P }}$ ．Robiuson．．． \& Secondary ．．． \& 7 \& 0 \& 7 \& 474
8 \& 0 \& 474 \& 9，350 \& 1，953 \& 567 \& 2，500 \& 14，370 <br>
\hline Chicago，Ill．（Michigan arenue and 12th street）． \& Chicago Manual Training School．．．．．． \& Hemry H．Belfield． \& do \& 3 \& 0 \& 3 \& 259 \& 0 \& 259 \& 5，200 \& 185 \& 39 \& 469 \& 5，893 <br>
\hline Chicago，Ill．．．．．．．．．．．．．．．．． \& Jewish Training School ．．．．．．．．．．－．．－．． \& G．Bamberger．．．．．．．．．． \& Elemontary； secondary． \& 2 \& 4 \& 6 \& 350 \& 350 \& 700 \& 3，000 \& 200 \& 50 \& 10 \& 3，260 <br>
\hline Springfield，Ill．．．．．．．．．．．．． \& Manual Training School．．．．．．．．．．．．．．．．．．． \& E．E．Turney \& Elementary．． \& 1 \& 0 \& 1 \& 400 \& 0 \& 400 \& 400 \& 200 \& \& \& 600 <br>
\hline Indianapolis，Ind．－．－．．．．．．． \& Manual Training High School．．．－．．．．．．．． \& Charles E．Emmerich． \& Secondary．．． \& 7 \& 4 \& 11 \& 477. \& 45.2 \& 929 \& 10，200 \& 926 \& 315 \& 98 \& 11，539 <br>
\hline
\end{tabular}

TABLE 4．－Statistics of manual and industrial training schools in the Tnited States in 189\％－98－Continued．

| Location． | Name of institution． | President or director． | Grade of lit－ erary instruc－ tion． | Different teachers of industrial training． |  |  | Different pupils who receive in－ dustrial training． |  |  | Expenditure for industrial training during 1897－98． |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 帯 | 害 | － | 品 | $\xrightarrow[\text { ® }]{\text { ¢ }}$ | \％ |  |  |  |  | $\underset{\sim}{\square}$ |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1：3 | 14 | 15 |
| Knightstown，Ind | Indiana Soldiers and Sailors＇Orphans＇ Home． | A．H．Graham ．．．．．．．．． | Elementary．． | 11 | 3 | 14 | 110 | 81 | 191 | \＄4， 800 | \＄400 | \＄250 | \＄75 | \＄5，525 |
| Des Moines，Iowa | Hizh and Industrial School（West Des Moines）． | W．O．Riddell ．．．．．．．． | Secondary ．．． | 1 | 1 | 2 | 66 | 27 | 93 | 2， 700 | 150 | 25 |  | 2，875 |
| Frankfort， $\mathrm{K} y$ | State Normal School for Colored Persons． | James E．Givens | Collegiate ．．． | 2 | 1 | 3 | 70 | 68 | 138 | 2， 366 | 524 | 0 | 0 | 2，890 |
| Louisville，Ky ．．．．．．．．．．．．．． | Louisville Manual Training High School． | H．Cr．Brownell ．．．．．．． | Secondary ．．． | 6 | 0 | 6 | 235 | 0 | 235 | 5， 600 | 800 | 275 |  | 6，675 |
| New Orleans，La．（1446 Camp street）． | Home Institute－Free night school for workingmen and boys | Sophie B．Wright．．．．． | Elementary ； secondary． | 1 | 0 | 1 | 120 | 0 | 120 | 300 | 75 | 80 | 20 | 475 |
| Arbutus，Md．．．．．．．．．．．．．． | Baltimore Manual Labor School ．．． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Baltimore，Md．（311－331 Courtland street）． | Baltimore Polytechnic Institute | John W．Saville | All | 20 | 0 | 20 | 528 | 0 | 528 |  | 7，000 | 2，000 | 600 | 9， 600 |
| Baltimore，Md．．．．．． | House of Refuge | Robert J．Kirkwood．． | Elementary ； secondary． | 3 | 0 |  | 90 | 0 | 90 | 2， 200 | 500 | 200 | 100 | 3，000 |
| Do． | Samuel Ready School．．．．．．．．．．．．．．．． | Miss Helen J．Rowe ．． | Elementary ； secondary． | 0 |  | 3 | 0 | 60 | 60 |  |  |  |  |  |
| McDonogh，Md | McDonogh Educational Fund and Institute． | Sidney T．Moreland．．． | ．．．．do ．．．．．． | 1 | 0 | 1 | 40 | 0 | 40 | 500 | 500 |  |  | 1，000 |
| Port Deposit，Md | Jacob Tome Institute．．．．．．．．．．．．．．．．．．．．． | William P．Eveland ．． | Secondary ． | $\stackrel{\square}{2}$ | 2 | 4 | 130 | 225 | 355 | 3，800 | 900 | 2，000 | 50 | 6，750 |
| Boston，Mass | Friendford Industrial School | Mrs．Henry Hinckley． |  | 2 | 35 | 37 | 73 | 248 | 321 |  |  |  |  |  |
| Do． | Hebrew Industrial School | Mrs．J．H．Hecht．．－．． |  | 0 | 12 | 12 | 0 | 300 | 300 | 1，800 | 800 | 30 | 400 | 3， 030 |
| Do． | Mechanic Arts High Sehool－－．．．．．．．．．．． | Charles W．Parmenter | Secondary ． | 7 | 0 | 7 | 343 | 0 | 343 | 12，000 | 1，200 | 200 | 50 | 13， 450 |
| Do | North Bennet Street Industrial School． | Mrs．Quincy A．Shaw． | Elementary．． | 3 | 8 | 11 | 1，048 | 150 | 1，198 | 4，499 | 436 | 5 287 |  | 5，2：2 |
| Do | Sloyd Normal Training School．．．．．．．．．．． | Mrs．A．W．Fiske ．．．． |  | 2 | 2 | 4 | 34 | 64 | 98 | 4，445 | 172 | 5，563 | 902 | 11，082 |
| Do． | Woman＇s Educational and Industrial Union． | Mrs．E．F．Osborn．．．．． |  | 0 | 4 | 4 | 0 | 200 | 200 | 1，589 |  |  |  | 1，589 |
| Cambridge，Mass | Manual Training School for Boys ．．．． | Charles H．Morse | Scondary ．．． | 8 | 0 | 8 | 165 | 0 | 165 | 7，000 | 10， 195 | 1，000 | 130 | 18， 325 |
| Lowell，Mass ． | Lowell Textile School．．－．．．．．．．．．．．．．．．．．． | Wm．W．Crosby |  | 12 | 0 | 12 | 244 | 10 | 254 |  |  |  |  |  |
| Roxbury，Mass | South End Industrial School ． | Miss Louise Howe |  | 1 | 19 | 20 | 70 | 356 | 426 | 1，800 | 550 |  |  | 2， 350 |
| Lansing，Mich | Lansing Industrial Aid society Household Economic Association | Mrs．C．J．Davis． Mrs．B．Y．Coftin |  | 0 | 8 4 | 8 4 | 0 | 75 85 | 85 | 0 | 50 |  | 64 | 114 |



| Minneapolis, | James Industrial Training | Mrs. Mary B. James |  |
| :---: | :---: | :---: | :---: |
| St. Paul, Min | Mechanic Arts High School | George Weitb |  |
| St. Louis, Mo | Manual Training School of Washington University. | Calvin M. Woodward. |  |
| Hoboken, | Trinity Industrial School. | Mrs.J. F. Dalrymple. |  |
| Carson, N | New State Orphans' Hom | A. M. Beeb | Seco |
| Binghamton, N. Y | Rarlow School of Industr |  |  |
| Brooklyn, N. X. (217 Sterling Place.). | Brooklyn Industrial school Associ- ation. | Mrs. William H. Lyon | Elementary. |
| Brooklyn, N.Y. (141 South Third street). | Industrial School Association... | M. E. Whittelse |  |
| Brooklyn, N. Y | Manual Training $H$ | Charl | Sec |
|  | Pratt Institute High Scho | Wm. |  |
| New Y | Baron de Hirscla Trade |  |  |
| New York, N. Y. (109 West 54th street). | Ethical Culture Schools | John F. Reigart | Elementary and secondary. |
| New York, N. Y | Five Points House of Indust | Morris K. Jesup |  |
| New York, N. Y. (18 East 16th street). | General Society of Mechanics and Tradesmen. | Robert Chr | on |
| New York, N. Y. (36 Stuyvesant street). | Hebrew Technical Institute | Edgar S. Barne | eco |
| New York, N. Y | Ne | R. |  |
| New York, N. Y. (520 East <br> 11th street). | St. George's Evening Trad | Arthur A. Hamer- schlag. | Elementary. |
| New York, N. Y ......... | School of Industrial Art and Technical Design. | Florence E. Co |  |
| New York, N.Y. $(239$ East Honston street). | Senior Evening School for Girls . | Ruf | Ele |
| New York, $\mathrm{N}, \mathrm{Y}$ | Teachers' Colle | James E. Russell | Elementary, secondary, and collegiate. |
|  | Technical School for Carriage Draftsmen and Mechanics. | Franklin Murphy | Non |
| New York, N. Y. $(125$ St. Mark's place). | Wilson Industrial School for Gir | Mrs. H. H. G. Sharpless. | Elen |
| Rochester, N. Y | Rochester Athenæum and Mechanics' Institute. | E. | ec |
| Suffern, N. Y | The Herbart Preparatory School. | Win. J. Eckofr | Element ary and secondary. |
| Blowing Rock | Skyland Instit | Mrs. Ellen R. D | Secondary |
| Denmark, N. C | Asheville Farm Se | Samuel Jeffrrey | Elementary |
| North Wilkesboro, N. C | Academical and Industrial Institut | S. G. Walker. | Elementary and second- |
| Cincinnati, | Onio Mechanics' I | J. L. Shea | None |
| Do | Technical School of Cincinnat | J. B. Stanw |  |
| Cleveland, Ohi | Cleveland Jerwish Orphan Asylu | David Adle | Elementar |
| Philadelphia, | Central Manual Training Schoo | Wm. L. Sayre | Secondary |

Table 4,-Statistics of manual and industrial training schools in the United States in 189\%-98-Continned.

| Location. | . Name of institution. | President or director. | Grade of literary instruction. | Different teachers of industrial training. |  |  | Different pupils who receive industrial training. |  |  | Expenditure for industrial training during 1897-98. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 毞 | N | 亲 |  | $\underset{\text { En }}{\text { E. }}$ |  |  |  |  | - |
| 1 | \% | : | 4 | 5 | 6 | 7 | $\delta$ | 9 ${ }^{\text {a }}$ | 10 | 11 | 12 | 13 | 14 | 13 |
| Philadelphia, Pa | Friends' Select School | J. Henry Bartlett.. | Secondary ... | 1 |  | 1 | 111 | 200 | 311 |  |  |  |  |  |
| Do........... | Girard College............................. | Adam H. Fetteroff |  | 10 | 0 | 19 | 900 | 0 | 900 | \$12, 268 |  |  | \$3, 927 | \$16, 195 |
|  | Master Builders' Mechanical Trado School. | W. A. H. Allen.. | Elementary.. | 8 | 0 | 8 | 46 | 0 | 46 | 1,174 |  | \$942 | 3, 579 | 5,695 |
| Do. | Northeast Manual Training School..... | Andrew J. Morrison . | Secondary ... | 7 | 0 | 7 | 369 | 0 | 369 | 8, 000 | \$2, 000 | 1,000 |  | 11,000 |
| Do. | Pennsylvania Míuseum and School of Industrial Art. | Leslie V. Miller ...... | None ........ | 20 | 4 | 24 | 590 | 354 | 944 | 30, 000 |  |  | 30, 000 | 60, 000 |
| Do. | Spring Garden Institnte................. | Addison B. Burk. |  | 6 |  | 6 | 180 | 0 | 180 | 3, 980 | 300 | 700 |  | 4,980 |
| Pittsburg, Pa | School of Design for Women............. | Charles J. Clarke |  | 1 | 4 | 5 | 3 | 84 | 87 |  |  |  |  |  |
| Williamson, Pa | Williamson Free School of Mechanical Trades. | John M. Shirgley | Secondary |  |  | - | 186 | 0 | 186 | 8,750 | 1,972 |  |  | 10, 722 |
| Newport, R.I.... | Townsend Industrial School............. | Geo. H. Bryant... | ..do | 3 | 5 | 8 | 380 | 506 | 886 | 8,550 |  |  |  | 8,550 |
| Providence, R.I. | Providence Manual Training High School. | George F. Weston |  | 10 |  | 11 | 266 | 131 | 397 |  |  |  |  |  |
|  | Rhode Island School of Design......... | Warren S. Locke. | Collegiate ... | 8 | $\bigcirc 2$ | 10 | 323 | 100 | 423 |  |  |  |  |  |
|  | St. Xavier's A cademy ..... | Sister M. Fidelis. |  | 0 |  | 3 | 10 | 80 | 90 |  |  |  |  |  |
| $\xrightarrow{\text { Do }}$ Miller School ${ }^{\text {a }}$ | Tyler School. .-............ | Matthew Harkins C. E. Vawter..... | Semendary ... | $\frac{1}{6}$ | $\frac{2}{5}$ | $\therefore 3$ | 115 115 | 130 65 | 245 | 1,709 10,000 |  | 2, ${ }^{25}$ | 15 1,500 | 16,500 |
| Milwaukee, Wis . | Milwaukee Cooking School | Mary L. Clarke |  | 0 | $\stackrel{2}{2}$ | 1 | 1 | 80 | 80 |  |  |  |  |  |
| Do............ | St. Rose's Orphan Society .................. | Rev. F. X. Katzer |  | 0 | 8 | $\delta$ | 0 | 122 | 122 | 350 | 700 |  |  | 1, 050 |
| Total for the above 90 schools. |  |  |  | 384 | 289 | 673 | 16, 447 | 9, 446 | 25, 893 | 355, 719 | 69, 893 | 28, 432 | 83, 807 | 537, 861 |

TABLE 5.-Industrial schools for Indian children


Table 6.-Statistics of manual and industrial training-Branches taught.


TABLE 6.-Statistics of manual aind industrial training-Branches taught-Cont'd.

| Name of institution. | Branch of instruction. |  | Num <br> pu | er of ils. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 |
| Manual Training High School, Denver, Colo.-Continued. | Carpentry | 2 | 75 | 75 |  |
|  | Wood turning | 1 | 75 | 0 |  |
|  | Carving ... | 2 | 75 | 75 |  |
|  | Pattern making | 1 | 50 | 0 |  |
|  | Forging | 1. | 50 | 0 |  |
|  | Sheet-metal worl | 1. | 50 | 0 |  |
|  | Molding (metal) | 1 | 50 | 0 |  |
|  | Vise worik..... | 1 | 35 | 0 |  |
|  | Machine-shop worl | 1 | 35 | 0 |  |
| Young Men's Christian Association, Bridgeport, Conn. | Free-hand drawing. | 1 | 10 | 0 | 20 |
|  | Mechanical drawing | 1 | 43 | 0 | 20 |
|  | Carpentry . | 1. | 11 | 0 | 30 |
|  | Plumbing. | 1 | 8 | 0 | 30 |
|  | Electricity ... | 1 | 30 | 0 | 20 |
| Boardman Manual Training High School, New Haven, Conn. | Free-hand drawing - | 1 | 0 | 1 | 160 |
|  | Mechanical drawing | 1 | 1 | 0 | 160 |
|  | Clay modeling..... | 1 | 0 | 1 | 50 |
|  | Sewing .-..... | 1 | 0 | 1 | 160 |
|  | Cooking.. | 1 | 0 | 1 | 160 |
|  | Carpentry :-. | 1 | 1 | 0 | 30 |
|  | Wood turning | 1 |  |  | 10 |
|  | Carving - .-... | 1 | 0 | 1 | 110 |
|  | Venetian iron. | 1 | 0 | 1 | 120 |
|  | Pattern making | 1 | 1 | 0 | 30 |
|  | Forging | 1 | 1 | 0 | 40 |
|  | Molding (metal) | 1 | 1 | 0 | 10 |
|  | Machine-shop work | 1 | 1 | 0 | 40 |
| Manual Training School, Ridgefield, Conn. | Sewing . . . . . . . . . | 1 | 0 | 38 | 24 |
|  | Cooking ....... | 1 | 0 | 32 | 48 |
| St. Joseph's Industrial School for Colored Boys, Clay ton, Del. | Clay modeling. | 1 | 4 | 0 | - |
|  | Carpentry ........... | 1 | ${ }^{2}$ | 0 | --.... |
|  | Farm or garden work | 3 | 12 | 0 | ... |
|  | Painting. | 1 | 4 | 0 | -...-. |
|  | Tailoring... | 1 | 4 | 0 | -..... |
|  | Shoemaking ... | 1 | 3 | 0 |  |
| Industrial Home School, District of CoIumbia, Georgetown, D. C. | Free-hand drawing | 2 |  |  |  |
|  | Clay modeling ............. | 1 |  |  |  |
|  | Paper cutting and folding | 1 |  |  |  |
|  | Sewing -.................. | 4 |  |  |  |
|  | Cooking... | 1 |  |  | -..... |
|  | Wood turning ....... | 1 |  |  |  |
|  | Farm or garden work | 2 |  |  | 52 |
| St. Rose's Industrial School, Washington, D. C. <br> Chicago English High and Manual Training School, Chicago, Ill. | Sewing .-............. | 5 | 0 | 65 3 | 36 52 |
|  | Cooking -.....-..... | 1 | ${ }^{0}$ | 3 | 52 |
|  | Free-hand drawing - | 1 | 474 474 | 0 |  |
|  | Carpentry -......... | 3 | 249 | - 0 |  |
|  | Wood turning.. | 3 | -40 | - |  |
|  | Sherging .......... | 1 | 149 | 0 | 40 |
|  | Molding ....... | 1 |  |  |  |
|  | Vise work .......... Machine-shop work | 1 | 86 | 0 | 40 |
| Chicago Manual Training School, Chicago, 111. | Free-hand drawing | 1 | 130 | 0 | 20 |
|  | Mechanical drawing | 1 | $\Sigma 62$ | 0 | 100 |
|  | Carpentry ..... | 1 | 130 | 0 | 40 |
|  | Pattern making . |  |  |  |  |
|  | $\begin{aligned} & \text { Forging } \\ & \text { Molding (metal) ....... } \end{aligned}$ | 1 | 68 |  | 40 |
|  | Vise work .......... |  |  |  |  |
|  | Machine-shop work .... | 1 | 64 | 350 | 40 |
| Jewish Training School, Chicago, Ill...... | Free-hand drawing... <br> Mechanical drawing. | 2 | 350 300 | 350 300 | 40 40 |
|  | Clay modeling... | 7 | 150 | 150 | 40 |
|  | Paper cutting and folding .. | 5 | 200 | 200 | 40 |

Tabre 6.-Statistics of manual and industrial training—Branches taught-Cont'd.

| Name of institution. | Brancli of instruction. | Number of instructors. | Numb <br> pup $\underset{\underset{y y y}{\|c\|}}{\stackrel{y}{\text { g}}}$ | ber of ils. <br>  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | ${ }_{2}$ | 3 | 1 | 5 | 6 |
| Jewish Training School, Chicago, Ill.Continued. | Sewing | 2 |  | 250 | 40 |
|  | Sloyd, or knife work | 1 | 350 |  | 40 |
|  | Carpentry .......... | 1 | 400 | 200 | 40 |
|  | Wood turning | 1 | 50 |  | 40 |
|  | Carving .-. | 1 | 50 |  | 40 |
|  | Pattern making | 1 | 20 |  | 40 |
|  | Forging .....- | 1 | 20 |  | 40 |
|  | Molding (metal) | 1 | 20 |  | 40 |
|  | Vise work...... | 1 | 20 |  | 40 |
|  | Machine-shop work | 1 | 30 | 45 | 40 |
|  | Painting........... | 2 | 24 | 60 | 40 |
|  | Designiug --... | 1 | 60 | 60 | 40 |
| Nannal Training School, Springfield, Ill.. | Free-hand drawing | 1 | 58 |  | 40 |
|  | Mechanical drawing | 1 | 58 | . . | 40 |
|  | Sloyd, or knife work | 1 | 58 |  | 40 |
|  | Carpentry --....... | 1 | 58 |  | 40 |
|  | Wood turning... | 1 | 58 | - | 40 |
| Manual Training Migh School, Indianapolis, Ind. | Free-hand Grawing . | 3 | 208 | 49 | 38 |
|  | Mechanical drawing | 2 | 269 | 1 | 124 |
|  | Sewing ......... | 4 | 0 0 | 296 | 38 38 |
|  | Carpentry: | 2 | 185 | 0 | 19 |
|  | Wood turning | 1 | 160 | 0 | 19 |
|  | Hygiene and nursing | 1 | 0 | 45 | 19 |
|  | Pattern making ..... | 1 | 39 |  | 38 |
|  | Forging ........ | 2 | 102 |  | 38 |
|  | Molding (metal) .-. | 1 | 39 |  | 38 |
|  | Machine-shop work. | 2 | 30 |  | 38 |
| Indiana Soldiers and Sailors' Orphans' Home, Knightstown, Ind. | Paper cutting and folding. | 1 | 20 | 12 | 40 |
|  | Sewing ..................... | 2 | 2 | 53 | 80 |
|  | Cooking .. | 1 |  | 16 | 30 |
|  | Carpentry | 1 | 5 |  | 120 |
|  | Paking. -... | 1 | 12 |  | 120 |
|  | Floriculture | 1 | 12 | . | 120 |
|  | Farm or garden wo | 3 | 13 | -.... | 120 |
|  | Printing -.. | 1 | 31 |  | 120 |
|  | Engineering | 2 | 10 |  | 120 |
|  | Shoemaking . . . . . . | 1 | 5 |  | 120 |
| High and Industrial School, West Des Moines, Iowa. | Free-hand drawing- | 1 | 6 | 24 | 36 |
|  | Mechanical drawing | 1 | 32 | 4 | 72 |
|  | Sloyd, or knife werk | 1 | 26 | 24 | 72 |
|  | Carpentry | 1 | 25 | 1 | 36 |
|  | Wood turning. | 1 | 12 | 0 | 24 |
|  | Carving............. | 1 | 12 | 3 | 12 |
| State Normal School for Colored Persons, Frankfort, Ky. | Free-hand drawing... | 1 | 35 | 22 | 36 |
|  | Mechanical drawing.. | 1 | 7 | 0 | $\because 6$ |
|  | Clay modeling............. | 1 | 15 | 16 |  |
|  | Paper cutting and folding | 1 | 15 | 16 |  |
|  | Sewing .-..-.-.----. - .-. | 1 | 0 | 68 | 36 |
|  | Cooking... | 1 | 0 | 68 | 36 |
|  | Carpentry .... | 1 | 7 | 0 | 36 |
|  | Wood turning...... | 1 | 7 | 0 | 36 |
|  | Carring ................... | 1 | 5 | 0 |  |
|  | Farm or garden work...... | 1 | 50 131 | 0 | 36 |
| Louisvillo Manual Training High School, Lonisville, Ky. | Mechanical drawing | 2 | 131 | 0 |  |
|  | Carpentry .......... |  | ( 131 | 0 | ---... |
|  | Wood turning.... | 2 | $\{117$ | - 0 | ....... |
|  | Carving ........... <br> Pattern making |  | 103 103 | - 0 | .-.... |
|  | Pattern making.. Forging ......... | 2 | 103 68 | 0 | -..... |
|  | Sheet-metal work |  | 45 | 0 | -...... |
|  | Molding metal. | 2 | $\left\{\begin{array}{l}46 \\ 83\end{array}\right.$ | 0 | ...... |
|  | Vise work .......... |  | 33 <br> 33 | 0 | ...... |
| Home Institnte.-Free night school for workingmen and boys, New Orleans, La. | Machine-shop woik |  | 33 120 | 0 |  |
|  | Free-hand drawing | 1 | 120 | 0 |  |

TABLE 6．－Statistics of munual and industrial training－Brenches taught－Cont＇d．

| Name of institution． | Branch of isstruction． |  | Number of pupils． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2 | 3 | 1 | 5 | 6 |
| Baltimore Polytechnic Institute，Balti－ more，Md． | Free haud drawing | 2 | 360 | 0 | 0 |
|  | Mechanical drawing | 1 | 180 | 0 | 40 |
|  | Carpentry | 2 | 280 | 0 | 40 |
|  | Wood tarning | 1 | 60 | 0 | 40 |
|  | Patternmaking． | 1 | 15 | 0 | 40 |
|  | Forging | 1 | 90 | 0 | 40 |
|  | Sheet－metal work | 2 | 280 | 0 | 40 |
|  | Vise work ．．．．．．． | ， | 15 | 0 | 40 |
|  | Machine－shop wor Sewing ．．．．．．．．．． | 1 | 36 | 0 | 40 |
| House of Refuge，Baltimore，Md．．．．．．．．．． | Sewing Cooking ． | 1 | 15 | 0 | ．．．．．．． |
|  | Carpentry | 1 | $3+$ | 0 | － |
|  | Wood turning |  | 6 | 0 | ．．．．．． |
|  | Vise mork | 1 | 20 | 0 |  |
|  | Machine－shop work |  | 4 | 0 |  |
|  | Farm or garden wor | 1 | 2 | 0 |  |
|  | Printing．．．．．． | 1 | 10 | 0 | ．．．．．． |
|  | Painting．．．．．．．．． | 1 | 3 0 | 0 |  |
| Samuel Ready School，Baltimore，Md．．．．． | Clay modeling．． | 1 | 0 0 | 18 | ．．．．．．． |
|  | Sewing ．．．．．．． | 1 | 0 | 60 |  |
|  | Cooking | 1 | 0 | 22 |  |
|  | Dressmaking | 1 | 0 | 4. | ．．． |
|  | Millinery ．．． |  | 0 | 1 |  |
|  | Floriculture．．．．．． |  | 13 | 1 |  |
| McDonogh Educational Fund and Insti． tate，JicDonogh，Md． | Free－hand drawing． | 2 | 130 | 0 | 40 |
|  | Mechanical drawing | 1 | 20 | 0 |  |
|  | Carpentry ．．．． | 1 | 30 | 0 | 12 |
|  | Wood turning | 1 | 30 | 0 |  |
|  | Carring ．．．． | 1 | 30 | 0 | 12 |
|  | Pattern making | 1 | 30 |  | 12 |
|  | Vise work．．．． | 1 | 10 | 0 | 21 |
|  | Machine－shop work | 1 | 10 | 0 | 24 |
|  | Printing ．．．．．．．． |  | 19 | 0 |  |
| Jacob Tome Institute，Port Deposit，Md．． | Free hand drawing． | 2 | 130 | $\bigcirc 25$ | 494 |
|  | Mechanical drawing | 1 | 65 | 27 | 152 |
|  | Clay modeling | 1 | ${ }^{46}$ | 39 | 76 |
|  | Sewing－－ | 7 | 130 | 225 | 491 |
|  | Cooking－．．．．．．．．．．－ | 1 |  | 25 | 76 |
|  | Sloyd or mnife work | 1 | 72 | 40 | 114 |
|  | Carpentry | 1 | 44 |  | 76 |
|  | Wood turning | 2 | 21 |  | 38 |
|  | Pattern making | 1 | 13 |  | \％ |
|  | Sheet－metal work | 1 | 13 |  | 6 |
|  | Molding．．．．．．．．．．． | 1 | 13 |  | 10 |
| Friendforl Industrial School，Boston， Mass． | Free－hand drawing． | 5 | 41 |  |  |
|  | Mechanical drawing | 23 | 17 | 191 | 26 |
|  | Cooking．． | 1 |  | 8 | 26 |
|  | Sloyd or knife work | 1 | 15 |  |  |
|  | Carpentry．．．．． | 1 |  | 30 |  |
|  | Embroidery．． | 1 |  | 8 | 26 |
|  | Millinery ．．．． | 1 |  | 8 | 26 |
| Hebrew Industrial School，Boston，Mass．． | Sewing．．． | 8 | 0 | 303 | 30 |
|  | Cooking．${ }^{\text {ree－hand }}$ drawing | 2 | 0 343 | 25 | 30 |
| Mechanic Arts High School，Boston， Mass． | Mechanical drawin | 2 | 343 | 0 | 80 |
|  | Carpentry ．．．．． | 2 | 185 | 0 | 30 |
|  | Wood turning | 1 | 123 | 0 | 16 |
|  | Carving | 2 | 185 | 0 | 19 |
|  | Pattern making | 1 | 123 | 0 | 4 |
|  | Forging ．．．．．．．．．．．．． | 1 | 123 35 | 0 | 20 40 |

TABLe 6.-Statislics of manual and industrial training-Branches tanght-Cont'd.


TABLE 6.-Statistics of manual and industrial training-Branches taught-Cont'd.

| Name of institution. |
| :---: |
| T |
| $\left.\begin{array}{c}\text { Trinity Industrial School, Hoboken, N..J.. } \\ \text { Barlow School of Industrial Arts, Bing. }\end{array}\right]$ | hamton, N. Y.

Brookly Intustrial School Association and Home for Destitute Children, Brooklyw, N. Y.

Iudustrial school Association, Brooklyn, N. Y.

Mannal Training High School, Brooklyn, N. Y.

Pratt Institute High School, Brooklyn, N. Y.

Baron de Hirsch Trade Schools, New Iork, N. Y.

Fthical Cultare Schools, New York, N. Y

Five Points Honse of Industry, New Tork, N. Y.
General Society of Mechanics and Trades. men, New York, N. Y.

Hebrew Technical Institute, New York, N.Y.

Table: 6.-Statistics of manual and industrial training-Branches taught-Cont'd.

| Name of institution. | Brancli of instruction. |  | Number of pupils. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 热 |  |  |
| 1 | £ | 3 | 4 | 5 | (b) |
| Hebrew Technical Institute, New York, N. Y. -Continued. | Pattern-making | 1 | 5 | 0 | 48 |
|  | Forging ........ | 1 | 5 | 0 | 24 |
|  | Vise work. | 1 | 60 | 0 | 48 |
|  | Machine-shop work | 1 | 30 | 0 | 48 |
| New I'ork Trade School, New York, N. Y. | Mechanical drawing | 3 | 22 | 0 |  |
|  | Carpeutry ...... | 3 | 30 | 0 |  |
|  | Eleetricity. | 3 | 49 | 0 |  |
|  | Steam fitting. | 2 | 29 23 | 0 |  |
|  | Forging ...... | 1 | 15 | 0 |  |
|  | Sheet-metal work | 1 | 21 | 0 |  |
|  | Stone cutting ... | 1 | 4 | 0 |  |
|  | Plastering.. | 1 | 8 | 0 |  |
|  | Bricklaying .. | 1 | 39 | 0 | ..... |
|  | Printing ${ }^{\text {Painting, fresco }}$ | ${ }_{2}^{3}$ | 13 29 | 0 |  |
|  | Painting, house. | $\stackrel{2}{2}$ | 18 | 0 |  |
|  | Painting, sign . | 1 | 25 | 0 |  |
| St. Gcorge's Evening Trade School, New York, N. Y. | Free-hand drawing | 1 | 25 | 0 | 33 |
|  | Mechanical drawing. | 1 | 80 | 0 | 33 |
|  | Paper cutting and folding | 1 | 75 | 0 | 33 |
|  | Sloyd or knife work... | 1 | 75 | 0 | 33 |
|  | Carpentry .......... | 1 | 80 | 0 | 33 |
|  | Wood turning. | 1 | 20 48 | 0 0 | 33 33 3 |
|  | Pattern making | 1 | 20 | 0 | 33 |
|  | Printing.......... | 1 | 50 |  | 33 |
| School of Industrial Art and Technical Design, New York, N. Y. | Free hand drawing. | $\stackrel{2}{2}$ | 1 | 156 230 | 48 |
|  | Mechanical drawing Pattern making.... | ${ }_{1}^{2}$ | 1 | 230 327 | 48 |
| Senior Erening School for Girls, New York, N. Y. | Sewing ......... | 2 |  |  |  |
|  | Cooking ..... | 1 | . |  |  |
|  | Vise work..... |  |  |  | 18 |
|  | Machine shop...... | 4 | 4 | 75 | 18 |
| 'Teachers' College, New York, N. Y........ | Mechanical drawing | 2 | 48 | 55 | 200 |
|  | Clay modeling ............ | 1 | 3 | 22 | 40 |
|  | Paper cutting aud folding | $\stackrel{2}{2}$ | 13 | 12 | 33 |
|  | Sewing ......... | $\stackrel{5}{2}$ | 40 | 156 62 | 145 30 |
|  | Slosd..... | 1 | 3 | 62 59 | 38 |
|  | Carpentry | 1 | 68 | 9 | 34 |
|  | Wood turning | 1 | 68 |  | 21 |
|  | Carving ......... | 1 | 3 68 | 55 | 80 13 |
|  | Forging ....... | 1 | 45 |  | 8 |
|  | Vise wowk | 1 | 45 |  | 4 |
|  | Machine shop work | 1 | 45 |  | 18 |
| Technical School for Carriage Draftsmen and Mechanics, New York, N. Y. | Free-hand drawing | , | 10 |  | 8 |
| Wilson Industrial School for Girls, Now York, N. Y. | Sewing .- | 1. | 0 | 70 | 40 |
|  | Cooking. | , | 0 | 28 | 16 |
|  | Kitchen gardening |  | 0 | 160 | 32 |
| Rochester Athenæum and Mechanical Institute, Rochester, N. Y. | Free-hand drawing. | ${ }_{7}^{6}$ | 142 | 154 | 30-90 |
|  | Mechanical drawing | 7 | 220 10 | 10 10 | 90 30 |
|  | Sewing ......... | , |  | 403 | 36 |
|  | Cooking ........... | 1 | $\cdots$ | 40) | 36 |
|  | Sloyd, or knife work Carpentry ........ | 1 | 240 | \% | 34 |
|  | Dressmaking | 4 |  | 263 | 36 |
|  | Shirt waists. | 1 |  | 59 | 36 |
|  | Millinery .... | 2 |  | 81 | 36 |
|  | Lettering. | 1 | 59 | 6 | 30 |
|  | Electricity... | 1 | 49 | 6 | 30 |
|  | Telegraphy........ | 1 | 9 | 9 | 30 |
| Herbart Preparatory School, Suffern, N. Y. Skyland Institute, Blowing Fock, N.C.... | Free-hand drawing | 1 | -929 | ${ }_{12}^{2}$ | 20 |
|  | Sewing ..... | 1 | 29 0 | 12 |  |
|  | Cooking | 1 | 0 | 25 |  |

TAble 6.-Statistics of manual and industrial training-Branches taught-Cont'd.

| Name of institution. | Branclu of instruction. - |  | Num pup $\stackrel{9}{ت}$ | ber of ils. $\qquad$ $\square$ -әгвиед |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 1 | 5 | 6 |
| - Asheville Farm School, Denmark, N. C.... | Free-hand drawing | 1 | 30 | 0 | 38 |
|  | Mechanical drawing | 1 | 12 | 0 | 38 |
|  | Cooking .- | 1 | 18 | 0 |  |
|  | Carpentry ...... | 1 | 20 | 0 | 38 |
|  | Laundry work..... | 1 | 30 98 | 0 |  |
|  | Garm or garden work | $\stackrel{1}{2}$ | 98 | 0 |  |
| Academical and Industrial Institute, North Wilkesboro, N. C. | Free-hand drawing. | 1 | 2 |  |  |
|  | Sewing Cooking | 1 |  | ${ }_{6}^{6}$ |  |
|  | Carpentry | 1 | $\stackrel{7}{2}$ |  |  |
|  | Farm or garden work | 1 | 6 | 2 |  |
|  | Bricklaying.......... | 1 | 2 |  |  |
| Ohio Mechanics' Institute, Cincinnati, Ohio. | Free-hand drawing. | 4 |  |  |  |
|  | Architectural drawing | 4 |  |  |  |
|  | Electricity...... | 1 |  |  |  |
| Technical school of Cincinnati, Cincinnati, Ohio. | Free-hand drawing. | 1 | 194 |  | 25 |
|  | Mechanical drawing | 1 | 194 |  | 15 |
|  | Carpentry | 1 | 70 |  | 0 |
|  | Wood truming | 1 | 70 |  | 10 |
|  | Forging | 1 | 59 |  | 40 |
|  | Vise work. | 1 | 30 |  | 20 |
| Cleveland Jewish Orphan Asylnm, Cleveland, Ohio. | Machine-shop work | 1 | r 208 | 90 | ${ }_{38}^{20}$ |
|  | Mechauical drawing | 2 | 66 |  | 40 |
|  | Paper cutting and folding | 2 | 74 | 42 | 0 |
|  |  | 2 |  | 90 36 | 0 |
|  | Sloyd, or knife wor | 1 | 36 |  | 30 |
|  | Carpentry ..... | , | 27 |  | 38 |
|  | Wood turning | 1 | 12 |  | 38 |
|  | Carring .- | 1 | 12 |  | 16 |
|  | Vise work. | 1 | 12 |  | 16 |
|  | Machine-shop work | 1 | 12 |  | 16 |
|  | Printing............ | 1 | ${ }_{6}^{6}$ |  | 24 40 |
| Central Manual Training School, Philadelphia, Pa. | Free-hand drawing. | 1 | 434 |  | ${ }_{40}^{40}$ |
|  | Carpentry ......... | 1 |  |  | $\pm 0$ |
|  | Wood turning. Carring ....... | 1 | 201 |  | 40 |
|  | Pattern making | 1 | 122 |  | 40 |
|  | Forging ....... | 1 | 122 |  | 40 |
|  | Sheet-metal work |  |  |  |  |
|  | Molding ......... | 1 | 201 |  | 40 |
|  | Machine-shop work | 1 | 106 |  | 40 |
| Friends' Select School, Philadelphia, Pa... | Free-hand drawing | 1 | 57 | 131 |  |
|  | Mechanical drawing | 1 | 7 | 21 | 36. |
|  | Sloyd, or knife work | 1 | 54 | 70 | 108 |
| Girard College, Philadelphia, Pa.......... | Mechanical drawing | 1 | 580 |  | 210 |
|  | Sloyd, or knife wor | 1 | 329 |  | 164 |
|  | Warpentry turning. | 1 | 580 |  | 210 |
|  | Pattern making | 1 | 580 |  | 210 |
|  | Forging ........ | 1 | 580 |  | ${ }_{210} 10$ |
|  | Molding (metal) | 1 | 580 |  | 210 |
|  | Vise work ......... <br> Machine shop worl | 1 | 580 |  | 210 |
|  | Electricity... | , | 580 |  | 210 |
|  | Plumbing...... | 1 | 580 |  | 210 |
| Master Builders' Mechanic Trade School, Philadelphia, Pa. | Carpentry .... | 1 | 6 5 | 0 0 | 9 9 |
|  | Painting... | 1 | 4 | 0 | 9 |
|  | Plumbing | , | 27 | 0 |  |
|  | Plastering......... |  | 4 | , |  |
| Northeast Manual Training School, Philadelphia, Pa. | Free-hand drawing | $\frac{1}{1}$ | 275 369 | 0 0 | 65 117 |
|  | Ciay modeling ...... |  | 114 | 0 | 13 |

TABLe 6.-Statistics of manual and industrial training-Branches taught-Cont'd.,

| Name of institution. | Branch of inştruction | -ssoponxisu! jo iequañ | Number of pupils. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { @ } \\ & \text { Ā } \end{aligned}$ |  |  |
| 1 | 2 | 3 | 4 | 5 | 6 |
| Northeast Manual Training School, Philadelphia, Pa.-Continued. | Carpentry |  | 161 | 0 | 26 |
|  | Wood turning | 1 | 161 | 0 | 13 |
|  | Carving ..... |  | (114 | 0 | 13 |
|  | Pattern making | 1 | 114 | 0 | 26 |
|  | Forging | 1 | 114 | 0 | 39 |
|  | Sheet-metal work |  | \{ 161 | 0 | 30 |
|  | Molding (metal) Vise work | 1 | $\left\{\begin{array}{l}161 \\ 161\end{array}\right.$ | 0 | 30 26 |
|  | Marhine shop work | 1 | ${ }_{94}$ | 0 | 39 |
| Pennsylvania Museam and School of Industrial Art, Philadelphia, Pa. | Free-hand drawing | 10 | 500 | 300 | 36 6 |
|  | Mechanical drawing | 2 |  |  |  |
|  | Clay modeling . | 1 |  |  | . |
|  | Vise work | 1 | ..... |  |  |
|  | Painting.. | 2 |  |  |  |
|  | Weaving | 3 |  |  |  |
|  | Dyeing - ........ | 4 | ..... |  |  |
|  | Carding and spinming | 1 |  |  |  |
| Spring Garden Institute, Philadelphia, Pa. | Mechanical drawing. | 2 | 180 |  | 0 |
|  | Pattern making .... | 1 | 10 |  | 80 |
|  | Vise work | 2 | 30 |  | 80 |
|  | Machine-shop work | 2 | 30 |  | 80 |
|  |  | $\stackrel{2}{5}$ | 114 |  | 52 |
| School of Design for Women, Pittsburg, P:1. <br> Williamson Free School of Mechanical Trades, Williamson School, Pa. | Free-hand drawing | 5 |  |  |  |
|  | Free-hand drawing | 2 | 186 |  | 156 |
|  | Meehanical drawing Carpentry | $\stackrel{2}{1}$ | 186 $\quad 39$ |  | 156 |
|  | Pattern making | 1 | 31 |  | 156 |
|  | Vise work, forging | 2 | 70 |  | 15 |
|  | Machine shop work | 2 | 70 |  |  |
|  | Bricklaying ........ | 1 | 46 |  | 156 |
| Townsend Industrial School, Newport, R. I. | Free-hand drawing Mechanical drawing | 1 | 28 | 9 | 120 |
|  | Sewing ....... | 2 |  | 433 | 80 |
|  | Cooking .......... | 2 |  | 395 | 80 |
|  | Sloyd, or knife wor | 1 | 331 |  | 160 |
|  | Carpentry ${ }^{\text {Wood turning } . . . . .}$ | 1 | 13 |  | 30 10 |
|  | Carving .. | 1 |  |  |  |
|  | Patterin making | 1 | 10 |  | 7 |
|  | Forging ....... |  |  |  | 30 |
|  | Molding (metal) | 1 | 10 |  | 3 |
|  | Vise work........... <br> Machine-shop work | 1 | 7 |  | 10 50 |
| Providence Manual Training High School, Jrovidence, R. I. | Free-hand drawing | 3 | 2 | 1 | 160 |
|  | Mochanical drawing |  |  | 1 | 160 |
|  | Clay modeling ...... | , | 1 |  |  |
|  | Sewing ....... | 1 |  | 1 | 20 |
|  | Cooking ..... | 1 |  | 1 | 20 |
|  | Carpentry ..... | 2 | 2 |  | 20 |
|  | Wood turning ... | 1 | 1 |  | 14 |
|  | Domestic science | , |  | 1 | 40 |
|  | Millinery .... |  |  | 1 | 20 |
|  | Dressmaking. | 1 |  | 1 | 20 |
|  | Pattern making. | 1 | 1 |  | 10 |
|  | Forging ......... | 2 | 2 |  | 40 |
|  | Molding (metal) ... | 1 | 1 |  | 10 10 |
|  | Vise work $\ldots$......... Machme shop work | 1 | 1 |  | 10 40 |
|  | Steamand electricul engin |  | 2 |  | 20 |
|  | Photo science........... | 1 | 17 |  | 10 |
| Rhode Island Seheol of Design, Providence, R. 1. | Free-hand drawing Mechanical drawin | 6 4 | 176 162 | 84 1 | 32 32 |
|  | Clay modeling | 1 | 10 |  | 32 |
|  | Carving ................ | 1 |  | 6 | 32 |

Table 6.-Statistics of manual and industrial training-Branches taught-Cont'd.


Table 6.-Statistics of manual and industrial training-Tiranches taught-Cont'd.


Table 6. -Statistics of manual and induslial training-Pranches taught-C'ont'd.

'Table 6.-Statistics of manual and industrial training-Branches taugh'-Cont'd.

| Name of institution. | Branch of instruction. |  | Numl <br> pup $\stackrel{\stackrel{\rightharpoonup}{\Xi}}{\stackrel{y}{3}}$ | er of ls. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 |
| United States Iudian Industrial School, Carlisle, Pa. | Free-hand drawing |  | 370 | 247 | 36 |
|  | Mechameal drawing. | 1 | $\{370$ | 247 | 36 |
|  | Clay modeling |  | ( 43 | 32 | 36 |
|  | Pajer cuting and folding | 1 | 43 | 32 | 36 |
|  | Sewingr ..................... | 1 |  | 398 | 40 |
|  | Cooking ..... | 1 |  | 200 | 16 |
|  | Sloyd... | 1 | 75 | 31 | 36 |
|  | Carpentry .......... | 1 | 35 | 0 | 40 |
|  | Steam fitting ....... | 1 | 8 | 0 | 40 |
|  | Laundry............. | 1 | 15 | 300 | 40 |
|  | Dairying | 1 | 200 | 25 | 16 |
|  | Forging .-............ | 1 | 20 | 0 | 40 |
|  | Sheet-metal work.... | 1 | 12 | 0 | 40 |
|  | Shoemaking .-........ | 1 | 40 | 0 | 40 |
|  | Farm or garden work | 2 | 362 | 0 | 20 |
|  | Bricklay ing. . . . . . - . - . | 1 | 8 | 0 | 12 |
|  | Painting (house and carriag | 1 | 8 | 0 | 40 |
|  | Plastering ................... | 1 | 8 8 | 0 | 12 |
|  | Tailoring .......... Printing | 1 | 40 20 80 | 0 2 | 40 40 |
| Pierre Indian School, Pierre, S. Dak........ | Free hand drawing | 5 | 88 | 78 | -.... |
|  | Mechanical drawng.. | 1 | 6 |  | ..... |
|  | Clay modeling ........... | 1 | 10 | 10 | - |
|  | Paper cutting and folding | 1 | 10 | 10 | ...... |
|  | Sewing . . . . . . . . . .-. - .-. | 1 | 4 | 60 | .... |
|  | Conking ..... | 1 | 4 16 | 60 | . . . |
|  | Ciuyd ..... | 2 1 | 16 6 | 10 | . |
|  | Wood turning | 1 | 2 | - |  |
|  | Pattern making. | 1 | 6 |  |  |
|  | Farm or sarden. . . .-. .-. | 1 | 8 |  |  |
| Tomah Indian Industrial School, Tomah, Wis. | Paper cutting aud folding | 1 | 20 | 15 | - |
|  | Cooking | 2 |  | 60 | - |
|  | Carpentry .............. | 1 | 20 |  | - |
|  | Farm or garden work | 2 | 30 |  |  |
| United States Indian Industrial School, Wittenberg, Wis. | Sewing Cooking ................... | 1 |  |  | 88 88 |
|  | Cooking ${ }^{\text {Carpeniry }}$ | 1 | 25 | 20 | 88 |
|  | Lanndry-.............. . | 1 |  | 20 | 88 |
|  | Farm or garden work... | 1 | 25 | ...... | 88 88 |
|  | Panto |  |  |  | 88 |

## CHAPTER XLIX.

## COMMERCIAL EDUCATION IN THE UNITED STATES.

Commercial or bnsiness colleges, so called, had their beginning in the United States more than fifty years ago. At least one institution of this class now in existence was establish d in 1840. For many years the branches tanght in these business schools were substantially limited to bookkeeping, arithmetic in which prominence was given to percentage and conmercial calculations, penmanship, and business forms. Later stenography and typewriting were added. For twenty years or more these private schools made but slow progress, partly because the training offered in these branches was not superior to that which could be obtained by their study in many of the colleges and private academies.
In 1870 this Burean received reports. from 26 business colleges, although there must have been a larger number then in existence. These 26 schools had 5,824 students In 1880 the number of schools reporting had increased to 162 and the number of students to 27,146 .
The demand for stenographers and typewriters caused the rapid growth in the attendance upon these schools. Ammuensis courses were offered in nearly all of them, and students oltained diplomas or certificates of graduation in from two to six months in some of them. Very few of these schools had courses of stndy extending over more than one year.
In 1890 the number of bnsiness schools reporting to this office was 263 , and the number of stadents $78,9: 0$. The highwater mark was reached in 1894, when 518 of these schools reported to this office, with an eurollment of 115,748 students. Since that time there las been a stearly decline in the number of schools and a rapid decrease in the number of students. For the last year (1898) there were only 337 commercial or business schools reporting to this office, and the unmber of students was only 70,950 . This decrease is attributed partly to the business depression of the past fer ytars and partly to the fact that so many public high schools, as well as many private colleges and academiss, have established commercial courses in many respects superior to those offered by a majority of the business colleges.

HIGHER COMMERCIAL EDUCATION.
It has been long admitted among leading business men that those preparing for business careers shonld have the opportunity to accuite a commercial education higher and broader than that given by even the best of the so-called basiness colleges. Abont ten years ago the American Bankers' Assuciation began to direct the attention of educators and the puline to the need of a more adequato professional training for yomg men preparing for business life. A committee wap appointed to find out what was being doue in this direction in the institntions for higher education in the United Staths. It was fonnd that the Wharton School of Finance and Economy of the University of Pennsylvania was the only institution offering a conrse of study of a grade comparable with the regular collegiate course, and specializing these smbjects most important to thorongh training for business and citizenship. At the request of this committee Dr. Edmund J. James, then professor in the Wharton School, gave an exposition of the aims and methods of this school in a
valuable paper read before the association at Saratoga in 1890, in which he also discussed the situation of business education in general in the United States. The association adopted resolutions recommending the organization of departments similar to the Wharton School in other universities and colleges. Professor James was invited to visit the leading educational centers of Europe, examine their best commercial schools, and present a report upon the subject. Professor James presented his report to the American Bankers' Association in 1893. It was printed by the association and was grected by educators and business men as the most valuable contribution in aid of higher commercial education yet made in this country. The report was reprinted in the 1895-96 Report of the United States Commissioner of Education. ${ }^{1}$
The agitation begun by the American Bankers' Association has resulted in the establishment of commercial departments in at least $t \pi o$ universities (the University of California and the University of Chicago), the improvement of business courses in a number of colleges, and the organization of such courses in other colleges and in many public and private high schools and academies. The accompanying tables from 1 to 9 exhibit the statistics of commercial education in the United States for the year ending June, 1898.

IN INIVERSITIES ANH (OLLEGES.
Table 1 shows that 172 universities and colleges had 5,869 students in commercial or business courses. The names of the institutions appear in Table 5. With a fow exceptions these "commercial courses" include little more than bookkeeping, commercial arithmetic, commercial geography, commercial law, stenography, and typewriting, in connection with an English course of study corering about two years.

## THE WILARTON SCHOOL.

The first institution in the United States to offer a thorough professional education to soung men contemplating business careers was the Wharton School of Finance and Economy of the University of Pennsylvania, already mentioncd. This school was founded in 1881 by Mr. Joscph Wharton, a wealthy citizen of Philadelphia, whose first gift to the school was $\$ 100,000$. His desire was that the school shonld offer facilities for obtaining, (1) "An adequate cducation in the principles underlying successful civil government;" (2) "A training suitable for those who intend to engage in business, or to undertake the management of property."
The course in finance and economy constructed upon the plan suggested by the founder extends over four years and is onc of the regular college courses, leading to the degree of Bachelor of Science in Economics. In 1897-98 there were 87 students in this school.
The course of study for the four years is as follows:
Freshman class.-Composition, algebra, solid geometry, trigonometry, general chemistry, German, accounting, physical and economic geography, practical economic problems, economic literature, legislative and cxecutive documents.
Sophomore class.-Modern novelists, history of English literature, German, business law, money and banking, business practice, American history, Roman history, theory and geography of commorce, American constitutional law, European constitutional law, legislative procedure and organization, political economy, public speaking (optional).
Junior class.-Comparative politics, modern legislative problems, public administration, business practice and banking, economic history, sociology, sociological field work, American history, English constitutional history, logic, ethics.

Senior class.-History of law and legal concepts, local and municipal institutions, political economy, statistics, public finance, transportation, advanced sociology, history of the Renaissance and the Reformation.

[^130]The board of regents of the University of California on January 15, 1898, decided to establish a college of commerce in that institution. The college was formally opened at the beginning of the fall term of the same year. The four years' course is parallel with the curricula of the colleges of general culture, about one-half of the subjects studied being prescribed in these colleges. The subjects making up the other half of the fundamental course are selected from a broad field covering philosophical, legal, political, historical, economic, geographical, technological, and mathematical studies. It is stated that "this college is intended to afford an opportunity for the scientific study of commerce in all its relations and for the higher education of business men and of the higher officers of the civil service." Besides the fundamental courscs, the new college offers a large number of special courses, and the student may arrange his studies with special reference to his future work, the different subjects being nore or less closely related to commerce. The general scope of the work proposed for the college of commerce is shown in the following list of subjects printed in the first announcement published:

Philosophical studies.-History and principles of commercial ethics.
Legal studies.-Commercial law of different nations; public international law, and the duties of diplomatic and consular officers; private international law; admiralty and maritime law; Roman law; comparative jurisprudence; judicial procedure in different countries; law of private corporations, and other special courses.

Political studies.-Constitutional law of different nations; public law and administration; municipal government; general political theory; legislative control of industry and commerce.

Historical studies. -The general political and constitutional history of the leading nations, especially during the nineteenth century; diplomatic history. Economic history-that is, the history of industry and commerce-is of such importance as to constitute a separate group. (See below.)

Economic studies.-General theory and analysis; political economy, general principles and theory; labor and wages; theory and practice of exchange, foreign and domestic; theory of value; markets, their organization and the determination of prices; currency in all countries; banking in all countries; economic features of transportation by land and water (a sulject in which many special courses should be offered); industrial and commercial organization; corporations and corporation finance; communication-postal service, telegraph and telephone, newspapers and advertising; insurauce-fire, marine, life, etc.; consumption, and the principles of demand and storage; commercial usages of different countries; public financegovernment expenditures, revenues, including taxation, customs duties, etc., public debts, and fiscal administration; statistics, mathematical and practical; history, theory and methods-the "movement of population," actuaries' statistics, theory of prices, etc.

Studies in economic history.-The history of commerce in all countries and at every age (upon this gencral subject as large a number of special courses as possible shonld be offered) ; the history of the institution of private property; the history of land tenures; the history of agriculture; the history of industry from the earliest times; the history of manufactures; the history of labor and of labor organization, and other special courses.

Linguistic studies.-The languages and literatures of the nations with which wo have commercial relations-American, European, and Oriental.

Geographical studies.-Political geography; geodesy; physical geography; commercial geography; biological geography, including botany, zoology, anthropology, etc.; meteorology and climatology; occanography-coasts, harbors, etc.; navigation and nautical astronomy; geology

Technological studies concerning the materials of commerce.-Botany--general plant morphology and economic botany; forestry and wild-plant products, also wild-animal products; agriculture-culivated plant products of all descriptions, including field, orchard, and vineyard products; animal products, such as meats, dairy products, wool, etc., and including agricultural practice, irrigation, etc.; agricultural manufactures, such as sugar, starch, textiles, oils, brewing, tanning, drying, and canning, etc.; fishcries, and all the products of the sea; mining, and mineral products, and building materials; chemical technology, and chemical products, acids, alkalis, etc.; manufactured products; decorative and industrial art.

Technological studies concerning transportation.-Civil engineering and mechanical engineering, construction of roads, bridges, canals, irrigation works, etc., motors and motive power, etc., railroad economics, etc.
Mathematical studies.-Courses covering all the mathematical principles involved in the above studies.

## UNIVERSITY OF CHICAGO.

The next great institution in this country to recognize the importance of the higher business training and to make liberal provision for it is the University of Chicago. The College of Commerce and Politics opened its doors at the beginning of the last summer quarter. President Harper, in his twenty-fifth quarterly statement, presented on October 1, 1898, says:

It is with a feeling of great satisfaction that I may announce the inanguration during the past quarter of the College of Commerce and Politics. It will be remembered that the undergradnate work of the university was organized in three colleges, the College of Arts, the College of Literature, and the College of Science, each college taking it.s namo from the group of snbjects upon which special emphasis was laid. When it was first proposed by Head Professor Langhlin that the university shonld organize work in it line of subjects dealing more closely with the great ficlds of commere and politics, it was still a question whether that work shonld take the form of a protessiond school or be organize 1 as reqular college work. After long deb te in the faculties and senate of the university it was decided that the work sho ld be organized as a college and administered as such. Herein lies the great difference between the work as thas presented in the University of Chicago and certain work of perhaps a similar character nndertaken elsewhere.

A stronc desire has already been indicated in the minds of many to do their college work along the lines of the departments more prominently represented in this college. The interest has been as great as was expected, and the results thus far justify the step taken.

The reqnired course in commerce includes, besides' the general branches usually tanglit in higher edncation, the following topics specially relating to commerce: Railway transportation, comparative railway legislation, financial listory of the Unit.d States, money and practical economics, banking, processes of leading industries, tariff history of the United States, insurance. The courses in detail are given in a circular of information published by the miversity, "The College of Commerce and Politics of the University of Chicago," pages 5 to 9 .

## IN PUBLIC COLLEGES.

Of the 172 colleges shown in Table 5 all are private institutions except 11. Of the 11, two are sapported wholly by the States in which they are located, the remaining 9 being agricultural and mechanical colleges supported by funds from the General Government, supplemented in some instances by State funds. The 11 public institutions offering commercial courses or providing for certain commercial studies are mentioned below.

Cuiversity of the State of Missouri.-The 1897-98 catalogue states that instruction is given in correspondence, making ont bills and statements, writing receipts, checks, notes, and drafts, together with the use of varions account books. An important part of the work is a thorongh drill in jommalizing, concluding with the writing of entire sets of books, that the student may make a practical application of his previons work in the varions business forms. This work is required in both semesters of the first year. A full course in stenography is provided for those students who wish to carry on this study while prosecuting regular work in the university.

West Iirginia Uaiversity.-In 1895 the commercial school of this university was established. It provides a two-year commercial course. To be admitted to this school the appicant must be froticient in arithmetic, English, spelling, geography, aud United States history. Certificates are granted to students who complete the conrse and pass the required examinations. The course of study is arranged as follows:

First year.-English grammar, physical geographr, general history, penmanship, typerriting, arithmetic, United States history, bookkeeping, algebra, civil government, hinsiness practice.
Second year.-llistory and principles of commerce, commercial arithmetic, shorthand, commercial law, principles of economics, cont reporting, rhetoric, commercial law, commercial grography.

Colorado State Agricultural College.-The State board of agriculture in December, 1895, instrncted the college faculty to "so arrange the curriculum as to make ade-
quate provision for a distinct department to be known as the commercial course of the State Agricultural College." In accordance with this action the following course of study, covering two years, is offered:

First year.-General history, plane geometry, bookkeeping, commercial arithmetic and rapid calculation, spelling, penmansbip, rhetoric an! rhetorical analysis, solid geometry, business practice and banking, business correspondence.

Second year.-Literature, Constitution of the Unitel States, stenography, business geograply, logic, sociology, business law, political economy, typewriting and office practice.

University of South Dakota.--The College of Business is one of the departments of the institution. The course of study extends over one academic year aud "includes bookkeeping in all its forms, both single and double entry, with instruction in the retail and jobbing trade, importing, commissın, banking, and other classes of business; penmanship, business arithmetic, commercial law, embracing instruction in the principles of contracts, agencies, partnerships, negotiable paper, and other legal phases of l,usiness; commercial correspondence, shorthand, typewriting, and office practice."

South Dakota Agricultural College.-One of the departments of this institution is known as the department of commercial science. The commercial studies may be taken in connection with any of the college courses. If taken alone these special studies would occupy about one year. These studies include shorthand, penmanship, commercial law, hookkeeping, business practice, correspondence, typewriting, and commercial arithmetic.

Florida Agricultiral College. - The business comse in this institution may be completed in one year. It includes bookkeeping, business correspondence, commercial arithmetic, commercial latw, English, and peumanship. Another course in stenographes, typewriting, and telegraphy covers ahout a year.

Nevalla State University.-The University Commercial School belonging to the department of secondary cducation of the State University offers a comrse of stndy extending over three years and iucluding arithmetic, algehra, English grammar, English history, literatare, pemmanship, United States history, bookkeeping, steuography, plane geometry, typewriting, rhetoric, civil government, and commercial law.

Montana State College of Agriculture and Mechanic Arts.-The business lepartment of this college offers two courses in bookkepping and one in stenograpliy and typewriting, occupying one year each when taken in connection with other studies.

Cuirersity of drizona.-One of the special courses in this institntion is the commercial conrse of one jear. It includes business arithmetic, bookkeeping, stenography, typewriting, penmanship, and commercial law.

New Mexico College of Agriculture and Mechanic Arts.-The bnsiness alepartment of this institation has two parallel courses of one year each. The first conrse includes bookkeeping, commercial arithmetic, grammar, penmanship, spelling, commercial law. The second course includes stenography and typewriting. Spanish is also taught.

North Georgia Agriculthral College.-The business course covers four gears of study and is parallel with the two preparatory years and the freshman and sophomore years in the A. B. and B. S. courses. The course includes English, commercial arithmetic, United States history, Latin, algebra, geometry, trigonometry, survering, commerchal and physical geography, botany, zoology, physiology, general chemistry, physics, civil government, general history, English and American literature, political economy, bookkeeping, banking, stenography, typewriting, telegraphy.

The course of study as outlined above for the 11 public institutions may be taken as typical of the commercial or business conrses offered by a majority of the 161 private colleges mentioned in the list in Table 2.

## IN SECONDARY SCHOOLS.

The number of normal schools reporting to this office for 1897-98 was 345; the number of public institutions being 167, and the number of private schools 178.

Of the total number of normal schools, 107 reported 5,721 students in business courses, as shown in Table 1. Only 19 of these schools are supported by public funds. The list is given in Table 6.

Many normal schools in this country, particularly certain State normal schools are above secondary schools in grade. It is usual to regard the normal school as occupying a place in the system between secondary and higher education. Many of these schools offer fomr-year courses of study, which would be parallel to the last two years of the high school and the first two years of the college. For present purposes the normal schools may be classified as secondary, the commercial courses offered by them falling below the college grade.

Of the nearly 2,000 private high schools and academies reporting to this office for 1897-98, there were 653 reporting 9,740 students in commercial and business courses, as shown in Table 2. In the 653 schools there were only 40 reporting as many as 30 students each in commercial courses. The statistics of these 40 schools are given in Table 7. References to the courses of study in a few of these schools will give a general idea of the work being done in the direction of commercial education by the private secondary schools of the United States.

Thornton Academy, Saco, Me.-This school offers a business course extending over four years, parallel with the regular courses. It includes algebra, business arithmetic, Greck and Roman history, penmanship, mediaval history, bookkeeping, geometry, physiology, English composition, business forms, French or German, physics, physical geography, botany, modern history, civil gorernment, rhetoric, chemistry, English history, United States history, astronomy, English literature, mental science.

Calvert Hall, Baltimore, Md.-The commercial course in this school may extend over one or two years. It includes commercial correspondence, commercial arithmetic, booklkeeping, banking, phonography, typewriting, modern languages, and drawing.

Wentworth Military Academy, Lexington, Mo.-The business course in this school extends over five years parallel to the classical courso. It omits Latin and modern foreign languages, substituting for them commercial arithmetic, drawing, bookkeeping, business forms and correspondence, commercial law, civil government, stenography, etc.

Paunee City Aeademy, Pawnee City, Nebr.-The commercial course includes most of the studies usually taught in the first and second years of the course of secondary studies, together with bookkeeping, commercial arithmetic, and commercial law.

South Jersey Institute, Brid́geton, N. J.-The business course is arranged for one year, and includes commercial calculations, bookkeeping, business correspondence, commercial law, banking, phonograply and typewriting, political economy, and business ethics.

De la Salle Institute, New Eork City.-The commercial department offers a three years' course of study, including rhetoric, English literature, ancient and modern history, political economy, commercial arithmetic, algebra, geometry, bookkeeping, phonography, chemistry, history of commerce, commercial law, civil government, physics, commercial geography, French, German, Spanish.

Oali Ridge Institute, Oali Ridge, N. C.-The announcement is made that in the business department is grouped all the courses taught in first-class business colleges. The courses are so arranged that the student may select a course of one, two, or three years.

Park Institute, Allegheny, Pa.-The third and last Jear of the general course in this school is made the commercial course. In this year are taught bookkeeping, commercial arithmetic, commercial geography, commercial law, and business practice.

Brigham Foung Academy, Provo City, Utah.-A department of this institution is The Commercial College. The business course requires three years for its completion, and includes commercial arithmetic, science of accounts, English, theology, business correspondence, commercial law, civil government, algebra, geometry, political economy, constitutional history, and many elective studies.

Montpelier Seminary, Montpelier, Tt.-The conrse of study in the business department is completed in one year, and includes bookkceping, business practice, commercial arithmetic, commercial geography, correspondence, penmanship, and civil government.

> IN PUBLIC HIGH SCIIOOLS.

There were 5,260 public high schools reporting to this office for the year 1897-98. As shown in Table 2, there were 1,018 of these schools having a total of 31,633 students in the commercial or business course of study: The business course in the greater number of these schools does not differ widely from the business conrso in the private secondary schools already mentioned. In many of these schools the last year of the course is devoted largely to commercial studies, while in many others such studies are distributed throngh the whole conrse of four years. Of the 1,018 public high schools mentioned, there are only 139 having 50 or more commercial students each. The names and statistics of these are given in Table 8.

In many of the larger cities leading business men are urging the establishment of commercial high schools, with courses of study catending over four years. The school authoritics in certain cities have partially met this demand by organizing commercial courses in the high schools already established. This arrangement is not always satisfactory, and is generally unsatisfactory when the commercial comse of two Jears is made to parallel the regular course of four years. In an address delivered before the Chamber of Commerce of the State of New York on commercial education, Hon. William H. Maxwell, city superintendent of schools, New York City, says that the two-year commercial course in the Brooklyn high schools should be abolished, and probably the four-year commercial courses in the Manhattan high schools recently established. He urges the establishment of two separate and distinctively commercial high schools, with four-year courses, one for Manhattan and the other for Brooklyn.

Since 1892 Hon. Edward Brooks, superintendent of prblic schools of the city of Philadelphia, has been advocating the establishment of a commercial high school for that city, or of a commercial department in the Central High School. He has been ably seconded in this morement by such strong business men as Mr. Theodore C. Search. Mr. Search madéan earnest plea for a separate institution. He feared that to make it a part of another school would not secure the best results; that it would be overshadowed by the classical and other departments. He felt that as a separate institution the commercial school would have stronger teachers and better methods of instruction. On the score of cconomy the city conncil did not authorize the expenditure for a separate school; but a department of commerce is established as part of the Central High School, with an excellent comse of study covering four years.

Hon. Edwin P. Seaver, superintendent of public schools, city of Boston, writes that an inpetus has been given to commercial studies in the public high schools. For many years bookkeeping has been taught, and very thoroughly taught, in the Englis! high school for boys and to a less extent in the girls' high school. Certain commercial branches have been tanght in the evening high school for upward of twenty jears. Last year the so-called commercial branches were introduced into the day high schools and offered to all boys and girls who desired to take them. Special instructors in bookkeeping, phonography, and typewriting were employed. The result is that many high-school students are now pursuing these studies.

The educational commission of the city of Chicago, which was appointed a year ago by Mayor Harrison, and which has just submitted its report, recommends "that a commercial high school, with a full, liberal four years' courso of study, be established in some central location." The commission discnsses at some length the course of study and says: "If the commercial school is to accomplish the ends we lave in mind, the curriculum must be not less broad than that of our public high sehools. We feel strongly that a short and so-callef 'practical' course would be predestined to failure and would be an injury rather than a help to what will prove in the near
future one of the most important developments in secondary edncation." The commission conchades this recommendation as follows:

Your commission is so fully persnaded of the importance of this action that we recommen that the first expansion of the school system shall take this form, and that at the earliest possible dite a public high sehool be established with a course of study extending throngh at least fonr years, plamed to affurd a liberal training and at the same time to prepare its pupils for the varions kinds of business activity and to ghalify them for the highest positions in the commerciai world. (See pp.98, $107,111,205-217$ of the report mentioned.)

Business High School, Washington, D. C.-For years the capital city has enjoyed the distinction of having the only business high school in the United States connec ed with a city system of schools and wholly supported by public fands. The Business High School was established in 1890, although the Central High School had had a business department since 1882. The report of the Business High School for 1890-91 shows that 310 students were enrolled the first year, 160 males and 150 females, and that the school hat 9 teachers. The school has had a steady growth to the present time. Tae report for 1897-98 shows an enrollment of 601 . There were 193 boys and 197 girls in the first year and 76 hoys and 93 girls in the second year in the school in October, 1897. There were 89 graduates, the largest number for any year since the school was established. The unmber of teachers emplojed is 20 . The average age of the students entering is 16.7 years. The requirements for admission are the sam as for the other high schools of the city and presuppose the completion of the eight-year comse of the elementary schools. The course of study for the Business High School is as follows:

First year.-English grammar and literature, business arithmetic, bookkeeping, penmanship, shorthand, typewriting or mech:mical drawing.

Second year.-English grammar and literature, bookkeeping and business practice, com nurcial law and commercial geography, shorthand, typewriting, advanced mechanical drawing (optional).
In the report of the board of tristees of public schools of the District of Colnmbia for 1897-98 the "bnsiness course problem" is discussed at some length and a provisional course of four years is recommended. Besides all the subjects in the two years' course above mentioned, the four years' course wonld include Latin, French, general history, commercial history, political economy, algehra, geometry, physics, chemistry, and biology. (See pp. 21, 81, 81, 117-129, of the report of the board of trustees for 1897-98.)
Boston, Mass.-The commercial course of study for the high schools of Boston, adopted by the school committee September 2\&, 1897, extends through two years, and is as follows:
First year. - English langnage and literatnre, ancient history, phonography, penmanship and commercial forms, commercial arithmetic, and bookkeeping, lotany, drawing, music, physical training.
Second year.-Wnylish language and literatnee, medieval history, modern history, phonography and typowriting, elements of mercantile law, bookkeeping, commercial geonraphy, zoology, physiology and hygione, drawing, mnsic, physical training.

Philadephia, Pa.-The course of study for the department of commerce in the Central High School covers four years and is classified under seven subjects, namely, English, langnages other than English, mathematics, history, science, economics and political science, business technique. The course by years is as follows:

First year.-Composition and American literature, Latin, algehra, Greek and Roman history, physical gengraphy, botans, zoology, Philadelphia and Philadolphia interests, promanship and business forms drawing.

Scoud year.-History of English literature, L.atin, German, commercial arithmetic, geometry, English history, commercial geography, bookkeeping, stenography.

Third year--Readings from English literature, German, French (or Spanısh), modern European history, physics, chemistry, political economy, office practice, stenngraphy, oliservation of bisiuess methods.

Fourth year:-Reviews and thesis writing, German, French (or Spanish), modern industrial and commercial history, industrial chemistry, transportation, banking and finance, statistics, political science, ethics of business, commercial law.

Pittsburg, Pa.-The commercial department of the Central High School has a course of one year's study. It includes bookkeeping, commercial geography, composition, commercial and higher arithmetic, commercial law, penmanship, office practice, typewriting, phonograply, civil government, physiology, civics.

Albany, N. Y.-The High School bas four four-year courses. In the technical course bookkeeping, stenography, and typewriting are prescribed. Other studies in this course have direct bearing upon education for business life.

Buffalo, N. Y.-There are six courses of study for high-school students, and in addition a number of optional studies, including bookkeeping and other commercial studies. There is no prescribed commercial course, but a good business training course may be selected from the prescribed and optional studies.

New Haven, Conn.-The Hillhouse High School has a commercial course covering three jears of study, including algebra, German, bookkeeping, commercial arithmetic, penmauship, English and English and American literature, actual business methods, stenography, and typewriting.

Detroit, Mich.-The commercial course of the high schools of Detroit has been extended to cover four years, and the superintendent of schools urges that one of the school buildings be fitted up exclusively for a commercial high school.

Grand Rapids, Mich.-In the Central High School as many as ten courses of study are offered. The first of these is the English-commercial course, extending through four years. The announcement says: "This course is planned for pupils preparing specifically for business life, and does not prepare for college. It offers ample and thorough work in bookkeeping, commercial law, etc., besides a complete course in high-school mathematics and history, and instruction in the correct use of the English language. It will be noticed that this course offers in the eleventh and twelfth grades an option of two years of a foreign language."

St. Paul, Minn.-In the Mechanic Arts High School of St. Paul provision is made in the four-year general course for commercial studies; commercial arithmetic, bookkeeping, civil government, and commercial law being specified. The course includes the mathematics, English grammar and literatare, and history of the regular high school course, and prescribes one foreign language for three years, either Latin, German, or French.

Richmond, Va.-The business course in the Richmond High School covers two years, the following studies being prescribed:

First year.-Arithmetic, algebra, general history, physical geography, English grammar, English composition, penmanship.

Second year.-Commercial arıthmetic, bookkeeping, business forms, physics, physiology, algebra, civil government, English composition, commercial law, phonography and typewriting.

San Francisco, Cal.-One of the courses offered in the Polytechnic High School is the commercial course. It includes business arithmetic, bookkeeping, English, penmanship, stenography, typewriting, and the election of other branches of study.

## THE COST OF HIGH SCHOOLS.

It is difficult to obtain an accurate estimate of the cost of commercial education in the public high schools, the separate cost of the high schools themselves not being reported except in a few instances. Where these schools belong to city systems of public schools the cost is included in the general financial statement of the system. It may be stated in general that the cost per pupil is from 50 to 100 per cent greater in the high school than in the elementary schools. In the city of Washington the cost per pupil in the first four grades of the elementary schools, estimated on average enrollment, was $\$ 12.42$ for 1897-98; in the next four grades the estimated cost per pupil upon the same basis was $\$ 20.56$, while the cost of each high school pupil, estimated on average enrollment, was $\$ 42.89$. This figure may be taken as the cost per pupil in the Washington Business High School.

Of the 139 public high schools mentioned in the list in Table 8 only 37 report their total expenditure. The names of these schools, with the number of secondary ED 98-154
students and the escimated cost of each student enrolled, are given in the following table:

| 1lace. | Name. | Number of pupils. | Expense per pupil. |
| :---: | :---: | :---: | :---: |
| Marianna, A | Figh School | 170 | \$29.41 |
| Benicia, Cal |  | 33 | 62.78 |
| Los angeles, Cal |  | 1,370 | 29.92 |
| Steckton, Cal |  | 887 | 55. 63 |
| Denver, Colo | High School, district N | 877 | 39.69 45.35 |
| Soutliington, Conn | High School | 145 | 35.17 |
| Wilmangton, Del. | do | 622 | 36. 66 |
| Washington, D. C | Business Figh School | 601 | 42.89 |
| Atlanta, Ga. | Girls' High School | 472 | 22.46 |
| Cairo, Ill | High School..... | ${ }_{211}$ | 33.18 |
| Elgin, Il |  | 337 | 34.23 |
| Galesbarg, Il . |  | 461 | 24.26 |
| Lafayette, Ind | Western High School | 140 | 48. 21 |
| Fayette, Iowa | High School | 70 | 38.57 |
| Baltimore, Ma | Eastern Female Migh Sc | 456 | 38.38 |
| Do.. | Western Female High S | 960 | 22.92 |
| Fall River, | High School. | 704 | 45.45 |
| Fitchburg, Mass |  | 540 | 52. 74 |
| Holyoke, Mass | ....do | 495 | 38.69 |
| Nalem, Mass | . 10 | 434 | 41.94 |
| Detroit, Mich | .do. | 2, 065 | 34.28 |
| Grand Rapids, Mich |  | 1, 271 | 33.08 |
| St. Louis, Mo | High and Normal Scho | 2, 049 | 51.05 |
| Riverton, Neh | High School | 55 | 37.27 |
| Laconia, N. H | do | 152 | 33.01 |
| Phillipsburg. N.J | .do. | 114 | 31.70 |
| Trenton, N.J |  | 498 | 26.81 |
| Albany, N. Y |  | 828 | 46.77 |
| Brooklyn, N. Y | Boss' High School | 1,406 | 60.46 |
| Do... | Girls' High School | 2, 265 | 44.15 |
| Jamaica, N. Y | High School. | 116 | 78.02 |
| Cleveland, Ohi | South High School | 356 | 42.28 |
| Pittsburg, Pa | High school | 1,862 | 31.53 |
| Williamsport, Pa |  | 316 | 22.09 |
| Richmond, Va |  | 884 | 20.08 |
| Milwaukee, Wi | West High School | 637 | 45.37 |
| Tot |  | 24, 669 | 38.90 |

From the above table it will be seen that the 37 public high schools had an aggregate enrollment of 24,669 secondary students, and that the average cost per student enrolled was $\$ 38.90$. All these schools have students in commercial courses and it may be assumed that their average cost is about the same as the general average for all high school students.

## COMMLRCIAL AND BUSINESS COLLEGES.

The number of so-called commercial and business colleges reporting to this office for 1897-98 was 337. These schools have 1,787 teachers and 70,950 students, as shown in Table 3. The number of students in the commercial course was 32,761; in the amanuensis course, 19,298 ; in the English course, 12,735, and in the course in telegraphy, 1,113 , as shown in Table 4. In the commercial course there were 10,041 graduates and in the amanuensis course 8,372 graduates. The growth of these business schools may be illustrated by the following table, which shows the number of such institutions reporting to this office for the jears mentioned, together with the number of teachers and tho number of students for each year:

|  | Year. | Schools. | Teackers. | Students. |
| :---: | :---: | :---: | :---: | :---: |
| 1870 |  | 26 | 154 | 5,824 |
| 1875 |  | 126 | 577 | 25, 892 |
| 1880 |  | 162 | 619 | 27, 146 |
| 1885 |  | 232 | 1, 099 | 43, 706 |
| 1890 |  | 263 | 1, 593 | 78, 920 |
| 1895 |  | 462 | 2, 201 | 96, 135 |
|  |  | 337 | 1,787 | 70, 950 |

The names of business schools reporting in 1897-98 are printed in Table 9 and the statistics of each school given in detail.

The courses of study in five lusiness colleges, which may be taken as representa. tives of the best schools in the list of 337, are given below:
Peirce School, Philadelphia, Pa.-This school, which was founded by its present principal, Thomas May Peirce, A. M., Ph. D., is now in its thirty-fourth year. The aanouncement for the year 1898-99 says:
Peirce School offers three full courses: Business, shorthand and typewriting, and English.
The business course includes bookkeeping, penmanship, commercial calculations and rapid reckoning, business correspondence, commercial law, commercial geography, mereantile forms and customs, banking, finance, economics, business ethics, and ciries.
The shorthand course includes shorthand, typerriting, and English, which comprises a thorough review in spelling, defining and use of words, grammar and punctwation, synonyms, etymology, and business correspondence. Business forms and customs are taught, and lectures are given upon civics and business ethics.
The English course gives a practical training in arithmetic, spelling, business correspondence, grammar and composition, geography, penmauship, ete. This is an especially usefnl course for those who wish to review the common branches to prepare for civil-service examinations or for entrance to technical schools and colleges.
Packarcis Business College, New York City.-This school was started in 1858. Students who are thoroughly prepared to enter a good high school may complete the commercial course in this business college in about one year. The course of study includes bookkeeping, penmanship, commercial arithmetic, commercial law, practical grammar, including correspondence and a critical study of English, shorthand, typerriting, business methods and practice, political economy, political history, civil government, commercial geography, parliamentary proceedings.
Duff"s College, Pittsbur', Pa.-This school was estalulished in 1840 as Duff"s Mercantile College, and was conducted for nearly thirty years by its founder, Peter Duff. Since his death the school has been managed by his sons. Fifty dollars pays for a scholarship, unlimited as to time, for completing the full commercial course. The course of study is announced as follows: "Theory and practice of single and double entry, mercantile, private, and national banking, railroad, manufacturing, insurance, commercial calculations and arithmetical training, rapid practical penmanship, business forms, letter writing, orthography and language lessons, lectures on mercantile law, commercial ethics, political economy."
Bartlett Commercial College, Cincinnati, Ohio.-The full course in this school may be completed in one year by a student who enters with a good common-school education. The course includes bookkeeping, commercial arithmetic, business penmanship, mercantile forms and customs, correspondence, shorthand and typewriting.
Metropolitan Business College, Chicago, Ill.-This school has three departments-the commercial, the shorthand and typewriting, and the English training departments. The last named is designed for students who are deficient in any of the commonschool branches. The commercial course is announced as follows: "Bookkeeping, commercial arithmetic, penmanship, bnsiness correspondence, commercial law, business forms and methods, detecting counterfeit money, banking, insurance, commission, real estate, transportation, brokerage, wholesale, retail, importing, and jobbing.

THE STATISTICAL TABLES.
The statistical tables and summaries which follow have been referred to in tho preceding paragraphs. The summaries show the number of students in commercial courses in each of the five classes of institutions in each State of the United States. The totals are as follows for the jear 1897-98:
In universities and colleges .......................................................................... 5, 869
In normal schools . ..................................................................................... 5,721
In private high schools and academies........................................................ 9, 740
In public high schools .......................................................................... 31, 633
In commercial and business colleges. .................................................... . . 70,950
Total for United States................................................................ . 123,913

Table 1.-Unitersities and colleges and normal schools reporting students in commercial and business courses in 1897-98.

| State or Territory. | Universities and colleges. |  |  |  | Public and private normal schools. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Num. ber of institu.tions. | Students. |  |  | $\begin{gathered} \text { Num. } \\ \text { ber of } \\ \text { schools. } \end{gathered}$ | Students. |  |  |
|  |  | Male. | Female. | Total. |  | Male. | Female. | Total. |
| United State | 172 | 4,745 | 1,124 | 5,869 | 107 | 4,023 | 1,698 | 5,721 |
| North Atlantic Division | ${ }^{14}$ | 396 | ${ }^{23}$ | 419 |  | 180 | 136 | 316 |
| South Atiantic Division. | ${ }_{29}^{21}$ | ${ }_{781}^{404}$ | $\begin{array}{r}71 \\ 134 \\ \hline\end{array}$ | ${ }_{915}^{475}$ | 13 28 | ${ }_{361}^{120}$ | 200 285 | 320 646 |
| North Central Divisíon. | 89 | 2,847 | 807 | 3,654 | 54 | 3,172 | 1,000 | 4, 172 |
| Western Division ..... | 19 | 317 | 89 | ${ }_{406}$ | 6 | 190 | , 77 | ${ }^{267}$ |
| North Atlantic Division: Maine |  |  |  |  |  |  |  |  |
| New Hampshire...... |  |  |  |  |  |  |  |  |
| Vermont........ |  |  |  |  |  |  |  |  |
| Rhode Issland. |  |  |  |  |  |  |  |  |
| Connecticut |  |  |  |  |  |  |  |  |
| New York.. |  | ${ }^{233}$ |  | 233 |  |  |  |  |
| $\xrightarrow{\text { New Jersey }}$ Pennsylvania | 1 | 10 153 | ${ }_{23}^{0}$ | 176 | 6 | 180 | 136 | 316 |
|  |  |  |  |  |  |  |  |  |
| Mryland.......... |  | 30 | 2 | 32 | 1 | 6 | 0 | 6 |
| District of Columbia |  | ${ }_{36}^{30}$ | 0 12 | 30 48 |  |  |  |  |
| West Virginia. | ${ }_{2}^{1}$ | ${ }_{37}^{36}$ | 7 | 44 |  | 79 | 42 | 121 |
| North Carolina | 5 | 128 | 20 | 148 | ${ }_{2}^{2}$ | 0 | 59 | 59 |
| South Carolina | 1 | ${ }_{31}^{4}$ | 0 | ${ }_{31}^{4}$ | ${ }_{2}^{2}$ | 3 6 6 | ${ }_{35}^{55}$ | 58 |
| Georgia... | ${ }_{4}^{2}$ | $\begin{array}{r}31 \\ 108 \\ \hline\end{array}$ | 30 | $\begin{array}{r}31 \\ 138 \\ \hline\end{array}$ | ${ }_{2}^{2}$ | 18 | 35 | $\stackrel{41}{27}$ |
|  |  |  |  |  |  |  |  |  |
| Tennessee... | ${ }_{6}$ | 106 | 13 | 119 | 8 | 68 | 22 |  |
| Alabama | 3 | 123 | 30 | 153 | 2 |  | 14 | 20 |
| Mississippi. | $\stackrel{2}{2}$ | 20 | ${ }^{2}$ | ${ }_{91}^{22}$ | 6 | 27 | 12 | 39 |
| Teusisiana | 8 | ${ }^{60}$ | ${ }_{35}^{34}$ | - ${ }^{\text {at }}$ |  |  |  |  |
| Arkas... | 3 | 15 | 3 | 18 | 1 | 7 | ${ }_{0}$ | ${ }_{7}^{42}$ |
| Oklahoma....... |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Indiana.... | 3 | 91 | 17 | 108 | 9 | 935 | 169 | 1,104 |
| Illinois.. | 14 | 576 | 138 | 714 |  | ${ }_{2}^{206}$ | 92 | 298 |
| Michigar. |  | 49 | 20 | 69 | ${ }^{3}$ | 150 | 177 | 327 |
| Wisconsin | 5 | 147 | 35 | 182 | 1 | 30 | 0 | 30 |
| Minnesota | ${ }^{3}$ | 123 | 6 | 129 | 1 | 30 | 2 | 32 |
| Iowa.. | 11 | 287 | 87 | 374 |  | 661 | 163 | 824 |
| Missouri | 16 | 440 | ${ }_{20}^{95}$ | 535 | 4 | 176 67 | 25 28 | ${ }^{201}$ |
| North Dakota. | 2 | 48 121 | 20 56 | 68 177 | 1 |  | 28 | 95 |
| Nebraska..... | 5 | ${ }^{62}$ | 17 | 79 | 3 | 308 | $7{ }^{\circ}$ | 383 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Washing |  |  |  |  | - 1 | 8 | 3 | 11 |
| Oregon. | 3 | 17 | 3 |  |  |  |  |  |
| California. | 4 | 93 | 8 | 101 | 1 | 2 | 1 | 3 |

Table 2.-Schools of secondary or high school grade reporting students in commercial or business courses in 1897-98.

| State or Territory. | Private high schools and academies. |  |  |  | Public high schools. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c} \text { Num. } \\ \text { ber } \\ \text { of } \\ \text { schools. } \end{array}$ | Students. |  |  | $\begin{gathered} \text { Num- } \\ \text { ber } \\ \text { of } \\ \text { schools. } \end{gathered}$ | Studeuts. |  |  |
|  |  | Male. | Female. | Total. |  | Male. | Female. | Total. |
| United States | 653 | 6,838 | 2,902 | 9,740 | 1,018 | 15,958 | 15,675 | 31,633 |
| North Atlantic Division.. | 183 | 2, 061 | 900 | 2, 961 | 355 | 7,462 | 7,444 | 14, 906 |
| South Atlantic Division. | 122 | 1,166 | $27 €$ | 1,442 | 83 | 1,000 | 1,201 | 2, 201 |
| South Central Division. | 134 | 1, 038 | 530 | 1,558 | 102 | 1,038 | -631 | 1,669 |
| North Central Division. | 156 | 2, 037 | 874 | 2,911 | 421 | 5,451 | 5,283 | 10,734 |
| Western Division --... | 58 | 536 | 322 | 858 | 57 | 1, 007 | 1,116 | 2,123 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |
| Maine | 9 | 100 | 65 | 165 | 31 | 194 | 204 | 398 |
| New Hampshire | 9 | 208 | 57 | 265 | 8 | 74 | 69 | 143 |
| Vermont....... | 11 | 187 | 113 | 300 | 12 | 82 | 83 | 165 |
| Massachusetts | 17 | 79 | 70 | 149 | 69 | 1,470 | 1,704 | 3,174 |
| Rhode Island. | 4 | 57 | 22 | 79 | 8 | 192 | 241 | 433 |
| Connecticut | 13 | 59 | 29 | 88 | 20 | 352 | 471 | 823 |
| New York. | 63 | 665 | 249 | 914 | 98 | 3,116 | 1,863 | 4,979 |
| New Jersey . | 19 | 227 | 72 | 299 | 38 | 638 | 840 | 1,478 |
| Pennsylvania .-...... | 38 | 479 | 223 | 702 | 71 | 1,344 | 1,969 | 3,313 |
| South Atlantic Division: <br> Delaware............... | 0 | 0 | 0 | 0 | 3 | 52 | 96 | 158 |
| Maryland. | 13 | 191 | 60 | 251 | 11 | 94 | 246 | 340 |
| District of Columbia. | 7 | 86 | -23 | 109 | 2 | 312 | 324 | 636 |
| Virginia | 28 | 231 | 19 | 250 | 19 | 241 | 197 | 438 |
| West Virginia | 6 | 31 | 19 | 50 | 4 | 37 | 71 | 108 |
| North Carolina | 48 | 461 | - 74 | 535 | 3 | 32 | 35 | 67 |
| South Carolina | 7 | 126 | - 41 | 167 | 12 | 71 | 31 | 102 |
| Georgia. | 11 | 40 | 25 | 65 | 20 | 81 | 153 | 234 |
| Florida...-.-........ | 2 | 0 | 15 | 15 | 9 | 70 | 48 | 118 |
| South Central Division : |  |  |  |  |  |  |  |  |
| Kentucky............ | 25 | 211 | 111 | 322 | 10 | 97 | 48 | 145 |
| Tennessee. | 28 | 151 | 110 | 261 | 23 | 190 | 182 | 372 |
| Alabama | 19 | 144 | 166 | 310 | 8 | 69 | 26 | 95 |
| Mississippi | 18 | 219 | 35 | 254 | 13 | 75 | 19 | 94 |
| Louisiana | 6 | 44 | 16 | 60 | 5 | 259 | 9 | 268 |
| Texas .... | 29 | 205 | 81 | 286 | 32 | 182 | 143 | 325 |
| Arkansas | 8 | 56 | 5 | 61 | 11 | 166 | 204 | 370 |
| Oklahoma | 0 | 0 | 0 | 0 |  |  |  |  |
| Indian Territory | 1 | 8 | 6 | 14 |  |  |  |  |
| North Central Division: |  |  |  |  |  |  |  |  |
| Ohio | 12 | 71 | 90 | 161 | 60 | 865 | 621 | 1,486 |
| Indiana. | 12 | 87 | 93 | 180 | 22 | 252 | 260 | , 512 |
| Illinois. | 28 | 526 | 212 | 738 | 61 | 896 | 875 | 1, 771 |
| Michigan...- | - 8 | 57 | 76 | 133 | 50 | 797 | 691 | 1,488 |
| Wisconsin... | 8 | 138 | 19 | 157 | 27 | 430 | 478 | 908 |
| Minnesota | 11 | 265 | 64 | 329 | 17 | 178 | 115 | 293 |
| Iowa.... | 22 | 307 | 89 | 396 | 80 | 1,034 | 1,078 | 2, 112 |
| Missouri....... | 36 | 416 | 106 | 522 | 28 | 369 | 1, 356 | 725 |
| North Dakota. | 0 | 0 | 0 | 0 7 | 4. | 14 | 16 | 30 |
| South Dakota. | 4 | 45 | 27 | 72 | 3 | 13 | 24 | 37 |
| Nebraska.... | 6 | 69 | 30 | 99 | 29 | 273 | 341 | 614 |
| Kansas... | 9 | 56 | 68 | 124 | 40 | 330 | 428 | 758 |
| Western Division : |  |  |  |  |  |  |  |  |
| Montana...... <br> Wyoming | 2 | 0 | 11 | 11 | 4 | 26 | 36 | 62 |
| Wyoming | 1 | 1 | 0 | 1 |  |  |  |  |
| Colorado..-. | 4 | 45 | 28 | 73 | 9 | 146 | 211 | 357 |
| New Mexico | 1 | 32 | 0 | 32 |  |  |  |  |
| Arizona.... |  |  |  |  | 1 | 10 | 7 | 17 |
| Utah N | 7 | 205 | 68 | 273 |  |  |  |  |
| Idaho | 4 | 22 | 8 | 30 | 3 2 | 59 27 | 79 17 | 138 44 |
| W ashington | 4 | 29 | 29 | 58 | 9 | 55 | 66 | 121 |
| Oregon. | 10 | 74 | 35 | 109 | 3 | 91 | 87 | 178 |
| California. | 25 | 128 | 143 |  | 26 | 593 | 613 | 1,206 |

Table 3.-Instructors and students in the commercial and business schools in the United States reported in 1897-98.

| State or Territory. |  | Instructors. |  |  | Students. |  |  | $\begin{gathered} \text { Day } \\ \text { course } \end{gathered}$ | Evening course. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male. | Fe male | Total. | Male. | Female. | Total. |  | Male. | $\begin{aligned} & \text { Fe- } \\ & \text { male. } \end{aligned}$ | 'Total. |
| United Sta | 337 | 1,213 | 571 | 1,787 | 47, 041 | 23, 309 | 70,956 | 58,439 | 8,778 | 3,733 | 12,511 |
| North Atlantic Div <br> Southi Ceatral Div. <br> North Central Div... | $\begin{array}{r} 99 \\ : \begin{array}{c} 92 \\ 28 \\ -159 \end{array} \\ \hline \end{array}$ | $\begin{gathered} 388 \\ 81 \\ \hline 114 \\ 513 \\ 513 \end{gathered}$ | $\begin{array}{r}189 \\ 51 \\ 34 \\ 231 \\ \hline\end{array}$ | $\begin{aligned} & 577 \\ & \hline 132 \\ & 148 \\ & 744 \\ & \hline 104 \end{aligned}$ | $\begin{array}{r} 15,133 \\ 3,463 \\ 4,323 \\ 19,651 \end{array}$ | 8,573 1,550 1,221 10,166 10 | $\begin{array}{r} 23,705 \\ 5,013 \\ 5,514 \\ 23,817 \\ 23,17 \end{array}$ | $\begin{array}{r} 19,216 \\ 4,071 \\ 4,703 \\ 24,466 \\ 2,406 \end{array}$ | $\begin{aligned} & 2,927 \\ & 7293 \\ & 6,893 \\ & 3,843 \end{aligned}$ | $\begin{array}{r}1,563 \\ 219 \\ 144 \\ 1,508 \\ \hline 209\end{array}$ | $\begin{array}{r}4,490 \\ 942 \\ 841 \\ 5,351 \\ \hline 887\end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| New Hampshi |  | 1. | ${ }_{2}^{8}$ | 1 | 828 56 | 488 44 | 1,316 100 | 1,278 ${ }_{83}$ | ${ }_{10}^{24}$ | 14 |  |
| Vermont . |  | 2 | 1 | 3 | 78 |  | 126 | 100 | 18 | 8 | 26 |
| Massachusetts | ${ }^{13}$ | 50 | 38 | 88 | 1,483 | 1,148 | 2, 631 | 2, 239 | 216 | ${ }^{176}$ | 392 |
| ${ }_{\text {Rhote remand }}^{\text {Cumecticut. }}$ |  | ${ }_{29}^{14}$ | ${ }_{23}^{5}$ | 19 52 | 1,076 | ${ }_{899}^{218}$ | 1,975 | 1, 724 | 29 129 | 25 122 | 5t |
| New York. | 30 | 151 | 66 | 217 | 5,928 | 2,970 | 8,838 | 7 7,463 | 889 | 546 | 1, 435 |
| New Jersey. |  |  | 14 | 37 | 1,284 | 662 | 1,946 | 1,214 | 539 | 193 | 732 |
| Penasylvania ... | 30 | 102 | 32 | 134 | 4, 088 | 2, 093 | 6, 184 | 4, 639 | 1,073 | 472 | 1,545 |
| South Atlantic Div.: |  |  |  |  |  |  |  |  |  |  |  |
| Delaware |  | 3 |  | 8 | 288 | 100 | 388 | 50 | 118 |  | 138 140 |
| Mist. of Colum |  | 11 | 0 | 11 | 351 | 130 | 484 | 1,4468 |  |  | 140 |
| Dist. of Colum |  | 18 15 | $\stackrel{25}{9}$ | 43 <br> 24 <br> 24 | 1,081 | 738 213 213 | 1,819 | 1,468 | 242 84 8 | 109 29 | ${ }_{113}^{351}$ |
| West Virgi |  | 10 | 2 | 12 | ${ }_{226}$ | 106 | 332 | ${ }_{238} 3$ | 75 | 19 | 94 |
| North Carolin |  | 3 | 1 | 4 | 77 |  | 84 | 80 |  |  |  |
| Georgia |  | 17 | 8 | 25 | 915 | 222 | 1,137 | 1, 042 | 83 | 12 | 5 |
| Florida ... |  | + | 1 | 5 | 53 | 34 |  |  | 5 | 2 |  |
| South Central Div.: |  |  |  |  | 302 | 149 | 451 | 355 |  | 23 | 116 |
| Tenuesseo. |  | 21 | 9 | 30 | ${ }_{177} 8$ | 291 | 1,166 | 1,151 | 14 | 1 |  |
| Alabama. |  |  | 1 | ${ }^{3}$ | 117 | 59 | 176 | 117 | 59 |  |  |
| Mississippi |  | 32 | 4 | 36 | 668 | 36 | 704 | ${ }^{693}$ |  | 2 |  |
| Texas .-. |  | 40 | 16 | ${ }_{56}$ | 1,784 | 514 | 2, 298 | 1,832 | 369 | ${ }_{97}^{16}$ | 46 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Ondian Territo |  |  |  |  |  |  |  |  |  |  |  |
| North Central Div.: |  |  |  |  |  |  |  |  |  |  |  |
| Ohio ... | 26 | 58 |  | 97 | 2, 273 | 1,117 | 3, 390 | 2, 808 | 433 | 149 | 53 |
| Indiaua |  | 67 | 28 | 95 | 3,051 | 1, 741 | 4,792 | 3,929 |  |  |  |
| Milinois. | $2{ }_{17}^{24}$ | 101 4 4 | 35 26 | 137 70 | 4, ${ }_{\text {4, }}$, 354 | 2, ${ }_{702}$ |  |  | 907 189 | 346 56 | ${ }^{1}, 24$ |
| Wisconsin | 14 | 31 | 19 | 50 | 1,043 | 502 | 1,545 | 1,201 | 263 | 81 | 344 |
| Minnesota | 14 | 36 | 19 | 55 | 1,064 | 581 | 1,645 | ${ }^{994}$ | 499 | 152 | ${ }^{632}$ |
| Iowa... |  | 56 | 29 | 85 | 2,158 | 1,036 | 3,194 | 2,908 | 238 | 48 | ${ }^{28}$ |
| North Dako | 16 | 77 | 21 | 98 | 2,893 | 1,443 | 4,336 | 3,415 | 66 | 56 | 921 |
| South Uakot |  | 4 | 2 | ${ }_{6}$ | 123 | 46 | 169 | 154 | 10 | 5 | 15 |
| Nebraska |  | ${ }^{23}$ | 8 | 31 | 1,074 | 438 | 1,512 | 1,494 | 12 | 6 | 18 |
| Western Division: 10 - 0 - |  |  |  |  |  |  |  |  |  |  | 169 |
|  |  |  |  |  |  |  |  |  |  |  | 230 |
| Wyomi |  |  |  |  |  |  |  |  |  |  |  |
| Colorado | 3 | 7 | 7 | 14 | 334 | 131 | 45 | 371 | 66 | 28 | 9 |
|  |  |  | 1 |  | 32 |  | 50 |  |  |  |  |
|  |  | 12 | 4 | 16 | 445 | 240 | 685 | 565 | 0 | 30 | 20 |
| Idaho |  |  |  |  |  |  |  |  |  |  |  |
| Washi |  |  |  |  |  |  |  |  | 18 | 4 | 22 |
|  |  | 9 | 8 | 17 |  |  |  | 66 |  |  |  |
| California |  | 69 | 39 | 99 | 2,280 | 1,346 | 3,626 | 3,214 | 256 | 156 | 412 |

Table 4.-Statistics of commercial and business solools in the Cnited States reporied in 1897-98.

| State or Territory. | Students in courses of study. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Commercial } \\ & \text { course. } \end{aligned}$ |  | A manuensis course. |  | English course. |  | Telegraphy. |  |  |  |
|  | ※゙ |  | $\begin{aligned} & \text { ® } \\ & \text { ت゙ } \end{aligned}$ |  |  |  | : |  |  |  |
| United States........ <br> North Atlantic Division South Atlantic Division. South Central Division North Central Division.. Western Division.......... | 24,910 | 7,851 | 7,776 | 11,523 | 8,978 | 3,757 | 777 | 336 | 10, 041 | 8,372 |
|  | 7,529 | 2, 449 | 2,137 | 3,376 | 1,972 | 1,029 | 95 | 66 | 3,348 | 2,974 |
|  | 1,438 | 746 | 871 | 819 | 1,250 | ${ }^{7} 16$ | 35 | 7 | 673 | 591 |
|  | 2, 481 | 320 | 559 | 635 | 961 | 191 | 119 | 21 | 850 | 518 |
|  | 10,973 | 3,220 | 3,175 | 5,440 | 4,049 | 1,438 | 448 | 180 | 3, 977 | 3, 300 |
|  | 2,489 | 1,116 | 1,034 | 1,252 | 691 | 383 | 80 | 62 | 1,193 | 989 |
| North Atlantic Division : Maine. <br> New Hampshire <br> Vermont. <br> Massachusetts. <br> Rhode Island $\qquad$ <br> Connecticut. $\qquad$ <br> New Xork.. $\qquad$ <br> New Jersey.. <br> Pennsylvania | $63 \pm$ | 321 | 92 | 268 | 9 | 12 | 0 | 0 | 283 | 175 |
|  | 38 | 35 | 3 | 15 |  |  | 4 |  | 29 | 0 |
|  | 45 | 15 | 6 | 20 | 20 | 10 | 0 | 0 | 10 | 10 |
|  | 587 | $33 \frac{1}{2}$ | 119 | 294 | 55 | 19 | 0 | 0 | 407 | 156 |
|  | 206 | 90 | 51 | 132 | 75 | 12 | 0 | 0 | 102 | 77 |
|  | 452 | 151 | 160 | 528 | 100 | 124 | 6 | 12 | 377 | 332 |
|  | 2, 717 | 642 | 642 | 1, 111 | 320 | 160 | 42 | 30 | 1,134 | 1, 252 |
|  | 356 | 171 | 111 | 205 | 244 | 140 | 0 | 0 | 198 | 185 |
|  | 2, 494 | 690 | 953 | 803 | 963 | 549 | 43 | 24 | 809 | 787 |
| South Atlantic Division: <br> Delaware <br> Maryland | 250 | 40 | 40 | 60 |  |  |  |  | 29 | 33 |
|  | 279 | 38 | 80 | 89 | 83 | 43 | 0 | 0 | 69 | 126 |
|  | 70 | 502 | 399 | 452 | 621 | 453 | 0 | 0 | 220 | 167 |
| District of Columbia.Virginia | 391 | 18 | 117 | 27 | 201 | 134 | 0 | 0 | 52 | 51 |
| West Virginia.......... | 194 | 37 | 50 | 96 | 73 | 39 | 14 | 3 | 66 | 50 |
| North Carolin <br> South Carolin <br> Georgia. | 36 | 0 | 11 | 1 | 0 | 1 | 6 | 1. | 15 |  |
|  | 218 | 111 | 183 | 94 | 282 | 46 | 15 | 3 | 212 | 143 |
| Florida. |  |  |  |  |  |  |  |  | 10 | 16 |
| South Central Division: | 162 | 80 | 74 | 100 | 0 | 0 |  |  |  |  |
|  | 383 | 50 | 42 | 92 | 32 | 11 | 11 | 3 | 106 | 8 |
| Alabama. |  |  |  |  |  |  |  |  |  |  |
| Mississippi <br> Louisiana <br> Texas <br> Areansas | 250 | 12 | 12 | 24 | 306 | 0 | 34 | 0 | 45 | 0 |
|  | 171 | 15 | 54 | 47 | 185 | 11 | 0 | 0 | 177 | 143 |
|  | 1,411 | 137 | 312 | 303 | 285 | 84 | 41 | 11 | 283 | 160 |
|  | $10 \frac{1}{4}$ | 26 | 65 | 69 | 153 | 85 | 7 | 1 | 62 | 64 |
| Oklahoma. |  |  |  |  |  |  |  |  |  |  |
| Indian Territory-.... <br> North Central Division: |  |  |  |  |  |  |  |  |  |  |
| Ohio Indiana | 1,387 | 403 | 267 | 554 | 183 | 88 | 36 | 6 | 385 | 283 |
|  | 1,923 | 859 | 876 | i, 094 | $1,03 \pm$ | 354 | 86 | 56 | 1,046 | 822 |
| Indiana.................. | 2, 383 | 551 | 439 | 1, 160 | 1,056 | 279 | 100 | 0 | 627 | 471 |
| Minois -.MichiganWisconsin | 902 | 199 | ${ }_{216} 78$ | 454 | 234 | 93 44 | 29 | 25 | 302 | 206 |
|  | ${ }_{6}^{681}$ | 175 | 216 | ${ }_{218}^{277}$ | 114 | 44 | 9 | 5 | ${ }_{2} 22$ | 173 |
| Minnesota | 573 | ${ }_{2} 210$ | 186 | 218 | 111 | 59 | 29 | 7 | 285 | 235 |
|  | 1,309 | 296 | 371 | 556 | 492 | 236 | 65 | 10 | 317 | 315 |
| Towa......... | 1,218 | 361 | 385 | 878 | 735 | 228 | 82 | 70 | 507 | 634 |
| North Dakota | 18 97 | 18 | $\begin{array}{r}3 \\ 14 \\ \hline\end{array}$ | 10 | 115 | 40 | 2 | 1 | ${ }_{15}^{2}$ |  |
| South Dakota Nebraska.... | 291 | 83 | 68 | 118 | 1 | 0 | 10 | 0 | 188 | 86 |
| Kansas - - ......Western Division:Montana...... | 191 | 62 | 72 | 97 | 19 | 17 |  | 0 | 82 |  |
|  | 218 | 135 | 67 | 105 | 67 | 103 | 14 | 8 | 26 | 62 |
| Wyoming |  |  |  |  |  |  | $1 \pm$ |  | 2 | 62 |
|  | 294 | 83 | 37 | 48 | 33 | 35 | 5 | 3 | 21 | 2 |
| New MeArizonaUtah.. | 11 | 9 | 0 |  | 21 | 9 | 0 | 0 | 3 | 0 |
|  | 348 | 5 | 22 | 15 | 15 | 5 | 0 | 0 | 23 | 6 |
| Nevad <br> Idaho. |  |  |  |  |  |  |  |  |  |  |
| Washington Oregon California | 251 | 85 | 29 | 65 | 313 | 126 | 9 | 5 | 66 | 50 |
|  | 348 | 92 | 152 | 194 | 220 | 98 | 5 | 0 | 149 | 102 |
|  | 1,714 | 767 | 727 | 825 | 22 | 7 | 47 | 46 | 905 | 757 |

Table 5.-Universities and colleges in the United States having students in commercial or business courses in 1897-98.

| Post-office and Statc. | Population of city in 1890. | Name of institution. | Students in commercial course. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { 而 } \end{gathered}$ |  |  |  |
| Blountsville, Ala. | (a) | Blount College | 56 | 30 | 86 | 85 |
| St. Bernard, Ala | (a) | St. Bernard College | 30 | 0 | 30 | 71 |
| Mobile, Ala .. | b 46, 000 | Spring Hill College | - 37 | 0 | 37 | 32 |
| Tucson, Ariz | 5,150 | University of Arizona | 11 | 9 | 20 | 58 |
| Arkadelphia, Ark | 2, 455 | Arkadelphia Methodist Colleg | 7 | 1 | 8 | 90 |
| Clarizsville, Ark.. |  | Arkansas Cumberland College | 4 | 2 | 6 | 8 |
| Little Rock, Ark | b 36,000 | Philander Smith College..... | 4 | 0 | 4 | 18 |
| College Park, Cal | ${ }^{(a)}$ | University of the Pacific | 22 | 6 | 28 | 62 |
| Los Angeles, Cal | ${ }^{\text {b } 105,228}$ | St. Vincent's College. | 40 | 0 | 40 | 80 |
| Santa Clara, Cal | 2, 891 | Santa Clara Collcge | 30 | 0 | 30 | 181 |
| Santa Rosa, Cal | 5, 220 | Pacific Methodist Colleg | 1 | 2 | 3 | 44 |
| Fort Collins, Colo | 2, 011 | The State A gricultural College | 57 | 22 | 79 | 213 |
| Washington, D. C | b280, 000 | Gonzaga College. | 30 | 0 | 30 | 24 |
| De Land, Fla | 1,113 | John B. Stetson University | 34 | 6 | 40 | 21 |
| Lake City, Fl | 2, 020 | Florida Agricultural College | 44 | 14 | 58 | 77 |
| St. Leo, Fla. | (a) | St. Leo Military College..... | 20 | 0 | 20 | 25 |
| Winter Park, | (a) | Rollins College. | 10 | 10 | 20 | 20 |
| Bowdon, Ga. | (a) | Bowdon College | 1 | 0 | 1 | 42 |
| Dahlonega, G | (a) | North Georgia $\mathrm{A}^{\text {gricic }}$ | 30 | 0 | 30 | 110 |
| Abingdon, Ill. | 1,321 | Hedding College.. | 15 | 13 | 28 | 45 |
| Bourbonnais, I |  | St. Viateur's College | 79 | 0 | 79 | 134 |
| Carlin ville, 11 | 3,293 | Blackbura University | 17 | 4 | 21 | 25 |
| Chicago, Il | b 1, 850, 000 | St. Ignatius College | 90 | 0 | 90 | 143 |
| Etingiam, | 3,260 | Austin College | 30 | 20 | 50 | 130 |
| Eureka, Ill | 1,481 | Eureka College. | 19 | 7 | 26 | 68 |
| Fulton, In | 2,099 | Northern Illinois College | 15 | 5 | 20 | 65 |
| Hoopeston, Ill | 1,911 | Greer College | 37 | 13 | 50 | 50 |
| Naperville, | 2,216 | North western College | 38 | 4 | 42 | 72 |
| Quincy, Ill. | b 36, 000 | St. Francis Solanus Colleg | 45 | 0 | 45 | 72 |
| Rock Island, II | b 19, 000 | Augustana Colloge | 115 | 55 | 170 | 114 |
| Teutopolis, Ill | (a) | st. Joseph's Colleg | 40 | 0 | 40 | 95 |
| Westiold, Ill |  | Westfield College | 12 | 8 | 20 | ${ }_{6} 23$ |
| Wheaton, Ill | 1,622 | Wheaton College | 24 | 9 | 33 | ${ }_{87}$ |
| Merom, Ind | (a) | Union Christian Colle | 10 | 13 | 23 | 87 |
| Notre Dame, I | (a) | University of Notre I | 75 | 0 | 75 | 163 |
| Upland, Ind .- | (a) | Taylor University | 6 | 4 | 10 | 31 |
| Bacone, Ind. T. |  | Indian University | 4 | 3 | 7 | 6 |
| Charles City, Iowa | 2,802 | Charles City College | 37 | 2 | 39 | 19 |
| College Springs, Iowa .- | (a) | Amity Collego. | 18 | 3 | 21 | 35 |
| Des Moines, Iowa | 50, 093 | Drake University | 35 | 16 | 51 | 140 |
| Fayette, Iowa... | 1, 062 | Upper Iowa University | 55 | 11 | 66 | 121 |
| Indianola, Iowa. | 2,254 | Simpson College....... |  | 11 | 57 | 99 |
|  | 3,997 | Gernan College. | 2 | 1 | 3 | 28 |
| Do. |  | Iowa Wesleyan Universit | 26 | 10 | 36 | 91 |
| Pella, Iowa | 2,408 | Central University | 6 | 2 | 8 | 23 |
| Sionx City, Iowa | b 53, 068 | Morningside College | 31 | 20 | 51 | 27 |
| Storm Lake, Iowa | 1,682 | Buena Vista College | 17 |  | 24 | 5 |
| Toledo, Io wa .... | 1, 836 | Western College | 14 | 4 | 18 | 55 |
| Atchison, Kans | b 17, 000 | St. Benedict's Colleg | 37 |  | 37 | 66 |
| Baldwin, Kans. | (a) | Baker University | 33 | 7 | 40 | 176 |
| Dodge City, Kans | 1,763 | Sonle Collcge. | 4 | 1 | 5 | 32 |
| Holton, Kans. | 2,727 | Camplell University | 54 | 21 | 75 | 144 |
| Lecompton, Ka | (a) | Lane University | 9 | 0 | 9 | 25 |
| Lindsborg, Kans | (a) | Bethany College | 50 | 23 | 73 | 53 |
| Ottawa, Kans.. | b 8,500 | Ottawa College | 54 | 30 | 84 | 110 |
| St. Marys, Kans | 1,174 | St. Marys College-............. | 100 | 5 | 100 | 73 |
| Salina, Kans ... | 6,149 | Kansas Wesleyan University | 140 | 85 | 225 | 39 |
| Winfield, Kans | 5,184 | St. John's Lutherar. College | 36 | 20 | 36 | 39 |
| Do.......... |  | Soathwest Kansas College. | 42 | 20 | 62 | 21 |
| Berea, Ky |  | Berea College.............. | 15 | 2 | 17 | 53 |
| Richmond, Ky | 5,073 | Central University | 15 | 10 | 25 | 142 |
| St. Mary, Ky . |  | St. Mary's College | 80 |  | 80 | 40 |
| Winchester, Ky | 4,519 | Kentncky Wesleyan College | 8 | 2 | 10 | 138 |
| Convent, La ... | (a) | Jefferson College | 20 | 0 | 20 | 80 |
| New Orleans, La | $b 260,000$ | Straight University | 40 | 34 | 74 | 7 |
| Ellicott City, Md | 1,483 | Rock Hill College | 14 | 0 | 14 | 48 |
| Mount St. Marys, Md... | (a) | Mount St. Marys College | 16 | 0 | 16 | 72 |
| New Windsor, Md...... | ${ }^{(a)}$ | New W indsor College | 0 | ${ }^{2}$ | ${ }_{3}^{2}$ | 31 |
| Albion, Mich ............ | 3,763 | Albion College........ | 28 | 10 | 38 | 200 |
| Alma, Mich. | 1,655 | Alma College. | 11 | 5 | 16 | 63 |
| Benzonia, Mich | (a) | Benzonia College | 10 | 5 | 15 | 14 |
| Collegeville, Minn . | (a) | St. John's University | 60 | 0 | 60 | 200 |

Table 5．－Universities and colleges in the United States having stucients in commercial or business courses in 1897－98－Continued．

| Post－office and State． | $\begin{aligned} & \text { Population } \\ & \text { of city } \\ & \text { in } 1890 . \end{aligned}$ | Name of institution． | Students in commercial course． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 㝝 | 感 | $\begin{aligned} & \text { 蚵 } \\ & \text { E } \\ & \text { H } \end{aligned}$ |  |
| St．Peter，Minn | 3，671 | Gustavus Adolphus College | 59 | 4 | 63 | 60 |
| Winnebago City，Minn | 1， 108 | Parker College．．．．．．．．．．．．．． | 4 | 2 | 6 | 11 |
| Clinton，Miss ．．．．．． | （a） | Mississippi Colleg | 10 | 0 | 10 | 85 |
| Holly Springs，Mi | 2，246 | Rust University． | 10 | 2 | 12 | 20 |
| Albany，Mo．． | 1，334 | Central Christian College | 16 | 2 | 18 | 51 |
| Do．． |  | Northwest Missouri College．．．．－．－．－．． | 20 | 12 | 32 | 70 |
| Cameron， | 2，917 | Missouri Wesleyan College． | 8 | 6 | 14 | 15 |
| Canton，Mo | 2， 241 | Christian University ． | 24 | 5 | 29 | 65 |
| Clarksburg，Mo | （a） | Clarksburg Baptist College | 6 | 2 | 8 | 80 |
| Columbia，Mo | 4， 000 | University of the State of Missouri ．．．． | 46 | 40 | 86 | 23 |
| Edinburg，Mo |  | Grand River Christian Union College ：－ | 23 | 5 | 28 | 26 |
| Glasgow，Mo | 1，781 | Pritchett College．．．．．．．．．． | 2 | 1 | 3 | 21 |
| Lagrange，Mo | 1，250 | Lagrange College | 8 | 0 | 8 | 72 |
| Morrisville，M | （a） | Morrisville College | 10 | 6 | 16 | 110 |
| Neosho，Mo． | 2， 198 | Scarritt Collegiate Institut | 5 | 6 | 11 | 43 |
| St．Louis，M | b 713， 042 | Christian Brothers College ．．．－．－－．－．－．－ | 110 | 0 | 110 | 105 |
| Do．．．．．． |  | St．Louis University ．．．．． | 93 | 0 | 93 | 70 |
| Tarkio，Mo | 1，156 | Tarkio College． | 36 | 1 | 37 | 74 |
| Trenton，Mo | 5， 039 | Avalon College | 15 | 3 | 18 | 40 |
| Warrenton，Mo． | （a） | Central Wesleyan College ．．．．．．．．．．．．．．．． | 18 | 6 | 24 | 44 |
| Bozeman，Mont． | 2，143 | College of Agriculture and Mechanic Arts． | 17 | 11 | 28 | 18 |
| Deer Lodge，Mont | 1． 463 | The College of Montana．．．．．．．．．．．．．．．．．． | 5 | 1 | 2 | 22 |
| College View，Neb | （a） | Union College | 25 | 10 | 35 | 35 |
| Crete，Nebr． | 2，310 | Doane College | 5 | 5 | 10 | 81 |
| Fairfield，Nebr | （a） | Fairfield College | 3 | 1 | 4 | 20 |
| Grand Island， | b 8，500 | Grand Island Colleg | 16 | 1 | 17 | 28 |
| Neligh，Nebr | 1， 209 | Gates College． | 13 | 0 | 13 | 25 |
| Reno，Nev． | 3， 563 | Nevada State University | 16 | 11 | 27 | 163 |
| South Orange，N．J． | 3，106 | Seton Hall College．．．．．． | 10 | 0 | 10 | 52 |
| Mesilla Park，N．Mex | （a） | New Mexico College of Agriculture asd Mechanic Arts． | 24 | 4 | 28 | 80 |
| Allegany，N．Y | （a） | St．Bonaventure＇s College ．－．．－．．．．．．．．． | 20 | 0 | 20 | 107 |
| Brooklyn，N．Y | b 1，150， 000 | St．Francis College．．． | 46 | 0 | 46 | 48 |
| Do．．．． |  | St．John＇s College | 84 | 0 | 84 | 91 |
| New York City，N．Y | $b 2,100,000$ | Manhattan College | 30 | 0 | 30 | 169 |
| Do．．．．．．．．．．．．．．．．．． |  | St．John＇s College | 25 | 0 | 25 | 85 |
| Niagara University， N．Y． | （a） | Niagara University | 28 | 0 | 28 | 88 |
| Belmont，N．C ．－．．．．．．．． | （a） | St．Mary＇s College | 61 | 0 | 61 | 68 |
| Charlotte，N．C | b 21， 000 | Biddle Üniversity | 37 | 0 | 37 | 60 |
| Guilford College，N．C | （a） | Guilford College | 12 | 10 | 22 | 67 |
| Mount Pleasant，N．C． | （a） | North Carolina College | 9 | 0 | 9 | 29 |
| Salisbury，N．C． | 4，418 | Livingstone College ．． | 9 | 10 | 19 | 16 |
| Fargo，N．Dak． | 5，664 | Fargo College．．． | 24 | 7 | 31 | 25 |
| Wahpeton，N．I | 1， 510 | Red River Valley University | 24 | 13 | 37 | 21 |
| Berea，Ohio | 2，533 | Baldwin University | 11 | 4 | 15 | 82 |
| Cinciunati，Ohi | b 370， 000 | St．Xavier Collego | 71 | 0 | 71 | 102 |
| Delaware，Oli | b 9，000 | Ohio Wesleyan University | 72 | 30 | 102 | 624 |
| Findlay，Ohio | b 20， 000 | Findlay College ．．．．．．．．．． | 20 | 15 | 35 | 46 |
| Hiram，Ohio | （a） | Hiram College | 27 | 8 | 35 | 165 |
| Lima，Ohio | b 21， 000 | Lima College | 19 | 11 | 30 | 18 |
| Richmond，O | （a） | Richmond College | 2 | 2 | 4 | 4 |
| Scio，Ohio． | （a） | Scio College ． | 61 | 14 | 75 | 84 |
| Tiffin，Ohio | b 13，v00 | Heidelberg College | 39 | 33 | 72 | 84 |
| Wilberforce，Ohio | （c） | Wilberforce University | 16 | 5 | 21 | 69 |
| Fellow Springs，Ohio． | 1，375 | Antioch College． | 6 | 7 | 13 | 25 |
| Philomath，Oreg． | （a） | Philomath College． | 6 | 1 | 7 | 91 |
| Salem，Oreg | b 11， 000 | Wiilamette University | 3 | 0 | 3 | 28 |
| Unirersity Park，Oreg．－ | （a） | Portland University ． | 8 | 2 | 10 | 35 |
| Beatty，Pa． | （a） | St．Vinceut College． | 32 | 0 | 32 | 114 |
| New Berlin，Pa | （a） | Central Pennsylvania College | 4 | 0 | 4 | 54 |
| Philadelphia，P | b 1，523， 581 | La Salle College．．． | 33 | 0 | 33 | 92 |
| Pittsburg，Pa． | b 280， 000 | Duquesne College． | 16 | 20 | 36 | 100 |
| Do ．．．． |  | Holy Ghost College | 30 | 0 | 30 | 160 |
| Villanova，Pa | （a） | Villanova College | 25 | 0 | 25 | 82 |
| Volant，Pa ．．．．．．．．．．．．．．． | （a） | Volant College－－．．．．．．．．．．．．．．．．．．．．．．．．．．． | 13 | 3 | 16 | 75 |
| Clinton，S．C．．．．．．．．．．．． | 1，021 | Presbyterian College of South Carolina． | 4 | 0 | 4 | 54 |
| Brookings，S．Dak．．．．．． | 1，518 | South Dakota A gricultural College ．．．． | 26 | 18 | 44 | 333 |
| Hot Springs，S．Dak．．．． | 1， 423 | Black Hills College．． | 4 | 5 | 9 | 19 |
| Mitchell，S．Dak．．．．．．．． | 2，217 | Dakota University | 33 | 11 | 44 | 49 |
| Redfield，S．Dak．．．．．．．．． | （a） | Redfield College | 1 | 3 | 4 | 19 |

Table 5．－Tnireraities and colleges in the United States haring students in commercial or business courses in 1897－98－Continued．

| Postoffice and State． | $\begin{aligned} & \text { Population } \\ & \text { of city } \\ & \text { in } 1890 . \end{aligned}$ | Name of institution． | Students in conmercial course． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 采 | $\begin{gathered} \text { 品 } \\ \text { 品 } \\ \text { in } \end{gathered}$ | $\begin{aligned} & \text { ज़゙ } \\ & \text { Hi } \end{aligned}$ |  |
| Vermilion，S．Dak | 1，496 | University of South Dakota ．．．．．．． | 57 | 19 | 76 | 71 |
| Harriman，Tenn．． |  | American Temperance University ． | 27 |  | 27 | 55 |
| Miarsville，Tenn | 1，686 | Maryville College | 13 | 3 | 16 | 121 |
| Memphis，Tenn | ¢ $6 \overline{5}, 000$ | Christian Brothers College | 35 | 0 | 35 | 51 |
| Milligan，Tenn | （a） | Milligan College．．．．．．． | 16 | 2 | 18 | 77 |
| Sewauce，Tenn | （a） | University of the Soat | 3 | 0 | 3 | 127 |
| Spencer，Tenn | （a） | Burritt College． | 12 | 8 | 20 | 46 |
| Austin，Tex． | $b 29,000$ | St．Edward＇s College | 126 | 0 | 126 | 24 |
| Brownwood，Te | 2， 176 | Howard Payne Colleg | 16 | 11 | 27 | 48 |
| Fort Worth，Tex | $b 35,000$ | Polytechnic College． | 25 | 4 | 29 | 46 |
| Georgetown，Tex | 2，417 | Southwestern University | 31 | 4 | 35 | 228 |
| Greenville，Tex | 4，330 | Burleson College | 40 | 6 | 46 | 47 |
| San Antonio，Tex | 6 48， 000 | St．Louis College | 63 | 0 | 63 | 17 |
| Tehuacana，Tex | （a） | Trinity University | 18 | 1 | 19 | 71 |
| Waco，T＇ex ．．．．． | 616,000 | Add－Ran Christian University | 16 |  | 25 | 130 |
| Bridgewater，Va． | （a） | Bridgewater College | 10 | 4 | 14 | 21 |
| Fredericksburg，Va | （a） 528 | Fredericksburg College． | 13 | 8 | 21 | 79 |
| Hampden－Sidnes，V |  | Hampden－Sidney Colleg | 13 | 0 | 13 | 128 |
| Burton，Wash．．． | （a）${ }^{\text {a }}$ | Vashon College．． | 9 | 7 | 16 | 34 |
| Colfax，Wash | 1，649 | Colfax College．． | － | 2 | 8 | 5 |
| Spokane，Wash | $b 35,000$ | Gouzaga Collego | 35 | 0 | 35 | 100 |
| Sumner，Wash | （a） | Whitworth College | 3 | 4 | 7 | 11 |
| Tacoma，Wash | $b 41,000$ | Paget Sound University | 11 | 7 | 18 | 25 |
| Vanconver，Wasly | 3， 545 | St．James College．．．．．．．．．．．．．．．．．．．．．．．． | 17 | 0 | 17 | ${ }^{23}$ |
| Barboursville，W．Va． |  | Barboursville Male and Female College． | 5 | 1. | 6 | 60 |
| Morgantown，W．Va | 1， 011 | West Virginia University | 32 | 6 | 38 | 322 |
| Appleton，Wis | ¢ 15， 000 | Lawrence University ．．． | 37 | 27 | 64 | 117 |
| Beloit，Wis ． | 63,000 | Beloit College | 22 |  | 22 | 206 |
| Milton，Wis | （a） | Milton College | 5 | 3 | 8 | 53 |
| Milwankee，Wis | ${ }_{6} 243,870$ | Marquette Collego | 62 | 0 | 62 | 55 |
| Watertown，Wis | b 10， 500 | Northwestern Uuiversity ．． | 21 | 5 | 26 | 64 |

a Less than 1,000 pepulation．
$b$ Estimated popalation in 1897.
Table 6．－Public normal schools in the United States having students in commercial or business courses in 1897－38．

| Post－office and State． | Population in 1890. | Name of school． | Students in business conrse． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 感 | 皆 | W |  |
| 1 | 2 | 8 | 4 | 5 | 6 | \％ |
| Livingston，Ala |  |  | 0 | 9 |  | 157 |
| Milledgeville，Ga | （a）322 | Georgia Normal and Industrial College． | 0 | 32 | 32 | 450 |
| Lewiston，Idaho |  | State Noumal School． | 8 | 3 | 11 | 141 |
| Dexter，Iowa |  |  | 5 | 0 | 5 | 160 |
| Rockwell City，Iowa | 1，689 | Calhoun County Normal School ．．．．．．．． | 15 | 15 | 30 | 130 |
| Woodbine，Io |  | Woolbine Normal School | 35 | 21 | 56 | 529 |
| Hazard，$\overline{\text { I }}$ ． | （a） | Hazard Normal School． | 20 | 2 | 22 | 314 |
| Louisville，Ky | 3220,000 | Normal School．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 26 | 188 | 214 | 798 |
| Temple Hill，Ky | （a） | Temple Hill Normal Academy ．．．．．．．．．． | 3 | 0 | 3 | 104 |
| Abbeville，Miss | （a） | Abbevillo Normal School．．．．．．．．．．．．．．．． | 5 | 0 | 5 | 145 |
| Louisville， I | （a） | Louisville Normal School．．．．．．．．．．．．．．．． | 5 | 3 | 8 | 137 |
| Troy，Miss．．．．． | （a）${ }^{\text {a }}$ | Mississippi Normal High School ．．．．．．． | 5 | 3 | 8 | 155 |
| Silver City，N．Mex | 2， 102 | Normal School of New Mexico ．－．．．．．．．－ | 2 | 4 | 6 | 66 |
| Greeashoro，N．C | 3， 317 | State Normal and Industrial College ．．． | 0 | 50 | 50 | 675 |
| Clarion， Pa ． | 2，164 | Clarion State Normal School．．．．．．．．．．．．． | 22 | 18 | 40 | 670 |
| Indiana，Pa | 1，963 | Indiana Normal School of Pennsslvania． | 6 | 11 | 17 | 528 |
| Rock Hill，S．C． | 2， 744 | Winthrop Normal and Industrial Col－ lece． | 0 | 49 | 49 | 218 |
| Athens，W．Va |  | Concord State Normal School．．．．．．． | 5 | 1 | 6 | 236 |
| Euntington，W．Va | 10， 108 | Marshall College，State Normal School．． | 70 | 40 | 110 | 388 |

Table 7.-Private high schools and academies in the United States haviny 30 or more stir-: dents in commercial or business courses in 1897-38.

| Post-office and State. | Population <br> in 1890. | Name of school. | Secondary students in business course. |  |  | Total number of secondary derits. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\stackrel{\dot{\oplus}}{\stackrel{ \pm}{\sigma}}$ |  | $\begin{aligned} & \text { تं } \\ & \text { E } \\ & \text { H } \end{aligned}$ |  |
| Montevallo, Ala....-. - | (a) | Alabama Girls' Industrial School .... | 0 | 130 | 130 | 200 |
| Leadville, Colo. | b9,094 | St. Mary's School | 26 | 28 | 54 | 54 |
| Washington, D | b280, 000 | Linthicum Institute | 43 | 0 | 43 | 43 |
| Chicago, Ill.. | 61, 850, 000 | De La Salle Institute | 150 | 0 | 150 | 200 |
| Dixon, 111. | 5,101 | Steinmann Institute | 20 | 10 | 30 | 30 |
| Elgin, Ill | b22,915 | Elgin A cademy. | 43 | 16 | 59 | 83 |
| Mount Morris, Ill | (a) | Mount Morris College..--...........-. .-. | 33 | 22 | 55 | 220 |
| Nora Springs, Iowa... | (a) | Nora Springs Seminary and Business College. | 53 | 5 | 58 | 433 |
| Louisrille, Ky | ¢ 220,000 | St. Xavier's Collego.......................... | 80 | 0 | 80 | 90 |
| Bucksport, Nie | 2, 921 | East Maine Conference Seminary | 25 | 20 | 45 | 144 |
| Saco, Me... | 6,075 | Thornton Academy ................ | 39 | 23 | 62 | 189 |
| Baltimore, Md | b 431,851 | Calvert Hall College | 73 | 0 | 73 | 109 |
| MeDonogh, Md | (a) | McDonogh Institute | 40 | 0 | 40 | 71 |
| Benton Harbor, Mich. | 3,692 | Benton Harbor College | 31 | 16 | 47 | 334 |
| Fergus Falls, Minn... | 3, 772 | Park Region Lutheran College | 35 | 5 | 40 | 40 |
| St. Paul, Jinn ...... | 133, 156 | Cretin High School | 105 | 0 | 105 | 105 |
| Natchez, Miss | b 8, 400 | Cathedral School.. | 65 | 0 | 65 | 65 |
| Lexington, Mo | 4,537 | Wentworth Military Academy | 44 | 0 | 44 | 89 |
| St. Louis, Mo | b 713, 042 | Toensfeldt's Educational Institute | 36 | 0 | 36 | 36 |
| Do...... |  | Walther Collego................ | 72 | 4 | 76 | 115 |
| Pawnee City, Nebr...... | 1,550 | Pawnee City Academy | 33 | 11 | 44 | 53 |
| Manchester, N. H. | 44, 126 | St. Augustine's Academy | 76 | 0 | 76 | 76 |
| Do........... |  | St. Joseph's High School | 60 | 0 | 60 | 60 |
| Jersey City, N. | b135, 634 | St. Peter's College....... | 80 | 0 | 80 | 160 |
| Bridgeton, N.J | 11,424 | South Jersey Institut | 49 | 10 | 59 | 121 |
| New York, N. | b2,100,000 | De La Salle Institute | 50 | 0 | 50 | 160 |
| Do.... |  | La Salle Academy. | 45 | 0 | 45 | 95 |
| Oak Ridge, N. C | (a) | Oak Ridge Institute | 100 | 4 | 101 | 155 |
| Mount Angel, Oreg | (a) | Mount Angel Collego | 40 | 0 | 40 | 51 |
| Allegheny, Pa..... | 105,287 | Park Institute ..... | 82 | 23 | 105 | 186 |
| Greensburg, P | 4,202 | Greensburg Seminary | 25 | 26 | 51 | 279 |
| Loretto, Pa. | (a) | St. Francis College . | 40 | 0 | 40 | 45 |
| Pittsburg, Pa | b280, 000 | Pittsburg Academy | 30 | 20 | 50 | 321 |
| Scranton, Pa- | $b 40,200$ | St. Thomas College. | 50 | 0 | 50 | 150 |
| Manning, S. C | 1,069 | Manning Academy. | 100 | 37 | 137 | 181 |
| Provo, Utah .......... | 5,159 | Brigham Young Academy. | 73 | 2 | 75 | 540 |
| Salt Lake City, Utah | 66,081 | Latter Day Saints' College | 70 | 50 | 120 | 120 |
| Montpelier, Vt. | 4, 160 | Montpelier Seminary | 35 | 20 | 55 | 220 |
| Rutland, Vt..... | 11,760 | Rutland English and Classical Institute. | 82 | 57 | 139 | 187 |
| Milwaukee, Wis.. | - 248,870 | St. Josaphat's High School .............. | 52 | 0 | 52 | 52 |

Table 8．－Public high schools in the United States having 50 or more students in com－
mercial or business courses in 1897－98．

| Post－office and State． | Population in 1890. | Name of school． | Secondary stu－ dents in busi－ ness course． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 号 |  | $\begin{aligned} & \text { ज⿹\zh26灬 } \\ & \text { Hi } \\ & \text { Hin } \end{aligned}$ |  |
| Mariana，Ark | b1，126 | Male and Female In | 68 | 102 | 170 | 170 |
| Benicia，Cal． | $b$ 2， 361 | High School | 13 | 20 |  | 33 |
| Grass Valley，Cal | （a） |  | 26 | －34 | ${ }^{60}$ | 75 |
| Los Angeles，Cal | 105， 228 | do | 110 | 125 | 235 | 1，370 |
| San Diego，Cal． | 17， 362 | $\cdots$－．．．do－．．． | 40 | 44 | 84 | 433 |
| Sam Francisco，Cal | 355,781 | Polytechnic High Sc | 185 | 165 | 350 | 650 |
| Stockton，Cal | 17，845 | High School | 35 | 43 | 78 | 267 |
| Denver，Colo | 139，412 | High School（District No．1） | 39 | 28 | ${ }^{67}$ | 877 |
|  |  | High School（District No．2） | 13 | 42 | 55 | 430 |
| Denver（Highlands）， Colo． |  | North Side High school | 27 | 39 | 66 | 414 |
| Triuidad，Colo ．． | b 5， 523 | High Sclı | 31 | 39 | 70 | 176 |
| Bridgeport，Comn | 57， 503 | do | 49 | 38 | 87 | 386 |
| Hartiord，Conn | 70， 426 | do | 30 | 30 | 60 | 829 |
| Meriden，Conn | 20， 549 | do | 24 | 37 | 61 | 235 |
| New Britain，Conn | 19， 948 | do | 28 | 52 | 80 | 288 |
| New Canaan，Conn | b2， 701 |  | 52 | 50 | 102 | 102 |
| New Haven，Conn | 95， 251 | Hillhouse High Scho | 54 | 120 | 174 | 841 |
| Southington，Conn | $b 5,501$ | Lewis High school | 16 | 38 | 54 | 145 |
| Stamford，Conn | 20， 981 | High School | 26 | 30 | 56 | 213 |
| Wilmington，Del | 68， 431 |  | 41 | 60 | 101 | 622 |
| Washington，D．C | 280， 000 | Business High Scho | 260 | 290 | 550 | 550 |
|  |  | Colored High School |  | 34 | 86 | 690 |
| Atlanta， | 65， 876 | Girls＇High School． |  | 82 | 82 | 472 |
| Cairo，Ill | 11，499 | High School | 33 | 49 | 82 | 211 |
| Chicago，Ill | 1，850， 000 | English High and Manual Training School． | 35 | 0 | 35 | 476 |
| Elgin， 111 | 22，915 | High School | 40 | 22 | 62 | 337 |
| Galesburs， | 15， 912 | do | 99 | 125 | 224 | 461 |
| Morris，Ill | b 3， 653 | do | 22 | 44 | 66 | 125 |
| Mount Carmel，In | b3， 376 | do | 40 | 63 | 103 | 103 |
| Rockford，Ill | 28， 455 | do | 40 | 60 | 100 | 449 |
| Sumner， 111 | b1， 037 | do | 38 | 39 | 77 |  |
| Indianapolis．In | 114， 096 | －do | 24 | 49 | 73 | 1， 117 |
| Lafayette，Ind | 13， 147 | West Lafayette High | 68 | 72 | 140 | 140 |
| Albia，Iowa． | b2， 359 | High School | 23 | 35 | 58 | 160 |
| Burlington，Iowa | 21，190 | ． l lo | 73 | 71 | 144 | 367 |
| Council Bluffe， | 16，428 |  | 59 | 41 | 100 | 403 |
| Des Moines，Iowa | b 50， 093 | West Des Moines High and Industrial School． | 35 | 20 | 55 | 528 |
| Fayette，Iowa | b 1．062 | High School | 33 | 37 | 70 | 70 |
| Lyons，Iowa． | ob 5， 799 | Independent High School | 18 | 46 | 64 | 110 |
| Manchester，Iowa | b 2，344 | High School | 36 | 24 | 60 | 150 |
| Marble Rock，Iowa |  |  | 15 | 35 | 50 | 65 |
| Marion，Iowa．． | 63,094 | ．do | 59 | 50 | 109 | 228 |
| Sioux City，Iow | 53， 063 | do | 54 | 6 | 60 | 497 |
| Stuart，Iowa．． | $b 2,052$ | do | 51 | 79 | 130 | 130 |
| Hutchinson，Kan | 9， 601 | do | 30 | 70 | 100 | 210 |
| Wamego，Kans | 6 1，473 | do | 30 | 40 | 70 | 118 |
| New Orleans，La | 260， 000 | McUonough High School No． 1 | 245 | 0 | 245 | 265 |
| Baltimore，Md | 431，851 | Eastern Female High School． | ， | 79 | 79 | 456 |
| Do． |  | Western Female High School | 0 | 84 | 84 | 960 |
| Do |  | Polytechnic Institute，Colored | 27 |  | 27 | 27 |
| Boston，Mass Do | 515， 201 | Girls＇High School． | 0 | 56 | 56 | 1，003 |
| Do． |  | Roxbury High Schoo | 17 | 44 | 61 | 632 |
| Brockton，Mas | 39， 131 | High School ．．．．．．．．． | 81 | 91 | 172 | 488 |
| Cambridge，Mass | 49， 805 | English High School | 58 | 82 | 140 | 713 |
| Danvers，Mass． | b 7， 454 | Holten High School． | 23 | 34 | 57 | 199 |
| Everett，Mass． | b 11， 068 | High School | 56 | 54 | 110 | 298 |
| Fall River，Mass | 104， 031 | B．M．C．Durfee High School | 73 | 50 | 123 | 704 |
| Fitchburg，Mass ． | 29，846 | High School | 70 | 73 | 143 | 540 |
| Gloucester，Mass | 27， 113 |  | 22 | 31 | 53 | 386 |
| Holyoke，Mass． | $b 35,637$ | ．．do | 50 | 0 | 50 | 495 |
| Lynn，Mass．．． | 68，970 | English High School | 107 | 172 | 279 | 492 |
| Malden，Mass． | 31， 288 | High School | 35 | 51 | 86 | 413 |
| Milford，Mass． | 7， 729 | ．－．．．do ．．．．．．． | 30 | 39 | 69 | 150 |
| New Bediord，Mass | 35， 132 | do | 50 | 60 | 110 | 400 |
| Newton，Mass． | 27， 797 | ．do | 40 | 31 | 71 | 626 |
| Quincy，Mass | 11， 115 | －${ }^{\text {a }}$－do | 113 | 65 | 178 | 429 |
| Salem，Mass | $\begin{array}{r}35,078 \\ 104 \\ \hline 170\end{array}$ | Classical High School | 35 | ${ }_{6}^{67}$ | 102 | ${ }_{984}^{434}$ |
| Detroit，Mich． | 196， 479 | Central High School | 156 | 53 | 209 | 2， 065 |

Table 8.-Public high schools in the United States having 50 or more students in commercial or business courses in 1897-98-Continued.

| Post-ofice and State. | $\begin{aligned} & \text { Population } \\ & \text { in } 1890 \text {. } \end{aligned}$ | Name of school. | Secondary studeuts in business course. |  |  | Totalnum-ber ofsec-ondarystu-dentsin theschool. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{aligned} & \text { त్ञें } \\ & \text { से } \end{aligned}$ |  |
| Flint, Mich. | 9,756 | High School | 42 | 49 | 91 | 363 |
| Grand Rapids, Mich .. | 77, 670 | Central High Schoo | 134 | 108 | 242 | 1,271 |
| Kalamazoo, Mich..... | 18, 289 | High School. | 32 | 23 | 55 | 409 |
| Muskegon, Mich | 18,768 |  | 45 | 40 | 85 | 420 |
| Saginaw, Mich | 24, 630 | East Side High School | 30 | 37 | 67 | 595 |
| St. Paul, Minn. | b 133, 156 | Miechanics' Aris High School | 25 | 65 | 90 | 309 |
| Harrisonville, Mo | b 1, 645 | High School | 23 | 47 | 70 | 114 |
| St. Joseph, Mo | 61, 378 |  | 30 | 36 | 66 | 510 |
| St. Louis, Mo | 713, 042 | Normal and High | 122 | 74 | 196 | 2, 049 |
| Springfield, Mo | ${ }^{2} 21,850$ | High School | 29 | 24 | 53 | 488 |
| Humboldt, Nebr | b1,114 |  | 24 | 27 | 51 | 85 |
| Nebraska City, Nebr. | b 11, 494 | ..do | 31 | 35 | 66 | 210 |
| Riverton, Nebr | (a) | do | 25 | 30 | 55 | 55 |
| Carson City, Ne | b 3, 950 | do | 20 | 32 | 52 | 112 |
| Virginia City, Ne | b8,511 | do | 30 | 36 | 66 | 114 |
| Laconia, N. H. | $b 6,143$ | do | 43 | 31 | 74 | 152 |
| Elizabeth, N.J | b 37, 764 | Battin High | 46 | 80 | 126 | 230 |
| Hackensack, N | b6, 004 | High Schoo | 39 | 20 | 59 | 159 |
| Hoboken, N.J | b43, 648 | .....do | 27 | 60 | 87 | 200 |
| Jersey City, N. | 135, 634 | . do | 117 | 198 | 315 | 960 |
| Keyport, N. J | b 3, 411 | d | 25 | 33 | 58 | 73 |
| Mount Holly, N. | (a) |  | 27 | 37 |  | 64 |
| Phillipsburg, N. | 8,445 | do | 15 | 74 | 89 | 114 |
| Trenton, N.J. | $b 57,458$ | do | 50 | 38 | 88 | 498 |
| Albany, N. Y | 51,654 | do | 175 | 350 | 525 | 828 |
| Attica, N. Y | b 1, 994 | do | 34 | 22 | 56 | 149 |
| Brooklyn, N. Y | 1, 150, 000 | Boys' High School | 659 | 0 | 659 | 1,406 |
| Brooklyn (Flatbush avenue), $\mathrm{N} . \mathrm{Y}$. |  | Erasmus Hall High Sc | 45 | 44 | 89 | 648 |
| Brooklyn, N. Y......... |  | Girls' High School | 0 | 638 | 638 | 2, 265 |
| Buffalo, N. Y | b 365, 664 | Central High Schoo | 97 | 106 | 203 | 2, 189 |
| Jamaica, N. Y | b 5, 361 | High School... | 26 | 23 | 49 | 116 |
| New York City, N. Y. | 2, 100, 000 | East Side Erening High Sc | 280 |  | 280 | 710 |
|  |  | Evening High School | 223 | 0 | 223 | 799 |
| Do |  | Harlem Evening High Schoo | 587 | 0 | 587 | 1,974 |
| Asheville, N | 11, 470 | Orange Street Iligh School. | 25 | 35 |  | 130 |
| Cleveland, Ob | 312, 704 | Central High School | 178 | 26 | 204 | 1,947 |
| Do. |  | South High School | 46 | 17 | 63 | 356 |
| Do. |  | West High Scheol. | 131 | 42 | 173 | 941 |
| Columbus, Ohi | 130, 000 | Central High Schoo | 27 | 42 | 69 | 778 |
|  |  | East High school. | 41 | 29 | 70 | 417 |
| ${ }^{\text {Do.- }}$ |  | South High School. | 58 | 27 | 85 | 395 |
| Mount Vernon, Ohio | 6, 181 | Central High School | 34 | 41 | 75 | 231 |
| Painesville, Ohio.. | b4, 755 | High School. | 57 | 40 | 97 | 224 |
| Portland, Oreg | 99, 629 | .....do | 75 | 63 | 138 | 979 |
| Allentown, P | 16, 830 | do | 81 | 71 | 152 | 327 |
| Bradford, Pa | b 10, 514 | ....do | 40 | 90 | 130 | 327 |
| Easton, Pa | 12,913 | do | 34 |  |  |  |
| Erie, Pa. | 38,445 | do | 73 | 75 | 148 | 606 |
| Harrisburg, Pa | 45, 385 | do | 65 | 56 | 121 | 685 |
| Middletown, Pa | b 5, 080 | do | 18 | 33 | 51 | 107 |
| Northumberland, Pa. | b 2, 744 | do | 29 | 56 | 85 | 85 |
| Philadelphia, Pa | 1,523, 581 | High School for Girls | 0 | 589 | 589 | 2, 143 |
| Pittsburg, P | 280, 000 | Central High School | 335 | 236 | 571 | 1, 862 |
| Reading, P | 85, 661 | Boys', High School. | 68 | 0 | 68 | 283 |
| Do..... |  | Girls' High School. | 0 | 79 | 79 | 370 |
| Scranton, Pa. | 46, 200 | High School | 74 | 101 | 175 | 597 |
| Williamsport, Pa | b 27, 132 | .....do | 28 | 33 | 61 | 316 |
| York, Pa....... | 16,959 | do | 35 | 16 | 51 | 325 |
| Pawtucket, R. I | 36, 057 | do | 50 | 37 | 87 | 323 |
| Providence, R. I | 166, 854 | English High School | 88 | 129 | 217 | 945 |
| Chattanooga, Ten | 33, 690 | High School | 30 | 20 | 50 | 248 |
| Petersburg, Va | $b$ 22, 680 | ...do | 23 | 56 | 79 | 234 |
| Portsmouth. Va | 15, 977 | do | 29 | 49 | 78 | 78 |
| Richmond, Va | 78, 979 | do | 93 | 49 | 142 | 884 |
| Janesville, Wis | 11, 521 |  | 50 | 60 | 110 | 401 |
| Milwaukee, Wis | 248, 870 | East Side High School | 49 | 53 | 102 | 576 |
| Do |  | South Side High School | 46 | 57 | 103 | 420 |
| Do |  | West Division High School | 26 | 28 | 54 | 637 |
| Plymouth, Wis | b1,503 | Free High School | 62 | 62 | 124 | 124 |
| Tomahawk, Wis | b 1, 816 | State High School. | 36 | 44 | 80 | 80 |

TABLE 9.-Statiṣtics of commercial and business


* From 1895-97.
schools in the United States, 1897-98.


Table 9.-Statistics of commercial aind business


* From 1896̂-97.


* From 1896-97.
schools in the United States, 1897-98-Continued.


Table 9.—Statistics of commercial and business


* From 1896-97.
schools in the United States, 1897-98-Continued.


Table 9.-Statistics of commercial and business

scnools in the United States, 1897-98-Continued.


Table 9.-Statistics of commercial and business


[^131]schools in the United States, 1897-98-Continued.


${ }^{\text {reshols }}$ in the Tnited States, 189\%-98-Coutinned.


Table 9.-Statistics of commercial and business

|  | Post-office. | Name. | Executive officer. | $\begin{aligned} & \text { In. } \\ & \text { struct- } \\ & \text { ors. } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  |  |  |  |  | - |
|  | 1 | 2 | 3 | 4 | 5 |
|  | west virginia. |  |  |  |  |
| 322 | Huntington | Huntington Business College | W. A. Ripley.. |  | 5 |
| 323 | Wheeling..... | Wheeling Business College... | J. M. Frasher. |  |  |
| 324 | Appleton. | De Land's Business College | O. P. De Land. |  |  |
| 325 | Ashland............ | Gordon's Business College.......... | E. D. Gordon.... |  |  |
| 326 | Black River Falls. | Black River Falls Business College | H. C. Hoifman . . |  |  |
| 327 | Chippewa Falls.... | Chippewa Falls Business College .. | C. H. Howeson...... |  |  |
| 328 329 | Ean Claire......... Kenosha......... | School of Shorthand and Business. | Mrs. M. J. Lamphear Otis T. Trenary..... |  |  |
| 329 | Kenosha............ Madison..... | Kenosha College of Commerce..... | Otis T. Trenary <br> R. G. Denning |  |  |
| 331 | Milwaukee.......... | Spencerian Business College.... | Robert C. Spencer |  |  |
| 332 | ....do .-............ | Wisconsin Business University | H. M. Wilmot. . |  | 3 |
| 333 | Platteville......... | Platteville Business College.... | J. Alcock ..... |  |  |
| 334 | Racine. | Patterson Commercial Institute* | L. V. Patterson |  |  |
| 335 | Sheboygan ......... | Sheboygan Business College... | M. C. Patton . |  |  |
| 336 | Waukesha......... | Waukesha Business College | W. A. Pierce. |  |  |
| 337 | Wausau........... | Wausau Business College ... | C. M. Bayles . |  | 2 |

* From 1890-97.
schools in the United States, 1897-98-Continued.



## CHAPTER L.

EDUCATION OF THE COLORED RACE.


#### Abstract

References to preceding Reports of the United States Bureau of Education in which this subject las been treated: In Annual Peports-1870, pp. 61, 337-339; 1871, pp. 6, 7,61-70; 1872, pp. xvii, xviii; 1873, p. Ixvi; 1875, p. xxiii; 1876, p. xvi; 1877, pp. xxxiii-xxxviii ; 1878, pp. xxviii-xxxiv; 1879, pp. xxxix-xlv; 1880, p. lviii; 1881, p. Ixxxii ; 1882-83, pp. xlviii-lvi, 85; 1883-81, p. liv; 1881-85, p. 1xvii; 1885-86, pp. 596, 650-656; 1886-87, pp. 790, 874-881; 1887-88, pp. 20, 21, 167, 169, 988-998; 188889, pp. 768, 1412-1439; 1889-90, pp. 620, 621, 62 $1,634,1073-1102,1388-1392,1395-1185$; 1890-91, pp. 620, $624,792,808,915,961-980,1469$; 1891-92, pp. 8, 686, 688, 713, 861-867, 1002, 1234-1237; 1892-93, pp. 15, $442,1551-1572,1976 ; 1893-94, \mathrm{pp} .1019-1061$; 1894-95, pp. 1331-1424; 1895-96, pp. 2081-2115; 1896-37, pp. 2295-2333; also in Circulars of Information-No. 3, 1883, p. 63; No. 2, 1886, pp. 123-183; No. 3, 1838, p. 122; No. 5, 1888, pp. $53,54,59,60,80-86 ;$ No. 1, 1892, p. 71. Special Report on District ef Columbia for 1869 , pp. 193, 300, 301-400. Special report, New Orleans Exposition, 1884-85, pp. 468-470, 775-781.


In the sixteen former slare States and the District of Columbia, generally spoken of collectively as "the South," the negro children are educated in public schools separate from the schools for white children. The total enrollment in the public schools of the South for the year 1897-98 was 5,620,553, the number of white children being $4,113,811$ and the number of colored children 1,506,742. Tablo 1 of this chapter shows that the estimated number of children in the Southern States and the District of Columbia between 5 and 18 jears of age was $8,673,550$. Of this number $5,828,980$, or 67.35 per cent, were white children and $2,844,570$, or $32.6 \breve{3}$ per cent, were children of the negro race. The same table shows that 70.58 per cent of the white school population was enrolled in tho schools and 52.97 per cent of the colored school population. The average daily attendance in the schools of the South was $3,576,642$, the number in the white schools being $2,659,809$, or 61.66 per cent of the white enrollment, and the number in the colored schools 916,833 , or 60.85 per cent of the colored enrollment.

The total expenditure for the public schools of the South for the jear 1897-38 was $\$ 31,217,479$, as shown in Table 2. Separate accounts of the expenditures for the colored schools are not kept by the State anthorities, but it is estimated that the cost of public schools for the colored children was about $\$ 6,575,000$. Since 1870 the amount of money expended for public schools in the South has reached $\$ 546,630,246$. It is believed that nearly 20 per cent of this amount, or about $\$ 109,000,000$, must have been expended for the education of the colored children. Tho total expenditure for each year and the aggregate for the 28 years, as well as the common-school enrollwent of white and colored children for each jear since 1876, are shown in Table 2.

SECONDARY AND HIGHER EDUCATION.
There are about 180 schools in the United States for the secondary and higher education of colored jouth exclusively. It is very difficult to obtain detailed information concerning a number of these institutions. The presidents and principals of many of these colored schools very promptly send full statistical reports to this office every year; some send meager reports, in reluctant compliance with repeated requests for information, while a fow fanl to make any response whatever to inquiries from the United States Bureau of Education.

For the year 1897-98 only 161 of these institutions for the secondary and higher education of the negro reported to this office. Of this number 1 was in Illinois, 2 in Indiana, 1 in New Jersey, 2 in Ohio, and 3 in Pennsylvania, the remaining 152 being in the South. These schools are all to be found classified according to their grades in the lists of universities and colleges, normal schools, and public and private sccondary schools, in other chapters of this Annnal Report; but more complete statistics are given for each of these schools in detail in Tables 12 and 13, at the conclusion of this chapter, and summarized in Tables 3 to 8.

Table 3 shows that in the 161 institutions there were employed 1,808 teachers, 804 men and 1,004 women. The total enrollment in these schools was 42,328 students, 19,001 males and 23,327 females. In the collegiate grades there were 2,492 stadents, 1,912 males and 580 females. In the secondary grades there were 13,669 students, 5,989 males and 7,680 females. In the elementary grades there were 26,167 pupils, 11,100 males and 15,067 females.

The classification of students according to courses of study is given in Table 4 and part of Table 5. There were 1,711 students in classical courses, 1,200 in scientific courses, 9,7थ4 in English courses, 244 in business courses, and 4,449 in normal courses.

As shown in Table 5, there were 167 graduates from collegiate courses, 859 from normal courses, and 853 from high school courses.

Included in the total enrollment mentioned in Table 3, and mostly in the collegiate grades, are 1,285 students in professional courses, 1,105 men and 180 women. As shown in Table 6, there were 560 students and 63 graduates in theology, 116 students and 39 graduates in law, 342 students and 78 graduates in medicine, 43 students and 9 graduates in dentistry, 44 students and 11 graduates in pharmacy, and 180 students and 26 graduates in nurse training.

Of the 42,328 students in the 161 schools for the colored race, 14,400 were receiving industrial training $-5,431$ males and 8,969 females. It is shown in Table 7 that 1,260 of these were being trained in farm or garden work, 1,804 in carpentry, 107 in bricklaying, 94 in plastering, 130 in painting, 47 in tin or sheet-metal work, 274 in forging, 222 in machine-shop work, 219 in shoemaking, 685 in printing, 6,923 in sewing, 1,022 in cooking, and 2,414 in other industrial branches.

Table 8 shows that these colored schools received in benefactions or bequests in 1897-98 the aggregate of $\$ 399,392$, an increase of $\$ 96,342$ over the preceding year. These schools received from public funds $\$ 296,022$, from tuition fees $\$ 197,586$, from productive funds $\$ 134,010$, and from sources not named $\$ 476,560$. The aggregate income of these schools was $\$ 1,104,178$. These schools had in their libraries 237,145 volumes, valued at $\$ 215,908$. The value of grounds, buildings, furniture, and scientific apparatus was $\$ 7,987,439$.

## ILLITERACY OF THE NEGRO.

Tables 9, 10, and 11 are inserted in this chapter for purposes of comparison. Table 9 shows the number and per cent of all persons in the population 10 years of age and over who could not read and write in 1890, 1880, and 1870. Table 10 gives these statistics for the white population and Table 11 for the colored population.

Table 1.-Common-school statistics, classified by race, 189\%-28.

$a$ C'nited States census.
b Approximately.
TABle 2.-Sicteen former slave States and the District of Columbia.

| Year. | Common sehool enrollment. |  | ```Expend itures (both races).``` | Year. | Common school enrollment. |  | Expend. itures (both races). |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | White. | Colored. |  |  | White. | Colored. |  |
| 1870-71 |  |  | \$10, 385, 464 | 1885-86 | 2, 773, 145 | 1,048,659 | \$20, 208, 113 |
| 1871-72 |  |  | 11, 623, 238 | 1886-87 | 2, 975, 773 | 1,118, 556 | 20, 821, 969 |
| 1872-73 |  |  | 11, 176, 048 | 1887-88. | 3, 110, 606 | 1,140, 405 | 21, 810, 158 |
| 1873-74 |  |  | 11, 823, 775 | 1888-89 | 3, 197, 830 | 1,213, 092 | 23, 171, 878 |
| 1874-75 |  |  | 13, 021, 514 | 1889-90 | 3, 402, 420 | 1,296,959 | 24, 880, 107 |
| 1875-76 |  |  | 12, 033, 865 | 1890-91. | 3, 570,624 | 1,329,549 | 26, 690, 310 |
| 1876-77. | 1, 827, 139 | 571, 506 | 11, 231, 073 | 1891-92. | - $2,607,549$ | 1,354,316 | 27, 691,488 |
| $1877-78$ | 2, 034,946 | 675, 150 | 12, 093, 093 | 1892-93 | 3, 697, 899 | 1,367, 515 | 28, 535, 738 |
| 1878-79 | 2, 013, 684 | 685, 942 | 12, 174, 141 | 1893-94 | 3, 848, 541 | 1,432, 198 | $29,223,546$ |
| 1879-80 | 2, 215, 674 | 784, 709 | 12, 678, 685 | 1894-95 | 3, 846, 267 | 1,423, 593 | 29, 443, 584 |
| 1880-81 | 2, 234,877 | 802,374 | 13, 656, 814 | 1895-96. | 3, 943, 801 | 1,449, 325 | 31, 149, 724 |
| 1881-82. | 2, 249, 263 | 802.982 | 15, 241, 740 | 1896-97. | 3, 937, 992 | 1,460, 084 | 31, 144, 801 |
| 1882-83. | 2, 370, 110 | 817,240 | 16,363, 471 | 1897-98a | 4,113, 811 | 1, 506, 742 | 31, 217, 479 |
| 1883-84. | 2, 546,448 | 1,002,313 | $17,884,558$ |  |  |  |  |
| 1884-85. | 2,676,911 | 1, 030,463 | 19,253, 874 | Total | 66, 195, 310 | $24,313,672$ | 546,630,246 |

Table 3．－Teachers and students in institutions for the colored race in 1897－98．

| State． |  | Teachers． |  |  | Students． |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\stackrel{\dot{5}}{\text { 馬 }}$ |  |  | Elementary． |  |  | Secondary． |  |  | Collegiate． |  |  | Total． |  |  |
|  |  |  |  |  | 盖 |  | $\begin{aligned} & \text { ت⿹\zh26灬 } \\ & \stackrel{0}{0} \end{aligned}$ | $\begin{aligned} & \text {. } \\ & \text { ज゙ } \end{aligned}$ |  | $\begin{aligned} & \text { స్ } \\ & \text { H. } \end{aligned}$ | $\begin{aligned} & \text { 雷 } \end{aligned}$ |  |  | $\stackrel{\text { ® }}{\text { a゙ }}$ | 飳 | \＃゙す |
| Alabama | 11 | 90 | 95 | 185 | 1，136 | 1，077 | 2， 213 | 660 | 646 | 1，306 | 50 | 44 | 91 | 1，846 | 1，767 | 3， 613 |
| Arkansas |  | 20 | 23 | 43 | 236 | 310 | 546 | 318 | 309 | 627 | 48 | 12 | 60 | 602 | 631 | 1，233 |
| Delaware | 1 | 6 | 1 | 7 | 6 | 3 | 9 | 13 | 6 | 19 | 14 | 5 | 19 | 33 | 14 | 47 |
| District of Columbia |  | 90 | 1 | 121 | 287 | 28 | 615 | 371 | 566 | 937 |  | 28 |  | 965 | 922 |  |
| Florida．． | 6 | 12 | 25 | 37 | 308 | 413 | 721 | 89 | 128 | 217 | ， | 0 | 0 | 397 | 541 |  |
| Georgia | 19 | 74 | 136 | 210 | 1，457 | 2， 439 | 3， 896 | 560 | 78.5 | 1， 345 | 191 | 91 | 282 | 2， 208 | 3，315 | 5，523 |
| Illinois | 1 | 1 | 1 | 2 |  |  |  | 20 | 33 | 53 |  |  |  | 20 | 33 | 53 |
| Indiana． | 2 | 4 | 2 | 6 | 30 | 33 | 63 | 46 | 56 | 102 |  |  |  | 76 | 89 | 165 |
| Kentucky | 7 | 43 | 48 | 91 | 514 | 759 | 1，274 | 429 | 583 | 1， 012 | 12 | 3 | 15 | 955 | 1，346 | 2， 301 |
| Louisiana | 6 | 44 | 57 | 101 | 853 | 1，217 | 2， 070 | 132 | 189 | 321 | 72 | 36 | 108 | 1， 057 | 1，442 | 2， 499 |
| Maryland | 6 | 14 | 29 | 43 | 39 | 180 | 219 | 101 | 198 | 299 | 23 | 13 | 36 | 163 | 391 | 554 |
| Mississippi | 10 | 28 | 60 | 88 | 450 | 582 | 1，032 | 481 | 241 | 722 | 61 | 30 | 91 | 992 | 853 | 1，845 |
| Missouri． |  | 19 | 12 | 31 | 190 | 194 | 38 | 195 | 239 | 434 | 58 | 63 | 121 | 443 | 496 | 939 |
| New Jersey | 1 | 5 | 7 | 12 |  |  |  | 59 | 57 | 116 | 0 | 0 | 0 | 59 | 57 | 116 |
| N．Carolina | 21 | 97 | 87 | 181 | 810 | 1，360 | 2， 170 | 732 | 900 | 1，632 | 258 | 82 | 340 | 1，800 | 2， 312 | 4，142 |
| Ohio． | 2 | 13 | 10 | 23 | 45 | 45 | 90 | 41 | 41 | 82 | 115 | 93 | 208 | 201 | 179 | 380 |
| Pennsylrania． | 3 | 14 | 10 | 24 | 60 | 132 | 192 | 65 | 95 | 160 | 203 | 0 | 203 | 328 | 227 | 555 |
| s．Carolina．． | 11 | 40 | 74 | 114 | 857 | 1，017 | 1，874 | 451 | 585 | 1， 036 | 23 | 22 | 45 | 1，331 | 1，62t | 2， 955 |
| Tennesse | 13 | 72 | 102 | 174 | 1， 599 | 2， 101 | 3，700 | 451 | 674 | 1， 125 | 330 | 38 | 368 | 2，380 | 2， 813 | 5，193 |
| Texas | 8 | 30 | 52 | 82 | 719 | 1，029 | 1，748 | 222 | 249 | 471 | 52 | 20 | 72 | 953 | 1，298 | 2， 291 |
| Virginia | 14 | 77 | 130 | 207 | 1，412 | 1， 723 | 3，135 | 447 | 983 | 1，430 | 95 | 0 | 95 | 1，954 | 2， 706 | 4， 660 |
| W．Virginia | 3 | 11 | 12 | 23 | 92 | 124 | 216 | 106 | 117 | 223 |  |  |  | 198 | 241 | 439 |

Tutal．．． $1618041,0041,80811,10015,06726,1675,9897,68012,6691,9125802,49219,00123,32742,328$

Table 4．－Classification of colored students，by courses of study，1897－98．

| State． | Students in clas． sical courses． |  |  | Students in sci－ entific courses． |  |  | Students in Eng－ lish course． |  |  | Students in busi． ness course． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { ت⿹勹巳一 } \\ & \text { H. } \end{aligned}$ | $\begin{aligned} & \text { 閏 } \end{aligned}$ |  | $\begin{aligned} & \text { ت⿹\zh26灬 } \\ & \text { H. } \\ & \text { N- } \end{aligned}$ | $\begin{aligned} & \dot{9} \\ & \text { ت्यु } \end{aligned}$ | 宝 | \％ | 号 |  |  |
| Alabama | 59 | 32 | 91 | 4 | 10 | 14 | 280 | 403 | 683 | 5 | 18 | 23 |
| Arkansas | 41 | 39 | 80 | 10 | 7 | 17 | 74 | 102 | 176 | 8 | 0 | 8 |
| Delaware | 2 | 0 | 2 | 12 | 5 | 17 |  |  |  |  |  |  |
| District of Colun | 122 | 201 | 323 | 0 | 0 | 0 | 38 | 41 | 79 | 52 | 34 | 86 |
| Florida． | 18 | 15 | 33 | 0 | 0 | 0 | 35 | 105 | 140 |  |  |  |
| Georgia． | 57 | 41 | 98 | 83 | 78 | 161 | 932 | 1， 029 | 1，961 | 5 | 7 | 12 |
| Illinois | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 33 | 53 | 0 | 0 |  |
| Indiana． |  |  |  | 36 | 42 | 78 |  |  |  |  |  |  |
| Kentucky | 15 | 23 | 38 | 62 | 163 | 225 | 81 | 131 | 215 | 15 | 2 | 17 |
| Louisiana | 48 | 36 | 84 | 19 | 19 | 38 | 317 | 494 | 811 | 0 | 0 | 0 |
| Maryland | 23 | 13 | 36 |  |  |  | 47 | 172 | 219 |  |  |  |
| Mississipp | 79 | 58 | 137 | 17 | 19 | 36 | 322 | 397 | 719 |  |  |  |
| Missouri． | 16 | 13 | 29 | 110 | 141 | 251 | 38 | 48 | 86 | 11 | 6 | 17 |
| NewJersey． |  |  |  |  |  |  |  |  |  |  |  |  |
| North Carolina | 103 | 28 | 131 | 43 | 36 | 79 | 574 | 536 | 1，110 | 37 | 0 | 37 |
| Ohio | 14 | 7 | 21 | 24 | 9 | 33 | 45 | 45 | 90 | 16 | 5 | 21 |
| Pennsylvania | 148 | 0 | 148 |  |  |  | 73 | 97 | 170 | 6 | 8 | 14 |
| South Carolina | 64 | 38 | 102 | 12 | 22 | 34 | 452 | 594 | 1，046 | 3 | 6 | 9 |
| Tennessee | 114 | 113 | 227 | 52 | 49 | 101 | 155 | 333 | 488 |  |  |  |
| Texas | 35 | 7 | 42 | 59 | 51 | 110 | 191 | 203 | 394 |  |  |  |
| Virginia | 43 | 46 | 89 | 5 | 1 | 6 | 507 | 777 | 1，284 |  |  |  |
| West Virginia． |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | 1，001 | 710 | 1，711 | 548 | 652 | 1，200 | 4，184 | 5， 510 | 9，724 | 158 | 86 | 244 |

Table 5．－NTumber of normal students and graduates in 189\％̈－93．


TABLE 6．－Colored professional students and fraduates in 1897－98．

| State． | Students in pro－ fessional courses． |  |  | Professional students and graduates． |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Theol－ ogy． |  | Law． |  | Medi－ cine． |  | Den－ tistry |  | Plar－ macy． |  | $\begin{aligned} & \text { Nurse } \\ & \text { training. } \end{aligned}$ |  |
|  | 号 | $\begin{aligned} & \text { ®. } \\ & \text { 䔍 } \\ & \text { © } \end{aligned}$ | $\begin{aligned} & \text { ت⿹\zh26灬 } \\ & 0 \\ & 0 \end{aligned}$ |  |  | $\begin{aligned} & \dot{8} \\ & \text { 䔍 } \\ & \text { ت} \\ & \text { En } \end{aligned}$ |  |  |  |  |  |  |  |  |  |
| Alabama | 86 | 28 | 114 | 86 | 5 |  |  |  |  |  |  |  |  | 28 | 5 |
| Arkansas | 21 | 0 | 21 | 21 |  |  |  |  |  |  |  |  |  |  |  |
| District of Colu | 296 | 37 | 333 | 44 | 6 | 96 | 35 | 110 | 32 | 21 | 5 | 22 | 7 | 37 | 17 |
| Elorida．．． | 0 | 0 | 0 | 0 | 0 | 0 | － | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Georgia | 97 | 55 | 152 | 97 | 16 |  |  |  |  |  |  |  |  | 55 | 2 |
| Inciana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kentucky | 18 | 0 | 18 | 18 |  |  |  |  |  |  |  |  |  |  |  |
| Louisiana | 38 | 3 | 41 | 21 | 1 |  |  | 17 | 5 |  |  |  |  | 3 | ．．．． |
| Maryland |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mississipp <br> Missoni | 3 | 18 | 21 | 3 |  |  |  |  |  |  |  |  |  | 18 |  |
| New Jersey | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| North Carolina | 117 | 10 | 127 | 38 | 4 | 8 | 2 | 64 | 10 |  |  | 7 | 1 | 10 | 2 |
| Ohio ．．．．． | 18 | 0 | 18 | 17 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pennsylvania． | 47 | ${ }^{0}$ | 47 | 47 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| South Carolina | 50 231 | 29 | ${ }^{79}$ | 50 |  |  |  |  |  |  |  |  |  | 29 |  |
| Texas．．．．． | 15 | 0 | 231 15 | 15 | ${ }_{2}^{5}$ | 11 | 2 | 151 | 31 | 19 | 4 | 15 | 3 |  |  |
| Virginia． | 63 |  | 68 | 68 | 4 |  |  |  |  |  |  |  |  |  |  |
| West Virginia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 1，105 | 180 | 1，285 | 560 | 63 | 116 | 39 | 342 | 78 | 43 | 9 | $4!$ | 11 | 180 | 26 |

Table 7.—Industrial training of colored students in 1897-98.


Table 8.-Financial summary of the 161 colored schools.

| State. |  | Volumes in library. | Value of library. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A labama | \$47, 922 | 19, 185 | \$13, 795 | \$501, 137 | \$7,850 | \$99, 847 | \$4,969 | \$54, 781 | \$167, 447 |
| Arkansas | 2, 220 | 6,840 | 5, 900 | 183, 250 | 5, 025 | 6, 058 | 4,337 | 6,698 | 22, 118 |
| Delaware. | 200 | 500 | 500 | 20, 000 | 4,600 |  |  |  | 4, 600 |
| District of Col | 450 | 16, 965 | 15, 600 | 895, 800 | 60,475 | 7,000 | 8,625 | 11,500 | 87, 600 |
| Florida | 18 | 1, 264 | 1,850 | 341, 000 | 4, 000 | 1, 331 |  | 19, 042 | 24, 373 |
| Georgia | 41,673 | 31, 303 | 28, 375 | $1,055,152$ | 1, 300 | 14, 124 | 20,360 | 40,827 | 76,611 |
| Illinois | 0 | 175 | 265 | 2, 800 | 1,400 |  |  |  | 1,400 |
| Indiana |  | 480 | 500 | 2,500. |  |  |  |  |  |
| Kentucky | 28, 113 | 16, 171 | 15,935 | 181, 742 | 5,289 | 5, 547 | 5, 073 | 6, 272 | 22, 181 |
| Louisiana | 3, 846 | 11,898 | 10, 079 | 549, 553 | 12, 120 | 2, 650 | 6, 600 | 22, 557 | 43, 927 |
| Maryland |  | 5, 300 | 5,425 | 96, 000 | 10, 800 | 1,575. | 1,000 | 12, 990 | 26,365 |
| Mississipp | 874 | 17, 920 | 15,700 | 467, 200 | 49, 198 | 5, 366 | 6,815 | 23, 894 | 85, 273 |
| Missouri |  | 3, 525 | 4,571 | 164, 300 | 21, 975 | 1, 742 |  | 3, 033 | 26,750 |
| New Jersey | 0 | 50 | -25 | 2,000 | 4, 000 | 0 | 0 | . 832 | 4,832 |
| North Carol | 15, 032 | 19,316 | 18,725 | 525, 105 | 23, 672 | 11, 908 | 650 | 41,507 | 77, 737 |
| Ohio |  | 6,600 | 7,500 | 135, 000 | 17, 800 | 1,750 | 1,447 | 4,830 | 25,827 |
| Pennsylvania | 20,000 | 18, 453 | 18, 400 | 234, 000 | 0 | 1, 250 | 30, 000 | 10, 000 | 41, 250 |
| South Carolina | 4,627 | 9,500 | 7, 725 | 270, 000 | 2,150 | 9,147 | 2, 228 | 22, 583 | 36, 108 |
| Tennesse | 12,695 | 21,838 | 21, 563 | 853, 600 | 5,622 | 16, 044 | 3, 154 | 49, 241 | 74, 061 |
| Texas |  | 6, 355 | 6,665 | 265, 000 | 1, 200 | 4,810 |  | 22, 231 | 28, 241 |
| Virginia | 221, 722 | 17, 825 | 11, 150 | 1,132,300 | 41, 546 | 7, 096 | 37, 376 | 116, 742 | 202, 760 |
| West Virginia |  | 5,682 | 5,660 | 110,000 | 16,000 | 341 | 1,376 | 7, 000 | 24,717 |
| Total | 399,392 | 237, 145 | 215, 908 | 7, 987, 439 | 296, 022 | 197, 586 | 134, 010 | 476,560 | 1, 104, 178 |

Table 9.-Population 10 years of age and over, and mumber and per cent who could not read and write.

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{States and Territories.} \& \multicolumn{3}{|c|}{1890.} \& \multicolumn{3}{|c|}{1880.} \& \multicolumn{3}{|c|}{1870.} <br>
\hline \& \multirow[b]{2}{*}{Total.} \& \multicolumn{2}{|l|}{Illiterates.} \& \multirow[b]{2}{*}{Total.} \& \multicolumn{2}{|l|}{Illiterates.} \& \multirow[b]{2}{*}{Total.} \& \multicolumn{2}{|l|}{Illiterates.} <br>
\hline \& \& Numbe \& $$
\begin{aligned}
& \text { Per } \\
& \text { cent. }
\end{aligned}
$$ \& \& Number. \& $$
\begin{gathered}
\text { Per } \\
\text { cent. }
\end{gathered}
$$ \& \& Number. \& $$
\begin{aligned}
& \text { Per } \\
& \text { cent. }
\end{aligned}
$$ <br>
\hline United St \& 47, 413, 559 \& 6,324, 702 \& 13.3 \& 36, 261,607 \& 6, 239, 958 \& 17.0 \& 28, 228, 945 \& 5, 658, 144 \& 20.0 <br>
\hline North Atlantic Dirision \& 13, 888,377 \& \multirow[b]{2}{*}{$$
\begin{array}{r}
859,989 \\
1,981,888
\end{array}
$$} \& 6.2 \& $$
11,270,090
$$ \& \multirow[b]{2}{*}{$$
\begin{array}{r}
689,369 \\
2,129,830
\end{array}
$$} \& $$
6.2
$$ \& \multirow[t]{2}{*}{$$
9,430,802
$$} \& \multirow[t]{2}{*}{712, 277} \& \multirow[t]{2}{*}{} <br>
\hline South Atlantic Division \& \multirow[t]{2}{*}{$$
6,415,921
$$} \& \& \multirow[t]{2}{*}{$$
\begin{aligned}
& 30.9 \\
& 29.7
\end{aligned}
$$} \& 5, 286, 645 \& \& 40.3 \& \& \& <br>
\hline South Central Division \& \& 2,318, 871 \& \& 6, 076, 243 \& 2, 402, 589 \& 39.3 \& 4, 548, 220 \& 2, 024, 395 \& 44.5 <br>
\hline North Central Dirision \& $16,909,613$ \& 964, 268 \& 5.7 \& 12, 760, 841 \& 853, 020 \& 6.7 \& 9, 292, 434 \& 865, 917 \& 9.3 <br>
\hline Western Division \& 2, 400, 161 \& 199, 686 \& 8.3 \& 1,367, 788 \& 155, 150 \& 11.3 \& 750, 101 \& 112, 389 \& 15.0 <br>
\hline \multicolumn{10}{|l|}{North Atlantic Division:} <br>
\hline Maine \& 541, 662 \& 29, 587 \& 5. 5 \& 519,669 \& 22, 170 \& 4.3 \& 493, 847 \& 19, 052 \& . 9 <br>
\hline New Hamps \& 315, 497 \& 21, 476 \& 6. 8 \& 286, 188 \& 14, 302 \& 5. 0 \& 260, 426 \& 9, 926 \& 3.8 <br>
\hline Vermont ..... \& 271,173
1.839,607 \& 18,154
114,468 \& 6. 7 \& 264,052
$1,432,183$ \& 15,837
92,980 \& 6.0
6.5 \& 258,751
$1,160,666$ \& 17,706
97 \& 6.8
8.4 <br>
\hline Rhode Island \& 1-281, 959 \& 27, 525 \& 9.8 \& - 220,461 \& 24,793 \& 11.2 \& 1, 173,751 \& 21, 921 \& 12.6 <br>
\hline Connecticut \& 609, 830 \& 32, 194 \& 5.3 \& 497, 303 \& 28, 424 \& 5. 7 \& 425, 896 \& 29, 616 \& 7.0 <br>
\hline New Xork \& 4, 822, 392 \& 266, 911 \& 5.5 \& 3, 981, 228 \& 209, 600 \& 5.5 \& 3, 378, 959 \& 239, 271 \& 7.1 <br>
\hline New Jersey \& 1, 143, 123 \& 74, 321 \& 6.5 \& 865, 591 \& 53, 249 \& 6. 2 \& 680,687 \& 54, 687 \& 8.0 <br>
\hline Pennsylvan \& 4, 1163, 134 \& 275, 353 \& 6.8 \& 3, 203, 215 \& 228, 014 \& 7.1 \& 2, 597, 809 \& 222, 356 \& 8.6 <br>
\hline \multicolumn{10}{|l|}{South Atlantic Di-
vision: vision:} <br>
\hline Delaware. \& \multirow[b]{2}{*}{798, 605} \& \multirow[t]{2}{*}{$$
\begin{array}{r}
18,878 \\
125,376
\end{array}
$$} \& \multirow[t]{2}{*}{14.3
15.7} \& \multirow[t]{2}{*}{$$
\begin{aligned}
& 110,856 \\
& 695,364
\end{aligned}
$$} \& \multirow[t]{2}{*}{19,414
$13 \downarrow, 448$} \& \multirow[t]{2}{*}{17.5
19.3} \& \multirow[t]{2}{*}{$$
\begin{array}{r}
92,586 \\
575,439
\end{array}
$$} \& \multirow[t]{2}{*}{23,100
135,499} \& \multirow[t]{2}{*}{25.0} <br>
\hline Maryland \& \& \& \& \& \& \& \& \& <br>
\hline District of lumbia... \& 567 \& 24,884 \& 13.2 \& 136,907 \& 25, 778 \& 18.8 \& 100,453 \& 28,719 \& 28.6 <br>
\hline $\checkmark$ irginia. \& 1, 211, 934 \& \multirow[t]{2}{*}{365,
$\mathbf{7 9 , 7 6}$

79} \& \multirow[t]{2}{*}{} \& \multirow[t]{2}{*}{$1,059,034$
428,587} \& \multirow[t]{2}{*}{430,352

85,376} \& \multirow[t]{2}{*}{$$
\begin{aligned}
& 10.8 \\
& 40.6 \\
& 19.9
\end{aligned}
$$} \& \multirow[t]{2}{*}{\[

890,056
\]

$$
308,424
$$} \& \multirow[t]{2}{*}{445,893

81,490} \& \multirow[t]{2}{*}{$$
50.1
$$} <br>

\hline West Virgin \& \multirow[t]{2}{*}{549,538
$1,147,446$} \& \& \& \& \& \& \& \& <br>
\hline North Carolina \& \& \multirow[t]{2}{*}{409, 703
360,705} \& 14.4

35.7 \& \multirow[t]{2}{*}{| 425,951 |
| :--- |
| 667,456 |} \& \multirow[t]{2}{*}{463,975

369,848} \& \multirow[t]{2}{*}{19.9
48.3

5.4} \& $$
\begin{aligned}
& 308,424 \\
& 769,629
\end{aligned}
$$ \& 81,490

397,690 \& 26.4
51.7 <br>

\hline South Car \& \multirow[t]{3}{*}{$$
\begin{array}{r}
1,302,208 \\
283,250
\end{array}
$$} \& \& 45.0 \& \& \& \& 503, 763 \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 290,379 \\
& 468,593
\end{aligned}
$$
\]} \& \multirow[t]{2}{*}{57.6

56.1} <br>

\hline Georgia \& \& \multirow[t]{2}{*}{$$
\begin{array}{r}
518,706 \\
78,720
\end{array}
$$} \& 39.8 \& \multirow[t]{2}{*}{$1,043,840$

184.650} \& \multirow[t]{2}{*}{$$
\begin{array}{r}
520,416 \\
80,183
\end{array}
$$} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
49.4 \\
49.9
\end{array}
$$
\]} \& 835, 929 \& \& <br>

\hline \multicolumn{10}{|l|}{\multirow[b]{2}{*}{South Central Division:}} <br>
\hline \& \& \& \& \& \& \& \& \& <br>

\hline Kentucky \& \multirow[t]{2}{*}{$$
\begin{aligned}
& 1,360,031 \\
& 1276,631
\end{aligned}
$$} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 294,381 \\
& 340,140
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 21.6 \\
& 26.6
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 1,163,498 \\
& 1,082,130
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
29.9 \\
38.7
\end{array}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 930,136 \\
& 890,872
\end{aligned}
$$
\]} \& \multirow[t]{2}{*}{} \& \multirow[t]{2}{*}{35.7

40.9} <br>
\hline 'Temnesse \& \& \& \& \& \& \& \& \& <br>

\hline A labama \& 1, 069,545 \& 438,535 \& 41.0 \& $$
\begin{array}{r}
1,082,130 \\
851,780
\end{array}
$$ \& 410,722

433,447 \& $$
\begin{aligned}
& 38.7 \\
& 50.9
\end{aligned}
$$ \& \[

$$
\begin{aligned}
& 890,872 \\
& 706,802
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 364,697 \\
& 383,012
\end{aligned}
$$
\] \& 4.9

54.2 <br>

\hline Mississipp \& 902, 028 \& \multirow[t]{2}{*}{$$
\begin{aligned}
& 360,613 \\
& 364,184
\end{aligned}
$$} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 40.0 \\
& 45.8
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 753,693 \\
& 649,070
\end{aligned}
$$
\]} \& \multirow[t]{2}{*}{373,201

318,380} \& \multirow[t]{2}{*}{$$
\begin{aligned}
& 49.5 \\
& 49.1
\end{aligned}
$$} \& \multirow[t]{2}{*}{581, 206} \& 313, 310 \& \multirow[t]{2}{*}{53.9

52.5} <br>
\hline Louisiana \& 794, 683 \& \& \& \& \& \& \& 276, 158 \& <br>

\hline Texas \& 1,564, 755 \& \multirow[t]{2}{*}{$$
\begin{aligned}
& 308,873 \\
& 209,745
\end{aligned}
$$} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 19.7 \\
& 26.6
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
1,064,196 \\
531,876
\end{array}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 316,432 \\
& 202,015
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 29.7 \\
& 38.0
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 571,075 \\
& 341,737
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 221,703 \\
& 133,339
\end{aligned}
$$
\]} \& \multirow[t]{2}{*}{38.8

39.0} <br>
\hline Arkansas \& 787, 113 \& \& \& \& \& \& \& \& <br>

\hline \multicolumn{10}{|l|}{\multirow[t]{2}{*}{| North Central Di- vision: |
| :--- |
| vision: |}} <br>

\hline \& \& \& \& \& \& \& \& \& <br>

\hline \& \multirow[t]{2}{*}{$$
\begin{aligned}
& 2,858,659 \\
& 1,674,028
\end{aligned}
$$} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 149,843 \\
& 105,829
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 5.2 \\
& 6.3
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{| 2, 399, 367 |
| :--- |
| 1, 468, 095 |} \& \multirow[t]{2}{*}{131,817

110,761} \& \multirow[t]{2}{*}{5.5} \& \multirow[t]{2}{*}{1, 953, $1,197,936$} \& \multirow[t]{2}{*}{173,172
127,124} \& \multirow[t]{2}{*}{8.9
10.6} <br>
\hline Indian \& \& \& \& \& \& \& \& \& <br>
\hline Illinois \& 2, 907, 671 \& 152, 634 \& 5.2 \& \& 145, 397 \& 6. 4. \& 1. 809,606 \& 133, 584 \& 10.6
7.4 <br>
\hline Michiga \& 1, 619, 035 \& 95, 914 \& 5. 9 \& 2, 2 , 2369,686 \& \multirow[t]{2}{*}{146,723
63,758

55,58} \& \multirow[t]{2}{*}{5. 2} \& \multirow[t]{2}{*}{$$
\begin{gathered}
873,763 \\
751,704
\end{gathered}
$$} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 53,127 \\
& 55,441
\end{aligned}
$$
\]} \& \multirow[t]{2}{*}{6.1

7.4} <br>
\hline Wisconsi \& \multirow[t]{2}{*}{$1,258,390$
962,350} \& \multirow[t]{2}{*}{84,745
58,057} \& \multirow[t]{2}{*}{6.7
6.0} \& \multirow[t]{2}{*}{$\begin{array}{r}965.712 \\ 559,977 \\ \hline\end{array}$} \& \& \& \& \& <br>
\hline Minueso \& \& \& \& \& 55,558
34,546 \& 5.8 6 \& 305, 564 \& 24, 413 \& \multirow[t]{2}{*}{7.4
8.0
5.5} <br>

\hline Iowa \& 1, 441, 308 \& 52, 061 \& \multirow[b]{2}{*}{9.1} \& \multirow[t]{2}{*}{$$
\begin{aligned}
& 1,181,641 \\
& 1,557,631
\end{aligned}
$$} \& \multirow[t]{2}{*}{46, 609 208, 754} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
3.9 \\
13.4
\end{array}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
837,959 \\
1,205,568
\end{array}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
45,671 \\
222,411
\end{array}
$$
\]} \& <br>

\hline Missouri \& \multirow[t]{4}{*}{$1,995,638$
129,452
236,208
771,659
$1,055,215$} \& 181, 368 \& \& \& \& \& \& \& 5.5
8.5 <br>
\hline North Dak \& \& 7, 743
9,974 \& 6.0 \& 99,849 \& 4, 821 \& 4.8 \& 10,640 \& 1,563 \& \multirow[t]{2}{*}{14.7
5.5} <br>
\hline South Di \& \& 9,
24,

274 \& ${ }_{3.1}^{4.2}$ \& \multirow[b]{2}{*}{$$
\begin{aligned}
& 318,211 \\
& 704,297
\end{aligned}
$$} \& 11, 528 \& 3.6 \& 88, 265 \& 4,861 \& <br>

\hline Kansas ... \& \& 42, 079 \& 4. 0 \& \& 39, 476 \& 5.6 \& 258, 051 \& 24,550 \& 5 <br>
\hline Western Div \& 107, 811 \& 5.884 \& 5.5 \& 31, 989 \& 1,707 \& 5.3 \& 18,170 \& 918 \& 1 <br>
\hline W roming \& 47, 755 \& 1,630 \& 3.4 \& 16,479 \& 556 \& 3.4 \& 8, 059 \& 602 \& 7.5 <br>
\hline Colorado \& 327, 896 \& 17. 180 \& 5. 2 \& 158, 220 \& 10,474 \& 6.6 \& 30, 349 \& 6, 823 \& 22.5 <br>
\hline New Mex \& 112, 541 \& 50, 070 \& 44. 5 \& 87, 966 \& 57, 156 \& 65.0 \& 66, 464 \& 52, 220 \& 78.6 <br>
\hline Arizo \& 46, 076 \& 10,785 \& 23.4 \& 32, 922 \& 5, 842 \& 17.7 \& 8, 237 \& 2, 753 \& 32. 4 <br>
\hline Utah \& 147, 227 \& 8,232 \& 5. 6 \& 97, 194 \& 8, 826 \& 9.1 \& 56, 515 \& 7, 363 \& 13.0 <br>
\hline Nevad \& 38, 225 \& 4, 897 \& 12.8 \& 50,666 \& 4, 069 \& 8.0 \& 36,655 \& 872 \& 2.4 <br>
\hline Idaho \& 62, 721 \& 3, 225 \& 5.1 \& 25, 005 \& 1,778 \& 7.1 \& 13, 189 \& 3, 388 \& 25.7 <br>
\hline Washin \& 275, 639 \& 11,778 \& 4.3 \& 55, 720 \& 3,889 \& 7.0 \& 17, 334 \& 1,307 \& 7.5 <br>
\hline Oregon \& 244, 374 \& 10,103 \& 4. 1 \& 130, 565 \& 7,423 \& 5.7 \& 64,685 \& 4,427 \& 6.8 <br>
\hline California \& 989, 896 \& 75, 902 \& 7.7 \& 681, 062 \& 53, 430 \& 7.8 \& 430, 444 \& 31, 716 \& 7.4 <br>
\hline
\end{tabular}

Table 10.- White population 10 years of age and over, and number and per cent who could not read and write.

| States and Territories. | 1890. |  |  | 1880. |  |  | 1870. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Inliterates. |  | Total. | Illiterates. |  | Total. | Illiterates. |  |
|  |  | Number. | Per cent. |  | Number. | Per cent. |  | Number. | Per ceut. |
| United States. | 41,931, 074 | 3, 212, 574 | 7.7 | 32, 160, 400 | 3, 019,080 | 9.4 | 24, 717, 870 | 2, 851,911 | 11.5 |
| North Atlantic Division | 13,658, 519 | 810, 091 | 5.9 | 11, 086, 104 | 654, 817 | 5.9 | 9, 285, 812 | 672, 077 | 7.2 |
| South Atlantic Di- vision............ | 4, 109, 269 | 595, 952 | 14.5 | 3, 312, 920 | 647, 085 | 19.5 | 2,655, 333 | 623, 386 | 23.5 |
| South Central Division | 5, 347, 099 | 817, 031 | 15.3 | 4, 068,790 | 877,344 | 21.6 | 3, 014, 773 | 705, 630 | 23.4 |
| North Central Division. | 16,560,840 | 849, 843 | 5.1 | 12, 466,565 | 731, 804 | 5.9 | 9, 088, 051 | 750, 633 | S. 3 |
| Western Division. | 2, 255, 347 | 139, 657 | 6.2 | 1, 226, 021 | 108, 030 | 8.8 | 673, 001 | 100, 185 | 14.9 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |  |
| Maine. | 540,157 | 29,108 | 5.4 | 518, 011 | 21,758 | 5.0 | 492, 128 | 9,831 | 3.83.8 |
| New Hampshire. | 314, 913 | 21,310 | 6. 8.7 | 285, 594 | 14, 14,681 |  | 259, 904 |  |  |
| Vermont. | 270,1,88518012 | 17, 986 |  | 263, 245 |  | 6. 0 | 257, 993 | 17,584 | 6.8 |
| Massachusetts |  | 111,44226,355 | 6.1 | 1,416,767 | 90,65823,544 | $\begin{gathered} 6.4 \\ 10 \end{gathered}$ | 1, 148, 990 | $\begin{aligned} & 95,578 \\ & 21,029 \end{aligned}$ | 8.3 |
| Rhote Island | 1, |  | 5. 1 | $\begin{aligned} & 215,158 \\ & 487,780 \end{aligned}$ |  |  | $\begin{aligned} & 169,479 \\ & 417,804 \end{aligned}$ |  | 12.46.76.7 |
| Commecticat | 599, 346 | 30,536 |  |  | $\begin{aligned} & 23,544 \\ & 26,763 \end{aligned}$ | $\begin{gathered} 10.9 \\ 5.5 \end{gathered}$ |  | $\begin{aligned} & 21,029 \\ & 27,913 \end{aligned}$ |  |
| New York | 4, 760, 282 | 255, 498 | 5.4 | 3, 927, 603 | 208, 175 | 5.3 | 3, 336, 198 | 228, 424 | 6. 8 |
| New Jersey | $\begin{aligned} & 1,103,786 \\ & 3,974,009 \end{aligned}$ | $\begin{array}{r} 63,163 \\ 254,663 \end{array}$ | $\begin{aligned} & 5.7 \\ & 6.4 \end{aligned}$ | $\begin{array}{r} 835,385 \\ 3,136,561 \end{array}$ | $\begin{array}{r} 44,049 \\ 209,981 \end{array}$ | $\begin{aligned} & 5.3 \\ & 6.7 \end{aligned}$ | 656, 972 | 46,386 | 7.1 |
| Pennsylvani |  |  |  |  |  |  | 2, 546,344 | 206, 458 | 8.1 |
| South Atlantic Di- <br> rision: |  |  |  |  |  |  |  |  |  |
| Delaware | 110, 6359 | $\begin{array}{r} 8,126 \\ 44,653 \end{array}$ | 7.17.0 | $\begin{array}{r} 91,611 \\ 544,086 \end{array}$ | $\begin{array}{r} 8,346 \\ 44,316 \end{array}$ | 9.1 | 76, 016 | 11,28046,792 | 14.810.4 |
| Maryland |  |  |  |  |  | 8.1 | 447,731 |  |  |
| District ef C lumbia | 127, 526 | 3,495 | 2.7. | $91,872$ | 3,988 | 4.3 | 66, 620 | $\begin{array}{r} 4,876 \\ 123,538 \end{array}$ | 7.3 |
| Virginia ........ | 750, 252 | 105, 058 | 13.9 | 630, 58.4 | 114, 692 | 18.2 | 527, 432 |  | 23.4 |
| West Virginia | 524, 801 | 68,188 | 13.0 | 410, 141 | 75, 237 | 18.3 | 295, 519 | 71, 493 | 24. 2 |
| North Carolina. | 754, 857 | 173, 722 | 23.0 | 608, 806 | 192, 032 | 31.5 | 497, 132 | 166, 397 | 33.5 |
| South Carolina. | 332, 174 | 59, 413 | 17.9 | 272, 706 | 59, 777 | 21.9 | 213,794 | 5J, 167 | 25. 8 |
| Georgia | 701, 585 | 114, 691 | 16.3 | 563, 977 | 128, 934 | 22.9 | 462, 718 | 124, 939 | 27.0 |
| South Central Dirision: | 164,216 | 18,516 | 11.3 | 99,137 | 19,763 | 19.9 | 68, 371 | 18, 904 | 27.6 |
|  |  |  |  |  | 1 |  |  |  |  |
| Kentucky | 1,162, 342 | 183, 851 | 15.8 | 973, 275 | 214, 497 | 22.0 | $\begin{aligned} & 773,653 \\ & 665,390 \end{aligned}$ | 201, 077 | ${ }_{26.0}^{26.0}$ |
| Teunesse | 590,115 | 172,169107,335 | 17.818.2 | 790,744452,722 | 216,227111,767 | 27.324.7 |  |  |  |
| Alabama |  |  |  |  |  |  | $\begin{aligned} & 665,390 \\ & 377,967 \end{aligned}$ | 178,727 92,059 | 26.9 |
| Mississipp | 385, 099 | 45,755 | 11.9 | $\begin{aligned} & 328,296 \\ & 320,917 \end{aligned}$ | $\begin{array}{r} 53,448 \\ 58,951 \end{array}$ | $\begin{aligned} & 10.3 \\ & 18.4 \end{aligned}$ | 276, ${ }^{264,032}$ | 48,02850,749 | 17.419.2 |
| Louislana | 402, 041$1,228,601$ | 40,939 80 | 20.1 |  |  |  |  |  |  |
| Texas. |  | 132, 389 | 10.8 | $\begin{aligned} & 808,931 \\ & 393,905 \end{aligned}$ | $\begin{array}{r} 123,912 \\ 98,542 \end{array}$ | $\begin{aligned} & 15.3 \\ & 25.0 \end{aligned}$ | 401, 110 | 70,89564,095 | 17.725.0 |
| Arkansas | $\begin{array}{r} 569,659 \\ 42,411 \end{array}$ | 93, 090 | 16.3 |  |  |  | 256, 488 |  |  |
| North Central Di. <br> rision: |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio .... | 2, 789, 479 | $\begin{gathered} 132,244 \\ 94,334 \end{gathered}$ | 4.75.8 | 2, 339, 5288 | 115,491100,398 | 4.97.0 | 1, $1,1796,492$ | 152,383118,761 | 8.010.1 |
| Indiana | 1, 638, 334 |  |  |  |  |  |  |  |  |
| Illinois | 2, 861, 671 | 140, 219 | $\begin{aligned} & 4.9 \\ & 5.7 \end{aligned}$ | $\begin{aligned} & 2,234,478 \\ & 1,219,906 \end{aligned}$ | $\begin{array}{r}\text { 132, } \\ \text { 58, } 936 \\ \hline 32\end{array}$ | $\begin{aligned} & 5.9 \\ & 4.8 \end{aligned}$ | 861, 523 | 123, 624 | 6. 9 |
| Michigan | 1, 602, 474 | 91, 076 |  |  |  |  |  | 48, 649 | 5.6 |
| Wisconsin | 1, 253, 594 | 82.884 | 6.6 | 961,433 | 54, 233 | 5.6 | 749,181 | 54, 845 | 7.3 |
| Minnes | 957, 662 | 56, 966 | 5.9 | 557, 183 | 33, 506 | 6. 0 | 304, 418 | 23, 941 | 7.9 |
| Towa. | 1,432, 849 | 49,828 | 3.5 | 1,174, 063 | 44, 337 | 3.8 | 833, 698 | 44, 145 | 5. 3 |
| Missouri | 1, 881,478 | 133,806 | 7.1 | 1, 453, 238 | 152, 510 | 10. | 1,122, 175 | 161, 763 | 14.4 |
| $\xrightarrow[\text { North Dak }]{\text { South Dak }}$ | 128,998 234,979 | 7,528 9,564 | 5.8 4.1 | 98,348 | 4, 157 | 4.2 | 9,766 | 914 | 9.4 |
| South Dak | 762, 144 | 21,578 | 4. 2.8 | 316,312 | 10, 925 | 3.5 | 87,562 | 4, 630 | 5.3 |
| Kansas.. | 1, 017,178 | 29, 719 | 2.9 | 673, 121 | 24, 888 | 3. 7 | 245, 267 | 16, 978 | 5.3 |
| Western Division: Montana....... | 103, 204 | 4,232 | 4.1 | 28,986 | 631 | 2.2 | 15, 925 | 643 | 4.0 |
| Wroming | 46,436 | 1, 408 | 3.0 | 15, 240 | 374 | 2.5 | 7, 709 | 481 | 6.2 |
| Colorado | 321, 059 | 15, 474 | 4.8 | 155, 456 | 9, 906 | 6.4 | 29, 819 | 6, 564 | 22.0 |
| New Mexi | 104, 103 | 43, 265 | 41.6 | 79, 767 | 49,547 | 62.2 | 65, 224 | 51, 140 | 78. 4 |
| Arizona | 42, 482 | 8,953 | 21.1 | 28, 634 | 4, 824 | 16.8 | 8,170 | 2, 729 | 33. 3 |
| Utah ${ }^{\text {a }}$ | 145, 437 | 7, 407 | 5.1 | 95, 876 | 8,137 | 8.5 | 55, 828 | 7, 097 | 12.7 |
| Nerada | 32, 289 | 1,356 | 4. 2 | 42, 595 | 1,915 | 4.5 | 33, 175 | 653 | 2. 0 |
| Itaho | 60,446 | 2, 119 | 3.5 | 21,481 | 784 | 3.6 | 8,839 | 486 | 5.5 |
| Washing | 267, 747 | 8,261 | 3.1 | 49, 269 | 1,429 | 2. 9 | 15,873 | 823 | 5.2 |
| Oregon. | 232, 925 | 6,946 | 3.0 | 119, 482 | 4,343 | 3. 6 | 60, 846 | 3,411 | 5.6 |
| California | 839,159 | 40,233 | 4.5 | 589, 235 | 26, 090 | 4.4 | 372, 493 | 26, 158 | 7.0 |

Table 11.-Colored population 10 years of age and over and mumber and per cent who could not read and write.


Table 12.-Schools for the education of the colored

race-teachers, students, and courses of study.


TABLE 12.-Schools for the education of the colored

race-letehers, sludents, and courses of study-Continnerl.


Table 12.-Schools for the cducation of the colored

race-tachers, students, and courses of study-Continued.


Table 12.-Schools for the education of the colored


[^132]race-tcachers, sludents, and courses of study-Continued.


Table 12．－Schools for the cducation of the colored

|  | State and post－ office． | Name of school． | Religious denom． ination． | Teachers． |  |  |  |  | Pupils enrolled． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Wh | ite． | $\begin{gathered} \text { Co } \\ \text { ore } \end{gathered}$ |  |  | Tot | al． | $\begin{gathered} \text { Elem } \\ \text { tar } \\ \text { gra } \end{gathered}$ | nen－ <br> ry <br> des． |
|  |  |  |  | 產 |  | $\frac{\dot{9}}{\stackrel{5}{4}}$ |  | $\begin{aligned} & \dot{\widetilde{I}} \\ & \stackrel{0}{0} \\ & \text { H. } \end{aligned}$ | 宊 |  | 产 |  |
|  | 1 | 4 | 3 | 4 | 5 | 6 | 7 | 3 | 9 | 10 | 118 | 18 |
|  | VIRGINIA－cont＇d． |  |  |  |  |  |  |  |  |  |  |  |
| 149 150 | Lynchburg ．．．．．．． | Virginia Collegiate and In－ dustrial Institute． | M．E．．．．．． |  |  | $2$ |  |  | 18 | 23 53 | 13 40 | 19 53 |
| 150 | Manassas． | Manassas Industrial School＊ | Nonsect ．． |  |  | 3 | 3 | 6 | 40 | 53 | 40 | 53 |
| 152 | Norfork | Norfolk Mission Coll | U．Presb． |  | 8 | 4 | 3 | 15 | 287 | 417 | 271 | 351 384 |
| 153 | Petersburg ．．．．．．． | Bishop Payne Divinity School． | Epis．．．．． |  | 0 | 2 | 0 | 3 | 9 | 0 |  | ． |
| 154 | Petersburg ．．．．．． | Peabody High School ．．．．．．． | Nonsect．． |  |  | 1 | 11 | 12 | 313 | 502 | 295 | 424 |
| 155 | Petersburg．．．．．． | Virginia Normal and Col－ legiate Institute． | Nonsect ．． |  |  | 7 | 6 | 13 | 162 | 154 | 67 | 86 |
| 156 | Richmond ．．．．．．．． | Hartshorn Memorial College | Bapt．．．．．． |  |  | 0 | 2 | 9 | 2 | 89 |  |  |
| 157 | Richmond．．．．．．． | Richmond High and Normal School． | Nonsect．． |  |  | 0 | 0 |  | 88 | 380 | 0 | 0 |
| 158 | Richmond．．．．．．． west virginia． | Richmond Theological Sem． inary． | Bapt．．．．．． |  |  | 4 |  |  | 59 | 0 |  |  |
| 159 | Farm | West Virginia Colored In． stitute．${ }^{\text {＊}}$ | Nonsect ． |  |  | ， | 2 | 6 | 44 | 56 |  |  |
| 160 | Harpers Ferry．．． | Storer College．．．．．．．．．．．．．．．．． | Free Bapt． |  | 5 | 3 | 2 | 11 | 76 | 92 | 19 | 48 |
| 161 | Parkersburg．．．．． | Sumner High School ．．．．．．．．． | Nonsect．． |  |  | 1 |  | 6 | 78 | 93 | 73 | 76 |

[^133]race-teachers, studenis, and courses of study-Continued.


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Table 13.-Schools for the entucation of the colored race-

professional and industrial training－equipment and income．

| Chief sources of support． | $\stackrel{\otimes}{ః}$ <br> － <br>  $\qquad$ | Volumes in library． |  |  |  | $\begin{aligned} & \text { •spuny өstุวnp } \\ & \text {-o.Id uoxj pesṭəoə qunour } \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21 | 29 | 23 | 24 | 25 | $\pm 6$ | 27 | 28 | 29 |  |
| Contributio | 26，047 | 400 | \＄25， 038 |  | \＄538 | \＄145 | \＄1，240 | \＄1，923 | 1 |
| City |  |  | 2，000 | \＄100 | 150 |  | 450 | 700 | 2 |
| State and privato donations American Miss．Ass＇n ．．．．．． |  | 185 | 3，500 |  |  |  |  |  | 3 |
| American Miss．Ass＇n ．．． |  | 100 | 8，000 |  | 500 |  | 1，200 | 1，700 | 4 |
| State and United States．．．．．．．．． | 20，865 | 3， 500 | 50，000 | 4， 000 | 268 |  | 34，924 | 39， 192 | 5 |
| Amer．Miss．Ass＇n | 1，000 | 500 500 | $\begin{array}{r} 7,000 \\ 30,000 \end{array}$ | 0 | 872 |  | 3，933 | 4，805 | 6 7 |
| Tuition and benerolen |  | 6， 000 | 133， 266 | 0 | 1，500 | 3，350 | 8，000 | 12，850 | 8 |
| Church． | 0 | 2，000 | 5， 000 | 0 | 0 | 0 | 4，000 | 4， 000 | 9 |
| State and Slater and Peabody | 10 | 6，000 | 237， 333 | 3， 750 | 95， 619 | 1，471 | 1，034 | 101， 877 | 11 |
|  |  | 500 | 18，000 |  | 264 | 100 | 275 | 639 | 12 |
| Amer．Bapt．Home Miss．Society－ | 1，200 | 500 | 25，000 |  | 500 |  |  | 500 | 13 |
| Freedmen＇s Aid and S．Ed．So－ ciety． |  | 800 | 30，000 |  | 1，166 | 2，187 |  | 3， 353 | 14 15 |
| Columbia Dist．Ass＇n and tui－ tion． |  | 40 | 1，000 |  | 300 | 50 | 150 | 500 | 16 |
|  |  | 3，800 | 60， 000 | 5，025 | 432 |  | 6，273 | 11， 730 | 17 |
| Donations，endowment，and tui－ tion． | 1， 020 | 1， 200 | 27，000 |  | 3，396 | 2，000 |  | 5，396 | 18 |
| State and United States． | 200 | 500 | 20，000 | 4，600 |  |  |  | 4，600 | 19 |
| United States ．．．．．．．．．．．．．．．．．．．．． | 0 | 1，200 | 135， 800 | 25， 975 | 0 | 0 | 0 | 25，975 | 20 |
| United States and endowments． | 0 | 13， 200 | 700， 000 | 34， 500 | 6，500 | 8，500 | 6，800 | 56，300 | 21 |
| United States．．．．．．．．．．．．．．－．．．．． | －${ }^{0}$ | 2，000 | 60，000 |  | 500 | 125 | 4，700 | 5，325 | 22 |
| State and county |  |  |  |  |  |  |  |  | 24 |
| Freedmen＇s Aid and Ed．So．of M．E．Ch． | 18 |  | 250， 000 |  | 300 |  | 1，800 | 2，100 | 25 |
| A．M．E．Church and tuition．．．．． | 0 | 100 | 25，000 | 0 | 125 | 0 | 1,500 | 1，625 | 26 |
| W．H．M．S．M．E．Ch |  | 125 | 4， 000 | 0 | 117 |  | 942 | 1，059 | 27 |
| Amer．Miss．Ass＇n |  | 300 | 27，000 | 0 | 400 | 0 | 2，800 | 3， 200 | 28 |
| State and United States．．．．．．．．．． |  | 739 | 35，000 | 4，000 | 389 | 0 | 12， COO | 16，389 | 29 |

Table 13.-Schools for the education of the colored race-

professional and industrial training-equipment and income-Continned.


Table 13.-Schools for the education of the colored race-

professional and industrial training－cquipment and income－Continued．

| Chief sources of support． | $\stackrel{\varrho}{\circ}$ $\stackrel{-1}{6}$ <br> 会 |  |  |  | $\begin{aligned} & \text { Amount recei ved from tuition } \\ & \text { fees. } \end{aligned}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21 | 22 | 23 | －1 | 25 | 26 | 27 | 28 | 29 |  |
| City |  |  |  |  |  |  |  |  | 65 |
| M．E．Church and tuition |  | 3，000 | \＄50， 000 |  | \＄550 | \＄1，000 | \＄8， 380 | \＄9，930 | 66 |
|  |  | 2，000 |  |  |  |  |  |  | 68 |
| State and city．．．．．．．．．．．．．．．．．．．．． |  | 100 | 35，000 | \＄6， 200 |  |  | 4， 610 | 10，810 | 69 |
| M．E．Church |  | 200 | 11，000 | 4，600 | 1， 025 |  |  | 5，625 | 70 |
| Tuition and donations． |  |  | 25，000 |  | 400 |  | 1，500 | 1，900 | 71 |
| Amer．Christian Miss．Soc．and tuition． | 0 | 1，000 | 35，000 | 0 | 170 | 0 | 3， 830 | 4，000 | 72 |
| Stato．．．．．．．．．．．．．．．．．．．．．． | 0 | 3，300 | 12，000 | 2，250 | 0 | 0 | 318 | 2， 568 | 73 |
| F．A．S．Ed．Soc．M．E．Ch－．．．．． | \＄250 | 5， 000 | 125， 000 |  | 2，000 |  | 5，000 | 7， 000 | 74 |
| Amer．Bapt．Miss．Society ．．．．．． | 424 | 800 | 25， 000 |  | 592 |  |  | 592 | 75 |
| Amer．Miss．Ass＇n．．．．．．．． | 200 | 309 | 2，500 |  | 600 |  |  | 600 | 76 |
| F．A．S．Ed．Soc．，and tuition |  |  | 4， 000 |  | 679 |  | 171 | 850 | 77 |
| Amer．Miss．Ass＇n |  | 4，000 | 80， 000 |  | 925 |  | 13， 075 | 14，000 | 79 |
| Stato and United States |  | 3，520 | 157， 500 | 46，948 | － | 6，815 |  | 53， 763 | 80 |
| City and State |  | 300 | 8，000 | 2，700 | 160 | 0 | 0 | 2，860 | 81 |
| Stato．． |  | 500 | 15，000 | 2，000 |  |  |  | 2，000 | 82 |
| State and United States |  | 225 | 70，800 | 17，275 | 138 | － | 1， 233 | 18，646 | 83 |
| Stats．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  |  |  |  |  |  |  |  | 84 |
| Freedmen＇s Aid Society of the M．E．Ch． | 0 | 2，500 | 70，500 | 0 | 1， 444 | 0 | 1， 800 | 3，244 | 85 |
| State and private contributions． | 0 | 50 | 2，000 | 4，000 | 0 | 0 | 832 | 4，832 | 86 |
| Amer．Miss．Ass＇n． | 0 | 0 | 5,000 | 0 |  |  |  |  | 87 |
| Presb．Ch．and tuitio |  | 8， 500 | 130， 500 |  | 4，000 | 240 | 3， 760 | 8，000 | 88 |
| City ．．．．．．．．．．．． |  |  |  |  |  |  |  |  | 89 |
| Presb．Ch．North | 9，400 | 1， 700 | 65， 000 | － 0 | 450 |  | 15， 024 | 10， 474 | 90 |
| State | 0 | 152 | 1，000 | 2，000 |  |  |  | 2，000 | 91 |
| Stato | 290 | 250 | 1，500 | 1，600 |  |  |  | 1，600 | 92 |
| State．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | 350 | 10，000 | 2，200 |  | ．．．．．．． | 2，780 | 4，980 | 93 |
|  |  | 2，500 |  | 90 |  |  | 1，260 | 1，350 | 94 |
| State |  | 100 |  | 1，800 |  |  |  | 1，800 | 95 |
| Stato and Enited States． |  | 714 | 62， 750 | 12，500 |  |  |  | 12，500 | 96 |
| Donatious and tuition．．．． |  |  |  |  |  |  |  |  |  |

TABLE 13.-Schools for the education of the colored race-

professional and industrial training-equipment and income-Continued.


TABLE 13.-Schools for the education of the colored racc-

professional and industrial training-equipment and income-Continued.


## CHAPTER LI.

## SCHOOLS FOR THE DEFECTIVE CLASSES.

Schools for the blind.-The total number of schools reported was 36. The total number of instructors was 383--male, 137; female, 246: in music, 127; and in the industrial departments, 113. The total number of pupils reported was $3,744-$ male, 1,942 ; female, 1,802 : in kindergarten departments, 467 ; in vocal music, 1,952 ; in instrumental music, 1,893 . In the industrial department the total number of pupils was 2,131 . The total number of volumes in the libraries was 89,641 . The value of scientific apparatus was $\$ 83,815$, and the value of grounds and buildings was $\$ 6,050,900$. The total expenditure for support was $\$ 707,435$.

Schools for the deaf.-The total number of schools for the deaf reporting to this Bureau is 105 , with 1,100 instructors and 10,878 pupils. The 51 State public schools report 945 instructors-male, 332 ; female, 613 ; in articulation, 377 ; in aural development, 49 ; in industrial department, 260 . The total number of pupils was 9,832 , of which number 3,205 were tanght by the combined system, 2,946 by the purely oral method, and 3,616 by the manual method; 670 were tanght in the kindergartens. The number of graduates was 180. The libraries of these institutions contained 91,269 volumes. The value of the scientific apparatus was $\$ 13,845$; of grounds and buildings, $\$ 11,175,933$. The total expenditures for support was $\$ 2,208,704$.

The private schools for the deaf reported 81 instructors- 41 in articulation, 16 in aural development, and 34 in the industrial departments. The number of pupils reported was 483 , of which number 249 were taught by the combined system, 138 by the purely oral method, and 78 by the manual method; 56 were taught in the kindergartens.

The public day schools for the deaf reported 74 instructors-59 in articulation, 26 in aural development, and 59 in the industrial departments. The number of pupils reported was 563 , of which number 116 were taught by the combined system, 406 by the purely oral method, and 23 by the manual method. The number taught in the kindergartens was 36 . The amount expended for support reported was $\$ 41,675$.

Schools for the feeble-minded.-The number of schools reported to this Bureau was 29 , with 259 instructors in the school departments, 180 in the industrial departments, and 610 in caring for the inmates. The total number of pupils reported was 9,232 , of which number 943 were enrolled in the kindergartens and 1,749 in music.

The 19 State public schools report 213 instructors in the school departments, 135 in the industrial departments, and 556 assistants in caring for inmates. The number of inmates or pupils reported was 8,866 . Of these, 815 were in kindergartens and 1,590 in music. The value of grounds and buildings was $\$ 1,922,537$; the expenditures were $\$ 1,414,451$.

Of the private institutions for the feeble-minder Connecticut had 1, Illinois 1, Maryland 1, Massachusetts 3, Michigan 1, and New Jersey 3, making a total of 10 schools, with 56 instructors in school departments, 45 in industrial departments, and 60 assistants in caring for inmates. There were in the schools 366 pupils, 128 of them in kindergartens and 159 in music.

Table 1.-Summary of statistics of schools for the blind, 1897-98.

|  |
| :---: | :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

Table 2.-Summary of statistics of schools for the blind, 1897-98.

| States and Territories. | Pupils. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underset{\sim y y y}{\rightrightarrows}$ |  | $\begin{aligned} & \text { ت़⿹\zh26灬 } \\ & \text { Hin } \end{aligned}$ |  |  |  |  |  |
| 1 | 8 | 3 | 4 | 5 | $6^{6}$ | 7 | 8 | 9 |
| United States.. | 1,942 | 1,802 | 3,74! | 467 | 1,952 | 1,893 | 184 | 2, 131 |
| North A tlantic Division South Atlantic Division. South Central Division. North Central Division. Western Division. | 331 332 371 826 82 82 | 305 286 431 708 72 | $\begin{array}{r}638 \\ 618 \\ 802 \\ 1,534 \\ 154 \\ \hline\end{array}$ | $\begin{array}{r} 156 \\ 57 \\ 8.5 \\ 169 \\ 0 \end{array}$ | $\begin{aligned} & 261 \\ & 494 \\ & 453 \\ & 631 \\ & 113 \end{aligned}$ | $\begin{array}{r} 276 \\ 358 \\ 455 \\ 709 \\ 95 \end{array}$ | $\begin{array}{r}47 \\ 25 \\ 43 \\ 71 \\ 8 \\ \hline\end{array}$ | $\begin{array}{r}503 \\ 384 \\ 429 \\ 795 \\ 60 \\ \hline\end{array}$ |
| North Atlantic Division: <br> Maine. |  |  |  |  |  |  |  |  |
| Nerv Hampshire....... |  |  |  |  |  |  |  |  |
| Vermont... <br> Massachusetts. <br> Rhode Island....... <br> Connecticut | 123 | 114 | 237 | 76 | 59 | 116 | 9 | 210 |
| Connecticut <br> New York. | a 78 | 64 | 142 | 19 | 6 | 57 | 10 | 77 |
| Pennsylvania.. | 130 | 127 | 257 | 61 | 196 | 103 | 28 | 210 |
| South Atlantic Division:Delaware ........................... |  |  |  |  |  |  |  |  |
| Maryland | 78 | 53 | 131 | 14 | 65 | 56 | 13 | 98 |
| Virginia............ | 30 | 28 | 58 | 0 | 30 | 52 | 2 | 46 |
| West Virginia.: | 18 | 25 | 43 | 0 | 43 | 35 | 1 | 35 |
| North Carolina . | 115 | 99 | 214 | 43 | 199 | 110 | 2 | 110 |
| South Carolina | 23 | 25 | 48 |  | 48 | 46 | 1 | 48 |
| Georgia Florida | 63 5 | 52 | 115 |  | 109 | 110 5 | 6 | 47 |
|  |  |  |  |  |  |  |  |  |
| Kentucky ........... | 57 | 71 | 123 | 23 | 128 | 87 | 23 | 5 |
| Teniessee. | 51 | 63 | 114 |  | 110 | 102 | 11 | 93 |
| $\begin{aligned} & \text { Alabama } \\ & \text { Mississippi } \end{aligned}$ | 39 13 | 43 20 | 82 33 | 0 | 8. |  |  | 74 |
| Lonisiana.. | 24 | 23 | 47 | 15 | 47 | 28 | 0 |  |
| Texas .... | 79 | 111 | 190 | 17 | 26 | 10 ! | 9 | 49 |
| Arkansas. | 108 | 100 | 208 | 30 | 60 | 65 | 0 | 203 |
| Oklahoma ....... |  |  |  |  |  |  |  |  |
| Indian Territory .... |  |  |  |  |  |  |  |  |
| North Central Division: |  |  |  |  |  |  |  | 111. |
| Indiana... | 80 | 78 | 158 |  | 159 | 71 | 3 | 107 |
| Illinois.. | 153 | 99 | 252 | 46 | 57 | 113 | 5 | 80 |
| Michigan... | 60 | 46 | 106 | 20 | 77 | 61 | 0 | 90 |
| Wisconsin. | 65 | 60 | 125 | 10 | 93 | 70 | 7 | 69 |
| Minnesota. | 40 | 30 | 70 | 14 | 41 | 52 | 0 | 60 |
| Iowa.... Missouri. | 98 58 | 94 62 | 192 |  | 84 50 | 85 75 | 9 5 | 150 |
| Missouri.. North Dak | 58 | 62 |  | 23 | 50 | 75 | 5 | 7 |
| South Dakota. |  |  |  |  |  |  |  |  |
| Nebraska... | 38 | 45 | 83 |  | 50 | 63 | 12 | 52 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| W yoming.. |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Arizoua... |  |  |  |  |  |  |  |  |
| Nerada |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Washington | 14 | ${ }^{6}$ | ${ }_{28}^{13}$ | 0 | 12 | ${ }_{2}^{4}$ | 0 | ${ }^{7}$ |
| Oregon | 14 29 | 14 23 | 28 52 | 0 0 | 14 $4!$ | 32 | 0 | 21 0 |
|  |  |  |  |  |  |  |  |  |

Table 3.-Summary of statistics of schools for the blind, 1897-98.

| States and Territories. | $\begin{aligned} & \text { Volumes } \\ & \text { in } \\ & \text { library. } \end{aligned}$ | $\nabla$ alue of scientific apparatus. | $\begin{aligned} & \text { Value of } \\ & \text { grounds } \\ & \text { and } \\ & \text { buildings. } \end{aligned}$ | Expenditures. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{gathered} \text { Grounds } \\ \text { and } \\ \text { buildings. } \end{gathered}$ | $\begin{aligned} & \text { For } \\ & \text { support. } \end{aligned}$ |
| 1 | 2 | 3 | 4 | 5 | 6 |
| United States | 89, 641 | \$82, 815 | \$6,060, 900 | \$364, 266 | \$707,435 |
| North Atlantic Divisio | 30,030 | ${ }_{6}^{680}$ | 1, 337, 916 | 262,459 | 136,169 |
| South Altantic Division | 11, 1061 | ${ }_{23,625}$ | 702,500 | 42,850 24,950 | 75,888 167, 594 |
| North Central Division | 35, 071 | 35, 160 | 2, 899,484 | 34, 782 | 290, 141 |
| Western Division | 3,354 | 7,250 | 364, 500 | 275 | 37, 643 |
| North Atlantic Division: Maine |  |  |  |  |  |
|  |  |  |  |  |  |
| Vermont ..... |  |  |  |  |  |
| Massachusetts | 15, 640 |  | 565, 610 |  | 30,000 |
| ${ }_{\text {Con }}^{\text {Reode Island }}$ |  |  |  |  |  |
| Ne: ${ }^{\text {conecher }}$ (ork. | a $4, \bar{\square} 27$ | 4,280 | 355,000 | 4,213 | 39, 17 i |
| New Jersey |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Maryland | 2,675 | 5,500 | 385, 000 |  | 35,672 |
| Virginia..... | 3,000 | 1,500 | 45,000 | 9,000 | 11,948 |
| West Virginia | , 550 | 1,500 | 60, 000 |  | 6, 880 |
| North Carolina. | 1,200 | 2, 000 | 100, 000 | 28,800 | 13,500 |
| South Carolina |  |  | 58,000 |  | 5, 288 |
| Georgia | 2, 650 |  | 110,000 | 000 | 1,600 |
| FlorialSouth Central Division: |  |  |  |  |  |
| Kentucky ........... | 2,500 | 5,000 | 100, 000 |  | 25, 209 |
| Alabama. | ${ }_{1,336}$ | ${ }_{1}^{1,500}$ | 50, 000 | 4,000 | 18, 860 |
| Mississipyi. |  | 1,500 | 50,000 |  | 3, 600 |
| Louisiana | 1,000 | 2,000 | 40, 000 | 15,000 | 19,354 |
| Sexas ... | 125 1,500 | 4,050 4,500 | 112,500 250,000 | 1,950 4,000 | 56,332 28,30 |
| Oklahoma |  |  |  |  |  |
| Indian Territory .... |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Ohio...... | 3,917 | ${ }^{675}$ | ${ }^{650,000}$ | 12, 000 |  |
| Illinois.... | 5,000 | 12, 000 | 175, 000 | , 0 | ${ }_{45,000}$ |
| Michigan.. | 4 4, 000 |  | 165, 000 | 1,682 | 25, 098 |
| Wisconsin | 3, 100 | 185 | 200, 060 | 12,000 | 23,000 |
| Minnesota | 1,400 | 4,000 | 50,000 | 6,600 | 17, 074 |
| Iowa | 4, 200 | 5,000 | 200, 000 |  | ${ }^{310} 720$ |
| Missouri ${ }_{\text {North }}$ | 8,560 | 5,000 | 150, 000 |  | 27, 800 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Kansas-* | 1, 200 | 5,000 | 300, 000 |  | 18, 000 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| WYoming | 31 | 2,000 |  |  | 14,790 |
| New Mexico.......................................................................................................... |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |
| Washington. | Nevada ............................... |  |  |  |  |
| Oregon.. | 513 |  | 17, 000 |  |  |
| California | 2,510 | 4,000 | 225, 060 | 0 | 13,711 |

[^134]Table 4．－Siatistics of State institutions for the b7ind，1897－98．

| $\begin{aligned} & \underset{\theta}{H} \\ & \underbrace{\infty}_{c} \\ & \underbrace{\infty}_{C} \end{aligned}$ | Post－office． | Name． | Executive officer． | Instructors． |  |  |  | Pupils． |  |  |  |  |  |  |  | Annual cost per capita. |  |  | Expenditures． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\frac{\dot{\Phi}}{\frac{9}{s}}$ |  |  |  | $\begin{aligned} & \text { 玉 } \\ & \text { 気 } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1 | $\mathfrak{2}$ | § | 4 | 9 | 6 | 少 | 8） | ${ }^{\text {（1）}}$ | 180 | 11 | 19 |  | 14 | 15 | H 6 | 日g | 38 | 19 | 20 |
| 1 | Talladega，Ala | Alabama A cademy for the Plind | J．H．Johnson | 4 |  | 2 |  | 39 | 43 | 82 | 69 |  |  | 74 | 1，336 | \＄230 | \＄1， 500 | \＄50， 000 | \＄L， 000 | \＄18，860 |
| 2 | Little Rock，Ar | Arkansas School for the Blind． | Oliver C．Gray |  | 11 | 3 | 2 | 108 | 100 | 60 | 65 | 30 | 0 | 208 | 1， 500 | 131 | 4，500 | 250，000 | 4，000 | 28，330 |
| 3 | Berkeley，Cal | California Institution for the | Warring Wilkinson ．． |  | 11 | 2 | 0 | 29 | 23 | 44 | 30 |  | 7 |  | 2， 510 | 264 | 4，000 | 225， 000 |  | 13，711 |
| 4 | Colorado Springs，Colo | Colorado School for the Deaf | D．C．Dudley |  | 6 | 3 | 3 | 28 | 27 | 43 |  | ．．．． | 1 | 32 | 31 | 290 | $\therefore, 000$ | 120， 000 |  | 14， 790 |
| 5 | St．Augustine，Fla | State Institute for the Deaf | Frederick Pasco |  | 1 |  |  | 5 |  |  |  |  |  |  | 50 |  |  | 7， 500 |  | 1，000 |
| 6 | Macon，Ga | Georgia A cademy for the Blind． | W．D．William | 8 | 14 | 3 |  | 63 | 52 |  |  |  |  |  | 2， 650 |  |  | 110， 600 | 4，000 | 1，600 |
| 7 | Jacksonville，Ill ．．．．．．． | Illinois Institution for the Ed－ | FrankH．Hall |  |  | 5 | 3 | 153 | 99 | 57 | 113 | 46 |  |  | 5，000 | 205 | 12，000 | 175， 000 | ， | 45，000 |
| 8 | Indianapolis，Ind | Indiana Institute for the Edu－ cation of the Blind． | Geo．S．Wilson |  | 5 | 3 | 4 |  | 78 | 159 |  |  |  |  | 1，800 | 191 | 2， 0 | 400， 000 | 2， 500 | 27，500 |
| ， | Vinton，Iowa | Iowa College for the Blind．．．．． | T．Fr．McCune | 52 |  |  | 2 | 98 | 94 | 84 | 85 |  |  |  | 4， 200 |  | 5，000 | 200， 000 |  | 30， 720 |
| 10 | Kausas City，Kans | Tansas State Institution for the Education of the Blind． | W．P．Toothak |  |  |  | 2 |  | 53 |  |  |  | 11 |  | 1，200 |  | 5，000 | 300,000 |  | 18，000 |
| 11 | Louisville，Ky ．．．．．．． | Kentucky Institution for the | Benj．B．Funtoon |  | 5 | 8 | 2 | 57 | 71 | 128 | 87 | 23 |  | 128 | 2， 500 | 195 | 5． 000 | 100， 000 |  | 25， 209 |
| 12 | Baton Rouge，La．．．．．． | Louisiana State Institution for | W．H．N．Magruder | 2 | 4 | 4 | 5 | 24 | 23 | 47 | 28 | 15 |  |  | 1，000 | 300 | 2，000 | 40，000 | 15， 000 | 19，354 |
| 13 | Baltimore，Md | Maryland School for Colored Blind and Deaf． | Frederick D．Morrison | 4 | 41 | 1 |  |  |  |  |  |  |  |  |  |  |  | 35， 000 |  | 9，855 |
| 14 | Do． | Maryland School for the Blind． | do | ${ }_{13}^{6}$ | ${ }_{36}^{6}$ | $6{ }^{6} 1$ | 4 | 59 | 44 | 37 | 38 | 14 | 12 |  | 2，325 | 292 | 5，500 | 350， 000 |  | 25，817 |
| 15 | South Boston，Mass．．． | Perkins Institute and Massa－ | M．Anag |  |  |  | 9 | 123 | 114 | 59 | 116 | 76 | 9 |  | 15，640 |  |  | 565， 610 |  | 30，0c0 |
| 16 | Lansing，Mich． | Michigan School for the Blind． | Edward P．Chu |  | 8 |  | 4 | 60 | 46 | 77 | 61 | 20 | 0 |  | 4，000 | 264 |  | 165， 484 | 1，682 | 25， 098 |
| 17 | Faribanlt，Minn | Minnesota School for the Blivd＊ | James J．Dov | 4 | 5 | 4 | 2 | 40 | 30 | 41 | 52 | 14 | 0 | 60 | 1， 400 | 288 | 4，000 | 50，000 | 6，600 | 17，074 |
| 18 | Jackson，Miss ．．．．．．．． | Institution for the Blind of Mississippi． | W． | 1 | 5 | 5 |  |  | 20 |  |  |  |  |  | 150 |  | 1，500 | 50，000 |  | 3， 600 |
| 19 | St．Louis，Mio | Missouri School for the Blind．． | John T．Sibley | 5 | 5.9 | $1{ }^{9}$ | 2 | 58 | 62 | 50 | 75 | 23 | 5 | 7 | 8，560 | 240 | 5， 000 | 150， 000 |  | 27，800 |
| 20 | Boulder，Mont | Mostana Deaf and Dumb Asy－ lum． | E．S．Tillinghast ．．．．． |  | 1 |  |  |  | 2 | ${ }^{0}$ |  | （i） |  |  |  | 234 | 450 | 2，500 |  | 1， 404 |

Tarle 4．－－Statistics of State institutions for the blind，189\％－9S－Continued．

|  | Post－office． | Name． | Executive officer． | Instructors． |  |  |  | Pupils． |  |  |  |  |  |  |  |  |  |  | Expenditures． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{aligned} & \text { 玉 } \\ & \text { ज゙ } \end{aligned}$ |  |  |  | 采 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | H | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 9 | 10 | 11. | 18 | 13 | 14 | 15 | 168 | 17 | 18 | 191 | 20 |
| 21 | Nebraska City，Nebr．． | Nebraska Institute for the Blind | Wm．A．Jones |  |  | 3 |  | 38 | 45 | 50 | 63 |  | 12 | 52 | 1，794 | \＄270 | \＄1， 300 | \＄100，000 |  | \＄22，428 |
| 22 | Batavia，N．Y．．．．．．．．．．． | New York State School for the Blind． | Gardner Fuller |  |  | 4 | 3 | 78 | 61 | c | 57 |  | 10 | 77 | 4，527 | 314 | 4， 280 | 355， 000 | \＄4， 213 | 39， 171 |
| 23 | New York，N．Y ．．．．．．． | New York Institution for tho Blind．a |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 24 | Raleigh，N．C．．．．．．．．． | North Carolina Institution for Education of the Deaf and Dumb and the Blind． | John E．Ray．．．．．．．．．． | 9 |  | ${ }^{9}$ |  | 115 | 99 |  |  |  |  | 110 | 1，200 | 150 | 2,000 | 100， 000 | 28，800 | 13，500 |
| 25 | Columbus，Ohio．．．．．．． | Ohio Institution for the Blind ． | R．W．Wallace | 7 |  | 5 | 1 | 189 | 141 | 18 | 119 | 56 | 19 | 111 | 3， 917 | 292 |  | 650， 000 | 12， 000 | 53， 521 |
| ${ }_{27}^{26}$ | Salem，Orog． | Oregon School for the Blind．．． | J．L．Carter ．．．．．．．．．．． | 1 |  |  |  | ${ }_{94}^{14}$ | 14 | 14 | 22 |  | 0 | 21 |  |  | ＋ 800 | 17， 000 | b256，${ }_{7} 746$ | 71，738 |
| 27 | Philadelphia，Pa．．．．．． | Pemensylvania Institution for the Instruction of the Blind． | Ldward E．Allen．．．．．． | 3 |  |  | 7 |  | 95 | 130 | 70 |  | 28 | 166 | 9，453 | 326 | $\pm, 000$ | 157， 3063 | b256， 746 | 51， 772 |
| 28 | Pittsburg，Pa | Western Peunsrlvania Insti－ tation for the Blind．f＊ | H．B．Jacobs ．．．．．．．． | 3 |  |  |  |  | 32 | 66 |  |  |  | 50 | 410 | 252 |  | 260， 000 | 1，500 | 15， 226 |
| 29 | Cedar Springs，S．C．．． | South Carolina Institution for the Education of the Deaf and the Blind． | N．F．Walker | 3 |  |  | 2 | 23 | 25 | 48 | 46 |  | 1 | 48 |  | 150 |  | 58， 000 |  | 5，288 |
| 30 | Nashville，Tenn | Tennessee School for the Blind． | Jokn V．Armstrong．． | 3 |  | 6 |  | 51 | 63 | 110 | 102 |  | 11. | 93 | 4，600 | 175 | 5， 075 | 100， 000 |  | 15， 909 |
| 31 | Austin，Tex ．．．．．．．．．． | Deaf，Dumb，and Blind Insti－ tate for Colored Youth． | Samuel J．Jenkins．．．． |  |  |  |  |  |  |  |  |  |  | ， | 125 |  | 50 | 37，500 | 1，200 | 17， 215 |
| 32 | Do． | Texas State Institution for tho Blind． | E．P．Becton |  |  | 6 |  | 63 | 97 | 8 | 93 |  | 4 | 49 | －－． | 244 | 4，000 | 75，000 | 750 | 39，117 |
| 33 | Staunton，Va ．．．．．．．．． | Virginia Institution for the Deafand Dumband the Blind． | W．A．Bowles． | 3 | 5 |  | 2 | 30 | 28 | 30 | 52 |  | 2 | 46 | 3，000 | 206 | 1，500 | 45， 000 | 9， 000 | 11， 948 |
| 34 | Vancouver，Wash ．．．． | Washingtou School for Defect－ | James Watson | 0 | 1 | 2 | 1 | 7 | 6 | 12 |  |  | － |  |  |  |  |  |  |  |
| 35 | Romney，W．Va．．．．．．． | West Virginia Schools for the | James T．Rucker | 3 |  |  | 4 | 18 | 25 |  |  |  | 1 |  |  | 160 | 1，500 | 60， 000 |  | 6，880 |
| 36 | Janesville，Wis．．．．．．．． | WisconsinSchool for the Blind＊ | 7．F．Bliss．．－．－．．．．．．． | 3 |  | 3 | 4 | 65 | 60 | 95 | 70 | 10 | 7 | 66 | 3，100 | 184 | 185 | 200， 000 | 12， 000 | 23，000 |

Table 5．－Summary of statistics of State institutions for the deaf，1897－98．

| States and Territories． |  | Instructors． |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 㡙 | $\begin{aligned} & \text { 㡙 } \\ & \text { g } \\ & \text { H } \end{aligned}$ | $\begin{gathered} \text { ज⿹丁口欠 } \\ \text { Hin } \end{gathered}$ |  |  |  |
| 1 | ！ | 3 | 4 | 5 | 6 | g | $s$ |
| United States．． | 57 | 332 | 613 | 945 | 377 | 49 | 260 |
| North Atlantic Division． south Atlantic Division ． South Central Division． North Central Division．．．． Western Division ．．．．．．．．． | $\begin{array}{r} 19 \\ 10 \\ 9 \\ 12 \\ 7 \end{array}$ | $\begin{array}{r}79 \\ 57 \\ 53 \\ 112 \\ 31 \\ \hline\end{array}$ | $\begin{array}{r}273 \\ 62 \\ 71 \\ 185 \\ 22 \\ \hline\end{array}$ | $\begin{array}{r}352 \\ 119 \\ 124 \\ 297 \\ 53 \\ \hline\end{array}$ | $\begin{array}{r} \hline 221 \\ 33 \\ 31 \\ 83 \\ 9 \end{array}$ | $\begin{array}{r} 27 \\ 4 \\ 4 \\ 12 \\ 2 \end{array}$ | $\begin{array}{r}107 \\ 38 \\ 33 \\ 65 \\ 17 \\ \hline\end{array}$ |
| North Atlantic Division： Maine．．．．．．．．．．．．．．．．．．．．． New Hampshire Vermont | 1 | 0 | 8 | 8 | 7 |  | ．．．．．${ }^{3}$ |
| Massachusetts <br> Rhode Island <br> Connecticut． $\qquad$ <br> New York $\qquad$ <br> New Jersey－．．．．．．．． <br> Pennsylvania | 2 1 2 8 1 4 | 1 14 41 4 4 19 | 25 8 15 136 10 71 | 26 8 29 177 14 90 | 19 18 106 4 67 | 18 <br> 7 <br> 1 <br> 8 <br>  <br> 0 | 5 4 6 60 5 5 |
| South Atlantic Division： <br> Delaware |  |  |  |  |  |  |  |
| Marylani． |  | 10 | 12 | 22 | 5 | 0 | 8 |
| District of Columbia． | 1 | 18 | 11 | 29 | 12 | 3 | 2 |
| Virginia．．．．．．．． | 1 | 6 | 4 | 10 | 1 |  | 5 |
| West Virginia | 1 | 5 | 4 | 9 | 1 | 0 | B |
| North Carolina． | 2 | 10 | 16 | 26 | 7 | 1 | 7 |
| South Carolina | 1 | 3 | 6 | ${ }_{11}$ | 3 |  | 5 |
| Georgia ．．．．．．． | 1 | 4 | 7 2 | 11 3 | 1 | 0 | 2 |
| South Central Division： |  |  |  |  |  |  |  |
| Kentacky Tennesse．．．．．．．．．．．．．． | 1 | 10 4 | 15 7 | 25 | 10 3 | 0 3 | 5 |
| Alabama． | 1 | 8 | 7 | 15 | 7 |  | 4 |
| Mississippi | 1 | 4 | 5 | 9 |  |  |  |
| Louisiana． | 1 | 3 | 4 | 7 | 2 | 0 | 4 |
| Texas．．．．． | 2 | 11 | 18 | 29 | ${ }_{3}^{6}$ | 1 | 7 |
| Oklahoma | 1 | 2 | 1 | 3 |  |  |  |
| Indian Territory． |  |  |  |  |  |  |  |
| North Central Itivision： |  |  |  |  |  |  |  |
| Ohio－．．．．．．．．．．．．．．．． | 1 | 10 | 24 | 34 | 10 | 1 | 5 |
| Indiana ．．．．．． | 1 | 15 | 18 | 33 | 10 | 0 | 5 |
| Illinois． | 1 | 17 | 32 | 49 | 17 | $\stackrel{2}{2}$ | 6 |
| Michigan | 1 | 10 | 29 | 39 | 10 | 0 | 8 |
| Wisconsin | 1 | 11 | ${ }^{9}$ | 20 | 9 |  | 6 |
| Minnesota | 1 | 7 13 | 12 | 19 25 | 6 4 4 | 0 | 5 |
| Missouri | 1 | 14 | 18 | 32 | 5 | 0 | 7 |
| North Dakota | 1 | 2 | 3 | 5 | 1 | 1 | 2 |
| South Dakota | 1 | 3 | 3 | ${ }_{1}^{6}$ | 1 | 8 | 4 |
| Nebraska ．．．． | 1 | ${ }_{6}^{6}$ | 11 | 17 18 | 8 | 8 | 5 |
| Western Dirision： |  |  |  |  |  |  |  |
| Montana．．．．．．． | 1 | 2 | 1 | 3 | 1 | 0 | 0 |
| TVyoming．．． |  |  |  |  |  |  |  |
| Colorado ．．． New Mexico | 1 | 8 | 5 | 13 1 | 4 | 0 | 5 |
| Arizona．．．．． |  |  |  |  |  |  |  |
| Utah．．． | 1 | 6 | 6 | 12 | 1 | 1 | 6 |
| Nevada <br> Itlaho |  |  |  |  |  |  |  |
| Washington | 1 | 3 | 2 | 5 | 1 | 1 | 1 |
| Oregon．－． | 1 | 2 | 2 | 4 |  |  | 2 |
| California．．．． | 1 | 9 | 6 | 15 | 2 | 0 | 3 |

Table 6.-Summary of statistics of State instiutions for tine deaf, 189\%-98.


Table 7.-Summary of statistics of State institutions for the deaf, 189\%-98.

| States and Territories. | $\begin{aligned} & \text { Volumes } \\ & \text { in } \\ & \text { library. } \end{aligned}$ | Talue of scientific apparatus. | Value of grounds and buildings. | Expenditures. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{gathered} \text { Grounds } \\ \text { and } \\ \text { buildings. } \end{gathered}$ | For support. |
| 1 | ${ }^{2}$ | :3 | 1 | J | 6 |
| United States | 94, 269 | \$13, 845 | \$11, 175, 933 | \$253, 136 | \$2, 208, 704 |
| North Atlantic Division. | 38,918 | 8,365 | 4, 025, 593 | 124, 763 | 863, 633 |
| South Atlautic Division. | 11,933 | 2,880 | 1, 488, 000 | 28, 875 | 255, 718 |
| South Central Division. | 5,350 | 500 | 1, 167,500 | 32,421 | 259, 682 |
| North Central Division | 34, 812 | 1,150 | 3, 769,840 | 65,577 | 694,832 |
| Western Division | 3,250 | 950 | 725. 000 | 1,500 | 134,839 |
| North Atlantic Division : |  |  |  |  |  |
| New Hampshire |  |  |  |  |  |
| Vermont ....... |  |  |  |  |  |
| Massachusetts | 2,566 |  | 165, 000 |  | 47, 756 |
| Rhode Island.. | 200 |  | 65, 000 | 25,000 | 19,000 |
| Connecticht | 2, 248 |  | 258,500 | . 300 | 48, 600 |
| New York. | 21,470 | 8,265 | 1,955, 009 | 81, 05:3 | 474,351 |
| New Jersey . | 2, 000 | 100 | 150, 000 | 5, 000 | 40,000 |
| South Atlantic Division: |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Maryland | 3, 033 | 780 | 290,000 |  | 37, 259 |
| District of Columbi | 4,300 | 1,000 | 700, 000 | 3,000 | 70, 049 |
| Virginia.-.-. | 300 | 200 | 90, 000 |  | 18,016 |
| West Virginia. | 500 |  | 40,000 |  | 34, 850 |
| North Carolina | 1,750 | 100 | 200, 000 | 25,875 | 48, 350 |
| South Carolina | . 850 |  | 58, 000 |  | 13, 2.31 |
| Georgia | 1,200 | 800 | 85,000 |  | 24,963 |
| South Central Division: |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Ktntncky. Tennessee | 2, ${ }_{9} 900$ | 500 | 140,000 150,000 | 1,421 | 51, 800 |
| Tennessee Alabama | 900 | . . . . . . . | 150,000 100,000 | 1,000 | 35, 000 |
| Mississippi | 600 |  | 90,000 | 15,000 | - 16,000 |
| Louisiana. |  |  | 300, 000 | 1,500 | 16,500 |
| Texas.... | 1, 050 | 0 | 287, 500 | 12,000 | 67, 975 |
| Arkansas | 800 |  | 100, 000 | ],500 | 41,000 |
| Oklahoma ........ |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Ohio......-............. | 3, 060 |  | 650, 000 |  | 105, 000 |
| Indiana Illinois | 3,209 11,500 | .-.-.-..... | 530, 460 | 2, 623 | 61, 698 |
| Michigan | 11,500 3,657 | 450 | 500,000 433,755 | 2,500 14,854 | 97,500 76,795 |
| Wisconsin | 3, 000 | 200 | 110,000 | 6,109 | 53, 962 |
| Minnesota | 1,761 | 50 | 271,625 |  | 45,455 |
| Iowa. | 2,800 |  | 500, 000 | 19. 000 | $6 \overrightarrow{3}, 100$ |
| Missouri | 2, 000 | 200 | 360, 000 | 12,000 | 103, 383 |
| North Dakota | -300 | 50 | 24,000 |  | 11, 588 |
| South Dakota | 185 |  | 60, 000 |  | 12, 250 |
| Nebraska | 1,400 | 200 | 120, 003 |  | 27, 100 |
| Western Division: |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Montana <br> Wyoming ... | 100 | 150 | 50, 000 |  | 5,824 |
| Colorado. | 581 | 200 | 120, 000 |  | 24,170 |
| New Mexico | 280 |  |  |  |  |
| Arizona |  |  |  |  |  |
| Utah | 95 | 100 | 200,000 | 1,500 | 18,500 |
| Nevada. |  |  |  |  |  |
| Idaho .-.- |  |  |  |  |  |
| Washington |  |  | 100, 000 |  | 29, 000 |
| Oregon. | 200 |  | 30, 000 |  | 12, 256 |
| California | 2,000 | 500 | 225,000 | -.-.-. .-.... | 45,089 |

Table 8．－Summary of statistics of public and private day schools for the deaf，189\％－98．
PUBLIC DAY SCHOOLS．

| States． | $\begin{aligned} & \text { Number of institu- } \\ & \text { tions. } \end{aligned}$ | Instructors． |  |  |  |  |  | Pupils． |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $$ |  |  |  |  | $\begin{aligned} & \text { 荘 } \\ & \text { 苟 } \\ & \text { En } \end{aligned}$ | $\begin{aligned} & \text { ت⿹\zh26灬 } \\ & \text { تٌ } \end{aligned}$ |  |  |  |  |  |  |
| 1 | ® | ：3 | 4 | 5 | 6 | 7 | 8 | （1） | 10 | 11 | 18 | 189 | 14 | 15 | 16 | 18 |
| Total ． | 29 | 0 | 68 | 74 | 59 | 26 | 59. | 317 | 246 | 563 | 116 | 406 | 23 | 36 | 9 | \＄41， 675 |
| California $a$ ．． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Illinois． | 12 | 1 | 20 | 23 | 19 | 16 | 14 | 104 | 77 | 181 | 60 | 111 | 0 |  |  |  |
| Indiana．．．．．．．． | 1 | 1 | ${ }_{15}^{0}$ | ${ }_{1}^{16}$ | 12 | 0 | 40 | ${ }_{6}^{8}$ | ${ }_{6}^{6}$ | 14 | 3 | ${ }_{121}^{0}$ | 11 | 0 | 4 | 21， 840 |
| Michigan | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 5 | 5 | 10 | 0 | 10 | 0 | 0 | 0 | 21， 810 |
| Missouri． | 1 | 1 | 3 | 4 | 1 | 0 | 0 | 28 | 19 | 47 | 47 | （） | 0 | 0 | 0 |  |
| Ohio | 4 | 0 | 10 | 10 | 9 | 4 | 0 | 51 | 28 | 79 | 6 | 53 | 12 | 25 | 0 | 5，945 |
| Wisconsin | 8 | 0 | 19 | 19 | 17 | 5 | 5 | 61 | 50 | 111 | 0 | 111 | 0 | 1 i | 5 | 13， 890 |

PRIVATE DAT SCHOOLS．

a School recently established．

Table 9.-Statistics of Slate institutions for the deaf, 189\%-98-Continned.

|  | Post-office. | Name. | Executive officer. | Instructors. |  |  |  |  | Pupils. |  |  |  |  |  |  |  |  |  |  | Expenditures. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\underset{\underset{\sim}{\Xi}}{\stackrel{\circ}{\Xi}}$ |  |  |  |  | $\stackrel{\dot{5}}{\underset{\sim}{x}}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1 |  | 3 | 4 | 5 | 4 | 7 | S | (1) | 19 | 11 | $1{ }^{18}$ | 13 | 1.4 | 15 | 16 | 17 | 13 | 19 | 20 | 91 |
| 16 | Portland, Me | Maine School for the Deaf | Elizabeth R. Tay- |  |  |  |  | 3 | 39 | 34 | 65 | 0 | 8 | 10 | 0 | 600 | \$200 |  | \$30, 000 |  | \$14, 000 |
| 17 | Baltimore, Md | Marvland School for the Colored Blind and Deaf. | lor. <br> Frederick D. Morrison. | 4 |  | 1 |  | 3 | 20 | 15 | 11 | 24 |  | 0 | 1 | 100 |  |  | 35, 000 |  | 10,645 |
| 18 | Frederick, Md | Maryland School for the Deaf and Dumb. | Charles W. Ely ... |  |  |  |  | 5 | 54 | 41 |  |  | 41 | 14 | 1 | 2, 933 | 280 | \$780 | 255, 000 |  | 26, 614 |
| 19 | Beverly, Mass | New England Industrial School for Deaf-Mutes. | Nellie H. Swett |  |  |  |  |  | 18 | 12 | 17 |  | 11 |  |  | 300 |  |  | 15, 000 |  | 4,000 |
| 20 | Northampton, Mass | Clarke School for the Deaf....... | Caroline A. Yale.. |  |  | 18 | 18 | 5 | 84 | 74 | 0 | 158 | 0 | 0 | 8 | 2,266 | 60-287 |  | 150, 000 |  | 43,756 |
| 21 | Flint, Mich ........ | Michigan School for the Deaf | Francis D. Clarke. | 10 | 29 | 10 | 0 | 8 | 214 | 198 | 412 | 0 | 251 | , | 10 | 3, 657 | 175 | 450 | 433, 755 | \$14, 854 | 76,796 |
| 22 | Faribanlt, Minn | Minnesota School for the Deaf... | James N. Tate.... |  | 12 |  |  | 5 | 137 | 95 | 22 | 53 | 157 | 44 | 13 | 1,761 |  | 50 | 271,625 |  | 45,455 16,000 |
| 23 | Jackson, Miss . | Institution for the Education of the Deaf and Dumb. | J. R. Dobyns |  |  |  |  |  | 60 | 54 |  |  |  | 18 | , | 600 |  |  | 90, 000 | 15, 000 | 16,000 |
| 24 | Fulton, Mo | Missouri School for the Deaf..... | Noble B. McKee .. | 14 |  | 5 |  | 7 | 236 | 171 |  | 57 | 350 |  | 7 | 2,000 | 185 | 200 | 360, 000 | 12, 000 | 103, 383 |
| 25 | Boulder, Mont | Montana Deaf and Dumb Asylum. | E. S. Tillinghurst. |  |  |  |  |  | 14 | 11 | 25 | 0 | 25 | 0 | 0 | 100 | 234 | 150 | 50, 000 |  | 5,82t |
| 26 | Omaha, Nebr | Institution for the Deaf and Dumb. | Henry E. Dawes.. |  |  | 8 |  |  | 97 | 63 |  | 96 | 65 | 22 | 10 | 1,400 | 170 | 200 | 120, 000 |  | 27, 100 |
| 27 | Trenton, N.J. | New Jersey School for DeafMutes. | Weston Jenkins .. | 4 | 10 | 4 |  | 5 | 79 | 70 |  |  |  | 45 |  | 2, 000 | 304 |  | 150, 000 | 5,000 | 40, 000 |
| 28 | Santa Fe, N. Mex . . | New Mexico School for the Deaf and the Blind. | Lars M. Larson. |  |  |  |  |  | 7 |  |  |  |  |  |  | 280 |  |  |  |  |  |
| 29 | Albany, N. Y ...... | Albany Home School for the Oral Instruction of the Deaif. | Mary MicGuire. |  |  |  |  |  |  |  |  |  | 0 |  |  | 34 | 200 |  | 10, 000 |  | 3,593 |
| 30 | Buffalo, N. Y. | Le Conteulx St. Mary's Institufor the Improved Instruction of Deaf-Mates. | Sister Mary Anne Burke. | 2 |  | 12 |  |  | 85 | 83 | 145 | ${ }^{9}$ | 14 | 74 | 16 | 744 | 254 |  | 234, 000 | 45,318 | 32, 118 |
| 31 | Fordham, N. Y .... | St. Joseph's Institute for the Im. proved Instruction of DeafMutes. | $\begin{aligned} & \text { Miss Ellen A. } \\ & \text { Coughlan. } \end{aligned}$ |  |  | 30 |  | $12$ | 203 | 172 | 0 | 375 | 10 | 89 | 2 | 1,900 | 275 |  | 512, 239 | 4, 023 | 98,008 |


Table 10.-Statistics of public day schools for the deaf, 1897-98.

|  | Post-office. | Name. | Executive officer. | Instructors. |  |  |  |  | Pupils. |  |  |  |  |  |  |  |  |  |  | Expenditures. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\frac{\dot{\Phi}}{\stackrel{\oplus}{4}}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 且 | 2 | 8 | 4 | 5 | (1) | ' 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 1.5 | 16 | 18 | 19 | 19 | 20 | 21 |
| 1 | Los Angeles, Cal.. | Los Angeles Oral School for the |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | Chicago, Ill......... | Burr Public Day School for the Deat | Mary McCowan.. |  | 2 | 1 | ... | 1 |  | 1 |  | 6 |  |  |  |  |  |  |  |  |  |
| 3 | .do | Froebel Public Day School for the Deaf. | do |  | 2 | 1 |  | 1 | 5 | 1 |  | 6 |  |  |  |  |  |  |  |  |  |
| 4 | . $d$ do | Darwin Public Day School for the Deaf. | do | 0 | 1 | 1 | 1 | 1 | 6 | 4 | 0 | 10 | 0 |  |  |  |  |  |  |  |  |
| 5 | .do | Hartigan Public Day School for the Deaf. | .do | 0 | 1 | 1 | 1 | 1 | 8 | 3 | 11 | 0 | 0 |  |  |  |  |  |  |  |  |
| 6 | .do | Kozminski Public Day School for the Deaf. | do | 0 | 1 | 1 | 1 | 1 | 8 | 3 | 0 | 11 | 0 |  |  |  |  |  |  |  |  |
| 7 | do | Lyman Trumball Public Day School for the Deaf. | do | 0 | 2 | 2 | 2 | 2 | 8 | 10 | 0 | 18 | 0 |  |  |  |  |  |  |  |  |
| 8 | . ${ }^{\text {do }}$ | Monroe Public Day School for the Deaf. | do | 2 | 2 | 3 | . ${ }^{3}$ |  | 18 | 10 | 28 | 0 | 0 |  |  |  |  |  |  |  |  |
| 9 | . ${ }^{\text {do }}$ | Prescott Public Day School for the Deaf. | . .do | 0 | 1 | 1 | 1 | 1 | 5 | 3 | 8 | 0 | 0 |  |  |  |  |  |  |  |  |
| 10 | . .do | Seward Public Day School for the Deaf. | .do | 0 | 1 | 1 | 1 | 1 | 2 | 5 | 0 | 7 | 0 |  |  |  |  |  |  |  |  |
| 11 | ....do | Wicker Park Public Day School for the Deaf. | .do | 1 | 1 | 1 | 1 | 5 | 7 | 6 | 13 | 0 | 0 |  |  |  |  |  |  |  |  |
| 12 | ...do .............. | Fale Public Day School for the Deaf. | .do | 0 | 5 | 5 | 5 | 5 | 26 | 27 | 0 | 53 | 0 |  |  |  |  |  |  |  |  |
| 13 | La Salle, Ill........ | La Salle Day School for the Deaf. | Miss Katharine Grimes. | 0 | 1 | 1 |  |  | 6 | 4 |  |  |  |  |  |  |  |  |  |  |  |
| 14 | Evansville, Ind.... | Day School for the Deaf.......... | Paul Lange....... | 1 | 0 |  |  |  | 8 | ${ }^{6}$ | 3 | 0 | 11 | 0 |  |  |  |  |  |  |  |
| 15 | Boston, Mass ...... | The Horace Mann School for the Deaf. | Miss Sarah Fuller. | 1 | 15 | 12 | 0 | 4 | 60 | 61 | 0 | 121 | 0 |  | 4 | , 028 | \$200 |  | 98, 000 | \$1, 584 | \$20, 256 |


Table 11.-Statistics of private schools for the deaf, 1897-98.

|  |  |  |  |  | Ins | truet | ors. |  |  |  |  | Pupi |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Post-office. | Name. | Executive officer. | 先 | - |  | Aural derelopment |  | $\stackrel{\dot{8}}{\stackrel{\text { sin}}{4}}$ | 岺 | Taught by combined system. | $\begin{gathered} \text { Taught by purely oral } \\ \text { method. } \end{gathered}$ | Taught by manual |  |  |
|  | 1 | 2 | \% | 4 | 5 | 6 | 19 | 6 | b | 10 | 11 | 13 | 13 | 14 | 15 |
| 1 | Oakland, Cal.....-.-..... |  | Miss Charlotte L. Morgan. |  | 2 | 1 | -. | 1 | 2 | 2 |  | 4 |  |  |  |
| 2 | San Francisco, Cal. | San Francisco School for the Deaf.......................... | A. N. Holden .... | 1 |  |  |  |  | 3 | 2 |  | 5 |  |  |  |
| 3 | North Temescal, Cal.... | St. Joseph's School and Homo for Deaf-Mutes .-......... | Sister M. Valeria ..... |  | 3 | 1 |  | 2 | 6 | 20 | 23 | $\stackrel{2}{5}$ |  |  |  |
| 4 | Chicago (4725 St. Lawrence ave.), Ill. | Chicago Kimdergarten Home for Deaf.......-................ | Charlotte L. Morgan.. |  | 3 | . |  | $\cdots$ | 4 | 1 |  | 5 |  | 5 |  |
| 5 | Chicago ( 409 S. May st.), III. |  | Miss Margaret Cos. grove. |  | 11 | 4 |  | 4 | 65 | 52 | 117 |  |  |  |  |
| 6 | Chicago (6550 Yaleare.), <br> Ill. | The McCowen Oral School for Young Deaf Children.... | Miss Emma Firth .... | 0 | 5 | 5 | 5 | 5 | 20 | 10 | 0 | 30 | 0 | 20 |  |
| 7 | Dubuque, Iowa.......... | Eastern Iowe School for the Deaf.. | De Coursey French... | 1 | 0 | 0 | 0 | ${ }_{0}$ | $\stackrel{2}{2}$ | 3 | ${ }_{0}^{0}$ | 0 0 | 5 | 0 | 0 |
| 8 | Chinchuba, La........... | Deaf-Mute Institute of the Boly Rosary................... | Very Rev. Canon H. C. Mignot. | 3 | 5 | 3 | . | ( | 32 | 17 | 24 | 0 | 24 |  |  |
| 9 | Baltimore, Md........... | The F. Knapp Institute........................................ | William A. Knapp.... | 0 | $\stackrel{2}{9}$ | 3 |  |  | 20 | 12 |  | 32 |  |  |  |
| 10 | West Medford, Mass ... | The Sarah Fuller Home for Little Children who can not Hear. | Eliza L. Clark ......... | 0 | 2 | 1 | 0 | 0 | 8 | 3 | 0 | 11 | 0 | 10 | 1 |
| 11 | North Detroit, Mich.... | German Evangelical Lutheran Deaf and Dumb Institute. | D. H. Ullig -........... | 3 | 1 | 3 |  |  | 20 | 19 | 39 |  |  | 0 |  |
| 12 | St. Louis (1849 Cass ave.), Mo. | Maria Consilia School for the Deaf.......................... | Sister M. Adele....... |  | 6 | 2 | 2 | 3 | 6 | 42 | 34 | 7 | 37 |  |  |
| 13 | St. Louis (Longwood Place), Mo. | St. Joseph's Deaf-Mute Institute............................... | Rev. Mother Agatha.. | 1 | 3 | 1 | 1 | 1 | 18 | 0 | 9 | 1 | 8 | 0 | 0 |
| 14 | Omaha, Nebr ............ | Gillespie School for the Deaf....-- --..-...................... | J. A. Gillespie ........ | 2 | 3 | 3 | 2 | 2 | 5 | 5 | 0 |  | 8 | 6 | 0 0 |
| 15 | Santa Fe, N. Mex ....... | Mr. Larson's School for the Deaf. .-........................... | Lars M. Larson ........ | 1. | 0 | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 8 | 0 | 0 |
| 16 | $\begin{aligned} & \text { New York ( } 42 \text { W. } 76 \text { th } \\ & \text { st.), N. Y. } \end{aligned}$ | The Wright-Humason School ................................. | Thos. A. Humason.... | 3 | 7 | 10 | 6 | - | 8 | 15 | 0 | 23 | 0 |  |  |
| 17 | Cincinnati (E. 6th st.), Ohio. | Notre Damo School for the Deaf............................... | Sister Mary of the Sacred Heart. |  | 3 | 2 | $\cdots$ | 1 | 8 | 5 |  | 10 |  |  |  |
| 18 | Byron, Okla --...-.-.-. | Western Oklahoma School for the Deaf | Ellsworth Long ...... | 4 | 4 | 2 | 0 | 5 | 16 | 20 | 23 | 8 | 0 | 0 |  |
| 19 | S | St. Jonn's Catnolic Dear-Mute institute | Rev. M. A. Gereud...- | 4 | 4 |  | 0 | 5 | 16 | 20 | 23 |  |  | 0 |  |

Table 12．－Summary of statistics of public and private schools for the feeble－ minded，189＂－98．

PUBLIC INSTITUTIONS．

| State． | Number ofinstitutions． | Instructors． |  |  |  |  | Pupils． |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{aligned} & \text { ت゙ } \\ & \text { O } \\ & \text { O } \end{aligned}$ | $\begin{aligned} & \text { Industrial depart- } \\ & \text { ment. } \end{aligned}$ |  |  |  | $\begin{aligned} & \text { ت゙ } \\ & \text { O } \\ & \text { - } \end{aligned}$ |  | $\begin{aligned} & \text { 总 } \\ & \text { 芢 } \end{aligned}$ |  |  |
| 1 | 2 | \＄3 | 4 | 5 | 6 | 17 | 8 | 9 | （1） | 11 |  | 11：3 | 䙹 4 |
| Total． | 19 | 45 | 168 | 213 | 135 | 556 | 4，581 | 4，282 | 8，866 | 815 | 1，590 | \＄4，922， 537 | \＄1，414， 451 |
| Massachusetts | 1 | 5 | 9 | 14 | 6 | 87 | 392 | 255 | 617 | 193 | 110 | 343， 600 | 76，234 |
| New York． | 3 | 1 | 16 | 17 | 21 | 77 | 402 | 950 | 1，352 | 114 | 183 | 587， 053 | 155， 523 |
| New Jersey | 2 | 7 | 14 | 21 | 7 | 45 | 161 | 176 | 337 | 53 | 254 | 225， 000 | 75， 387 |
| Pennsylvania | 1 | 2 | 19 | 21 | 17 | 103 | 572 | 408 | 980 | 60 | 36 | 565， 000 | 162， 709 |
| Kentucky． | 1 | 1 | 5 | 6 | 2 | 5 | 70 | 65 | 135 | 0 | 0 | 100， 000 | 25， 000 |
| Ohio | 1 | 2 | 25 | 27 | 10 | 52 | 660 | 436 | 1，096 |  | 309 | 705， 870 | 143， 231 |
| Indiana | 1 | 14 | 12 | 26 | 18 | 26 | 306 | 295 | 601 | 45 | 318 | 330， 000 | 77， 000 |
| Illinois． | 1 | 1 | 10 | 11 | 5 |  | 390 | 335 | 795 | 75 | 20 | 350， 000 | 130，000 |
| Michigan | 1 |  | 5 | 5 | 4 | 10 | 100 | 100 | 200 | 20 | 7 | 93， 100 | 69， 760 |
| Minnesota | 1 | 2 | 10 | 12 | 3 | 40 | 373 | 309 | 682 | 43 | 70 | 399， 829 | 129， 145 |
| Iowa． | 1 | 7 | 19 | 26 | 13 | 36 | 474 | 342 | 816 | 40 | 105 | 315， 915 | 123， 104 |
| Nebraska | 1 | 1 | 7 | 8 | 2 | 10 | 112 | 104 | 216 | 10 | 55 | 150， 000 | 25， 000 |
| Kansas．． | 1 | 0 | 3 | 3 | 0 | 9 | 68 | 48 | 116 | 30 | 0 | 61， 470 | 22， 358 |
| Washington | 1 | 0 | 2 | 2 | 3 | 4 | 28 | 27 | 55 |  | 44 | 25， 000 |  |
| California．． | 1 | 2 | 6 | 8 | 14 | 18 | 285 | 255 | 540 | 100 | 37 | 500,000 | 80，000 |
| Wisconsin | 1 | 0 | 6 | 6 | 10 | 34 | 191 | 177 | 368 | 32 | 42 | 170， 700 | 120，000 |

PRIVATE INSTITUTIONS．



Table 14.—Statistics of private schools for the feeble-minded, 189\%-9S.

|  | Post-office. | Name. | Executive officer. | Instructors. |  |  |  | Pupils. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\frac{\stackrel{9}{3}}{\frac{9}{7}}$ |  |  |  | $\frac{\dot{3}}{\underline{\Xi}}$ |  | Kindergarten. | 总 |
|  | 1 | 9 | 3 | 4 | 5 | 6 | 7 | 3 | 9 | 10 | 118 |
| 1 | Lakeville, Conn... | Connecticut School | Geo. W. Knight, M. D |  | 3 | $\ldots$ | 13 | 111 | 70 | 68 | 53 |
| 2 | Godirey, Ill. | Home and School for Nervons and Deli. cate Children. | Wm. H. Smith, M. D - | 0 | 1 | 0 | 4 | 4 | 2 | 5 | 0 |
| 3 | Ellicott City, Md. | Font Fill Institution for Feeble-Minded and Epileptic children. | Samuel J. Fort, M. D. |  | 1 | 3 | $\cdots$ | 21 | 6 | 9 | 13 |
| 4 | Amherst, Mass ... | Home School for Nervous and Delicate Children. | Mrs. W. D. Herrick.. | 1 | 3 | 2 | 3 | 7 | 2 |  |  |
| 5 | Barre, Mass | Private Institution for the Education of Feeble-Minded Youth. | Catherine W. Brown. | 1 | 5 | 18 | 14 | 30 | 9 | 12 | 16 |
| 6 |  | Emmanuel School.... | M. A.F. I. Green . . . . |  |  | 5 |  | 3 | 4 | 4 | 3 |
| 7 | Kalamazoo, Mich. | Wilbur Home and school for the Fee-ble-Minded. | C. T. Wilbur, M. D... | 3 | 6 | 9 | 9 | 15 | 15 | 12 | 30 |
| 8 | Cranbury, N.J. | Private Home and School for Enfeebled and Undeveloped Minds.* | Rev. C. F. Garrison .. | 2 | 5 | 4 | 3 | 9 | 8 | 4 | 0 |
| 9 | Haddonfield, N.J. | Haddonfield Training School. | Margaret Bancroft... | 0 | 9 | 3 | 8 | 6 | 13 | 3 | 19 |
| 10 | Orange, N.J ...... | Seguin Physiological School for Children of Arrested Miental Developmeut. | Mrs. Elsie M. Seguin. | 0 | 14 | 1 | 4 | 10 | 15 | 11 | 25 |

[^135]
## CHAPTER LII.

## REFORM SCHOOLS.

In the 87 reform schools represented in the Annual Report for 1897-98, there were 518 instructors and 23,501 pupils in the school departments and 18,080 pupils in the industrial departments. The total number of inmates was 25,308 . The value of grounds and buildings was $\$ 18,631,117$; the expenditures on buildings and grounds amounted to $\$ 569,555$, and for support $\$ 3,546,767$, making a total expenditure of $\$ 1,116,322$. The number of assistants, not including instructors in the school departments, was 1,861 . There were 19,771 white inmates and 3,267 colored inmates. There were reported 8,033 inmates of native parents and 5,771 of foreign-born parents. When admitted 2,718 could read only, and 2,370 could neither read nor write. The number committed to the institutions during the year was 12,773 , and the number discharged was 12,003 . When discharged from the schools all could read and write and a large number had received the equivalent of a common-school education.

The North Atlantic Division reports 35 schools, 240 instractors, 11,301 pupils in the school departments, and 8,501 in the industrial departments. The number of inmates reported was 11,595 , of which number 9,754 were males and 1,841 females. The value of grounds and buildings was $\$ 9,430,916$. The expenditures on grounds and buildings amounted to $\$ 139,627$, for support $\$ 1,814,281$, making a total expenditure of $\$ 1,953,902$. The number of assistants, not including the teachers in the school departments, was 820 .

The South Atlantic Division reports 12 schools, 54 instructors, 1,945 pupils in the school departments, and 1,185 in the industrial departments. Of the 1,955 inmates reported in the institutions, 1,730 were males and 225 females. The total value of grounds and buildings was $\$ 1,458,297$. The amount expended for buildings and improvements was $\$ 41,916$, and for support $\$ 210,891$, making a total expenditure of $\$ 252,807$. The number of assistants, not including teachers in the school departments, was 141.

The South Central Division reports 5 schools, 24 teachers, and 1,336 pupils in the school departments. The value of grounds and buildings was $\$ 497,000$. The total anount expended was $\$ 154,285$, for buildings and improvements $\$ 22,208$, and for support $\$ 132,077$. The total number of assistants, not including the teachers in the school departments, was 5 .

The North Central Division reports 28 schools, 258 instructors, and 8,375 pupils in the school departments. The total number of inmates reported was 9,552 , of which number 6,992 were males and 2,560 females. The value of grounds and buildings was $\$ 6,599,264$. The amount expended was $\$ 1,588,705$, for buildings and improvements $\$ 352,387$, and for support $\$ 1,236,318$. The number of assistants, not including teachers in the school departments, was 724.

The Western Division reports 7 schools, 12 instructors, 574 pupils in the school departments, and 574 in the industrial departments. The total number of inmates was 574 -males 524 , and females 50 . The value of grounds and buildings was $\$ 654,670$. The amount expended was $\$ 163,623$, for buildings and improvements $\$ 13,423$, and for support $\$ 153,200$. The number of assistants in caring for inmates, not including teachers in the school departments, was 96 .

TAble 1．－Summary of statistics of reform schools，1897－98．

| States and Territories． |  |  |  |  | Inmates． |  |  |  | Expenditures． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 淢 |  | 彩 | $\begin{aligned} & \text { ज⿹\zh26灬 } \\ & \text { से } \end{aligned}$ |  |  |  |
| 1 | 13 | ：3 |  | 4 | 5 | 6 | 7 | 8 | 9 | 10 | $1{ }^{1}$ |
| United States | 87 | 518 | 23，531 | 18， 080 | 20， 092 | 5，216 | 25，308 | \＄18，631， 147 | \＄569， 555 | \＄3，546， 767 |
| North Atlantic Division． | 35 | 240 | 11， 301 | 8， 504 | 9， 754 | 1，841 | 11，595 | 9，430，916 | 139， 621 | 1，814， 281 |
| South Atlantic Division． | 12 | 54 | 1，945 | 1，185 | 1，730 | 225 | 1，955 | 1，458，297 | 41，916 | 210， 891 |
| South Central Division．－ | 5 | 24 | 1，336 | 1， 010 | 1， 092 | 540 | 1，632 | 497， 600 | 22， 208 | 132， 077 |
| North Central Division．． | 28 | 258 | 8，375 | 8， 375 | 6， 992 | 2，560 | 9， 53.2 | 6，599， 264 | 352， 387 | 1，236， 318 |
| Western Division．． | 7 | 12 | 574 | 574 | 524 | 50 | 574 | 654， 670 | 13， 123 | 153， 200 |
| North Atlantic Division ： |  |  |  |  |  |  |  |  |  |  |
| Miaine | 2 | 7 | 216 | 216 | 144 | 72 | 216 | 160， 000 | 14，000 | 88，952 |
| New Ham | 1 | 3 | 128 | 128 | 107 | 21 | 128 | 100，000 | 18， 000 | 55， 030 |
| Verment | 1 | 3 | 102 | 62 | 85 | 23 | 107 | 50， 000 |  | 15， 000 |
| Massachusett | al1 | 30 | 831 | 653 | 670 | 161 | 831 | 510， 065 | 16，796 | 173，156 |
| Rhode Island | 2 | 10 | 419 | 119 | 369 | 50 | 419 | 223， 700 |  | 56， 420 |
| Connecticut | 2 | 17 | 687 | 645 | 440 | 247 | 687 | 600， 000 |  | 123，278 |
| New York． | 69 | 137 | 6， 122 | 5，002 | 5，485 | 786 | 6， 271 | 4，479， 878 | 64， 540 | 804， 942 |
| New Jersey | ， | 6 | 642 | 808 | 620 | 162 | 782 | 484， 877 | 15，070 | 120，478 |
| Pennsylvani | 4 | 27 | 2， 154 | 1，371 | 1，831 | 320 | 2， 151 | 2，822， 396 | 11， 215 | 427，055 |
| South Atlantic Division ： |  |  |  |  |  |  |  |  |  |  |
| Delaware | 3 | 10 | 133 | 101 | 111 | 26 | 137 | 150．400 |  | 10，081 |
| Maryland | 5 | 28 | 1，190 | 822 | 995 | 199 | 1，194 | 985， 000 | 31， 816 | 121， 332 |
| District of Columbi | 1 | 8 | 248 | 80 | 248 | 0 | 248 | 250， 000 |  | 41， 825 |
| Virginia． | 1 | 4 | 163 |  | 163 | 0 | 163 | 25． 897 | ${ }^{0}$ | 16，895 |
| West Virginia | 1 | 3 | 180 | 182 | 182 | 0 | 182 | 35，v00 | 7，070 | 17，665 |
| North Carolina |  |  |  |  |  |  |  |  |  |  |
| South Carolin Georgia．．．．． |  |  |  |  |  |  |  |  |  |  |
| Georgia． <br> Florida． | 1 | 1 | 31 | 0 | 31 | 0 | 31 | 14，000 |  | 3， 100 |
| South Central Division： |  |  |  |  |  |  |  |  |  |  |
| Kentucky | 2 | 11 | 464 | 289 | 320 | 351 | 671 | 460， 000 | 8，000 | 50， 000 |
| Tennesseo | 1 | 10 | 701 | 701 | 512 | 189 | 701 |  | 13，708 | 64， 659 |
| Alabama |  |  |  |  |  |  |  |  |  |  |
| Mississipp |  |  |  |  |  |  |  |  |  |  |
| Louisiana | 1 | 1 | 103 | 0 | 109 | 0 | 109 | 47，000 |  | 7，497 |
| Texas ．．． | 1 | 2 | 63 | 20 | 151 | 0 | 151 | 50，000 | 500 | 9，921 |
| Arkansas |  |  |  |  |  |  |  |  |  |  |
| Oklahoma－．．．．．． |  |  |  |  |  |  |  |  |  |  |
| Indian Territory |  |  |  |  |  |  |  |  |  |  |
| North Central Division： |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Ohio... } \\ & \text { Indiana. } \end{aligned}$ | ${ }_{2}^{3}$ | 39 8 8 | 1， 642 | 1， 017 | 1， 169 | 473 277 | 1，642 | 1，377， 050 | 66,619 1,561 | 203， 930 |
| Illinois | 5 | 32 | 1.592 | 1，664 | 1，748 | 336 | 2， 043 | 1， 575,000 | 156，000 | 239，098 |
| Michigan | 4 | 79 | 1，231 | 897 | 1，078 | 662 | 1，740 | 1，870， 880 | 14， 311 | 170， 070 |
| Wisconsin | 2 | 16 | 562 | 562 | 319 | 243 | 562 | 278， 760 | 12， 820 | 84， 951 |
| Minnes | 2 | 23 | 473 | 489 | 442 | 47 | 489 | 662， 574 | 44，000 | 103， 300 |
| Iowa．． | 2 | 14 | 667 | 667 | 573 | 164 | 737 | 270， 000 | 8，000 | 81， 866 |
| Missouri | 3 | 16 | 812 | 430 | 672 | 153 | 825 | 460， 600 | 23， 082 | 122， 292 |
| North Dakota |  |  |  |  |  |  |  |  |  |  |
| Nouth Dakota | 1 | ${ }^{6}$ | 107 220 | 107 |  | 22 | 107 | 75， 000 | 500 | 17， 000 |
| Kansas． | ${ }_{2}^{2}$ | 15 | 320 | ${ }_{331}^{150}$ | ${ }_{220}^{118}$ | 111 | 220 331 | 215，009 | ¢，496 18,998 | 74,508 32,804 |
| Western Division：${ }_{\text {W }}$ |  |  |  |  |  |  |  |  |  |  |
| Montana． <br> Wyomíng | 1 | 2 | 61 | 0 | 49 | 12 | 61 | 50， 000 | 2， 500 | 16，875 |
| Colorado． | 1 | 2 | 122 | 52 | 122 | 0 | 122 | 111，700 | 6， 032 | 38， 787 |
| New Mexico Arizona |  |  |  |  |  |  |  |  |  |  |
| Arizona |  |  |  |  |  |  |  |  |  |  |
| Nerada |  |  |  |  |  |  |  |  |  |  |
| raho |  |  |  |  |  |  |  |  |  |  |
| Washing | 1 | 3 | 148 | 148 | 110 | 38 | 148 | 83， 000 |  | 20， 000 |
| Oregon | 1 | 2 | 102 |  | 102 | 0 | 102 | 200， 000 |  | 18， 000 |
| Califor | 2 | 3 | 141 | 129 | 141 | 0 | 141 | 200， 970 | 4，891 | 59，538 |

TABLE 2.-Summary of statistics of reform schools, 1897-9S.


Table 3.-Statistics of reform

|  | Post-oftice. | Name. | Executive officer. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | $6^{6}$ | 8 | 4 |
| 1 | Whittier, Cal | City and County Industrial | No repo |  |
|  | Waterman, C | Preston Sehool of Industry | D. S. He | 35 |
| 3 | Golden, Colo | State Industrial School for Boy | E. L. Olds. | 17 |
| 4 | Meriden, Conu | Connecticut School for Boys... | Chas. M. Williau | 45 |
| 5 | Middletown, Con | Connectient Industrial School for Girls.. | W. G. Fairbank. | 39 |
| 6 | Clayton, Del . | St. Joseph's Industrial Sehool for Boys.. | Rev.L.J.Welbers.... | 8 |
| 7 | Marshallton, Del | Ferris Industrial School................... | H. E. Haines ........... | 8 |
| 8 | Whlmington, Del | Delaware Industrial School for Girls..... | Mrs. L. E. Brown .-. - | 2 |
| 9 | Washington, D. C....... | Reform School of the District of Columbia. | G. A. Shallenberger... | 40 |
| 10 | Augusta, Ga............ | Richmond County Reformatory Institute. * | Henry Miller .......... | 2 |
| 11 | Chieago | Erring Woman s Refuge of Reform ....... | Helen M. Woods | 9 |
| 12 |  | John Worthy Manual Training School... | Robert M. Smith | 7 |
| 13 | Glenwood, Ill . - - . . . . . . | Illinois School of A griculture and Manual Training for boys. | O. L. Dudley | 83 |
| 14 | Pontiac, Ill | Illinors state Reformatory .-............... |  |  |
| 15 | South Evanston | Illinois Industrial School for Girls | Miss K. S. Mills. |  |
| 16 | Indianapolis, Ind | The Indiana Reform School for Girls..... |  | 16 |
| 7 | Plainfield, Ind | Indiana Reform School for Boys.....-. .-. | T.J. Charlton.......... | 33 |
| 18 | Eldora, Iowa. | Iowa Industrial School....................... | B.J. Miles ............- | 38 |
| 19 | Mitchellville, Iowa | Iowa Industrial School, gicls'department. | A. H. Leonard......... | 19 |
| 20 | Beloit, Kans .-.......... | State Industrial School for Girls.......... | Phoebe J. Barr......... |  |
| 21 | North Topeka, Kans... | Stato Industrial School for Boys .......... | J. M. Hart .-. . . - . - - - - | 32 |
| 22 | Louisville, Ky .......... | Industrial School of Reform.. | P. Caldwell............ | 35 |
| 23 | Newport, Ку ........... | Convent of the Good Shepherd............ | Mother of St. Seholas. tic. | 19 |
| 22 | New Orleans, La....... | Boys' Feform Sehoo | M. T. Mokler | 6 |
| 25 | Hallowell, Me........... | Maine Industrial Sch | Miss Helen M. Staples | 7 |
| 26 | Portland, Me | State Reform School | Edwin P. Wentworth. | 1 |
| 27 | Baltimoce, M | House of Refuge | Robert J. Kirkwood .- | 25 |
| 28 | Do | Female Honso of Refuge | Miss Martha D. Stuart | 7 |
| 29 | Baltimore (Sta. D), Md. | St. Mary's Industrial School for Boys...- | Brother Dominic ..... | 20 |
| ) | Cheltonham, Md....... | House of Reformation for Colored Boys.. | Nathan Thompson.... | 21 |
| 31 | Melvale, Md ........... | Industrial Homo for Colored Girls....... | Mrs. H. F.Whittemore | 4 |
| 32 | Rainsford Island, Boston, Mass. | House of Reformation. | L. D. Perkins | 22 |
| 33 | Goshen, Mass........... | Hampshire and Franklin Counties Tru. aut School. | W. A. Barrus | 1 |
| 4 | Lancaster, Mass ....... | Siate Industrial School for Girls......... | Mrs. L. L. Brackett | 24 |
| , | Lawrence, Mass ........ | Essex County Truant School .-........... | Henry E. Swan | 8 |
| 36 | North Chelmsford, Mass. | Middlesex County Truent School. .-..... | M. A.Warren.. | 12 |
| 37 | Oakdale, Mass .......... | County Truaut School ...................... | No report.-.......... |  |
| 38 | Salem, Mass .. | Plmmer Farm School . ...................... | Charles A.John | 4 |
| 39 | Springtield, Mass .-.... | Hampien County Truant School.-........ | Edwin G. Ward. - | 2 |
| 40 | Walpole, Mass. | Norfolk, Plymouth, and Bristol Union Truant School. | Aaron R. Morse ...... | 8 |
| 41 | Westboro, Mass | Lyman School for Boys .................... | Theodore F. Chapin... | 50 |
| 42 | West Roxbury, Mass | Parental School. | No report. |  |
| 43 | Adrian, Mich.......... | State Industrial Home for Girl | Luey M. Sickles . .-... | 42 |
| 44 | Detroit, Mieh | House of the Good Shepherd............... | Mother Stanislaus.... |  |
| 45 | Ionia, Mich............ | State House of Correction and Reformatory. | Otis Fuller. | 13 |
| 46 | Lansing, Mieh . . | Industrial sehool for Boys................. | J. E. St. John .......... | 50 |
| 47 | Red Wing, Minn | State Training School for Boys and Girls. | J. IV. Brown | 38 |
| 48 | St. Clond, Minn. | Minnesota Stato Reformatory ............. | W. H. Houston . ...... | 33 |
| 49 | Boonville, Mo. | Missouri State Reform School for Boys.. | L. D. Dralze........... | 36 |
| 50 | Chillicothe, Mo | State Industrial Home for Girls.......... | Miss Anna L. Clark . | 11 |
| 51 | St Lonis, Mo. | House of Refuge...- | Wm. C. Noble..-...... | 46 |
| 52 | Miles City, Mont | Montana State Reform School* ........... | Burton C. White...... | 11 |
| 53 | Geneva, Nebr... | Girls' Industrial School........ | B. R. B. W eber. . . . . . . | 13 |
| 5.1 | Kearney, Nebr | State Industrial School for Boys | C. W. Hoxie ........... | 1 |
| 55 | Manchester, N. H. | Industrial School................. | Tom TV. Robinson .... | 16 |
| 56 | Jamesburg, N. J | State Reform School... | Ira Otterson . . . . . . . . . . | 30 |

[^136]sckools, 1897-9S.


TABLE 3.-Staiistics of reform

|  | Post-office. | Name. | Executive oflicer. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 |
|  | Trenton, N. J | State Industrial School for Girls | Mrs. Myrtle B. Eyler. | 12 |
| $\begin{aligned} & 58 \\ & 59 \end{aligned}$ |  | Newark City Home ........ | C. M. Harrison ........ | 28 |
|  | Canaan Eour Corners, | Berksliire Custodial School *.............. | Trancis B. Dubois... | 15 |
|  | Enmira, N. ${ }_{\text {N }}$. | New York State Reformatory | Z. R. Brockw | 35 |
| $\begin{aligned} & 62 \\ & 63 \end{aligned}$ | Hudson, N. F......... | House of Refuge for Women | Mrs. F. O. 4 b | ${ }_{5}^{53}$ |
|  |  | New York duvenile Asylum | C.Lisha M. Carpenter.. | ${ }_{70}^{2}$ |
|  |  |  |  |  |
| 66 |  | St. Vincent Industrial School | $\xrightarrow{\text { F. H. Briggs }}$ Brother Julian | 15 |
| 67 | Westclester, N. Y..... | New York Catholic Protector | Brother Eusebiu |  |
| 68 | Cincinnati, Ohio ....... | Cincinnati House of Refuge | James Allison | ${ }^{41}$ |
| - 6 | Lancaster, Ohio. | Boys' Industrial Sc hool Girls ' $n$ dustrial Home | D. M. Barrett. |  |
| 71 | Tarner, Oreg.. | Girls Industrial Home...... | Albert W- Stiles | 40. |
| 72 | clen Mills, Pa ......... | Pliladelphia Honse of Refuge | F. H. Nibecker. | 1 |
| 73 | Hentingdon, Pa....... | Pennsylvania Induastrial Reformatory.... | T. B. Patton......... | 98 |
| 74 75 | Morganza, Pa.......... | Pennsylvania Reform School .i........... |  | ${ }_{13} 1$ |
| 76 | Howard. R.I.......... | Oaklawn School for Girls............... | James H. Eastma | 4 |
| 77 | Do....... | Sockonossett School for Boy |  | 39 |
| 78 78 | Plankington, S. Dak... | State Reform School | C. W. Ainswort | 16 |
| 80 | Gatesville, Tex. | House of Correction and heformatory. | J. F. Meguire | 20 |
| 81 | Ogden, Utah............ | Reform School ..... |  |  |
| ${ }_{83}^{82}$ | Vergennes, Vt . | Vermont Industrial Schoo | S. A. Andre | 15 |
| 83 | Glen Allen, Va. | Laurel Industrial School. | W. C. Sampson...... |  |
| $\begin{aligned} & 84 \\ & 85 \end{aligned}$ | Cruntytown, W. V a.... | West Virginia Reform School.. | D. W. Shaw |  |
| 86 | Milwaukee, Wis.. | Wisconsin Industrial School for Girls | Emma F. Bland. | 27 |
| 87 | Waukosha, Wis ....... | Wisconsin Industrial School for Boss.... | Chas. O. Merica. | 50 |

* From 1896-97.
schools，1S0～－jS－Continued．

| Pupils． |  |  |  |  |  |  |  |  |  |  |  |  |  | －p！uq <br> 药 <br>  | Expenditures． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Se |  | Rac |  | Nati | ity． |  |  | $\begin{gathered} \mathrm{Dut} \\ \mathrm{ye} \end{gathered}$ | $\begin{aligned} & \text { ing } \\ & \text { r. } \end{aligned}$ |  | Sch | ool． |  |  | $\dot{\square}$ |  |  |
|  |  | 震 |  |  |  |  |  |  |  | Number of teachers． |  |  |  |  |  |  |  |
| 5 | 6 | g | 3 | פ | 目（1） | H1 | 88 | \＄3 | 1 4 | 13 | 18 | 18 | 13 | 19 | 26 | （1） |  |
| ${ }^{0}$ | 119 | 100 | 19 | 77 | 42 |  | 3 | 29 |  | 2 | 119 | 31 ${ }^{2}-6$ | 95 | \＄112， 523 |  | 220，744 | 57 58 |
| 225 | 43 | 258 | 10 |  |  |  |  | 91 | 79 | 4 | 268 | 3－5 |  | 192， 355 | \＄7， 070 | 31， 734 | 58 |
| 47 | 0 | 47 | 0 | 42 | 5 | 47 | 0 | 25 | 22 | 1 | 47 | $3 \frac{1}{2}$ | 47 | 35，000 |  | 16，000 | 60 |
| 1450 | 0 | 1361 | 89 | 580 | 870 | 193 | 114 | 525 | 634 | 26 | 1，450 | 1 | 1000 | 1，459， 971 |  | 218，836 | 61 |
| 0 | 288 | 271 | 17 | 121 | 167 | 50 | 67 | 99 | 105 | 5 | ， 277 | 3 | 60 | 294，449 | 3，056 | 71，595 | 62 |
| 725 | 288 | 910 | 103 | ．．．． | － | 29 | 301 | 1013 | 614 | 27 | 1，013 | 5 | 700 | 900， 000 |  | 130，000 | 63 |
| 592 | 38 | 618 | 72 | 229 | 445 | 0 | 56 | 524 | 612 | 21 | C00 | 4 | 600 | 535， 000 |  | 175，582 | 64 |
| 742 | 112 | 833 | 21 | 424 | 130 | 64 | 47 | 52 | 477 | 24 | 808 | $4 \frac{1}{2}$ | 684 | 529， 308 | 59， 483 | 176， 105 | 65 |
| 214 | 0 | 212 | 2 | ．．．． |  |  |  | 166 | 87 | 4 | 212 | 5 | 196 | 90，000 | 2， 001 | 16，824 | 66 |
| 1715 | 0 |  |  |  |  |  |  | 1029 | 913 | 29 | 1，715 | $4 \frac{1}{2}$ | 1715 | 636， 150 |  |  | 67 |
| 304 | 124 | 318 | 110 | 276 | 179 | 81 | 108 | 455 | 445 | 8 | 428 | 3 | 208 | 400， 000 | 7，818 | 55， 682 | 68 |
| 865 | 0 | 625 | 240 |  |  |  |  |  |  | 22 | 865 | 5 | 460 | 536， 300 | 46，000 | 113， 000 | 69 |
| 0 | 349 | 284 | 65 |  |  |  |  | 84 | 81 | － 9 | 349 | 5 | 349 | 440，750 | 23， 801 | 35， 218 | 70 |
| 102 | 0 | 100 | 2 |  |  |  |  |  |  | 2 | 102 | 4 | － | 200， 000 |  | 18，000 | 71 |
| 809 | 0 | $6 \pm 4$ | 165 | 239 | 211 | 156 | 40 | 450 | 382 | 13 | 809 | 4 | 354 | 900， 000 |  | 150， 000 | 72 |
| 581 | 0 | 494 | 87 | 488 | 93 | 93 | 76 |  |  |  | 581 | 2 | 500 | 1，114，705 | 4，573 | 131， 479 | 73 |
| 444 | 144 | 490 | 98 | 179 | 112 |  | 65 | 291 | 425 | 10 | 588 | 5 | 517 | 607， 641 | 6，642 | 109， 480 | 74 |
| 0 | 176 | 103 | 73 | 81 | 38 | 45 | 21 | 89 | 75 | 4 | 176 | 4 |  | 200， 000 |  | 36， 088 | 75 |
| 0 | 50 | 47 | 3 | 22 | 24 | 6 | 5 | 36 | 21 | 4 | 50 | 7 |  | 23， 700 |  | 6， 171 | 76 |
| 369 | 0 | 333 | 36 | 120 | 249 | 75 | 17 | 239 | 212 | 6 | 369 | 3 | 119 | 200， 000 |  | 50，249 | 77 |
| 85 | 22 | 102 | 5 |  |  | 15 | 10 | 37 | 37 | 6 | 107 | 4 | 107 | 75， 000 | 500 | 17， 000 | 78 |
| 512 | 189 | 648 | 53 |  |  |  |  | 257 | 203 | 10 | 701 | 6 | 701 |  | 13， 708 | 6t， 659 | 79 |
| 151 | 0 | 62 | 89 | 130 | 21 | 24 | 10 | 29 | 40 | 2 | 68 | 83 | 20 | 50，000 | 500 | 9，921 | 80 |
| 85 | 22 | 103 | 4 | 77 | 40 |  | 30 | 60 | 40 | 3 | 102 | 5－7 | 62 | 50， 000 |  | 15，000 | 82 |
| 163 |  | 163 | 0 | 161 | 2 | 11 | 27 | 68 | 72 | 4 | 163 | 3 |  | 25，897 | 0 | 16，895 | 83 |
| 110 | 38 | 145 | 3 | 85 | 63 | 28 | 19 | 77 | 86 | 3 | 148 | 3 | 148 | 83， 000 |  | 20，000 | 84 |
| 182 | 0 | 163 | 19 |  |  |  |  | 83 | 54 | 3 | 180 | $3 \frac{1}{2}$ | 182 | 35,000 | 7，070 | 17， 665 | 85 |
| 14 | 243 | 252 | 5 | 7 | 250 | 64 | 18 | 82 | 99 | 8 | 257 | $4^{2}$ | 257 | 104， 600 | 4，820 | 20，632 | 86 |
| 305 | 0 | 299 | 6 | 68 | 237 | 75 | 30 | 306 | 375 | 8 | 303 | 4 | 305 | 174， 160 | 4，000 | 64，319 | 87 |

## CHAPTER LIII.

PUBLIC AND PRIVATE KINDERGARTENS.

The most difficalt statistical work of this Burean for 1897-98, and the most unsatisfactory in its results, was that of collecting information concerning kindergartens. This applies with special force to private kindergartens. This office obtained from many sources a list of more than 3,500 private kindergartens. When requests for statistics were sent to the individual kindergartens it was learned that at least 500 of them were no longer in existence. Every jear hundreds of these schools are started by young women who have no special training or aptitude for the work. The result is failure for theindividual and more or less discredit for the kindergarten movement in the community.
After repeated requests for information 1,519 private kindergartens reported statistics to this office. Detailed information from 1,479 ot her private kindergartens reportcd as still in existence could not be obtained. The 1,519 kindergartens reporting had 3,232 tcachers and 47,853 pupils. Allowing proportionate numbers of teachers and pupils, it may be estimated that the 1,479 kindergartens not giving statistics had 3,173 teachers and 45,884 pupils. Taking this as a liberal estimate, the 2,998 private kindergartens had 6,405 teachers and 93,737 pupils in 1897-98.

Public kindergartens to the number of 1,365 were maintained in 189 cities in the United States. These kindergartens had 2,532 teachers and 95,867 pupils. The total number of children in public and private kindergartens, according to reports and estimates, was 189,601. (See Table 3 of this chapter, which summarizes the combined statistics of public and private kindergartens.) Estimating for private kindergartens whose location may be unknown to this office, it is not probable that the total number of children in all the kindergartens in the United States in 1897-98 exceoded 200,000.

The growth of the kindergarten movement in the last twenty-îve years may be shown in the following table, which gives the number of public and private kindergartens, the number of teachers, and the number of pupils, as reported to this office for certain ycars beginning with 1873:

| Year. | Kindergartens. | Teachers. | Pupils. | Tear. | Kindergartens. | Teachers. | Pupils. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1873. | 42 | 73 | 1, 252 | 1882. | 348 | 814 | 16,916 |
| 1874. | 55 | 125 | 1,636 | 1884. | 354 | 831 | 17, 002 |
| 1875. | 95 | 216 | 2, 809 | 1885. | 415 | 905 | 18, 832 |
| 1876. | 130 | 364 | 4,090 | 1886 | 417 | 945 | 21, 640 |
| 1877. | 129 | 336 | 3, 931 | 1887. | 544 | 1,256 | 25, 925 |
| 1878. | 159 | 376 | 4,797 | 1888. | 521 | 1,202 | 31, 227 |
| 1879. | 195 | 452 | 7, 554 | 1892. | 1,311 | 2,535 | 65, 296 |
| 1880 | 232 | 524 | 8,871 | 1898. | 2,88t | 5,764 | 143, 720 |
| 1881. | 273 | 676 | 14, 107 |  |  |  |  |

## PUBLIC KINDERGARTENS.

The statistics in the above table prior to 1892 were never complete, even for the public kindergartens. Several cities failed to report for the first few years their experiments with the kindergarten. St. Louis was the first city to incorporate the kindergarten with its public school system. For the year ending June, 1874, there were 68 pupils in the public kindergartens of that city; 271 pupils in 1875; in 1876 there were 1,041 ; in 1877 the number had reached 3,333 ; in 1878 the number was 5,359 , and in 1879 the kindergartens liad 6,202 pupils.

The statistics of public kindergartens are summarized in the first six columns of Table 1 in this chapter. Of the 189 cities supporting kindergartens in connection with their public school systems 94 were in the North Atlantic Division and 68 in the North Central Division. In the first division 31 of the cities are in New York, 27 in Massachusetts, and 15 in Connecticut. In the North Central Division Michigan and Wisconsin each have 17 of the kindergarten cities.

In the 1,365 public kindergartens there were 2,532 teachers-hardly an average of 2 to the school. The 95,867 pupils would give an average of about 38 to the teacher. There were 2,783 more girls than boys in these kindergartens, or 48,542 boys and 49,325 girls.

In 1892 there were 137 cities reporting public kindergartens, as shown in Table 9. These cities had 459 kindergartens, 933 teachers, and 31,659 pupils.
Table 10 gires in detail the statistics of the public kindergartens in the 189 cities in 1898, as summarized in Table 1.

PRIVATE KINDERGARTENS.
The statistics of the 1,519 private kindergartens reporting to this office in 1897-98 are summarized in the last five columns of Table 1. There were 3,232 teachers, or an average of more than 2 to a school. There were 47,853 pupils, or scarcely 15 to a teacher. As already shown, the average number to a teacher in the public kindergartens was about 38 , or 19 for each of the half day sessions.

The number of private kindergartens reporting to this office in 1892 was 852 , with 1,602 teachers and 33,637 pupils, as shown in Table 9 . The statistics of public kindergartens reported the same year will be found in the same table, while the combined statistics of public and private kindergartens for that sear are given in the last three columns of Table 8.

The combined statistics of public and private kindergartens actually reporting for $1897-98$ are summarized in Table 2. The same statistics combined with estimated figures for the 1,479 private kindergartens not reporting are given in Table 3.

Table 4 shows that of the 1,519 private kindergartens reporting 534 were mainly supported by kindergarten associations, 915 by tuition, and 70 by donations. Only 1,011 of the kindergartens reported their expenditures; these had 33,816 pupils and an aggregate expenditure of $\$ 519,252$, or an average of $\$ 15.36$ to the pupil.

Tables 5 to 8 summarize the statistics of public and private kindergartens from 1873 to 1892. These tables are compiled from returns made to this office and do not include estimates of schools not reporting.

Table 10 gives the detailed statistics of public kindergartens in the 189 cities whose returns are summarized in Table 1.

Table 11 is a list of the lindergarten associations reported to this ofice. A very large number of these associations failed to respond to requests from this office for information.

Table 12 is a list of training schools for kindergarten teachers and normal schools maintaining kindergarten training departments. Many of the training schools failed to respond to inquiries.

STATE PROYISION FOR KINDERGARTENS
Kindergartens in connection with the public school systems are authorized by State las in Connecticut, Vermont, New York, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Michigan, Wisconsin, Colorado, Washington, Oregon, California, Arizona, and the District of Columbia. Many cities in other States supportkindergarteus under general municipal powers granted by their charters of incorporation. By such anthority kindergartens are supported in connection with the public school systems of certain cities in Massachusetts, Rhode Island, Maine, New Hampshire, New Jersey, Ceorgia, Kentucky, Alabama, Mississippi, Louisiana, Texas, Minnesota, Missouri, South Dakota, and Nobraska.

The following States assist the kindergarten inovement by maintaining dopartments or classes for the training of kindergartners in the public normal schools: Alabama, California, Colorado, Connecticut, Florida, Indiana, Kansas, Louisiana, Massachusetts, Michigan, Missouri, Nebraska, New Jersey, New York, North CaroIina, Pemnsylvania, Virginia, Washington, and Wisconsin.

In general it may be stated that any city through powers inhcrent in its charter granted by the State may maintain public kindergartens as part of its system of schools, provided such kindergartens are supported wholly by local taxation. In most of the States the age limit for free attendance at the public schools is from 6 to 20, or 6 to 21. Manifestly, kindergartens in these States could not derive support from State school funds, where the children attending were below 6 years of age, without special legislative enactment.
In Massachusetts there is no age limit for free attendance at the pablic schools; in Comecticat the age limit is from 4 to 16 ; in Wisconsin from 4 to 20 , and in Oregon from 4 to 20. It would seem that in these States legislative provision for public kindergartens receiving children 4 years of age and over would be unnecessary.

The public schools of Massachusetts are supported almost wholly by local taxation, and as there is no age limit for free attendance public kindergartens are not provided for in the State law. This State has a larger number of public kindergartens than any other except New York. There are 181 maintained in 27 cities, with 3 3a teachers and 10,977 pupils.
Public kindergartens are permitted by legislative enactment in the State of New York. (See Consolidated School Law of 1898, Title XV, "Miscellaneons provisiou.") Article 9, under the head of "Frce kindergartens," reads as follows:

The school authorities of any union, free, or common school district, located in any county having less than $1,000,000$ inhabitants, may establish and maintain one or more free kindergarten schools. The moneys for the support of such schools shall be raised in like manner as for the support of the other public schools of such district. No child under the age of 4 years shall be admitted to the schools, and the local school authorities are hereby empowered to fix the highest age limit of children who may attend. All teachers employed in these schools shall be licensed in accordance with rules and regulations established by the superintendent of public instruction, and shall each share in the distribution of district quotas. The attendance of children under the age of 5 years who may be enrolled in the schools shall be reported separately and shall be comnted in the distribntion of public money.

In New York 31 cities have 218 public kindergartens, with 371 teachers and 15,817 pupils. Of the entire school revenue of this state the portion derived from local taxation is about 59 per cent, from State taxes 14 per cent, from permanent funds 1 per cent, and from other sources 26 per cent.

The Connecticut State law permits the establishment of public kindergartens for children between the ages of 3 and 7 years. Under this law 15 cities have 57 kindergartens, with 147 teachers and 3,083 pupils. In that State the portion of school revenne derived from local taxation is nearly 80 per cent, from State taxes nearly 11 per cent, from bermanent funds about 5 per cent, and from other sources about 4 per cent.

New Jersey has no State law expressly providing for kindergartens, but local loards liave organized them in 6 cities, where there are 46 kindergartens, with 64 teachers and 3,277 pupils. The State Normal School has a training course for kindergartners, using some of the organized kindergartens as model schools. The schoolage limit in this State is from 5 to 20 . Local taxation provides about 55 per cent of the school fund, State taxes 40 per cent, and permanent funds 5 per cent.

In Rhode Island kindergartens are not provided for by law, but they are maintained by five cities, in which there are 25 kindergartens, with 51 teachers and 1,511 pupils. The minimum age for attendance at the public common schools in this State is 5 years. More than 87 per cent of the entire school revenue of Rhode Island is derived from local taxation.

The Pennsylvania law allows the school directors to establish and maintain out of the pullic-school treasury kindergartens for children from 3 to 6 years of age. Under this provision two cities have 149 kindergartens, with 3,677 pupils. In this state over 59 per cent of the school revenue is derived from local taxes, 26 per cent from State taxes, 15 per cent from other sources.

In Wisconsin public kindergartens are expressly authorized by law. As the age limit in this State is from 4 to 20 , and as local taxes provide more than three-fourths of the school revenue, there can be little controversy as to the means of support. In this State there are 17 cities maintaining 103 kindergartens, with 210 teachers and 11,735 pupils.

The Michigan school laws permit the establishment of kindergartens for children from 4 to 7 . In that State 17 cities have 65 kindergartens, with 90 teachers and $4,0.3$ pupils. More than 78 per cent of the public school revenue is derived from local taxation.

The Illinois legislature in 1895 passed the following act authorizing the establishment of kindergarten schools:

Be it enacted by the people of the Slate of Illinois, represented in the gencral assembly, That in addition to other grades or departments now established and maintained in the public schools of the State, any school district managed by a board of education or a board of directors is hereby empowered, when authorized by a majority of all the votes cast at an election for that purpose, such election to be called and aeld in accordance with the provisions of Article IX of an act entitled "Av act to establish and maintain a system of free schools," approved and in force May 21, 1889, to establish, in connection with the public schools of such district, a kindergarten or kindergartens for the instruction of children between the ages of four and six years, to be paid for in the same manner as other grades and departments now established and maintained in the public schools of such district. No money aceruing to such district from the school-tax fund of the State shall be used to defray the tuition or other expenses of such kindergarten, but the same shall be defrayed from the local tax and the special school revenue of said district.

All teachers in kindergartens established under this act shall hold a certificate issued as provided by law, certifying that the holder thereof has been examined upon kindergarten principles and is competent to teach the same.

Two cities in Illinois have 6.3 kindergartens, with 132 teachers and 5,671 pupils. The public schools of that State derive more than 86 per cent of their support from local taxation.

In Iowa independent districts are authorized to establish and maintain kindergartens. In this State 9 cities have 51 kindergartens, with 79 teachers and 2,675 pupils.

Indiana anthorizes by law the establishment of kindergartens for children between the ages of 4 and 6 , but they must be supported wholly by local taxation. In that State 8 cities have 26 kindergartens, with 43 teachers and 1,206 pupils. The public schools derive about 59 per cent of their support from local taxes, 26 per cent from State taxes, 9 per cent from permanent funds, and 6 per cent from other sonrces.

In Ohio kindergartens are authorized by the school law for children from 4 to 6 years but the support must be wholly local. In that State 7 cities support 27 kin-
dergartens, with 37 teachers and 1,740 pupils. More than 80 por eent of the support of the public schools is derived from loeal taxes.

The California school law recognizes kindergartens established by cities and towus in section 1617 of the code, which prescribes that trustees of school districts shall "exelude from schools children under 6 years of age; provided, that in citics and towns in which the kindergarten has been adopted, or may horeafter be adopted, as a part of the public primary schools, children may be admitted to sueh kindergarten classes at the age of 4 years."

There are 10 cities in California supporting 65 kindergartens, with 136 teachers and 4,580 pupils. The public sehools of this State derive 45 per cent of their support from local taxes, 49 per cent from State taxes, 5 per cent from permanent funds, and 1 per cent from other sources.

In Colorado there are 4 cities which maintain 29 kindergartens, with 60 teachers. and 1,504 pupils. There is no State school tax in this State. The schools derive over 80 per cent of their support from local taxes, about 3 per cent from permanent funds, and 17 per cent from other sources.

The Colorado law of 1893, authorizing the establishment of kindergartens, is as follows :

The school board of any school district in the State shall have power to establish and maintain free kindergartens in connection with the public sclools of said district for the instruction of children between three and six years of age residing in said district, and shall establish such courses of training, study, and discipline, and such rules and regulations governing such preparatory or kindergarten schools as said board may deem best: Provided, That nothing in this act shall be construed to change tho law relating to the taking of the census of the school population or the apportionment of state and county school funds among the several counties and districts in this State: Provided further, That the cost of establishing and maintaining such kindergartens shall be paid from the speeial school fund of said districts, and the said kindergartens shall be a part of the public school system and governed as far as practicable in the same manner and by the same officers as is now, or hereafter may be, provided by law for the government of the other public schools of the State: Prorided further, That teachers of kindergarten schools shall have a diploma from some reputable kindergarten teachers' institute or pass such examination on kindergarten work as the kindergarten department of the State Normal School may direct.

Table 1.-Statislics of public and mpivate kindergartens actually reporting for 1897-98.

| State or Territory. |  | Public kindergartens. |  |  |  |  | Private kinderyartens. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Pupils. |  |  |  |  | Pupils. |  |  |
|  |  |  |  | Male. | $\begin{aligned} & \text { Fe- } \\ & \text { male. } \end{aligned}$ | Total. |  |  | Male. | Fe . male. | Total. |
| United States | 189 | 1,365 | 2, 532 | 46,542 | 49, 325 | 95, 867 | 1,519 | 3,232 | 22,387 | 25,466 | 47,853 |
| North Atlantic Division | 9. | 698 | 1,173 | 20,923 | 22,022 | 42, 975 | 613 | 1,148 | 8,416 | 9, 726 | 18,142 |
| South Atlantic Division | 2 | 6 |  | 134 | 165 | 299 | 142 | - 282 | 1,874 | 2, 167 | 4, 1141 |
| South Central Division.. | 8 | 27 | 50 | 1,037 | 1,046 | 2,083 | 90 | 209 | 1,343 | 1,528 | 2, 876 |
| North Central Division | 68 | 535 | 1,095 | 20, 543 | 22, 064 | 42,607 | 499 | 1,271 | 8, 386 | 9,351 | 17, 737 |
| Western Division | 17 | 99 | 207 | 3,875 | 4, 028 | 7,903 | 175 | 322 | 2,363 | 2, 694 | 5,057 |
| Forth Atlantic Division: |  |  |  |  |  |  |  |  |  |  |  |
|  | 3 | 10 | 22 | 278 | 303 | 581 | 28 | 43 | 218 | 315 | 633 |
| New Hamp | 4 | 10 | 14 | 184 | 188 | 372 | 1 | 1 | 10 | 6 | 16 |
| Vermont. | 1 | 2 | 3 | 53 | 59 | 112 | 10 | 13 | 65 | - 86 | 151 |
| Massachusetts | 27 | 181 | 358 | 5,398 | 5,579 | 10, 977. | 91 | 153 | 810 | 892 | 1,702 |
| Rhode Island | 5 | 25 | 51 | 730 | 781 | 1,511 | 11 | 22 | 178 | 180 | , 358 |
| Conneeticut | 15 | 57 | 147 | 1,493 | 1,590 | 3,083 | 44 | 80 | 475 | 548 | 1,023 |
| New York | 31 | 218 | 371 | 7, 638 | 8,179 | 15, 817 | 232 | 499 | 4,326 | 5,020 | 9,352 |
| New Jersey | 6 | 45 | 61 | 1, 611 | 1,666 | 3, 277 | 57 | 85 | 60.1 | 686 | 1,290 |
| Pemusylvania | 2 | 149 | 143 | 3, 568 | 3, 677 | 7, 245 | 139. | 252 | 1,730 | 1,987 | 3,717 |
| South Atlantic Division: Delaware |  |  |  |  |  |  |  | 28 | 203 | 177 | 380 |
| Margland |  |  |  |  |  |  | 28 | 61 | 391 | 540 | 931 |
| District of Colu |  |  |  |  |  |  | 35 | 62 | 366 | 400 | 766 |
| Virginia |  |  |  |  |  |  |  | 14. | 87 | 111 | 198 |
| West Virginia |  |  |  |  |  |  | 2 | 7 | 62 | 68 | 130 |
| North Carolina |  |  |  |  |  |  | 14 | 28 | 283 | 342 | 625 |
| South Carolin |  |  |  |  |  |  | 3 |  | 48 | 56 | 104 |
| Georgia | 2 | 6 | 7 | 134 | 165 | 299 | 24 | 57 | 316 | 359 | 675 |
| Florida.....-......... |  |  |  |  |  |  | 11 | 19 | 118 | 114 | 232 |
| South Central Division: Kentucky ............ | 4 | 12 | 22 | 555 | 561 | 1,116 |  | 69 | 467 | 487 | 54 |
| Tennessee |  |  |  |  |  |  | 15 | 29 | 230 | 275 | 505 |
| A labara | 1 | 1 | 1 | 57 | 65 | 122 | 9 | 17 | 83 | 133 | 216 |
| Mississipp | 1 | 1 | 1 |  |  |  | 3 | 4 | 58 | 44 | 102 |
| Louisiana | 1 | 12 | 23 | 352 | 344 | 696 | 16 | 58 | 238 | 343 | 631 |
| Texas. | 1 | 1 | 3 | 73 | 76 | 1.19 | 13 | 18 | 119 | 128 | 247 |
| Arkausas |  |  |  |  |  |  | ${ }_{2}$ | 6 | ${ }_{21}^{43}$ |  | 90 |
| Oklahoma |  |  |  |  |  |  | , | 3 | ${ }_{29} 1$ | 23 | 44 |
| Indias Territory... |  |  |  |  |  |  | 3 | 5 | 39 | 48 | 87 |
| North Central Division: |  |  |  |  |  |  |  |  |  |  |  |
| Ohio ................. | 7 | 27 | 37 | ¢09 | 871 | 1, 740 | 96 | 230 | 1,264 | 1, 493 | 2,757 |
| Indiana | 8 | 26 | 43 | 568 | 638 | 1, 206 | 60 | 183 | 2, 023 | $\stackrel{2}{2,022}$ | 4, 045 |
| Ihinois | 2 | 65 | 132 | 2, 660 | 3, 011 | 5, 671 | 125 | 339 | 2, 103 | 2, 412 | 4, 515 |
| Michigan | 17 | 65 | 90 | 1,973 | 2. 050 | 4, 023 | 64 | 110 | 811 | 948 | 1,759 |
| Wisconsin | 17 | 103 | 210 | 5, 722 | 6,013 | 11,735 | 22 | 71 | 433 | 519 | 952 |
| Minnesota | 3 | 49 | 94 | 1,589 | 1, 695 | 3, 284 | 39 | 108 | 714 | 825 | 1,539 |
| Iowa. |  | 51 | 79 | 1, 325 | 1,350 | 2,675 | 18 | 35 | 195 | 215 | 410 |
| Missouri |  | 107 | 343 | 4, 262 | 4,888 | 9, 150 | 32 | 55 | 343 | 401 | 744 |
| North Dako |  |  |  |  |  |  | 5 | 7 | 45 | 56 | 101 |
| South Dak | 1 | 1 | 2 |  |  | 60 | 2 | 4 | 21 | 22 | 43 |
| Nobraska | 2 | 41 | 65 | 1,551 | 1,512 | 3, 063 | 12 | 34 | 121 | 118 | 239 |
| Kansas......... |  |  |  |  |  |  | 24 | 45 | 313 | 320 | 633 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Miontana. <br> Wroming |  |  |  |  |  |  | 4 | 15 | 69 3 | 111 | 180 72 |
| Colorado | 4 | 29 | 60 | 1,482 | 1,504 | 2,986 | 13 | 27 | 151 | 153 | 307 |
| New Mexic |  |  |  |  |  |  |  |  |  |  |  |
| Arizona |  |  |  |  |  |  | 1 | 3 | 17 | 13 | 30 |
| Utah |  |  |  |  |  |  | 15 | 41 | 217 | 314 | 531 |
| Nevada |  |  |  |  |  |  | 1 | 1 | 13 | 7 | 20 |
| Idaho |  |  |  |  |  |  | 2 | 2 | 13 | 9 | 22 |
| Washingto |  | 3 | 9 | 158 | 155 | 313 | 32 | 53 | - 293 | 353 | 656 |
| Oregon. | 1 | 5 | - |  |  |  | 14 | 30 | 130 | 182 | 312 |
| California | 10 | 65 | 126 | 2, 223 | 2,357 | 4,580 | 87 | 146 | 1,424 | 1,503 | 2, 927 |

Table 2.-Comoined statistics of public and private hinderyartens actually reporting for 1897 -98.

| State or Terriiory. |  |  | Pupils. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Male. | Female. | Total. |
| Tnited States | 2,884 | 5,764 | 68,929 | 74, 791 | 143,720 |
| North Atlantic Division | 1,311 | 2,321 | 29,369 | 31, 748 | 61, 117 |
| South Atlantio Division | 148 | 289 | 2,008 | 2,332 | 4, 340 |
| South Central Division | 117 | 259 | 2,385 | 2, 374 | 4, 959 |
| North Central Dirision | 1, 034 | 2, 366 | 28, 929 | 31,415 | 60, 344 |
| Western Division.... | 274 | 529 | 6,238 | 6,722 | 12, 960 |
| North Atlantic Dirision: |  |  |  |  |  |
| Maine ..........-. - . | 38 | 65 | 496 | 618 | 1,114 |
| New Hampshire | 11 | 15 | 194 | 194 | 388 |
| Vermont | 12 | 16 | 118 | 145 | 263 |
| Massachusetts | 273 | 511 | 6, 203 | 6, 471 | 12, 679 |
| Rhode Island. | 36 | 73 | . 908 | 961 | 1,869 |
| Connectieut. | 101 | 227 | 1,968 | 2,138 | 4. 106 |
| New York | 450 | 870 | 11, 964 | 13,205 | 25,169 |
| New Jersey. | 103 | 149 | 2,215 | 2,352 | 4,567 |
| Penusylvauia | 288 | 395 | 5, 298 | 5, 664 | 10.962 |
| South Atlantic Division: |  |  |  |  |  |
| Delaware............. | 18 | 28 | 203 | 177 | 380 |
| Maryland ... | 28 | 61 | 391 | 540 | 931 |
| District 0: Columbia | 35 | 62 | 366 | 400 | 766 |
| Virginia... | 7 | 14 | 87 | 111 | 198 |
| West Varginia | 2 | 7 | 62 | 68 | 130 |
| North Carolina | 14 | 28 | 283 | $3 \pm 2$ | 695 |
| South Carolina. | 3 | 6 | 48 | 56 | $10 \frac{1}{2}$ |
| Georzi: - | 30 | 61 | 450 | 524 | 974 |
| Florita. . | 11 | 19 | 118 | 114 | 232 |
| South Central Division: |  |  |  |  |  |
| Kentucky--......... | 39 | 91 | 1, 022 | 1,048 | 2, 070 |
| Tennessee.... | 15 | 29 | 230 | 275 | 505 |
| A labama ..... | 10 | 18 | 140 | 198 | 338 |
| Mississippi | 4 | 5 | 58 | 44 | 102 |
| Louisiana | 28 | 81 | 640 | 687 | 1,327 |
| Texas:.. | 14 | 21 | 192 | 204 | 396 |
| Arkansas |  | 6 | 43 | 47 | 90 |
| Oklahoma. | 2 | 3 | 21 | 23 | 44 |
| Indian 'Territory.. | 3 | 5 | 39 | 48 | 87 |
| North Central Division: |  |  |  |  |  |
| Ohio | 123 | 267 | 2, 133 | 2, 364 | d, 497 |
| Indiana | 86 | 226 | 2,591 | 2, 660 | 5, 251 |
| Illinois. | 190 | 521 | 4, 763 | 5, 423 | 10, 186 |
| Michigan... | 129 | 200 | 2, $78 \pm$ | 2,998 | 5. 782 |
| Wiscousin ... | 125 | 281 | 6, 155 | 6,532 | 12, 687 |
| Minnesota ... | 83 | 202 | 2, 303 | 2, 520 | 4,823 |
| Iowa .... | 69 | 114 | 1,520 | 1,565 | 3,085 |
| Missouri | 139 | 338 | 4,605 | 5, 289 | 9, 89 ${ }^{\text {d }}$ |
| North Dakota | 5 | 7 | 45 | 56 | 101 |
| South Dakota | 3 | 8 | 45 | 53 | 103 |
| Nebraska... | 53 | 99 | 1. 672 | 1,630 | 3,302 |
| Kansas.. | 24 | 45 | 313 | 320 | 633 |
| Western Division : |  |  |  |  |  |
| Moutana .-.... |  |  | 69 | 111 | 180 |
| Wroming | 4 | 4 | -33 | -39 | 72 |
| Colorado. | 42 | 87 | 1,636 | 1, 657 | 8, 293 |
| New Mexico. |  |  |  |  |  |
| Arizona.. | 1 | 3 | 17 | 13 | 30 |
| Utah | 15 | 41 | 217 | 314 | 531 |
| Novada | 1 | 1 | 13 | 7 | 20 |
| Idaho | 2 | 2 | 13 | 9 | 22 |
| Washington | 35 | 62 | 451 | 518 | 969 |
| Oregon...... | 16 | 32 | 142 | 194 | 336 |
| Califormia | 152 | 282 | 3, 647 | 3, 860 | 7,507 |

Table 3.-Statistics of public and private kindergartens in the United States in 1897-98, partly estimated.

| State or Territory. | Private kindergartens not reporting. |  |  | Private kindergartens reporting and not reporting. |  |  | Public and private kin. dergartens reporting and not reporting. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| United States | 1,479 | 3,173 | 45, 884 | 2, 998 | 6,405 | 93, 737 | 4,363 | 8,937 | 189, 604 |
| North Atlantic Division | 499 | 949 | 14, 771 | 1,112 | 2, 097 | 32, 913 | 1,810 | 3, 270 | 75, 888 |
| South Atlantic Division.. | 152 | 304 | 4,336 | 294 | 586 | 8, 377 | 300 | 593 | 8, 676 |
| South Central Division... | 88 | 203 | 2,816 | 178 | 412 | 5,692 | 205 | 462 | 7,775 |
| North Central Division .. | 541 | 1,356 | 18, 209 | 1, 040 | 2, 627 | 35, 946 | 1,575 | 3, 722 | 78, 553 |
| Westeru Division ....... | 199 | 361 | 5,752 | 374 | 683 | 10, 809 | 473 | 890 | 18, 712 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |  |
| Maine............... | 19 | 36 | 563 ' | 47 | 79 | 1,096 | 57 | 101 | 1,677 |
| New Hampshire | 6 | 11 | 178 | 7 | 12 | 194 | 17 | 26 | 566 |
| Vermont. | 5 | 10 | 148 | 15 | 23 | 299 | 17 | 26 | 411 |
| Massachusetis | 95 | 181 | 2, 812 | 186 | 334 | 4,514 | 367 | 692 | 15,491 |
| Rhode Island | 12 | 23 | 355 | 23 | 45 | 713 | 48 | 96 | 2,224 |
| Connecticut | 40 | 76 | 1,184 | 84 | 156 | 2,207 | 141 | 303 | 5, 290 |
| New York | 183 | 348 | 5,417 | 415 | 847 | 14, 769 | 633 | 1, 218 | 30, 586 |
| New Jersey | 39 | 74 | 1,154 | 96 | 159 | 2, 444 | 142 | 223 | 5,721 |
| Pennsylvaida ........- | 100 | 190 | 2,960 | 239 | 442 | 6,677 | 388 | 585 | 13, 922 |
| South Atlantic Division: <br> Delaware | 14 | 28 | 399 | 32 | 56 | 779 | 32 | 56 | 779 |
| Maryland | 37 | 7 t | 1,055 | 65 | 135 | 1,986 | 65 | 135 | 1,986 |
| District of Columbia.. | 23 | 46 | 656 | 58 | 108 | 1, 422 | 58 | 108 | 1,422 |
| Virginia ............... | 11 | 22 | 314 | 18 | 36 | 512 | 18 | 36 | 512 |
| West Virginia | 1 | 2 | 29 | 3 | 9 | 159 | 3 | 9 | 159 |
| North Carolina | 13 | 26 | 371 | 27 | 54 | 995 | 27 | 54 | 996 |
| South Carolina. | 3 | 6 | 86 | 6 | 12 | 190 | 6 | 12 | 190 |
| Georgia | 37 | 74 | 1, 055 | 61 | 131 | 1, 730 | 67 | 138 | 2,029 |
| Florida.-.......... | 13 | 26 | 371 | 24 | 45 | 603 | 24 | 45 | 603 |
| South Central Division : |  |  |  |  |  |  |  |  |  |
| Kentucky............... | 30 | 69 | 960 | 57 | 138 | 1, 914 | 69 | 160 | 3, 030 |
| Tennessee.............. | 24 | 55 | 768 | 39 | 84 | 1, 273 | 39 | 84 | 1, 273 |
| Alabama | 5 | 12 | 160 | 14 | 29 | 376 | 15 | 30 | 498 |
| Mississippi .-.-.-.... | 3 | 7 | 96 | 6 | 11 | 198 | 7 | 12 | 198 |
| Louisiana ........--- - | 10 | 23 | 320 | 26 | 81 | 951 | 38 | 104 | 1,647 |
| Texas... | 10 | 23 | 320 | 23 | 41 | 567 | 24 | 44 | 716 |
| Arkansas | 3 | 7 | 96 | 5 | 13 | 186 | 5 | 13 | 186 |
| Oklahoma .............. | 1 | 2 | 32 | 3 | 5 | 76 | 3 | 5 | 76 |
| Indian Territory...... | 2 | 5 | 64 | 5 | 10 | 151 | 5 | 10 | 151 |
| North Central Division: |  |  |  |  |  |  |  |  |  |
| Ohio ... | 97 | 243 | 3, 444 | 193 | 473 | 6,201 | 220 | 510 | 7, 941 |
| Indiana | 32 | 80 378 | 1, 136 | 92 | 263 | 5,181 | 118 | 306 | 6,387 |
| Hlimois . .-. - .-. .-. .-... | 151 | 378 | 4, 361 | 276 | 767 | 8,876 | 341 | 899 | 14,547 |
| Michigan .............. | 61 | 153 | 2, 166 | 125 | 263 | 3,925 | 190 | 353 | 7,948 |
| Wisconsin | 36 | 90 | 1, 278 | 58 | 161 | 2, 230 | 161 | 371 | 13, 965 |
| Minnesota | 49 | 123 | 1, 740 | 88 | 231 | 3, 279 | 137 | 325 | 6,563 |
| Towa .-. | 36 | 90 | 1, 278 | 54 | 125 | 1, 688 | 105 | 204 | 4,363 |
| Missouri | 45 | 113 | 1,598 | 77 | 168 | 2,342 | 184 | 511 | 11, 492 |
| North Dakota | 4 | 10 | 142 | 9 | 17 | 243 | 9 | 17 | 243 |
| Sonth Dakota | 5 | 13 | 178 | 7 | 17 | 221 | 8 | 19 | 281 |
| Nebraska | 7 | 18 | 249 | 19 | 52 | 488 | 60 | 117 | 3, 551 |
| Kansas... | 18 | 45 | 639 | 42 | 90 | 1,272 | 42 | 90 | 1,272 |
| Western Division : |  |  |  |  |  |  |  |  |  |
| Montana ..... | 11 | 20 | 318 | 17 | 35 | 498 | 17 | 35 | 498 |
| Wroming | 1 | ${ }_{31}$ | 29 | 5 3 | 6 58 | 101 | 5 | 6 118 | , 101 |
| Colorado..... | 17 | 31 | 491 | 30 | 58 | 798 | 59 | 118 | 3, 784 |
| New Mexico |  |  |  |  |  |  |  |  |  |
| Arizona. | 2 | 4 | 58 | 3 | 7 | 88 | 3 | 7 | 88 |
| Utal ... | 15 | 27 | 434 | 30 | 68 | 965 | 30 | 68 | 965 |
| Nevara | 1 | 2 | 29 | 2 | 3 | 49 | 2 | 3 | 49 |
| Idaho | 2 | 4 | 58 | 4 | 6 | 80 | 4 | 6 | 80 |
| Washingtom | 21 | 38 | 607 | 53 | 91 | 1,263 | 56 | 100 | 1,576 |
|  | 27 | 49 | . 780 | 41 | 79 | 1,092 | 43 | 81 | 1,116 |
| California.............. | 102 | 184 | 2,948 | 189 | 330 | 5,875 | 254 | 466 | 10,455 |

Table 4.-Sources of support of private kindergartens and arerage expenditure per pupil, 189\%-9S.

| State or Territory. | Number of kinder-gartens. | Source of support. |  |  |  |  |  | $\begin{aligned} & \text { Average expenditure } \\ & \text { per pupil. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { घं } \\ & \text { 总 } \\ & \text { H } \end{aligned}$ | $\begin{aligned} & \text { ․ } \\ & \text {. } \\ & \text { ت } \\ & \text { ® } \end{aligned}$ |  |  |  |  |
| United States...-.-.................. | 1,519 | 534 | 915 | 70 | 1,011 | 33, 816 | \$519, 252 | \$15.36 |
| North Atlantic Division | 613 | 201 | 387 | 25 | 409 | 13,351 | 278, 749 | 20.88 |
| South Atlantic Division | 142 | 51 | 72 | 19 | 97 | 3, 078 | 40, 260 | 13.08 |
| South Central Division | 90 | 25 | 58 | 7 | 56 | 2,129 | 25, 633 | 12.04 |
| North Central Division. | 499 | 199 | 286 | 14 | 336 | 11, 769 | 132, 833 | 11. 29 |
| Western Division. | 175 | 58 | 112 | 5 | 113 | 3, 189 | 41, 777 | 11.97 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |
| Maine... | 28 | 10 | 17 | 1 | 13 | 268 | 4,750 | 17. 72 |
| New Hampsiire | 1 | - | 1 |  |  |  |  |  |
| Vermont...... | 10 | 2 13 | -888 | 3 | 5 | 63 | 858 29 | 13.62 |
| Massachusetts Rhode Island. | 11 | 13 | 75 | 3 | 51 | 1,077 | 29, 716 | 27.59 |
| Connecticut. | 44 | 4 | 35 | $\underline{\square}$ | 27 | 283 | 3,495 11,157 | 12.35 |
| New York. | 232 | 105 | 116 | 11 | 178 | 7, 179 | 164,518 | 22.92 |
| New Jersey | 57 | 15 | 41 | 1 | 45 | 1,107 | 20,970 | 18.94 |
| Penusylvania | 139 | 45 | 87 | a 7 | 84 | 2,611 | 43, 285 | 16.58 |
|  |  |  |  |  |  |  |  |  |
| Delaware | 18 | 8 | 7 | 3 | 12 | 275 | 5,119 | 18.62 |
| Marcland | 28 | 9 | 15 | a 4 | 20 | 733 | 10,835 | 14. 78 |
| District of Colnmbia | 35 | 7 | 20 | 8 | 21 | 493 | 6,985 | 14.17 |
| Virginia. | 7 | 3 | 4 |  | 5 | 141 | 2,505 | 17.77 |
| West Virginia | 2 |  | 1 | 1 | 1 | 80 | 1,000 | 12.50 |
| North Carolina | 14 | 5 | 6 | 3 | 10 | 550 | 4,000 | 7.27 |
| South Carolina | 3 |  | 3 |  | 2 | 74 | +350 | 4. 73 |
| Georgia. | 24 | 14 | 10 | - | 18 | 548 | 7,597 | 13. 86 |
| Florida | 11 | 5 | 6 |  | 8 | 184 | 1,869 | 10.16 |
| South Central Division: |  |  |  |  |  |  |  |  |
| Kentucky Tennessee | 15 | 7 5 | 18 8 | 2 | 12 | 762 455 | 8, 5,735 | 12. 12.60 |
| Alabama | 9 | 3 | 6 | .-. | 6 | 196 | 3, 182 | 16. 23 |
| Mississippi | 3 | 1 | 2 |  | 2 | 95 | 700 | 7.37 |
| Louisiana.- | 16 | 6 | 7 | 3 | 8 | 381 | 4,800 | 12. 86 |
| Texas .-. | 13 |  | 13 |  | 7 | 113 | 895 | 7.92 |
| Arkansas | 2 | 2 |  |  | 1 | 40 | 1,200 | 30.00 |
| Oklahoma | 2 |  | 2 |  |  |  |  |  |
|  | 3 | 1 | 2 |  | 3 | 87 | 1, 008 | 11.59 |
| North Central Division: 060 |  |  |  |  |  |  |  |  |
|  | 96 | 41 | 53 | $a 2$ | 68 | 2,147 | 26, 607 | 12.39 8.02 |
| Indiana. | 60 125 | 35 45 | 25 74 |  | 28 | 1,086 | 8,705 | 8.02 13.54 |
| Michigan | 125 | 34 | 28 | 2 | 55 | 3, 1,592 | 14,960 | 13.54 9.40 |
| Wisconsin | 22 | 8 | 10 | 4 | 18 | 1, 822 | 8,876 | 10.80 |
| Minnesota | 39 | 14 | 25 |  | 29 | 1, 295 | 11,489 | 8.87 |
| Iowa | 18 | 2 | 16 |  | 14 | 355 | 5,416 | 15.26 |
| Missouri | 32 | 7 | 25 |  | 18 | 379 | 4, 132 | 10.90 |
| North Dakota | 5 | 2 | 3 |  | 3 | 65 | 950 | 14.62 |
| South Dakota. | 2 |  | 2 |  | 1 | 26 | 60 | 2.31 |
| Nebraska | 12 | 1 | 11 |  | 6 | 136 | 1,792 | 13.18 |
| Kansas | 21 | 10 | 14 |  | 11 | 401 | 2,922 | 7.29 |
| Western Division: |  |  |  |  |  |  |  |  |
| Montana...-. | 6 | 1 | 5 |  | 4 | 94 | 1,340 | 14. 26 |
| Wroming | 4 | ...... | 4 | -- | 1 | 22 | -100 | 4.55 |
| Colorado-- | 13 |  | 13 |  | 9 | 232 | 2,090 | 9.01 |
| New Mexico. |  |  |  |  |  |  |  |  |
| Arizona | 1 |  | 1 |  | 1 | 30 | 200 | 6. 67 |
| Utah | 15 | 4 | 11 |  | 3 | 111 | 287 | 2.59 |
| Nevada | 1 | -....- | 1 |  | 1 | 20 | 100 | 5.00 |
| Idaho.- | 2 |  | 1 | 1 | 2 | 22 | -78 | 3. 55 |
| Washington | 32 | 6 | 25 | 1 | 20 | 462 | 3, 781 | 8.18 |
| Oregon... | 14 | 2 | 12 | --- | ${ }_{6}^{6}$ | $\begin{array}{r}153 \\ \hline\end{array}$ | 1,435 | 9.38 |
| California . | 87 | 45 | 39 | a3 | 66 | 2,343 | 32,366 | 13.81 |

$a$ Pennsylvania had 2 kindergartens, Marylazd 2, Ohio 1, and California 1 supported from the proceeds of endowment funds.

TAble 5.-Statistics of public and private kindergartens in the United States, 1873-1876.

| State or Territory. | 1873. |  |  | 1874. |  |  | 1875. |  |  | 1876. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { a } \\ & \text { B } \\ & =1 \end{aligned}$ |  |  | $\begin{aligned} & \dot{\tilde{a}} \\ & \dot{\vec{Z}} \\ & \dot{\sim} \end{aligned}$ | Kindergartens. |  | $\stackrel{\dot{x}}{\vec{y}}$ |  |  |  |
| United States | 42 | 73 | 1,252 | 55 | 125 | 1,636 | 95. | 210 | 2,809 | 130 | 364 | 4, 090 |
| North Atlantic Division | 30 | 51 | 856 | 34 | 65 | 892 | 50 | 100 | 1,372 | 62 | 130 | 1, 720 |
| Soath Atlantic Division.. | 3 | 8 | 104 | 5 | 14 | 166 | 10 | 20 | 248 | 10 | 24 | 266 |
| South Central Disision. | 2 | 3 | 62 | 2 | 3 | 61 | 2 | 4 | 53 | 4 | 6 | 92 |
| North Central Division. | 7 | 11 | 230 | 14 | 43 | 517 | 31 | 89 | 1,096 | 51 | 200 | 1, 969 |
| Westeru Division. |  |  |  |  |  |  | 2 | 3 | 40 | 3 | 4 | .$^{43}$ |
| North Atlantic Division: \| |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine |  |  |  | 2 | 2 | 47 | 2 | 2 | 45 | 2 | 2 | 45 |
| New Hampshire |  |  |  | 1 | 1 | 20 | 1 | 1 | 14 | 2 | 4 | 30 |
| Vermont ....... |  |  |  |  |  |  |  |  |  |  |  |  |
| Massachusetts | 10 1 | 12 1 | 151 | 14 | 18 | 213 | 12 | 20 | 204 | 9 | 21 | 172 |
| Connecticut |  |  |  | 1 | 1 | 8 | 2 | 6 | 92 | 2 | 6 | 87 |
| New York. | 11 | 23 | 359 | 10 | 27 | 345 | 16 | 33 | 424 | 20 | 45 | 650 |
| New Jersey | 6 | 13 | 296 | 5 | 13 | 229 | 13 | 28 | 505 | 14 | 31 | 530 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maryland....... | 1 | 2 | 14 | 2 | 3 | 29 | 3 | 5 | 91 | 3 | 8 | 83 |
| District of Columbia | 2 | 6 | 90 | 3 | 11 | 137 | 7 | 15 | 157 | 6 | 14 | 163 |
| Virgiuia ............. |  |  |  |  |  |  |  |  |  |  |  |  |
| West Virginia.. North Carolina |  |  |  |  |  |  |  |  |  |  |  |  |
| North Carolina South Carolina |  |  |  |  |  |  |  |  |  | 1 | 2 | 20 |
| Georgia.. |  |  |  |  |  |  |  |  |  |  |  |  |
| Florida... |  |  |  |  |  |  |  |  |  |  |  |  |
| South Central Civision: | 2 | 3 | 62 | 2 | 3 | 61 | 2 | 4 | 53 | 4 | 6 | 02 |
| Alabama |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mississippi |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Texas .... |  |  |  |  |  |  |  |  |  |  |  |  |
| Arkansas.. |  |  |  |  |  |  |  |  |  |  |  |  |
| Oklahoma. |  |  |  |  |  |  |  |  |  |  |  |  |
| Indian Territory |  |  |  |  |  |  |  |  |  |  |  |  |
| North Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Indiana... |  |  |  | 2 | 3 |  | 1 | 1 | 25 | 1 | ${ }_{2}$ | 16 |
| Illinois |  |  |  | 2 | 10 | 43 | 5 | 8 | 109 | 8 | 21 | 207 |
| Michigan. | 3 | 3 | 87 | 4 | 6 | 92 | 3 | 5 | 80 | 4 | 6 | 90 |
| W1sconsin | 1 | 3 | 48 | 4 | 17 | 238 | 5 |  | 290 | 5 | 15 | 273 |
| Minnesota |  |  |  |  |  |  | 1 | 1 | 18 | 2 | 2 | 29 |
| Towa..... |  |  |  |  |  |  |  |  |  | 1 | 4 | 50 |
| Missouri.... North: Dakota | 1 | 3 | 42 | 2 | 7 | 94 | 12 | 51 | 496 | 25 | 141 | 1,208 |
| North Daketa South Dakota |  |  |  |  |  |  |  |  |  |  |  |  |
| Nebraslsa.... |  |  |  |  |  |  |  |  |  |  |  |  |
| Kansas.... |  |  |  |  |  |  |  |  |  |  |  |  |
| Westarn Division: |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| W yoming. |  |  |  |  |  |  |  |  |  |  |  |  |
| Colorado.... |  |  |  |  |  |  |  |  |  | 1 | 1 | 8 |
| Arizona |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Washington...................- |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Californi |  |  |  |  |  |  |  |  |  | 2 | 3 |  |

Table 6.-Statistics of public and private Findergartens in the Cnited States, 187\%-18S0.

| State or Territory. | 1877. |  |  | 1878. |  |  | 1879. |  |  | 1880. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kindergartens. | $\begin{aligned} & \dot{\sim} \\ & \text { o } \\ & \text { J } \\ & \text { ¢ } \\ & 0 \\ & \text { E- } \end{aligned}$ | $\begin{aligned} & \dot{\text { an }} \\ & \text { ̈ㅍ } \end{aligned}$ | Kindergartens. |  | $\begin{aligned} & \dot{\text { ma}} \\ & \text { ä } \\ & \text { an } \end{aligned}$ |  |  |  |  |  | $\underset{\text { fin }}{\stackrel{x}{\tilde{y}}}$ |
| United States | 129 | 336 | 3,931 | 159 | 376 | 4, 797 | 195 | 452 | 7,554 | 232 | 524 | 8,871 |
| North Atlantic Dirisio | 65 | 129 | 1,63! | 86 | 188 | 2, 220 | 93 | 202 | 2, 687 | 113 | 251 | 3,545 |
| South Atlantic Division | 11 | 28 | 265 | 11 | 30 | 301 | 17 | 33 | 514 | 23 | 41 | 521 |
| South Central Division | 3 | 7 | 82 | 7 | 9 | 78 | 7 | 8 | 70 | 4 | 5 | 50 |
| North Central Division | 46 | 167 | 1,896 | 48 | 140 | 2, 080 | 71 | 202 | 4, 163 | 83 | 212 | 4,415 |
| Western Division. | 4 | 5 | 54 | 7 | 9 | 118 | 7 | 7 | 120 | 9 | 15 | 310 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Massachusetts | 12 | 22 | 195 | 18 | 31 | 316 | 16 | 29 | 338 | 20 | 41 | 627 |
| Rhode Island |  |  |  |  |  |  |  |  |  | 1 | 6 | 64 |
| Connecticut | 1 | 5 | 80 | 2 | 5 | 55 | 3 | 8 | 76 | 4 | 6 | 71 |
| Now York | 22 | 50 | 632 | 26 | 70 | 855 | 31 | 68 | 989 | 42 | 101 | 1,318 |
| New Jorsey | 14 | 2.1 | 451 | 14 | 32 | 552 | 17 | 37 | 751 | 16 | 37 | 717 |
| Penasylvania | 12 | 22 | 207 | 22 | 46 | 387 | 23 | 49 | 492 | 27 | 57 | 622 |
| South Atlantic Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Delaware .-.-......... |  |  |  |  |  |  | 1 | 1 | 15 | 1 | 1 | 15 |
| Maryland. | $\stackrel{4}{5}$ | 10 | 48 | 3 | 10 | 56 | 3 | 8 | 83 | 5 | 9 | 83 |
| District of Columbia | 5 | 15 | 186 | 6 | 18 | 208 | 6 | 16 | 257 | 9 | 19 | 254 |
| Virginia - |  |  |  |  |  |  | 2 | 2 | 40 | 2 | 3 | 15 |
| West Virginia |  |  |  |  |  |  |  |  |  |  |  |  |
| North Carolina |  |  |  |  |  |  | 1 | 2 |  | 3 | 6 | 55 |
| South Carolina | 1 | 2 | 24 | 1 | 1 | 20 | 2 | 2 | 87 | 1 | 1 | 67 |
| Georgia. | 1 | 1 | 7 | 1 | 1 | 17 | 1 | 1 | 12 | 1 | 1 | 12 |
| Florida .- |  |  |  |  |  |  | 1 | 1 | 20 | 1 | 1 | 20 |
| South Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky ... | 3 | 7 | 82 | 4 | 7 | 78 | 3 | 4 | 35 | 1 | 2 | 15 |
| Tennesseo |  |  |  | 2 | 2 |  | 2 | 2 | 12 | 1 | 1 | 12 |
| Alabama. |  |  |  |  |  |  | 1 | 1 |  | 1 | 1 |  |
| Mississippi |  |  |  |  |  |  |  |  |  |  |  |  |
| Louisiana. |  |  |  | 1 |  |  | 1 | 1 | 23 | 1 | 1 | 23 |
| Texas ... |  |  |  |  |  |  |  |  |  |  |  |  |
| Arkansas. |  |  |  |  |  |  |  |  |  |  |  |  |
| Oklahoma. |  |  |  |  |  |  |  |  |  |  |  |  |
| Indian Territory |  |  |  |  |  |  |  |  |  |  |  |  |
| North Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio ... | 6 | 9 | 89 | 12 | 19 | 196 | 18 | 31 | 383 | 12 | 28 | 285 |
| Indiana | 1 | 5 | 30 | 1 | 3 | 35 | 4 | 9 | 95 | 5 | 12 | 108 |
| Illinois. | 6 | 13 | , 141 | 7 | 22 | 274 | 10 | 23 | 336 | 15 | 23 | 538 |
| Michigan. | 3 | 4 | - 00 | $\stackrel{2}{7}$ | 3 | $5 \frac{1}{4}$ | ${ }_{5}$ | 6 | 70 | 6 | 10 | 119 |
| Tisconsin | 6 | 17 | 291 | 7 | 14 | 305 | 5 | 10 | 200 | 12 | 23 | 452 |
| Minnesota | 3 | 9 | 70 | 2 | 8 | 50 | 1 | 1 |  | 5 | 14 | 108 |
| Iowa. | 1 | 5 | 40 | 1 | 5 | 37 | 3 | 9 | 70 | 2 | 8 | 88 |
| Missouri | $2)$ | 105 | 1,145 | 15 | 66 | 1,129 | 28 | 110 | 3,009 | 23 | 30 | 2,640 |
| North Dakota |  |  |  |  |  |  |  |  |  |  |  |  |
| South Dakota |  |  |  |  |  |  |  |  |  |  |  |  |
| Nebraska |  |  |  |  |  |  |  |  |  | 1 | 1 | 12 |
| Western Division: |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Idaho.--................ .... .-... ...... - .... .... |  |  |  |  |  |  |  |  |  |  |  |  |
| Washington --.-.-...... --.. .-......... |  |  |  |  |  |  |  |  |  |  |  |  |
| Oregon..... |  |  |  |  |  |  |  |  |  |  |  |  |
| California |  | 3 | 32 | 6 | 7 | 96 | 7 | 7 | 120 | 9 | 15 | 310 |

Table 7.-Statistics of public and privale kindergartens in the United States, 1881, 1882, 188士, 1885.

| State or Territory. | 1881. |  |  | 1882. |  |  | 1884. |  |  | 1885. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \dot{\hat{y}} \\ & \vec{E} \\ & = \end{aligned}$ |  |  | $\begin{aligned} & \dot{\tilde{\tilde{n}}} \\ & \vec{E} \\ & \tilde{y} \end{aligned}$ |  |  |  |  |  | 家 |
| United States | 273 | 676 | 14,107 | 348 | 81.4 | 16,916 | 354 | 831 | 17,002 | 415 | 905 | 18,832 |
| North Atlantic Division | 103 | 235 | 3, 779 | 134 | 273 | 3, 965 | 118 | 271 | 4, 008 | 141 | 300 | 4, 698 |
| South Atlantic Dirision | 23 | 47 | 475 | 23 | 47 | 517 | 28 | 50 | 504 | 27 | 51 | 542 |
| South Central Division. | 2 | 5 | 63 | 6 | 9 | 140 | 6 | 11 | 165 | 12 | 18 | 227 |
| North Central Division. | 126 | 357 | 9, 178 | 154 | 432 | 11,207 | 172 | 448 | 11,053 | 195 | 462 | 11,573 |
| Western Division | 19 | 32 | 612 | 31 | 53 | 1,037 | 30 | 51 | 1,272 | 40 | 74 | 1,792 |
| North Atlantic Division: Maine | 2 | 2 | 104 | 2 | 3 | 58 | 2 | 3 | 48 | 2 | 3 | 51 |
| New Hampshire | 1 | 1 | 15 |  |  |  |  |  |  | 1 | 1 | 35 |
| Termont.... |  |  |  |  |  |  |  |  |  | 1 | 1 | 15 |
| Massachusetts | 20 | 37 | 647 | 41 | 53 | 724 | 22 | 46 | 714 | 19 | 38 | 641 |
| Rhode Island | 2 | 6 | 68 | 4 | 13 | 135 | 4 | 9 | 110 | 3 | 9 | 122 |
| Conneeticut | 4 | 6 | 81 | 6 | 12 | 160 | 6 | 11 | 156 | 7 | 19 | 228 |
| New York | 37 | 97 | 1, 689 | 38 | 95 | 1,600 | 45 | 109 | 1,735 | 41 | 92 | 1,532 |
| Now Jersey | 12 | 28 | 501 | 12 | 29 | 443 | 12 | 27 | 474 | 12 | 25 | 440 |
| South Atlantic Division: |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maryland. | 3 | 9 | 69 | 6 | 10 | 93 | 7 | 10 | 105 | 7 | 15 | 168 |
| District of Columbia | 10 | 20 | 303 | 10 | 22 | 270 | 14 | 25 | 252 | 12 | 21 | 217 |
| Virginia ....... | 4 | 8 | 48 | 3 | 7 | 63 | 1 | 2 | 22 | 1 | 2 | 22 |
| West Virginia | 4 |  | 25 | 2 | 4 | 60 | 2 | 4 | 60 | 3 | 3 | 38 |
| South Carolina |  |  |  |  |  |  |  |  |  |  |  |  |
| Georgia.. |  |  |  |  |  |  | 3 | 5 | 35 | 2 | 5 | 55 |
| South Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky........... |  |  |  | 1 | 1 | 20 | 1 | 1 | 20 | 3 | 4 | 27 |
| Temessee |  |  |  |  |  |  | 1 | 1 |  | 1 |  |  |
| Alabama. | 1 |  |  | 1 | 2 | 26 | 1 | 2 | 22 | 3 | 2 | 20 |
| Louisisiana. | 1 | 5 | 63 | 1 | 6 | 94 | 2 | 6 | 99 | 2 | 9 | 128 |
| Texas..... |  |  |  |  |  |  |  |  |  | 1 |  |  |
| Arkansas |  |  |  |  |  |  |  |  |  |  |  |  |
| Oklahoma...... |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Indiana | 4 | 9 | 93 | 7 | 15 | 165 | 14 | 20 | 218 | 11 | 32 | 622 |
| Illinois | 19 | 34 | 611 | 27 | 55 | 701 | 25 | 53 | 921 | 37 | 71 | 1,715 |
| Michigan | 7 | 8 | 150 | 5 | 8 | 193 | 7 | 14 | 29 t | 9 | 18 | 427 |
| $W$ isconsin | 12 | 24 | 457 | 17 | 42 | 918 | 24 | 64 | 1,286 | 31 | 64 | 1,885 |
| Minnesota | 5 | 18 | 173 | 7 | 23 | 243 | 9 | 14 | 204 | 7 | 12 | 170 |
| Iowa.. | 4 | 11 | 168 | 4 | 12 | 199 | 3 | 11 | 128 |  | 18 | 202 |
| Missouri | 60 | 214 | 7,002 | 65 | 233 | 8,070 | 64 | 211 | 7, 213 | 62 | 181 | 5,655 |
| North Dakota. |  |  |  |  |  |  | 1 | 2 | 15 | 3 | 5 | 82 |
| South Dakota Nebraska.... |  |  |  | 1 | 3 | 57 | 1 | 3 | 57 | 2 | 3 | 40 |
| Kansas. | 3 | 5 | 76 | 3 | 5 | 116 | 3 | 7 | 135 | 3 | 5 | 134 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| New Mexico |  |  |  | 1 | 1 |  |  |  |  | 1 | 1 | 16 |
| Arizona. | 1 | 1 | 16 | 1 | 1 | 16 |  |  |  |  |  |  |
| $\begin{aligned} & \text { Utah.... } \\ & \text { Nerada } \end{aligned}$ |  |  |  |  |  |  |  |  |  | 1 | 1 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Washingto |  |  |  | 1 | 2 |  | 1 | 2 | 21 | 2 | 4 |  |
| California. | 17 | 29 | 546 | 28 | 49 | 1,050 | 29 | 49 | 1,251 | 34 | 64 | 1,579 |

Table 8.-Staiistics of public and private kindergartens in the Thited States, 18S6, 1887, 1888, 1892.

| State or Territory. | 1886. |  |  | 1887. |  |  | 1883. |  |  | 1892. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\stackrel{\dot{x}}{\stackrel{\rightharpoonup}{\mid}}$ |  |  | $\stackrel{\dot{A}}{\vec{E}}$ |  |  | $\begin{aligned} & \text { a } \\ & \stackrel{\rightharpoonup}{\mid} \\ & \underset{\sim}{\mid} \end{aligned}$ |  |  | $\begin{aligned} & \stackrel{\rightharpoonup}{\hat{2}} \\ & \underset{\hat{A}}{1} \end{aligned}$ |
| United States. | 417 | 945 | 21,640 | 544 | 1,256 | 25, 925 | 521 | 1,202 | 31,227 | 1,311 | 2,535 | 65, 296 |
| North Atlantic Division. | 161 | 321 | 6, 202 | 206 | 398 | 7,629 | 186 | 370 | 9, 142 | 458 | 819 | 20, 231 |
| South Atlantic Division. | 19 | 42 | 529 | 25 | 47 | 563 | 23 | 66 | 799 | 58 | 117 | 2, 409 |
| South Central Division.. | 8 | 20 | 327 | 12 | 24 | 401 | 10 | 20 | 365 | 55 | 127 | 2,558 |
| North C'entral Division.. | 185 | 479 | 12,400 | 233 | 645 | 14,110 | 225 | 600 | 16,614 | 606 | 1,219 | 32, 616 |
| Western Division........ | 44 | 83 | \|2,182 | 68 | 142 | 3, 222 | 77 | 140 | 4,007 | 134 | 253 | 7, 482 |
| North Atlantic Division: <br> Maine | 2 | 3 | 51 | 3 | 5 | 69 | 3 | 5 | 95 | 5 | 7 | 119 |
| New Hampshire..-- | 1 | 1 | 35 |  |  |  |  |  |  | 4 | 7 | 91 |
| Termont.-.........-. | 1 | 2 | 14 | 1 | 2 | 17 | 1 | 1 | 13 | 4 | 5 | 56 |
| Massachusett | 41 | 79 | 1, 482 | 46 | 86 | 1, 446 | 44 | 88 | 1,819 | 101 | 172 | 4,182 |
| Rhodo Island | 3 | 11 | 156 | 5 | 15 | 186 | 6 | 16 | 359 | 12 | 37 | 616 |
| Connecticut | 10 | 18 | 347 | 13 | 30 | 519 | 13 | 32 | 673 | 30 | 80 | 1,954 |
| New Fork. | 40 | 91 | 1,916 | 60 | 124 | 2,813 | 55 | 114 | 3,300 | 170 | 313 | 7.750 |
| New Jersey | 10 | 22 | 410 | 15 | 28 | ,680 | 13 | 23 | -965 | 36 | 50 | 1,345 |
| Pennsylyania.--.-. - | 53 | 94 | 1,791 | 63 | 108 | 1,899 | 51 | 91 | 2, 218 | 95 | 148 | 4,118 |
| South Atlantic Division : <br> Delaware .............. | 1 | 2 | 23 | 1 | 2 | 21 | 1 | 2 | 21 | 2 | 3 | 33 |
| Maryland | 5 | 16 | $\angle 36$ | 10 | 19 | 286 | 10 | 29 | 434 | 18 | 39 | 702 |
| District of Columbia. | 8 | 16 | 165 | 11 | 22 | 195 | 10 | 32 | 314 | 16 | 30 | 517 |
| Virginia ---.... |  |  |  |  |  | -...-. |  |  |  | 4 | 7 | 86 |
| West Virginia. |  |  |  |  |  |  |  |  |  |  |  |  |
| North Carolina | 2 | 3 | 54 | 1 | 1 | 30 | 1 | 2 | 30 | 5 | 10 | 152 |
| South Carolina |  |  |  |  |  |  |  |  |  | 1 | 7 | 412 |
| Georgia | 3 | 5 | 51 | 2 | 3 | 31 | 1 | 1 |  | 8 | 15 | 388 |
| Florida --.......--- |  |  |  |  |  |  |  |  |  | 4 | 6 | 119 |
| South Central Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky ............ | $\bigcirc$ | 3 | 27 | 1 | 1 |  | 1 | 1 |  | 21 | 60 | 1, 157 |
| Temessee Alabama | 1 | 1 | 19 | 2 | 2 3 | 32 | 2. | 5 | 28 | 11 | 21 3 | 471 20 |
| Alabama. Mississip | 1 | 3 | 35 | 1 | 3 | 35 |  |  |  | 1 | 3 2 2 | 20 |
| Loussiana |  | 10 | 160 | 3 | 11 | 192 | 3 | 13 | 227 | 10 | 28 | 525 |
| Texas. | 1 | 1 | 15 | 4 | 6 | 116 | 4 | 7 | 110 | 8 | 10 | 224 |
| Arkansas. |  |  |  |  |  |  |  |  |  | 1 | 2 | 20 |
| Oklahoma |  |  |  |  |  |  |  |  |  |  |  |  |
| Indian Territory .-.- | 1 | 2 | 71 | 1 | 1 | 26 |  |  |  | 1 | 1 | 49 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio .-. | 27 | 66 | 788 | 33 | 74 | 850 | 30 | 75 | 1,170 | 80 | 153 | 2, 758 |
| Indiana | 9 | 20 | 445 | 12 | 31 | 446 | 13 | 27 | , 542 | 35 | 124 | 2, 910 |
| Illinois | 31 | 105 | 2,246 | 48 | 157 | 2, 684 | 50 | 144 | 3,048 | 197 | 271 | 7, 491 |
| Michigan | 14 | 30 | - 808 | 16 | 31 | 2, 725 | 6 | 25 | -908 | 46 | 87 | 2, 208 |
| Wisconsin | 22 | 41 | 2, 286 | 31 | 58 | 2, 491 | 31 | 56 | 3, 295 | 60 | 113 | 5,704 |
| Minnesota | 3 | 12 | - 177 | 10 | 19 | 2, 336 | 9 | 8 | 341 | 32 | 66 | 1,673 |
| Iowa | 4 | 9 | 166 | 8 | 22 | 368 | 8 | 26 | 501 | 33 | 86 | 1,677 |
| Missouri. | 66 | 181 | 5,236 | 71 | 24.4 | 6, 081 | 74 | 230 | 6,678 | 90 | 270 | 7,003 |
| North Dakota | 2 | 4 | 52 | 1 | 2 | 28 | 1 | 1 | 16 |  |  |  |
| South Dakota. Nebraska.... | 1 | 2 | 40 | 1 | 4 | 50 | 1 | 4 | 50 | 17 | 30 | 623 |
| Kansas | 4 | 9 | 156 | 2 | 3 | 51 | 2 | 4 | 65 | 16 | 19 | 569 |
| Western Division: |  |  |  |  |  |  |  |  |  |  |  |  |
| Vyoming... |  |  |  | 1 | 1 | 10 |  |  |  |  |  |  |
| Colorado | 2 | 3 | 144 | 1 | 3 | 105 | 1 | 3 | 105 | 28 | 50 | 1,250 |
| New Mexico | 1 | 1 | 10 | 1 | 1 | 10 | 1 | 1 | 19 |  |  |  |
| Arizona. |  |  |  |  |  |  |  |  |  |  |  |  |
| Utah | 1 | 1 | 90 | 1 | 1 | 50 | 1 | 1 | 50 | 2 | 5 | 80 |
| Nerada |  |  |  | 1 | 1 | 30 | 1 | 1 | 30 |  |  |  |
| Idaho. |  |  |  |  |  |  |  |  |  |  |  |  |
| Washungton |  |  |  | 1 | 1 | 10 | 1 | 1 | 10 | 8 | 9 | 183 |
| Oregon .- | 4 | 8 | 124 | 6 | 13 | 192 | 6 | 14 | 24.3 | 2 | 4 | 77 |
| California | 36 | 70 | 1,814 | 56 | 121 | 2,815 | 66 | 119 | 3,550 | 89 | 179 | 5,821 |

Table 9.-Statistics of public and private kindergartens in the Vnited States reporting in 1892.

| State or Territory. | Publi | kindergartens reporting. |  |  | Private kindergartens reporting. a |  |  | $\begin{aligned} & \text { Private kindergartens } \\ & \text { not reporting. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 0 |  |  |
| United States. | 137 | 459 | 933 | 31,659 | 852 | 1,602 | 33,637 | 1,148 |
| North Atlantic Division | 52 | 192 | 324 | 11, 782 | 266 | 495 | 8,449 | 386 |
| Sonth Atlantic Division | 3 | 6 | 18 | 732 | 52 | 99 | 1,677 | 57 |
| South Central Division. | 8 | 12 | 21 | 783 | 43 | 106 | 1,775 | 73 |
| North Central Division. | 65 | 213 | 507 | 16,612 | 393 | 712 | 16, 004 | 485 |
| Western Division | 9 | 36 | 63 | 1,750 | 98 | 190 | 5,732 | 147 |
| North Atlantic Division: |  |  |  |  |  |  |  |  |
| Maine................. | 1 | 1 | 1 | 2.5 | 4 | 6 | 91 | 5 |
| New Hampshire | 2 | 2 | 2 | 55 | 2 | 5 | 36 | 4 |
| Vermont....... |  |  |  |  | 4 | 5 | 56 | 1 |
| Massachusetts. | 9 | 56 | 93 | 3,198 | 45 | 79 | 984 | 98 |
| Rhode Island | 3 | 6 | 10 | ${ }^{366}$ | 7 | 27 | 250 | 18 |
| Connecticut | 9 | 19 | 55 | 1,655 | 11 | 25 | 299 | 32 |
| New York. | 18 | 45 | 75 | 2, 722 | 125 | 238 | 5, 028 | 118 |
| New Jersey | 6 | 18 | 18 | , 912 | 18 | 32 | + 433 | 35 |
| Pennsylvania | 4 | 45 | 70 | 2,849 | 50 | 78 | 1,269 | 75 |
| South Atlantic Division: |  |  |  |  |  |  |  |  |
| Delaware. |  |  |  |  | 2 | 3 | 33 | 5 |
| Maryland. |  |  |  |  | 18 | 39 | 702 | 21 |
| District of Columbia |  |  |  |  | 16 | 30 | 517 | 6 |
| Virginia. |  |  |  |  | 4 | 7 | 86 | 3 |
| West Virginia . |  |  |  |  |  |  |  | 1 |
| North Carolina |  |  |  |  | 5 | 10 | 152 | 4. |
| South Carolina |  | 1 | 7 | 412 |  |  |  | 2 |
| Georgia..... | 2 | 5 | 11 | 320 | 3 | 4 | 68 | 11 |
| Florida .............. |  |  |  |  | 4 | 6 | 119 | 4 |
| South Central Division: |  |  |  |  |  |  |  |  |
| Kentucky | 2 | 3 | 4 | 339 | 18 | 56 | 818 | 28 |
| Tennessee |  |  |  |  | 11 | 21 | 471 | 16 |
| Alabama. | 1 | 1 | 3 | 20 |  |  |  | 3 |
| Mississippi | 2 | 2 | 2 | 92 |  |  |  |  |
| Lunisiana. | 1 | 4 | 10 | 255 | 6 | 18 | 260 | ${ }_{21}^{2}$ |
| Texas.. | 2 | 2 | 2 | 67 | 6 | 8 | 157 | 21 |
| Arkansas |  |  |  |  | 1 | 2 | 20 | 2 |
| Oklahoma --.... |  |  |  |  |  |  |  |  |
| Indian Territory |  |  |  |  | 1 | 1 | 49 | 1 |
| North Central Division: |  |  |  |  |  |  |  |  |
| Ohio .. | 7 | 7 | 9 | 313 | 73 | 144 | 2, 445 | 53 |
| Indiana | 4 | 6 | 7 | 210 | 29 | 117 | 2, 700 | 30 |
| Illinois | 7 | 8 | 20 | 338 | 189 | 251 | 7,153 | 168 |
| Michigan | 10 | 20 | 46 | 1,412 | 20 | 41 | 796 | 59 |
| Wisconsin | 13 | 44 | 82 | 5,143 | 16 | 31 | 561 | 47 |
| Minnesota | 6 | 9 | 17 | . 653 | 23 | 49 | 1, 020 | 46 |
| Iowa... | 9 | 20 | 53 | 1. 215 | 13 | 33 | - 462 | 33 |
| Missomri. | 2 | 83 | 261 | 6,890 | 7 | 9 | 113 | 2 |
| North Dakota. |  |  |  |  |  |  |  | 5 |
| South Dakota. |  |  |  |  |  |  |  | 8 |
| Nebraska.. | 3 | 4 | 6 | 224 | 13 | 24 | 399 | 15 |
| Kansas $\ldots$...................................Western Division: |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Montana... |  |  |  |  | 5 | 6 | 71 | 6 |
| Wyoming.. |  |  |  |  |  |  |  | 4 |
| Colorado.. | 4 | 14 | 20 | 592 | 14 | 30 | 658 | 12 |
| New Mexico |  |  |  |  |  |  |  | 6 |
| Arizona |  |  |  |  |  |  |  | 3 |
| Utah |  |  |  |  | 2 | 5 | 80 | 8 |
| Nevada |  |  |  |  |  |  |  | 6 |
| Idaho.. |  |  |  |  |  |  |  |  |
| Washington |  |  |  |  | 8 | 9 | 183 | 10 |
| Oregon ..... |  |  |  |  | 2 | 4 | 77 | 7 |
| California |  | 22 | 43 | 1,158 | 67 | 136 | 4, 663 | 85 |

$a$ As enumerated in the last column of this table, there were 1,148 private kindergartners in 1892 whose addresses were furnished to this Bureau but who failed to respond to inquiries.

Table 10.-Public Findergartens in cities of orer $\mathcal{S}, 000$ inhabitants.


Table 10.-Public kindergartens in cities of orer 8,000 inhabitants-Continued.

a Cities having less than 8,000 inhabitants.

Table 10.-Public Kindergartens in cities of over $S, 000$ inhabitants-Continued.

| State and city. | Kindergartens. | Instract ors. | Pupils. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Nale. | Female. | 'Total. |
| 1 | \% | 3 | 4 | $\overline{3}$ | G |
| new hampshire. |  |  |  |  |  |
| 112. Concord. | 5 | 7 | 103 | 93 | 196 |
| 113. Exeter 6 . | 1 | 1 | 14 | 11 | 25 |
| 114. Nashua.- | 2 | 4 | 44 | 59 | 103 |
| 115. Portsmouth | 2 | 2 | 23 | 25 | 48 |
| NEW JERSEY. |  |  |  |  |  |
| 116. Newark . | 14 | 28 | 596 | 631 | 1,227 |
| 117. Passaic... | 5 | 8 | 301 | 319 | 620 |
| 118. Paterson | 17 | 18 | 386 | 410 | 796 |
| 119. Plaintield. | 5 | 5 | 150 | 141 | 291 |
| 120. Red Bank a | 3 | 3 | 62 | 68 | 130 |
| 121. Town of Union . | 2 | 2 | 116 | 97 | 213 |
| NEW YORK. |  |  |  |  |  |
| 122. Albans-.. | 19 | 20 | 585 | 612 | 1,197 |
| 123. Binghamton. | 13 | 13 | 324 | $3{ }^{3} 6$ | 690 |
| 124. Buťalo. | 9 | 9 | 311 | 400 | 711 |
| 125. Catskill $a$. |  | 1 | 16 | 16 | 32 |
| 126. Cohoes. | 2 | 4 | 43 | 96 | 139 |
| 127. Genera. | 4 | 5 | 80 | 71 | 154 |
| 128. Glens Falls. | 2 | 4 | 58 | 69 | 127 |
| 129. Gloversville. | 4 | 4 | 157 | 141 | 298 |
| 130. Haverstraw $a$ - | 1 | 2 | 75 | 75 | 150 |
| 131. Hempstead $a$ | 1 | 2 | 26 | 21 | 47 |
| 132. Ilion a ....... | 3 | 3 | 53 | 72 | 125 |
| 133. Jamestown | 9 | 23 | 251 | 257 | 508 |
| 134. Lausingburg | 5 | 10 | 132 | 122 | 254 |
| 135. Mount Vernon | 2 | 2 | 29 | 39 | 68 |
| 136. New Rochelle. | 5 | 7 | 230 | 232 | 462 |
| 137. New York. | 61 | 79 | 2, 217 | 2, 296 | 4,513 |
| 138. Niagara Falls.- | 4 | 7 | 107 | 113 | 220 |
| 139. North 'Tonawanda. | 4 | 6 | 76 | 87 | 163 |
| 140. Nyack $a$. | 1 | 2 | 58 | 56 | 114 |
| 141. Olean.... | 6 | 6 | 136 | 144 | 280 |
| 142. Port Chester. | 3 | 6 | 161 | 180 | 341 |
| 143. Rensselaer. | 1 | 1 | 19 | 18 | \%3 |
| 144. Rochester. | 17 | 97 | 1, 284 | 1.403 | 2, 687 |
| 145. Saratoga Springs | 5 | 11 | 168 | 189 | 357 |
| 146. Schenectady ..... | 2 | 2 | 54 | 56 | 110 |
| 147. Sing Sing..... | 3 | 3 | 70 | 73 | 143 |
| 148. Stracuse . | 9 | 10 | 182 | 221 | 403 |
| 149. Troy ...... | ${ }^{2}$ | 4 | 57 | 67 | 124 |
| 150. Urica | 11 | 15 | 380 | 388 | 768 |
| 151. White Plains $a$ | 2 | 2 | 57 | 78 | 135 |
| 152. Yonkers.. | 7 | 10 | 242 | 218 | 460 |
| оні. |  |  |  |  |  |
| 153. Canton | 1 | 1 | 20 | 30 | 50 |
| 154. Clereland. | 12 | 23 | 448 | 442 | 890 |
| 155. Dayton.. | ${ }_{0}^{6}$ |  | 186 | 197 | 383 |
| 156. Fostoria | 2 | 3 | 58 | 68 | 126 |
| 157. Fremont. | 3 | 5 | 103 | 79 | 182 |
| 158. Mansfield. | 2 | 4 | 43 | 45 | 88 |
| 159. Newark | 1 | 1 | 11 | 10 | 21 |
| oregon. |  |  |  |  |  |
| 160. Astoria. | 2 | 2 | 12 | 12 | 24 |
| penysylvania. |  |  |  |  |  |
| 161. Chambershurg | 1 | 2 | 15 | 20 | 35 |
| 162. Philadelphia .. | 148 | 141 | 3, 553 | 3,657 | 7, 210 |
| rhode island. |  |  |  |  |  |
| 163. Cranston | 1 | 2 | 13 | 15 | 28 |
| 164. Newport | 4 | 8 | 150 | 154 | 304 |
| 165. Pawtucket. | 4 | 8 | 149 | 178 | 327 |
| 166. Providence | 15 | 31 | 390 | 413 | S03 |
| 167. Woonsocket. | 1 | 2 | 28 | 21. | 49 |
| south dakota. |  |  |  |  |  |
| 168. Sioux Falls................. | 1 | 2 | 24 | 36 | 60 |

Table 10.-Public kindergartens in cities of over 8,000 inhabitants-Continued.

a Cities having less than 8,000 inhabitants.
Table 11.-Kindergarten associations.
[Kindergarten associations for which statistics are not given in this table failed to respond to the request for information.]

Table 11.-Kindergarten aszociations-Continued.

| Location. | Name of association. | Name of presidcut. |  |  |  | Pupils. |  |  |  | Means of support. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $\dot{\dot{n}} \underset{\substack{\dot{n} \\ \hline}}{ }$ | $\stackrel{\dot{H}}{\underset{y}{t}}$ | त |  |  |
| 1 | * | : 8 | 4 | 5 | 6 | \% | 3 | 9 | 10 | 1 |
| CALIFORNIA--cont'd. | . |  |  |  |  |  |  |  |  |  |
| San Francisco | Pixley Memorial Free Kindergarten Association. | Mrs. J. G. Clark....... | 1898 | 1 | 2 | 12 | 14 | 26 | \$400 | Endowment and fees. |
| Do | First Presbyterian Church Kindergarten Association. |  |  |  |  |  |  |  |  |  |
| Do | St. Luke's Free Kindergarten Association.... |  |  |  |  |  |  |  |  |  |
| Do. | Sisters of Mercy Kindergarten Association.. |  |  |  |  |  |  |  |  |  |
| Oo. | Eureka Valley Kindergarten Association .. |  |  |  |  |  |  |  |  |  |
| Do................... | Silver Street Kindergarten Association and Froebel Society. |  |  |  |  |  |  |  |  |  |
| Do. | Golden Gate Kindergarten Association. . . . . . | Mrs. Cyrus B. Walker | 1879 | 23 | 39 | -... |  | 2, 000 | 16,625 | Endowment fund. |
| San Mate | Bishop Armitage Orphanage.................... |  |  |  |  |  |  |  |  |  |
| Do.. | Free Kindergarten Association.................. | Mrs. A. B. Ford | 1898 | 1 | 1 | 16 | 14 | 30 | 470 | Subscription and donation. |
| Santa Barbara. | Kindergarten Association ...... .-. . . . . . . . . . . |  |  |  |  |  |  |  |  |  |
| COLORADO. |  |  |  |  |  |  |  |  |  |  |
| Colorado Springs | C. S. Kindergarten Association |  |  |  |  |  |  |  |  |  |
| Denver .................. | Free Kindergarten Association | Mrs. N. P. Hill | 1888 |  | - |  |  |  | 700 |  |
| CONNECTICUT. |  |  |  |  |  |  |  |  |  |  |
| Bridgeport | University School Kindergarten Association. | Vincen乞̌ C. Peck | 1898 | 1 | 3 | 20 | 10 | 30 | 2,500 | Tuition fees. |
| yo........ | Free Kindergarten Association. |  |  |  |  |  |  |  |  |  |
| New Haven | Association for Kindergartners.......... |  |  |  |  |  |  |  |  |  |
| Do. | Elm City Kindergarten Association........ |  |  |  |  |  |  |  |  |  |
| Do................... | Trinity Clurch Kindergarten Association... | Chas. O. Scoville...- | 1897 | 1 | 2 |  |  | 50 |  |  |
| Plymouth................ | Kindergarten Association .-..................... | Mrs. Arthur Gordan. | 1896 | 1 | 1 | 14 | 11 | 25 | 250 | subscription and donation. |
| Waterbury | Froebel Study Club. |  |  |  |  |  |  |  |  |  |
| Do. | Kindergarten Association . |  |  |  |  |  |  |  |  |  |
| Do. | Mother's Child study Club |  |  |  |  |  |  |  |  |  |

$\qquad$ Wilmington Provident Society
Friends Philanthropic Society

## African School society ．．．．．．．．．．．．．．．．．．．．． <br> Kindergarten Association of Friends Children＇s Home Association．．．．．．．．．．．

All Sonls Church Charity Committee．
Colored Woman＇s League ．．．．．．．．．．．．．．．．．．．．．．．．．．
Deaconess Home，M．E．Chirch Association．．．
Friends Meeting Association．．．．．．．．．．．．．．．．．．．．．．
Washington City Orphan Asylum．．．．．．．．．． Orphans＇Home Kindergarten Association Columbian Kindergarten Association
Mrs．Louise Pollock ．．．．．．．．．．． 1893
Mrs．E．W．Codington．．．．． 1896


Miss Van Trump，secretary
敛
 clerk．
Hannah H．Hendrickson，
DISTRICT OF COLUMBIA．
Washington ．．．－．－．．．．．．


FLORIDA．
®ロロ̊ㅇ
Bartow ．
Tampa
Mrs．Hugh C．Macfarlane．
Mrs．Nellie Petres Black．
Mrs．Richard D．Wylby
Mrs．E．L．Wells
；
Kindergarten Association

－op pue nomdyaosqus
Dues and subscription．
Tuition and fees．
Tanle 11.-K゙indergarten associalions-Continued.

| Location. | Name of association. | Namo of president. | Date of organization. |  |  | Pupils. |  |  |  | Means of support. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $\begin{gathered} \dot{2} \\ \frac{2}{\circ} \\ \stackrel{\sim}{n} \end{gathered}$ |  | + |  |  |
| 1 | 2 | 3 | 4 | 5 | 63 | 'y | 5 | 9 | (1) | 11 |
| illinois. | - |  |  |  |  |  |  |  |  |  |
| Aurora.... | Kindergarten Association |  |  |  |  |  |  |  |  |  |
| Blue Isiand | --..do .- |  |  |  |  |  |  |  |  |  |
| Chicago.- | Sixth Presbyterian Church Kindergarten Association. | Miss Mary R. Black .-....- | 1891 | 1 | 6 | 25 | 29 | 54 | \$550 | Tuition and donation. |
| Do. | Froebel Association .-...........-.-.-.-. .-. . . . |  |  |  |  |  |  |  |  |  |
| 10. | Catholic Women's National League | Mrs. Carrie A. Landergren.. | 1893 | 1 | 2 | 10 | 30 | 40 | 600 | Donation and subscrip- |
| Do. | Central W.C.T.U. Association |  |  |  |  |  |  |  |  |  |
| Do.. | Eleanor Reid Memorial Mission of Second Presbyterian Church. |  |  |  |  |  |  |  | -.... |  |
| Do. | Gads Hill Social Settlement .-................... |  |  |  |  |  |  |  |  |  |
| I) | Ohicago Kindergarten College |  |  |  |  |  |  |  |  |  |
| Do. | Free Kinder carten Association |  |  |  |  |  |  |  |  |  |
| Do. | Jewish Kindergarten Association ... |  |  |  |  |  |  |  |  |  |
| $1{ }^{1}$ | Longwood Kindergarten $\Lambda$ ssociation |  |  |  |  |  |  |  |  |  |
| Do. | Kindergarten Club. .-.-.-.-.---................ |  |  |  | ----- | -- |  |  |  |  |
| Do. | Mothers' Association of̈ Hydo Park J'resbyterian Church. |  |  |  |  | ... |  | ..... | .......... |  |
| Do..... | Orphan Asylum Kindergarten Association... |  |  |  |  |  |  |  |  |  |
| Do..... | Chicago Kindergarten Institute .................. |  |  |  |  |  |  |  |  |  |
| Do. | Northwestern University Settlement Association. | Mrs. H. W. Rogers. . . . . . - . . | 1893 | 1 | 7 | 20 | 40 | 60 | 600 | Subscription. |
| Do... | Society of Ethical Culture Kindergarten Association. | Frauk B. Tobey ............. | 1898 | 1 | 2 | 32 | 37 | 69 | 1,000 | Donation. |
| Do.-.-.-...- | Woman's Presloyterial Society of Home Missions. |  |  |  |  |  |  |  |  | - |
| Do.-..... | Young Ladies' Missionary Society of First Presbyterian Church. |  |  |  |  |  |  |  |  |  |
| Sdwardsville | Kindergarten Association --...-.-.-.-. - . . |  |  |  |  |  |  |  |  |  |
| Elgin. | Free Kindergarten Association. |  |  |  |  |  |  |  |  |  |
| Evanston | Delano Settlement Kindergarten Association. | Mr. C.J. Hewitt | 1897 |  |  |  |  |  |  |  |
| Galesbux | Free Kindergarten Association................. | Mrs. Mary G. Grubb | 1890 | - 1 | 3 | 5 | 45 | 10 | 1,000 | Subseription. |


| La Grange | Kindergarten Association |  |  |  |  |  |  |  |  | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Molino | Fice Kindergarion Association. |  |  |  |  |  |  |  |  |  |
| Do | Kindergarten Clab ...... |  |  |  |  |  |  |  |  |  |
| Oak Park. | Jewish Manual Training School Kindergarton Association. |  |  |  |  |  |  |  |  |  |
| Do | Marlem Library $\Lambda$ ssociation.................... |  |  |  |  |  |  |  |  |  |
| Peoria | Kings Danghters' Kindergarten Association.. | Helen Stowell Lines | 1892 | 4 | 5 | ----- |  |  | 2,000 | Tuition and domation. |
| Do | Kindergarten Association .-.-. .-. -- .-. .-. .-. |  |  |  |  |  |  |  |  |  |
| Pontiac. <br> Prinecton | Free Kindergarten Association. | Mrs. Mary Codding Bourland | 1889 | 1 | 4 | ----- | --- | 30 | 700 | Subscription. |
| Quiney -- | First Congregational Church İindergarten |  |  |  |  |  |  |  |  |  |
| Q | Association. |  |  |  |  |  |  | - ${ }^{\text {a }}$ |  |  |
| Iockford | Public Kindergarten Association.......... |  |  |  |  |  |  |  |  |  |
| Sterlingr | Kindergarten Association .-.-. - |  |  |  |  |  |  |  |  |  |
| Streator | ..... do ..... |  |  |  |  |  |  |  |  |  |
| indiana. |  |  |  |  |  |  |  |  |  |  |
| Aurora | Kindergarten Association | Mrs. E. H. Davis . | 1898 | 1 | 2 | 18 | 22 | 40 | 400 | Subscription and donation. |
| Crawfordsville | Ladies' Aid Society |  |  |  |  |  |  |  |  |  |
| Evansville. | Froo Kindergarten Association |  |  |  |  |  |  |  |  |  |
| Indianapolis | Free Kindergarten and Children's $\Delta$ did Society |  |  |  |  |  |  |  |  |  |
| Do... | Indianapolis Free Kindergarten Association - |  |  |  |  |  |  |  |  |  |
| Do |  |  |  |  |  |  |  |  |  |  |
| I.afayette | Free Kindergarten and Industrial School Association. | Mrs. Chas. B. Stuart |  | 2 | 2 |  | --- | 60 | 1,223 | Donation. |
| Do | Kindorgarten Association . . . . . . . . . . . . . . . . . |  |  |  |  |  |  |  |  |  |
| Togansport .-. | Free Kindergarten Association ................. | Mrs. Alphues Furbee | 1896 | 5 | 17 | --- |  | 200 | 1,200 |  |
| Michigan City | Free Kindergarten Assuciation and Children's Aid Society. | liev.J.S. Hoagland. | 1834 | 2 | 2 | ...-- |  | 165 | 675 | Subscription and donation. |
| Muncie | Free Kindergarten Association................. |  |  |  |  |  |  |  |  |  |
| New Alban |  | Mrs. James (i. Harrison | 1889 | 1 | 2 | 45 | 55 | 100 | 480 |  |
| Tichmond. | Kindergarten A ssociation ...... North | Mirs. Wm. Dudley Foulke. |  | 2 | 2 |  |  |  |  | Public funds. |
| Pome City | North End Literary A ssociation Fsland Park Assermbly |  |  |  |  |  |  |  |  |  |
| Nouth Bend | Free Kindergarten Association | Mrs. Priscilla $\Lambda$. Kirby | 1896 | 1 | 2 | 20 | 36 | 56 | 365 | Dues. |
| INDIAN TERRIT |  |  |  |  |  |  |  |  |  |  |
| Muskogee IOWA. | Board of Home Missions of Presbyterian Church. |  |  |  |  |  |  |  |  |  |
| Davenport | Ida Institute Society |  |  |  |  |  |  |  |  |  |
| Do | People's Union Mission Kindergarten Association. |  |  |  |  |  |  |  |  |  |
| Decorah | Kindergarten Association |  |  |  |  |  |  |  |  |  |
| Do | Kindergarten Clab |  |  |  |  |  |  |  |  |  |
| Des Moines. | Highland Park College and Kings Danghters (ircle Kindergarten $\Delta$ ssociation. |  |  |  |  |  |  |  |  |  |

Table 11.-Kindergarten associations-Continuel.

| Location. | Name of association. | Name of president. | Date of organization. | Kindergarteus main-tained. |  | Pupils. |  |  |  | Means of support. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $\begin{gathered} \dot{श} \\ \stackrel{\rightharpoonup}{2} \\ \stackrel{1}{\circ} \end{gathered}$ | $\stackrel{\dot{x}}{\dot{V}}$ | J̇ E E |  |  |
| 1 | \% | 33 | 4 | 5 | 6 | ' | 8 | 9 | 113 | 11 |
| IOWA-continued. |  |  |  |  |  |  |  | . |  |  |
| Des Moines | Froebel Kindergarten Association. | Miss Blancho Scott. | 1890 | 0 |  |  |  |  |  | Donation and dues. |
| Humboldt. | Kindergarten Association ........-. .-...... |  |  |  |  |  |  | .-. |  |  |
| Marshalltown | Mothers' Union Kindergarten Association ... |  |  |  |  |  |  |  |  |  |
| KANSAS. |  | - |  |  |  |  |  |  |  |  |
| Peloit. .-. | Kindergarten Association |  |  |  |  |  |  |  |  |  |
| Manhattan | -.... do .-...- -- -------- - - - |  |  |  |  |  |  |  |  |  |
| Topeka -.... |  |  |  |  |  |  |  |  |  |  |
| Do..... | North Topeka Kindergarten Association.... |  |  |  |  |  |  |  |  |  |
| Do........... | Louman Hill Auxiliary Kindergarten Association. |  |  |  |  |  |  |  | -...... |  |
| KENTUCKY. |  |  |  |  |  |  |  |  |  |  |
| Louisville.. | Free Kindergarten Association. | Mrs. Alexander P. Humphrey. | 1887 | 8 | 8 | - | --- | 800 | \$5, 600 | Tuition and subscription. |
| Do. | Woman's Presbyterial Missionary Society... |  |  |  |  | -. |  |  |  |  |
| Do.... | St. Joseph's Aid Society of Cathedral of Assumption. |  |  |  |  |  |  |  |  |  |
| 10. | Temple Frree Kindergarten Association ...... |  |  |  |  |  |  |  |  |  |
| Do. | Tobacco Free Kindergarten Association. .-. . - |  |  |  |  |  |  |  |  |  |
| Do.. | Kindergarten Alumnæ Club .-. .-. .-. -- -- -- |  |  |  |  |  |  |  |  |  |
| Versailles | Kindergarten Association ......................... |  |  |  |  |  |  |  |  |  |
| LoUisiana. |  |  |  |  |  |  |  |  |  |  |
| New Orleans..... | Free Kindergarten Association................. | James II. Dillard ............ | 1897 | 5 | 5 |  |  | 400 | 900 | Subscription and donation. |
| Do......-........ | Jewish Orphans' Home Kindergarten Association. <br> Sophie C. HartFreeKindergarten Association. | Gabe Kahn .-. -...-. - . .-. .-. | 1879 | 1 | 2 | 16 | 23 | 39 | 1,000 | Dues. |


Table 11.-Kindergarten associations-Continued.


Table 11.-Kindergarten associations-Continued.


Table 11.-Findergarten associations-Continued.


| Cleveland | Hiram House Social Setilement. | Ge | 1896 | 1 | 4 | 30 | 35 | 65 | 600 | o. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Do.... | Cleveland Protestant Orphan Asylum Kindergarten Association. |  |  |  |  |  |  |  |  |  |
| Do. | Jewish Orphan Asylum Kindergarten Association. |  |  |  |  |  |  |  |  |  |
| Do. | Kindergarten Àssociation . . . . . . . . . . . . . . . . |  |  |  |  |  |  |  |  |  |
| Do | Kindergarten Union, Branch I. K. | Rose Morrison | 1897 |  |  |  |  |  |  | Dues. |
|  | Day Nursery and Freo Kindergarten Association. | Mrs. M. E. Rawsou | 1886 | 10 | 20 |  |  | 564 | 3,835 | Dues and cndowment fund. |
| Do. | Alumne Association C. Kindergarten Tr. School. |  |  |  |  |  |  |  |  |  |
| Do. | Unity Church Free Kindergarten Association. |  |  |  |  |  |  |  |  |  |
| Columbus | Kindergarten Association .-................. | Mrs. John W. Brown | 1893 | 5 | 5 | 100 | 100 | 200 |  | Tuition fees. |
| Do. | Woman's Educational and Industrial Society - |  |  |  |  |  |  |  |  |  |
| Dayton | National Cash Register Company Kindergarten Association. | Mrs. Lonise D. Bu | 1898 | 2 | 5 | 70 | 65 | 135 | 1,600 | The company. |
| Do | Kindergarten Club.. | Miss Edith Tyrrell. |  |  |  |  |  |  |  |  |
| Elyria | Kindergarten Association |  |  |  |  |  |  |  |  |  |
| Marietta | East End Mothers' Club.. | Mrs. John Palmer. | 1898 | 1 | 1 | 5 | 10 | 15 | 70 | Tuition and donation. |
| Massillon | Mothers' Club.-.-..... | Miss Olive L. Smith | 1896 |  |  |  |  |  |  |  |
| Do. | Public School 'Teachers' Association for Study of Froebel's Philosophy. |  |  |  |  |  |  |  |  |  |
| Oberlin | Kindergarten Association | Mrs. E. P. Johnson | 1894 | 3 | 3 | 6.5 | 85 | 150 | 930 | Do. |
| Republi | . ... do |  |  |  |  |  |  |  |  |  |
| Salem.... | do |  |  |  |  |  |  |  |  |  |
| Sandusky Do.... | Relicf Kindergarten Association |  |  |  |  |  |  |  |  |  |
| Tiffin. | Seneca County Institute Kindergarten Association. |  |  |  |  |  |  |  |  |  |
| Toledo . | International Kindergarten Union............. |  |  |  |  |  |  |  |  |  |
| Warren | Free Kindergarten Association. | Mrs. A. F. Harri | 1897 | 1 | 1 |  |  | 40 |  | Subscription aud do. |
| Youngstown. | Free Kindergarten and Day Nursery Association | Mrs. A. M. Clark | 1892 | 1 | 5 |  |  | 60 | 1,000 | Subscription. |
| Do | Hazel Street Mission and Coffee House Association. | Mrs. A rabella Ford | 1894 | 1 | 2 | 10 | 20 | 30 | 650 | Do. |
|  | W. C. T. U. Kindergarten Association... |  |  |  |  |  |  |  |  |  |
| oregon. |  |  |  |  |  |  |  |  |  |  |
| Astoria . Portland | Kindergarten $\triangle$ ssociation ....... Free Kindergarten Association. | Mrs. Rosa F. Bur | 1887 | 1 | 2 | 28 | 22 | 50 | 600 | Donation. |
| pennstlvania. |  |  |  |  |  |  |  |  |  |  |
| Chautauqua..... | Pennsylvania Chantanqua Association (kindergarten department). |  |  |  |  |  |  |  |  |  |
| Chester | New Century Clab Kindergarten Association. | Miss Sallie Flickurs, chair- | 1895 | 1 | 1 | 12 | 18 | 30 | 300 | Donation. |
| Easton. | Kindergarten Association | Mrs. Emma I'fatteicher..... | 1896 | 1 | 2 | 15 | 10 | 25 | 800 |  |
|  | -rorgató Association |  |  |  |  |  |  |  |  | dowment fund. |

Table 11.-Kindergarten associations-Continued.


| York .-.................. | St. John's Episcopal Church Kindergarten Association. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pawtucket | Froebel Society |  |  |  |  |  |  |  |  |  |
| Providence | Free Kindergarten Association |  |  |  |  |  |  |  |  |  |
| Do. | St. John's Guild Kindergarten Association.. | Mrs. Anna A. Lenz. | 1886 | 1 | 2 | 40 | 30 | 70 | 900 | Chureh. |
| Do...-- | Wheeler Kindergarten Alumnæ Association.. |  |  |  |  |  |  |  |  |  |
| Woonsocket........--. | Kindergarten Association ....................... |  |  |  |  |  |  |  |  |  |
| SOUTH CAROLINA. |  |  |  |  |  |  |  |  |  |  |
| Charleston | South Carolina Kindergarten Association.... | Marguerite Pinckney-...... | 1894 | 1 | 2 | 20 | 20 | 40 | 300 | Public. |
| Columbia. |  |  |  |  |  |  |  |  |  |  |
| tennessee. |  |  |  |  |  |  |  |  |  |  |
| Chattanooga. | Free Kindergarten Association. | Mrs. Newell Saunders........ | 1890 | 2 | 2 | 20 | 50 | 70 | 525 | Donation. |
| Knoxville ........-.-.-- | Free Kindergarten Association of King's Danghters. | Pauline Woodruff.......-.... | 1890 | 1 | 1 | 20 |  | 70 | 800 | Subscription. |
| Memphis .-.---.-...- | Free Kindergarten Association. |  |  |  |  |  |  |  |  |  |
| Nashville...-.-.-........ | ..... do |  |  |  |  |  |  |  |  |  |
| Do.... | Free Kindergarten and Reformatory Association. |  |  |  |  |  |  |  |  |  |
| Do. | Woman's Mission Board of Methodist Episcopal Church Society. |  |  |  | ----- |  |  |  |  |  |
| Ruskin.................- | Cooperative Kindergarten Association ...-.-. |  |  |  |  |  |  |  |  |  |
| TEXAS. |  |  |  |  |  |  |  |  |  |  |
| Corsicana. | Mothers' Club (kindergarten department) .... |  | ------ | --.-. | ------ | -.---- | -.-. | --- |  |  |
| Do... | Kindergarten Association |  |  | -..-. |  | -..... |  |  |  |  |
| El Paso. |  |  |  |  |  |  |  |  |  |  |
| UTAH. |  |  |  |  |  |  |  |  |  |  |
| Logan | Kindergarten Association | Lucy Hoving | 1896 |  |  |  | ...... | ....... |  | Fees. |
| Ogden City | Free Kindergarten Association |  |  |  |  |  |  |  |  |  |
| Pleasant Grove | Kindergarten Association ... |  |  |  |  |  |  |  |  |  |
| Provo City. | Free Kindergarten A ssociation |  |  |  |  |  |  |  |  |  |
| Do.... | Kindergarten Association .-... |  |  |  |  |  |  |  |  |  |
| Salt Lake City | . . . . do |  |  |  |  |  |  |  |  |  |
| Do . - . . . . | Free Kindergarten Association. |  |  |  |  |  |  |  |  |  |
|  | State Kindergarten Association Utah Branch I. K. U | Mrs. I. H. Parsons | 1897 | 2 | 3 | 42 | 54 | 96 | 3,500 | State and tuition |
| Do................... | Utah Branch I. K, U................................ |  |  |  |  |  |  |  |  |  |
| VERMONT. |  |  |  |  |  |  |  |  |  |  |
| Brattleboro | Woman's Club Kindergarten Association |  |  |  |  |  |  |  |  |  |
| Burlington | Catholic Church Kindergarten Association |  |  |  |  |  |  |  |  |  |

Table 11.-Kindergarten associations-Continned.

Table 12.-Training schools and classes for kindergartners.
[Kindergarten training schools, classes, and departments for which statistics are not given in this table failed to respond to the request for information.]

Table 12.-Training schools and classes for kindergartners-Continued.

georgia.
Atlanta.
Augusta.
Columbus
Newnan.

## ILLINOIS.

Chicago...
Do...
Do...
Do...
Do...
Do...
Do...
Decatur..
Galesburg
Quincy...
indiana.
IOWA.
Lexington Kindergarten Training Class
Miss Patty S . Hill
Willette A. Allen.
Miss Elizabeth Harrison.
$\vdots \vdots: \vdots$




| Kindergarten Normal Training School | Willette A. Allen. | 1896 |
| :---: | :---: | :---: |
| Davidson Grammar School Kindergarten Training Class. |  |  |
| Kindergarten Training School.. |  |  |
| Kindergarten Training Class. |  |  |
| Free Kindergarten Association Normal Training Class | Miss Anna E. Bryan. | 1881 |
| Kindergarten Training Schools. |  |  |
| Kindergarten College Training School | Miss Elizabeth Harriso | 1890 |
| Chicago Commons Kindergarten Training S | Bertha Hofer Hegner. | 1897 |
| Jewish Kindergarten Training School.. |  |  |
| Free Kindergarten Normal Training Cl |  |  |
| Froebel Association Kindergarten 'Training Sch |  |  |
| Kindergarten Association Training School. |  |  |
| Kindergarten Normal Training School.. |  |  |
| Congregational Church Kindergarten Training Class |  |  |
| Public Kindergarten Training School |  |  |
| Free Kindergarten Normal Training School |  |  |
| The Indiana Kindergarten and Primary Normal Training School. |  |  |
| Kindergarten Training School. |  |  |
|  | Mrs. D. A. Cliffinger | 1897 |
| Northern Indiana Kindergarten Normal Training School. | Mrs. May Hemstock | 1883 |
| School of Methods, Winona Summer School Kindergarten Training Department. | Gertrude Longenecker....... | 1899 |
| Kindergarten Training School |  |  |
| Kindergarten Department Highland Park College (Training Class). |  |  |
| West Des Moines Kindergarten Training School. . . . . . . . | II. Adelia Phillips | 1884 |
| Public Kindergarten Training School..... |  |  |
| Kindergarten State Normal Association Training Class | Miss Charline P. Morgan. . | 1882 |
| 'Teachers' Institute Kindergarten Training Class |  |  |
| T. E. Bowman Memorial Kindergarten Training School | Mrs. E. Davidson Worden. | 1894 |
| Kiadergarten Training Class.................... |  |  |
| Lewis's Academy Kindergarten 'Training School |  |  |
| Lexington Kindergarten Training Class |  |  |
| Free Kindergarten 'raining Class |  |  |
| Kindergarten Training School of Free Kindergarten Association. | Miss Patty S. Hill ........... | 1887 |
| Sharpsburg College Kindergarten Training School ....... |  |  |
| Free Kindergarten Training School |  |  |

Table 12.-Training schools and classes for Rindergartners-Continued.


|  |  |  |  |  | $$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 88 | $\text { :8 } 888$ |  | $\begin{gathered} 8 \\ \text { oi } \\ \text { oi } \end{gathered}$ |  | 8-8 | $\begin{aligned} & \text { O88 } \\ & \text { Nos } \\ & \text { rimain } \end{aligned}$ |
| 옹 : | $9^{\infty}$ | $\text { ir } \overbrace{0}^{\infty}$ | $\vdots \infty \quad$ | 9 | $\vdots$ | ！ | $\sum^{\infty} \times$ |
|  | 800 | : भा | ; | O | $i m$ | 61 | －5 Heso |


Table 12.-Training schools and classes for lindergartners-Continued.

| Location. | Name of school or class. | Name of principal. |  |  |  |  | Means of support. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Albany <br> NEW YORK. | N |  |  |  |  |  |  |
| Do. | Albany Kindergarten 'Íraining Class |  |  |  |  |  |  |
| Do. | Home for Christian W orkers' Kindergarten Training Class. | Miss Eugenia Gibson | 1891 | 4 | 27 | \$800 | Tuition fees. |
| Do. | Public Kindergarten Training Class |  |  |  |  |  |  |
| Anburn | Training School of Kindergarten Association |  |  |  |  |  |  |
| Brooklyn. | Adelphi College Kindergarten Training Class ............... | Miss Anna E. Harvey, director. | 1893 | 8 | 20 | 4,000 | Do. |
| Do. | Froebel Academy Kindergarten Training School ............ |  |  |  |  |  |  |
| Do | Mrs. Geo. E. Orton's Normal Kindergarten Training Class. |  |  |  |  |  |  |
|  | Pratt Institute Kindergarten Training Class............... | Miss Alice E. | 1892 | 10 | 116 | 11,000 | Endowment and tui- |
| Buffalo | State Normal School Kindergarten Training Class.......... | Katherine C. Dorr | 1894 | 2 | 13 | 1,400 | Public funds and tuition. |
| Do.. | Kindergarten Training Class of Buffalo Free Kindergarten Association. | Miss Ella C. Elder. | 1891 | 4 | 20 | 1,600 | Tuition fees. |
| Chautauqua | Chautauqua Kindergarten Training School......... |  |  |  |  |  |  |
| Cortland.... | State Normal School Kindergarten Training Class ...... | Lillie H. Stone. | 1897 |  |  | 1,300 | Public funds. |
| Fredonia | Kindergarten Training Class of Fredonia State Normal School. | Miss Adelaide Herrick.. | 1882 | 2 | 28 | 1,300 | Do. |
| Hornellsville | St. Ann's Academic School Kindergarten Training Class.. |  |  |  |  |  |  |
| Ithaca..... <br> Jamestown | Kindergarten Training School <br> Central Branch of High School Kinder garten Training Class | Miss Eleanor E. Jones | 1894 | 1 | 5 | 215 | Tuition fees |
| New York City | Children's Charitable Union Kindergarten Training School. |  |  |  |  |  |  |
| Do. | Anmerican Kindergarten Training School .................... |  |  |  |  |  |  |
| Do | Elliman School Kindergarten Training Class |  |  |  |  |  |  |
| Do. | Ethical Culture Kindergarten Training School | Miss Caroline T. Haven | 1877 | 9 |  |  |  |
| Do. | Miss Hunter's Kindergarten Training School................ Seminary for the Training of Kindergartners........... | Miss Jenny Hunter ..... | 1883 | 4 | 80 45 | 1,200 1,500 | $\begin{aligned} & \text { Do. } \\ & \text { Do. } \end{aligned}$ |
| Do | Miss Merington's Kindergarten Training School. |  |  |  |  |  |  |
| Do. | All Soul's Church Free Kindergarten Training Class |  |  |  |  |  |  |
| Do | Teachers College Kindergarten Training School... | Mary D. Runyan.. <br> Mary L. Van Wage | 1880 | 4 | $\begin{aligned} & 20 \\ & 40 \end{aligned}$ | 4,600 | $\begin{aligned} & \text { Do. } \\ & \text { Do. } \end{aligned}$ |




Oswerro... Plattsourg
Potsdam. Rochester Syracuse
Utica...
-VNITOXVO HLYON

ED 98-162

Cincinnati.
Cincinnati
Do.....
Cleveland.
Columbus
Do D....
Dayton ...
Massillon.
Iolerlo.......
Youngstown
Do.

- NOD马

Portland.
PENNSYLYANIA.
Altoona
Harrisburg
Oil City
Philadelphia
Table 12-Training schools and classes for lindergartners-Continued.



## CHAPTER LIV.

## NECROLOGY OF 1897.

## AMERICAN.

Adays, Willian Taylor (known as "Oliver Optic"), in Boston, Mass., Mar. 27; b. in Medway, Mass, July 30, 1822; his father was one of the early tavern keepers; was educated in the public schools of Boston; began teaching early in life and pursued that profession, with the exception of two years deroted to hotel business, until 1865. The remainder of his life was devoted to travels and writing books for young people.
Aimen, Menry Osgood, in Hanover, N. H., June 2; b. in Fitzwilliam, N. H., Aug. 16, 1864; fitted for college at Rutland (Vt.) High School and graduated at Dartmouth College in 1887; principal Rutland (Vt.) High School 1887-88; teacher of classics in St. Luke's School, Philadelphia, Pa., 1888-89; studied in Princoton Theological Seminary 1889-90; principal High School, Northfield, Vt., 1890-91; instructor in Latin in the Hill School, Pottstown, Pa., 1891-96; secretary of Y. M. C. A. and instructor in high school, Hanover, N. H., 1896 until decease.

Allen, Frederick De Fores't, Ph. D., near Portsmouth, N. H., Aug. 5; b. in Oberlin, Ohio, May 25, 1844; graduated at Oberlin College 1863 and studied at the Unirersity of Leipsic; was professor of ancient languages, University of Tennessee, Knoxville, Tenn., 1856-68 and 1870-73; tutor in Harvard 1873-74; professor of aucient languages, University of Cincinnati, 1874-79; professor of Greek, Yale College, 1879-80; professor of classical philology in Harvard 1880-97. He was the editor and author of several Latin and Greek text-books.
Allen, Harrison, M. D., in Philadelphia, Pa., Nov. 14; b. in that city Apr. 17, 1841; graduated at medical school of University of Ponnsylvania in 1861; served through the war as a surgeon; was called to the chair of comparative anatomy and medical zoology in the medical school of his alma mater; was transferred in 1878 to the chair of physiology, which he occupied until his retirement as emeritus in 1895. In 1878 he leecame also professor of surgery and anatomy in the Philadelphia Dental College. He was president of the American Laryngological Association in 1886 and alsn of the American Anatomical Society in 1891-93. He was the author of several monographs and books on medical suljects.
Atkins, James Henry, in Meriden, Conn., Oct. 25; b. there Apr. 25, 1828; graduated at Yale College 1849; taught in Plymouth, Conn., and was principal of the academy in his native town.
Atwater, John Phelps, in Poughkeepsie, N. Y., May 23; b. in Carlisle, Pa., Mar. 4, 1813; graduated at Yale College in 1834 and at the Yale Medical School in 1837. He practiced his profession in Cincinnati, Ohio. Yale University received a bequest from him of a valuable piece of land in New Haven.
Austin, Samuél, in Providence, R. I., Feb. 14; b. in Nantucket, Mass., June 15, 1816; received his education at the New England Yearly Meeting Boarding School and became an assistant teacher in the school; 1835-37 maintained a school in

Nantucket; 1837-44 instructor of chemistry and the natural sciences in the Friends' School, Providence, R. I.; up to 1868 conducted a private school-the Union Hall School-first for boys and later for both sexes; was the agent of the Rhode Island Educational Union; conducted the first evening school in Providence; introduced drawing as a separate study in the schools; devoted his closing years to education among the poor classes. He was a member of a large number of educational, religious, and philanthropic societies.
Babcock; James Francis, in Dorchester, Mass., July 20; b. in Boston, Mass., Feb. 23, 1844; graduated at the Lawrence Scientific School in 1862, making chemistry his specialty; was professor of chemistry in the Massachusetts College of Pharmacy 1869-74, and occupied the similar chair at the Boston University. He occupied several public positions, in which his scientific knowledge was valuable, and he also lectured widely.
Baker, Erasmus Dariwin, in Montgomery, Ala., Oct. 6; b. in Owasco, N. Y., June 18, 1826; attended Moravia Academy, New York; graduated at Amherst 1843; was principal of Genoa (Ns Y.) Academy 1853; removed to Louisiana and tanght in various places in that State; was instructor in 2 private family during the first years of the war; served in the Confederate Army; resumed teaching, and, with occasional employment as a civil engineer, followed that profession until his death.
Bartleft, Enoch Noyes, in Ventura, Cal., Aug. 13; b. in Bath, N. H., July 4, 1813; graduated at Oberlin College 1838 and from the Theological Seminary 1841. Most of his life was spent in ministerial work, but he taught at Mount Vernon, Ohio; Olivet, Mich., 1846-58, and was acting principal Oberlin Collego Academy, Ohio 1866-68.
Bateman, Newton, Lld., in Galesburg, Ill., Oct. 21; b. in Fairfield, N. J., July 27, 1822; his early youth was spent at hard manual labor; worked his way through Illinois College and graduated in 1843; studied theology at Lane Theological Seminary; began his career as educator as principal of a private school in St. Lonis, Mo. From 1847 till 1851 he was professor of mathematics in St. Charles College, Mo., and in the last year had charge of a public school at Jacksonville, Ill., having also to discharge the duties of principal of a high school, and later of school commissioner of the county. In 1858 he was elected State superintendent of public instruction. He was president of Knox College, Galesburg, Ill., from 1875 to 1892, when failing health compelled him to retire. He was a member of the State board of health for a number of years.
Bfebe, Rev. Dr. Alexander, at Hamilton, N. Y., Feb. 20; aged 77 years. He became a member of the Colgate University faculty as early as 1850. The last chair occupied by him was that of homiletics.
Bell, Isact, in New York City, Sept. 30; b. there Aug. 4, 1814; wont into business when 14 years old; was established in the South for a number of years, but returned to New York in the early sixties and entered npon a career of public benefaction. He was instrumental in the establishment of Bellevue Medical College and president of its trustees for a long time; was largely instrumental in establishing the Normal College, and became responsible for the school-ships Mercury and St. Mary. He was also a memiver of the department of education, and conspicuous among the members of the Union Defense Committee.
Berry, Myrta Gay Hamilton, in Chicago, Ill., Mar. 19; b. in Clarksburg, Ind., Feb. 18, 1865; graduated at Oberlin Conservatory of Music 1887; taught in Knox Conservatory of Music 1887-88, and in Chicago 1889-93.
Blake, Henry Walcott, in Springfield, Mass., Apr. 13; b. at Coventry, Cōnn., July 20, 1848; fitted for college at Monson Academy; graduated at Williams College in 1871; taught in North Carolina and at the Hampton (Va.) Institute. He, however, turned to newspaper work and had charge of the educational business of Milton Bradley in Springfield, giving especial attention to the Kindergarten News, published by that firm.

Brace, Seth Colmins, in Philadelphia, Pa., Jan. 25 ; b. in Newington, Conn., Ang. 3, 1811; graduated at Yale College 1832; tanght in Lenox and Northampton, Mass., 1832-35; tutor at Yale 1835-38, at the same time a student of theology; was connected with edicorship of the North American at intervals until 1845; professor of mathematics in Delaware College, Newark, Del., 1842-43; taught a young ladies' seminary in Pittsfield, Mass., 1847-51; supplied pulpits for an interval and was a private tutor in New Haven for six years.
Brittan, Harriet G., in San Francisco, Cal., Apr. 30; b. in England about 1823. Her parents removed to Brooklyn, N. Y., in her childhood, and after acquiring a general education she spent two sears teaching in Liberia under the auspices of the Missionary Society of the Episcopal Church; was a missionary in India fifteen years; 1880-93 she was superintendent of the large mission for the benefit of Earasian children in Yokohama, Japan.
Bresh, Charles BenJamin, in New York City, June 3; b. in that city Feb. 15. 1848; graduated as a civil engineer at the University of the City of New York; was appointed arljunct professor of civil engineering in his alma mater in 1874, became full professor and dean of engineer school in 1888. He was widely known in professional circles for his work in desiguing and constrncting bridges and water-works. He was very influential as a member of the American Society of Civil Engineers.
Bunten, William Ellingwood, in Kingston, N. Y., Dec. 18; b. in Dunbarton, N. H., Dec. 21, 1833 ; fitted for college at Kimball Union Academy; graduated at Dartmonth College 1860; was a member of the bar ; served two Jears in the war; taught ten years at Marblehead, Milton, and Waltham, Mass., and was principal of Ulster Academy, Kingston, N. Y., for fifteen jears.
Burbeck, Edward Carleton, in Denver, Colo., Mar. 27; b. in Hanover, N. H., July 18, 1846; fitter for college at Kimball Union Academy; graduated at Drrtmouth College 1871; principal high school, Rockland, Mass., 1871-73; oecupied a like position at Winchendon, Mass., 1873-74; Mount Pleasant Grammar School, Nashua, N. H., 1875-86; High School, Danvers, Mass., 1886-95. Ill health compelled him to go to Colorado, where he engaged in business.
Butler, Charles, LL. D., in New York City, Dec. 13; b. in Kinderhook Landing, Columbia County, N. Y.; was educated at Greenville (N. Y.) Academy; studied lav and was admitted to the bar. He acquired wealth by early real estato impestments in the regions that have since become the sites of Chicago and Toledo (Ohio), and by adjusting the debts of Michigan, Indiana, and Illinois, and by railroad enterprises in the West. He gave the ground on which is an industrial school in Toledo; was a founder and officer of Union Theological Seminary; since 1836 a member of the council of the University of the City of New York; a founder and officer also of the Protestant Half-Orphan Home and of the Westchester Temporary Homo for Friendless Children. He gave $\$ 100,000$ to Union Theological Seminary and the University of the City of New York.
Carrutir, James Harmison, in Van Buren, Ark., Apr., 1896; b. in Phillipston, Worcester County, Mass., Feb. 10, 1807; entered Amberst College, but gratuated at Yale College 1832; studied theology at Auburn and Yale Divinity School; taughit three years between the two courses, and upon gradnation from Divinity School taught eighteen years in Salem, Cherry Valley, and Watertown, N. Y.; 1863-66 was professor of natural sciences in Baker Unirersity in Kansas. He did ministerial work periodically, and for a short time about 1880 instructed in botany in Washburn College at Topeka. He published much, chiefly in counection with his work as State botanist.
Chamberlain, David Chadwick, in East Jaffrey, N. H., Oct. 24; b. in Jaffrey, N. H., Mar. 1, 1817; fitted at Melville (Jaffrey, N. H.) and Hancock academies; graduated at Amherst College 1844; taught in Melville Academy 1844-55, in Winchendon, Mass., 1855-66, and in succession for several years at Fitzwilliam and Pelham, N. H., and Ashburnham and Irving, Mass. He was occupied with other pursuits the rest of his life.

Chamberlain, Joshua Metcalf, in Grinnell, Iowa, Nov. 12; b. in West Brookfield, Mass., Oct. 2, 1825; fitted at Thetford (Vt.) Academy ; graduated at Dartmouth College 1855 and at Andover Theological Seminary 1858. His ministerial labors were mostly in Iowa, and he was a trustee of lowa Coliege from 1861, treasurer and financial agent 1868-87 and its librarian 1889-96. He was at different times editor of the "Grinnell (Iowa) Herald," of the "Grinnell Independent," and of "Congregational Iowa."
Chamberlin, H. B., F. R. A. S., in England, in May; b. there in 1847; founder of the Chamberlin Observatory at Denver, Colo.
Chandler, George Langdon, in Auburndale, Mass., Oct. 6; b. in Waterville, Me., Jan. 25, 1849; fitted for college in the Waterville Academy; attended Colby University, and graduated at Bowdoin College 1868. He taught successively at Dudley, Mass., Matawan, N. J., Kingston, Mass., and Mankato, Minn., 1873-79; was principal of Franklin (N. H.) high school, during which period he was a tutor of mathematics one year and an instructor of natural history another year at Bowdoin ; 1879-88 was principal of a grammar school in Newton, Mass., and from the last date until his death he was teacher of physics and botany in the Newton high school, though for many years he had been superintendent and director of nature study in all the public schools of the city.
Claggett, Jas. Milton, in New York City, Jan. 7; b. in Northboro, Mass., Dec. 31, 1862; graduated at Yale College in 1884; established Maple Grove Academs in Eatontown, N. J., and conducted it until 1889; he then removed to New York and taught in the public schools.
Colbr, Chas. Edward, in New York City, Oct. 15; b. in Lawrence, Mass., Oct. 18, 1855 ; studied in the common schools, one year in Germany, and graduated at Columbia College in 1877 as an engineer. Upon graduation became an assistant to Prof. Chas. F. Chandler, professor of analytical chemistry at Columbia College, and was associated with him until 1889, when the chair of organic chemistry was created for him.
Colgate, Samuel, in Orange, N. J., Apr. 23; b. in New York City, Mar. 22, 1822; succeeded his father as head of the Colgate \& Co., soap manufacturers; with a brother he erected Colgate Academy at cost of $\$ 60,000$, and in recognition of their generosity to Madison University, in 1889, the name of the institution was changed to Colgate University. He was a large contributor to various charities. Among a large number of societies of the Baptist Church that shared in his benefactions was the Educational Society, which received $\$ 10,000$.
Collier, Peter, Ph. D., M. D., in Ann Arbor, Mich., June 29, 1896; b. in Chittenango, N. Y., Aug. 17, 1835; graduated at Yale Sheffield 1860; was an assistant in chemistry 1862-66; became professor of chemistry, mineralogy, and metallurgy in the University of Vermont, also professor in the medical department and its dean from 1871. He served as one of the United States scientific commissioners to the Vienna Exposition in 1873; was chief chemist of Department of Agriculture at Washington for six years and later director of the New York State Agricultural Experiment Station at Geneva.
Cope, Prof. Edward Drinker, in Philadelphia, Pa., Apr. 12; b. thero July 28, 1840. His education was obtained at the Friends' Select School in Philadelphia and in Westtown Academy; later he was associated with a group of young naturalists who received instruction from Professor Baird while in the employ of the Smithsonian Institution; during 1863-64 he studied in Europe, and on his return accepted the chair of Natural Sciences in Haverford College. Under officialFederal or State-supervision he made geological surveys of Ohio, Kansas, Wyoming, Colorado, and nearly all the Territories, traversing from the Gulf of Mexico to the British line and from the Missouri River to the Pacific Ocean. He made great discoveries in his field of science. After 1878 he was an editor and part of the time owner of "The American Naturalist." From 1891 he occupied the chair of Geology and Palæontology in the University of Pennsyl-
vania; was curator and secretary of the Academy of Natural Sciences. He bequeathed his library and osteological collection to the school of biology and directed that his palæontological collections should be sold at his death and the proceeds devoted to the endowment of a professorship of vertebrate palæontology in the Academy of Natural Sciences. His writings are numerous and valuable.
Corson, Juliet, in New York City, June 18; b. in Roxbury, Mass., Feb. 14, 1842; in her early life she had to struggle with poverty, but employment in a library helped her to drift into a successful career as a writer for magazines and periodicals. In 1876 she established the New York School of Cookery and was its superintendent until 1883. Her instructions were not restricted to any one class of society. She wrote several very useful books on cooking and other branches of domestic science. The title of "Mother of Cookery" was justly accorded to her.
Cothren, Charles, in Red Bank, N. J., Oct. 28; b. in Farmington, Me., June 16, 1822; fitted for college at the academy at Farmington; graduated at Bowdoin College in 1849; taught three years in Connecticut and New Jersey; 1852-67, with his brother, he established and conducted Ocean Institnte, near Long Branch, N. J.; tanght again in Red Bank 1887-70, and spent the remainder of his life in business pursuits and performing useful public duties for his town.
Cotting, Bentamin E., A. M., M. D., in Roxbury, Mass., May 22; b. in Arlington (then West Cambridge) on Nov. 12, 1812; went first to the regular public schools and later was an inmate of Angiers' Private School, in Medford, one of the popular boarding schools of the day; graduated at Harvard College in 1834. John Lowell, jr., having bequeathed about $\$ 250,000$ for the maintenance and support of public lectures to be delivered in Boston, Dr. Cotting became the assistant of Dr. Wyman in this work, and from 1842 until Apr., 1897, was curator of the fund and in reality developed the practical system for its application. He was also very prominent in his profession.
Crawford, Rev. A. K., in Oakland, Cal., October 11; b. in Nova Scotia April 27, 1830; educated at Concord, N. H., and Wesleyan University, Connecticut; tanght school in the University of the Pacific, and entered the ministry, still teaching and doing institute work in California.
Crockrr, Rev. J. N., in Saratoga, N. Y., June 20; b. in Cambridge, N. Y., May 13, 1827; graduated at Princeton Theological Seminary; preached at Carlisle and Charlton, N. Y.; was superintendent of schools for a number of years at Saratoga; returned to the ministry and from 1879 until his death occupied the superintendency for New York, having been appointed by the State Presbyterian Synod.
Crooker, George Richard, in Madison, N. J., Feb. 20; b. in Philadelphia, Pa., Feb. 3, 1822; graduated at Dickinson College in 1840; spent two yoars West as a missionary; 1842-43 was classical and mathematical tutor of Dickinson College; 1843-46 principal Collegiate Grammar School ; 1846-48 adjunct professor of ancient languages. He was engaged in the ministry in Philadelphia, Wilmington, New York, and Brooklyn, and in 1860-75 editor of The Methodist; from 1880 until his death he was professor of historical theology in Drew Theological Seminary. He was the founder of Children's Day in the Methodist Church and the children's fund for education of Methodist youth.
Crosby, Minott Sherman, in Waterbury, Conn., Jan. 16; b. in Conway, Mass., June 23,1829 ; fitted for college at Phillips (Audover) Academy and graduated at Amherst College in 1850; 1850-60 taught in public schools of several places in Connecticut and in private schools in Virginia and New York; 1860-71 was the principal of the Hartford (Conn.) Female Seminary; 1870-91 superintendent of schools and principal of high school, Waterbury, Conn. In 1891, on separation of the two offices, he retained the superintendency of schools and during the remainder of his life.

Currier, David D., in Latrence, Mass., Mar. 9; aged 92; b. in Wentworth, N. H.; was educated in the public schools of his native town and made teaching his life work.
Dahl, Olaus, Ph. D., in Chicago, Ill., Mar. 10; b. in Nannestad, Norway, Sept. 15, 1859; came to the United States in childhood; graduated at Luther College, Decorah, Iowa, 1885, and at the Yale Divinity School in 1891; was the tutor in the Danish and Swedish languages in the academical department of Yale 1890-94, and from 1894 until his death was lecturer on Scandinavian literature in the University of Chicago.
Damon, Mehitable C., in Lynn, Mass., Apr. 27; b. in Waltham, Mass., in 1820. She taught in Lynn from the time she was 15 years of age, with the exception of two or three jears.
Daniels, Frank Willis, in Winchester, Mass., Dec. 8; b. in Franklin, N. H., Oct. 7, 1848; graduated at Dartmouth College 1868. He was engaged in mercantile pursuits. Dartmouth College was made his residuary legatee.
Davidson, Milton, at Newfane, Vt., Aug. 23; b. in Unity, N. H., Nov. 28, 1834; fitted at Kimball Union Academy, Meriden, N. H., and New London (N. H.) Academy; graduated at Dartmouth College 1862; taught in Vermont, New Hampshire, and New York 1861-68; Fairfax, Vt., 1868-70; principal Leland and Gray Seminary, Townsend, Vt., 1870-74. He was a banker the remainder of his life.
Day, David A., at sea Dec. 17; b. in Pemnsylvania about 1847; was educated at the Susquehanna Lutheran University, Selinsgrove, Pa., and graduated in medicine; went to the Muhlenberg Mission, near Monrovia, Liberia, Africa, ant labored twenty-three years, combining in his work the evangelical, educational, and industrial elements. He allotted small tracts of a 10,000 -acre farm which he had acquired and brought to a high state of cultivation to the people of the mission, and made the mission one of the most successful on that continent.
Dearborn, Prof. Heman Allen, in College Hill, Mass., May 4; b. in Weare, N. H., May 18, 1837. He attended the district schools and Francestown Academy, and began teaching at the age of 17, at the same time studying. He entered Tufts College in his junior jear and graduated in 1857 as valedictorian of the first class to receive degrees from the college. He taught a school in Arlington for three years after his graduation and then became principal of the Clinton Libcral Institute. From 1864 he was connected with Tufts College as professor of Latin, and up to 1894 also as secretary of the faculty, and at the last date, when the chair of registrar was created, he filled that position, whose duties he had aiready performed for a number of jears. Up to W. A. Start's appointment as treasurer of the college he had also acted as assistant. He founded a scholarship, known as the scholarship of the class of 1807, for the benefit of women students.
Dexnett, Mirs. Carolyn I. (Works), in Fitchburg, Mass., Mar. 30; aged 40 years. She had been a teacher in West Fitchburg and an assistant public librarian for several years.
Doane, Thomas, in West Townsend, Vt., Oct. 22; b. in Orleans, Mass., Sept. 20, 1821; was weil known as a very successful and skillful civil engineer, being connected with the construction of the Hoosac Tunnel and large railway construction in the West. While in Nebraska he promoted the agitation for the cstablishment of a college and secured for its site a square mile of ground at Crete, 20 miles south west of Lincoin. For his services the instituition was named Doane College. At his death he bequeathed to the college the reversion of an estate valued at $\$ 150,000$ to $\$ 200,000$.
Dodd, Prof. Cyrus Morris, in Williamstown, Mass., Apr. 25; b. in Broadalbin, N. Y., Nov. 19, 1826; being dependent upon his own resources he was compelled to resort to teaching after one year in college. After an absence of seven years
teaching in Maryland and elsewhere he reentered college in the junior class and graduated at Williams in 1805. Upon learing college he taught two years at Salem, N. J.; was then appointed professor of Latin in Jefferson College, where he served until 1866 ; in $1866-70$ he was professor of Latin and mathematics in the University of Indiana. He was then called to the chair of mathematics in Williams College and remained there until his death.
Drisler, Prof. Henry, LL. D., in New York City, Nov. 30 ; b. on Staten Island, N. Y., Dec. 27, 1818; graduated at Columbia College in 1839 and became classical instructor in Columbia Grammar School; in 1843 was appointed tutor of Latin and Greek in Columbia, and in 1845 adjunet professor of those languages; in 1857 was made full professor of Latin and ten years later professor of Greck; in 1889 became dean of the faculty of arts, which office and title of Jay professor of Greck he retained until 1894 when he became professor emeritus. Twice he was acting president--in 1867, when President Barnard was absent as commissioner to the Paris Exposition, and in 1888, when the president resigned. With Dr. Anthon he prepared a series of classical text-books and reedited several lexicons. The trustees of the college established the Henry Drisler fellowship in classical philology and President Low created the Henry Drisler classical fund of $\$ 10,000$ for the purchase of equipment for the departments of Latin and Greek as a memorial to him.
Dudley, Jas. Frederick, in Neiv Orleans, La., Mar. 19; b. in Hampden, Mo., Feb. 1, 1841; graduated at Bowdoin College in 1865; was principal of the academy at Hampden, Me., and later of the high school at Thomaston, Me. He went into insurance business, and at his death was a director and vice-president of the $\mathbb{\text { Etna }}$ Insurance Company of Hartiord, Conn.
Duryee, Dt. William Rankin, in New Brunswick, N. J., Jan. 20; b. in Newark, N. J., Apr. 10, 1838; graduated at Rutgers College in 1856 and at the New Brunswick Theological Seminary in 1851; served during the war as chaplain and acting assistant surgeon. In 1864 be organized and was pastor of the Reformed Church at Lafayette, a suburb of Jersey City, until 1891, when he became professor of ethics and chaplain at Rutgers Collego. He was the author of $a$ urmber of publications.
Dunning, Homer Northrop, in South Norwalk, Conn., Mar. 27; b. in Brookfield, Conn., July 17, 1827; graduated at Yale College 1848; was principal of the academy at Sag Harbor, Long Island, one year; then took full course at Union Theological Seminary. He retired from ministerial work in 1883, and until his death taught privately in South Norwalk and did literary work.
Dwight, Joseph Mclaren Breed, in New Haven, Comn., June 28; b. in Norwich, Conn., Aug. 11, 1825; graduated at Yale in 1846; taught a couple of years in the Brainard Academy at Haddam, Conn. ; was a tutor in Yale 1849 to 1854; studied theology first at Andover and removed to Yale Divinity School in 1856; 1856-59 was engaged in New Haven, Conn., in private teaching and preaching. He studied law in Columbia Laws School, graduated, and was admitted to the bar. From 1863 to 1866 he was assistant instructor in municipal law in Columbia College. The remainder of his life was absorbed by private duties at New Haven, where he made his home.
Dyer, Micah, in Boston, Mass., Nov. 24 ; b. there Sept. 27, 1829; attended the old Eliot School, where he received the Franklin medal; studied also at Wilbraham Academy and Tilton Seminary, and graduated at Harvard Law School in 1850. He had a large practice and the management of a number of estates; was several times elected to the legislature; served a number of years as member of the Boston school board and chairman of the Eliot committee. He was the first president of the Female Medical College, in Boston, established in 1855. He was a member of a large number of charitable, benevolent, religious, patriotic, and philanthropic societies.

Emery, Caled, in Brookline, Mass., Dec. 1; b. in Sanford, Me., Mar. 18, 1813; fitted for college at Phillips Andover Academy, Mass.; graduated at Dartmouth College in 1842; studied at Andover Theological Seminary, but chose teaching as a profession; taught one year in a private school in Westboro, Mass.; one year in Nashua, N. H.; Pinkerton Academy, Derry, N. H., 1846-48; first principal of High School, Charlestown, Mass., 1848-50; Boston Latin School, 1850-55; Ladies' Private School, 1855-64; Charlestown (Mass.) High School, 1864-85. The remainder of his life was spent in retirement in Boston and Brookline.
Evans, Dr. John, in Denver, Colo., July 3; b. in Waynesville, Ohio, Mar. 9, 1814; graduated at the medical department of Cincinnati College in 1838; practiced first at Ottawa, Ill., but soon removed to Attica, Ind., where he was instrumental in the erection of the first insane asylum in Indiana. He was superintendent of this institution till 1848, when he became a member of the faculty of Rush Medical College at Chicago. Early investments in real estate in Chicago gave him wealth and he founded Northwestern University in Evanston, Ill. He became interested in railroad investments; was governor of Colorado Territory; organized the military by which General Sibley's Texas Rangers were repelled in invading the State. President Johnson removed Governor Evans, but on admission of Colorado to statehood he was returned as United States Senator. He founded the University of Denver, giving $\$ 200,000$ for its construction and a subsequent large endowment; erected Evans Chapel, and aided nearly every Methodist congregation and educational institution in the State.
Evans, Dr. Thomas Williams, in Paris, France, Nov. 14; b. in Philadelphia, Pa., Dec. 23, 1823; early in life took up the work of a goidsmith and dental-plate maker, which led him to dentistry. In 1818 he went to Paris to engage in the profession of dentistry and remained there until his death. His practice brought him wealth. Out of an estate valued at $\$ 8,000,000$ to $\$ 12,000,000$ he bequeathed all but $\$ 250,000$ for founding a museum and institute in Philadelphia, Pa .
Fairbanks, Lorenzo Sayles, in Boston, Mass., May 22; b. in Pepperell, Mass., Mar. 16, 1825; fitted for college at Leland and Gray Seminary, Townshend, Vt., and Black River Academy, Ludlow, Vt.; graduated at Dartmouth College in 1852; studied law and settled in Davenport, Iowa; was principal of a commercial school, Philadelphia, Pa., 1860-63; principal and proprietor Quaker City Business College, Philadelphia, 1863-68. He returned to the practice of his profession in Boston.
Fenn, Augustus Hall, in W. Winsted, Conn., Sept. 12; b. in Plymouth, Conn., Jan. 18, 1844. Served in the war until he lost an arm; resigned and studied law. In 1887 he was appointed a judge of the superior court of Connecticut, and in 1893 became a judge of the supreme court of errors. For many years he was a lecturer on law at the Yale Law School.
Finzer, Nicholas, in Louisville, Ky., July 25, 1896; b. in canton of Berne, Switzerland, Jan. 1, 1848; came to Louisville very early in life and was educated in the common schools. With a brother went into the tobacco business in a very small way, but the business prospered and assumed large proportions, and he at length became the head of the company and officer in many others as well. He was the father of the Louisville public night schools, being a member of the school board for a number of years. He also succeeded in having a resolution passed providing for an annual picnic for the school children and for an advanced course for night scholars; he was instrumental in the organization of a club to secure courses in instruction in literature, history, rhetoric, and composition. He expended annually hundreds of dollars in prizes for the sehools.
Folsom, Prof. E. G., in Penn Yan, N. Y., Junc 16; b. in Wayne, Ohio, sixty-six years ago. He began teaching penmanship in Cleveland, Ohio, when 20 years of age; graduated at Oberlin College 1857; opened the first business college in Clcveland and remained there several years; in 1862 took charge of the business college in

Albany, N. Y., and was interested in others in important cities of the State. He was President of the Association of Business Educators of America.
Ford, Chas. Heniry, in Chicago, Ill., Jan. 8; b. in Abeiah, Syria, where his father was a missionary; his early youth was spent in Athens, Pa.; he was fitted for college by Professor Phillips, of Boston, and graduated at Williams College in 1877; tanght four years in tho State Normal School, Kirksville, Mo.; removed to Chicago, and after teaching a year at the Cook County Normal School became, and remained until his death, principal of the Calhoun School.
Foster, Prof. Joins, in Boston, Mass., in October; b. in Hebron, Washington County, N. Y., eighty-three jears ago; graduated at Union College in 1835; in 1836 ho was made a member of the faculty of his alma mater, and for nearly half a century he instructed her sons in natural philosophy. In 1883 he became emeritus professor.
Foster, John, in Boston, Mass., Apr. 9; b. in Hudson, N. H., Dec. 30, 1817; was soon established in the grocery business and acquired wealth. He made a large contribation toward erecting one of the recent buildings of the Massachusetts Institute of Technology, and at his death made it his beneficiary to the extent of $\$ 10,000$. He left $\$ 121,000$ to various charitable, religious, and educational societies and institutions.
Fowler, Stephen, in Litchfield, N. H., May 3; b. in Windsor, Vt., Mar. 3, 1812; graduated at Dartmouth College in 1835; taught in the South 1835-43; founded a school for boys in Detroit, Mich., and conducted it several jears. He went into business later.
Foye, James Clark, in Chicago, Ill., Oct., 1896; b. in Great Ealls, N. H., Mar. 1, 1841; graduated at Williams College in 1863; was a teacher of natural sciences in Cincinnati Wesleyan Female College; principal for a short time of the Linden Hill Academy, New Carlisle, Ohio, and afterwards president of Jonesboro Female College in Tennessee ; 1867-93, was professor of chemistry and physics at Lawrence University. At the opening of Armour Institute, in Chicago, he was elected to the chair of chemistry and remained there until his death.
French, George Franiklin, in Minneapolis, Minn., July 13; b. in Dover, N. H., Oct. 30, 1837; graduated at Harvard College in 1859 and at its medical school in 1862; served through the war as a surgeon; settled in Portland, Me., for practice and in 1875 was appointed instructor in physiology and lecturer on dermatology in Portland Medical School. Having removed to Minneapolis, in 1881 was appointed lecturer on obstetrics in St. Panl Medical School; 1882-85, held the same chair in the Minneapolis Hospital College, and in 1886 became professor of gynæcology in the same institution. In 1887 he was president of the State examination board, and in 1890 held a like position in the Minnesota Academy of Medicine.
French, John Raymond, LL.D., in Syracuse, N. Y., Apr. 29; b. in Pulaski, Oswego County, N. Y., Apr. 21, 1825; graduated at Union College in 1849; soon became professor of mathomatics in Falley Seminary, Fulton, N. Y., and subsequently principal; 1854-59, principal Mexico Academy; studied law and practiced five years. In 1864 he became professor of mathematics at Genesee College, and when that institution was removed to Syracuse, in 1871, he was elected dean of the Collego of Liberal Arts, retaining also the chair of mathematics till within a short time of his death. For nearly three years he was vice-chancellor of the university.
Goode, William Henry, in Staunton, Va., Feb. 2; b. in Dinwiddie County, Va., Mar. 9, 1814; graduated at Hampden Sidney College 1839 and at Yale Medical College 1842; he was assistant for a number of years to Prof. John W. Draper in chemistry at the University of the City of New York.
Gould, Prof. Benjamin Apthorp, in Cambridge, Mass., Nov. 26; b. in Boston in 1824; graduated at Harvard in 1839; studied astronomy and other sciences abroad. He did much to arouse interest in astronomy throughout this country; main-
tained at his own expense the astronomical journal published in the United States; organized the Dudley Observatory in Albany, and did a large work in the science in South America.
Greatorex, Mrs. Eliza, in Paris, France, Feb.; b. at Manor Hamilton, Ireland, Dec. 25, 1819; her husband was the noted singer of that name; she was the first woman elected an associate of the National Academy, and she was also the only woman who had membership of the Artists' Fund Society of New York. Her paintings were much admired, but pen and ink work was her specialty.
Green, Traill, LL. D., in Easton, Pa., Apr. 29; b. there May 25, 1813; graduated in merlicine at the University of Pennsylvania in 1835 and settled in Easton for practice; was elected professor of general and applied chemistry at Lafayette College in 1837 and of natural sciences at Marshall College, Mercersburg, in 1841. He returned to Lafayette College in 1847; organized the Pardee Scientific Department there and was its dean till within a few years of his death. He built and gave to the college the Astronomical Observatory; was the first president of the American Academy of Medicine, and president of the Pennsylvania Medical Society in 1868.
Gregory, Emily L., Ph. D., in May; was a graduate of Cornell and studied at Zurich; she was head of the department of botany in Barnard College and was the author of several text-books on her subject.
Gregory, Henry Duvall, LL. Dı, in Philadeīphia, Pa., Feb. 14; b. there Sept. 18, 1819; graduated at the University of Pennsylvania in 1838; spent several years as an assistant teacher in the University Grammar School and as teacher of Latin in Haverford College; 1845-72, conducted a classical school in Philadelphia; 1875-83, was professor at Blair Presbyterian Academy at Blairstown, N. J.; 1883, until his health made his retirement necessary in 1892, he was vice-president of Girard College.
Griggs, Joseph Franklin, in Pittsburg, Pa., Apr. 1; b. in Sutton, Mass.; prepared for college at Wesleyan, Wilbraham, and Leicester academies; graduated at Yalo College 1846; studied a while at Audover Theological Seminary; taught select schools in Sutton and Holden, Mass., 1847-48, and in the Men's Winter Šchools, Worcester, Mass., 1848-49; conducted a classical school for boys in Allegheny and Pittsburg, Pa., 1849-55, when it was merged into tho Wesleyan University of Pennsylvania. He was then professor of ancient languages in the university until 1864; then professor of the Greek language and literatare until 1880; afterwards secretary and treasurer of tho board of trustees until disabled by sickness in 1892.
Hale, George Silsber, A. M., in Bar Harbor, Me., July 27; b. in Keene, N. H., Sept. 24, 1825; attended school in Keene, Concord, and Walpole, N. H., Phillips Exeter Academy, and graduated at Harvard in 184t; atteuded the Cambridge Law School; taught school in Virginia and was admitted to the practice of law. He attained the highest rank at the bar; was interested in a great many charitable and philanthropic movements, and for years was the president of the board of trustees of Phillips Exeter Academy.
Hallock, Dr. Louis, in New York City, Mar. 3; b. there June 30, 1803; graduated at College of Physicians and Surgeons in 1825; became a homeopath, and in 1844 assisted in the founding of the American Institute of Homeopathy; he was a trustee of the New York Homeopathie Medical College and Hospital.
Hardy, George E., in Roselle, N. J., Apr. 15; b. in New York City in 1859; graduated at the College of the City of New York in 1878; began teaching in the publie schools of the city; was principal of Grammar School No. 80 a number of years; was elected president of the State Teachers' Association; from 1894 till his death was professor of the English language and literature in the College of the City of New York. He was favorably known as a writer and lecturer on educational topics; was a founder of the Catholic Summer School of America; was the author of Five Hundred Books for the Yonng, an unfinished history of England, and a history of English literature for schools.

Harman, Henry M., D. D., LL. D., in Baltimore, Md., July 2; b. in Arqudel County, Md., Mar. 22, 1822; gradvated at Dickinson College, 1849; became professor of ancient languages and literature in Dickinson College in 1870, and was professor emeritus at the time of his death.
Harris, Henry Herbert, D. D., Ll. D., in Lynchburg, Va., Feb. 4; b. in Lonisa County, Va., Dec. 17, 1837; graduated at University of Virginia in 1860; was an instructor in Albemarle Female Institute; served through the civil war in the Confederate Army; was largely instrumental in the reopening of Richmond College; after the war was professor of Greek there, 1866-96, and claairman of its faculty four years; 1896 until his death he was one of the faculty of the Southern Baptist Theological Seminary at Louisville, Ky. His first preaching was to a colored congregation; was pastor of a small church in the suburbs of Richmond; was at different times editor of the Educational Journal, of Virginia, Foreign Mission Journal, and The Religions Herald, of Ricbmond.
Hart, Charles Theodore, in Berkeley, Cal., Feb. 18; b. at Mystic Bridge, Conn., Jan. 15, 1827; graduated at Yale College, 1847; went to Sacramento, Cal., and established and conducted for a number of years the first school there. He also practiced law.
Harwood, Chas. Ellott, in Orleans, Mass., Mar. 22 ; b. in Enfield, Mass., June 16, 1842; fitted for college at Williston Seminary; graduated at Amherst College in 1865 and at Andover Theological Seminary in 1869; taught in Lawrence Acadeñ, Falmoath, Mass., aud 1871-80, while pastor at Orleans, Mass., was also superintendent of the town schools. He traveled abroad, and ended his life as a home missionary among the islands of the Maine coast.
Haskell, Robert Chandler, in Lansingburg, N. Y., May 12; b. in Weathersfield, Vt., Sept. 6, 1834; graduated at Yalo College, 1858; was professor of mathematics in Oahu College, Honolulu, nearly two years, but was obliged by the death of a brother to take up his business of manufacturing floor oilcloths in Lansingburg, N. Y. He was a school trustee for nearly thirty years, and in more than one instance employed at his own expense instructors in order to insure the high standard of efficiency at which he was aiming.
Hesing, Washington, in Chicago, 111., Dec. 18; b.in Cincimati, Ohio, May 14, 1819; graluated at Yale College, 1870, and studied in Germany. He succeeded his father in the proprietorship of the Illinois Staats-Zeitung, and was connected with the paper until his death; was a member of the Chicago board of education, 1872; a member of the connty board of education, 1880, and its president in 1882. In 1890, during the controversy on the school question, he gave his influence to the liberal side. He was postmaster of Chicago in 1894, and the unsuccessful independent candidate for may or in the spring of 1897.
Hewit, Augustine Francis, 1. D. (whose baptisinal name was Nathaniel Augustns), in New York City, July 3; 1. in Fairfeld, Conn., of Presloyterian parentage, Nov. 27, 1820; fitted for college at Phillips Andover Academy ; graduated at Amberst College in 1839; bccame a Congregational minister, then an Episcopal minister, and, finally, a Roman Catholic. He was one of the chief authorities on church history, theology, and philosophy in this country; was the superior of the Paulists and lecturer in the Catholic University of America.
Hinckley, Edward Strong, in Norwich, Conn., Aug. 10 (1896); bo in Lebanon, Conn., Nov. 12, 1834; graduated at Yale College in 1858; taught and studied law in Norwich, Conn., 1858-60; principal academy, Lebanon, Conn., 1850-61; served through the war; was for many years principal of the Lebanon Academy.
Hitchcock, Oscar Blakeslee, at Shelter Island, New York, July 7; b. in Windham, N. Y., May 24, 1828; fitted for college at Delhi (N. Y.) Academy, Wesleyan Academy, Wilbraham, Mass., and Amenia (N. Y.) Seminary; graduated at Union College, 1852; studied at Yale Divinity School, Ponghkeepsie Law School; graduated at Andover Theological Seminary, 1856; served through the war as a chaplain, and resided at Windham, N. Y., without charge, preaching and lectur-
ing occasionally, being occupied principally with the care of his father's estate. He left $\$ 30,000$ and his library to Union College.
Hoar, Judge Ebenezer Rockwood, Jan. 31; b. in Concord, Mass., Feb. 21, 1826; a brother of Senator George F. Hoar. He was a member of the State senate, 1846; judge court common pleas, 1849-55; judge of the supreme judicial court, 1859-69; overseer of Harvard College for nearly twenty-five years; AttorneyGeneral of the United States, 1869-70; a member of the Joint High Commission of United States, Great Britain, and Ireland in 1871. He was also a member of the Forty-third Congress and Presidential elector at large in 1876.
Hoffanan, Cifarles Frederici, D. D., LL. D., D. C. L., on Jekyll Island, near Brunswick, Ga., Mar. 4; b. in New York City in 1834; graduated at Trinity College in 1851; took a three years' course at General Theological Seminary. He did mission work at Boonton, N. J., held charges at Burlington, N. J., and Garrisons, N. Y., and from 1874 until his death was rector of All Angels, New York City. He inherited large wealth from his father and gave liberally. His gifts to education were to St. Stephen's College at Annandale, N. Y., $\$ 200,000$; an endowment to Hobart College at Geneva, N. Y.; a library building for the A. T. Porter Institute at Charleston, S. C., and $\$ 40,000$ to the University of the South at Suwanee, Tenn.
Hollister, Arthur Nelson, in Hartford, Conn., Jan. 18; b. in Andover, Conn., Dec. 28, 1835; graduated at Yale College, 1858; he taught eight years in Hartford, Conn., in the sisties, and again from 1878 to 1883.
Holmies, Prof. George Frederick, in Charlottesville, Va., Nov. 4; b. in Demerara, British Guiana, in 1820; was educated at Durham University, England, and came to the United States in 1838; tanght school in Virginia, Georgia, and South Carolina, and in 1842 was admitted to the bar of the last State by special act of the legislature before he was naturalized. He was a professor in Richmond College, $1845-46$; president of University of Mississippi, 1846-47; professor of history, international law, and political economy in William and Mary College, 1817-57; profescor of history and literature in the University of Virginia, 1857, until his death. At one time he was assistant editor of the Southern Review, and he was author of a series of text-books for use in Southern schools and colleges.
Holmes, Saniuel, in Montclair, N. J., Dec. 9; b. in Waterbury, Conn., in 1824; a member of the prominent missionary societies and for many years treasurer, secretary, or vice-president of the American Educational Society. To the latter society he gave $\$ 5,000$; to Yale four perpetual scholarships for students from Waterbury, Conn., and $\$ 25,000$ for the founding of a professorship at Yale Divinity School.
Hosrord, Mrs. Abigall Allen, in Olivet, Mich., Apr. 24 ; b. in Mansfield, Mass., Apr. 10, 1824; graduated at Oberlin College in 1846; was principal of ladies' department and teacher, Olivet College, 1848-58. Her husband was Prof. Oramel Hosford of the same institution.
Hovey, Gen. Charles Edward, in Washington, D. C., Nor. 7; b. in Thetford, Vt., Apr. 26, 1827; fitted for college at Thetford Academy and graduated at Dartmouth College in 1852 ; principal of the high school, Framingham, Mass., 1852-54; in charge of a private school in Peoria, Ill., one year; later superintendent of the city public schools, and president of the State Teachers' Association. The organization of the Illinois Normal University was largely due to his efforts, and he was its president, 1857-61. His service in the war began as colonel of the Thirty-third Illinois Infantry, and he was brevetted major-general for gallantry. He practiced law in Washington the remainder of his life.
Howard, Catharine Lathrop, in Springfield, Mass., Dec. 3; b. there Fel. 24, 1833; was educated in the public schools, and Miss Harding's class and Miss Campbell's school. In 1860 in Louis Agassiz's school at Cambridge, Mass. For twenty-seven years she conducted the Howard School for Girls in Springfield.

Hubbard, Gardiner Greene, LL. D., in Washington, D. C., Dec. 11; b. in Boston, Mass., Aug. 25, 1822; graduated at Dartmouth College in 1841, and studied law at the Harvard law school. He acquired large wealth, was a promoter of the Beil Telephone. He was the founder and trustee, until his death, of the Clarke School for the Deaf and Dumb in Northampton, Mass. ; a trustee of Columbian University, and gave the money for a course of lectures at his alma mater.
Mubbard, Mrs. Melissa J., in Gleuullin, N. Dak., Apr. 20; b. in Goshen, Mass., Feb. 19, 1833; prepared for college at Oberlin Preparatory, and graduated at Oberlin College in 1859; taught in Oberlin, 1859-62; in Sheboygan Falls, Wis., 1862-65; in Oberlin, 1865-85 ; in Glenullin, 1885-96.
Hubbard, Newton S., in Brookline, Mass., Feb. 14; 1. in Brimfield, Mass., Dec. 19, 1816; was educated in the public schools of his native town, and at Monson, Westfield, and Amherst academies; he started as a teacher but engaged later in farming. He traveled extensively and was rery progressive. From the founding of the Hitchcock Frce High School until his death he was a trustee, and from his twenty-first year he was a member of the school committec of Brimfield.
Hyde, Henry Dwight, in Boston, Mass., Apr. 17; b. in Southbridge Mass., Apr. 27, 1838; fitted for college at Leicester Academy and Williston Seminary; graduated at Amherst College 1861; he became a lawyer of wide prominence; was assistant United States district attorney in 1867; was the donor (1870) to Amherst College of the Hyde prize for excellence in oratory for seniors, and a trustee of the college from 1877 until his death; a trustee also of Mount Holyoke College, 1880-93.
Jackson, Dr. Samuel Hainemann, in Jamaica Plain; Boston, Mass., Feb. 27 ; b. in Plymouth, Mass., June, 1854; was educated in the public schools of Plymouth, and graduated at the Pulte Medical School, Cincinnati, Ohio; was for several jears professor of medicine in the Boston University Medical School.
Jerman, Jameg Barclay, LL. D., in Albany, N. Y., July 13; b. there Aug. 13, 1809; fitted for college at Washington Academy, Cambridge, N. Y.; entered Middlebury College but graduated at Amherst College in 1831; was admitted to the bar in 1836. He inherited large wealth from his father, and his life was chiefly spent in the care of the estate and in philanthropic works. Besides liberal gifts to other causes, he gave to education $\$ 50,000$ for the founding of a professorship of natural theology at Williams College, and $\$ 30,000$ for the founding of a professorship of political economy and international law at Middlebury College.
Jones, William Allen, in Bakersville, N. C., Mar. 13; b. in Raleigh, N. C., June 18, 1831; graduated at Oberlin College 1857 and was a teacher for many years.
Jump, Dr. Julia Chapin, in Oberlin, Ohio, Mar. 15; b. in Vernon, N. Y., Jan. 20, 1832; graduated at Oberlin College in 1865; taught in the public schools of Oberlin, 1865-70, and in Cleveland, Ohio, 1870-82; was a graduate of the Homeopathic Hospital College of Cleveland, and from 1884 was engaged in the practice of her profession.
Keys, Emerson Willard, in Brooklyn, N. Y., Oct. 17; b. in Jamestown, N. Y., June 30, 1828; began teaching in his native county when 16 years of age; graduated at the normal school at Albany, N. Y., in 1848; taught in several seminaries and academies until 1856; was deputy superintendent of public instruction of New York City eight jears and aided in the organization of teachers' institutes; was occupied rariously until 1882, and from that time until his death was chief clerk of the Brooklyn department of public instruction. He published many special reports, treatises, and other papers on educational topics, and the New York Code of Public Instruction.
Kimball, Alonzo Smith, Ph. D., in Worcester, Mass., Dec. 2; b. in Center Harbor, N. H., Dec. 21, 1843; fitted for college at New Hampton (N. H.) Academy; graduated at Amherst College in 1866; principal higlı school, Webster, Mass., 1866-70;
teacher in Highland Military Academy, Worcester, Mass., and at the same time a student of physics in Worcester Polytechnic Institute, 1870-71; 1871-72 he was instructor of mathematics and chemistry in the last-named institution; established the department of physics there and was professor of that subject 1872-89, and was then made professor of electrical engineering also. He lectared on physics in Mount Holyoke College from 1885 to 1895, and was a trustee of that institution from 1888 until his death.
Kimball, Rev. John, San Francisco, Cal., July 2, 1897; b. in Barton, Vt., Oct. 10, 1831; fitted for college at St. Johnsbury, Vt. ; graduated at Dartmouth College 1856, and Union Theological Seminary (N. Y.) 1859; after a year's mission work in New York City, went by overlaud stage to California; was ordained in Sacramento 1861; pastor of churches at Grass Valley and San Francisco; 1863-64 in the service of the United States Christian Commission of the Army in the East and became chaplain of Garner Hospital, Washington, D. C.; was selected by Gen. John Eaton, then assistant commissioner of the Freedmen's Bureau for Washington and the surrounding country, as superintendent of the colorer schools for Washington, Alexandria, etc., and so remained afterwards with General Howard until 1869. He did much by his skill and fidelity to put the schools on a right basis. He then returned to California; was temporary pastor of several churches and beeame superintendent of work among the Chinese from 1869 to 1873; from 1879 to 1897 he was associated with S. S. Smith in editing and publishing The Pacific as its managing editor, giving his services without compensation.
Knecky, Prof. Albert E., in St. George, Utah, Dec. 23 ; b. in Galena, Ill., albout thirty-four years ago; taught in Nevada and California several years; in Utah, at Corinne, as principal of the city schools; a teacher in the public schools of Ogden; principal of Twenty-first Ward School and the Wasatch Building in Salt Lake City up to a short time before his death.
Lambert, Thos. Scott, M.D., in Stamford, Conn., Mar. 21; b. near Boston, Mass., May 22, 1819; attended Williams College and gratuated in medicine at Castleton, Vt. He spent a large part of his life lecturing on anatomy and physiology and on educational topics; was the author of a text-book on anatomy.
Lampson, William, in Letey, N. Y., Feb. 14; b. there Feb. 28, 1840 ; graduated at Yale College in 1862 and at Columbia Law School in 1867; his time was occupied in the management of the large estate he inherited, the main part of which was bequeathed to Yale University.
Lane, George Martin, Ph. D., LL. D., in Cambridge, Mass., June 30; b. in Charlestown, Mass., Dec. 24, 1823; graduated at Harvard College in 1846; taught there a year and then studied at the University of Berlin and Göttingen. In 1851 ho was appointed professor of Latin at Harvard; in 1869 was elected Pope professor; resigned in 1894 and was elected emeritus. To him was largely due the introduction of the Latin system of pronnciation which is now almost universal in the colleges and preparatory schools of this country.
Langston, John Mercer, LL. D., in Washington, D. C., Nov. 15; b. in slavery in Louisa County, Va., Dec. 14, 1829; received his early education in the schools of Cincinnati, Ohio; graduated at Oberlin College in 1849 and at the theological department in 1852; being unable to gain admission to any regular law school on account of his color, he studied for the profession privately and was admitted to the bar in 1855; practiced in the Ohio courts fifteen years and was a member of the looard of education of Oberlin for a number of years; was inspector-general of the Freedmen's Burean 1868-70; dean of the law department of Howard University 1869-76; a member of the board of health of the District of Columbia and its attorney for seven years. During 1877-85 he was minister resident and consul-general to Hayti and chargé d’affaires in Santo Domingo; on his return was three years president of the Virginia Normal and Collegiate Institute; elected to Congress in 1889. He was vice-president of Howard University and at one time acting presideut.

Leake, Frederick, in Williamstown, Mass., May 23 ; b. in Albany, N. Y., Nov. 28, 1816; was educated at Albany Academy; made a considerable fortune in the banking business and devoted much time to the stady of history and French literature; he was at the head of the French department at Williams College 1881-87, giving his services gratuitously.
Leonard, Stephen Cornelius, in Orange, N. J., Fob. 11; 1o. in New Haven, Conn., Nov. 11, 1819; graduated at Oberlin College in 1840 and at the Theologrical Seminary in 1844; spent most of his life in ministerial duties; was instructor in ecclesiastical history, Oberlin Theological Seminary, 1866-70.
Lirdsley, John Berrien, D. D., M. D., iu Nashville, Tenn., Dec. 7; b. in Princeton, N. J., Oct. 24, 1822; graduated at University of Nashville in 1839; studied medicine at the University of Louisville aud gradaated at the University of Pennsylvania in 1843; studied theology and was ordained in 1846; was a pupil of Gerard Troost 1838-50, succeeding his teacher as professor of chemistry in the University of Nashville. He was also chancellor of the university from 1853 to 1873, retaining his chair in chemistry until 1870. He gave $\$ 10,000$ toward the erection of the main edifice of the university and its completion was largely due to his energy; was instrumental in organizing the medical department of the maiversity in 1850, and was its first dean. For twenty-three years he gave his salary to the needs of the university; was the orgavizer of the Montgomery Bell Academy in accordance with the designs of the founder in 1867; participated in the founding of the Tennessee Colloge of Pharmacy, in which he was professor of materia medica from 1876 until his death. He also occupied the chair of chemistry and State medicine in the University of Tennessee from 1880. He was a member of the Nashville board of education 1856-60; superintendent of city schools in 1860 , and also secretary of tho State board of education from its inception in 1875.
Lockwood, William Ellison, in Reảlands, Cal., June 23; b. in North Stamford, Conn., May 26, 1863; graduated at Yale College in 1883 and at the medical school in 1885; was an assistant in chemistry in the medical college; later an assistant in physiology, and then demonstrator in physiology. His health compelled him to remove to Califormia, and he went into the business of raising oranges, at the same time serving as trastee of the school board of Redlands.
Lord, Nathan Lynds, in Rochester, Ind., Apr. 20; b. in Leyden, N. Y., Aug. 23, 1815; was fitted for college in the academies at Remsen and Lowville, N. Y., and graduated at Amherst College in 1837; taught for a number of years in Fredonia, Piermont, and Constableville, N. Y.; the rest of his life was occupied in pastoral work.
Lunt, Orbington, in Evanston, Ill., Apr. 5; b. in Bowdoinham, Mø., in 1815; was a founder of the Northwestern University and of its theological department. He was a member of the executive commettee of the university from its incorporation and first vice-president of its trustees from 1875. He gave the institution $\$ 200,000$.
Luse, William Thompson, A. M., LL. D., in New York City, Jine 12; b. in Norwich, Conn., May 23, 1838; stadied at Yale, bat left before graduation and studied medicine in Heidelberg and Berlin; served in the army 1861-63; graduated at the Bellevue Hospital Medical College in 1864, and studied further in Edinburgh, Paris, Prague, and Vienna. He was professor of physiology in the Long Island Hospital College 1868-71; lectured in Harvard Medical School 1870-71; professor of obstetrics and diseases of women and children and of clinical midwifery in Bellevue Mospital Medical College from 1871, and president of the college from 1890.
Lyman, Theodore, in Nahant, Mass., Sept. 10; b. in Waltham, Mass., Aug. 23, 1833; graduated at Harvard in 1855 and at the Lawrence Scientific School in 1858, and then went abroad for study; served in the civil war on the staff of Gen. George G. Meade; was fish commissioner of Massachnsetts 1865-82; served in Congress in 1883; was an overseer of Harvard 1880-87; president of Boston Farm School
and trustee of the national Peabody education fund; for a time trustee of the Peabody Museum of Archæology, and later its president; was an assistant in the Muscum of Comparative Zoology in Cambridge. To the last institution he left a collection of scientific books, and to Harvard $\$ 10,000$. His publications were very numerous.
McClellan, George Boardman, in Jacksonville, Fla., Oct. 30; b. in King and Queen County, Va., July 27, 1833; graduated at Yale College in 1858; was teacher of an academy for boys in Crawfordsville, Miss., 1858-61 ; served in the Confederate Army ; again taughtin Crawfordsville, 1865-66; in Columbus, Miss., 1867-68; after briefer engagements elsewhere, was an assistant in the Central High School, St. Louis, teaching Greek and Latin, 1873-78; went to Jacksonville, Fla., in 1879, and established a select private school for boys; taught in Mayport, Fla., 1883-85. He retired at this time on account of ill health.
Macdowell, William Allen, in Uniontown, Pa., Jan. 18; b. in Allensville, Pa., July 15, 1828; graduated at Yale College in 1858; taught both before entering college and after graduation; served through the civil war; was associate principal of Tuscarora Academy at Academia, Pa., in 1868-70; was later a lawyer and editor.
McIlvaine, Joshua Hall, D. D., in Princeton, N. J., Jan. 30; b. in Lewes, Del., Mar. 4, 1815; graduated at Princeton College in 1837 and at the theological seminary in 1840; was occupied with ministerial duties until 1860 in Little Falls, Utica, and Rochester, N. Y.; was professor of belles-lettres at Princeton 1860-70; founded the Evelyn College for young women in 1887, and was its president until his death. He lectured before several institutions and was author of several publications.
McKee, Mrs. Oreille Elizabeth Burgner, in Portland, Mich., July 29; b. in Flat Rock, Ohio, Apr. 22, 1862; graduated at Oberlin College in 1883; taught in Chicago 1883-85, and in the public schools of Oberlin 1885-87.
Mallory, George Scovil, S. T. D., LL. D., in New York City, Mar. 2; b. in Watertorw, Conn., June 5, 1838; graduated at Trinity College in 1858, and at Berkeley Divinity School in 1862; was professor of ancient languages at Trinity College 1862-64, and Brownell professor of English 1864-72. In the last year he was elected a trustee and became treasurer of Trinity College. From 1866 he was an editor and part owner of The Churchman.
Mayer, Prof. Alfred Marshall, Ph. D., in Maplewood, N. J., July 13; b. in Baltimore, Md., Nov. 13, 1836; left college in the middle of his course to follow the mechanical inclination of his mind, studying in the meanwhile physics and chemistry; was professor of physics and chemistry in the University of Maryland 1856-53; held the same position in Westminster College, Fulton, Mo., 1859-61; studied in the University of Paris 1863-65; was professor of physics and chemistry in Pennsylvania College, Gettysburg, Pa., ncarly two years; from there went to Lehigh University, having charge of the astronomical department until 1871, and also superintending the erection of the observatory there. From 1871 until his death he occupied the chair of physics in Stevens Institute of Technology, Hoboken, N. J. He was the author of a large number of monographs and contributions to periodicals, as well as several books on scientific subjects. He was widely known on account of his experiments and observations in the realms of science.
Merrill, Dr. William T., in Mampton, N. H., Jan. 22; b. in Hampton Falls, N. H., in 1824; was very successful in the practice of medicine; was for a number of years president and treasurer of the Hampton school board, and trustee from 1861 of Hamptou Academy ; was also founder of the town's public library.
Minton, Dr. Benjamin Woodbury, in Toledo, Ohio, Jan. 28; b. in Tontogany, Ohio, Apr. 7, 1857; began teaching early, thus earning the money necessary for a higher education; graduated at Oberlin College in 1887; was principal of Loventhal Academy, Lebanon, Ky., 1887-90; studied medicine and practiced his profession.

Miter, Prof. Henry Beman, in Hutchinson, Kans., Apr. 3; b. in Milwaukee, Wis., Nov. 14, 1852; fitted for college in the preparatory department of Ripon (Wis.) College and graduated at that college in 1873; taught in Elmhurst, Ill., 1873-75; instructor in Latin, Ripon College, 1875-78; instructor in Latin 1879-80; instructor in Greek and principal of preparatory school, Ripon College, 1880-83; attended Andover Theological Seminary 1878-79 and 1883-86, graduating in the last year; afterwards studied elocution; was professor of elocution and rhetoric, Indiana University, 1888-89; professor of the same in Washburn College 1889-90; professor of English rhetoric and oratory, Marietta College, 1891-95; gave private instruction at Middlebury College and elsewhere 1895-96.
Mood, Rev. Hexry McFarland, in Sumter, S. C., May 2; b. in Charleston, S. C., Feb. 14, 1819; was educated at Emory College, Ga., and Charleston College; graduated in 18!2; became a minister of the Methodist Episcopal Church; filled a large number of appointments; was president of Lenoir Female College, Caldwell, N. C., and of Columbia Female College 1862-65.
Morais, Sabato, LL. D., in Philadelphia, Pa., Nov. 11; b. in Leghorn, Italy, Apr. 29, 1824 ; was educated in his native city; in 1846 was called to London as head instructor of Hebrew in the Orphans' School of the Portuguese congregation; came to this country in 1851 and until his death was pastor of the Mikhue Israel Church in Philadelphia, Pa.; was professor of Biblical literature in Maimonides College 1867-72. He was the prime mover in the establishment of the Jewish Theological Seminary in New York City, and from its incipiency in 1887 until his death was its president.
More, Ira, in Cucamonga, San Bernardino County, Cal., Oct. 28; b. in Parsonsfield, Me., in 1829; graduated at the State Normal School, Bridgewater, Mass., in 1849; taught in that school, Hingham, Milton, and Newburyport, Mass.; graduated at Yale, 1855; was an organizer of the first high school in Chicago in 1856 and took charge of the city normal school, which was connected with the high school; occupied the chair of mathematies at the Illinois Normal University at Bloomington 1857-61; served in army during the civil war; had charge of the mathematical department of the University of Minnesota 1867-69; was principal of the State Normal School at St. Cloud 1869-75; taught in the State Normal at San Jose (Cal.) 1875-83, and was principal of the State Normal School at Los Angeles 1883-93.
Morfit, Canpbell, M. D., in London, Eng., Dec. 8; b. in Herculaneum, Mo., Nov. 19, 1820; studied in Columbian University; organized the chemical department of Maryland Institute, and was professor of applied chemistry in the University of Marsland. He went to England and practiced his profession. He was the author of numerous publications on chemical subjects.
Morse, Nathan Ranson, M. D., in Salem, Mass., Aug. 5; b. in Stoddard, N. H., Feb. 30, 1831; graduated at Amherst College in 1857; taught in Marion and Duxbury; was principal of the high school in Holyoke; was tutor in the family of W. A. Parks in Ouachita, La. ; studied medicine at Harvard and the University of Yermont Medical School, graduating at the latter in 1862; while practicing his profession in Reading, Mass., he was chairman of the school board of the town, 1862-65; removed to Salem, Mass., and served six years as a member of the school board of that city; was a founder of Boston University and for five years the professor of diseases of children in the medical department of that institution. He was prominent in the homeopathic societies.
Mundy, Johnson Marchant, in Tarrytown, N. Y., Aug. 16; b. near New Brunswick, N. J., May 13, 1832; the well-known sculptor. He established the first school in Rochester, N. Y., for instruction in drawing and in modeling from the antique and from life.
Nelson, Prof. Edward Thonson, Ph. D., in Delaware, Ohio, Mar. 1; b. in Worthington, Ohio, Oct. 14, 1845; graduated at Ohio Wesleyan in 1866, and at the Yale Sheffield Scientific School in 1869, in the meantime being a tutor in the department of mineralogy; was professor of natural science in Hanover Col-
lege, Ind., 1869-70; occupied a like chair in Ohio Wesleyan University from the last year until his death. He was influential in the education of the State and a member of the American Association for the Advancement of Science.
Newcomb, John Bearse, in Elgin, Ill., July 2; b. in Fabius, Onondaga County, N. Y., July 1, 1824; was connected with the interests of education in northeru Illinois for nearly thirty years, most of the time as teacher or school superintendent. He was a member of the board of education of Elgin.
Olivieri, M. Gideone, in Boston, Mass., Nov. 1; conducted a school of vocal culture in Boston.
Ordway, Alfred, in Melrose Highlands, Mass., Nov. 17; b. in Roxbury, Mass., Mar. 9, 1821; a well-known artist; founder, first secretary and treasurer, and later president of the Boston Art Club.
Osborne, Phoebe Sayre, in Chicago, Ill., Jan. 20; b. in Madison, N. J., Mar. 14, 1812; went to New York City with a sister and upon the establishment in 1830 of the Ragged School, a public charity school, the two sisters were installed as teachers. In 1836 the city council opened two similar schools for public education and the sisters were the first teachers in public schools Nos. 1 aud 2.
Paige, John C., in Boston, Mass., in May ; was a well-known insurance man; gave $\$ 5,000$ to Dartmonth College, $\$ 5,000$ to Mary Hitchcock Hospital in connection with Dartmouth College, and the residue of his estate to the Boston Public Library.
Palmer, Rev. Asa Burton, in Saratoga, Cal., Oct. 15; b. in Orfordville, N. H., Jan. 26, 1830; educated under Dr. Hiram Orcutt at Thetford Academy, Vermont; taught in Orfordville, N. H., and Salem, Mass. ; was principal of graminar school, Cleveland, Ohio, and of high school, Toledo, Ohio, nuder supervision of Gen. John Eaton. He afterwards studied for the ministry and was a faithful pastor in New Hampshire and California.
Pancoast, William Hfinry, in Philadelphia, Pa., Jan. 5; b. there Oct. 16, 1835; graduated at Haverford College in 1853 and at Jefferson Medical College in 1856; then studied further in Europe. He settled in Philadelphia and won for himself a wide reputation as a surgeon; served in the army as a surgeon during the civil war; succeeded his father, Dr. Joseph Pancoast, as professor of surgery in Jefferson Medical College in 1874, and was president of the MedicoChirurgical College in Philadelphia in 1886-96.
Parsons, James Challis, in West Bridgewater, Mass., June 30; b. in Gloucester, Mass., Aug. 16, 1838; graduated at Amherst College in 1855; taught at Marblehead, Mass., 1855-57; studied theology at Harvard Divinity School and was in the ministry of the Unitarian Church at Waltham, Mass., 1859-61; principal of the Waltham High School, 1864-77; principal of the Prospect Hill School for Girls in Greenfield, Mass., 1881-96. He was a frequent contributor to various religious periodicals and was the author of a text-book on English versification.
Pattee, Asa Flanders, A. M., M. D., in Boston, Mass., May 31; b. in Warner, N. H., Mar. 5, 1835; graduated at Dartmouth Medical College in 1858; practiced his profession a large part of his life in Boston; was professor of materia medica and therapeutics in the College of Physicians and Surgeons in Boston.
Pease, Rev. L. M., in Asheville, N. C., May 31; aged 79; was active in philanthropic work throughout his life; established the first mission at Five Points in New York City; also schools for both white and colored in Asheville.
Peci, Prof. William E., in Pomfret, Conn., Feb. 7; aged 50; graduated at Trinity College; was principal of the school in Pomfret, which bears his name.
Pettibone, Ira Fayette, D. D., in Rockton, Ill., Mar. 31; b. in Stockholm, N. Y., Mar. 24, 1824; fitted for college at St. Lawrence Academy, Potsdam, N. Y.; graduated at Union College, 1849; taught in academy at Sherburne, N. Y., 1849-50, and in a boys' school in Montreal, Canada, 1850-51; graduated at Andover Theological Seminary in 1854; was in the mission field in Turkey, with the exception of a few years, until 1893; served as a chaplain in the civil war; was a professor in the Theological Seminary at Tocal, Turkey.

Phillips, Prof. Nelson L., in Barre, Vt., Jan. 12; aged 85 years; was for many jears a teacher of singing.
Pierce, Edward Lillie, LL. D., in Paris, France, Sept.5; b. in Stoughton, Mass., Mar. 29, 1829; graduated at Brown University in 1850 and at Harvard Law School in 1852; was an early advocate of ballot reform and an authority on railroad law; enlisted in the army during the civil war as a private; was detailed to organize the freedmen. Secretary Chase sent him to the Sea Islands to care for the negroes, whom he organized into orderly communities, founded schools for them, and taught them to be self-supporting. He served several terms in the Massachusetts legislature, besides occupsing other prominent positions of public trust; was the author of several widely known publications, historical and technical, and was prominentin a number of movements for the public weal.
Pierce, John, in Providence, R. I., Mar. 3; assistant professor of chemistry at Brown University, 1862-63, and full professor, 1863-64.
Plunkett, Joseph Daniel, in New Haven, Conn., Dec.5; b. in Mornington, connty Meath, Ireland, July 5, 1842; came to this country in early childhood; served in the army during the civil war; graduated at Yale Law School in 1872, and was a successful lawyer. He was a member of the New Haven board of cducation from 1881-93.
Poor, Daniel Warren, D. D., in Newark, N. J., Oet. 11 ; b. in Tillipally, Ceylon, Ang. 21, 1818; graduated at Amherst College in 1837 and at the Andover Theological Seminary in 1812 ; was principally occupied with ministerial duties up to 1869; was a founder of the German Theological Seminary at Bloomfield, N, J., and also of the San Francisco Theological Seminary, and was professor of ecclesiastical history and church government in the latter institution from 1871-76. During 1876-93 he was secretary of the Presbyterian board of education in Philadelpha, Pa.
Pratt, Henry Andrews, in Gloversville, N. Y., June 17, 1896; b. in Waterburý, Comn., Aug. 27, 1833; graduated at Yale College in 1858; tanght in General Russell's School in New Haven, Conn., 1858-59; was principal of Haydensville (Mass.) High School, 1859-60; principal Waterbury (Conn.) Academy, 1860-62; served throughont the civil war; Was principal of the Union Seminary, Gloversville, N. Y., and continued as principal of the Union Free School until 1881; was superintendent of the city schools, Gloversville, for nine years.
Rand, Joseph Bunier, in Hartford, Vt., Sept. 3; 13. in Barnstead, N. H., Apr. 2, 1824; graduated at Dartmouth Medical School in 1858; tanght in Barnstead and in West Farms, N. Y. ; practiced and resided most of his lifo in Hartford.
Raymond, Miner, D. D., LL. D., in Eranston, Ill., Nov. 25 ; b. in New York City, Aug. 29, 1811; graduated at Wesleyan Academy, Wilbrabam, Mass., in 1831; was a member of the faculty there ten years; occupied pastorates in Worcester, Boston, and Westfield, Mass., 1841-48; was principal of Wesleyan Academy, 1848-64, during which period his efforts resulted in the erection of two buildings, and after the destruction of the academy building by fire in 1856 he securell a large part of the funds to rebuild them. In 1861 he became professor of systematic theology in Garrett Biblical Institute of Northwestern University and held the chair for thirty years. He was the author of a publication on systematic theology.
Rex, Rev. Charles D., in Colorado Springs, Colo., in February; 1b. in Baltimore, Md., in 1855; was edncated at St. Charles College, Ellicott City, Md., St. Mary's Seminary, Baltimore; spent two jears in Paris and two in Rome; was professor of classics in St. Charles College; treasurer of St. John's Seminary; professor of dogmatic theology and later president of that institution; in 1894 he went to St. Charles as its president.
Rice, Richard Elisha, in Nerv Haven, Conn., May 30; b. in Saybrook, Conn., Feb. 8, 1816; graduated at Yale College in 1839; taught in Delaware, Ohio; was principal of Madison (Conn.) Academy, 1841-43, aud again in 1847-50; established and condueted in Stamford, Conn., a boarding school for boys, 1850-64. Ill health compelled him to assume lighter duties the remainder of his life, which was spent in New Haven.

Rice, William, D. D., in Springfield, Mass., Aug. 17; b. there Mar. 20, 1821; was educated at Wesleyan Academy, Wilbraham, Mass.; entered the ministry of the Methodist Episcopal Church in 1841; took an active interest in the movements of the day; was librarian and secretary of the Springfield City Library and a member of the State and city boards of education for nearly twenty ycars; for many years he was a trustee of the Wesleyan University and president of the board of trustees of Wesleyan Academy.
Ricker, -Joseph, D. D., in Augusta, Me., Sept. 4; b. in Parsonsfield, Me., June 27, 1814; graduated at Waterville College (now Colby University) in 1839; became a minister; was chaplain of the Massachusetts State prison twenty-five years and occupied pastorates in Gloucester, Belfast, and Augusta, Me., and Woburn and Milford, Mass.; for a number of jears he gave his whole attention to the cducational work of his denomination; was instrumental in putting the training schools of Colby University at Waterville, Hebron, and Houlton on a sound financial basis, and to the school at Houlton (now bearing his name) he gave $\$ 10,000$.
Ricord, Frederick William, in Newark, N. J., Aug. 12; b. in Guadeloupe, West Indies, Oct. 7, 1819; was educated at Hobart and Rutgers College; studied medicine, but opencd a classical school in Newark and conducted it twelve sears; was librarian of the Newark Library Association twenty years, during which time he served sixteen years upon the city board of education, being at one time its secretary and at another time its president. For four years he was State superintendent of public schools. He filled several other offices of prominence and public trust and was the author of a number of publications.
Robinson, Luther, in Milford, Mass., Jan. 13; aged 85 years; graduated at Brown University in 1834; was master of the Coffin School, Nantucket, Mass., 1834-36; tutor at Brown University, 1836-38; submaster of the English High School, Boston, 1838-58.
Rodman, Kev. Daniel Sheldon, in Wellesley, Mass.; b. in Stonington, Conn., Sept. 13, 1819; fitted for college at Phillips Andover Academy; studied at Williams College and at Yale Divinity School; he relinquished his profession and taught in various places until his retirement from active work.
Rollins, Alice Wellington, in Bronxville, N. Y., Dec. 5 ; b. in Boston, Mass., June 12, 1847; was educated at home and in Europe; tanght in Boston for several years; her husband was D. M. Rollins, a merchant of New York City; she travelcd and wrote extensively.
Rounds, Dr. Isaac, in South Paris, Me., Dec. 24; b. in Auburn, Me., Sept. 11, 1842; was educated at the Edward Little Institute, Auburn, and at the Maine State Seminary at Lewiston; served through the war; studied medicine and practiced in South Paris; was a member of the school board for many years.
Rowe, Edward, in Brooklyn, N. Y., May 30 ; aged 82 years; a member of the city board of education since 1864.
Ruggles, Prof. Edward Rush, A. M., Ph. D., in Hanover, N. H., Oct. 30; b. in Norwich, Vt., Oct. 22, 1836; fitted for collcge at Thetford (Vt.) Academy and graduated at Dartmouth College in 1859; taught in Bradford, Vt., 1859-60; spent the next year teaching and studying at Grand Lignc, Canada; studied abroad, 1861-63; was instructor of English and French at the Polytechnical School, Dresden, Germany, 1863-66; became instructor in moderń languages at Dartmouth and the following year professor of modern languages in the Chandler School of Dartmouth College. He succeeded Professor Woodman, who retired very soon, as head of that school and continued so until it became the scientific department of the college, when he was made Chandler professor of the German language and literature. For fifteen years he served on the school board of Hanover, besides filling other offices of trust.
Ruggles, John, A. M., in Brookline, Mass., Apr. 29; b. in Milton, Mass., May 28, 1816; graduated at Harvard College in 1836; was principal of the academy at

Marblehead, Mass.; later was principal of the high school at Brighton, Mass., and, with the exception of a short period spent in a similar position at Taunton, remained there until 1860. The remainder of his life was spent in the management of the National City Bank of Boston.
Sage, Henry William, in Ithaca, N. Y., Sept. 17; b. in Middletown, Conn., Jan. 31, 1814; he made a large fortune in lumber in the west; his first benefactions included the endowment of the Lyman Beecher lectureship on preaching at Yale College, the building and endowment of several churches and schools and the endowment of the public library in Bay City, Mich. ; was elected trustec of Cornell University in 1870, and had been president of the board since 1875; he managed the pine lands of the university for many years. He gave the university the Sage College for Women, costing $\$ 266,000$; Susan Lynu Sage chair of philosophy, $\$ 50,000$; Sage school of philosophy, $\$ 200,000$; university library building, $\$ 260,000$, and endowment, $\$ 300,000$; muscum of classical archeology collection and equipment, $\$ 20,000$; house for Sage professor of philosophy, $\$ 11,000$, and contribution toward paying off a floating indebtedness, $\$ 30,000$.
Sanders, Prof. William D., in Jacksonville, Ill., Oct. 29 ; b. in Huron County, Ohio, Oct. 2, 1821; graduated at Western Rescrve College; studied theology, and while still in the seminary raised $\$ 100,000$ for Western Reserve by personal solicitation among the churches of Ohio. After preaching three years he became professor of rhetoric and English literature in Illinois College, at Jacksonville; for this institution he raised $\$ 60,000$. He was the founder of the Young Ladies, Athenæum in Jacksonville. In all the movements of the day he was very active.
Sanford, William Fiske, in St. Louis, Mo., June 13; b. in Bangor, Me., Dec. 30, 1850; entered Bowdoin College, but graduated at Yale in 1872; taught in Gardiner, Ill., 1872-73; taught in St. Louis, and in 1880 became principal of the polytechnic or branch high school, and upon the absorption of that school into the new high school, he became, and remained till his death, assistant principal.
Sartain, Jonn, in Philadelphia, Pa., Oct. 25 ; b. in London, England, in 1808; began life working about the Covent Garden Theater; became an engraver and artist; was famous for his engravings, known as mezzotints; published the magazine in Philadelphia bearing his name; was a director of the Academy of Fine Arts in Philadelphia for twenty-five years, and had charge of the art department of the American exhibit in London in 1887.
Savery, Ward Webster, in Marion, Mass., June 19, 1896; b. in Wareham, Mass., May 16, 1860; graduated at Yale College in 1884; taught in the Harry Hillman Academy at Wilkesbarre, Pa.; Socorro, Mexico, and later in Chicago.
Sawtelle, William Lowell, in Comanche, Tex., Nov. 2; b. in Charlestown, N. H., Feb. 4, 1821; graduated at Dartmouth College in 1840; was admitted to the bar in Texas, but was a teacher until 1860; was engaged in other pursuits during the remainder of his life.
Sharp, Jas. Clement, in Dorchester, Mass., Apr. 10 ; b. there Feb. 22, 1818; graduated at Amherst College in 1839 ; was a teacher of natural science in private schools for young ladies in Boston and vicinity, Bradford and Abbott academies, and in Wheaton Seminary for many years; was a lecturer on science in the State normal schools at Bridgewater, Salem, Framingham, and Westfield, and at many teachers' institutes; was an early promotcr of evening lyceum lectures on popular science; was superintendent of Sabbath school twenty-five years.
Shattuck, Geo. Otis, in Boston, Mass., Feb. 23; b. in Andover, Mass., May 2, 1829; fitted for college at Phillips Andover Academy; graduated at Harvard College in 1852 , and at the Harvard Law School in 1854 ; was prominent in his profession in Boston; was member of board of the overseers of Harvard College for many years.

Shaw, Benjamin Franklin, D. D., in Waterville, Me., Feb. 23 ; b. in Gorham, Me., Oct. 26, 1814; graduated at Dartmouth College in 1837; taught in Newton Theological Institute and was principal of Vassalboro (Me.) Academy; entered the ministry; was trustee of Colby University from 1870.
Sheldon, Benjamin Robbins, in Rockford, Ill., Apr. 21; b. in Sandisfiold, Mass., Apr. 15, 1812; fitted for college at Stockbridge and Lenox, Mass.; graduated at Williams College in 1830; studied law at Yals and settled in Illinois; served five terms as a judge of a State circuit court and two terms on the supreme bench of the State. He gave Williams College $\$ 100,000$.
Sheldon, Edward Austin, Ph. D., in Oswego, N. Y., Sept. 16; b. in Perry Center, Wyoming County, N. Y., Oct. 4, 1823; was educated at Hamilton College and began teaching in Oswego, N. Y., in 1848; was superintendent of schools in Syracuse, N. Y., in 1851-53, and in Oswego in 1853-69; was the first to introduce object teaching in the United States, and organized the first training school for teachers in 1861; when the training sehool of Oswego was made a State normal school he became its principal and retained the position until his death. He added kindergarten work to the normal-school departments and incorporated it into primary-school work; was instrumental in the unification of the school systems of the State and in promoting the just appreciation of industrial training. He was the author of several publications on educational subjects.
Smith, Dr. Job Lewis, in New York City, June 9; b. in Spafford, N. Y., Oct. 15, 1827 ; graduated at Yale College in 1849, and at the College of Physicians and Surgeons, in New York, in 1853; from 1878 till within a short time of his death he was professor of the diseases of children in Bellevue Hospital Medical College. He published a "Treatise on the diseases of children."
Spalding, Phineas, A. M., M. D., in Haverhill, N. H., Oct. 27; b. in Sharon, rtt., Jan. 14, 1799; graduated at Dartmouth Medical School in 1823; practiced his profession in Haverhill; was a lecturer in the Woodstock (Vt.) Medical College in 1841; was for many years trustee of Haverhill Academy and occupied many other positions of trust and honor in his commmity.
Sticiner, Prof. Austin, in Paris, France; b. in Boston, Mass., Nov. 20̆, 1830; fitted for college at the Latin school and graduated at Harvard College in 1852; became professor of Latin, in Trinity College, Hartford, Conn., in 1858, and remained there several years. Later he lived abroad for a number of years.
Temple, Daniel Herbert, in Los Gatos, Cal., Sept. 9 ; b. in Valetta, Malta, Not. 13,1822 , his father being a missionary there; graduated at Amherst College in 1843; was an instructor in Westfield (Mass.) Academy; principal of Monson (Mass.) Academy; taught in a private school in Bangor, Me.; principal of Washington Academy, East Machias, Me. ; studied theology at Andover and Bangor theological seminaries; taught an English and classical school in Chicago; spent a number of years in the ministry and in business; tanght again in Menlo Park and Los Gatos, Cal.
Tennant, William Selden, in Pontiac, Mich., Feb. 13; b. in Camden, Ohio, Feb. 7, 1842; graduated at Oberlin College in 1863; graduated at law school of University of Michigan in 1865; was superintendent of schools of Flint, Mich., and later at East Saginaw, Mich. ; practiced his profession successfuily and served a term as judge of the circuit court. He became insane from an aecident.
Thayer, Alexander Wheelock, in Trieste, Austria; b. in South Natick, Mass. He gave Harvard University $\$ 30,000$.
Thayer, Mrs. Nathaniel, in Boston. Gave the Perkins Institution and Massachusetts School for the Blind $\$ 10,000$, Boston Museum of Fine Arts $\$ 10,000$, besides large sums to other public institutions.
Thompson, Daniel Greenleaf, Ph. D., in New York City, July 10; b. in Montpelier, Vt., Feb. 9, 1850; graduated at Amherst College in 1869; gave private instruction in New York City; was teacher of classics in Springfield (Mass.) High School; entered the legal profession and settled in New York City; was the author of a text-book on Latin and one on psychology. He published a
number of books on political, social, and religious subjects and contributed frequently to periodicals.
Thompson, Guy Van Gorder, Ph. D., in Boulder, Colo., Oct. 2; b. in Grand Rapids, Mich., Fel. 13, 1865; was educated in the public schools of his native town and Colorado State University ; studied further in the Yale Graduate Department; taught in Grand Rapids; was first an instructor, then tutor in Latin at Yale, until he was compelled by his health to remove to Colorado. There he filled a position in the Latin department of his alma mater.
Thompson, John, in Washington, D. C., Dec. 10; b. there Dac. 13, 1819; was educated in the Washington schools and at Jefferson College in Pennsylvania; began his career as a teacher in a district school in Maryland; was a teacher in the schools of his native city and vicinity sizty years.
Tilden, Titus Woodward, Nov. 10 ; b. in Hanover, N. H., Nov. 15, 1816; fitted for college at Kimball Union Academy and graduated at Dartmouth College in 1842; was a teacher in New Jersey, Pennsylvania, Michigan, and Indiana until 1865, when he devoted himself to agricultural pursuits.
Torrey, Noaif, in South Braintree, Mass., May 9; b. in Groton, Mass., Dec. 23, 1818; fitted for college at Groton Academy; graduated at Dartmouth College in 1844 and at Jefferson Medical College, Philadelphia, 1847; resided at Sonth Braintree all his life; was a member of the school board of that town for twenty years.
Tracy, Rov. M. O., Gilroy, Cal., Dec. 18; graduated at Westeri Reserve College, 1844; taught successfully in Nortllern Ohio, especially as principal of Boys' High School in Elyria, Ohio, and afterwards devoted himself to the ministry.
Truabull, Jas. Hammond, LL. D., L. H. D., in Hartford, Coun., Aug. 5 ; bo in Stonington, Conn., Dec. 20, 1821; studied at Yale College; was assistant and then full secrotary of state of Comnecticut, serving several terms; was State Iibrarian, and from 1862 to 1890 was librarian of Watkinson Library in Hartford, and after that date emeritus librarian. He was lecturer on Indian languages of North America at Yale, 1873-85, and an extensive writer on historical subjects.
Tucker, John Randolphi, LL. D., in Lexington, Va., Feb. 13; b. in Winchester, Va., Dec. 24,1823 ; was graduated at the University of Virginia in 1844; was attorneygenerai of Virginia, 1857-65; was professor of equity and public law at Washington and Lee University in 1870-74; served in Congress, 1874-87; lectured before the Yale Law School in 1887; resumed his professorship at Washington and Lee University, and was the dean of the law department at the time of his death.
Tucker, Luther Himnry, in Albany, N. Y., Feb. 23; bo. in Rochester, N. Y., Oct. 19, 1834; was educated at Yale College; newspaper man; lecturer on agricultural subjects and professor of agriculture for a time in State College of Agriculture at Rutgers College.
Tylier, Prof. William Royall, in Quiney, Mass., Nov. 1; b. in Boston, Mass., Dec. 12, 1852; studied at the Boston Latin School and graduated at Harvasd in 1874; was eminent as a teacher of French history, English literature, and the classics; was assistant mineteen years, and principal of Adams Academy, Quincy, Mass., four years.
Tyler, Prof. William Seymour, D. D., LL. D., in Amherst, Mass., Nov. 19; b. in Harford, Pa., Sept. 2, 1810; fitted for college at Harford Acwlemy; stridied at Hamilton College and graduated at Amherst College in 1830; instructor in Amherst Academy, 1830-31; studied at Andover Theological Seminary, 1831-32; tutor, Amherst College, 1832-34; studied again at Andover, 1834-35, and the following jear with Professor Skinner in New York; was a tutor again at Amherst College, 1836; and professor of the Latin and Greek languages and Iiterature, 1836-47; and professor of Greek language and literature, 1847-93, and professor emeritus afterwards until his death. His publications on the classics, history, and theology are numerous.
Walker, Gen. Francis Amasa, A. M., Ph. D., LL. D., in Boston, Mass., Jan. 5; b. there July 2, 1840; graduated at Amherst in 1860; served through the war and
was brevetted brigadier-general at the speeial request of General Hancock; taught Latin and Greek in Williston Academy in 1865-67; was on the editorial staff of the Springfield Republican 1867-68; on the recommendation of David A. Wells, special United States commissioner of revenue, he was appointed deputy and was made chief of the Bureau of Statistics; was superintendent of the Ninth Census; meanwhile, in 1871, was appointed Commissioner of Indian Affairs in the Department of the Interior; 1873-81 was professor of politieal economy in Yale Sheffieid Scientific School; from 1881 until his death was president of the Massachusetts Institute of Technology; was appointed superintendent also of the Tenth Census; gave special courses of lectures at Johns Hopkins and Harvard. During his residence in the different communities he was a member of the New Haven school committee, Connecticut State board of education, the Boston school eommittee, and Massachusetts State board of education. He served on a great many other public commissions and boards, and was a member of numerous educational and scientific associations. He eompiled several publications on statistics and was the author of others on economic and historical subjects.
Walters, Louise, in New York City, Dec. 13; b. in Grovestingen, Germany, Jan. 20, 1843; graduated at Oberlin College in 1872; taught in New York, Cleveland, and Minneapolis; studied again in 1891 at Leland Stanford Junior University, but her health did not permit completion of her course.
Ward, James T., in Baltimore, Md., Mar. 4; b. in Georgetown, D. C., in 1821; a prominent Methodist Protestant minister; for a number of years president of Western Maryland Theological College, and at his death president of Westminister Theological Seminary, which is a part of the first institution.
Webber, Richard Norris, in Riehmond, Province of Quebec, Canada; b. in Concord, Vt., Apr. 20, 1822; was educated at St. Johnsbury, Vt., and Stanstead, Province of Quebec, and graduated at medical school of Maine in 1847; was a practitioner all his life at Richmond, Province of Quebec; was instrumental in the founding of St. Francis College, in Richmond, and professor of chemistry there for a number of years.
Wetherbee, Miss Emily G., in Lawrence, Mass., Aug. 28; b. at Milford, N. H.; was educated in the public schools, graduating at the Lawrence (Mass.) High School; began teaching immediately and taught continuously in the publie schools of Lawrence, with the exception of seven years spent in the Boston schools, until her death. She was prominent in the literary circles of her community.
White, Prof. Aaron, in Cazenovia, N. Y., April 11; b. in Paris, N. Y., Sept. 18, 1824; fitted for college at Cazenovia Seminary and graduated at Wesleyan College in 1852; returned to teach in Cazenovia Seminary and taught there almost continuously until his death, oceupying the chairs of mathematics and natural sciences.
White, Sareptha C., in San Franeisco, Cal., Dee. 9; b. in 1810; was the wife of Dr. Elijah White, a physician of the Methodist Board of Missions; she taught in one of the first schools established in Honolulu; with her husband organized and conducted a school near Salem, Oreg., in which there were a hundred Indian boys and girls.
Wight, Charles Copeland, in Baltimore, Md., June 25; b. in Richmond, Va., in Sept., 1841; graduated at the Virginia Military Institute just at the outbreak of the civil war and served on General Jackson's staff; was a teacher in Baltimore after the war, and at the time of his death was professor of English history in Baltimore City College.
Williams, Charlotte Louisa, in New York City, Oct. 8; b. in Morristown, N. J., in 1842; was the wife of Rev. W. W. Williams, of Philadelphia; was superintendent of the New York Infirmary for ten years; from organization of the Teaehers' College of New York City until her death she was its president and brought the college to a high degree of excellence.

Williston, Lyman Richards, in Cambridge, Mass., Mar. 7; b. in Lahaina, Maui, Hawaiian Islands, Nov. 7, 1830; was fitted for college at Williston Seminary; graduated at Amherst College in 1850; taught in Williston Scminary 1850-53; studied at Andover Theological Seminary 1853-55 and at the University of Berlin, Germany, 1855-57; was master of the Cambridge (Mass.) High School 1857-62; principal of a young ladies' school 1862-70; head master of the Cambridge High School 1870-80; supervisor of schools, Boston, Mass., 1880-84; master in the Latin School for girls there 1884-91. He was engaged in business later.
Wilson, Eanes Albert, in Bridgeport, Conn., Feb. 12; b. in Fairfield, Conn., Feb. 11, 1845; finished school education at the Golden Hill Institute in Bridgeport, Conn., in 1868; was teacher and principal in the public schools of Fairfield, Bridgeport, and Bayshore, Long Island; graduated at Yale Law School in 1889 and practiced his profession thereafter.
Wilson, Grenville D., in South Nyack, N. Y., Sept. 20; b. in Plymouth, Conn., Jan. 26, 1833; taught music in Boston, Mass.; was an instructor in the musical department of Temple Grove Seminary, Saratoga Springs, N. Y.; became a choral conductor and was the composer of a large number of musical pieces.
Winsor, Justin, in Cambridge, Mass., Oct. 22; b. in Boston, Mass., Jan. 2, 1831; studied at Harvard College and at Heidelberg and Paris; was one of the bestknown librarians of the country ; was superintendent and trustee of the Boston Public Library 1868-77, and librarian of Harvard University from that time until his death. He wrote extensively and did much toward popularizing libraries.
Wood, De Volson, A. M., M. S., in Hoboken, N. J., June 27; b. in Smyrna, N. Y., June 1, 1832; graduated at the Albany Normal School in 1853 and at the Rensselaer Polstechnic Institute as a civil engineer in 1857, having been in the meantime a tutor and professor in the normal school and first principal of the Napanock (N. Y.) School. He was assistant and full professor of civil engineering at the University, of Michigan in 1857-72; was professor of mathematics and mechanics in Stevens Institute of Technology in 1872-85, and from that date until his death was professor of engineering there. He was the inventor of several mechanical devices used in engineering and published several treatises on mathematical and mechanical subjects.
Wormley, Theodore George, Ph. D., LL.D., in Philadelphia, Pa., Jan. 3; b. in Wormleysburg, Pa., Apr. 1, 1826; studied at Dickinson College and graduated at the Philadelphia Medical College in 1849; was professor of chemistry and natural sciences at Capitol University, Columbus, Ohio, in 1852-65 and of chemistry and toxicology at Starling Medical College in 1854-77, and from the last date until his death occupied a like chair in the medical department of University of Pennsylvania; was for several jears Ohio State gas commissioner and chemist for the State geological survey, and was a member of the Centennial Medical Commission in 1876. He published a number of treatises on chemistry.
Worcester, John Hopkins, D. D., in Burlington, Vt., Jan. 15; b. in Peacham, Vt., May 28, 1812; graduated at Dartmouth College in 1833; taught in Burr Seminary, Manchester, Yt., 1834-35 and 1836-37; tutor in Dartmouth College 1835-36; taught in Buchanansville, S. C., 1837-38; studied theology and was occupied with that profession until 1854; was a coprincipal with his wife of Young Ladies' School, Burlington, Vt., 1855-70; was occupied variously thereafter.

## ENGLISH.

Brewer, Ebenezer Cobham, in Edwinstowe, Mar. 6; b. in London May 2, 1810; was educated at Cambridge; entered the ministry, but gave his life to literature and education. He was a prolific writer.
Brown, Thos. Edward, in Clifton, England, Oct. 30; b. in Douglas, Isle of Man, in 1830; was educated at King William's College, Isle of Man, and Oxford; was
second master at Clifton College 1863-92; was the author of several volumes of poems and novels.
Calderwoon, Prof. Henry, in Edinburgh, Scotland, Nov. 19; b. in Peebles, Scotland, May 10, 1830; was educated at the University of Edinburgh; was ordained minister of the Greyfriars United Presbyterian Church in Glasgow in 1856; became professor of moral philosophy in the University of Edinburgh in 1868 and remained there until his death. He was the author of a number of publications on educational, religious, and philosophical subjects.
Drummond, Henry; Ph. D., in Tunbridge Wells, Eng., Mar. 11; b. in Stirling, Scotland, in 1851; was educated at the universities of Edinburgh and Tubingen; became a minister of the Free Church of Scotland; in 1877 was appointed lecturer on science at the Free Church College in Glasgow; was raised to the rank of professor in 1884; traveled extensively; conducted a workingmen's mission in Glasgow; delivered a course of lectures in this country known as the Lowell Lectures; was the author of a number of widely read publications.
Goulbourn, Edward Meyrick, in Tunbridge Wells, England, May 3; b. in London, England, Feb. 11, 1818; was educated at Eton and Oxford and became a fellow of Merton College in 1841; was head master of Rugby School 1850-58; was dean of Norwich 1865-89; he was widely known as a religious writer, being the author of a large number of works.
Holden, Sir Isamc, in Keighley, Yorkshire, England, Aug. 13; b. in Hurlet, near Paisley, in 1807; was educated in the schools of Kilbarchan; taught at Paisley and became a teacher of mathematics in the academy at Leeds; later taught Latin and Greek, science and history, in Reading; made a number of inventions on wool-combing machines and with Lord Masham established large shops for the manufacture of the machines; was active in improving the social and intellectual status of working people; was elected to the House of Commons for several terms.
Hutton, Richard Holt, in London, England, Sept. 9; b. in 1826; was educated â the University College, London; taught mathematics at Bedford College; was a well-known writer on political, theological, and philosophical subjects.
Jones, William Basil, in Lampeter, England, Jan. 14; b. in Gwynfryn, Wales, Jan. 2, 1822; was educated at Shrewsbury School, gained a classical scholarship at Trinity College,Oxford, in 1840 and several other scholarships in the university, where he remained as a tutor and fellow, first of Queen's and later of University College, till 1865; was successively archdeacon of York and bishop of St. David's; was prominent in educational movements and the author of a number of publications.
Legge, Janes, in Oxford, England, Ñov. 29; b. in Huntley, Aberdeenshire, Scotland, in 1815; graduated at the University of Aberdeen in 1835, and studied theology at the Highbury Theological College; went to China in 1829; was pastor of the Congregational Church in Hongkong, 1842-73; was called to Oxford University as professor of Chinese in the last year and remained there until his death; received from the French Institute, in 1875, the Julien prize for his translation of Chinese classics; he published a large number of translations and wrote largely besides.
Mundella, Anthony John, the statesman, in London, July 14 ; b. in Leicester in 1825 ; was very successful in the hosiery business; filled various offices of trust in Nottingham; was prominent in advocating arbitration in labor disputes; was a member of Parliament for a number of terms; was vice-president of the council on education in Mr. Gladstone's government in 1880, and promoted the development of board schools without seeking to hamper voluntary schools; was president of board of trade in 1886 and again in 1892.
Newman, Prof. Francis William, in Weston-super-Mare, Somerset, Oct. 4; b. in London, June 27, 1805; a younger brother of Cardinal Newman; was educated at Oxford, and was a fellow, 1826-30; was a professor in Bristol College and Manchester New College, and professor of Latin at University College, 1846-63; took
an opposite position from that of his brother on religions questions; was a prolific writer on religious and historical subjects.
Palgrave, Francis Turner, Oct. 24 ; b. in 1824; was educated at Charterhouse School and Oxford; was a fellow at Exeter College, after taking a first class in classies in 1847; was vice-principal of Kaeller Hall Training School, 1850-555; examiner and assistant secretary in the edncation office, 1855-85; was elected professor of poetry at Oxford in the last year. He published a number of books of poems.
Pitman, Sir Isaac, in London, Jan. 22; b. in Trowbridge, England, Jan. 4, 1813; was educated in the grammar school of that town; went into a conntinghouse at an early age; later, went to the Normal College of the British and Foreign School Society, London; was master of the British school at Barton-on-Humber, 1831-39; he was widely known on account of his method of phonography and a system of spelling by sound which he inrented.
Plunket, Baron William Conynghan, in Dublin, Ireland, Apr. 1; b. there in 1828; was educated at Trinity College, Dublin, graduating in 1853, and was ordained in 1857; after filling several offices and pastorates, became bishop in the English Established Church at Meath and later archbishop of Dublin; was instrumental in the attempt to establish a Reformed Episcopal Church in Spain; founded the Church of Ireland Training College and Alexandra School; was an ardent supporter of philanthropic enterprises, a promoter of Trish elementary schools, and served as one of the commissioners of national education.
Stoughton, John,.D. D., in Ealing, Oct. 25; b. Norwich, Nov. 18, 1807; was educated as a solicitor, but chose the ministry and studied at Highbury College; was associate pastor of the Congregational Church at Windsor ten years and at Kensington aboat thirty-six Jears; from 1872, occupied the chair of historical theology until at an advanced age. He was the author of sever. 1 books.
Sylvester, Janes Joseph, Mar. 15 ; b. in London, Sopt. 3, 1814; was educated at St. John's College, Cambridge, but was unable to take his degree because he was a Jew ; was professor of natural philosophy in University College, London; professor of mathematics at the University of Virginia; occupied a like chair at the Royal Mllitary College, Norwich, 18ă5-71, and at Johns Hopkins University, Baltimore, 1873-83; was professor of geometry at Oxford, 1883-93. He had only two of his writings in book form-Nugæ Mathematicæ, and Laws of Verse or Principles of Versification Exemplifed in Metrical Translations.
Twiss, Sir Trayers, in London, Jan. 15; b. there Mar. 19, 1809; graduated at University College, Oxford; was a fellow of his college, a tutor, and public examiner successively in classics and mathematics; was Drummond professor of political economy; was professor of international law at King's College, London, 1852-55; was Regius professor of civil law at Oxford, 185ă-70. He established a wide reputation as an anthority on international law and occupied high positions in his profession. He wrote extensively on historical and legal subjects.
Vaughan, Charles John, in Llandaff, Oct. 15 ; b. in Leicester in 1816; was edueated at Rughy aud Cambridge; was a fellow of Trinity; was chosen hear master of Harrov in 1844; was vicar of Doncaster and chancellor of York in 1860; Mr. Gladstone appointed him master of the Temple in 1869, and he became dean of Llandatf in 1879. He resigned the mastership of the Temple in 1894.
Walford, Rev. Edward, M, A., in Ventnor, Isle of Wight, Nov. 20; b. in Hatfield Peverel, Essex, Feb. 3, 1823; was educated at the Charterhouse School and at Baliol College, Oxford; was ordained, but did not hold a charge; was composition master at Tunbridge School; an examiner at Harrow, Charterhouse, and Marlborough College. He prepared a number of pupils for Oxford. He was a prolific writer, being the antbor of twenty-five or more text-books.
Wallace, Prof. Wiliam, in Feb.; after a successfal career as an undergraduate he became a fellow and tutor at Merton, and showed himself an admirable teacher of those reading for honors. In 1882 he replaced the late T. H. Green in the chair of moral philosophy, and proved himself a fit add adequate successor of
that distinguished man. Among his publications were a translation of Hegel's Logic, to which he prefixed an elaborate introduction; a translation of the third part of the Encyclopædia of the Philosophical Sciences, under the title of "Hegel's Philosophy of the Mind," accompanied by explanatory notes; an admirably clear monograph on Schopenhauer. He was also a close student of ancient philosophy, and wrote for the S. P. C. K. a luminous exposition of epicureanism.

## OTIIER FOREIGN.

Alfieri Di Sostegno, Marchese Alberto, in Florence, Italy, Dec. 18; b. in Italy in 1827; his father was a leader of the Liberals and a founder of the Kingdom of Italy; he was a deputy almost continuously from 1857 to 1870 , and then became a senator of the United Kingdom. He founded in Florence, in 1871, a school of political and social science.
Aumale, Henri Eugene Philitppe Louis, Duc d', a member of the BourbonOrleans family, in Zucco, Italy, May 6; b. in Paris, France, Jan. 16, 1822; led a military life, and at various times was prominent in politics; he gave to the Institute of France the magnificent estate of Chantilly, with its buildings, and the trophies, historical relics, and treasures of art contained in them, to be preserved forever by that learned body as a complete and varicd monument of French art in all its branches.
Bach, Dr., in Berlin, Prussia, July 10; formerly principal of the Falk Gymnasium in Berlin; was very active in behalf of physical cducation.
Bachofuer, Heinrich, June 15; principal of the normal school at Unterstrauss, Zurich, Switzerland.
BÁchtold, J., at Schaffhausen, Aug. 5; professor of literature in the University of Zurich, Switzerland; biographer of Gottfried Keller.
Backhaus, E., Nov. 27; schoul inspector in Osnabriick, Hanover, Germany; a distinguished member of the executive committee of the German National Teachers' Association.
Bardoux, A., in Paris, France, Nov. 23; b. in Bouges in 1829; a French statesman; was minister of education in 1876; a member of the Academy of Moral Sciences.
Beitie, Domenico, in Rome, in April; b. in Cumiana, Italy, in 1820; secured an education with great difficulty ; became professor in the normal school at Novara; was elected to the Chamber from Savigliano in 1850; became and remained for ten years professor of philosophy in the University of Turin; was chosen minister of public instruction first in 1866, and served several other terms; was also minister of agriculture, industry, and commerce in the cabinets of Cairoli and of Depretis; was professor of philosophy in the university of the new capital, 1871-77; he became a senator in 1895. He was the author of several publications on educational and historical subjects.
Bestuzhev-Rynmin, Konstantin Nikolaevich, in Jan.; b. at Kudreshkaya, Russia, in 1829; was educated at the local gymnasia and at the University of Moscow; was instructor of corps of cadets; was occupied with literary and editorial work until 1865, when he became professor of Russian History in the University of St . Petersburg. He wrote a History of Russia.
Blecker, C., in Frankfort on the Main, Prussia, Germany, June 5; teacher and member of the city council.
Brunnert, D., in Rudolstadt, Germany, July 30; principal of the burgher school and author of a number of text-books,
Burchhardt, Jakob, in Switzerland, Aug. 8; b. there in 1818; was educated in Berlin under Ranke and Franz Kugler; from 1844 until 1893, with the exception of the years 1855-58, when he was professor of history in the Zurich Polytechnic School, he occupied the same chair at Basel. He was the author of several works on history.
Conat, Auguste, July, 1898; b. Nov. 30, 1846; graduate of l'Ecole Normale Sup6rieur; was professor first in a lycee; after in the faculty of letters, Bordeaux, and
became rector of the University of Bordeanx, which position he held at the time of his death.
Deltzer, Stubba, in West Prussia, Germany, Jan. 8; a noted teacher.
Diesterweg, Julius, M. D., in Wiesbaden, Germany, Jan. 25; son of Ad. Diesterweg; a privy councillor.
Faike, Jakob, in Vienna, Austria, June 12; b. in Ratzeburg, Germany, in 1825; studied at the universities of Erlangen and Göttingen; taught in the gymnasium of Hildesheim; was a tutor of Prince Solms-Braunsfels; gave his attention to antiquarian research; was conservator of the Nuremberg German Museum; custodian and in 1885 director of the Austrian Museum. He wrote extensively on historical subjects.
Fourtou, M. de, in Paris, France, Dec. 6; b. in Riberac in 1836; a French statesman; was minister of public instruction, worship, and fine arts, 1873-77.
Freier, F., in Prussia, Germany, Mar. 5; a noted teacher.
Fresenius, Carl Remigius, in Wiesbaden, Germany, June 11; b. in Frankfort-on-the-Main in 1818; studied in the University of Boun and in a privato laboratory; was professor of physics, chemistry, and technology in the Agricultural Institrite at Wiesbaden; founded in 1848 his famous laboratory, added a school of pharmacy in 1860, and a bacteriological laboratory in 1895. He wrote extensively on his subjects.
Gabiriel, C., in Posen, Germany, June 19; school superintendent and author of popular German readers.
Ghika, Prince Ion, in Bucharest, Roumania, May 4; b. in 1817 ; was active in politics at various times; was professor of mathematics and political economy in the University of Jassy; a member of the Roumania Academy, and a voluminous writer.
Gohr, Reinhold, in Dantzic, Prussia, June 28; president of the West Prussia Tcachers' Association.
Gremaud, Abbi Jean, May 20 ; professor of history in the University of Freiburg, Switzerland.
Gressler, Julius, in Barmen, Prussia, Dec. 26; school principal and president Provincial Teachers' Association.
Hempel, Dr., in Leipzig, Saxony, Germany, Dec. 31; superintendent of schools.
Hiebsch, Josepif, in Karlsbad, May 7; teacher of music in a Vienna normal school.
Hirzel, Dr. Ludwig, June 1; professor of German literature in the University of Bern.
Hug, Adam, June 8; teacher in the normal school at Unterstrass, Zurich, Switzerland; advocate of Herbartian system of education.
Jofrgensen, Adolf Ditley, in Oct.; b. in Gravenstein, Schleswig, June 11, 1840; was educated at Flensburg and at the University of Copenhagen; was a teacher in the grammar school at Flensburg; was the keeper of the Royal Danish Archives for ycars.
Joseph, Brother, in Paris, in Jan.; b. in St. Etienne, France, Mar. 30, 1823; was educated at the Institutc of Christian Brothers; was a teacher in the Christian Brothers' schools; director of the Rue Cloitre, St. Merri, communal school; in 1844 founded the demipensionnat of Rue St. Antoine, known as the commercial school; was an inspector of Christian Brothers' schools in several departments, 1868-74; became, at the last date, assistant to the superior general of the order, and for ten ycars was a member of the superior council of public instruction in France.
Kaiser, Dr. Victor, Sept. 30 ; professor of philosoplyy in Solothurn, Switzerland.
Kenngott, A. L., in Lugano, Italy, Mar. 14; professor in the Polytechnic at Zurich, Switzerland.
Kothe, Bernhard; a very successful music teacher aud normal school teacher in Breslau, Silesia, Prussia, Germany.

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Land, Prof. J. P. N., Apr. 30; aged 63 years; was professor of classical and oriental languages at the University of Amsterdam; occupied the chair of logic and metaphysics at Leyden, and was rector of Leyden University.
Lansky, D., in July; principal of the high school at Dresden, Germany, and editor of the Saxon School Gazette.
Lehmann, Dr., in Bern, Switzerland, in Jan.; at the age of 90 years, when educational director in Bern, framed the liberal school law of 1856.
Lober, Georg, in Naremberg, Germany, in Apr.; was a school inspector.
Lutz, Johann Heinrich, Nov. 27; primary teacher in Zurich, Switzerland; was famous as a methodician.
Marquardsen, Heinrich, in Erlangen, in Nov.; b. in Schleswig, Oct. 26, 1826; became privatdocent in Heidelberg in 1856, and in 1861 was called to Erlangen as professor of German public law; was a member of the Institute of International Law from its foundation; was a member of the Bavarian Chamber, 1869-93, and a member of the Reichstag.
Meyer, Dr. Juergen Bona, in Bonn, Germany, June 30; b. in Hamburg in 1829; became privatdocent in the University of Berlin in 1862; and in 1866 was called to the University of Bomn, where he tanght until his death; was active in behalf of the common school and founded the Liberal Teachers' Association of Rhineland and Westphalia.
Müller, D., in Berlin, Germany, Dec. 20; was a school inspector.
Oertel, Dr. Max Josef, in Munich, Germany, July 19; b. in Dillingen, Bararia, Mar. 20, 1835; studied philology and history at Munich; studied medicine and science later, and in 1860 became assistant to Professor von Pfenfer; became professor of laryngology at Munich in 1867.
Pécaut, Félix, at Orthez (France), July 30, 1898; was appointed by Jules Ferry, 1880, to the important position of director of studies in the Superior Normal School for women at Fontenay-aux-Roses, which he held till October, 1895; was also inspector-general of public instruction and a member of the superior council of public instruction, and belonged to the editorial corps of the Revue Pedagogique. He exercised a powerful influence by the elevation of his character, the wide range of his knowledge and observation, and the charm of his lessons and writings.
Petzold, W., July 24 ; professor in Braunschweig, Germany ; was one of the most noted German geographers.
Preyer, Dr. Thierry Wilimelm, in Wiesbaden, July 15; b. on the island of Malta in 1841; studied in Bonn, Berlin, Heidelberg, Vienna, and Paris; became professor of physiology at Jena; later in Berlin. He was the author of several publications on scientific subjects.
Rebsamen, Johann Ulrich, June 6; principal of normal school at Kreazlingen, Switzerland.
Reschte, F., Nov. 8; was principal of school in Berlin, Germany, and president of the Society of Teachers of Girls' Schools.
Richter, Albrecht, in Vienna, Mar. 3; b. in Bohemia in 1845; principal of a girls' high school at Leipzig, Germany; was for many years editor of the Practical Schoolman and the Pedagogical Annual. He was prominent as a lawyer and politician.
Riehl, Wilhelm Heinrich von, in Munich, Nov. 16; b. in Biebrich in 1823; studied theology at various universities and pursued historical studies at Giessen; was a journalist until 1853, when he was appointed by King Maximilian professor of history at the University of Munich; in 1885, still retaining his professorship, he became director of the National Museum and conservator of Bavarian monuments of art and antiquities. He composed and published several musical works and wrote extensively on historical subjects.
Rittershaus, Emil, in Barmen, Germany, Mar. 8; was a friend of popular edincation and one of the best of Germany's modern poets.

Sachs, Dr. Julius von, in Würzburg, Bavaria, Germany; b. in Breslan, Prussia, in 1832; professor of botany at the University of Freiburg, and he occupied the same position at Wiirzburg from 1868. He wrote extensively.
Salis, Friedrich, in Pankow, Germany; formerly editor of Pedagogische Zeitung.
Sanders, Daniel, in New Strelitz, Germany, Mar. 11; a noted philologist and author of a German dictionary.
Schottle, F., in Stuttgart, Germany; school principal and member of the executive committee of the German National Teachers' Association.
Schumann, Albert, Feb. 25; professor in Aaray, Switzerland.
Sperk, Franz, Feb. 11; organized the German schools in Prague, Austria, and became royal inspector of schools; was principal of the German burgher school in Prague.
Steeg, Jules, at Paris, May 4, 1898. He was edncated for the ministry and was for a time pastor of a church in the department of the Gironde. He was an ardent patriot and supported the Republic from the outset by his voice and pen, and resigned his pastorate that he might more fully devote himself to the canse of popular liberty. He represented the Gironde in the Chamber of Deputies, 1881-89, and during this time composed a series of works on moral and civic instruction for the use of schools. He was chairman of the committee that drew up the school law of 1886. In 1889 he was appointed inspector-general of public instraction and director of the Musée Pédagogique; represented his Government at the Chicago Exposition in 1893, and in 1896 succeeded M. Pécant as director of studies in the Superior Normal School of Fontenay-zux-Roses. He was distinguished equally as an administrator, lecturer, and writer.
Steenstrup, Prof. Japetus, in Copenhagen, Denmark, in July; b. in Vang in 1813; was professor of mineralogy and botany at the Academy of Soro, 1841-45; was professor of zoology in the Uni versity of Copenhagen, 1845-85. He was widely known by his writings and research.
Stander, Johannes, in Berlin, Germany, Feb. 2; ministerial councilor of education.
Strauber, Emil, July 28, principal of school in Elbing, Germany; was an agitator for teachers' pension laws.
Tschudi, Peter, Ang. 24; director of the Pestalozzi-Foundation in Zurich, Switzerland.
Tunner, Peter, June 13; b. in 1808; was a founder and first professor, in 1810, of the School of Mines in Leoben, Styria. Ha was well known on account of his discoveries in the metallurgy of steel and for his treatises on the sume subject.
Vacherot, Etienne, in Paris, July 30; b. in Langes in 1809; was edacated at the Paris Normal School; was professor of philosophy at different colleges in the provinces; became in 1837 assistant of Victor Cousin in the Normal School; was involved in the political changes; succeeded Cousin in the Academy of Moral Sciences in 1868.
Vallauri, Professor, in Turin, Italy, Sept. 2, in his 94 th year; professor in Turin University; was considered one of the greatest authorities on the Latin language; was a representative of the "rhetorical" as distingaished from the "scientific" school of classical philology and scholarship.
Vater, F., in Berlin, Germany, May 10, privy conncilor in the department of edncation.
Wattenbach, Whlhelm, in Frankfort, Sept. 20; b. in Hamburg, Germany, in 1820; after leaving the university he was ocenpied in historical research; became professor of history in the University of Heidelberg in 1862; he published a large number of works on historical subjects.
Wiesner, Karl Otto, Oct. 3; director of music in the Normal School at St. Gall, Switzerland.
Wlotzka, R., in Danzig, Germany, June 4; principal of a school and president of the Provincial Teachers' Association.
Wyss, Victor, in April; school principal in Solothurn, Switzerland.
Zemle, C., in Friedrichsfeld, Germany, in June; school principal.
Zollikofer, Rev. Robert, Aug. 5; principal of girls' school at Romanshorn, Switzerland.

CHAPTER
STATISTICS OF ELEMENTARY EDU．

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \& \multirow[b]{2}{*}{Countries．} \& \multirow[b]{2}{*}{} \& \multicolumn{4}{|l|}{Enrollment in elementary schools．} \& \multicolumn{2}{|l|}{Average at－ tendance．} \& \multicolumn{3}{|l|}{Number of teachers．} \\
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－ \\
\hline \& 1 \& \({ }^{2}\) \& 3 \& 4 \& 5 \& 6 \& 7 \& 8 \& 9 \& 10 \& 11 \\
\hline 1 \& Austria－Hungary．． \& 1895 \& 3，046， 930 \& \(2,889,110\) \& 5，936， 0401 \& 14.3 \& \& 87.5 \& 94， 381 \& 23， 674 \& 118， 055 \\
\hline 2 \& Austria．．．．．．．． \& 1895 \& 1，678， 212 \& 1，660，220 \& \(3,338,432\) \& 14.0 \& \& 90 \& 67，915 \& 18， 087 \& 86， 002 \\
\hline 3 \& Hungary ．．．．．． \& 1892 \& 1，368， 718 \& 1，228， 890 \& 2，597， 608 \& 15.0 \& \& 85 \& 26， 466 \& 5，587 \& 32， 053 \\
\hline 4 \& Belgiam \& 1896 \& 392， 838 \& 339， 224 \& 752， 062 \& 11． 57 \& \& \& 7， 695 \& 7，332 \& 15， 027 \\
\hline 5 \& Bulgaria \& 1896 \& 246， 411 \& 101， 194 \& a 347， 605 \& 10.46 \& \& \& 6，851 \& 1，422 \& 8， 273 \\
\hline 6 \& Demmark \& \& \& \& 231， 940 \& 10.61 \& \& \& \& \& \\
\hline 7 \& France． \& 1896 \& b 5， 533 \& 3， 511 \& \& 14．36 \& \& \& \& ， 563 \& \\
\hline 8 \& Germany ．－．．．．．．．． \& 1895－96 \& \& \& \& 18．0 \& \& 80 \& \& \& \\
\hline 9
10 \& \begin{tabular}{l}
Alsace－Lor－ raine（im－ perial posses－ sion）． \\
Anhalt（unchyi．
\end{tabular} \& 1891
1891 \& 22， 673 \& 22， 549 \& 229,628
45,222 \& 14.0 \& \& 90
90 \& 2,703

897 \& 2,303

93 \& 5,006

980 <br>
\hline 11 \& Baden（grand duchy）． \& 1894 \& 160， 222 \& 160， 422 \& 320，644 \& 19.2 \& \& 90 \& \& \& 5，503 <br>
\hline 12 \& Bavaria（king－ dom）． \& 1895 \& 541， 732 \& 546， 010 \& 1，087， 792 \& 20.0 \& \& 90 \& 17，953 \& 6， 299 \& 24，252 <br>
\hline 1.3 \& Bremen（free city）． \& 1897 \& 12， 636 \& 12， 991 \& 25,627 \& 13.0 \& \& 90 \& 481 \& 135 \& 619 <br>
\hline 14 \& Brunswick （duchy）． \& 1891 \& 34，671 \& 34， 329 \& 69，000 \& 17.0 \& \& 90 \& 1， 049 \& ．．． \& 1， 049 <br>
\hline 15 \& Hamburg（free city）． \& 1898 \& 44，761 \& 50，977 \& 95，738 \& 14.0 \& \& 90 \& 1，720 \& 1，368 \& 3，088 <br>
\hline 16 \& Hessia（grand duchy）． \& 1891 \& 94，5：2 \& 98， $2 \div 0$ \& 192， 812 \& 19.4 \& \& ¢0 \& ＇2，467 \& 324 \& 2，791 <br>
\hline 17 \& Lippe（princi－ pality）． \& 1891 \& 12， 061 \& 11，474 \& 23， 595 \& 18.3 \& \& 90 \& \& \& 473 <br>
\hline 18 \& Lübeck（free city）． \& 1896 \& 7，603 \& 7，024 \& 14，627 \& 17.5 \& \& 90 \& 236 \& 136 \& 372 <br>
\hline 19
20 \& Mecklenburg－ Schwerin （grand duchy） \& 1891
1891 \& $4.3,692$
$-\quad 7,726$ \& 41,142
7,583 \& 84,834
15,309 \& 14.6
16.0 \& \& 90
90 \& 1,912
355 \& 145 \& 2,057
355 <br>

\hline 20 \& | Mecklenburg． |
| :--- |
| Strelitz |
| （grand duchy） | \& 1891 \& －7，726 \& $\begin{array}{r}7,583 \\ \hline 8.81\end{array}$ \& 15，309 \& 16.0 \& \& 90 \& 355 \& \& 355 <br>

\hline 21 \& Oldenburg （grand duchy） \& 1891 \& 30， 556 \& 29， 851 \& 60，407 \& 17.0 \& \& 90 \& 960 \& －．．．． \& 960 <br>
\hline 22 \& Prussia（king． dom）． \& 1896 \& 3，160， 737 \& 3，180， 530 \& 6，341，267 \& 20.0 \& \& 90 \& 81， 762 \& 10，299 \& 92， 061 <br>

\hline 23 \& Reass，jr．line （principality） \& 1891 \& 9，702 \& 9，801 \& 19，503 \& 17.0 \& \& 90 \& 290 \& $$
18
$$ \& 308 <br>

\hline 24 \& Reuss，sen．line （principality） \& 1891 \& 5，417 \& 5，571 \& 10，988 \& 17.5 \& \& 90 \& 215 \& 7 \& 220 <br>
\hline 25 \& Saxe．Alten． burg（duchy）． \& 1891 \& 14，439 \& 15，180 \& 29，625 \& 17.3 \& \& 90 \& 500 \& ．．． \& 500 <br>
\hline 26 \& Saxe－Goburg． Gotha（duchy） \& 1891 \& 16，581 \& 16，922 \& 33，503 \& 15.2 \& \& 90 \& \& ．．．．．．． \& 580 <br>
\hline 27 \& Saxe－Meinin－ gen（duchy）． \& 1891 \& \& $\cdots$ \& 39，592 \& 17.7 \& \& 90 \& 589 \& ．．．．．． \& 589 <br>
\hline
\end{tabular}

a Tncludes pupils in private schools．
$b$ Public $4,198,940$ ，private $1,334,571$.
$c$ Public primary only．

## CATION IN FOREIGN COUNTRIES.


$d$ From state only.
$e$ From state and communities only, exclusive of tuition fees.
$f$ Including tuition fees.


## $a$ From State only.

$b$ Amount contributed by the ministries alone.
$c$ In ambulatory schools; it is stated that out of 457,678 children of school age (7-15) only 18,771 were not in school.
in foreign countries-Continned.

$d$ For elementary and normal schools.
$e$ Also in private elementary schools, $64,550$.
$f$ Also in private elementary schools, 111,677 .
$g$ Also in private elementary schools, 104.154. b. Also in private elementary schools, 23.981. $i$ Also in private elementary schools, $40,230$.

|  | Countries． | 荡0000000000 | Errollment in elementary schools． |  |  |  | Average at． tendance． |  | Number of teachers． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ¢ | 官 | ［ |  | ¢ |  | 㐫 | dig 砍 0 | Wi 0 0 |
|  | 1 | 2 | 3 | 4 | 5 | 6 | \％ | 8 | 9 | 10 | 11 |
| 56 | Punjab．．．．．．．．．．．．． | 1897－98 | 167， 544 | 13， 850 | a 181，394 | 0.80 |  |  |  |  |  |
| 57 | Japan | 1896 | 2，533， 272 | 1，344，709 | 3，877， 981 | 9.08 | $3,046,150$ | 78.55 | 68， 285 | 7，808 | 76， 093 |
| 58 | Cape of Good Hope． | 1897 |  |  | 122， 186 | 8.00 |  |  |  |  | 5，347 |
| 59 | Egypt．．．．．．．．．．．．． | 1898 |  |  | 210， 399 | 2.16 |  |  |  |  | 15，983 |
| 60 | Natal | 1897 | 10，075 | 9，147 | 19，222 | 3.5 |  |  |  |  |  |
| 61 | British Cohumbia．． | 1890－97 |  |  | 15， 798 | 16.09 | 9，999 | 63.29 | ．．．．．． |  | 384 |
| 62 | Manitoba | 1896 |  |  | 37， 937 | 24.96 | 23， 247 | 61.11 |  |  | 1，093 |
| 63 | New Brunswick | － 1898 | 31， 080 | 29， 673 | 60，753 | 18.91 | 33， 933 | 55.85 |  |  | 1，864 |
| 64 | Northwest Terri－ tories． | 1896 |  |  | 12，796 |  |  |  |  |  | 433 |
| 65 | Nova Scotia ．．．．．．． | 1897 |  |  | 100， 847 | 22.39 | 54，922 | 54.46 |  |  | 2，485 |
| 65 | Ontario | 1897 |  |  | 441， 157 | 20.86 | 248， 548 | 56．34 | 2，690 | 5，686 | 8，376 |
| 67 | Prince Edwar．I Is． land． | 1896 | 12， 145 | 9， 993 | 22， 138 | 20.29 | 13， 412 | 60.58 | 324 | 245 | 569 |
| 68 | Quebec ．．．．．．．．．．．．． | 1896－97 |  |  | 乙 197， 993 | 13.30 | 139，875 | 70.60 |  |  | 5，628 |
| 69 | Newfoundland | 1894 |  |  | 35， 501 | 17.3 |  |  |  |  |  |
| 70 | Mexico．． | 1894 | 361， 201 | 195， 505 | 556， 706 | 4.41 |  |  |  |  |  |
| 71 | Bermuda | 1896 |  |  | 1，219 | 7.71 |  |  |  |  |  |
| 72 | Jamaica | 1897 |  |  | 98，559 | 14.65 | 58，411 | 59.61 |  |  |  |
| 73 | Trinidad | 1894 |  |  | 20，621 | 9.36 | 13,297 | 64.48 |  |  |  |
| 74 | Cuba | 1889－90 |  |  | 30， 994 | 1． 90 |  |  |  |  |  |
| 75 | Costa Rica | 1897 |  |  | 21，913 | 9.01 | 17， 153 | 82． 83 | 357 | 447 | 784 |
| 76 | Guatemala． | 1895 | 39，411 | 2！， 604 | 75， 020 | 4.88 |  |  |  |  |  |
| 77 | Nicaragua | 1894 |  |  | 20， 000 | 5.26 |  |  |  |  |  |
| 78 | Salvador | 1893 | 16，663 | 12， 764 | 29，427 | 3． 66 |  |  | 453 | 340 | 793 |
| 79 | Argentine ．．．．．．．．． | 1897 |  |  | 269， 951 | 6.82 |  |  | 2，967 | 6，289 | 9，256 |
| 80 | Bolivia | 1897 |  |  | d 36， 690 | 1． 81 |  |  |  |  |  |
| 81 | Brazil | 1889 |  |  | 300， 000 | 2.09 |  |  |  |  |  |
| 82 | Chile | 1897 | 53， 784 | 55， 274 | 109， 058 | 4.02 | 65，507 | 60.06 | 746 | 1，522 | 2，268 |
| 83 | Colombia | 1894 |  |  | 89， 000 | 2.29 |  |  |  |  |  |
| 84 | Ecuador | 1894 |  |  | 76，878 | 6.04 |  |  |  |  | 1，666 |
| 85 | Paraguay．．．．．．．．．． | 1896 |  |  | 23，000 | 3.83 |  |  |  | ．．．．．． | 680 |

[^137]in foreign countries-Continued.

$d$ Includes pupils in private schools.
$e$ Expenditures by the higher council for educational purposes.

Statistics of elementary education

|  | Comeries. |  | Enrollment in elementary schools. |  |  |  | A verage attendance. |  | Numberof teachers. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 寺 | ¢ |  | त- |  | $\xrightarrow{\text { g }}$ | 告 | Ė स - |
|  | 1 | S | 3 | 4 | 5 | 6 | \% | 8 | 9 | 11 | 1111 |
| 86 | Pera. | 1889-90 |  |  | 53, 276 | 2.03 |  |  | 552 | 258 | 810 |
| 87 | Uruguay .......... | 1897 | 23,896 | 21,718 | 45, 61. | 5.51 |  |  | 213 | 800 | 1,043 |
| 88 | Venezuela......... | 1891 |  |  | 100, 026 | 4.30 |  |  |  |  |  |
| 89 | Hawaii ............. | 1897 | 8,017 | 6,505 | 14,522 | 13.32 |  |  | 205 | 302 | 507 |
| 90 | Mauritins ......... | 1895 |  |  | 18, 207 | 4. 89 |  |  |  |  |  |
| 91 | New South Wales | 1897 |  |  | 226, 157 | 17.24 | 148, 381 | 65.6 | 2,332 | 2, 110 | 4,492 |
| 92 | Queensland........ | 1897 |  |  | 85,229 | 18. 02 | 59,748 | 70.1 | 825 | 1,000 | 1,825 |
| 93 | South Australia... | 1897 |  |  | 61,643 | 17. 27 | 41,560 | 67.45 | 404 | 797 | 1,201 |
| 94 | Victoria........... | 1897 |  |  | 210,951 | 17.9 | 140, 46 ? | 09.5 | 1,802 | 2,815 | 4,617 |
| 95 | West Australia.... | 1897 |  |  | 12,262 | 7. 76 | 8,970 | 73 | 142 | 234 | 367 |
| 96 | New Zealand | 1897 |  |  | 132, 197 | 18. 79 | 110,993 | 83.9 |  |  | 3,628 |
| 97 | Tasmania.......... | 1837 |  |  | 21,763 | 14.8 | 12, 024 | 55.25 |  |  |  |

$a$ Not including expenditure for buildings, books, etc., and for scbolarships which were included the previous jear.
in foreign countries-Continued.

$b$ Includes for sites, buildings, etc., $: \$ 412,659$.
$c$ Includes for permanent improvements, $\$ 63,674$.

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[^0]:    ${ }^{1}$ Ped．Seminary，December， 1893.

[^1]:    ${ }^{1}$ Ped. Seminary, December, 1893. The literature is given here after the article, instead of in the bibliograplyy at the end, in order to prescre the classification here made.

[^2]:    ${ }^{1}$ The Archives of Otology and Zeitschrift für Ohrenheilkunde are the same, being published simultaneously in America and Germany. The articles of each are translated for the other. The publication has been as follows:

    Archives of Ophthalmology and Otology, 1-7, 1869-78.
    Separated into-
    Archives of Ophthalmology, vol. 1, 1879.
    Archives of Otology, vol. 1, 1879.
    Archiv fiir Angenheilknnde und Ohrenheilkunde, 1-7, 1869-78. Separated into-

    Archiv für Augenheilkunde, vol. 1, 1879.
    Zeitschrift fiir Ohrenheilkunde, vol. 1, 1879.

[^3]:    ${ }^{1}$ See paragraph in section on "Instruments of precision," p. 1163.

[^4]:    $a$ Groups 4 aud 5 are obtained, as elsewhere mentioned, from groups 1 and 3 by omitting from 1 all but the large, the heary, the tall, the strong, the agile, and the beautifnl, and by omitting from 3 all but the ugly, the deformed, the nervous, the birth-marked, the small, the bodily weak, aud those having sense or mental defects.

[^5]:    ${ }^{1}$ A stady of fears, reprinted from the American Journal of Psychology, Vol. VIII, No. 2.

[^6]:    ${ }^{1}$ This refers to instances where there is only one child in each family.
    ${ }^{2}$ The anthor was assisted much the preparation of this bibliography by his mother, Ms. Angus hacDonalk.

[^7]:    ${ }^{1}$ Submitted at a meeting of the Association held in December, 1898, at Charlottesville, Va.

[^8]:    ${ }^{1}$ "It seems to me that the teaching of modern languages in many of the schools * * * has now reached such a stage that we may fairly say that a training in French or German, or both, can be given which is just as substantial, strong, and useful a training as any other that is given in the same period."-President Eliot, Educational Reform, p. 378.

[^9]:    ${ }^{1}$ For a description of the natural method see Der Leitfaden für den Unterricht in der deutschen Sprache, by G. Heness, and L. Sauveur's Introduction to the Teaching of Living Languages. The method is well exemplified, not only in the Leitfaden, but in Der Sprachlehrer unter seinen Schülern, by Heness, and in Sauveur's Causeries avec mes élèves and Petites causeries. Ail these works are now published by Messrs. Henry Holt \& Co., of New York.

[^10]:    ${ }^{1}$ Its operation and results are described at considerable length in Die neueren Sprachen, by R. Kroa in III, $1,2,3,4,5,6$ (published separately under the title Die Methode Gouin, oder das Serien-System in Theorie und Praxis, Marburg, 1896), and by V. Knorr in III, 8, and, $\mathrm{F}, 9$. The method has been subjected to a searching criticism by Traugott in the same periodical, VI, 6. It should be said here that Bétis has considerably altered the original plan; and opinions are divided concerning the respective advantages of the two versions. The real Gouin system can be studied in the author's Art d'enseigner et d'étudier les langues, Paris, 1880 (third edition in 1897); the Bétis or "psychological" method is illustrated by a volume called The Facts of Life, New York, 1896, by Bétis and Swan. Without presuming to pass judgment on the merits of the case, we shall confine ourselves to the revised plan, since that is the one more widely known and the only one that has been tried in America. It was brought to the attention of the Englishspeaking world in 1892 and 1893 by ths articles of W. T. Stead in the Review of Reviews. In the years $1895-1897$ it was used in Boston, Mass, by Bétis himself, and it is $110 w$ on trial in one of the public high schools of the same city.

[^11]:    ${ }^{1}$ The names by which it is known are the "reform," the "new," and the "phonetic" methods. It was outlined by Vietor in his famous monograph, Der Sprachunterricht musz umkehren (1882, new edition, Heilbronn, 1886), and its principal features are set forth on the cover of every number of the Maitre phonétique. Both this periodical (the organ of the Association Phonétique Internationale) and Die neueren Sprachen, edited by Vietor, are devoted to the propagation of the phonetic method. The list of publications-books, pamphlets, and articles-which deal with the "reform method"' is very large. A complete bibliography down to 1893 is given by H. Breymann in Die neusprachliche Reform-Litteratur von 18\%6-1893, eine bibliographisch-kritische Übersicht, Leipzig, 1893. Two articles by leading exponents of the method have appeared in American journals, viz, "A new method of language teaching," by W. Vietor, in the Educational Review, Vol. VI, p. 351, and "Phonetics and reform method," by A. Rambeau, in Modern Language Notes, Vol. VIII, p. 161. An excellent report of observations made during a six months' tour of inspection of German schools is given by Mary Brebner in The Method of Teaching Modern Languages in Germany: New York, Macmillan, 1898, and this is now admirably supplemented by the work of Kari Breul, The Teaching of Modern Foreign Languages in our [English] Secondary Schools, New York, Macmillan, 1898. A conservative and at the same time fairly representative presentation of the aims and methods of the "reformers" is given by W. Münch in his and F. Glauning's Didaktik und Methodik des französischen und englischen Unterrichts, Sonderausgabe aus A. Baumeister's Handbuch der Erziehungs-und Unterrichtslehre für höhere Schulen. On pp. 102 sq . is to be found a select list of the more important writings on method in modern-language teaching which have appeared in receut years.

[^12]:    ${ }^{1}$ Some good ones are already available: For French, F. Beyer and P. Passy; Rambean and J. Passy have provided us with suitable chrestomathies; in German, we have a little book by Vietor; the Maître phonétique furthermore, is constantly furnishing material in various languages.
    ${ }^{2}$ Mentioned by Vietor in Die neueren Sprachen, V, 3, 165, and described by Professor Magill in Modern Language Notes, XIII, 3. The plan was first suggested in the Revue universitaire for June, 1896, by Prof. P. Mieille, who gave an account of his efforts to bring about an interchange of letters between French children studying English and English children studying French. His idea attracted immediate attention in France and England, ere long also in Germany, Italfor and the United States, and it was soon perceived that it could be turned to profit, not only for school children, but also for adults, especially for teachers. Having already been tried on a large scale, the plan has passed the experimental stage and may be confidently recommended as a valuable aid in the learning of a living language. At first, correspondents could be secured only through certain journals, which published lists or̈ names in consideration of a subscription. Later, on the initiative of the Manuel général de l'instruction primaire, a large committee was appointed, which now undertakes gratuitously to bring correspondents together. The vicepresident of the English section for women is Miss E. Williams, professeur aux Écoles de Sèvres et de Fontinay, whose address is No. 6 rue de la Sorbonne, Paris. Miss Williams's secretary, who conducts her correspondence, is Mme. Rossignol, 117 rue Nôtre Dame de Champs, Paris. The vice-president of the English section for men is Prof. A. Monchet, 16 rue de St. Guillaume, Asnières (près Paris). Any one of these three can be addressed by American teachers desiring French correspondents for themselves or for their pupils. In Germany the plan has been taken up prominently by Dr. K. A. Martin Hartmann, of Leipsic, who has reported upon a trial of it in the Saxon schools and published a body of Vorschläge relating to it. The advantages of the system are well set forth by Petri in Die neneren Sprachen VI, 511, and objections to it are answered by Hartmann in the same journal, VI, 324. A second and more extended article by Prof. Edw. H. Magill, of Swarthmore College, Pennsylvania, may be found in Modern Language Notes for February, 1899.

[^13]:    ${ }^{1}$ We use the word "primary" to denote in a general way all grades below the high school.

[^14]:    ${ }^{1}$ In the spring of 1899 representatives of Harvard, Yale, Princeton, Columbia, Cornell, and the University of Pennsylvania met in New York and, in conference with representatives of a number of prominent Eastern preparatory schools, agreed upon a scheme of uniform requirements which has since been accepted by the institutions concerned. The modern-language conference framed an elementary and an advanced requirement in French and in German. The elementary requirement of the New York conference is substantially the same as that proposed by this. committee, and their advanced requirement is nearly identical with our intermediate requirement. Slight differences appear in phraseology, in estimates of time required, and in the number of pages suggested for reading. But these differences are insignificant. It is believed therefore that the six prominent institutions which have already made so good a beginning in the anification of entrance requirements will have no difficulty in adapting their statements to the scheme which is here proposed for the country at large.

[^15]:    ${ }^{1}$ Such a treatment can be found in Hempl's German Orthography and Phonology, Boston, $189 \%$. The second "book" of Professor Hempl's work gives, in chapter 1, a sufficient introduction to general phonetics, with bibliography on p. 61; then, in chapter 2 , a scientific description of German speech sounds. Chapter 3 discusses stich topics as "A standard of pronunciation," "Stage pronunciation," "The best German," "The difference between German and English pronuriation," and, very fully, "The values of the letters." Bibliography, on p. 10\%. From the works there mentioned we select, as likely to be most useful to the teacher (aside from Professor Hempl's own book): Grandgent's German and English Sounds, Boston, 1882; Brandt's German Grammar (second part), Boston, 1888; Vietor's German Pronunciation, 4th ed., 1850 (Lemcke \& Büchner, 812 Broadway, New York, American agents); also Vietor's German essays, Die Aussprache des Schriftdeutschen, 1890, and Wie ist die Aussprache des Dentschen zu lehren? 1893. It is hardly necessary to say that the most widely used school grammars deal very brienly and superficially with the subject of pronunciation and are an insuffient reliance, eren when free from positive error.

[^16]:    ${ }^{1}$ For reasons sufficiently obvious the committee does not undertake to recommend particular American text-books for class use. There are a number of publications from which material more or less suitable can be culled. The test in choosing is whether a sentence represents (1) a natural and (2) a usual or oft-recurring form of expression. A scientific manual of spoken German, on the general lines perhaps $G f$ Sweet's Elementarbuch des gesprochenen Englisch, is a desiderandum. Worthy of recommendation for its thorough trustworthiness in respect of idiom, and equally good for German and French, is the German edition of Storm's Dialogues français, i. e., Französische Sprechübungen, Leipzig, 1888. For an excellent theoretical discussion of colloquial German, containing many useful hints to the teacher, we call attention to Wunderlich's Unsere Umgangsprache, Weimar, 1894.

[^17]:    ${ }^{1}$ In all the reading lists the order is alphabetical. It expresses no opinion with regard to the werit of the texts as compared with one another.

[^18]:    ${ }^{1}$ Einrichtung, equipment, furnishings. ${ }^{2}$ Bleich, pale. ${ }^{3}$ Bemüht, occupied. ${ }^{4}$ Jämmerlich, piteously. $\quad{ }^{5}$ Flekentlich, imploringly. ${ }^{6}$ Unverwandt, incessantly. ${ }^{7}$ Bewusztsein, consciousness. ${ }^{8}$ Vernehmlich, audibly.

[^19]:    ${ }^{1}$ Einlieger, lodger. ${ }^{2}$ Leinwandzelt, canvas tent.

[^20]:    ${ }^{1}$ A table of all the universities and colleges, with the number of graduates, students, booksin the libraries, and the names of the presidents for 1897 , is given by M. Levasseur in a foot note to this paragraph, taken from the Report of the Commissioner of Education, as are, naturally, most of the statistics cited in this article. Whenever such statistics are given in tabular form they are omitted here, as they have been already published. (Anr. Ed.)

[^21]:    ${ }^{1}$ The writer does not seem to understand exactly the significance of the division of "entrance examinations" into two parts. This is done only by the highest institutions, those whose requirements are most severe. An interval is sometimes allowed between the two examinations as a means of reducing the strain on the candidate, and also of allowing him longer time to prepare in the more difficult subjects. (AM. ED).

[^22]:    ${ }^{1}$ These cases are extremely rare; indeed, judging from the criticism of many Frenchmen of their own system, not more common than under the centralized control of the French univer. sities. (AM.ED.)

[^23]:    ${ }^{1} \mathrm{M}$. Haguenin represented in his mission the Société d'enseignement superieur, This account is translated from a communication of his to the Revue internationale de l'enseignement, April and May, 1898.

[^24]:    ${ }^{1}$ The salaries are, for a professor extraordinary, 3,500 lire ( $\$ \% 00$ ), 3,000 lire ( $\$ 600$ ), down to 1,250 lire ( $\$ 250$ ); ordinary professor, 5,000 lire ( $\$ 1,000$ ), with an increase of 500 lire ( $\$ 109$ ) every five years until 8,000 lire ( $\$ 1,600$ ) is reached; for a chargé de cours, 1,250 lire ( $\$ 250$ ), and for a libero docente, 12 lire ( $\$ 2.50$ ) per student

[^25]:    ${ }^{1}$ This comment is interesting. as indicating the grounds on which a French professor would defend the system of State examinations in his own country. (An. Ed.)

[^26]:    ${ }^{1}$ (1) Biennio of the course of letters and philosophy: First year, Italian literature (Graf), Tcesday, Thursday, Saturday at 3 o'clock; Latin literature (Stampini), Monday, Wednesday, Friday at 3; geography (X), Monday, Wednesday, Friday at 2. Second year, Italian literature, Latin literature, same as in first year; Greek literature (Fraccaroli), Tuesday, Thursday, Saturday at 10 ; comparative history of the classical and neo-Latin languages (Pezzi), Tuesday, Thursday, and Saturday at 9; ancient history (X), Tuesday, Thursday, Saturday at 11; modern history (Cipolla), Monday, Wednesday, and Friday at 10; theoretical philosophy (d'Ercole), Monday, Wednesday, Friday at 11.
    (2) Biennio of the course of letters: Third year, Italian literature, Latin literature, same as in first and second years; Greek literature, ancient history, modern history, same as in second year. Fourth year, Greek literature, same as in second and third years; archeology (Ferrero), Tuesday, Thursday, and Saturday at 2; history of philosophy (Bobba). Monday, Wednesday, and Friday at 9 ; comparative history of the neo-Latin literature (Renier), Monday, Wednesday, Friday at 2.
    (2) Biennio in philosophy. 'Fhird year, Italian literature, Greek literature, same as above; ancient history, same as second and third years in letters; theoretical philosophy, same as in second year; history of philosophy, same as fourth year in letters. Fourth year, history of philosophy, same as fourth year in letters and third in philosophy; moral philosophy (d Ercole), Monday, Wednesday, Friday at 2; pedagogics (Allievo), Monday, Wednesday, Friday at 4 ; general physiology (Mosso), Monday, Wednesday, Friday at 5.

    Complementary course: Greek and Latin grammar (Valmaggi), Tuesday, Thursday, Satur day at 4; Egyptology (Rossi), Tuesday, Thursday, Saturday at 4; Persian and Sanscrit (Pizzi), Monday and Wednesday, Thursday and Saturday, Tuesday and Friday at 4; Semitic languages (Arabic and Hebrew) (Pizzi), Wednesday and Friday from 9 to 11.
    Private instruction: Ancient history (Garizio), Monday, Wednesday, and Saturday at 5; Latin literature (same), Monday, Wednesday, and Friday at 4: Greek literature (Zuretti), Tuesday, Thursday, and Saturday at 4; Latin literature (Valmaggi), Tuesday, Thursday, and Saturday at 5; French language and literature.

[^27]:    ${ }^{1}$ Femaie students are quite numerous (at Turin) and come from the same lycees with the young men. They have the same rights. Most of them enter the faculty of letters. They usually intend to become teachers in secondary instruction, particularly the normal schools, but some of them occupy chairs in technical schools and lycées. The conduct of the female students at the university lectures, a professor told me, is usually correct.

[^28]:    ${ }^{1}$ For the minimum requirements adopted by the council, see report for 1836-9\%, p. 456.
    ${ }^{2}$ Proceedings N. E. A., 189\%, p. 500.
    ${ }^{3}$ Idem, pp. 701-708.

[^29]:    ${ }^{1}$ From Report of Proceedings of the meeting of the Department of Superintendence held in Brooklyn, N. Y., February, 1892. The appendices have been revised and somewhat enlarged.

[^30]:    ${ }_{2}^{1}$ Boston Medical and Surgical Journal, March 25, $189 \%$.
    ${ }^{2}$ New York Medical Record, April 2\%, $189{ }^{\circ}$.
    ${ }^{3}$ New York Medical Record, May 1, 1897.
    ${ }^{4}$ Report of Heaith Department, Chicago, 1855, ]. 83.

[^31]:    ${ }^{1}$ New York Medical Record, October 15, 1898
    ${ }_{2}$ Massachusetts Board of Health Report, 1894, p 828.
    ${ }^{3}$ Massachusetts Board of Health Report, 1895, p. $77 \%$.
    ${ }^{4}$ Lowell School Report, 1896, p. 46.

[^32]:    ${ }^{1}$ London Lancet, November 19, 1898. Taken from Journal American Medical Association, December 31, 1898.

[^33]:    ${ }^{1}$ Proceedings National Educational Association, 1898, p. 459.
    ${ }^{2}$ New York Medical Record, Decamber 31, 1898.
    ${ }^{2}$ London letter to New York Medical Record, Uctober, 1898.

[^34]:    ${ }^{1}$ Educational News, December 6,1890. From Freie Pädag. Blätter (Vienna), by L. Fleischner, after official French reports.

[^35]:    1 The report as published has been somewhat altered from the form in which it was read before the Council of Seventy at their annual meeting January 14, 1898, that form having had special reference to the oral presentation of the report.

[^36]:    ${ }^{1}$ The numbers in this table，except totals，are the list numbers used to identify the colleges in

[^37]:    ${ }^{1}$ It may be observed that the necessary limits of this report render it impossible to present all the data upon which these suggestions are based. The subject has been fully considered, and the suggestions seem naturally to follow from the facts.

[^38]:    ${ }^{1}$ The committee are glad to draw attention to a very careful statement secured from $\mathrm{Mr} \mathrm{J}_{\text {r }}$ R. Mott, summarizing and characterizing the work of the college department of the Young: Men's Christian Association. Attention is called also to the reports printed in the Young Men's. Christian Association Yearbook. Their statements of work done amply justify the claim made for them above, that they are well equipped for the kind of Bible work to which allusion is made.

    2 It will not be misunderstood that we urge less Bible study of a devotional character, or Bible: study that is less devotional, among college students; on the contrary, we would organnze it in such a way that it can become, and can be kept, truly devotional. The recommended distinction between curriculum study and extra-curriculum devotional study is not made until we are sure that there are agencies in the field entirely competent, with the counsel of individual professors, to conduct courses of this character in a way to secure the best possible results.

[^39]:    ${ }^{1}$ The great value of this article has lead to its insertion almost as a whole on the following pages.

[^40]:    ${ }^{1}$ A. book of selections from the Bible, prepared under the auspices of the Chicago Woman's Educational Union.

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[^41]:    ${ }^{1}$ additional notes to teachers concerning the use of the nature-study leaflets.
    It is important to observe that very much of the nature study by the children must be done out of doors and in the spring and summer, but many of the schools will not be in session at that time of the year.
    Such of the leaflets therefore as especially relate to spring and summer work on the part of the children should be translated into oral lessons and given by the teachers of such schools during the winter term. It is quite apparent the leaflets can often be usedin this way with but few slight changes in phraseology. Thus instead of taking the children on an excursion in May to observe spring birds, the teachers can rephrase the leaflet on that subject and use it as a basis for a conversation with the children, instructing them how to become good observers as they go about and requesting them to report the results of their observations at the beginning of the next term. These oral lessons should bring out as much as possible the previous information of the children.
    Some of the leafiets, however, which seem especially to relate to objects which can be observed only in the spring, may serve as models upon which the teacher can construct exercises adapted to use in the fall by substituting subjects of study which can be readily found in the later months of the year.
    To emphasize what has already been said in the letter of transmittal it may be repeated that the chief purpose of these leaflets is to suggest methods to the teachers rather than to give them information, and that the most successful results will be obtained when teachers are able to supplement these lessons by those of their own construction.

    James H. Smart.

[^42]:    ${ }^{1}$ To the Teacher:
    This is the second of a proposed series of leaflets designed to suggest methods of presenting nature study upon commonplace subjects. This is a new field of effort for the College of Agri-

[^43]:    ${ }^{1}$ It is really impossible to tell whether the shoot started from the limb A in 1889 or 1890 , without knowing the age of A, for the spur may have developedits blossom bud at the end in either the first or second year of its life; that is, young fruit spurs sometimes make a blossom bud the rery year they start, but they oftener "stand still" the second year and delay the blossom bud until that time.

[^44]:    ${ }^{1}$ Fourth report, February, 1838.

[^45]:    ${ }^{1}$ L'enseignement de l’agriculture dans les écoles normales d'instituteurs et dans les écoles primarcs, par Prillieux, inspecteur général de l'enseignement agricole, et Schribaux, répétiteur ì linstitut national agronomique.
    ${ }^{2}$ L’enceignement primaire en présence de l'enquéte agricole, par A. Pinet, inspecteur de l'enseignement primaire, etc.
    ${ }^{3}$ It would appear that this means that the school hours should be so fixed in summer that the children might be able to work at home on the farm, "so that the children may be exercised in the duties of agriculture or be employed at labor in the great industrial establishments [factories], where their activity and their bodily strength may be developed." See Bulletin administratif du minstère de l'instruction pubique, No. 164, 1867.

[^46]:    ${ }^{1}$ Bulletin administratif du ministère de l'instruction publique, 1867, No. 16t, partie officielle.

[^47]:    ${ }^{1}$ The climate of Europe permits fruit trees to be cultivated on stocks, which, while dwarfing. their growth, permits them to be annually both severely pruned, in the sense of that word in America, and also root prined; hence they are readily removable.

[^48]:    ${ }^{1}$ In America the experiment station might serve instead of the normal school, though it should be stated that there are about 100 normal schools in France,

[^49]:    ${ }^{1}$ Recueil des monographies pédagogiques publiées par le ministère de l'instruction pablique.

[^50]:    ${ }^{1}$ Zemstvos are special bodies composed of landowners existing in 34 of the governments for the administration of economical affairs.

[^51]:    ${ }^{1}$ By James H. Blodgett.
    ${ }^{2}$ Laws of 1843 , chap. 133 , sec. 10.
    ${ }^{3}$ Consolidated School Law, 1864.
    ${ }^{4}$ Code of Pnblic Instruction, 1856, p. 171.
    ${ }^{5}$ Decisiun of State Superintendent Victor M. Rice, 1864, given in Code of Public Instruction, 1868, p. 411.

[^52]:    ${ }^{1}$ Common-school Act, Upper Canada, 13 and 14 Victoria, chap. 48, sec. 44.
    ${ }^{2}$ Annual-Report Chief Superintendent of Schools of Upper Canada for 1852. Appendix F, page 240 .
    ${ }^{3}$ Personal letter cited in Illinois Teacher, March, 1853 page 77.
    ${ }^{4}$ Report Superintendout os Common Schools of Pennsylvania, 1857, page 21.

[^53]:    ${ }^{1}$ The term "license," occasionally used in a law as a tecinical term, in general means any diploma or certificate testifying to a teacher"s legal standing.
    ${ }^{2}$ Lewis W. Wilhelm, "Local institutions of Maryland," Johns Hopkins University Studies in History and Political Science, vol. 3.
    ${ }^{3}$ Marshall S. Snow, "City government of St. Louis," Johns Hopkins University Studies, vol. 5.
    ${ }^{4}$ James H. Blodgett, "Free burghs in the United States," Annual Report of American Historical Association for 1895, pp. 299-31\%.
    ${ }^{5}$ U. S. Stats., 49th Cong., 1st sess., chap. 362, § 3.

[^54]:    ${ }^{1}$ Common-school laws of Pennsylvania and decisions of the State superintendent, 1896, No. 173, p. 212.

[^55]:    $a$ See preceding text.
    $b$ To 16 , if wandering about public places without lawful occupation, growing up in idleness and ignorance.
    $c$ Not applicable to children over 14, lawfully employed and not enrolled at school.
    $d$ Not applicable to children over 13, recularly engaged in useful service.
    $e 14$ to 16 , if unable to read and write English, till able; also if wandering about public places without lawful occupation.
    $f$ To 16, if frequenting public places without lawíul occupation.
    $g$ Penalty only for child 7 to 16 , or one living idly and loitering about public thoronghfares and spending its time in an idle and dissolute manner.

[^56]:    ${ }^{1}$ Galeni Ars tuendae sanitatis num ad medicinalem artem spectet an ad exercitatoriam.
    ${ }^{2}$ Deinde movetur pila vehementer et diu. (Book III, letter 1.)

[^57]:    ${ }^{1} \mathrm{~A}$. Chassagne et E. Dally, Influence précise de la gymnastique sur le développement de la poitrine, des muscles et de la force de l'homme, Paris, 1881, p. 15.

[^58]:    ${ }^{1}$ A. Mosso, La respiration périodique et la respiration de luxe. (R. Accademia dei Lincei, 1885.)

[^59]:    ${ }^{1}$ Extract from the inaugural address of Sir William Crookes, president of the British Association for the Advancement of Science, at its Bristol meeting, 1898.

[^60]:    ${ }^{1}$ The Report of the Commissioner of Education for 1895-96 contains a chapter on Art Decoration in Schoolrooms. In this article, taken from the Eighth Report of the Massachusetts Free Public Library Commission, Mr. Samuel Swett Green, librarian of the free public library of Worcester, Mass., shows the possibilities open to libraries along that line.

[^61]:    Altenburg, ITungary [1819], Agricultural Academy; 119 students.
    Aschaff enburg, Bavaria, Germany [1844], Forestry Academy; 126 students.
    Beauvais, France [1854], Agricultural Institute; 103 students.
    Berlin, Prussia, Germany [1806], Agricultural Academy; 588 students.
    Berlin, Prussia, Germany, [1860], Mining Academy.
    Campinas, São Paulo, Brazil [1887], Agricultural Institution.
    Clausthal, Prussie, Germany [1775], Mining Academy; 200 students.
    Coopers Hill, Fingland [1885], Forestry Academy.
    Oopenhagen, Denmark [1858], Veterinary and Agricultural Academy; 3\%0 students.

[^62]:    Cost per capita of enrollment, $\$ 23.98$.

[^63]:    a includes 18 graduates in undergraduate departments. $b$ lncludes 59 graduates in undergraduate departments. $c$ Jncludes 13 graduates in undergraduate departments. $d$ Inciudes 2 graduates in undergraduate departments. $e$ Includes 55 graduates in undergraduate departments. $f$ Includes 44 graduates in undergraduate departments.

[^64]:    *Statistics of $1896-97$.

[^65]:    * Statistics of 1895-97.

[^66]:    ＊Statistics of 1890－97．

[^67]:    * Statistics of 1856-97.

[^68]:    * Statistics of 1896-97.

[^69]:    * Statistics of 1896-97.
    a Name changed to Huron College and moved to Huron, S. Dak.

[^70]:    * Statistics of 1896-97.

[^71]:    * Statistics of 1896-97.

[^72]:    ${ }^{1}$ Announcement, 1898-99.
    ${ }^{2}$ New York Medical Record, May 28, 1898.
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[^73]:    ${ }^{1}$ Atlanta Medical and Surgical Journal, July, 1898.
    ${ }^{2}$ Announcement of 1898-99.
    ${ }^{3}$ Report to this office for year 1897-98.
    ${ }^{4}$ New York Međical Record, February 11, 1899.
    ${ }^{5}$ President's Report, 1897-98, page 45.

[^74]:    ${ }^{1}$ From address delivered at the decennial anniversary of the Medical and Surgical Society of the District of Columbia.

[^75]:    ${ }^{1}$ Extract from address before the Society of American Naturalists, December 29, 1898. See Boston Medical and Surgical Journal, December $29,1898$.

[^76]:    * In 1896-97.

[^77]:    $d$ Bellevue Hospital Medical College and University Medical College of New York were consolidated in 1898.
    $e$ This is a preparatory school.

[^78]:    $d$ This sum（estimated）has been givenfor hospital improvement and erection of clinical amphi－ theater in John Sealy Hospital，to be called＂Rebecca Sealy Amphitheater，＂contributed by children of John and Rebecca Sealy（deceased）．＂University Hall＂（dormitory building）given by G．W．Breckenridge，at a cost of \＄40，000（including equipment），is completed and was on May 15,1897 ，formally transferred to the university．
    $e$ Four years hereafter．

[^79]:    * In 1896-97.

[^80]:    ne year for degree of graduate in pharmacy; two years for degree of pharmaceutical chemist.
    $c$ Afternoons and evenings.

[^81]:    ${ }^{1}$ Compiled by Mr. Wellford Addis, specialist for obtaining and collating information regarding colleges of agriculture and the mechanic arts.

[^82]:    ${ }^{1}$ The report of this institution was received too late to be included in the following summaries, though appearing in the table.
    ${ }^{2}$ Not including that of several States which failed to report.
    ${ }^{3}$ Of which $\$ 112,247$ went to institutions for the colored race.

[^83]:    * Statistics of 1896-97.

[^84]:    ＊Statistics of 1896－97．

[^85]:    * Statistics of 1896-97.

[^86]:    ＊Statistics of 1896－97．

[^87]:    $a$ Previons to 1890 only the pupils in public city high schools are giren. From 1890 onward all public high schools are included.

[^88]:    
    

[^89]:    W．R．Allee ．．．．．．．．．．．．
    Etta Coyner ．－．．．．．．．．
    Louis De Vault．．．．．
    B．F．Thiebaud．．．．．．．
    Helen J．Millspaugh W．R．Allee ．．．．．．．．．．
    Etta Coyner
    Louis De Vault．．．．．．．．
    B．F．Thiebaud．．．．．．．
    Helen J．Millspangh

    Helen J．Millspaugh
    Samuel Wertz．．．．．．
    Loren M．Edwards．
    Walter R．Houghton C．C．Marshall ．．．．．． Jesse W．Fiddle

    Anna Willson
    A．H．Beldon Eiizabeth L．Horney ．S．Haun

[^90]:    

[^91]:    象 Spirit Lake.
     Stato Conter State Center
    Storm Iake.
    

    ## strawberry Point

[^92]:    

[^93]:    Cadillac.
    Caledonia
    Caledonia
    
     Colona... Concord Constantin $\theta$
    Coruna. Crystal Falls Crystal Fal
    Dansville...
    

    Dexter.
    
     I) undee. East.Jorian Eaton Rapids Eau Claire. . lwardsburg Mlk Rapids
    

[^94]:    ## 

[^95]:    Franklin Institute...........................
    High School (............ S. H. Flake, supt Montague ....... Mount V ernon.
    Navasota..... Now Birminghan. Now
    Nocona
    Norfol............. High School .....
    
    
     School (colored).
    College*............ High School*.

    Ivanhoe High School
    High School 80. Hollege
    
     Royse Academy *.
    
    
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[^96]:    

[^97]:    
    

[^98]:    * Statistics of 1896-97.

[^99]:    * Statistics of 1896-97.

[^100]:    * Statistics of 1896-97.

[^101]:    * Statistics of 1896-97.

[^102]:    出D 98－143

[^103]:    * Statistics of 1896-97.

[^104]:    * Statistics of 1896-97.

[^105]:    * Statistics of 1890-97.

[^106]:    * Statistics of 1896-97.

[^107]:    * Statistics of 1896-97.

[^108]:    * Statistics of 1896-97.

[^109]:    * Statistics of 1896=97.

[^110]:    ${ }^{1}$ Boston school document No. 6, 1896, p. 4.
    ${ }^{2}$ From the Proceedings of the Boston School Committee for 1898, pp. 451 et seq.

[^111]:    ${ }^{1}$ From the Directory of the Public Schools of the City of Chicago for 1899.
    ${ }^{2}$ There are eight district superintendents, and one assistant superintendent in charge of high schools who ranks as a district superintendent.

[^112]:    Proportion of the total population of the United States who inhabit cities of over 8,000 inhabitants, 31.6 per cent.

    Proportion of the following items for the cities to similar items for the entire United States:

    Per cent.
    Public school enrollment................................................................................................... 25.3
    Average daily attendance................................................................................................ 27. 6
    Whole amount of instruction given .............................................................................. 36. 6
    Number of male teachers....................................................................................................... 4.6
    Whole number of teachers............................................................................................ 19.1
    Number of buildings .................................................................................................................. 3.8
    Value of school property .............................................................................................. 58.7
    Expenditure for tuition ............................................................................................... 42.1
    Total expenditure..................................................................................................... 45.7

[^113]:    ${ }^{1}$ Pages 2346 and 2347.
    ${ }^{2}$ In the Education Report for $1893-94$, pp. 30 and 31, were a series of tables showing for 10 cities the number of children of each year of age in the city and the number and proportion of them in school. An examination of those tables will be interesting in this connection.
    ${ }^{3}$ See Education Report for 1891-92, p. 37.

[^114]:    * Statistics of 1896-97.
    $a$ Estimated.
    $b$ On account of smallpox, the colored schools were open only 157 days.
    c The "Greenwich school" only.
    $d$ The schools were closed three weeks because of measles.

[^115]:    * Statistics of 1896-97.
    a Estimated.
    $b$ High schools were in session 195 days.
    $c$ The high school was in session 200 days.

[^116]:    * Statistics of 1896-97.

[^117]:    *Statistics of 1896-97.

[^118]:    * Statistics of 1896-97.

[^119]:    * Statistics of 1896-97.

[^120]:    * Statistics of 1896-97.

[^121]:    ＊Statistics of 1896－97．

[^122]:    * Statistics of 1896-97.

[^123]:    ED 98-150

[^124]:    * Statistics of 1896-97.

[^125]:    * Statistics of 1896-97.

[^126]:    * Statistics of 1896-97.
    a Principally white schools.
    $b$ Colored schools.
    $c$ The accounts of evening schools are not kept separate.

[^127]:    * Statistics of 1896-97. a The accounts of evening schools are not kept separate.

[^128]:    * Statistics of 1806-97. $a$ The accounts of evening schools are not kept separate.

[^129]:    * Statistics of 1896-97.
    a Permanent improvements are paid for by the common council out of other than school funds.

[^130]:    ' Tol. 1, Chapt. XV, pp. 721-837, Education Report, 1895-96.

[^131]:    * From 1896-97.

[^132]:    * Statistics of 1896-97.
    a N̄o report.

[^133]:    ＊Statistics of 189ô－97．

[^134]:    a One school not reporting. $b \$ 256,746$ expended by the Philadelphia school for new building.

[^135]:    * From 1896-97.

[^136]:    * From 1896-97.

[^137]:    $a$ Also in private elementary schools，42，493．
    $b$ Also 99,395 in model schools and academies．
    $c$ From public grant only；tuition fees also chargea．

