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ABSTRACT

This compilation is designed to assist librarians in selecting books for supplementing the expanding program of industrial arts education. The books were selected for the major subject areas of a broad industrial arts program, on the basis of reflected interest of students, content, format, and readability. The format and coding used in the bibliography are designed to give maximum assistance to librarians and teachers, presenting bibliographic information, reader interest level, suggested acquisition priority, publisher data, and the quoted price. Listings are arranged alphabetically by author in the subject groupings of: (1) Ceramics, (2) Electricity/Electronics, (3) Fibers, (4) Graphics, (5) Metals, (6) Planning/Design, (7) Plastics, (8) Power/Transportation, including Aerospace, Automotive, Boating, Engines and Power, and Railroading, (9) Woods, and (10) General. A publishers address list is given. (GR)

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ED0 43771

***INDUSTRIAL ARTS***

**TECHNOLOGY  
BIBLIOGRAPHY**

***AN ANNOTATED  
REFERENCE FOR  
LIBRARIANS***

THE UNIVERSITY OF THE STATE OF NEW YORK / THE STATE EDUCATION DEPARTMENT  
BUREAU OF SECONDARY CURRICULUM DEVELOPMENT / ALBANY, 1970

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INDUSTRIAL ARTS

TECHNOLOGY

BIBLIOGRAPHY

An Annotated Reference  
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1974 Joseph C. Indelicato, M.D. ----- Brooklyn

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1979 Francis W. McGinley, B.S., LL.B., LL.D. ----- Glens Falls

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Hudson

1982 Stephen K. Bailey, A.B., B.A., M.A., Ph.D., LL.D. ----- Syracuse

1983 Harold E. Newcomb, B.A. ----- Owego

1981 Theodore M. Black, A.B. ----- Sands Point

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## F O R E W O R D

This is a first compilation of an annotated bibliography to assist librarians in selecting books for supplementing the expanding program of Industrial Arts Education. Recent publications reflect modern technology and relate to broadened areas of the practical arts.

Recognizing that librarians had little information on which to base their selection of literature reflecting industrial technology, the State Education Department, in 1967, initiated action to identify books on a broad interest base and in various reading levels.

Arthur J. Dudley, Chief, Bureau of Industrial Arts Education; Frank A. Stevens, then Chief, Bureau of School Libraries; and G. Earl Hay, Supervisor, this Bureau, met to develop objectives and guidelines for such a bibliography. It was agreed that books were to be selected on the basis of the major subject areas identified in a broad program of Industrial Arts Education. Interest to students, content, format, and readability were the prime criteria. The selected books would be coded for suggested purchase on a first, second, and third priority to assure libraries with a limited budget of coverage in all areas. Selections were made to include treatment of the topic, as well as biographies of persons related to the area, and career information.

This bibliography was planned as a selective listing rather than an exhaustive treatment of all the works in the field. Many books were reviewed by the committee and selected on the basis of the above criteria. Additional suggestions are welcomed from the users of this bibliography for addition or consideration in any updating which may be undertaken in the future.

The recommendations of Robert O. Oltmann, librarian; and Paul M. Chapin, chairman of industrial arts, Deer Park High School, were used in compiling this bibliography. Their judgment, experience, knowledge, and association with young students have provided a list which should benefit schools throughout the State. All of the titles listed in this publication, and many more, are shelved in the Deer Park Science Library, Deer Park High School. Librarians throughout the State have the technology section of this library as a resource center or prototype for the development of like facilities.

Many publishers were approached regarding participation in this project and have generously donated books for consideration. Contributing publishers are acknowledged in the next section. Additional books, to supplement certain sections, were obtained under a Special Purchase Grant, ESEA, Title II, awarded to Deer Park High School.

Industrial Arts supervision and assistance on this bibliography were provided by Frank C. Campbell and B. John Ross, Associates, Bureau of Industrial Arts Education. Technical assistance was rendered by Mrs. Lore Howard, Chief, Bureau of School Libraries, and her staff. Coordination of the project and preparation of manuscript for publication were provided by G. Earl Hay, Supervisor; and John W. Surra, former Associate, Bureau of Secondary Curriculum Development.

Gordon E. Van Hooft, *Chief*  
*Bureau of Secondary Curriculum*  
*Development*

William E. Young, *Director*  
*Curriculum Development Center*

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## ACKNOWLEDGMENTS

The breadth of coverage in this publication was facilitated by the generous contribution of books for review from the publishers listed below.

Abelard-Schuman, Ltd.	Iowa State University Press
Aero Publishers	Industrial Press
Aldine Publishing Co.	Industrial Relations Counselors
American Heritage Publishing Co.	Richard D. Irwin, Inc.
American Technical Society	Alfred A. Knopf, Inc.
Appleton Century	J.B. Lippincott, Co.
Arco Publishing Co., Inc.	Little, Brown & Co.
Ballantine Books, Inc.	Lothrop, Lee & Shepard, Inc.
Charles A. Bennett	Maclaren & Sons
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Bruce Publishing Co.	McNally & Laftin Publishers
Cambridge University Press	Meredith Press
Chilton Book Co.	Julian Messner
Collier-Macmillan Library Services	John Murray, Ltd.
Coward-McCann, Inc.	Pergamon Press Ltd.
Thomas Y. Crowell Co.	Philosophical Library, Inc.
Crown Publishing Co.	Popular Science Publishing Co.
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John Day Publishing Co.	Printing Industries of America
DeLuis, Kasing and Co.	Putnam's, G.P., Sons
Dial Press	Reinhold Book Division
Dodd, Mead & Co.	Richards Rosen Press, Inc.
Doubleday & Co., Inc.	Ronald Press Co.
R.C. Dresser	Row Peterson & Co.
Duell, Sloan & Pearce	Saint Martins Press, Inc.
Dufour Editions	Sampson Law, Marston
E.P. Dutton & Co., Inc.	Howard W. Sams & Co., Inc.
Eastman Kodak Co.	Scarecrow Press, Inc.
Faber & Faber	Scholastic Book Services
Funk & Wagnalls Co.	Scientific Press, Ltd.
Goodheart-Wilcox Co.	Scribner's, Charles Sons
Grosset & Dunlap, Inc.	Simons & Shuster
Grossman Publishers, Inc.	Sterling Publishing Co., Inc.
Paul Hamlyn	Superior Publishing Co.
Hanover House	Technical Publications, Inc.
Harcourt, Brace & World, Inc.	Time-Life Books
Harper & Row Publishers	Van Nostrand Co., Inc.
Hawthorne Books, Inc.	Viking Press, Inc.
Hayden Book Co.	Henry S. Walck, Inc.
Holiday House	Whittlesey House
Holt, Rinehart & Winston, Inc.	John Wiley & Sons, Inc.
Houghton Mifflin Co.	World Publishing Co.
Iliffe NTP Inc.	Ziff-Davis

# HOW TO USE THIS BIBLIOGRAPHY

The format and coding used in this annotated bibliography are designed to give maximum assistance to librarians and teachers confronted with the selection of books to supplement their technology holdings.

Library style is used for all entries. Annotations are designed to identify the strong features of the book. The intent is to include books with high interest, having normal as well as low-reading level.

## FORMAT

The bibliography is divided into selected subject areas of an industrial arts program. An additional section is devoted to books which provide a general coverage or where a fine categorical distinction was difficult to make. Prices are included to help in estimating budgets.

Within each subject area the books are subdivided into separate listings for general works, biographies, and career materials. The area of Power/Transportation was further subdivided for more effective identification.

Areas included are:

- Ceramics
- Electricity/Electronics
- Fibers
- Graphics
- Metals
- Planning/Design
- Plastics
- Power/Transportation
  - Aerospace
  - Automotive
  - Boating
  - Engines and Power
  - Railroading
- Woods
- General

## READING LEVELS

The reading difficulty or interest level is indicated at the end of each bibliographic entry as follows:

- (E) Elementary
- (J) Junior High
- (S) High School
- (P) Professional

## ACQUISITION GUIDE

To provide additional guidance to school librarians in planning an orderly acquisition program of industrial arts resources, each item is preceded by a designation of 1, 2, or 3; to be interpreted as follows:

- 1 - First Purchase. These titles in the opinion of the compilers should be available in all school libraries where an industrial arts program is a part of the school curriculum.
- 2 - Second Purchase. These titles bring the collection to a more acceptable level.
- 3 - Third Purchase. These titles generally represent specialized approaches and should be acquired where additional depth is desired. This category might also include text or reference materials usually found in unit collections located in the industrial arts instructional area, but also appropriate for duplication in the central library when the budget permits.

## PUBLISHERS

Each entry carries only the abbreviated name of the publisher. A listing of publishers, together with their complete address, may be found at the back of this bibliography. The quoted prices were in effect at the time of compilation.

- 1 Beryle, M.K. *The encyclopedia of working with glass*. Oceana. 1968. \$16.00. (S,P)  
A comprehensive illustrated work offering practical topics adaptable for the classroom and for self-instruction. This practical text can be used to implement an existing course or to create a new course in glass work. For all libraries. Glossary and index.
- 2 Brennan, T.J. *Ceramics*. Goodheart. 1964. \$2.35. (J).  
Offers worthwhile projects in making articles of moist clay, and directions for firing them. Glossary of terms, bibliography, review questions, and index.
- 1 Chandler, Maurice. *Ceramics in the modern world: man's first technology comes of age*. Doubleday. 1967. (J,S).  
An overview of the industry covering such topics as "What is clay?", the beginning of bricks, drying and firing, earthenware, porcelain and china, stoneware, extrusion slip casting, preparation of glazes, gloss firing, decorating, ceramics and electricity, refractories and industry; and more. Index.
- 1 Diamond, Freda. *The story of glass*. Harcourt. 1953. \$4.50 (S)  
A survey of glass and its role in the development of civilization from 79 A.D. to the 20th century. Functional and decorative glass are covered. Index.
- 1 Eberle, Irmengarde. *The new world of glass*. Dodd. 1963. \$2.79. (J,S).  
An overview of the use of glass from early to modern times. Includes descriptions of the discovery of glass, stained glass windows, venetian glass, the glass blower's shop, glass for the preservation of foods, heat-resistant light bulbs, building materials, safety glass, lenses, and more. Index.
- 1 Huether, Anne. *Glass and man*. Lippincott. 1963. \$4.50. (S)  
Authoritatively presents a vivid and complete account of the history and development of glass as an art form, as a scientific tool, and as an industry. Glass from its origin to use in atomic research today. Glossary and index.
- 1 Jenkins, Louisa & Mills, Barbara. *The art of making mosaics*. Van Nostrand. 1957. \$5.95. (S)  
Complete guidance for the beginner who wants to create beautiful, unusual mosaic pieces. Detailed instructions with photos. Bibliography and index.
- 1 Kenny, J.B. *The complete book of pottery making*. Chilton. 1949. \$7.50. (J,S)  
In its 18th printing, this comprehensive, detailed book should be in every library. Designed to take the reader from simple fundamentals to technical skills. Valuable for the neophyte and the advanced student. Well illustrated. Index.
- 1 Lee P.W. *Ceramics*. Reinhold. 1961. \$7.00. (J,S)  
A comprehensive survey of the entire field of ceramics. Covers the applications of ceramic materials in industry, including the history, raw materials, and basic chemistry. Appendix gives valuable information on ceramic raw materials. Index.
- 1 Maloney, F.J. Terence. *Glass in the modern world*. Doubleday. 1967. (S,P)  
Good illustrated overview of a frequently overlooked industry. Discusses modern uses and production of glass products. Touches upon newer developments such as fiber optics, glass ceramics, lasers, photochromic glass. Traces the development of glass technology from craft to industrial science. Not highly technical. For every library. Index.
- 2 Matson, F.R., ed. *Ceramics and man*. Aldine. 1965. \$7.50. (S,P)  
A collection of 20 papers and reports primarily concerned with unglazed pottery covering ceramics through the ages from the archaeological point of view. Intended for the student and teacher specializing in this area.

- 1 Mitchell, Lane. *Ceramics: Stone age to space age*. Scholastic Book Services. 1963. \$.50. (J,S)

This paperback edition releases the reader from the traditional pottery concept and directs him toward those concepts associated with a space age technology. Topical areas include glass, fire-resistant materials, ceramic coatings on metals, concrete, memory cells, abrasives, and piezoelectric products.

- 1 Rhodes, Daniel. *Clay and glazes for the potter*. Chilton. 1957. \$7.50. (S,P)

Well-written book for the student, teacher, collector, and potter who wishes added knowledge of the origins, chemistry, and composition of clays and glazes. Numerous recipes for earthenware, stoneware, and porcelain bodies are included, together with methods for mixing them, for additions for different textures, and suggested firing techniques. Glossary and index.

- 1 Russell, S.P. *Wonderful stuff; the story of clay*. Rand McNally. \$2.95. (J)

Broadens the scope of the young reader in his understanding of the past and present uses of clay. Carefully researched illustrations enhance the text. Index.

- 1 Waye, B.E. *Introduction to technical ceramics*. London, Eng. Maclaren & Sons Ltd. 1967. \$11.50. (S,P)

Of particular value to students and teachers working with newer types of ceramic materials, this text is devoted specifically to technical ceramics.

- 3 Buban, Peter & Schmitt M.L. *Understanding electricity and electronics*. Webster. McGraw. 1962. \$8.75. (J,S)  
A basic well-written illustrated text for a full year course. Each of the 62 teaching units is followed by review questions. A definite connection between industrial arts, science, and mathematics is emphasized. Glossary and index.
- 2 Chute, G.M. *Electronics in industry*. 3rd ed. McGraw. 1965. \$8.50. (S,P)  
Intended for the advanced student, this introduction to industrial electronic circuits and equipment presents the necessary understanding of the methods, techniques, and skills required for the installation, service, and operation of a variety of industrial electronic equipment and systems. Includes problems and answers. Index.
- 2 Cooke, D.C. *Behind the scenes in television*. rev. ed. Dodd. 1967. \$2.79. lib. bdg. (J,S)  
A detailed look at a television studio and the procedures involved in producing a show.
- 2 Dunlap, H. Siebert, W.A., Austin, F.E. *Transformers*. Am. Tech. Soc. 1947. \$4.00. (S)  
A valuable, accurate text despite the date. Divided into three sections: 1 - Construction - electrical and magnetic principles, core building, winding and assembling coils, core and shell type of construction; 2 - Theory, connections and operation - theory of transformer operation, transformer ratings, connections to high and low voltage systems; 3 - Design of Small Transformers - calculating size of wire, size of core, number of turns, and varied mechanical details in construction. Detailed index.
- 2 Dunlap, O.E. *Communications in space: from wireless to satellite relay*. Harper. rev. ed. 1964. \$5.95. (J,S)  
A history of electronic communication from the discovery of electromagnetic waves to Telstar and radio telescopes exploring the planets and the stars.
- 3 Floherty, J.J. *Television story*. rev. ed. Lippincott. 1957. \$4.50. (J,S)  
This history of television from its inception to color describes early experiments as well as modern techniques, covers 1870-1957. Glossary of nontechnical terms.
- 2 Gerrish, H.H. *Electricity*. Goodheart. 1964. \$2.35. (J)  
A first course to familiarize the student with the basic principles of electricity and their practical applications. Emphasizes use in everyday living and safe work habits. Includes the electron, volts, amperes, Ohms, Ohm's Law, series and parallel circuits, magnetism, motors, generators, transformers, meters, and more. Index.
- 3 \_\_\_\_\_ *Electricity and electronics*. Goodheart. 1964. \$5.75. (S)  
A basic text which provides easy-to-understand fundamentals for the serious student. The experimentation and demonstration approach is used, as well as the construction of projects which apply the principles and skills. Dictionary of terms, bibliography, and index.
- 2 \_\_\_\_\_ *Electronics*. Goodheart. 1966. \$2.35. (J)  
A general exploratory treatment of electronic principles and applications for the beginning student. Emphasis is placed on the importance of electricity and electronics in everyday life. Includes radio waves, conversions, resistance, inductance, capacitance, the diode, power supplies, filters, the triode, detection, amplification, oscillators, the superheterodyne. Project section and index.
- 1 Graf, R.F. *Modern dictionary of electronics*. Bobbs. 3rd ed. 1968. \$7.95. (S,P)  
An up-to-date illustrated dictionary, containing over 16,000 definitions of current terms from radio, television, communications, radar, electronic instrumentation, industrial and medical electronics, microelectronics, computers, data processing, lasers, logic, semiconductors, and fiberoptics. Should be used or owned by all serious students and teachers. For all libraries.

- 2 Graham, K.C. *Understanding and servicing fractional horsepower motors*. Am. Tech. Soc. 1961. \$4.95. (S)  
For the advanced student seeking a career in motor maintenance, the book covers basic principles of motor operation, split-phase motor, capacitor motor, D.C. and universal motor, armature windings, three-phase motor, testing and maintenance, and a trouble-shooting section.
- 3 Griffith, B.W. Jr. *Radio-electronic transmission fundamentals*. McGraw. \$10.75. (S)  
Technical coverage of a specialized area of electronics. Each of the 68 brief chapters is a complete lesson which provides a foundation for subsequent chapters. For advanced students, radio amateurs, radio operators, engineers, and teachers. Index.
- 1 Grob, Bernard. *Basic electronics*. 2nd ed. McGraw. 1965. \$10.50. (S)  
Introductory text for students with no previous background in electricity or electronics. Basic principals explained, followed by suitable applications. A few of the 25 chapters are Ohm's Law, series circuits, parallel circuits, network theorems, direct-current meters, conductors and insulators, resistors, batteries, magnetism, inductance, capacitance, and many more. Self-study questions and answers. Several appendices. Bibliography and index.
- 1 \_\_\_\_\_ *Basic television*. 3rd ed. McGraw. 1964. \$11.95. (S,P)  
A specialized work devoted primarily to black and white television for the advanced student with a background in electricity, electronics, and mathematics. Excellent for a television course. Self-examinations and answers for each chapter. Index.
- 1 Herrington, Donald, Meacham, Stanley. ed. *Howard W. Sams handbook of electronic tables and formulas*. 2nd ed. Bobbs. 1964. (S,P)  
An indispensable reference and source book. Seven major sections are: Electronic formulas and laws, constants and standards, symbols and codes, service and installation data, design data, mathematical tables and formulas. A must for the serious student and teacher. For all libraries.
- 3 Hickey, H.V. & Villines, W.M. Jr. *Elements of electronics*. 2nd ed. McGraw. 1961. \*\$8.75. text ed. \$6.00. (S)  
Still a good basic text briefly covering the essentials. Includes fundamentals of electricity, introduction to vacuum tubes, combination circuits, ammeters, voltmeter, ohmmeter, vectors, laws and properties of inductance, series LCR circuits, power transformers, and more. Appendix of charts and tables, review questions and index.
- 3 Jones, E.W. *Adequate wiring for home and farm*. Bruce. 1963. (S)  
Supplementary information of a general nature. The student must be under the guidance of a competent instructor in order to perform the operations within the confines of strict codes. Index.
- 3 \_\_\_\_\_ *Fundamentals of applied electricity*. rev. ed. Bruce. 1956. (J,S)  
Still a useful classroom text and shop manual with sound experiments. Part I presents the fundamental working principles of electricity and magnetism through text pictures, examples, and demonstrations. Part II gives directions for the construction and use of experimental apparatus, shop equipment, and class projects. Bibliography and index.
- 2 Kiver, M.S. *Color television fundamentals*. 2d ed. McGraw. 1964. \$10.95. text ed. \$7.50. (S,P)  
A technician level presentation intended for advanced students with both radio and black and white television background. Glossary and index.
- 1 Klein, H.A. *Fuel cells: an introduction to electrochemistry*. Lippincott. 1966. \$4.25. (S)  
An introduction to the operations and implications of fuel cells. Index.
- 1 \_\_\_\_\_ *Masers and lasers*. Lippincott. 1963. \$3.95. (S)  
Nontechnical treatment of the construction and uses of masers and lasers. For all students. For all libraries. Index.

- 3 Lease, A.A. *Basic electronics*. Bruce. 1965. \$5.60. (J,S)  
A sequential presentation of concepts beginning with basic electricity, voltage, cells, and batteries, and proceeding to components, switches, circuits, Kirchhoff's laws, capacitance, meters, generators, transformers, and rectifiers. Includes glossary, table of formulas, list of electrical abbreviations, chart of trigonometric functions, problems with answers and index. Does not include units on vacuum tubes or semiconductors, with exception of a short chapter on solid state rectifiers.
- 1 Lieberg, O.S. *Wonders of magnets and magnetism*. Dodd. 1967. \$3.00. (J)  
A good overview of the subject, with experiments and helpful diagrams. Index.
- 1 Lohberg, Rolf & Lutz, Theo. *Electronic brains*. Sterling. 1965. \$4.95. (J,S)  
Overview of the concepts and principles of how computers work. Does not include electronic details. Bibliography and index.
- 3 Lytel, Allan. *Industrial electronics*. McGraw. 1962. \$10.00. Text ed. \$7.50. (S,P)  
A text covering industrial applications of electronics. For students at the technical institute level who have had courses in basic electronics, vacuum tubes, and possibly AM radio receivers and transmitters. For teachers as well as advanced students.
- 1 McIntyre, R.L. *Electric motor control fundamentals*. 2nd ed. McGraw. 1966. \$6.95. (S)  
Especially of use to technical, vocational, and trade schools. Well written, presenting the electric motor controls and their application in language as nontechnical as possible. However, students need a working knowledge of basic electrical theory. Index.
- 3 McKinley, J.L. & Bert, R.D. *Electricity and electronics for aerospace vehicles*. McGraw. 1961. (S,P)  
Highly specialized treatment of basic electrical and electronic theory. Requires a knowledge of advanced mathematics. Good sections on receivers, transmitters, electronic control systems, radar, radio systems for modern airliners, autopilot for light aircraft, and more. Glossary and indexed.
- 1 Mileaf, Harry ed. *Electricity one-seven*. Hayden. 1966. \$20.95. (S)  
A comprehensive text composed of 7 volumes designed specifically to teach electricity. Each volume covers a given area of knowledge and is complete in itself. Topics in each volume are presented in incremental steps. Each page has an illustration depicting the topic under discussion. Important points are summarized. Technical terms are defined at their point of introduction. Key words are italicized. Review questions. Technical, but within the range of serious students. For all libraries.
- 1 \_\_\_\_\_ *Electronics one-seven*. Hayden. 1967. \$20.95. (S)  
Follows the same format as the author's Electricity One-Seven. Composed of 7 volumes designed to teach electronics. Each volume covers a given area of knowledge, complete in itself. Topics in each volume are presented in incremental steps. Each page has an illustration depicting the topic being covered. Important points are summarized. Technical terms are defined at their point of introduction. Key words are italicized. Review questions. Technical, but within the range of capable students. For all libraries.
- 2 No11; E.M. *Practical science projects in electricity/electronics*. Audel. (Howard W. Sams). 1966. \$2.95. (J,S)  
Recommended for self-study as well as the classroom. Contains simple projects relating to electronic principles. Stresses usefulness, clarity, and inexpensive available parts.
- 1 Richter, H.P. *Practical electrical wiring: residential, farm, and industrial*. 7th ed. McGraw. 1967. \$8.50. (S)  
Based on the 1965 National Electrical Code, this practical, comprehensive manual for students, teachers, and practicing electricians consists of fundamentals, terminology, basic principles, theory, and practical wiring instructions. Extensive appendix of tables and charts. Index.

- 1 Ruchlis, Hy. *The wonder of electricity*. Harper. 1965. \$3.95. (J,S)  
Clearly and simple written explanation of the many wonderful uses of electricity, from heating and lighting through communications and the computer. Easily understood explanations of the phenomena of electrical energy; electron theory; batteries; circuitry; magnetism; and production and distribution of electricity. Index.
- 2 Schuler, Stanley. *Outdoor lighting for your home*. Van Nostrand. 1962. \$5.95. (S)  
In clear nontechnical language and with many illustrations the author shows how to make the best use of light around a home, including fixtures, light placement, wiring, installation, and sources of supply. Special section on outdoor Christmas season lighting.
- 3 Shoultz, K.G. *Basic electricity; theory and practice*. St. Martin's. 1965. \$2.80. (S)  
Theory and applications for a basic course in electricity. Presents an overview of major topics to establish a general background for the student. Details follow in later chapters. Review questions. Index.
- 2 Shrader, R.L. *Electronic communication*. 2d ed. McGraw. 1967. \$9.50. (S,P)  
For the advanced student with an electronics background, interested in amateur or commercial radio operations and communications, this book is a theory course which includes questions from FCC examinations for radio licenses, practice problems with answers, appendix, and index.
- 3 Sienkiewicz, J.M. *Vacuum tube circuits for the electronic experimenter*. Ziff-Davis. 1961. (S)  
A good source book for beginner or advanced experimenter. Stresses principles of operation. Includes circuit diagrams and a parts list for projects which use components easily found in old radio and television sets. Appendix and index.
- 2 Singer, B.B. *Basic mathematics for electricity and electronics*. 2d ed. McGraw. 1965. \$10.95. text edition. \$7.50.  
Principles of mathematics necessary to understand electrical theory are presented, developing each new concept from principle to application to a variety of situations. Includes end-of-chapter problems, answers, and index.
- 1 Spielman, H.S. *Electronics source book for teachers*. vols. I, II, III. Hayden. 1965. \$48.00. (S,P)  
Not highly technical. Provides both the new and experienced teacher with the competency to include electronics in high school industrial arts and science courses. Written and well illustrated. For all libraries. Appendices and index.
- 3 Steinberg, W.F. & Ford, B. *Electricity and electrons*. 3rd. ed. Am. Tech. Soc. 1964. \$5.25. (J) (S)  
Comprehensive treatment of fundamentals well illustrated by photographs and color contrasted drawings. Chapters are divided into specialized units of study with review questions for purposes of self-testing. Includes projects. For advanced Junior High and early Senior High students.
- 2 Van Valkenburgh, Nooger & Neville, Inc. *Basic electricity*. Rider. 1954. 5 vol. pa. \$2.50 ea. set. pa. \$11.25. 5 vol. in 1-\$12.75. (S,P)  
Illustrated with cartoons, this civilian version of the five volume U.S. Navy basic electricity self-train course presents a wealth of ideas for experimental and illustrative circuitry. Index.
- 2          *Basic electronics*. Rider. 1955. vol. 1-5, pap. \$2.50 ea. set, \$12.75; set, pap. \$11.25 vol. 6, \$3.95; pap. \$2.90. (S,P)  
A second work by the authors of Basic Electricity, in the same format, this 6 volumes in one manual is also as a self-training course. Index.
- 2 Wells, Robert. *Electronics; key to exploring space*. Dodd. 1964. \$3.25. (S)  
Appropriately titled, this nontechnical book includes explanations of such instruments as radiometers, magnetometers, cosmic dust detectors, etc. Appendix and index.

- 1 Beasley, Rex. *Edison*. Chilton. 1964. \$4.50. (J,S)  
High quality photographs and good writing, describe the man, his moods, his successful ventures, and his failures. Index.
- 1 Beckhand, A.J. *Electrical genius: Nikola Tesla*. Messner. 1959. \$3.50. (J,S)  
A portrayal of the strange, spectacular, and dramatic life of the scholarly scientist who created the theory of the alternating current motor. Biography and index.
- 1 Burlingame, Roger. *Out of silence into sound: the life of Alexander Graham Bell*. Macmillan. 1964. \$2.95. (J,S)  
The man who perfected the first telephone, and who spent his life working to bring sound to the deaf and speech to the mute. Bibliography and index.
- 1 Coe, Douglas. *Marconi: pioneer of radio*. Messner. 1943. \$3.50. (J)  
A comprehensive life story in easy to understand language. Accurate details.
- 1 Levine, I.E. *Electronics pioneer; Lee DeForest*. Messner. 1964. \$3.50. (J,S)  
The inventor and scientist who gave the world radio and long distance telephoning, and perfected talking motion pictures long before the movie industry saw the value of sound. Radar, television, guided missiles, and modern computing machines were made possible by his work. Index.
- 1 \_\_\_\_\_ *Inventive wizard; George Westinghouse*. Messner. 1962. \$3.50. (J,S)  
A man of vision whose inventions brought untold benefits to mankind. A well written account of one of the greatest contributors to the Industrial Revolution in America. Bibliography and index.
- 2 Lavine, S.A. *Steinmetz: maker of lightning*. Dodd. 1955. \$4.00. (J,S)  
A vivid picture of the crippled wizard scientist, his times, and his work.
- 1 Stevenson, O.J. *The talking wire: the story of Alexander Graham Bell*. Messner. 1947. \$3.34. (J)  
A well written account of the inventor of one of the greatest miracles of science - the telephone.

- 2 Bibby, D.L. *Your future in the electronic computer field.* Richards Rosen. 1962. \$2.95. lib. bdg. \$2.79. (S)  
Presents the influence and applications of computers; career opportunities; education; and training required. Appendices include computer manufacturers, universities offering courses, and data processing service centers, a glossary, and a bibliography.
- 2 Gordon, G.N., & Falk, I.A. *Your career in T.V. and radio.* Messner. 1966. \$3.95. lib. bdg. \$3.64. (S)  
Explores the entire broadcast industry stressing the necessary qualifications, education, background, skills, and personality. Lists available scholarships, colleges offering degrees, and suggested reading. Index.
- 2 Keefe, J.E. *Aim for a job as an electronic technician.* Richards Rosen. 1967. lib. bdg. \$3.78. (S)  
An up-to-date treatment of the field, indicating necessary preparation and job opportunities. Appendices include a list of principal schools offering training, glossary of aerospace terms, computer terms, and bibliography.
- 2 Levine, Sol. *Your future in electronic engineering.* Richards Rosen. 1961. (S)  
Covers definition and history of the field, high school preparation, college selection, and advice on finding a job. Bibliography.
- 2 Neal, H.E. *Your career in electronics.* Messner. 1963. \$3.95 lib, bdg, \$3.64. (S)  
A description of the field and its application to today's world. Included are qualifications, educational requirements, salaries, opportunities, and names and addresses of corporations as source of further information. Index.
- 2 Newman, Bernard. *Your future in the high fidelity industry.* Richards Rosen. 1966. \$4.00. lib. bdg. \$3.78. (S)  
Good coverage of this little publicized vocational field. Appendices include colleges offering courses, selected readings, hi-fi periodicals; IHF member biographies.

- 1 Eberle, Irmengarde. *The new world of fabrics*. Dodd. 1964. \$2.79. (J,S)  
Describes the varied ways textiles are used. Covers all sources from sheep farms to laboratories and explains how raw materials become fibers and fibers are woven into fabrics. Index.
- 1 Higham, Robert A. *A handbook of papermaking*. London. Business Books Ltd. 1968. (S)  
Particular attention has been focused on the importance and influence of fibers, their nature, and treatment throughout the manufacturing processes. Information is provided on the technological nature of the principal processes and techniques in pulp, paper, and board manufacture.
- 1 Linton, G.E. *Applied basic textiles: raw material, construction, color, and finish fabric analysis; chemical and physical testing of textiles; spot and stain removal and care of clothing*. Duell. 1966. \$7.95. (S,P)  
A well balanced volume which provides a clear understanding of the making of textile fabrics, how textiles differ, and the end use of these materials. The facts and principles presented are sufficient in scope to train students in secondary schools for the following types of employment:  
1 - Various phases of the textile, apparel, and marketing industries;  
2 - Wholesale and retail buying and selling of fabrics and apparel;  
3 - Homemaking and interior decoration. For all libraries. Several appendices. Index.
- 1 \_\_\_\_\_ *Natural and manmade textile fibers: raw material to finished fabric*. Duell. 1966. \$7.95.  
(S)  
This unusually well illustrated textbook is of value to both the student who wishes to follow a career in textiles or apparel, and to those who are already involved. Included are the history, classifications and grades, manufacturing processes, finishing of fabrics, and uses of these materials in the trades. Several appendices, bibliography, and index.
- 1 \_\_\_\_\_ *The modern textile dictionary*. 3rd ed. Duell. 1963. \$18.50. (J,S)  
14,000 terms covering all phases of textile production, manufacture, and end uses. The scope ranges from apparel to asbestos; fiber to finish; the history of costume, fashion, and style to management and labor; from lace and laundry practices to plastics and spot and stain removal. For all libraries.
- 3 Potter, Maurice D. *Fiber to fabric*. Gregg. 1945. \$6.75. (S)  
Discusses textiles for the consumer. Topics include information on basic fibers, the various manufacturing processes, and the characteristics of finishing fabrics.
- 1 Thorpe, A.S. & Larsen, J.L. *Elements of weaving; a complete introduction to the art and techniques*. Doubleday. 1967. \$7.95. (S)  
Covers all aspects of the craft from the most fundamental principles of simple looms and elementary weaves to more advanced textile designs. Old and new fibers, filament and staple fibers; grading of cotton, wool, and silk; and the novelty yarns are discussed. How design is achieved through texture, pattern, and color is also demonstrated. Glossary of terms, bibliography, and index.

- 1 Barry, Les. *Getting started photography*. 2nd ed. Chilton. 1967. \$3.95. (J,S)  
A good book for the beginner written in clear, nontechnical language. The introduction to both cameras and photography serves as a good base for school courses.
- 2 Carlsen, D.E. *Graphic arts*. Bennett. 1965. \$4.40. (J,S)  
Covers the basic fundamentals in each of the activity areas in general graphic arts. Emphasis is placed on the manipulative operations which are illustrated in their proper sequence of doing a simple job from beginning to completion. Test questions for each chapter. Bibliography and index.
- 1 Cogoli, J.E. *Photo-offset fundamentals*. 2nd ed. McKnight. 1967. \$5.60. (S)  
A fine basic manual or supplementary text for the beginner in the field of photo-offset lithography (offset printing). This revised edition gives expanded treatments to methods of type composition, copy preparation, reproduction photography (line, halftone, and color), platemaking, and presswork. Bibliography.
- 1 Cooke, D.C. *How books are made*. Dodd. 1963. \$2.79. (J,S)  
The complete concise story of the manufacture of a book, accurately explained in easy nontechnical language and with good photographs. Especially interesting for graphic arts students. Index.
- 1 \_\_\_\_\_ *How paper is made*. Dodd. 1959. \$2.79. (J,S)  
An easy to read, nontechnical overview of the processes. Highly informative. Well illustrated.
- 2 Eisenberg, James, & Kafka, F.J. *Silk screen printing*. 2d ed. McKnight. Taplinger. 1957. pap. \$2.00. (J,S)  
A well illustrated coverage of silk screen printing techniques including suggestions for tools and equipment for the beginner. Bibliography and index.
- 1 Foster, Joanna. *Pages, pictures and print: a book in the making*. Harcourt. 1958. \$2.95. (J,S)  
An easy to read, step-by-step presentation of how a manuscript becomes a book. The roles of author, editor, and artist are discussed as well as the manufacture of the finished book. Index.
- 2 Jonas, Paul. *Manual of darkroom procedures and techniques*. 3d ed. Chilton. 1967. (S)  
Intended for the student and photographer desiring to advance his skills in negative, positive, and color processing, this book is equally valid for the novice and the advanced student.
- 3 Kagy, F.D. *Graphic arts*. Goodheart. 1965. \$2.35. (S)  
A useful text explaining the mechanics of different types of printing, composition, and the ingredients of printed pieces. Chapters include typesetting fundamentals, identification of type faces, lithographic printing, intaglio (gravure) printing, silk screen printing, and bindery operations. Discusses occupational opportunities. Dictionary of terms and index.
- 3 Karch, R.R. *Graphic arts procedures; basic*. 3rd ed. Am. Tech. Soc. 1965. \$5.25. (S)  
This basic, easy to comprehend, "how-to" book covers the general field and also portrays many areas where specialized talents and skills needed. Well illustrated with a chapter devoted to specific careers and occupations in the graphic arts. Glossary of graphic arts terminology.
- 1 \_\_\_\_\_ & Buber, E.J. *Graphic arts procedures, the offset processes*. Am. Tech. Soc. 1967. \$6.75. (S)  
The newest developments of offset processes are included in this recently published work for the advanced student. Offset lithography is treated comprehensively and modern equipment is well illustrated. Review questions and answers. Of special value are the sections titled, "Dictionary

of Technical Terms," and "Weights and Measures and Conversion Tables." The entire scope of the offset technicians' craft is covered. Functional similarities and operational differences of various presses are well explained.

- 1 LaCour, Marshall & Lathrop, I.T. *Photo technology*. Am. Tech. Soc. 1966. \$5.95. (S)  
Fills the need for a book with a good balance of the artistic, esthetic, and technical aspects of photography while stressing proper practices and techniques. Theory and practice are well covered in logical sequence. An informative chapter on jobs and occupations. Other topics include camera handling, film processing, print finishing, composition, lighting, action, filters, color, amateur movie making, special darkroom techniques, special photographic techniques, principles of light, camera types, and lenses. Index.
- 3 Litzel, Otto. *Darkroom magic*. Chilton. 1967. \$7.95. (S)  
An unusual manual of techniques for trick photography. Gives explicit instructions for using mirrors, glass, grass, and other materials.
- 1 Marinaccio, Anthony. *Exploring the graphic arts*. 2nd ed. Van Nostrand. 1959. \$6.50. (S)  
Includes the latest developments in graphic arts materials and methods (up to 1959), and presents descriptions of modern methods of type setting and printing processes. Sample type faces are reproduced, letterpress printing is thoroughly covered, and the newest methods of screen process are closely examined. A rather complete overview of value to students and teachers. Review questions. Bibliography and index.
- 1 Neal, H.E. *Communication: from stone age to space age*. Messner. 1960. \$3.95. (J,S)  
Easy to read stories of the cave drawings of primitive man, ancient Egyptian hieroglyphics, the cuneiform writings which led to our alphabet, and sign languages used by the American Indian and the deaf. Bibliography and index.
- 1 Neblette, C.B. *Photography: its materials and processes*. 6th ed. Van Nostrand. 1962. \$16.50. (S)  
A good technical reference for graphic reproduction processes. Chapters include electro-photography (with discussions on xerography and Electrofax); sensitometry of color materials; history of photography and cameras; filters; optics; lenses; shutters; manufacture and physical properties of films, plates and papers; theory of development; and more. 76 photographs, 288 linecuts and 5 color plates. Index.
- 1 Perry, K.F. & Baab, C.T. *The binding of books*. rev. ed. McKnight. 1967. \$4.95. (J,S)  
A complete survey of the bookbinding craft. Starting with a chapter on the parts of a book, this book covers types of bindings, tools and equipment, materials and supplies, punching and sewing, forwarding, and making covers, lettering, and more. A useful manual of procedure. Index.
- 1 Rogers, Frances. *Painted rock to printed page*. Lippincott. 1960. \$3.75. (J,S)  
Pictures painted on the walls of caves, hieroglyphics, alphabets, and works on clay tablets, papyrus, and stone are all described in this history of printing. Of value to the graphic arts communications and student.
- 1 Simon, O.R. (Bland, David, ed.) *Introduction to typography*. 2nd ed. London, Eng. Faber and Faber. 1963. \$7.50. (S)  
Revision of a classic creative manual of style for all students and teachers of book printing. For every library. Glossary, bibliography, and index.
- 1 Strauss, Victor. *The printing industry*. Printing industries of America. 1967. \$24.50. (S,P)  
Compilation of all facets of the industry. Comprehensive, well written, authoritative. For all libraries. Selective bibliography and subject index.

## Graphics

## Biography

- 2 Faber, Doris. *Printer's devil to publisher: Adolph S. Ochs of The New York Times*. Messner, 1963. \$3.50. lib. bdg. \$3.34. (J,S)  
The creator and builder of the newspaper known for "All the news that's fit to print."  
Bibliography and index.
- 1 Levine, I.E. *Miracle man of printing: Ottmar Mergenthaler*. Messner. 1963. \$3.50. (J)  
The inventor of the linotype machine which ushered in a new era in printing and affected the entire literate world. Bibliography and index.

## Graphics

## Careers

- 1 Bedell, E.L. *Careers in graphic reproduction*. Van Nostrand. 1965. \$6.95. (J,S)  
This detailed coverage of the fields includes the tools of modern graphic reproduction (typewriters, duplicating, and copying machines) and the techniques (duplicating by stencil, offset, and electrostatics). Also examined are the related skills used with drafting, illustrations, photography, color, reduction, and enlargement.
- 1 Keppler, Victor. *Your future in photography*. rev. ed. Richards Rosen. 1965. \$2.95. (S,P)  
A renowned researcher, historian, and leading technician in the field of color photography provides compact coverages on where to go to school, how and what to teach yourself, how much money can be earned, portrait photography, press photography, the photographic technician, moviemaking for television, etc. Self-evaluation test. Bibliography. For guidance counselors and all libraries.
- 1 Reinfield, George Jr. *Your future in printing*. rev. ed. Richards Rosen. 1963. \$2.95. (S,P)  
Written by a leader in the field, this volume shows the satisfactions and rewards of a career in the printing industry. A comprehensive coverage of the opportunities in shop, office, and management. Appendix includes schools, scholarships, sources of additional information, and a bibliography. For guidance counselors and all libraries.

- 1 Althouse, A.D., Turnquist, C.H. & Bowditch, W.A. *Modern welding*. Goodheart. 1965. \$8.50. (S)  
A comprehensive well illustrated book written in nontechnical language, describing the field of welding: equipment, processes, and techniques. Valuable for metal shop students and teachers. Review questions, glossary. Index.
- 1 Avner, S.H. *Introduction to physical metallurgy*. McGraw. 1964. \$9.50. (S)  
A beginning level introductory book for the high caliber student, with physics and mathematics background. Fundamental concepts are accurately presented in simplified form with many illustrations and charts. Index.
- 1 Axelrod, Aaron. *Machine shop mathematics*. 2nd ed. McGraw. 1951. \$5.95. (S)  
This presentation is suitable for vocational industrial courses and is easily applied to shop situations where mathematical procedures are indicated. Chapter headings include measuring tools of the machine shop; weights and measures; applications of percentages, ratio, and proportion; geometric construction; shop trigonometry; lathe work, gears, and milling-machine work. Tables of measurement. Index.
- 1 Basford, Leslie & Kogan, Philip. *The metallic skills: foundations of metallurgy*. London, Eng. Sampson Low, Marston & Co. (Distributor Ginn & Co. Boston). 1966. (S)  
A simple introduction to the extraction, properties and working of metals, and to their molecular structure. The processes are clearly explained with flow diagrams, cutaway pictures, and color illustrations. Beautifully and skillfully illustrated in color. For all libraries. Index.
- 2 Black, P.O. *Machinist library: toolmakers handy book*. (Audel) Bobbs. 1967. 3 vol. \$4.95 ea. set \$13.50. (S,P)  
A specialized reference for advanced study devoted to providing a better understanding of the fundamentals of layout work, gear and cam design, and heat-treating operations for toolmakers and diemakers. Appendices include varied mathematical charts. Index.
- 1 Boyd, T.G. *Metalworking*. rev. ed. Goodheart. 1964. \$2.35. (J,S)  
One of a series planned to provide general exploratory experiences for beginners in industrial arts, this book combines industrial practices and vocations. Hand tool operations are stressed. Includes planning and designing, safety, bench metal, sheet metal, forging, founding, heat treating, and machine shop. Index.
- 1 Bruce, L.F. & Meyer, L.A. *Sheet metal shop practice*. 3rd ed. Am. Tech. Soc. 1965. \$5.50. (S)  
Each chapter is a complete unit of work designed to sequentially develop the skills required of sheet metal workers. Chapters include working tools and machinery, safety, using patterns and cutting metal projects, punching, drilling and riveting, folding edges and forming, crimping, bending and grooving, soldering, plastics projects, supplementary projects, and index.
- 1 Fisher, D.A. *Steel: from the iron age to the space age*. Harper. 1967. \$4.95. (S)  
Relates the history of iron and steel from ancient times to the present, and modern iron and steelmaking processes. Operations in a large integrated steel plant are described from smelting the iron and refining it into steel to the manufacture of steel products ready for shipment. Index.
- 2 Frisbie, Ned. *Modern wrought iron furniture*. Bruce. 1959. \$3.50. (J,S)  
Forty projects which can be accomplished by a beginner as well as an experienced worker are presented in order of difficulty. Contemporary ideas incorporating metal forming and welding.
- 1 Giachino, J.W. & Schoenhals, N.L. *General metals for technology*. Bruce. 1964. \$6.50. (J,S)  
A basic book containing introductory units on the properties of metals, cutting, shaping, joining, finishing, welding, casting, machining, forging, and more. Written in a fairly demanding style. Well illustrated. Index.

- 1 Weeks, William & Brune, Elmer. *Welding skills and practices*. 3rd ed. Am. Tech. Soc. 1967. \$4.95. (S)  
A complete well written text of modern welding practices. Describes techniques of welding most ferrous and nonferrous metals. Includes chapters on TIG and MIG welding. Index.
- 3 Halperin, D.A. *Building with steel*. 2nd ed. Am. Tech. Soc. 1966. \$6.00. (S)  
Describes techniques of steel frame building construction, design, fabrication, and fastening. Completely revised to conform with the 1963 edition of the AISC Code. Examples and problems are based on the new A36 steel now in common use. Of interest to the future engineer. Appendix and index.
- 3 Hawkins, L.V. *Art metal and enameling*. Bennett. 1967. (S)  
A basic resource for the beginner in industrial arts and the crafts laboratory. Includes the history, fundamental processes, and tools of industry as well as related technical insights. Applications of the principles of design and mathematics are introduced. Covers the handcraft area of the metals industry.
- 3 Johnson, C.G. & Weeks, W.R. *Metallurgy*. 4th ed. Am. Tech. Soc. 1956. \$5.50. (S)  
A good treatment of metallurgy for the advanced high school student. As a teaching device, the book encourages the reader to think through problems by effectively explaining guiding principles, defining terms, and outlining manufacturing processes. Newer metals such as titanium, zirconium, indium, and vanadium are included.
- 3 Kauffman, H.J. *Machine shop and foundry projects*. McKnight. 1959. \$4.00. (S)  
A concise well written history of metals and machines. The projects are well selected with clear plans and designs.
- 2 Ludwig, O.A. & Ludwig, E.A. *Metal work technology and practice*. 4th ed. McKnight. 1962. (S)  
Unusually illustrated, this well written basic text, covers all machine shop trades, automotive and aeronautical work, foundry work, metal patternmaking, sheet metal trades, ornamental metalwork, building trades, electrical trades and all industrial manufacturing. Necessary shop, vocabulary words and phrases are italicized. Index.
- 3 Lux, D.G. & Towers, E.R. *Contemporary metal home furnishings*. McKnight. 1957. \$4.40. (S)  
A total of 58 projects with suggested materials, photographs, and construction drawings. Each has been tested, under supervision, by students using nonspecialized equipment. Emphasis is given to bending procedures. Index.
- 2 Masson, F.N. *Welding theory and practice*. St. Martin's. \$3.00. 1967. (S)  
An introductory text on conventional electric-arc and oxyacetylene welding with an emphasis on safety. Glossary and index.
- 3 McCarthy, W.J. *Machine tool technology*. 3rd ed. McKnight. 1968. \$9.50. (S)  
Completely revised and well illustrated, this text for a course in machine shop theory and practice, is most comprehensive. Valuable for students, teachers, and libraries. Index.
- 1 Newcomb, Ellsworth & Kenny, Hugh. *Miracle metals*. Putnam. 1962. \$3.29. (J,S)  
A clearly written, easy to read history of metals with simple illustrations. Bibliography, glossary, and index.
- 2 Porter, H.W., Lascoe, O.D., & Nelson, C.A. *Machine shop; operations and setups*. 3d ed. Am. Tech. Soc. 1967. \$5.50. (S)  
Text provides basic knowledge in conventional machine tool operation, processes, and developments. Good color illustrations are used to indicate forces and movement. Transvision teaching aids, review questions, mathematical tables, index.

- 1 Rusinoff, S.E. *Forging and forming metals*. Am. Tech. Soc. 1952. \$5.50. (S)  
An old favorite for supplemental reading in the area of hot forming and forging of metals. For advanced study in high school metals courses. A glossary of forging terms and an appendix of useful tables are included.
- 3 Siegner, C.V. *Art metals*. Goodheart. 1961. \$2.35. (J)  
This well written, illustrated book provides manipulative experiences to develop basic skills in the use of hand tools. Describes tools, processes, and project ideas. Easy to follow. Index.
- 1 Slade, Edward. *Metals in the modern world: a study in materials development*. Doubleday. 1967. (S,P)  
This illustrated up-to-date volume traces the development of metallurgy in the last century. The scope, nature, and direction of change are surveyed including information regarding shaping, extraction, newest methods of fabricating, examination techniques, and automation in the industry.
- 2 Smallman, R.E., & Askbee, K.H. *Modern metallography*. Pergamon. 1966. \$4.50. (S,P)  
An advanced text covering three primary principles which describe modern techniques of studying defects in metals; description of metallographic methods rather than observations, emphasis on recent methods rather than well established ones, and greater detail regarding the theories which lead to the experimental determination of quantities hitherto unknown, such as stacking-fault energy, Burgers' vector, etc. Index.
- 2 Smith, R.E. *Forging and welding*. rev. ed. McKnight. 1967. \$4.40. (S)  
This detailed, well illustrated "how-to" book covers units on forging, oxyacetylene welding, gas-arc welding, and electric arc welding.
- 1 Tracy, E.B. *The new world of aluminum*. Dodd. 1967. \$3.60. (J,S)  
Presents an excellent overview of mining, refining, manufacturing, and utilization of aluminum. Well illustrated. Index.
- 1 \_\_\_\_\_ *The new world of copper*. Dodd. 1964. \$2.79. (J,S)  
Clearly illustrated treatment of the subject, covering history, copper deposits, copper ores, mines and mining, copper in refinery shapes, copper alloys, uses in communication, and other uses of copper in the future. Index.
- 2 Underwood, Austin. *Creative wrought ironwork*. Van Nostrand. 1965. \$4.95. (S)  
Not intended as a text, this book is for students with a specialized interest in wrought iron design and techniques. Bibliography, list of suppliers, and index.
- 1 Walker, J.R. *Modern metalworking: materials, tools and procedures*. Goodheart. 1965. \$6.96. (S)  
A modern illustrated text, which combines practices and vocations. Supplies basic information on tools, materials, and procedures used in metalworking occupations. Review questions. Glossary, bibliography, and index.
- 1 Wick, C.H. *Chipless machinery: methods of cold-forming ferrous metals including heading, rolling, spinning, swaging, extruding, and high-energy-rate forming*. Industrial. 1960. \$13.50. (S)  
An illustrated how-to volume dealing with descriptions of the various chipless production processes, essential steps in making parts by these methods, the design of equipment and tooling necessary for the use of the processes, and typical applications. Technical, but not beyond the student with an interest in the metals industry. Index.

- 1 Berg, L.D.T. *Aim for a job in welding.* Richards Rosen. 1967. (S,P)

Concise, factual, current information about the welding industry, jobs, careers, education and training, working conditions and pay rates, societies and associations, colleges and universities offering training in the field, and American Welding Society publications. Includes information for the high school graduate as well as the college bound. For guidance counselors and all librarians.

- 1 Sullivan, J.W. *Aim for a job in the iron and steel industry.* Richards Rosen. 1967. \$3.78. (S,P)

This new book, written by a man who has offered career guidance to high school graduates since the 1920's, answers hundreds of questions pertaining to the iron and steel industry. Excellent job opportunity coverage. Gives opportunities for college and high school graduates. Extensive glossary of industry terminology. For guidance counselors and all libraries.

- 1 Brown, W.C. *Drafting*. Goodheart. 1964. \$2.35. (S)  
A book for the beginner, geared specifically for Industrial Arts General Shop courses. A systematic development through the skills and information that are basic to an understanding of drafting. Included are units on graphs, charts, and maps. Index.
- 3 Bergere, Thea & Bergere, Richard. *From stones to skyscrapers; a book about architecture*. Dodd. 1960. \$3.50. (S)  
A handsomely illustrated concise history of architecture from earliest times through current trends. Index.
- 1 Burke, A.E. & others. *Architectural and building trades dictionary*. 2nd ed. Am. Tech. Soc. 1955. \$6.50. (J,S)  
A lexicon of the definitions, terms, and phrases used in air conditioning, heating and ventilation, painting and decorating, electrical work, insulation, acoustics, carpentry, masonry, roofing, sheet metal work, and plumbing. Drawings are included to clarify definitions difficult to visualize. Appendix of abbreviations. For all libraries.
- 3 Giachino, J.W. & Beukema, H.J. *Drafting technology*. Am. Tech. Soc. 1964. \$6.75. (S)  
This basic text presents the role of drafting in the context of rapidly, increasing technological changes. It reflects modern practices which conform to standards of the American Standards Association, Society of Automotive Engineers, American Society of Mechanical Engineers, and the Department of Defense. Well illustrated.
- 1 Hepler, D.E. & Wallach, P.I. *Architecture: drafting and design*. McGraw. 1965. \$8.50. (S,P)  
A good beginning book for residential design and architecture. Abundantly illustrated showing design and construction details. It is divided into four major parts: 1. Area planning, 2. Basic Architectural Plans, 3. Technical Architectural Plans, 4. Creative Architectural Drafting and Design. Can be used by teacher or student either in or out of the classroom. Index.
- 1 Rogers, W.G. *What's up in architecture; a look at modern building*. Harcourt. 1965. \$3.95. (S)  
This comprehensive view of architecture in our time presents accounts of the work and problems of Frank Lloyd Wright, Louis Sullivan, Mies van der Rohe, and Henry Hobson Richardson. Bibliography and index.
- 1 Spence, W.P. *Architecture; design. engineering. drawing*. McKnight. 1967. (S)  
A comprehensive text and reference for the planning and design of residences and small single story commercial buildings. It includes residential and commercial planning, structural design, methods of building, design of electrical heating and plumbing systems, and more. Bibliography and index.
- 2 Stegman, G.K. & Stegman, H.J. *Architectural drafting: functional planning and creative design*. Am. Tech. Soc. 1966. \$6.95. (S)  
This illustrated text for students with limited drafting experience presents engineering design and construction techniques as well as the mechanics of architectural drafting. Contents include site considerations, floor plans, construction details, exterior design, lighting and wiring, air conditioning, plumbing, estimating, and financing. Index and glossary.
- 3 Wright, F.L. (Gutheim, Frederick ed.) *Wright on architecture*. Duell. 1941. \$7.00. (S)  
A collection of the selected writings of the distinguished master architect, presenting a unique insight of both the man and the architect. Tremendously interesting philosophy on the use of the materials of construction. Index.

- 1 Lavine, S.A. *Famous American architects*. Dodd. 1967. \$3.50. (S)  
The evolution of American architecture and the architects who shaped it. An interesting account of the performances of 14 competent builders.

- 2 DeLong, F.J. *Aim for a job in drafting*. Richards Rosen. 1968. \$3.78. (S)  
Skill, aptitude, education, and training requirements together with job descriptions. Bibliography.
- 2 Frazier, J.B. & Julin, R.J. *Your future in landscape architecture*. Richards Rosen. 1967. \$4.00. lib. bdg. \$3.78. (S)  
Defines the profession, explains the necessary high school preparation and college requirements and gives job opportunities. Appendices include instructions for submitting a resume, suggested reading, scholarships offered, and a list of accredited schools.
- 1 Roth, Richard. *Your future in architecture*. rev. ed. Richards Rosen. 1960. \$2.95. (S,P)  
Expert advice from a practicing architect of skyscrapers for over 30 years. Chapters include; qualifications, educational background, satisfactions and responsibilities, job opportunities, leads into other fields, getting a job, and drawbacks. Self-evaluation test. Appendix includes a listing of schools offering courses in architecture, state registration boards, addresses of A.I.A. chapters, suggested reading list. For guidance counselors and all libraries.

- 1 Arnold, L.K. *Introduction to plastics*. Iowa State Univ. Press. 1968. (S,P)  
Specifically designed as a text and reference book for the chemistry oriented student with engineering ambitions. This work features a brief presentation of practical applications, properties, and uses of various plastics. Index.
- 1 Cherry, Raymond. *General plastics projects and procedures*. 4th ed. McKnight. 1967. \$5.80. (J,S)  
Well illustrated with 800 photographs, this book includes introduction to plastics, hand operations, machine operations and a section on experimental plastics requiring inexpensive equipment. For all libraries. Index.
- 1 Cooke, J.G. *The miracle of plastics*. Dial. 1964. \$4.95. (S)  
The chemical story of plastics has been omitted and the behavior of plastics in relation to their unique molecular shape has been stressed, in order for the layman and nonchemistry orientated student to use this volume. The history, properties, methods of production, and varied uses are discussed. Nontechnical.
- 1 Cope, D.W. & Conaway, J.O. *Plastics*. Goodheart. 1966. \$2.35. (J)  
A useful text presenting several plastics projects and surveying the place of plastics in industry. Includes working with acrylics (storing stock, sawing, machining, drilling, threading, sanding, buffing, cementing and bonding, heat forming, using strip heaters). Review questions. Index.
- 1 DuBois, J.H. & John, F.W. *Plastics*. Reinhold. 1967. \$11.00. (S,P)  
An important text for the advanced student, instructor, designer, engineer, production trainee, or supervisory personnel. Covers a working knowledge of plastics and their basic processing procedures and the underlying principles and operating practices of the industry. For all libraries. Glossary and indexed.
- 1 Duffin, D.J. *Laminated plastics*. Reinhold. 1958. \$12.00. (S,P)  
The first book to give a broad view of the laminated plastics industry. The approach is semi-technical with a knowledge of high school chemistry, physics, and electricity required. Includes various types and grades of raw materials and resins and numerous tables of properties and characteristics. Well illustrated. For the advanced student. Lists plastics trade names. Index.
- 1 Lappin, A.R. *Plastics projects and techniques*. McKnight. 1965. \$4.00. (J,S)  
Section I presents 48 projects, giving materials needed, a working drawing and photo of the finished article. (Shoe horn, bud vase, picture frame, fruit bowl, jewel box, tray, lamp, clothes hanger, bookends, etc.) Section 2 presents custom equipment and procedures with 10 different techniques such as the sandblaster, strip heater, heat-sealing press, air pressure forming equipment, and vacuum forming equipment. A good projects book.
- 1 Lewis, Alfred. *The new world of plastics*. Dodd. 1963. \$2.79. (J,S)  
A good brief and easily read overview of a variety of plastics with widely contrasting purposes. Describes a research center where nearly everything is made of plastics including the walls, ceilings, chairs, and doorknobs. Also looks ahead 20-30 years when our clothing, automobiles, and home utensils will be made of these materials.
- 1 Newcomb, Ellsworth & Kenny, Hugh. *Miracle plastics*. Putnam. 1964. \$3.50. (J,S)  
Clear diagrams and easily read reference charts present a survey of the history, background, achievements, and future of plastics. Appendices include a listing of varied plastics and their properties, bibliography, glossary, and index.
- 1 Simonds, H.R. & Church, J.M. *Concise guide to plastics*. 2nd ed. Reinhold. 1963. \$12.00. (S,P)  
This updated and expanded text explains a complex industry briefly and simply. Written for students with a knowledge of chemistry, teachers, consumers, and fabricators. Practical questions regarding cost, properties and uses of materials, and sources of plastics are answered. Includes comprehensive listing of plastics trade names with the materials they represent and the companies which produce them. Index.

- 2 Steele, G.H. *Fiber glass projects and procedures*. McKnight. 1962. \$4.40. (J,S)  
A text for the beginning student, the projects have been student tested on average eight graders. Appendices and index.
- 1 Swanson, R.S. *Plastics technology*. McKnight. 1965. \$6.80. (S)  
This basic text includes information on materials and the processes by which raw materials are converted into finished products. Each chapter has a list of questions for review purposes. The many industrial processes transforming plastics into thousands of consumer and industrial articles are explained. Numerous tables summarize the basic concepts, data, and information. For all libraries.
- 2 Teach, W.C. & Kiessling, G.C. *Polystyrene*. Reinhold. 1960. \$5.00. (S,P)  
This specialized advanced reference provides an accurate introduction to the chemistry, properties, manufacture, and commercial applications of polystyrene emphasizing the application of materials by injection molding, extrusion, vacuum forming, and as a foam. Index.
- 2 Walker, J.S. & Martin, R. *Injection molding of plastics*. London. Plastics Institute. Iliffe Books Ltd. 1966. (S,P)  
Intended for the advanced student, this work emphasizes the efficient design and use of machinery together with the use of the right raw materials. Described are the basic principles and early development of injection molding; the effect on final product of the variables of time, pressure, temperature, flow, and shrinkage; and detailed studies of practical aspects. Index.
- 1 Whittington, Lloyd R. *Whittington's dictionary of plastics*. Technomic Pub. 1968. \$7.50. (J,S,P)  
A comprehensive work covering all phases of the plastics industry. Accepted meanings for the experts in the field, those involved with legal interpretation, authors, students and novices.

- 2 Alexander, Tom. *Project Apollo: man to the moon*. Harper. 1964. \$4.50. (S)  
A factual account in layman's language of man's reach to the moon.
- 3 Bach, Richard. *Biplane*. Harper. 1966. \$3.95. lib. bdg. \$3.79. (J,S)  
A U.S. Air Force pilot accustomed to jet fighters and four-engine transports, relives early flying days by flying an open-cockpit 1929 biplane across our continent. True story of a man willing to trust wood, cloth, wire, and his own navigating skill following railroads and highways. The adventure is described in clear easy to read language.
- 1 Bergman, Jules. *Anyone can fly*. Doubleday. 1964. \$4.95. (J,S,P)  
Of interest to all ages, this illustrated guide to flying includes why an airplane flies, fundamentals of flight, the airport, takeoffs and landings, controls, instruments, communication, and safety. For all libraries.
- 1 Bryan, L.A. & others. *Fundamentals of aviation and space technology*. 1966 ed. Univ. of Ill. 1966. specify clothbound. (S)  
Well written treatment of all aspects of aviation; its influence on society, the history of flight, aircraft construction, engines and instruments, flight techniques including navigation; meteorology, communications; F.A.A. regulations; and space travel.
- 1 Clarke, Arthur C. *Man and space*. Time Inc. 1964. \$ (J,S)  
Vivid account of man's dream to go beyond his environment. Answers many of the questions relating to man's leap into space and the technology required.
- 3 Cooke, D.C. *Fighter planes that made history*. Putnam. 1958. \$2.97. (J)  
The great fighter planes that made history through the Korean War are pictured and described. For the young reader. Authentic photographs.
- 3 \_\_\_\_\_ *Seaplanes that made history*. Putnam. 1963. \$2.97. (J,S)  
An accurate illustrated history of the seaplane from 1910 to the modern turboprop and turbojet creations. For the young reader. Authentic photographs.
- 3 \_\_\_\_\_ *Transport planes that made history*. Putnam. 1959. \$2.97. (J,S)  
Covers the history of transport aviation from converted World War I bombers to 1959. Includes TWA; American Airlines; KLM and others, and their struggles during the early years.
- 3 Darby, Ray. *The space age sport; skydiving*. Messner. 1964. \$3.95. (J,S)  
The history of flying and parachuting introduce this account of the modern sport of skydiving. Training of novices, equipment, costs, safety measures, techniques, competitions, and thrills are explained. Glossary of parachuting terms. Index.
- 3 The Federal Aviation Agency. *Pilot instruction manual*. Hanover House. (S,P)  
A reprint of an official FAA flight-instruction manual for all pilots. Originally prepared to bring uniformity to flight instruction throughout the U.S. Complete formal coverage of basic flight information, principles of safe flight including the flight instruction syllabus, and flying instruction involving the actual use of the plane. Invaluable manual.
- 3 Floherty, J.J. *Aviation from the ground up*. rev. ed. 1963. Lippincott. \$4.50. (S)  
A history of aviation by an author who has observed its growth from a hazardous sport to a vital industry. Emphasis is placed on significant innovations in jet, turbojet, and rocket propulsion, helicopters, and commercial flight. Discusses career opportunities.
- 3 \_\_\_\_\_ *Whirling wings: the story of the helicopter*. Lippincott. 1961. \$3.00. (J,S)  
The history of the helicopter, its conception, and the men responsible for its development. Describes present industrial, commercial, wartime uses of the "whirlybirds" and their future potential. Light reading.

- 3 Hendrickson, W.B. *Handbook for space travelers*. Bobbs. 1959. \$3.95. (J,S)  
A 500 year history of space from Chinese skyrockets to satellites. Written for young boys. Valuable for basic information.
- 3 \_\_\_\_\_ *Pioneering in space*. Bobbs. 1961. \$3.50. (J,S)  
An account of outer space travel with emphasis on the human aspects including biographical sketches of early space pioneers. A variety of information including weightlessness, radiation, space suits, choosing astronauts, astronaut training, the X-15 program, and physiological problems. Concise.
- 2 \_\_\_\_\_ *Reach for the moon*. Bobbs. 1962. \$3.95. (J,S)  
Although copyrighted in 1962, this provides a detailed look at the events leading up to man's first moon landing.
- 3 \_\_\_\_\_ *Satellites and what they do*. Bobbs. 1963. \$3.95. (J,S)  
A comprehensive description of U.S. and Russian space exploration via Satellite programs until 1963. Divided into three sections: (1) "What's It Like Up There" discusses planning and designing the Explorers, Vanguard, Sputniks, etc.; (2) "Putting Satellites to Work" covers the Echo, Telstar, and weather watcher Tiros; (3) "Cosmonauts and Astronauts" provides data on specific flights. Index.
- 3 \_\_\_\_\_ *Winging into space*. Bobbs. 1965. \$3.95. (J,S)  
A fascinating account of experimental winged flight research at Edwards Air Force Base from the first jet planes to planes capable of traveling six times the speed of sound. The X series of planes, including the X-15, the Dyna-Soar, and the M-2 Lifting Body are described for the casual reader as well as the technically oriented. Index.
- 1 Howard, W.E. & Baar, James. *Spacecraft and missiles of the world*. Harcourt. 1966. \$6.50. (S,P)  
Comprehensive reference constantly updated since 1962. Over 100 illustrations pertaining to technical descriptions of nearly 200 space vehicles and missiles. Clearly introduces concepts providing data in areas of space exploration, space weapons, strategic missiles, and tactical missiles. Aerospace defense is described in detail. The information is the most accurate obtainable up to 1966 within the bounds of U.S. and foreign military security. Index.
- 3 Hyde, Wayne. *The man behind the astronauts*. Dodd. 1965. \$3.50. (J,S)  
Story of the men and women behind the scenes who actually build the spacecraft, test each part, man the tracking stations, and make up the recovery teams. Well written, with good photographs. Index.
- 1 Josephy, A.M. Jr. ed. *The American Heritage history of flight*. American Heritage. 1962. (S)  
Probably one of the finest books ever compiled on the topic. Should be in every library.
- 1 Ley, Willy. *Rockets, missiles, and men in space*. rev. ed. Viking. 1968. \$8.95. (S)  
The third complete revision since 1944 of this definitive source book on the development of space technology. Forty percent of this edition is new material. The historical material that has made it the standard reference book in its field is retained. Related in depth the story of the manned space program. For the serious reader. For all libraries.
- 1 McFarland, K.D. *Airplanes; how they work*. Putnam. 1966. \$2.86. (J)  
Complete, up-to-date, easy to read explanation of how and why an airplane works. Good for young readers. Glossary and index.
- 3 McKinley, J.L. & Bent, R.D. *Basic science for aerospace vehicles*. 3rd ed. McGraw. 1963. (S,P)  
Provides the technical foundation needed by technicians or mechanics working on aerospace vehicles. Covers both airframe and power plant maintenance. Preknowledge of the subject is necessary. For the advanced student.

- 3 \_\_\_\_\_ *Powerplants for aerospace vehicles*. 3rd ed. McGraw. 1965. (S,P)  
Provides the student, mechanic and aviation technician with background information on aircraft engines, engine accessories, and powerplant systems. Highly specialized text, for students in technical schools and high schools offering the courses. Knowledge of advanced mathematics and physics necessary. Recommended as a fine supplementary reference. Index.
- 3 Pizer, Vernon. *Rockets, missiles and space*. Lippincott. 1962. \$3.95. (J)  
Easy to read book which answers such questions as: which planets are most likely to be visited by man in the near future and why?; what are the hazards in manned space flight?; how does a satellite get into orbit?; how does a rocket engine work? etc. Glossary.
- 1 Roseberry, C.R. *The challenging skies: the colorful story of aviation's most exciting years. 1919-1939*. Doubleday. 1966. \$9.95. (S)  
Dramatic story of the most productive era in the annals of aviation. Over 300 authentic photographs of the men and machines that made headlines, including Lindbergh, Earhart, Byrd, Mitchell, Hughes and others. For all libraries. Index.
- 3 Shelton, William. *American space exploration; the first decade*. Little. 1967. \$5.95. (J,S)  
This recent history, 1956-1961, of America's space effort --- the missiles, satellites, men in orbit, and activities "behind the scenes" recounts the trails, setbacks, and successes of the first 10 years. Well written in layman's language. Appendices include the language of rocketry and statistical record of American space flights 1956-67. Index.
- 3 \_\_\_\_\_ *Countdown: the story of Cape Canaveral*. Little. 1960. \$4.25. (J,S)  
A nontechnical history of the building of Cape Canaveral, its pioneer launches, early successes and failures, and the human element involved. Dictionary of terms included. Index.
- 3 Snyder, Al & Welch, W.A. *Lightplane construction and repair*. Crown. 1968. (S)  
Useful for a class project for students who have the necessary financial backing. Brings purchase and repair of a small plane into the realm of possibility.
- 2 Stevens, L.A. *New York to Rome; jet flight 808*. Harper. 1962. lib. bdg. \$3.79. (J,S)  
A behind the scenes, on the spot account of the flight of a Boeing 707 jet from N.Y. to Rome, including weather briefing, dispatching, maintenance, load planning, fueling, etc.
- 1 Stever, H.G. & Haggerty, J.J. *Flight*. rev. ed. Times. 1967. \$4.95. (J,S)  
A magnificently illustrated volume, covering the history of flight, theory of aerodynamics, propulsion, navigation, air flight control, testing, design, and more. For all libraries. Appendices include a glossary of airmen's slang and a chronological list of the highlights of manned flight.
- 1 Strickler, M.K., Jr. ed. *An introduction to aerospace education*. New Horizons. 1968. (J,S)  
Tested in classrooms and laboratories, this illustrated volume emphasizes learner-centered activity and concept development rather than specific fact or information gathering. Combines community resources on a local, state, national, and international basis. This is an introduction to "Above and Beyond" (14 volume encyclopedia of Aviation Space Science. Also highly recommended) for every library. Lengthy bibliography and index.
- 3 Thoms, W. *Flying for fun or business*. Arco. 1967. \$3.50. (S,P)  
Not a flight instruction manual, this book covers private flying in general, how and where to learn how much it costs. Intended to help interested persons decide whether to learn to fly and eventually own a plane. "Light Plane Guide" contains photos and statistical information on 70 light planes (price, dimensions, weight, range, etc.).
- 1 Tower, M.E. *Flight facts for private pilots*. Aero. 1967. \$5.50. (S)  
Comprehensive coverage of small plane flying. Written for students and those already having private pilot's license, the illustrated volume contains the "fundamentals of flying" necessary to obtaining a pilot's license. Glossary.

- 1 Van Deventer, C.N. *An introduction to general aeronautics*. Am. Tech. Soc. 1965. \$8.00. (S,J)  
Virtually a course in introduction to aeronautics, this volume presents complete basic concepts pertaining to flight, control, construction, and operation. Chapters are devoted to structure, instruments, reaction engines, reciprocating engines, navigation, weather, regulations of the airways, etc. Self examinations with answers and written assignments at the end of each chapter.
- 1 Van Sickle, N.D. *Modern airmanship*. 3rd ed. Van Nostrand. 1966. (S,P)  
Probably the most complete and thorough book devoted to the theory, practice, and techniques of flying. Referred to as the "Airman's Bible" by pilots. For the serious student and licensed pilot. Bibliography and index.
- 1 Villard, H.S. *Contact! the story of the early birds*. Crowell. 1968. \$10.00. (J,S)  
A fascinating account of the early days of aviation from the Wright brothers to World War I. Well written, amply illustrated, easy reading. For both the fan and the serious antique aircraft student.
- 1 Warring, R.H. *Aeromodeling*. Arco. 1966. \$3.25. pap. \$1.45. (J,S)  
This paperback on model aircraft includes the necessary detail for designing or flying any type of model. Index.

- 1 Allen, W.A. *Know your car*. 2nd ed. Am. Tech. Soc. 1967. \$4.50. (S)  
An introduction to automotives, lucidly written and illustrated, and with scientific principles included. For the automotive shop student and teacher, all libraries. Review questions and index.
- 1 Arctander, Erik. *The book of motorcycles, trial bikes and scooters*. Arco. 1965. \$3.50. (S)  
This informative reference book is for both the admirer and user of two-wheeled transportation. Over 200 photographs. Index.
- 2 Athanson, W.J. *Automobile body repair and paint guide*. 2d ed. Van Nostrand. 1967. (S)  
A concise handbook of terms, vocabulary, and procedures for forming, finishing, and painting automobiles, including information on latest acrylic lacquers. Index.
- 2 Barris, George, & Thomas, Wayne. *How to customize cars and rods*. Arco. 1963. \$3.50. (S)  
Experts in the customizing field present step-by-step, illustrated instructions for changing a grille, building tail-and headlights, enlarging wheel openings, chopping and sectioning, etc.
- 1 Basford, Leslie & Kogan, Philip. *Automobile engineering: foundations of car mechanics*. Eng. Sampson Low, Marston & Co. (Distributed by Ginn & Co. Boston) 1966. (S)  
The extensive use of illustrations results in the clear presentation of basic car mechanisms; the engine, transmission, and auxiliary systems. Designed for the automotive shop student, new developments such as the Wankel engine are included. Index.
- 2 Campbell, Colin. *The sports car engine: its timing and modification*. Bentley. 1968. \$8.50. (S)  
An authoritative reference work describing a comprehensive system of engine tuning with separate chapters on tuning instruments, carbureation, ignition, testing, and trouble shooting. For the serious student looking for a career as well as for the established technician. Appendix and index.
- 1 Clymer, Floyd. *Henry's wonderful model T.: 1908-1927*. Macmillan. 1965. \$6.50. (J,S)  
A comprehensive well illustrated album of the car that put America on wheels. The T lives again in this colorful record of its life and times in more than 500 photographs, diagrams, advertisements, jokes, cartoons, and informative text. For all libraries.
- 1 Cooke, D.C. *How automobiles are made*. rev. ed. Dodd. 1965. \$2.75. (J,S)  
In this general overview of the subject, the author shows engineers at work, drawing plans and designs; then the step by step assembly of automobiles. Easy reading.
- 3 \_\_\_\_\_. *Racing cars that made history*. Putnam. 1960. \$2.97. (J)  
An accurate account of Grand Prix racing history. The history of the cars and the exploits of the drivers are told in entertaining style. Good photographs.
- 2 Crouse, W.H. *Automotive engines*. 3rd ed. McGraw. 1966. \$8.75. (S)  
Covers the fundamental principles of engine operation. Each engine system is treated, along with maintenance and engine performance measurements. One of a series of five.
- 2 \_\_\_\_\_. *Automotive chassis and body*. 3rd ed. McGraw. 1966. \$7.50. (S)  
The chassis fundamentals of springs, suspension, and shock absorbers are treated. Servicing and diagnosing problems of steering linkage and suspension, as well as power steering systems, are covered. Information is provided on power brakes, chassis lubrication. Frame and body, and air conditioning are included. One of a series of five.
- 2 \_\_\_\_\_. *Automotive electrical equipment*. 6th ed. McGraw. 1966. \$9.50. (S)  
Covers basic electrical principles and applies them to the operation and maintenance of an automobile. Ignition and lighting as well as cranking, generating, regulating, and storing are covered. Treatment is given to testing, adjusting, and trouble shooting. One of a series of five.

- 2 \_\_\_\_\_ *Automotive fuel, lubricating, and cooling systems*. 3rd ed. McGraw. 1967. \$8.50. (S)  
Deals with fuel systems using carburetors, fuel injection, and LPG. Diagnosing fuel systems troubles and service information are given. Lubricating systems and their service, as well as engine cooling systems and maintenance round out this publication. One of a series of five.
- 2 \_\_\_\_\_ *Automotive transmissions and power trains*. 3rd ed. McGraw. 1967. \$7.95. (S)  
The power train components discussed are clutch, transmission, overdrive, fluid coupling, and torque converters, as well as rear axles and differentials. Several automatic transmission and their servicing are covered. One of a series of five.
- 1 Day, Dick (& Editors of Kart Magazine) *The complete book of karting*. Prentice Hall. 1961. \$5.95. (J,S)  
Comprehensive coverage for the young do-it-yourselfer and the professional enthusiast. Safety, economy, construction, and uses of karts are fully and clearly discussed. Picture story instruction manual explains how to select, drive, and maintain karts. Supplier listing and index.
- 1 Delius, Klasing & Co. *Owner's service manual: Volkswagon 1200, 1300, 1500*. Berlin, Germany. Delius, Klasing & Co. 1967. (S)  
The most authoritative, technically correct, and up-to-date manual as of the publication date. Profusely illustrated. Invaluable to all V.W. owners, dealers, shops that repair V.W.'s, and schools that teach V.W. repairs and maintenance. Index.
- 2 Eshelman, P.V. *Tractors and crawlers*. 2nd ed. Am. Tech. Soc. 1967. \$7.50. (S)  
Discusses in great detail the latest available information on tractors and crawlers used in agriculture, road building, logging, and industry. Valuable for those who use these machines, those who sell and service them, and prospective buyers. Evaluates variations, efficiencies, desirable and undesirable factors, and usages. Chapters include construction, suspensions and steering, engines, accessories, hydraulic systems, power trains, etc. Competency tests at end of chapters. Well illustrated. Index.
- 1 Felsen, H.L. *A teenager's first car*. Dodd. 1966. \$3.25. (S)  
Helpful hints and sound philosophy pertaining to car buying and ownership.
- 1 \_\_\_\_\_ *To my son, the teenage driver*. Dodd. 1964. \$3.00. (S)  
Hints, tips, philosophy, and sage advice for the teenage driver. Should be brought to the attention of the automotive shop and driver education student.
- 2 Greene, Emmet. *Small foreign car guide*. Arco. 1967. \$3.50. (S)  
Up-to-date information on forty of the best known, best selling, small cars, with technical specifications, results of roadtests, descriptions, prices, etc.
- 1 Halsey, M.N. *Skillful driving; how to master the 200 most crucial situations of modern traffic*. Doubleday. 1959. \$4.50. (S)  
A unique picture-and-caption guide to safe motoring. Should be read by all drivers and available to students in the library, the driver education course, and the automotive shop.
- 3 Hebb, David. *Wheels on the road: a history of the automobile from the steam engine to the car of tomorrow*. Crowell. 1966. \$2.95. lib. bdg. \$3.34. (J,S)  
A good account of the long, colorful history of the automobile and the men whose inventive genius made it possible. Glossary and bibliography.
- 3 Heitner, Joseph. *Automotive mechanics: principles and practices*. 2nd ed. Van Nostrand. 1967. (S)  
A basic text which incorporates theory, design, service, and troubleshooting. Good for providing beginners with an understanding of automobile construction and operating principles. Well illustrated. Index.

- 1 Hertz, L.H. *The complete book of model raceways and roadways*. rev. ed. Crown. 1967. \$5.95. (J,S)  
A definitive updated book covering every aspect of model raceways and roadways. A practical guide for the hobbyist and student interested in construction.
- 3 Hough, Richard & Frostick, Michael. *A history of the world's high-performance cars*. Harper. 1967. \$8.95. (S)  
An illustrated survey of the origins and development of outstanding automobiles produced in America and Europe for the fast driver and the motoring connoisseur. Covers 1910 through 1966. Technical. Index.
- 2 Kuns, R.F. *Automotive essentials*. rev. ed. Bruce. 1966. \$6.75. (S)  
Good beginning text based on fundamentals. Essential parts are disassembled, and each step is illustrated and the design discussed. Of value to students and teachers. For all library reference. Review questions and index.
- 1 Long, K.F., ed. *Small tractor service manual*. Technical Pub. 1965. (S,P)  
A reference source of service information for small four-wheel riding tractors. Contains a comprehensive outline of the physical principles utilized in converting fuel into power and detailed illustrations of breakdowns of components and parts. Service suppliers are named. For students, teachers, mechanics, and owners.
- 1 Mills, R.K. ed. *Motorcycle service manual*. Technical Pub. 1966. (S)  
A well written, comprehensive reference for two-wheel and three-wheel motorcycles, motorscooters, and other vehicles. Full service information is provided for many vehicles. Accurate and full coverage of the service fundamentals of batteries, ignition, brakes, carburetor, chain, clutch control, connecting rods and crankshafts, cylinder heads and valves, generating systems, lubrication, trouble shooting, and more. Well illustrated.
- 1 Morris, G. *The story of cars*. Putnam. 1963. \$3.64. (S)  
An illustrated history of the car from its earliest forms to the sleek speedsters of today. Easy reading.
- 1 Murphy, P.A. ed. *Chilton's auto repair manual*. Chilton. 1968.  
Useful illustrated reference for the informed amateur, teacher, or experienced mechanic. Cross referenced by make of car, covering periods from 1960-68. For all automotive classes and libraries.
- 1 Nadar, Ralph. *Unsafe at any speed: the designed-in dangers of the American automobile*. Grossman. 1965. \$5.95. (S)  
The story of how and why automobiles are killers of people. Shows that manufacturers have failed to make cars safe despite the availability of the technical skills and knowledge to do so. Challenging and informative. Good for all students, and libraries.
- 2 Smith, P.H. *Car performance and the choice of conversion equipment*. rev. ed. Bentley. 1967. \$6.50. (S,P)  
Primarily concerned with foreign sports cars, this guide to improving automobile performance helps the interested student purchase conversion and customizing equipment. Index.
- 2 \_\_\_\_\_ *Tuning for speed and tuning for economy*. 3rd ed. Bentley. 1968. \$5.00. (S)  
Intended for the serious automotive shop student, this book describes how to maintain a car in perfect working order, tuned up for ultimate performance and low operating cost.
- 3 \_\_\_\_\_ *Wheels within wheels: a short history of American motor car manufacturing*. Funk. 1968. (S)  
A valuable reference which objectively evaluates the design and financial and managerial trends which have shaped the course of the industry. Unusual presentation. Lists 901 makes of cars, years produced, and factory location. Index.

- 1 Stambler, Irwin. *Automobiles of the future*. Putnam. 1966. \$3.29. (J,S)  
A well illustrated, brief account of the major trends of cars of the future. Index.
- 2 Stockel, M.W. *Auto mechanics fundamentals*. Goodheart. 1963. \$6.96. (S,P)  
This text treats automotive theory as the process of "building" a car, with a problem solving approach, integrates science and mathematics. Contains a wealth of drawings, diagrams, and exploded views to explain single concepts. A lengthy dictionary of automotive terms is included Index.
- 2 Stone, W.S. *A guide to American sports car racing*. 3rd ed. Doubleday. 1967. \$4.95. (S)  
This survey of the sport includes up-to-date details about the engines, "specs," and lap records of top racing cars, and descriptions, photos, maps, and regulations of major race courses. Glossary.
- 1 Leboldt, Bill. *Auto body repairing and repainting*. Goodheart. 1965. \$5.75. (S)  
Comprehensive coverage step by step of all phases of body repairing for students requiring knowledge of fundamentals, as well as for those already in the commercial field. Includes plastic and fiberglass techniques. Other areas include recovering convertible tops; power seats and windows; window glass; interior trim and upholstery; aligning; customizing; safety in the shop; and more. Glossary of terms, tables and charts, and index.
- 2 \_\_\_\_\_ *Motor services automotive encyclopedia*. Goodheart. 1965. \$8.95. (S)  
An essential and popular automotive shop text, well written and illustrated. Fulfills the need for a book of fundamentals and basic service procedures. Includes comprehensive coverage of the sciences of internal combustion, electricity, hydraulics, and pneumatics. End of chapter quizzes (instructor's answer key is provided), glossary, tables and formulas, and reference charts of mechanical and tuneup specifications (1951-1965) add to its value.
- 1 Venk, E.A. & Billiet, W.E. *Automotive fundamentals*. 3rd ed. Am. Tech. Soc. 1967. \$6.95. (S)  
Written to meet the Automotive Industry - Vocational Education Conference's Standards for Automotive Service Instructions in Schools. A complete up-to-date course in fundamental automotive mechanics. Review questions for each chapter. Good illustrations. Index.
- 3 Venk & Spicer, E.D. *Automotive maintenance and trouble shooting*. 3rd ed. Am. Tech. Soc. 1963. \$6.95. (S)  
A well written text for advanced auto mechanic students and mechanics who have proper training equipment. Solutions to specific problems are reasoned out rather than prescribing a set of rules. The authors use a trio approach to: forestall trouble, to locate quickly the source of an established trouble, and to rectify the trouble.
- 1 Wetzel, G.F. *Automotive diagnosis and tune-up*. 4th ed. McKnight. 1965. \$7.80. (S)  
A well illustrated reference and text intended to promote more efficient maintenance through practical use of scientific trouble finding and testing methods. Review questions. For all libraries.

- 3 Bendick, Jeanne. *Sea so big, ship so small*. Rand McNally. 1963. \$3.95. (J)  
Simple language and drawings emphasize safety and care. Intended for the young reader but surprisingly interesting for all ages. Index.
- 2 Cooke, D.C. *How atomic submarines are made*. rev. ed. Dodd. 1967. lib. bdg. \$2.79. (J,S)  
Excellent photographs illustrate the step by step procedures in building atomic submarines.
- 3 Drago, H.S. *The steamboaters; from the early side-wheelers to the big packets*. Dodd. 1967. \$6.00 (S)  
Colorful, authoritative, coast to coast history of steamboats and the men associated with them. Bibliography and index.
- 1 Kenealy, J.P. *Boating from bow to stern*. Dodd. 1966. \$9.00. (S,P)  
Comprehensive source of information for the average boat owner. Advice concerning buying with advantages and disadvantages of inboards and outboards and sailboats. Safety rules, equipment, and habits are emphasized. For all libraries.
- 3 Kinney, F.S. *Skene's elements of yacht design*. Dodd. 1962. (S)  
A classic book on yacht design revised. Includes tools, drawings, specs, construction, balance of sailboats, planning power boats, spars and rigging, propellers, rudders, resistance, tank testing, and upkeep. Advantages and disadvantages of plywood, fiberglass, and welded aluminum are discussed. For the advanced student builder.
- 2 Roseberry, C.R. *Steamboats and steamboat men*. Putnam. 1966. lib. bdg. \$3.49. (S)  
A panoramic view of the development of the steamboat, from woodburning paddle-wheelers to the glamorous floating palaces, and the men involved (Fulton, Livingston, Drew, Commodore Vanderbilt). Bibliography and index.
- 2 Smith, H.G. *The small boat sailor's bible*. Doubleday. 1964. pap. \$1.95. (J,S)  
A comprehensive treatment of sailboating including buying, maintaining, and sailing techniques. Glossary of sailing terms and index.
- 1 Walliser, Blair. *Basic seamanship and safe boat handling*. Doubleday. 1962. \$4.95. (J,S)  
A practical illustrated handbook to be carried on board, covering the subjects taught in basic seamanship and safe boat handling courses of the U.S. Coast Guard Auxiliary. For all libraries.

- 3 Abell, Carl. *Butane-propane power manual. Principles of LPG carburetion.* Chilton. 1962. \$5.00 (S)  
A technical reference work which presents principles and concepts relating to liquefied petroleum gases. (LPG) Of special interest to aspiring engineers. Appendix, definitions, and index.
- 2 Atteberry, P.H. *Power mechanics.* Goodheart. 1961. \$2.35. (J)  
A well illustrated, concise presentation of power machine components, their structure and function. Included are heat engines, piston engine, engine fuel systems, engine bearings, cooling systems, power transmission. Glossary index.
- 2 Barrow, George. *Your world in motion: the story of energy.* Harcourt. 1956. \$2.95. pap. .60. (J,S)  
A well organized explanation of energy's significance in everyday activities, including motion of water and air; the sun's energy; light waves; motions caused by electricity; motions in telephone, radio, and television sets. Index.
- 3 Borden, N.E. Jr. *Jet-engine fundamentals.* Hayden. 1967. (S)  
A useful source book intended as a practical basic manual for those learning about aircraft jet engines for the first time. Previous knowledge of why and how an engine operates is necessary for comprehension of this book.
- 3 Casamassa, J.V. & Bent, R.D. *Jet aircraft power systems.* 3rd ed. McGraw. 1965. \$9.50. (S,P)  
A well illustrated reference and supplementary text dealing with the history, theory, nomenclature, operation, types, and systems of jet propulsion devices. A knowledge of advanced mathematics and and physics is necessary. Glossary, conversion factor charts, and index.
- 1 Duffy, J.W. *Power: prime mover of technology.* McKnight. 1964. (S)  
A well written and illustrated study of power; steam, atomic, internal combustion, reciprocating, turbine, diesel, rocket, and the new generators. Valuable as a text or reference. Review questions. Index.
- 1 Floyd, C.S. ed. *Small engines service manual.* 8th ed. Technical Pub. 1966. (S)  
An illustrated reference source for the majority of American and popular foreign-made small engines (45 cubic inch displacement and less). Includes early as well as recent models. In many cases more comprehensive coverage given than in manufacturer's manual. Includes model identification, listing of general service tools, special service tools recommended by the manufacturers, and a listing of control service distributors of each brand of engine.
- 3 Halacy, D.S. Jr. *Fabulous fireball: the story of solar energy.* Macmillan. 1957. \$3.74. (J,S)  
Discusses solar energy, its past, the present state of techniques of harnessing the sun's energy, and future potentials. Each chapter explores a particular phase of solar energy.
- 1 Kates, E.J. *Diesel and high-compression gas engines.* 2nd ed. Am. Tech. Soc. 1965. \$7.25. (S,J)  
Provides a good overview of diesel technology with carefully selected illustrations. Provides basic understanding of the principles, construction, and operation of diesel engines. Simple, clear explanations are combined with a wealth of technical information. Suitable for both the non-technical and technical reader.
- 2 Long, K.F., ed. *Chain saw service manual.* 2d ed. Technical Pub. 1962. (S,P)  
This illustrated reference source for service information on 30 brands of chain saws contains sections on fundamentals, maintenance, and repairs; and lists parts for distributors for each manufacturer.
- 2 Maleev, V.L. *Diesel engine operation and maintenance.* McGraw: 1954. \$6.50. (S,P)  
A specialized reference work for the experienced technician who wishes to specialize. Appendices include glossary, listing of visual aids, and index.

- 2 Meyer, Leo. *Atomic energy in industry: a guide for tradesman and technicians*. Am. Tech. Soc. 1963. \$4.00. (S,P)  
Equally valuable to students, teachers or technicians, this book demonstrates that atomic power is not mysterious, and that its dangers, as those in electricity, can be reduced to a minimum by common sense safety procedures. Summaries, questions, and answers and an index are provided.
- 1 O'Brien, Rober. *Machines*. Time Inc. 1964. (J,S)  
A well illustrated reference depicting the influence of fundamental machines on man and his society. Dependence of machines on power sources and their control relates to; war or peace, production, communication, and automation.
- 3 Pipe, Ted. *Small gasoline engines training manual*. Bobbs. 1966. \$1.00. (J,S)  
Covers a wide range of basic and advanced engine theory. Easy to read with good illustrations. Chapters include definition of an engine, explanation of combustion, explanation of a piston-type engine, fuel, ignition, exhaust, lubricating, and cooling systems.
- 1 Pippenger, J.J. & Hicks, T.G. *Industrial hydraulics*. McGraw. 1962. \$7.00. (S)  
A good treatment of a frequently overlooked field. Covers fluid power systems, pumps and motors, hydraulic cylinders and rams, plunging, pressure accumulators, fluid reservoirs, fluid temperature control, pressure-control valves, Servo systems, and more. Each chapter is summarized. Review questions and laboratory experiments. Index.
- 1 Purvis, Jud. *All about small gas engines*. rev. ed. Goodheart. 1963. \$4.50. (J,S)  
Good reference for small two-cycle, and four-cycle gas engines; how they are constructed; how they operate; what can malfunction; and how to service and repair them. Glossary and index.
- 1 Sandfort, J.F. *Heat engines*. Doubleday. 1962. \$1.45. (S)  
This paperback presents information not readily available. Written to show that engineering thermodynamics is not an abstruse subject, but a fascinating science which grew out of a great human need -- the production of power from heat. Within the grasp of the serious student. Index.
- 3 Shapiro, A.H. *Shape and flow: the fluid dynamics of drag*. Doubleday. 1961. \$1.25. (S)  
Technical reading for the serious student. Chapters include paradoxical experiments, concepts and principles of fluid dynamics, viscous-dominated flows at low Reynolds Number, viscous boundary layer, laminar and turbulent flows. Physics background necessary.
- 1 Sterland, E.G. *Energy into power: the story of man and machines*. Natural History. 1967. \$5.95. (S)  
A well written illustrated presentation of man's search to exploit increasing varied sources of energy. Energies of the sun, water, wind; fossil fuels such as coal, oil, and gas; the atom, are included together with the many devices man has developed to convert energy into useful power. For all libraries.
- 1 Stewart, H.L. & Storer, J.M. *Fluid power*. Sams. 1968. (S)  
Basic data and principles are given in a "building block" approach. Has accompanying teachers manual, student's work book, examinations, and transparency masters. Index.
- 1 \_\_\_\_\_ *Practical guide to fluid power*. Sams. Audel. 1966. \$6.95 (S)  
One of the few publications available on this subject. Well illustrated with great detail given to the fundamentals and principles of fluid power and fluid power devices, installation and maintenances of both hydraulic and pneumatic devices. Appendix contains suggested references, a glossary of fluid power terms, and conversion factors. Compact index.
- 1 Technical Publications. ed. *Outboard motor service manual*. vol. 1 & 2 4th ed. 1967. \$4.95. (S)  
An excellent source of information for all outboard motors below 30 h.p. produced since 1955. Provides identification information, service and repair, instructions for such areas as lubrication, spark plugs, carburetors, reed valves, fuel pumps, ignition and cooling systems, connecting rods, etc. Includes treatment of submerged motors, disassembling, and assembling.

- 2 Technical Publications. ed. *Snowmobile service manual*. 1967. Tech. Pub. (S,P)

Features of this illustrated reference work for servicing American and foreign snowmobiles and their power plants include maintenance and adjustment information, exploded views and disassembly notes on specific brands, engines, converter (belt drive) units, track drives, and track service.

- 2 Wendt, Gerald. *The prospects of nuclear power and technology*. Van Nostrand. 1957. \$6.00. (S)

Despite the publication date of 1957, still a valuable work. Glossary and index.

- 1 Wilson, Mitchell. *Energy*. Time Inc. 1963. (J,S)

Energy is revealed in its many forms as the mover of the substance - matter. The interchangeable forms of energy; mechanical, radiant, chemical, and heat provide a never-ending cycle to man's achievement.

- 3 Kinert, Reed. *Early American steam locomotives; 1st seven decades 1830-1900*. Superior. 1962. (J,S)  
Beautiful photographs and art work plus authentic facts about the "Teakettles," "Titans," and "Iron Horses." For the collector, model builder, and interested student.
- 3 Loxton, Howard. *Railways*. rev. ed. London, England. Paul Hamlyn. 1967. (S)  
A history of British and American railroads in language and picture. Surveys the past and present with a glimpse of the future. For the railroad enthusiast and model builder.
- 1 Simmons, Mortimer. *The story of trains*. Putnam. 1963. \$3.95. (S)  
A clear, concise, illustrated history of trains in easy language, from steam to present electrics and diesels.
- 2 Snell, J.B. *Early railways*. Putnam. 1964. \$5.95. (J,S)  
An outstanding railroad historian traces the story of railroads through World War I describing engine design, signalling systems, tunnelling, railway economics, politics, and great engineers of many countries.
- 2 Sutton, David. *The complete book of model railroading*. Prentice-Hall. 1964. \$15.00. (J,S)  
Up-to-date charts, wiring diagrams, and layouts of pikes, with over 600 original photographs describing in detail all major phases of model railroading.
- 2 Yates, R.F. *How to improve your model railroad*. Harper. 1953. \$3.50. lib. bdg. \$3.27. (J)  
The author provides clear instructions, measurements, and layout diagrams for adding lakes, factories, bridges, culverts, etc. to model railroad set ups.
- 2 \_\_\_\_\_ *The boys book of model railroading*. Harper. \$3.50. 1951. (J)  
This popular book shows how model railroads are constructed and gives instructions for setting up stations, towns, and for creating surrounding scenery, mountains, lake fences, signs, and gas stations from inexpensive, easily obtained materials. Glossary.
- 1 Ziel, Ron & Foster, G.H. *Steam in the sixties*. Meredith. 1967. \$10.00. (J,S)  
A well illustrated volume devoted to steam locomotives still operating on short lines from Canada to Mexico and from Cape Cod to California. An "epitaph to the steam loco." Good for model railroaders and others interested in steam. For all libraries.
- 1 \_\_\_\_\_ *Steel rails to the sunrise: the Long Island Railroad*. Duell. 1965. \$12.95. (J,S)  
A photographic narrative, portraying one of American's oldest and most unusual railroads, whose operations once included far-flung steamboat and ferry services. Hauling more commuters than any other system in the U.S., it is the only line to derive most of its revenue from passenger service. Good for model builders and collectors. For all libraries.

## Power/Transportation

## General

- 3 Baar, J. & Howard, E. *Polaris*. Harcourt. 1960. \$4.50. (S)  
The story of a weapons system. Descriptions of the missile, the submarine, the men who developed them, and those trained in their operation.
- 2 Cooke, D.C. *How superhighways are made*. Dodd. 1958. lib. bdg. \$2.79. (J)  
Portrays the planning, surveying, and construction of the modern superhighways; including tunnels and bridges.
- 1 Firestone, H.S. Jr. *Man on the move: the story of transportation*. Putnam. 1967. \$7.95. (S)  
This scholarly, yet colorful history of transportation overlooks no aspect from the caveman to the spaceman. Extensive bibliography and index. For all libraries.
- 1 Lapp, Ralph E. *Matter*. Time Inc. 1963. (J,S)  
A descriptive treatment of the world of matter vividly portraying the present in terms of the mysteries associated with the past. Three familiar states of matter; solid, liquid, and gas, provide a base for the treatment of the atomic age.
- 1 Lee, Lahrie & Lambert, David. *The wonderful world of transportation*. Doubleday. 1960. \$2.95. (J)  
Well illustrated, easy to read history of transportation. Includes the chariot, stagecoach, steam engine, automobile, ship, airplanes, and more. Good for the young reader. Index.
- 1 Lindbeck, J.R. & I.T. Lathrop. *General industry*. Bennett. 1969. (J,S)  
A well illustrated volume outlining basic elements of industry and providing career information in a variety of industrial fields. Content relates to developing student concepts of design and technical skills necessary in an industrial society.
- 3 Yates, R.F. *Faster and faster*. Harper. 1956. \$3.50. (S)  
Story of the record breaking speeds that have been achieved in the past, new records, and speeds that may be reached in the future. Somewhat outdated but still interesting because of the many areas of speed covered: humans, animals, balls, bullets, boats, airplanes, trains, and more.

## Power/Transportation

## Biography

- 1 Caldwell, Cy. *Henry Ford*. Messner. 1947. \$3.50. (J,S)  
A fascinating story of the man who did much to shape our country's industry. Well written in clear, simple language.
- 1 Cummins, C.L. *My days with the diesel*. Chilton. 1967. \$5.95. (J,S)  
The story of a pioneer in diesel engines for automotive use. Clessie Cummins reveals not only the life of a great inventor and wonderful character but also shows the growth of the motor transport industry in America.
- 3 Halacy, D.S. Jr. *Father of supersonic flight; Theodor von Karman*. Messner. 1965. \$3.50. lib. bdg. \$3.34.  
The life story of a little publicized scientist, engineer, researcher, and teacher, who invented the first booster rockets for aircraft during World War II. His predictions of future developments in air power enabled the U.S. to develop the necessary weapons for defense of the free world.

- 2 \_\_\_\_\_ *The shipbuilders: from clipper ships to submarines to hovercraft.* Lippincott. 1966. \$3.75. (J,S)  
A tale of the builders of ships, from Donald McKay's clipper ships to Cockerell's hovercraft. This history includes the account of Admiral Richover's nuclear powered submarine. Easy reading.
- 2 Hatch, Alden. *Glenn Curtiss; pioneer of naval aviation.* Messner. 1942. \$3.50. (J,S)  
The life story of a brilliant aviator and inventor whose feats were phenomenal for his time.
- 3 Laing, Alexander. *Clipper ships and their makers.* Putnam. 1966. \$3.95. (J,S)  
A well written biography of Donald McKay, master shipbuilder, told against the background of the fascinating clipper ship era. Index.
- 1 Lindbergh, C.A. *The spirit of St. Louis.* Scribner. 1953. \$6.95. (J,S)  
The popular autobiographical narrative of the first nonstop airplane flight between the continents of America and Europe. Glossary. For all libraries.
- 3 Mansfield, Harold. *Vision. The story of Boeing.* Duell. 1966. (J,S)  
The dramatic story of 50 years with the men who create Boeing air and space craft. Includes people and machines from World War I to the moon project.
- 3 Mason, H.M., Jr. *Bold men, far horizons.* Lippincott. 1966. \$4.95. (S)  
Stories of the great pioneer airplane flights and the men who flew them. Flights which seem incredible today, performed in airplanes that "shouldn't have made it - but did." Colorful history.
- 1 Nevins, Allan & Hill, F.E. *Ford - decline and rebirth 1933-1962.* Scribner. 1962. \$8.95. (S,P)  
A comprehensive treatment of the Ford family and the Ford Company told against the background of the times of which they were a part. For all libraries. Bibliography and index.
- 1 \_\_\_\_\_ *Ford: expansion and challenge. 1915-1933.* Scribner. 1957. \$8.95. (S,P)  
The dramatic years of the Ford Company and the rise of the Model T. Describes how Henry Ford acquired complete control of a \$500,000,000 Corporation and the problems of his autocratic rule. A definitive book for all libraries. Appendix and index.
- 1 \_\_\_\_\_ *Ford: the times, the man, the company.* Scribner. 1954. \$8.95. (S,P)  
Portrays the conditions prevailing from 1863 - 1915 as Henry Ford and a dozen others who would become automotive pioneers grew to manhood. Recounts Henry Ford's rise from a machinist's apprentice to the head of the Ford Motor Company. For all libraries. Bibliography and index.
- 3 Newlon, Clarke. *Famous pioneers inspace.* Dodd. 1963. \$3.50. (J,S)  
Discusses 17 space pioneers from five different countries. Covers a crucial half century of space history. Easy to read.
- 3 Sikorsky, I.I. *The story of the winged-S; late developments and recent photographs of the helicopter.* Dodd. 1967. \$6.00. (J,S)  
This autobiography begins in Russia with a boy who dreams of designing, building, and flying machines called helicopters. His failures and successes, his move to America, and subsequent success as an aviation engineer are well documented.
- 1 Silverberg, Robert. *Light for the world: Edison and power industry.* Van Nostrand. 1967. (S)  
Unusual biography containing many unknown facts. For all libraries. Index.
- 1 Wilson, C.M. *Diesel: his engine changed the world.* Van Nostrand. 1966. \$4.75. (J,S)  
The exciting story of Rudolph Karl Christian Diesel from his youth to his mysterious death while crossing the English Channel in 1913 is recounted against the vivid historical background of his times. For all libraries.

- 2 Beitler, Stanley. *Rockets and your future*. Harper. 1961. 1ib. bdg. \$3.79. (J,S)  
Clearly informs the prospective space scientist what subjects to take in high school, colleges which have required courses, and sources of additional information. Also discussed are principles of the rocket, the building of a rocket from the idea to countdown. Illustrated and indexed.
- 1 Boyd, W.T. *Your career in the aerospace industry*. Messner. 1966. \$3.95. (J,S)  
The scope of aerospace operations is portrayed. Specific skills required in the areas of electronics, engineering, and the physical and life sciences are indicated. Includes training and education necessary for a career in the factory or the laboratory. Appendices include further sources of information and recommended reading. Index.
- 2 Burrowes, Thomas. *Your future in the navy*. rev. ed. Richards Rosen. 1965. \$2.95. 1ib. bdg. \$2.79. \$2.95. (S)  
Covers all aspects of naval service; the fleet, Marine Corps, the Academy, naval aviation, and submarines. Also included are; the education program, career benefits, pay tables, enlisted training schools and courses, and NROTC colleges.
- 1 Ely, L.D. *Your future in aerospace technology*. rev. ed. Richards Rosen. 1962. \$2.95. (S,P)  
A survey of the aerospace industry, the people in it, its future, benefits of the field, job environments, how to find the right job, and how to prepare for a career. Appendix includes descriptions of civilian and military space projects, and examples of college cost and competition. For guidance counselors and all libraries.
- 1 Eskow, G.W. *Your future in the trucking industry*. rev. ed. Richards Rosen. 1964. \$2.95. (S,P)  
The president of a large trucking company describes the job opportunities, the rewards, and the future of the trucking business. Using the organizational structure of a trucking company, possible areas of employment such as the driving, traffic, operations, maintenance, accounting, safety, personnel and security, public relations, and advertising are discussed. For guidance counselors and all libraries.
- 1 Harrison, C.W. *Find a career in auto mechanics*. Putnam. 1964. \$2.95. (S)  
Easy to read treatment of the varied aspects of mechanics as a trade; what it takes to be a good mechanic, the career opportunities available, educational requirements, and the problems and profits involved.
- 1 Liston, R.A. *Your career in transportation*. Messner. 1966. \$3.95. (S)  
The major areas of transportation are discussed; air, buses, trucking, railroads, river, and canal. Past development, present competitive positions, and future growth are analyzed in order to present to the student the occupational potentials.
- 2 Loodeesen, Marius. *I, the airline pilot*. Dodd. 1966. \$3.75. (J,S)  
The skills of flying, the development of aircraft, the training of an airlines pilot, educational programs, commercial flying schools, the armed services, and the opportunities and rewards are presented. Glossary and index.
- 1 Nathan, Raymond. *Careers in airlines operations*. Walck. 1964. \$3.75. (S,P)  
A comprehensive survey covering pilots, engineers, flight attendants, stewardesses, technicians, meteorologists, traffic controllers, mechanics, and sales personnel. The advantage of each position, the rewards, advancement possibilities, the education required and where to obtain it, and the personal qualifications needed are described. Appendix includes sources of additional information, schools, and general preparation. Additional reading list and index. For guidance counselors and all libraries.
- 2 Neal, H.E. *Your career in aviation*. Messner. 1963. 1ib. bdg. \$3.64. (S)  
Includes designers, draftsmen, technical illustrators, engineers, mechanics, machinists, instrument repairmen, and other skilled workers. Describes the education and skills necessary for each field. Bibliography and index.

- 2 Schneider, Leo & Ames, M.G. *Wings in your future; aviation for young people.* rev. ed. Harcourt. 1960. \$2.95. (J)

A general overview of aviation including principles of flight, information on jet propulsion, helicopters, convertiplanes, and gliders. Included are "behind the scenes" flight in the cockpit of a DC-8 and simple experiments to illustrate principles of flight, etc. Index.

- 1 Scribner, K.J. *Your future as a pilot.* Richards Rosen. 1968. \$4.00. (S,P)

Written by a pilot, this book answers scores of questions pertaining to airplane piloting as a career. Includes a capsule coverage of the history of flight, commercial and corporate aviation, military and government flying, nontravel flying careers, and physical and educational requirements. For guidance counselors and every library.

- 1 Taylor, Dawson. *Your future in the automotive industry.* rev. ed. Richards Rosen. 1963. (S,P)

Written by one of the most successful franchised dealers in the U.S., this book covers new and used car dealerships, that of career automobile and truck salesmen, office procedures, shop maintenance, salesmanship, factory training centers, service schools, and service stations. Appendix has suggested reading list. For guidance counselors and every library.

- 2 Thompson, W.E. *Your future in nuclear energy fields.* rev. ed. Richards Rosen. 1961. \$2.95. lib. bdg. \$2.79. (S)

A description of the field and the varied professional industrial careers available to the interested student are presented. Appendices include listings of fellowships, student jobs, employment opportunities, and professional societies.

- 1 Andrews, R.W. *Glory days of logging*. Macmillan. 1956. (J,S)  
 Interesting account of early logging industry in British Columbia, Washington, Oregon, Idaho, Montana, and California. Authentic photographs. Includes river drives, hand logging, spar topping, sawmills of 1890 to 1915, historical ox teams, etc. For all libraries.
- 1 Bjerko, E.H. *The cabinetmakers of America*. Macmillan. 1967. (S,P)  
 Intended for the serious student, the historian of furniture, and the collector, this history of cabinetmakers in America during the 17th, 18th, and early 19th centuries recounts when and where the earliest furniture was made and how the development of the craft has had a direct relationship to the culture and needs of various groups of people. Glossary and bibliography.
- 1 Boger, L.A. *Furniture past and present*. Doubleday. 1966. \$12.95. (S,P)  
 For students interested in the history and design of furniture. All furniture forms of the Western World from Tutankhamen to Philip Johnson and Mies van der Rohe are discussed and illustrated. Bibliography and index.
- 1 Bruere, M.B. *Your forests*. Lippincott. 1957. \$4.50. (J,S)  
 Specially featured are the operations of the U.S. Forest Service ranging from soil specialists and wildlife protectors to preservers, harvesters, and replanters of our forests. Locates U.S. forests. Index.
- 1 Capron, J.H. *Wood laminating*. McKnight. 1963. \$4.40. (S)  
 A supplementary reference intended for students, teachers, and home craftsmen which presents modern practices of laminating consumer items and industrial projects. Section I covers procedures. Section II is composed of carefully selected projects such as dog kennel, canoe trailer, water skis, coffee table, pen stand, stool, etc. With basic tools and this book the learner will complete projects successfully.
- 1 Cramlet, R.C. *Wood turning visualized*. Bruce. 1966. \$2.96. (J,S)  
 For the student or hobbyist. This book describes the lathe and its parts, how to select necessary tools and condition them, and how to use the basic tools to make the basic cuts involved in wood turning. Emphasis on safety. Index.
- 1 Douglass, J.H. & Roberts, R.H. *Projects in wood furniture*. McKnight. 1967. (J,S)  
 Excellent source for ideas, plans, and construction details for contemporary projects. Good quality photographs.
- 3 \_\_\_\_\_ *Woodworking with machines*. McKnight. 1960. \$4.60. (J,S)  
 A good reference for safe procedures while using machine tools. Divided into 7 main sections: Woods and their uses; furniture design and project planning; woodworking machines; machining stock to finished dimensions; cutting stock to irregular shapes; preparing and finishing woods.
- 2 Durbahn, W.E. & Sundberg, E.W. *Fundamentals of carpentry*. vol. 2. (Practical construction). 3rd ed. Am. Tech. Soc. \$5.95. 1963. (S)  
 A well illustrated presentation of the fundamental areas of knowledge, emphasizing practical procedures such as the construction of a house from the blue print stage through the interior finish. Appendix and index.
- 1 \_\_\_\_\_ *Fundamentals of carpentry: tools, materials, and practices*. vol. 1. 4th ed. Am. Tech. Soc. 1967. \$4.75. (S)  
 An advanced, well illustrated updated text which provides carpentry fundamentals for home building and closely related trades. Topic of tools is organized to follow actual trade practices in the field. Contains up-to-date information about power screwdrivers, air powered staplers and nailers, adhesive guns, manual and powder fasteners, etc. Building materials of solid vinyl, steel studs, laminated woods, gypsum board, fiberboards, plywoods etc. are covered. Glossary and index.

- 1 Farmer, R.H. *Chemistry in the utilization of wood*. Pergamon. 1967. \$6.00 (S)  
For students specializing in building, architecture, and furniture manufacturing. Knowledge of chemistry is necessary to use this unusual text. Index.
- 3 Gibbia, S.W. *Wood finishing and refinishing*. Van Nostrand. 1954. \$6.95. Text ed. \$5.60. (J,S,P).  
A clearly written, detailed treatment. Explains the "why" and "how" of wood finishing. Lists suggested references. Index.
- 1 Glenister, S.A. *Contemporary design in woodwork*. vol. 1. Eng. John Murray Ltd. 1955. (S)  
Collection of photographs of various items of furniture by contemporary designers. Each section begins with illustrated notes on construction principles. Useful source of ideas for construction projects.
- 1 \_\_\_\_\_ *Contemporary design in woodwork*. vol. 2. Eng. John Murray Ltd. 1961. (S)  
250 photographs with informative captions from the furniture industry, individual craftsmen, teacher training colleges, and colleges of art. Useful source of ideas for construction projects.
- 2 Gottshall, F.H. *Furniture of pine, poplar, and maple*. Bruce. 1966. (S)  
Thirty-four good project ideas with generously detailed illustrations, carefully worked out for reproduction by anyone with moderate skill and a modest supply of equipment. Pine, poplar, and maple have been chosen because they are easily obtainable, relatively inexpensive, and infinitely workable. Included are Welsh dresser, trestle table, paneled wastebasket, folding screen, spice cabinets, dropleaf table, card table with revolving top, creche for Christmas, gun cabinet, wall tool cabinet, and more.
- 3 Haines, R.E. & others. *The new band saw and jig saw*. Van Nostrand. 1953. \$4.95. text ed. \$3.96. (S)  
Although old, this continues to be a useful book. Describes the band saw and jig saw, their component parts and care. Explains both basic and advanced cutting operations. Gives detailed plans for projects. Index.
- 2 Hammond, J.J. & others. *Woodworking technology*. 2nd ed. 1966. McKnight. \$7.00. (S)  
A well written basic text with high quality illustrations. Complete up-to-date coverage. Glossary, reference list, and index.
- 1 Hidy, R.W., Hill, F.E. & Nevins, Allan. *Timber and men: the Weyerhaeuser story*. Macmillan. 1963. \$12.00. (S)  
A scholarly history of lumbering enterprises begun on the banks of the Mississippi before the Civil War under the leadership of Frederick Weyerhaeuser. Covers the felling of trees, conversion into lumber, logging camps, log jams, clashes of rival companies, equipment, road, rail, river and ocean transportation, technological advances of equipment, conservation achievements, and more. List of sources cited and index.
- 1 Hill, F.E. *The new world of wood*. Dodd. 1965. \$3.00. (J,S)  
A concise general coverage of the wood and wood products industry. Includes forestry, lumbering, paper and packaging, veneers and plywoods, by-products and new products, and a chapter on occupations. Index.
- 1 Hjorth, Herman & Holtrop, W.F. *Operation of modern woodworking machines*. Bruce. 1966. \$4.96. (J,S)  
The woodworking machines usually found in school and home workshops are fed by hand and several different operations can be performed on each one. This book, through illustrations and descriptions, shows correct and safe hand feeding. A description of each machine is given. Review tests. For all beginners regardless of age.
- 1 Holtrop, W.F. & Hjorth, Herman. *Modern machine woodworking*. rev. ed. Bruce. 1960. \$5.00. (S)  
A good revised reference describing various machines, and the operations which can be performed on them. Intended as a textbook for technical, trade, and vocational schools; machines have been

classified according to type and listed in family groups. Representative machines in each group are described. Reference lists for further study and review questions at end of chapters. Appendices include tilt-table setting for mitered columns, selected references, and index.

- 3 \_\_\_\_\_ *Principles of woodworking*. rev. ed. Bruce. 1961. \$5.96. (S)  
An illustrated general text or reference for secondary and technical schools. Fundamental tool processes, common to all woodworking trades are compiled and arranged in family groups. Cabinet-making is emphasized. All tool operations are described and written in form of instruction sheets and are supplemented with related information about materials, tools, machinery, furniture selection, design, and planning. Review questions. Glossary and index.
- 1 Hutchins, R.E. *This is a tree*. Dodd. 1964. \$3.50. (J,S)  
An intriguing volume, illustrated with outstanding photography, includes unusual and little known facts concerning trees. Covers the life within, tree-rings, the big and the famous, tree fossils, state trees, the "strangler fig." Index.
- 3 Koch, Peter. *Wood machinery processes*. Ronald. 1964. \$15.00. (S,P)  
A practical handbook and reference covering the facts and relationships that govern wood machining processes. Good illustrations of production machines. Index.
- 2 Marlow, A.W. *Fine furniture for the amateur cabinetmaker*. Macmillan. 1965. (S)  
A practical volume for the serious amateur craftsman with photographs of each stage of construction, lists of materials needed, detailed dimensional drawings.
- 3 Milton, A.S. & Wohers, O.K. *Fundamental wood turning*. Bruce. 1953. \$3.95. (J,S)  
Still a good sourcebook for wood-turning techniques and project ideas. Stresses the proper use of tools. Problems are presented so that each exercise depends on the one preceding it. Covers varied phases of spindle turning and faceplate turning. Many exact measurement illustrations and drawings.
- 1 O'Neill, J.M. *Early American furniture*. McKnight. 1963. \$6.40. (S)  
Devoted primarily to the early colonial period with some late pilgrim period. All drawings are exploded to better visualize the construction. Notes on the drawings cover most of the construction details. Good for projects ideas.
- 1 Pelton, B.W. *Furniture making and cabinet work: a handbook*. 2nd ed. Van Nostrand. 1961. \$8.95. (S)  
How to construct new articles and repair, rebuild, or restore old ones. Included are hundreds of actual constructions, complete with detailed plans, and step-by-step directions, for making interior and exterior furniture. Projects include building picture windows, installing an acoustical ceiling, remodeling kitchens and bathrooms, and more. Index.
- 1 Romero, A.C. *Contemporary designs for wood*. Bruce. 1966. \$3.50. (S)  
Attractive projects tested by the teacher/author have flexibility in design permitting a student to add his individual touch to the finished products. Precise details omitted; only essential explanations are presented. Included are nested tables, end table, nutcracker, hot plate trivet, valet stand, barstool, stack tables, game table, TV stool, ice bucket, pepper mill, and more.
- 3 Sack, Albert. *Fine points of furniture: Early American*. Crown. 1950. (S,P)  
Analysis of the various elements of design, decoration, craftsmanship, construction, and finish. For the advanced workshop student, teacher, collector, and antiquarian. Eight hundred photographs and descriptions.
- 2 Schutze, Rolf. *Making modern furniture*. Reinhold. 1967. \$4.50. (J,S)  
Precise drawings and easy instructions for making, veneering, and finishing furniture in the Danish style. Good practical designs.
- 3 \_\_\_\_\_ *Making wooden toys*. Reinhold. 1967. \$4.50. (J)  
Simple charming projects with step-by-step instructions which end in rough, hand-hewn finished

products. Most are planned to use straight saw cuts. In most cases an ordinary saw is all that is necessary. Well illustrated for elementary instruction.

- 1 Shea, J.G. *Contemporary furniture making for everybody*. Van Nostrand. 1965. \$7.95. (S,P)  
Illustrated plans, ideas, and information for constructing contemporary furniture by the unskilled as well as the skilled. With detailed information on how to build, assemble, install, arrange, and finish contemporary objects.
- 1 \_\_\_\_\_ *Colonial furniture making for everybody*. Van Nostrand. 1963. \$7.95. (J,S)  
Ideas, plans, construction, and design details for the person wishing to produce copies or "modern adaptations" of colonial furniture. Emphasis on colonial classics. Index.
- 1 \_\_\_\_\_ *Plywood working for everybody*. Van Nostrand. 1963. \$7.95. (J)  
Thorough, basic directions and illustrations describe how to build with plywood, offering more than 60 projects, complete with working drawings, for both indoor and outdoor living. Index.
- 1 Smith, H.G. *Boat carpentry*. 2nd ed. Van Nostrand. 1965. \$6.95. (S)  
Basic, comprehensive information on marine glues and adhesives; power tools from saws to sanders; the prevention, treatment, and control of dry rot. Fiberglass and plywood given good coverage. Good for schools offering this phase of building. Index.
- 3 Soderberg, G.A. *Finishing materials and methods*. 2nd ed. McKnight. 1959. \$5.20. (S)  
Describes specific finishing effects giving details, available materials, their properties, origins, composition, and proper application. Questions and references at end of chapters. Index.
- 2 Stevenson, R.P. *How to build cabinets for the modern kitchen*. Arco. 1966. \$7.50. (S)  
A wealth of working drawings, plans, and photos of lazy susans mounted in corner cabinets, sliding shelves, vertical pull-out racks, built-in ranges and ovens, and so forth.
- 3 Treves, Ralph. *Early American furniture you can build*. Arco. 1963. \$3.50. (J) (S)  
Good project ideas with complete step-by-step instructions. Includes how to select the proper kind of wood and inexpensive tools. The beginner will be able to complete these projects from the simple spoon rack to the more complex two-tier end table, cobbler's bench, music cabinet, floor lamp, dry sink, hutch, etc. All authentic reproductions.
- 1 Ulrey, H.F. *Carpentry and building*. Audel. 1966. (S)  
A well illustrated "question and answer" reference. Each chapter devoted to a specific area and each question presents a "problem" for the carpenter or builder with the answer based on good engineering practice. Glossary and index.
- 1 Upton, John. *The art of wood carving*. Van Nostrand. 1958. \$6.50. (S)  
A leading American wood carver portrays in simple terms all the tools, techniques, and steps necessary for the beginner to create an expertly finished wood carving from his own drawings. Describes woods best suited for carving, how to set up the bench or shop, construct varied parts, glue parts, etc. Glossary and index.
- 1 Villiard, Paul. *A manual of veneering*. Van Nostrand. 1968. (S)  
Devoted to the methods of constructing and working with veneers, this book acquaints the reader with the variety of unusual woods available in sheet veneer, and shows how to construct the plywood panel. Explains the treatment of the veneer, gluing, matching, curing, and finishing. The last chapter lists available veneers, their sources, color availability, and price range. Index.
- 1 Visual Industry Series. *Lumber in pictures*. Sterling. 1963. \$3.95. (J,S)  
Captioned photographs which explain harvesting, lumber manufacturing at a typical saw mill, seasoning, planing, nonboard lumber, veneers and plywood, laminated woods, prefabricated lumber. The history of the saw mill and lumber transportation are also covered. Glossary of terminology and index.

- 3 Wagner, W.H. *Modern woodworking: tools, materials and procedures*. Goodheart. 1967. \$6.96. (S)  
A basic illustrated text and reference, covering all aspects of woodworking. Modern industrial machinery, standard school shop equipment, and up-to-date information about wood and wood products, as well as basic instruction in the areas of furniture construction, upholstery, cabinetmaking, patternmaking, and boatbuilding are included. For all libraries. Glossary and index.
- 3 \_\_\_\_\_ *Woodworking*. rev. ed. Goodheart. 1964. \$2.35. (J,S)  
A first course of instruction about the tools, machines, and materials basic to woodworking. Hand tool operations are stressed with only basic power machine operations included. Careful planning, good design, and safe work habits are emphasized. Glossary and index.
- 1 Waring, R.G. *Modern wood finishing*. Bruce. 1963. \$4.85. (S)  
A good overview including preparation of cabinetwork, stains and application, undercoaters, fillers, putty glazing, varnishing equipment and methods, paintshop equipment, spray guns and methods, floor treatment, marine finishes, toy finishing, matching paint colors, and cabinet woods and their accepted finishes. Glossary, list of suppliers and index.
- 3 Wille, M.W. *Art in wood*. Bruce. 1966. \$3.00. (J,S)  
A modern approach to the techniques basic to teaching a skill. Thirty good individual projects are flexible enough for any teaching method but must be supplemented by related learning experiences. Specific details are not always included. The instructor should modify the design to meet individual needs.
- 3 Williams, H.L. *The practical book of built-in furniture*. Dresser. 1959. (S)  
A basic how-to book of good ideas for the beginner. Practical, with concise, clear instructions.
- 1 Wilson, J.D. & Rogers, C.M. *Carpentry mathematics*. 2nd ed. McGraw. 1949. \$4.60. (S)  
This valuable book presents various mathematical skills necessary to the trade. While prices used for lumber are obsolete the principles remain accurate.

- 1 Hanaburgh, D.H. *Your future in forestry*. Richards Rosen. 1961. \$2.95. (S)  
This book will stimulate boys in woodshop to consider a career in forestry. Schools are listed and the varied areas of employment are thoroughly described.

## General

- 2 Adler, Irving. *Tools in your life*. Day. 1956. \$3.49. (J,S)  
Simply and clearly written, this look at man as a toolmaking animal traces the history of tools from the pointed stick to the cyclatron. Index.
- 1 Allen, R.J. *Cryogenics*. Lippincott. 1964. \$3.75. (S)  
Presents concepts and principles in nontechnical, easily read form. Clearly tells how low temperatures are created and measured, put to use in nuclear physics, used in research laboratories, etc. For the interested student. Indexed
- 1 American Heritage. eds. *Men of science and invention*. American Heritage. 1960. (J,S)  
Excellent illustrations, interesting, and informative. For all industrial arts students. Should be in all libraries. Index.
- 1 Ansley, A.C. *Manufacturing methods and processes*. rev. ed. Chilton. 1968. \$12.50. (S,P)  
Illustrated, supplementary reading for the serious student, this treatment emphasizes new manufacturing methods, chief applications and cost, especially in the areas of powder metallurgy, plastics, investment casting, dielectric heating, and electronic printed circuits. Index.
- 3 Baldwin, John. *Contemporary sculpture techniques; welded metal and fiberglass*. Reinhold. 1967. \$10.00. (S)  
A well illustrated treatment of sculpture techniques which uses metal, reinforced plastic, and fiberglass as the basic materials. List of manufacturers and suppliers. Bibliography and index.
- 3 Ball, Douglas & Turner, D.S. *This fascinating oil business*. Bobbs. 1965. \$7.50. (S)  
A nontechnical presentation of the oil industry. Covers internal combustion engines, oil transportation systems, synthetic fibers, and plastics. Discusses oil history, resources, drilling techniques, development of new products and new markets. For all libraries. Index.
- 1 Basford, Leslie & Kogan, Philip. *Engineering technology: foundations of applied engineering*. London. Sampson Law, Marston & Co. (Distributor-Ginn & Co. Boston) (J,S) 1966.  
Using special cutaway pictures and models, some of the most interesting techniques scientifically used in modern technical, electrical, and civil engineering are graphically explained. Categories included are communications engineering, power systems principles, transport engineering, civil engineering, and public services. For all libraries.
- 1 \_\_\_\_\_, *Industrial processing: foundations of industrial and chemical technology*. London. Sampson Law, Marston & Co. (Distributor-Ginn & Co. Boston) 1966. (S)  
This useful, introductory volume describes the printing industry, industrial materials, textile industry, and others. Simplified outlines of processing methods and production flow are accompanied by detailed illustrations. Index.
- 1 \_\_\_\_\_, *The inventive genius: foundations of scientific inventions*. London. Sampson Law, Marston Co. (Boston, Ginn, Distributor). 1966. (J,S)  
Illustrated in color, this introductory volume includes location fixing inventions (radar and rangefinders), photography (copying machines and microfilms), entertainment (radio and television), personal aids (hearing aids and contact lenses), time measurements (clocks and watches), and more. Index.
- 1 Bast, Herbert. *Essentials of modern upholstery*. Bruce. 1963. \$3.95. (S)  
A well illustrated, step-by-step instruction book which includes tools, equipment, supplies, webbing, fastening springs, gimping, piping, typical jobs, and source and manufacture of essential materials such as jute, burlap, feathers, vinyl, and foam rubber. Index.
- 1 Burlingame, Roger. *Machines that built America*. Harcourt. 1953. \$3.75. (J,S)  
Shows the important part machines have played in the evolution of our country, speeding the "opening" of uninhabited country, welding the land and people into one nation. Covers the

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manufacture of axes to cut the forest, machines to cut and process grain, packing houses for meat, steel for railroads, etc. Index.

- 1 Calder, Ritchie. *The evolution of the machine*. American Heritage & Smithsonian Inst. 1968. (J,S,P)  
Presents the magnitude of the machine in its simplest and most understandable forms. The workings of our many machines come alive through the persistent theme of impact of environment on technological breakthroughs and subsequent world history. Profusely illustrated, thumbnail biographies of the "Makers of the Modern World" (Bell, Davy, Diesel, Edison, Goodyear, Pascal, etc.) A listing of further readings. Index. For all libraries.
- 1 Chandler, M.H. *Man, the inventor*. Rand McNally. 1965. \$3.95. (J)  
An easy history of man's progress and development through inventions. Describes the significance of the greatest inventions from prehistoric times to the modern age in simple nontechnical terms with the aid of hundreds of illustrations. Index.
- 1 Crispin, F.S. *Dictionary of technical terms*. 10th ed. Bruce. 1964. \$5.50. (S,P)  
Definitions of commonly used words and expressions in the fields of aeronautics, algebra arithmetic, art and art metal, auto mechanics, carpentry, ceramics, chemistry, concrete drafting, electricity, foundrywork, forging, geometry, lumber, metalwork, painting, plastering, plastics, printing, plumbing, radio, welding, and others. For all libraries.
- 1 Derry, T.K. & Williams, T.I. *A short history of technology: from the earliest times to A.D. 1900*. Oxford. 1961. \$8.50. (S)  
Strongly emphasizes the underlying relation between man's general history and the history of technological progress. Chronologically divided into two parts - the first describing the events leading up to 1750 and the Industrial Revolution and the second continuing to 1900. For all libraries.
- 1 Esterer, A.K. *Tools: shapers of civilization*. Messner. 1966. \$3.95. (J,S)  
Stories of the discovery and development of man's most valuable tools: the crude stone hoe that grew into the bulldozer; the saw-toothed animal jawbone that developed into the giant sawmills of today. Bibliography and index.
- 3 Fisher, R.M. *How about the weather?* rev. ed. Harper. 1958. \$4.95. (S)  
Includes clouds, wind, rain, fog, air masses, fronts, and other weather elements. Of unusual interest are excerpts from ancient and modern writings bearing on the weather. Good chapter on the interpretation of newspaper weather maps. Bibliography and index.
- 1 Fischman, Walter. *How to finish off your basement or attic*. Arco. 1962. \$3.50. (S)  
A complete do-it-yourself sourcebook of ideas, construction tips, and drawings on all phases including planning, framing, insulating, plumbing, heating, electrical, floors, ceilings, trim, and built-ins.
- 1 Forbes, R.J. *Man the maker: a history of technology and engineering*. rev. ed. Abelard-Schuman. 1958. \$5.00. (S,P)  
The story of technology and engineering as a part of the world's cultural heritage. Shows how certain prehistoric material achievements became part of civilization. Inventions of all eras and the relationship of the inventors to each period are discussed. Bibliography and index.
- 1 Gerbracht, Carl & Robinson, F.E. *Understanding America's industries*. McKnight. 1962. \$5.20. (J,S)  
An illustrated book about the major industries of our country; what they do, how they organized, and how they relate to one another. Industries covered have a direct relationship to industrial arts technology (wood, metal, graphic arts, ceramics and plastics, electricity, and textiles). For all libraries. Index.
- 2 Giachino, J.W. & Buekema, H.J. *Engineering - technical drafting and graphics*. 2d ed. Am. Tech. Soc. 1966. \$9.75. (S)

## General

A comprehensive, well illustrated, reference and advanced text covering current practices, drawing equipment, basic drawing techniques, geometric construction, dimensioning, fasteners, drafting department practices, gears and cams, drawings relating to plumbing, heating, air conditioning, fluid power, patents, tool and die, etc. Unusually fine appendix.

- 1 Gibby, J.C. *Technical illustration; procedure and practice*. Am. Tech. Soc. 1965. \$7.00. (S,P)  
An up-to-date reference covering the varied techniques and procedures required to become a technical illustrator. Included is a dictionary of trade names, an appendix, and index.
- 3 Grazda, Edward, ed. *Handbook of applied mathematics*. 4th ed. Van Nostrand. 1966. (S,P)  
Covers methods, techniques and procedures required in building construction and mathematical shop work. New features include recent advances in building construction including double and triple panes for picture windows; new methods of block construction; insulating materials; electrical wiring; electronics; and more. Index.
- 1 Habicht, Frank H. *Modern machine tools*. Van Nostrand. 1963. \$7.50. (S)  
Describes machine tools by "family", with variations, detailing principles, uses, and capabilities. All nomenclature and terminology is based on current use in the industry. A good production-planning reference and guide to the selection of the best machine tool to do a particular job. Index.
- 2 Halacy, D.S. *Computers: the machines we think with*. Harper. \$4.95. 1962. (S)  
A nontechnical overview of computers including their history, uses in government, business, and industry; and their effect on society, the worker, and the economy. Index.
- 2 Harris, C.O. *Strength of materials*. 2d ed. Am. Tech. Soc. 1963. \$6.95. (S)  
A reference book for the advanced high school student including a detailed look at the properties of new materials and covering equilibrium of bodies, simple stress and strain; moment of inertia of areas; stresses in beams; and riveted, bolted and welded joints. Chapter summaries and review questions and answers.
- 3 Hartman, Gertrude. *Machines and the men who made the world of industry*. Macmillan. 1939. \$4.54. (J)  
An overview of the impact of machine technology on our way of life. Describes how the research of the great inventors contributed to progress and change. Many early prints and photographs. Index.
- 1 Hendrickson, W.B. *Satellites and what they do*. Bobbs. 1963. \$3.95. (J,S)  
A comprehensive description of U.S. and Russian space exploration via Satellite programs until 1963. Divided into three sections: (1) "What's It Like Up There" discusses planning and designing the Explorers, Vanguard, Sputniks, etc.; (2) "Putting Satellites to Work" covers the Echo, Telstar and weather watcher Tiros; (3) "Cosmonauts and Astronauts" provides data on specific flights. Index.
- 1 Hopwood, R.R. *Science model making*. Macmillan. 1963. \$4.95. (J,S)  
Thirty-two models for construction include a sundial, one-transistor radio receiver, microscope, electric motor, steam turbine, incubator, etc. 123 illustrations clarify construction, and step-by-step details are given. Author incorporates discussions of the theory and scientific principles behind the operation of every model and makes clear the relation between abstract ideas and physical applications. Appendix lists tools and materials and sources of supply. For all libraries. Glossary.
- 3 Hunt, Dewitt. *Shop tools: care and repair*. Van Nostrand. 1958. \$6.50. text ed. \$5.20. (S,P)  
Valuable instructional manual for teachers of shopwork, automotive shop classes, and home workshop owners. Good illustrations. Bibliography and index.
- 1 Jacker, Corinne. *Man, memory and machines: an introduction to cybernetics*. Macmillan. 1964. \$3.95. (S,P)  
An overview of cybernetics "the study of methods of control and communication which are common to

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living organisms and machines, especially as applied to the analysis of the operations of machines, such as computers." Shows its development and some of its fascinating products such as: Elmer and Elsie, artificial tortoises who find and connect themselves to sources of power when their batteries run low; the electronic hand which can follow instructions to locate an object, pick it up and put it in a certain place, etc. Explanation of how these machines work, their reliance on feedback, and their resemblance to some functions of the human brain. Glossary and index.

- 1 Kenyon, R.G. *I can learn about calculators and computers*. Harper. 1961. \$3.50. (J,S)

A short, easily understood survey beginning with the evolution of written number systems and how early man learned to count and record his calculations. Complete, detailed, illustrated instructions are given for making simple computers and various counting devices with simple tools and materials. Glossary.

- 1 Kirk, F.W. & Rimboi, N.R. *Instrumentation*. 2nd ed. Am. Tech. Soc. 1966. \$6.95. (S)

An overview of instruments and control devices used in the home, automobile, and industry. Presents mechanical and electrical-electronic principles of operation of instruments to display, record, and control temperature pressure, level, flow, and humidity. Design of text follows the three level approach of recognition, comprehension, and application. Part I explains basic working principles. Part II deals with operating principles. Part III gives examples of practical application. Well organized. Questions for each chapter. Good illustrations, glossary and appendix.

- 1 Koff, R.M. *How does it work?* Doubleday. 1961. \$4.95. (J,S)

A well illustrated, explanation of how every day machines and appliances work, for example: air conditioners, automobile engines, batteries, brakes and clutches, compasses, electric eyes, electricity, flywheels, glass, hi-fi, lawn mowers, paints, photoengraving, plastics, printed circuits, printing, pumps, radio, relays, thermoelectricity, and more. Index.

- 3 Laird, Charles & Laird, Ruth *Weathercasting*. Prentice. 1955. \$4.95. (J,S)

In addition to explaining thunderstorms, hail storms, tornadoes, hurricanes, fog, cold waves etc., this illustrated volume helps the reader understand their causes and effects. There are suggestions for recording temperature, barometric pressure, visibility, etc. Includes directions for making an anemometer, a nephoscope, and a psychrometer. Index.

- 1 Lewis, Alfred. *The new world of computers*. Dodd. 1965. \$3.00. (J,S)

Explains the birth of the computer in 1833, the present stage of development, and a look at the future. Vivid, concise directions with good illustrations. For all libraries. Index.

- 2 Lieberg, O.S. *Wonders of heat and light*. Dodd. 1966. \$3.00 lib. bdg. \$2.79. (J,S)

Clearly written descriptions of the electromagnetic spectrum with its visible and invisible rays, colors from sunlight, heat within the earth in the form of geysers or natural steam, solar batteries, shadows, rainbows, mirages, reflection and refraction of light, and more. Index.

- 1 Mann, Martin. *How things work*. Crowell. 1960. \$3.50. (J,S)

Explains the theory behind the automatic transmission, ballpoint pen, motors for boats, motion picture camera, the dial telephone, sound frozen onto a tape recorder, florescent lighting, television, and more. Index.

- 1 Matthias, A.J. & Smith, Estes. *How to design and install plumbing*. 4th ed. Am. Tech. Soc. 1959. \$4.95. (S)

The scarcity of books pertaining to this field makes this volume a useful reference for students interested in the building and construction industries. Designs and installations of a complete plumbing system for a modern six room, two bath residence is explained and illustrated; with a complete set of blueprints included. Chapter questions but no answers are given at end of the book.

- 2 Minrath, W.R. ed. *Van Nostrand's practical formulary*. Van Nostrand. 1957. \$7.75. (J,S)

An excellent reference work containing over 800 different formulas which can be made in the home to produce glues, stains, paints, wood bleaches, varnishes, polishes, cleaners, garden sprays, etc. Full directions includes simple instructions on how to procure, process, and mix the materials.

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Appendices include a list of chemical manufacturers, chemical suppliers, and charts of weights and measures. Index.

- 3 Montgomery, E.R. *The story behind great inventions*. rev. ed. Dodd. 1944. \$3.50. (J,S)  
From the invention of printing to the smashing of the atom, this is still a good retelling of famous inventions and the men who created them.
- 2 Mumford, Lewis. *The myth of the machine; technics and human development*. Harcourt. 1967. \$8.95. (S,P)  
A profound exploration of the relationship of man, society, and the machine, which asks the question whether man or the machine is the central factor of human life. Extensive bibliography. Index.
- 3 Neal, H.E. *From spinning wheel to spacecraft: the story of the industrial revolution*. Messner. 1964. \$3.95. (J)  
How modern man made the swift ascent from an age dominated by drudgery and superstition to the scientific civilization we know today. Individual stories of inventors and scientists who faced ridicule, poverty, and often violence to bring their discoveries to the world. Bibliography and index.
- 2 Piper, Roger. *The story of computers*. Harcourt. 1964. \$3.50. (J,S)  
A clearly written treatment of computers, their history, potential, and functions. Also discussed are the people involved, the jobs available, and the training and skills required. Index.
- 1 Pisani, T.J. *Essentials of strength of materials*. 3rd ed. Van Nostrand. 1964. \$5.96. (S)  
A brief, systematic presentation of elementary mechanics and strength of materials, designed specially for use in technical high schools. Areas covered include plastics, shafts, columns, simple stresses, fasteners, theory and design of beams, essentials of plain and reinforced concrete, properties of materials, and materials testing. Worksheets and index.
- 1 Rusinoff, S.E. *Automation in practice*. Am. Tech. Soc. 1957. \$6.50. (S,J)  
Despite its publication date this continues to be a high quality basic reference work. Dealing primarily with pneumatic, hydraulic, and electronic control devices; particular products and industries are ignored in favor of particular processes and practices. The three basic functions of production are adhered to: materials' handling, processing, and quality control. Processes such as production of ferrous and nonferrous metals, metal working, pressworking, heat treating, etc. are well described. For advanced students.
- 1 \_\_\_\_\_, *Manufacturing processes; materials and production*. Am. Tech. Soc. 1962. \$10.75. (S)  
Geared for the advanced student, this volume includes the newer developments in production methods, and the selection and use of machine tools. Safety habits are stressed. Topics covered include basic design, cost, and materials factors in selecting the manufacturing process; metal casting and sand molds; mechanical working of hot and cold metals; plastic molding; welding, brazing and soldering; lathes; and production drilling. Bibliography and index.
- 1 \_\_\_\_\_, *Mathematics for industry*. 2nd ed. Am. Tech. Soc. 1958. \$6.25.  
The areas of mathematics most commonly required in machine shop practice are presented in a simplified manner. A beginning or advanced student can readily select portions and chapters which apply to his own needs. Extensive practice problems are presented and useful math tables are included eliminating additional reference materials.
- 2 Schaefer, C.J., & Smith, R.E. *Home mechanics*. rev. ed. Bruce. 1961. \$4.00. (S)  
A useful reference and home repair manual with one section devoted to detailed descriptions and solutions of home repair problems. The second section describes additional minor repairs.
- 2 Scientific American. *Automatic control*. S & S. 1955. (S)  
Presents in layman's language the underlying principles of automation and feedback, including automatic control, automatic factories and robots, and the "giant brains" of the machines of modern

## General

### industry. Bibliography.

- 1 Scobey, M.M. *Teaching children about technology*. McKnight. 1968.  
Readable, well illustrated, and rich in the variety of information given. Contains information concerning materials and tools younger boys and girls can use, and some simple models they can make. For all libraries.
- 1 Seldin, Joel. *Automation: the challenge of men and machines*. Coward. 1965. \$2.60. (J,S)  
A short, thought-provoking review of automation, its implications and problems. The author shows us some of the many ways in which the "automatic revolution" is changing our lives and will continue to do so. The impact on trade, consumer buying practices, and changes in school schedules are explored. Index.
- 1 Smith, L.B. & Maddox, M.E. *Elements of American industry*. McKnight. 1966. \$6.00. (J,S)  
An introductory overview of sketching and drawing, metalwork, woodworking, electricity, leather work, graphic arts, moldable materials, and American industry for junior and senior high school students. Each unit contains an introduction, step-by-step development of skills, and projects.
- 1 Editors of International Science and Technology. *The way of the scientist: interviews from the world of science and technology*. 1962. (S,P)  
First published in the periodical, "International Science and Technology," which is not made available to the general public, these interviews are "must" reading for high ability students and their teachers. Those who read this volume will want to own it.
- 1 Turner, R.P. *Technical report writing*. Holt. 1965. \$4.95. (S)  
Provides the rudiments of technical report writing and standard professional practices, along with many illustrative examples and writing exercises. Bibliography and index.
- 1 Van Leuven, E.P. *General trade mathematics*. 2nd ed. McGraw. 1952. \$5.96. (S)  
Useful for a course in mathematics for industrial and technical schools and high schools offering good industrial arts programs. Many exercises and problems. Useful tables in extensive appendix. Index.
- 1 Weeks, R.P. ed. *Machines and the man: a sourcebook on automation*. Appleton. 1961. \$2.95. (S)  
An overview of the impact of automation. Presents case studies of automation in the office, factory, classroom, steel mill, and telephone exchange, showing both labor's and management's viewpoint. Defines "key terms", gives 20th Century defenses and reservations about automation; and looks at the future. Questions for class discussion and topics for research papers.
- 3 Wolfe, J.H. & Phelps, E.R. *Practical shop mathematics. Vol. 1 - elementary*. 4th ed. McGraw. 1958. (S)  
The geometry necessary for the solution of practical shop problems is presented by using 50 propositions. Practical and useful for high schools, factory schools, trade and vocational schools. Includes tables of trigonometric functions, formulas, problems with answers, and index.
- 2 Zetler, R.L. & Crouch, W.G. *Successful communication in science and industry; writing, reading, and speaking*. McGraw. 1961. \$4.50.  
Emphasizing the necessity of good communication skills in industry, this text provides exercises which give the student practice in writing reading and speaking effectively. Index.

- 3 Burlingame, Roger. *Inventors behind the inventor*. Harcourt. 1947. \$3.75 pap. \$.60. (J,S)  
Stimulating reading about unknown inventors. Although not successful, the work of these men paved the way for the accomplishments of others.
- 3 \_\_\_\_\_ *Scientists behind the inventors*. Harcourt. 1960. pap. \$.50. (J,S)  
The relationship between pure and applied science is carefully portrayed. A well written account of the inventor's debt to the research scientist. Includes James Watt, Charles Goodyear, Louis Pasteur, and Albert Einstein. Index.
- 1 Crane, W.D. *The man who transformed the world: James Watt*. Messner. 1963. \$3.50. (J,S)  
The story of James Watt, inventor of the steam engine and father of the Industrial Revolution in America. Easy reading for the science oriented students. Describes early experiments. Index.
- 1 Darrow, F.L. *Masters of science and invention*. Harcourt. 1951. \$6.00. (J,S)  
Human interest accounts of 50 scientists and inventors from Galileo to Einstein. Each man is placed against the background of the ideas of his time and shown working out the discovery with which his name is associated. Many "industrial technology" names included. Index.
- 3 Eberle, Irmengarde. *Famous inventors for young people*. Dodd. 1941. \$3.50. (S)  
For the young reader. Illustrated thumbnail sketches of 14 inventors who have affected the world's progress. Includes: Gutenberg and the printing press; Watt and the steam engine; Fulton and the steamship; Whitney and the cotton gin; Morse and the telegraph; Bessemer and his steel process. Index.
- 1 Garbedian, H.G. *Thomas Alva Edison; builder of civilization*. Messner. 1947. \$3.50. (J)  
Easy to read. The story of one of America's most popular inventors. Index.
- 1 Harlow, A.F. *Andrew Carnegie*. Messner. 1953. \$3.50. (J)  
The story of a poor immigrant boy who became one of America's leading industrialists and who, through the wise disposition of his enormous wealth, enriched the cultural life of the U.S. by giving away \$350,000,000 for benevolent purposes. Index.
- 1 Lavine, S.A. *Famous industrialists*. Dodd. 1961. \$3.50. (J,S)  
Offers thumbnail sketches of Sarnoff (Radio), Firestone (Rubber), Eastman (Photography), Carnegie (Steel), Disney (Motion Pictures), McCormick (Farm Equip.), Ford (Auto.), Westinghouse (Air brakes). Factual with human interest. Index.
- 3 Manchester, Harland. *Trail blazers of technology: the story of nine inventors*. Scribner. 1962. \$3.51. (J,S)  
Includes Diesel, Davenport, Goodyear, Nobel, Lake, Maxim, Tesla, deForest, and Sikorsky whose creative genius changed the course of civilization. Bibliography and index.
- 2 Miner, L.S. *Industrial genius; Samuel Slater*. Messner. 1968. (J,S)  
An English industrial genius who helped bring the industrial revolution to the United States leaving a legacy of innovation and progress in the textile industry. Bibliography and index.
- 1 Sootin, Harry. *Michael Faraday: from errand boy to master physicist*. Messner. 1954. (J,S)  
The life story of one of the leading scientists of the last century whose experiments led to the development of the dynamo, the electric motor, and to an industrial revolution. Index.
- 1 Year Inc. ed. *The 50 great pioneers of American industry*. Hammond. 1964. \$10.00. (J,S)  
The story of 50 innovators who created modern America, as they pioneered U.S. industrial progress. Contains many historical illustrations. For all libraries.

- 2 Beitler, Stanley. *Rockets and your future*. Harper. 1961. lib. bdg. \$3.79. (J,S)  
Clearly informs the prospective space scientist what subjects to take in high school, colleges which have required courses, and sources of additional information. Also discusses principles of the rocket, the building of a rocket from the idea to countdown. Illustrated and indexed.
- 2 Berry, F.A. & Frank, S.R. *Your future in meteorology*. rev. ed. Richards Rosen. 1962. \$2.95. (S,P)  
Opportunities in the field of meteorology are described in detail. The selected bibliography and list of colleges offering appropriate courses will be of interest to guidance counselors.
- 2 Carse, Robert. *Your place in the Merchant Marine*. Macmillan. 1964.\* \$3.95. (J,S)  
A comprehensive treatment of the history, entrance requirements, and courses of study offered by the five Merchant Marine academies, including the role of the seamen's unions, hiring practices, fees, and members' ratings.
- 1 Dodge, B.S. *Engineering is like this*. Little. 1963. \$4.50. (J)  
An easily read book which explains air and water pressure, pumps, mill wheels and turbines, magnetism and electricity, steam and power. Glossary and index.
- 2 Feder, R.L. *Your future in chemical engineering*. rev. ed. Richards Rosen. 1961. \$2.95. lib. bdg. \$2.79. (S)  
Thorough explanation of what a chemical engineer does, the educational requirements, and job opportunities. Appendices include professional societies and organizations, suggested reading, and accredited colleges of chemical engineering.
- 2 Golze, A.R. *Your future in civil engineering*. rev. ed. Richards Rosen. 1965. \$2.95. lib. bdg. \$2.79. (S)  
Explains what a civil engineer does, the qualifications, financial requirements, college requirements, and job opportunities. Appendix lists accredited colleges offering the degree.
- 2 Hammond, R.W. *Your future in industrial engineering*. rev. ed. Richards Rosen. 1965. \$2.95. lib. bdg. \$2.79. (S)  
Explains various areas within the field indicating necessary preparation and job opportunities. Appendices include engineering curricula, listing of colleges, sample college board tests, sample ACT test, bibliography and engineering societies.
- 2 Heine, R.E. *Your future in traffic management*. Richards Rosen. \$4.00. lib. bdg. \$3.78. 1967. (S)  
An up-to-date treatment of transportation and moving freight via railroads, trucks, ships, and air, including a good chapter on educational preparation. Appendices containing bibliography, listing of trade periodicals, and courses given in various colleges.
- 1 Hodnett, Edward. *So you want to go into industry*. Harper. 1960. \$3.95. (S,P)  
For students about to enter a career as well as teachers, guidance counselors, and parents. Industry is interpreted to mean all businesses that employ many people, require large capital, manufacture products, and exist to make profit from sales of products. Part I is devoted to how to prepare for a job in industry: education at various levels; choosing a career; early years of training; growth and professional development. Part II shows how a typical industrial firm is established, organized, and run. Descriptions of departments such as production, marketing, finance, plant management, etc.
- 1 Hopke, W.E. ed. *The encyclopedia of careers and vocational guidance*. vols. I and II. Doubleday. 1967. \$30.00. (S,P)  
The broad scope of this reference makes a distinct contribution to guidance literature. Includes wide coverage of specific career opportunities, as well as information on major occupational groupings. Designed to be used by high school students, parents, and school counselors who require an accurate compendium of general and specific career information. Over 650 job descriptions in 71 major areas of work. Information from U.S. Department of Labor. List of

accredited colleges and universities. Good coverage of the industrial arts technology field. Bibliography and Index. For all guidance departments and libraries.

- 1 Liston, R.A. *On the job training and where to get it.* Messner. 1967. \$3.95. (S,P)  
Provides information for the high school graduate who cannot go on to college, where additional training can be obtained. Describes his place in the laboratory, in government, in industry, and in executive ranks. Shows how corporations like IBM, and Bell Telephone recruit high school graduates and train them to manufacture, repair, and service equipment. For guidance counselors and all libraries. Index.
- 2 MacCloskey, Monro. *Your future in the Air Force.* Richards Rosen. 1964. \$2.95. lib. bdg. \$2.79. (S)  
A good overview of the Air Force, its history, organization, educational career opportunities development, and benefits. Appendices include Air Force ROTC detachments, officer classification structure chart, monthly pay, incentive pay for flight status.
- 3 Nourse, A.E. & Webbert, C. *So you want to be an engineer.* Harper. 1962. \$3.95. (S)  
A nontechnical description of the many fields of engineering, an outline of the steps in an engineer's education, and a discussion of the many opportunities. Lists colleges of engineering. Index.
- 1 Seligsohn, I.J. *Your career in computer programming.* Messner. 1967. \$3.95. lib. bdg. \$3.64. (S)  
Describes the nature of the work, computer operation, potential, and job opportunities. Includes bibliography, list of corporations as a source of further information, and index.
- 2 Shuff, F.L. *Your future in occupational therapy.* rev. ed. Richards Rosen. 1964. lib. bdg. \$2.79. (S)  
A rather thorough explanation of what an occupational therapist is, where he performs his work, and how to become one. Appendices include bibliography and colleges offering courses.
- 2 Spirko, Christina. *Your future in radiologic technology.* Richards Rosen. 1966. (S)  
A thorough treatment of a little publicized vocation, including necessary preparation and job opportunities. Glossary and index.
- 2 Walmsley, Harold. *Your future in the Army.* 2nd ed. Richards Rosen. 1960. \$2.95. lib bdg. \$2.79, (S)  
Presents history of the U.S. Army to the present time. The advantages and disadvantages of a career in the army are presented together with a history of the service. Appendices include information regarding the WACS and ROTC as well as pay scale charts.

## PUBLISHERS ADDRESS LIST

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