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ABSTRACT

In this copyright infringement suit, the plaintiff (Williams & Wilkins Company) alleges that the defendant (Department of Health, Education and Welfare) through its agencies, the National Institutes of Health (NIH) and the National Library of Medicine (NLM) has infringed plaintiff's copyrights in medical journals by making unauthorized photocopies of articles from such journals. The Commissioner to the Court holds that the defendant has infringed the plaintiff's copyrights and that the plaintiff is entitled to recover "reasonable and entire compensation." For convenience and orderly discussion of the many complex problems raised by this case, the opinion is divided into three parts. Part I is a synopsis of the material facts, most of which are not in dispute. Detailed facts are set out in the findings of fact. Part II deals with the copyright law as it applies to resolution of the case. Part III deals with some ancillary matters. (Author/NH)

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In the United States Court of Claims

No. 73-68

(Filed FEB 16 1972)

THE WILLIAMS & WILKINS COMPANY v.
THE UNITED STATES

REPORT OF COMMISSIONER TO THE COURT*

Alan Latman, attorney of record, for plaintiff. *Arthur J. Greenbaum*, of counsel.

Thomas J. Byrnes, with whom was *Assistant Attorney General L. Patrick Gray, III*, for defendant.

Weil, Gotshal & Manges, for the Association of American Publishers, Inc., amicus curiae. *Horace S. Manges, Marshall C. Berger* and *Arthur F. Abelman*, of counsel.

Irwin Karp, for The Authors League of America, Inc., amicus curiae.

Perry S. Patterson, for the American Library Association, amicus curiae. *William D. North, Ronald L. Engel, James M. Amend, John A. Waters*, and *Kirkland, Ellis, Hodson, Chafetz & Masters*, of counsel.

Cox, Langford & Brown, for the Association of Research Libraries, Medical Library Association and American Association of Law Libraries, amici curiae. *Philip B. Brown* and *John P. Furman*, of counsel.

OPINION

DAVIS, Commissioner: This is a copyright infringement suit under 28 U.S.C. § 1498 (b).¹ Plaintiff alleges that defend-

*The opinion, findings of fact, and recommended conclusion of law are submitted under the order of reference and Rule 184 (h).

¹Prior to 1960, § 1498 provided only for patent infringement suits against the United States. In 1960, Congress amended § 1498 to make the United States liable also for copyright infringement, pursuant to title 17, U.S.C., the copyright statute. This is the first copyright case to reach trial in this court.

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ant's Department of Health, Education, and Welfare, through its agencies, the National Institutes of Health (NIH) and the National Library of Medicine (NLM), has infringed plaintiff's copyrights in medical journals by making unauthorized photocopies of articles from such journals. This suit is one of first impression; raises long-troublesome and much-discussed issues of library photocopying of copyrighted materials;² and requires for resolution the "judgment of Solomon" if not also the "dexterity of Houdini."³ The following organizations sought (and were granted) leave to file briefs as amici curiae: The Authors League of America, Inc., and the Association of American Publishers, Inc. (in support of plaintiff); and the American Library Association, the Association of Research Libraries, the Medical Library Association, and the American Association of Law Libraries (in support of defendant). Those briefs, along with the briefs filed by the parties, have been of great assistance. I hold that defendant has infringed plaintiff's copyrights and that plaintiff is entitled to recover "reasonable and entire compensation" as provided by § 1498(b).

For convenience and for orderly discussion of the many complex problems raised by this case, the opinion is divided into three parts. Part I is a synopsis of the material facts, most of which are not in dispute. Detailed facts are set out

² See, e.g., B. Varner, Photoduplication of Copyrighted Material by Libraries, Study No. 15, Copyright Law Revision, Studies Prepared for Senate Comm. on the Judiciary, 86th Cong., 2d Sess. (1960) [hereinafter cited as the Varner study]; G. Sophar and L. Hellprin, The Determination of Legal Facts and Economic Guideposts with Respect to the Dissemination of Scientific and Educational Information as It is Affected by Copyright—A Status Report, Final Report, Prepared by The Committee to Investigate Copyright Problems Affecting Communication in Science and Education, Inc., for the U.S. Department of Health, Education, and Welfare, Project No. 70703 (1967) [hereinafter cited as Sophar and Hellprin report]; Report of the Register of Copyrights on the General Revision of the U.S. Copyright Law to the House Comm. on the Judiciary, 87th Cong., 2d Sess. at 25-26 (1961) [hereinafter cited as the Register's Report]; Project—New Technology and the Law of Copyright: Repography and Computers, 15 U.C.L.A. L. Rev. 931 (1968) [hereinafter cited as UCLA Project]; V. Clapp, Copyright—A Librarian's View, Prepared for the National Advisory Commission on Libraries, Association of American Libraries (1968); Schuster and Bloch, Mechanical Copyright, Copyright Law, and the Teacher, 17 Clev.-Mar. L. Rev. 299 (1968); "Report on Single Copies"—Joint Libraries Committee on Fair Use in Photocopying, 9 Copyright Soc'y Bull. 79 (1961-62).

³ To borrow a phrase from Mr. Justice Fortas in *Fortnightly Corp. v. United Artists Television, Inc.*, 392 U.S. 390, 402 (1968), *rehearing denied*, 393 U.S. 902. There, the Supreme Court grappled with another vexing copyright problem—cable antenna television (CATV).

in the findings of fact. Part II deals with the copyright law as it applies to resolution of the case. Part III deals with some ancillary matters.

I

Plaintiff, though a relatively small company, is a major publisher of medical journals and books. Plaintiff publishes 37 journals, dealing with various medical specialties. The four journals in suit are *Medicine*, *Journal of Immunology*, *Gastroenterology*, and *Pharmacological Reviews*. *Medicine* is published by plaintiff for profit and for its own benefit. The other three journals are published in conjunction with specialty medical societies which, by contract, share the journals' profits with plaintiff. The articles published in the journals stem from manuscripts submitted to plaintiff (or one of the medical societies) by physicians or other scientists engaged in medical research. The journals are widely disseminated throughout the United States (and the world) in libraries, schools, physicians' offices, and the like. Annual subscription prices range from about \$12 to \$44; and, due to the esoteric nature of the journals' subject matter, the number of annual subscriptions is relatively small, ranging from about 3,100 (*Pharmacological Reviews*) to about 7,000 (*Gastroenterology*). Most of the revenue derived from the journals comes from subscription sales, though a small part comes from advertising.⁴ The journals are published with notice of copyright in plaintiff's name. The notice appears at the front of the journal and sometimes at the beginning of each article. After publication of each journal issue (usually monthly or bimonthly) and after compliance with the requisite statutory requirements, the Register of Copyrights issues to plaintiff certificates of copyright registration.

NIH, the Government's principal medical research organization, is a conglomerate of institutes located on a multi-acre campus at Bethesda, Maryland. Each institute is concerned with a particular medical specialty, and the institutes conduct their activities by way of both intramural research and grants-in-aid to private individuals and organizations. NIH employs over 12,000 persons—4,000 are science professionals and 2,000 have doctoral degrees. To assist its intra-

⁴ E.g., the November 1956 issue of *Medicine* has 86 pages, four of which carry commercial product advertising. The August 1965 issue of *Journal of Immunology* has 206 pages, nine of which carry commercial product advertising.

mural programs, NIH maintains a technical library. The library houses about 150,000 volumes, of which about 30,000 are books and the balance scientific (principally medical) journals. The library is open to the public, but is used mostly by NIH in-house research personnel. The library's budget for 1970 was \$1.1 million.

The NIH library subscribes to about 3,000 different journal titles, four of which are the journals in suit. The library subscribes to two copies of each of the journals in suit. As a general rule, one copy stays in the library reading room and the other copy circulates among interested NIH personnel. Demand by NIH research workers for access to plaintiff's journals (as well as other journals to which the library subscribes) is usually not met by in-house subscription copies. Consequently, as an integral part of its operation, the library runs a photocopy service for the benefit of its research staff. On request, a researcher can obtain a photocopy of an article from any of the journals in the library's collection. Usually, researchers request photocopies of articles to assist them in their on-going projects; sometimes photocopies are requested simply for background reading. In any event, the library does not monitor the reason for requests or the use to which the photocopies are put. The photocopies are not returned to the library; and the record shows that, in most instances, researchers keep them in their private files for future reference.

Four regularly assigned employees operate the NIH photocopy equipment. The equipment consists of microfilm cameras and Xerox copying machines. In 1970, the library photocopy budget was \$86,000 and the library filled 85,744 requests for photocopies of journal articles (including plaintiff's journals), constituting about 930,000 pages. On the average, a journal article is 10 pages long, so that in 1970, the library made about 93,000 photocopies of articles.

NLM is located on the Bethesda campus of NIH. NLM was formerly the Armed Forces Medical Library. In 1956, Congress transferred the library from the Department of Defense to the Public Health Service (renaming it the National Library of Medicine), and declared its purpose to be "* * * to aid the dissemination and exchange of scientific and other information important to the progress of medicine and to the public health * * *." 42 U.S.C. § 275 (1970). NLM is a repository of much of the world's medical literature. NLM is in es-

sence a "librarians' library." As part of its operation, NLM cooperates with other libraries and like research-and-education-oriented institutions (both public and private) in a so-called "interlibrary loan" program. Upon request, NLM will loan to such institutions, for a limited time, books and other materials in its collection. In the case of journals, the "loans" usually take the form of photocopies of journal articles which are supplied by NLM free of charge and on a no-return basis. The term "loan" therefore is a euphemism when journal articles are involved. NLM's loan policies are fashioned after the General Interlibrary Loan Code, which is a statement of self-imposed regulations to be followed by all libraries which cooperate in interlibrary loaning. The Code provides that each library, upon request for a loan of materials, shall decide whether to loan the original or provide a photoduplicate. The Code notes that photoduplication of copyrighted materials may raise copyright infringement problems, particularly with regard to "photographing *whole issues* of periodicals or books with *current copyrights*, or in making *multiple copies* of a publication." [Emphasis in original text.] NLM, therefore, will provide only one photocopy of a particular article, per request, and will not photocopy on any given request an entire journal issue. NLM, as well as other libraries, justifies this practice on the basis of a so-called "gentlemen's agreement," written in 1935 by the National Association of Book Publishers and the Joint Committee on Materials for Research (representing the libraries), which states in part, "A library * * * owning books or periodical volumes in which copyright still subsists may make and deliver a single photographic reproduction * * * of a part thereof to a scholar representing in writing that he desires such reproduction in lieu of loan of such publication or in place of manual transcription and solely for the purposes of research * * *." [Emphasis supplied.] Each photocopy reproduced by NLM contains a statement in the margin, "This is a single photostatic copy made by the National Library of Medicine for purposes of study or research in lieu of lending the original."

In 1968, a representative year, NLM received about 127,000 requests for interlibrary loans. Requests were received, for the most part, from other libraries or Government agencies. However, about 12 percent of the requests came from private or commercial organizations, particularly drug companies.

Some requests were for books, in which event the book itself was loaned. Most requests were for journals or journal articles; and about 120,000 of the requests were filled by photocopying single articles from journals, including plaintiff's journals. Usually, the library seeking an interlibrary loan from NLM did so at the request of one of its patrons. If the "loan" was made by photocopy, the photocopy was given to the patron who was free to dispose of it as he wished. NLM made no effort to find out the ultimate use to which the photocopies were put; and there is no evidence that borrowing libraries kept the "loan" photocopies in their permanent collections for use by other patrons.

Defendant concedes that within the pertinent accounting period, NLM and the NIH library made at least one photocopy of each of eight articles (designated by plaintiff as the Count I-to-Count VIII articles) from one or more of the four journals in suit. Defendant also concedes that plaintiff is the record owner of copyright registrations on the journals. That would appear to end the matter in plaintiff's favor, for § 1 of the copyright statute (17 U.S.C.) says that the copyright owner " * * * shall have the exclusive right: (a) to print, reprint, publish, copy and vend the copyrighted work * * *"; and § 3 of the statute says that, " * * * [t]he copyright upon composite works or periodicals shall give to the proprietor thereof all the rights in respect thereto which he would have if each part were individually copyrighted under this title." Simply stated, this means that each article in plaintiff's journals is protected from infringement to the same extent as the entire journal issue. *Advertisers Exch., Inc. v. Laufe*, 29 F. Supp. 1 (W.D. Pa. 1938); *King Features Syndicate v. Fleischer*, 299 F. 533 (2d Cir. 1924).⁵

Despite plaintiff's prima facie showing of infringement, the Government and its amici raise a host of arguments why the libraries should not be held liable for infringement. The

⁵ One argument made by defendant to justify the copying of single articles from plaintiff's journals is that each article is but "part" of a journal issue, which in turn is but "part" of a journal volume; and, accordingly, defendant says, its libraries have not copied an "entire" copyrighted work. Section 3 of 17 U.S.C. fully meets that argument, for it is undisputed that plaintiff could publish and seek copyright registration on each article separately. As stated in H.R. Rep. No. 2222, 60th Cong., 2d Sess. 10 (1909):

Section 3 [of the Copyright Act] does away with the necessity of taking a copyright on the contributions of different persons included in a single publication * * *.

arguments boil down to five defenses: (a) nonownership of copyright, (b) real party in interest, (c) noninfringement, (d) fair use, and (e) license.

II

The nonownership defense

Defendant says that plaintiff is not the "proprietor" of copyright in the Count I-to-Count VIII articles (17 U.S.C. § 9), and therefore does not have standing to bring this suit. As noted earlier, defendant concedes that plaintiff is the owner of record title of copyright registrations on the journals in which the articles appear; and defendant also concedes that plaintiff is entitled to a "presumption that it is the owner of the individual articles in the journals published by it." 17 U.S.C. §§ 3, 209. However, defendant says the presumption is rebutted by evidence that the authors of the articles did not make written assignment to plaintiff of their proprietary interest in the manuscripts from which the articles stemmed and that the authors were not paid monetary compensation for their manuscripts. From this, defendant urges that the authors did not assign to plaintiff ownership of their manuscripts, and, at most, granted to plaintiff only a license to publish the articles. Defendant relies on *Morse v. Fields*, 127 F. Supp. 63, 65, 104 USPQ 54, 55 (S.D. N.Y. 1954), which held that "* * * a general copyright in an issue of a periodical (a "blanket" copyright) does not protect the rights in a particular contributed article unless such rights had been previously assigned to the publisher." Defendant also cites *Kinelow Publishing Co. v. Photography-in-Business, Inc.*, 270 F. Supp. 851, 155 USPQ 342 (S.D. N.Y. 1967), and *Brattleboro Publishing Co. v. Winmill Publishing Co.*, 250 F. Supp. 215, 149 USPQ 41 (D. Vt. 1966), *aff'd*, 369 F. 2d 565, 151 USPQ 666 (2d Cir. 1966), for the proposition that, absent an express assignment, the author (rather than the publisher) of a copyrightable work retains title to the work, even though it is published as part of a composite on which there is blanket copyright in the publisher's name.

The record does not support defendant and the cited cases are not apposite. At the outset, it is pertinent to note this court's decision in *Dorr-Oliver, Inc., et al. v. United States*, 193 Ct. Cl. 187, 432 F. 2d 447, 167 USPQ 474 (1970), which held that the owner of record title of a patent (and by anal-

ogy, a copyright registration) is the proper party to bring suit for infringement in this court under 28 U.S.C. § 1498, and that equitable rights of ownership of strangers to the suit cannot be raised as defenses against the legal title holder. *See also Widenski v. Shapiro, Bernstein & Co.*, 147 F. 2d 909, 64 USPQ 448 (1st Cir. 1945). As a matter of law, therefore, it would seem that defendant cannot assert the ownership defense since by doing so, it seeks to raise equities of persons not parties to the suit. However, even if that issue can be raised, defendant cannot prevail on the merits. Authors of two of the articles in suit testified at trial, and neither asserted an interest (legal or equitable) in their respective articles. It is reasonable to infer that testimony of the other authors would be the same, for the evidence supports the conclusion that by custom of long standing and absent any written or oral agreement to the contrary, authors who submit manuscripts to medical journals do so on the implied understanding that the publisher will obtain statutory copyright on the journal (and the individual articles therein) in the journal's name and for the journal's benefit, and that the copyright will be enforced by the copyright registrant. So far as the record shows, no author ever questioned or challenged that practice. *Geisel v. Poynter Prod., Inc.*, 295 F. Supp. 331, 160 USPQ 590 (S.D. N.Y. 1968), held that full ownership of copyrightable subject matter may, by custom, be assigned by implication from the author to a publisher. Similarly, *Best Medium Publishing Co. v. National Insider, Inc.*, 259 F. Supp. 433-34, 152 USPQ 56-57 (N.D. Ill. 1966), *aff'd*, 385 F. 2d 384, 155 USPQ 550 (7th Cir. 1967), *cert. denied*, 390 U.S. 955, noted:

"In the absence of evidence to the contrary, the transfer by an author to a magazine publisher of a manuscript without restriction is deemed to carry with it all right, title, and interest, including all rights of copyright, therein."

The fact that authors are not paid by plaintiff for their manuscripts is of little significance. The record shows that medical researchers, on their own volition, submit manuscripts to plaintiff's journals in consideration for the journal's screening and editing, and hopefully accepting and publishing, the manuscripts. Rarely, if ever, do medical researchers publish the results of their work at their own expense. Rather they look to medical journals to bear the

expenses of editing, publishing and disseminating.⁶ In the world of academia and its all-too-frequent specter of "publish or perish," researchers compete to get their manuscripts accepted and published by journals of high reputation and wide circulation. Acceptance and publication by a leading journal marks an article as one of importance and good quality. The record shows that over 95 percent of all published medical research appears in medical journal articles. Thus, publication of research work by medical journals, though perhaps not of immediate monetary benefit to researchers, nevertheless enhances, and may even be crucial to, their long-term professional and economic opportunities. The record also shows that, once having succeeded in getting a manuscript accepted and published by plaintiff, authors do not seek publication by others. Rather, they look to plaintiff for reprints, further publication or permission to republish elsewhere. Plaintiff, in turn, grants permission to others, often through royalty-bearing license agreements, to copy, reprint and republish individual journal articles in other forms, *e.g.*, as photocopies, as parts of books or on microfilm. *Cf. Kinelow, supra*, and *Brattleboro, supra*, wherein the authors did not intend the first publisher to be the sole publisher and, in fact, intended that others republish the work without regard to the first publisher.

In sum, the only reasonable inference (there being no evidence to the contrary) is that the authors assigned to plaintiff, *ab initio* and by implication, the ownership rights to their manuscripts, and did not grant to plaintiff a mere license to publish.

A final point: Implicit in defendant's position on this issue is the notion that it is unfair for plaintiff to derive monetary profit from the work of medical researchers who do not share that profit directly with plaintiff. What defendant overlooks is that with respect to most of plaintiff's journals (and three of the four in suit), profits derived from the journals go in large measure to the medical societies for which the journals are published. The American Gastroen-

⁶ Some journals require authors to pay "excess page" charges for unusually long articles and also to pay, at least in part, for certain kinds of illustrations. To this extent, therefore, authors sometimes bear part of the expense of publication. However, there is no evidence that such expenses are substantial (compared to the total cost of publication) or that such requirement discourages authors from submitting manuscripts to plaintiff in favor of publishing them themselves or elsewhere.

terological Association (AGA) and the American Association of Immunologists (AAI) get 50 percent of the profits from *Gastroenterology* and the *Journal of Immunology*, respectively; and the American Society of Pharmacology and Experimental Therapeutics (ASPET) gets 90 percent of the profits from *Pharmacological Reviews*. Most of plaintiff's journals, therefore, operate for the benefit of the medical profession itself, which, in the long run, is for the benefit of the public. In any event, plaintiff's profits are not great, and at best, simply compensate plaintiff for the services it renders as a publisher in a free-enterprise system where income is derived by risking capital to print and disseminate. *E.g.*, in 1968, profit from *Pharmacological Reviews* was \$1,154.44 (on sales of about \$40,000), of which \$1,039 went to ASPET and \$115.44 went to plaintiff. In 1969, *Pharmacological Reviews* lost money. Also, in 1969, net income from *Gastroenterology* was \$21,312.08 (on sales of about \$245,000), and \$11,532.35 of that amount was offset by losses the previous year, leaving a balance of \$9,779.73. The balance was split between plaintiff and AGA, plaintiff getting \$4,889.86.

In short, absent private publishers whose efforts provide for dissemination of 95 percent of the current medical literature, most of the findings of medical research would go unpublished and undisseminated; or at least the burdens of publishing and disseminating would fall upon other organizations, one of which would no doubt have to be the Government.⁷

The real-party-in-interest defense

Defendant says that plaintiff is not the real party in interest with respect to the articles (Counts II to VI) in the *Journal of Immunology* and *Pharmacological Reviews*. Defendant says those journals are owned, respectively, by AAI and ASPET; and, though not expressly urged, it is apparently defendant's position that AAI and ASPET must be joined as parties-plaintiff or else must bring this suit in their own names. The record shows that plaintiff publishes

⁷The UCLA Project, at 956, discusses the problems which would be created if, through failure of private publishers, the Government takes up the slack in medical publishing. Among the problems might be "government influence over the content of writings," implicit in which is the " * * * danger of government censorship * * *. Many scientific journal articles are presently subjected to scrutiny by panels of scientists who determine 'publishability' independently of the editors of journals. Retaining such an evaluative process would allow professional scientists in the author's field, rather than bureaucrats, to decide what is published."

the *Journal of Immunology* under contract with AAI and publishes *Pharmacological Reviews* under contract with ASPET. The contracts obligate plaintiff to secure statutory copyright on the journals in plaintiff's name. While it is true that the contracts provide that the respective societies are the "sole owner of the periodical," the clear intent of the parties is that copyright matters, including acquisition and enforcement, are plaintiff's responsibility. Thus, the ASPET contract provides that it is plaintiff's duty to procure copyright on *Pharmacological Reviews* "in the name of the Publisher" and to oversee and act on requests by others to republish parts thereof, a right incident to the enforcement of copyright. Likewise, the AAI contract requires plaintiff to procure copyright on the *Journal of Immunology* "in the name of the Publisher," and notes that AAI "reserves the right to have the copyright assigned to the Association if at any time in the future this seems desirable." This is a clear indication that it was the parties' intent that plaintiff should own the copyright *ab initio*. In short, there is no evidence that ASPET or AAI intended anything other than that plaintiff, and plaintiff alone, should own the copyright in the respective journals and should enforce the copyright by bringing lawsuits, or otherwise.

In any event, *Dorr-Oliver, supra*, disposes of the issue. Plaintiff is, and always has been, the record owner of the copyright registrations and is the proper party to bring suit in this court. See also *Hedeman Prod. Corp. v. Tap-Rite Prod. Corp.*, 228 F. Supp. 630, 141 USPQ 381 (D. N.J. 1964).

The noninfringement defense

Defendant contends that its acts of copying do not violate the copyright owner's exclusive right "to copy" the copyrighted work as provided by 17 U.S.C. § 1. The argument is that with respect to books and periodicals, the act of making single copies (*i.e.*, one copy at a time) is not, in itself, sufficient to incur liability; that the "copying," to be actionable, must include "printing" (or "reprinting") and "publishing" of *multiple* copies of the copyrighted work. The argument is bottomed on analysis of the copyright laws as they have evolved from 1790 to the present.⁸ The early laws distin-

⁸ Congress enacted the first copyright statute in 1790 (Act of May 31, 1790, ch. 15, 1 Stat. 124). Thereafter, the statute was revised from time to time, notably in 1802, 1831, 1870, and 1891. In 1909, the present statute was passed (Act of March 4, 1909, ch. 320, 35 Stat. 1075) and later was codified as 17 U.S.C. (Act of July 30, 1947, 61 Stat. 652).

guished "copying" from "printing," "reprinting," and "publishing," and provided that the copyright in books is infringed by "printing," "reprinting" and "publishing" while the copyright in other works (*e.g.*, photographs, paintings, drawings, etc.) is infringed by "copying." The 1909 Copyright Act obliterated any such distinction. It provides in § 5 a list of all classes of copyrightable subject matter (including books and periodicals), and says in § 1 that the owner of copyright shall have the exclusive right "to print, reprint, publish, copy and vend *the copyrighted work*" [emphasis supplied]. Thus, the 1909 Act, unlike the earlier statutes, does not expressly say which of the proscribed acts of § 1 apply to which classes of copyrightable subject matter of § 5. Defendant says that to be consistent with the intent and purpose of earlier statutes, the "copying" proscription of § 1 should not apply to books or periodicals; rather, only the proscribed acts of "printing," "reprinting" and "publishing" should apply to books and periodicals.

Defendant's argument is not persuasive and, in any event, is irrelevant. It is clear from a study of all the copyright statutes from 1790 to date that what Congress has sought to do in every statute is to proscribe unauthorized *duplication* of copyrighted works. The words used in the various statutes to define infringing acts (*i.e.*, printing, reprinting, copying, etc.) were simply attempts to define the then-current means by which duplication could be effected. It is reasonable to infer that in 1909, when Congress included "copying" in the list of proscribed acts applicable to books and periodicals (as well as copyrightable subject matter in general), it did so in light of the fact that new technologies (*e.g.*, photography) made it possible to duplicate books and periodicals by means other than "printing" and "reprinting." The legislative history of the 1909 Act says little, one way or the other, about the matter.⁹ Nevertheless, §§ 1 and 5 are plain and unambiguous on their face; and the Supreme Court held as recently as 1968, in *Fortnightly Corp.*, *supra* note 3, at 394:

⁹ H.R. Rep. No. 2222, 60th Cong., 2d Sess. 4 (1909) states:

Subsection (a) of section 1 adopts without change the phraseology of section 4952 of the Revised Statutes, and this, with the insertion of the word "copy," practically adopts the phraseology of the first copyright act Congress ever passed—that of 1790. Many amendments of this were suggested, but the committee felt that it was safer to retain without change the old phraseology which has been so often construed by the courts.

* * * § 1 of the [Copyright] Act enumerates several "rights" that are made "exclusive" to the holder of the copyright. If a person, without authorization from the copyright holder, puts a copyrighted work to a use *within the scope of one of these "exclusive rights,"* he infringes the copyright. [Emphasis supplied.]

See also the Register's Report, wherein it is noted at 21-22:

* * * as several courts have observed, the right embraced in the repetitive terms of section 1 (a) is the two-fold right to make and publish copies.

This right is the historic basis of copyright and pertains to *all* categories of copyrighted works. * * * [Emphasis supplied.]

The burden, therefore, is on defendant to show that Congress intended the statute to mean something other than what it plainly says. Defendant has not carried that burden.

It is also pertinent that the courts have liberally construed the 1909 Act to take into account new technologies by which copyrighted works can be duplicated, and thus infringed. In *Fortnightly Corp.*, *supra* note 3, at 395-96, the Court, in dealing with copyright infringement relating to television, said:

In 1909, radio itself was in its infancy, and television had not been invented. *We read the statutory language of 60 years ago in the light of drastic technological change.* [Emphasis supplied.]

To the same effect is *Jerome H. Remick & Co. v. American Automobile Accessories Co.*, 5 F. 2d 411 (6th Cir. 1925), *cert. denied*, 269 U.S. 556, which stated at 411:

* * * the statute may be applied to new situations not anticipated by Congress, if, fairly construed, such situations come within its intent and meaning. Thus it has been held both in this country and England that a photograph was a copy or infringement of a copyrighted engraving under statutes passed before the photographic process had been developed. [citations omitted] While statutes should not be stretched to apply to new situations not fairly within their scope, they should not be so narrowly construed as to permit their evasion because of changing habits due to new inventions and discoveries.

Furthermore, defendant's argument that he may "copy," short of "printing," "reprinting" and "publishing," is irrelevant under the facts of this case. NLM and the NIH library did not merely "copy" the articles in suit; they, in effect, "reprinted" and "published" them. "Printing" and "reprint-

ing" connote making a duplicate original, whether by printing press or a more modern method of duplication. *Macmillan Co. v. King*, 223 F. 862 (D. Mass. 1914); M. NIMMER, COPYRIGHT § 102 (1971 ed.). "Publishing" means disseminating to others, which defendant's libraries clearly did when they distributed photocopies to requesters and users. *Macmillan Co., supra*; M. NIMMER, COPYRIGHT § 104 (1971 ed.).

Defendant's contention that its libraries make only "single copies" of journal articles, rather than multiple copies, is illusory and unrealistic. Admittedly, the libraries, as a general rule, make only one copy per request, usually for different users. But the record shows that the libraries duplicate particular articles over and over again, sometimes even for the same user within a short timespan. *E.g.*, the NIH library photocopied the Count I article three times within a 3-month period, two of the times for the same requester; and it copied the Count IV and Count V articles twice within a 2-month period, albeit for different users. The record also shows that NLM will supply to requesters photocopies of the same article, one after the other, on consecutive days, even with knowledge of such facts. In short, the libraries operate comprehensive duplication systems which provide every year thousands of photocopies of articles, many of which are copies of the same article; and, in essence, the systems are a reprint service which supplants the need for journal subscriptions. The effects of this so-called "single copying" practice on plaintiff's legitimate interests as copyright owner are obvious. The Sophar and Heilprin report, at 16, puts it in terms of a colorful analogy: "Babies are still born one at a time, but the world is rapidly being overpopulated."

Finally, and in any event, there is nothing in the copyright statute or the case law to distinguish, in principle, the making of a single copy of a copyrighted work from the making of multiple copies. The first copyright statute (Act of 1790) provided in § 2 that it was infringement to make "any copy or copies" [emphasis supplied] of a copyrighted work. Nothing in the later statutes or their legislative histories suggests that Congress intended to change that concept. And the courts have held that duplication of a copyrighted work, even to make a single copy, can constitute infringement. *White-Smith Music Co. v. Apollo Co.*, 209 U.S. 1, 16-17 (1908); *Patterson v. Century Productions, Inc.*, 93 F. 2d 489, 493, 35 USPQ 471, 475 (2d Cir. 1937), *cert. denied*, 303 U.S. 655

(1938); *Greenbie v. Noble*, 151 F. Supp. 45, 63, 113 USPQ 115, 128 (S.D. N.Y. 1957).

The "fair use" defense

Defendant contends that its copying comes under the doctrine of "fair use" of copyrighted works. "Fair use," a judicially-created doctrine, is a sort of "rule of reason" applied by the courts as a defense to copyright infringement when the accused infringing acts are deemed to be outside the legitimate scope of protection afforded copyright owners under 17 U.S.C. § 1. What constitutes "fair use" cannot be defined with precision. Much has been written about the doctrine, particularly its rationale and scope. See, e.g., A. LATMAN, FAIR USE OF COPYRIGHTED WORKS, STUDY NO. 14, COPYRIGHT LAW REVISION, STUDIES PREPARED FOR SENATE COMM. ON THE JUDICIARY, 86th Cong., 2d Sess. (1960); Comment, *Copyright Fair Use—Case Law and Legislation*, 1969 DUKE L.J. 73; S. COHEN, FAIR USE AND THE LAW OF COPYRIGHT, ASCAP COPYRIGHT LAW SYMPOSIUM (No. 6) 43 (1955); W. Jensen, *Fair Use: As Viewed by the "User,"* 39 DICTA 25 (1962); L. Yankwich, *What Is Fair Use?*, 22 U. CHI. L. REV. 203 (1954); Note, *Fair Use: A Controversial Topic in the Latest Revision of Our Copyright Law*, 34 U. CIN. L. REV. 73 (1965); M. NIMMER, COPYRIGHT § 145 (1971 ed.); SOPHAR & HEILPRIN REPORT at 15; R. HEEDHAM, TAPE RECORDING, PHOTOCOPYING AND FAIR USE, ASCAP COPYRIGHT LAW SYMPOSIUM (No. 10) 75 (1959); Crossland, *The Rise and Fall of Fair Use: The Protection of Literary Materials Against Copyright Infringement by New and Developing Media*, 20 S. CAR. L. REV. (1968). Some courts have held that the doctrine is but an application of the principle *de minimis non curat lex* and, as plaintiff puts it, "comes into play only when a relatively small amount of copying takes place." Principal factors considered by the courts in deciding whether a particular use of a copyrighted work is a "fair use" are (a) the purpose of the use, (b) the nature of the copyrighted work, (c) the amount and substantiality of the material used in relation to the copyrighted work as a whole, and (d) the effect of the use on a copyright owner's potential market for his work.¹⁰ While these criteria are interrelated and may

¹⁰ H.R. Rep. No. 83, 90th Cong., 1st Sess. (1967), which relates to revision of the copyright laws, notes that these factors are the ones used by the courts. At 20-37, there is a detailed discussion of "fair use" as applicable to photocopying for educational purposes.

vary in relative significance, the last one, *i.e.*, the competitive character of the use, is often the most important. *E.g.*, it has been held "fair use" to copy excerpts from literary works for purposes of criticism or review (*Loew's, Inc. v. CBS, Inc.*, 131 F. Supp. 165, 105 USPQ 302 (S.D. Cal. 1955), *aff'd sub nom. Benny v. Loew's, Inc.*, 239 F. 2d 532, 112 USPQ 11 (9th Cir. 1956), *aff'd by an equally divided Court*, 356 U.S. 43 (1958)); or to copy portions of scholarly works (*Greenbie v. Noble, supra*; *Holdredge v. Knight Publishing Corp.*, 214 F. Supp. 921, 136 USPQ 615 (S.D. Cal. 1963)). However, it is not "fair use" to copy substantial portions of a copyrighted work when the new work is a substitute for, and diminishes the potential market for, the original. *Hill v. Whalen & Martell, Inc.*, 220 F. 359 (S.D.N.Y. 1914); *Folson v. Marsh*, 9 F. Cas. 343 (D. Mass. 1841). And it has been held that wholesale copying of a copyrighted work is never "fair use" (*Leon v. Pacific Tel. & Tel. Co.*, 91 F. 2d 484, 34 USPQ 237 (9th Cir. 1937); *Public Affairs Associates, Inc. v. Rickover*, 284 F. 2d 262, 127 USPQ 231 (D.C. Cir. 1960), *vacated and remanded*, 369 U.S. 111 (1962)), even if done to further educational or artistic goals and without intent to make profit. *Wihtol v. Crow*, 309 F. 2d 777, 135 USPQ 385 (8th Cir. 1962).

Whatever may be the bounds of "fair use" as defined and applied by the courts, defendant is clearly outside those bounds. Defendant's photocopying is wholesale copying and meets none of the criteria for "fair use." The photocopies are exact duplicates of the original articles; are intended to be substitutes for, and serve the same purpose as, the original articles; and serve to diminish plaintiff's potential market for the original articles since the photocopies are made at the request of, and for the benefit of, the very persons who constitute plaintiff's market. Defendant says, nevertheless, that plaintiff has failed to show that it has been harmed by unauthorized photocopying; and that, in fact, plaintiff's journal subscriptions have increased steadily over the last decade. Plaintiff need not prove actual damages to make out its case for infringement. *Macmillan Co., supra*. Section 1498 of title 28 U.S.C. provides for payment of "reasonable and entire compensation * * * including minimum statutory damages as set forth in section 101(b) of title 17, United States Code." See *Brady v. Daly*, 175 U.S. 148 (1899); *F. W.*

Woolworth & Co. v. Contemporary Arts, Inc., 344 U.S. 228 (1952). M. NIMMER, COPYRIGHT § 154 (1971 ed.). Moreover, damage may be inferred in this case from the fact that the photocopies are intended to supplant the original articles. While it may be difficult (if not impossible) to determine the number of subscription sales lost to photocopying, the fact remains that each photocopy user is a potential subscriber, or at least is a potential source of royalty income for licensed copying. Plaintiff has set up a licensing program to collect royalties for photocopying articles from its journals; and among the licensees have been libraries, including a Government library.¹¹ Also, there is evidence that one subscriber canceled a subscription to one of plaintiff's journals because the subscriber believed the cost of photocopying the journal had become less than the journal's annual subscription price; and another subscriber canceled a subscription, at least in part because library photocopies were available. Loss of subscription (or photocopying royalty) income is particularly acute in the medical journal field. The record shows that printing preparation costs are 50-65 percent of total cost of publication and that the number of subscriptions is relatively small. This simply means that any loss of subscription sales (or royalty income) has the effect of spreading publication costs over fewer copies, thus driving up steeply the unit cost per copy and, in turn, subscription prices. Higher subscription prices, coupled with cheap photocopying, means probable loss of subscribers, thus perpetuating a vicious cycle which can only bode ill for medical publishing.

Defendant's amici fear that a decision for plaintiff will be precedent, for plaintiff's seeking injunctions against non-Government libraries, pursuant to 17 U.S.C. § 101(a), thereby interfering with the free flow of technical and scientific information through library photocopying. On the basis of this record and representations made by plaintiff's personnel and counsel, that fear does not appear to be justified. Plain-

¹¹ There is no agreement, even among libraries and Government agencies, of what constitutes "fair use" in institutionalized photocopying. The Library of Congress will not photocopy copyrighted materials without permission of the copyright owners. Many other libraries follow the General Interlibrary Loan Code and engage in "single copy" photocopying. The U.S. Office of Education, through its Education Resources Information Center (ERIC) makes available current educational and research-related materials. ERIC will not copy copyrighted materials without permission of the copyright owner. See Sophar and Hellprin report at 39-46.

tiff does not seek to *enjoin* any photocopying of its journals. Rather, it merely seeks a reasonable royalty therefor.¹² Its licensing program would so indicate for, as far as the record shows, plaintiff will grant licenses to anyone at a reasonable royalty. No doubt, plaintiff would prefer that all of its journal users be subscribers. However, plaintiff recognizes that this is unrealistic. Some articles in its journals are in greater demand than others, and many journal users will not consider it economically justifiable to subscribe to a journal simply to get access to a few articles. Implicit in plaintiff's licensing program, therefore, is the idea that it is in the best interest of all concerned that photocopying proceed without injunction, but with payment of a reasonable fee. That would appear to be a logical and commonsense solution to the problem, not unlike the solution provided by the American Society of Composers, Authors and Publishers (ASCAP) and Broadcast Music, Inc. (BMI) in the field of music and the performing arts. For a description of how ASCAP and BMI operate in a context similar to this one, see *Hearings on H.R. 4347 and other bills before Subcomm. No. 3, House Comm. on the Judiciary, 84th Cong., 1st Sess. 194, 203 (1965)*; Finkelstein, *ASCAP as an Example of the Clearing House System in Operation*, 14 COPYRIGHT SOC'Y BULL. 2 (1966).

Defendant says that photocopying by NLM and the NIH library is "reasonable and customary" because it complies with a longstanding practice of libraries to supply photocopies of parts of scientific works to persons engaged in scholarly research, and is consistent with the terms of the "gentlemen's agreement," earlier noted. The "gentlemen's agreement," drafted in 1935, was the product of meetings and discussions between representatives of the book publishing industry and libraries. The representatives were interested in working out a practical accommodation of the conflict

¹² In his opening statement at trial, plaintiff's counsel said (emphasis supplied):

The case has nothing to do with the stopping of photocopying. The Commissioner knows that an injunction is not available in this court, nor is plaintiff, in any case, seeking to curtail this use of its articles.

Similarly, William M. Passano, plaintiff's Chairman of the Board, stated in a hearing before a Senate committee:

We feel that it is unrealistic and not in the public interest to consider restricting in any way the use of photocopying devices. They serve a useful purpose in the dissemination of knowledge. Since we, as publishers, are in that business, we certainly don't want to see the spread of knowledge curtailed.

To us the only solution to the problem is a simple system of royalty payments with a minimum of red tape. * * * [Hearings on Copyright Law Revision before the Patents, Trademarks and Copyrights Subcomm. of the Senate Comm. on the Judiciary, 90th Cong., 1st Sess. 976 (1967).]

between (a) the legitimate interests of copyright owners not to have their works copied without compensation and (b) the needs of scholars and research workers for copies of parts of copyrighted works for private use in pursuit of literary or scientific investigation. The "agreement" was, in effect, a promise by the book publishers not to interfere with library photocopying under three conditions: (i) the library must warn the person for whom the photocopy is made that he is liable for any copyright infringement by misuse (presumably by making further photocopies), (ii) the photocopying must be done without profit to the library, and (iii) the amount copied must not be so substantial as to constitute an infringement. The third condition is implicit in the "agreement" which says:

While the right of quotation without permission is not provided in law, the courts have recognized the right to a "fair use" of book quotations, the length of a "fair" quotation being dependent upon the type of work quoted from and the "fairness" to the author's interest. *Extensive quotation is obviously inimical to the author's interest. * * * It would not be fair to the author or publisher to make possible the substitution of the photostats for the purchase of a copy of the book itself either for an individual library or for any permanent collection in a public or research library. Orders for photocopying which, by reason of their extensiveness or for any other reasons, violate this principle should not be accepted.* [Emphasis supplied.]

The "gentlemen's agreement" does not have, nor has it ever had, the force of law with respect to what constitutes copyright infringement or "fair use." So far as this record shows, the "agreement" has never been involved in any judicial proceedings. Nevertheless, the "agreement" is entitled to consideration as a guide to what book publishers and libraries considered to be "reasonable and customary" photocopying practices in the year 1935. It has little significance, however, to this case. The agreement was drafted on behalf of a book publishers' organization which is now defunct and to which plaintiff never belonged. In fact, it appears that no periodical publishers were represented in the organization at the time the agreement was drafted; and, consequently, the "agreement" cannot speak for their interests or problems. See the Varmer study at 51, n. 9. Furthermore, the "agreement" was drafted at a time when photocopying was rela-

tively expensive and cumbersome; was used relatively little as a means of duplication and dissemination; and posed no substantial threat to the potential market for copyrighted works. Beginning about 1960, photocopying changed character. The introduction to the marketplace of the office copying machine made photocopying rapid, cheap and readily available. The legitimate interests of copyright owners must, accordingly, be measured against the changed realities of technology. Professor Nimmer in his treatise *COPYRIGHT* capsules the point at 653 :

Both classroom and library reproduction of copyrighted materials command a certain sympathy since they involve no commercial exploitation and more particularly in view of their socially useful objectives. *What this overlooks is the tremendous reduction in the value of copyrighted works which must result from a consistent and pervasive application of this practice.* One who creates a work for educational purposes may not suffer greatly by an occasional unauthorized reproduction. But if every school room or library may by purchasing a single copy supply a demand for numerous copies through photocopying, mimeographing or similar devices, the market for copyrighted educational materials would be almost completely obliterated. This could well discourage authors from creating works of a scientific or educational nature. If the 'progress of science and useful arts' is promoted by granting copyright protection to authors, such progress may well be impeded if copyright protection is largely undercut in the name of fair use. [Emphasis supplied.]

In any event, the "gentlemen's agreement" by its own terms condemned as "not * * * fair" the making of photocopies which could serve in "substitution" for the original work, and further noted that "[o]rders for photo-copying which, by reason of their extensiveness or for any other reasons" could serve as duplicates of the original copyrighted work "should not be accepted." Thus, the most that can be said for the "gentlemen's agreement" is that it supported (and probably still supports) the proposition that it is "reasonable and customary" (and thus "fair use") for a library to photocopy for a patron a part of a book, or even part of a periodical article, such as a chart, graph, table, or the like, so long as the portion copied is not practically a substitute for the entire original work. Other instances of library photocopying may also be "fair use." *E.g.*, a library no doubt can replace dam-

aged pages of copyrighted works in its collection with photocopies; can make a small number of photocopies for in-house administrative purposes, such as cutting up for cataloging or the like; or can supply attorneys or courts with single photocopies for use in litigation. In all those instances, and probably many more which might come to mind on reflection, the rights of the copyright owner are not materially harmed. The doctrine of "fair use" and the "gentlemen's agreement," however, cannot support wholesale copying of the kind here in suit.¹³

Defendant also contends that traditionally, scholars have made handwritten copies of copyrighted works for use in research or other scholarly pursuits; that it is in the public interest that they do so because any harm to copyright owners is minimal compared to the public benefits derived therefrom; and that the photocopying here in suit is essentially a substitute for handcopying by the scholars themselves. That argument is not persuasive. In the first place, defendant concedes that its libraries photocopy substantially more material than scholars can or do copy by hand. Implicit in such concession is a recognition that laborious handcopying and rapid machine photocopying are totally different in their impact on the interests of copyright owners. Furthermore, there is no case law to support defendant's proposition that the making of a handcopy by scholars or researchers of an *entire* copyrighted work is permitted by the copyright laws. Certainly the statute does not expressly permit it; and no doubt the issue has never been litigated because, as a practical matter, such copying is *de minimis* and causes no real threat to the copyright owner's legitimate right to control duplication and dissemination of copyrighted works. The photocopying done by NLM and the NIH library, on the other hand, poses a real and substantial threat to copyright owners' legitimate interests. Professor Nimmer discusses the point succinctly, at 653-54 of his treatise, and his language can hardly be improved upon:

It may be argued that library reproduction is merely a more modern and efficient version of the time-honored practice of scholars in making handwritten copies of

¹³ The potential pernicious effects of modern, institutionalized photocopying of copyrighted works (particularly journal articles) in the name of "fair use" is discussed at length in the Sophar and Hellprin report. The authors, at 24, characterize wholesale copying by libraries as "a non-violent form of civil disobedience."

copyrighted works, for their own private use. In evaluating this argument several factors must be considered. In the first place, the drudgery of making handwritten copies probably means that such copies in most instances are not of the complete work, and the quantitative insignificance of the selected passages are such as generally not to amount to a *substantial* similarity. Secondly, there would appear to be a qualitative difference between each individual scholar performing the task of reproduction for himself, and a library or other institution performing the task on a wholesale basis for all scholars. If the latter is fair use, then must not the same be said for a non-profit publishing house that distributes to scholars unauthorized copies of scientific and educational works on a national or international basis? Finally, it is by no means clear that the underlying premise of the above argument is valid.

There is no reported case on the question of whether a single handwritten copy of all or substantially all of a protected work made for the copier's own private use is an infringement or fair use. If such a case were to arise the force of custom might impel a court to rule for the defendant on the ground of fair use. Such a result, however, could not be reconciled with the rationale for fair use suggested above since the handwritten copy would serve the same function as the protected work, and would tend to reduce the exploitation value of such work. Moreover, if such conduct is defensible then is it not equally a fair use for the copier to use his own photocopying or other duplicating device to achieve the same result? Once this is acknowledged to be fair use, the day may not be far off when no one need purchase books since by merely borrowing a copy from a library any individual will be able to make his own copy through photocopying or other reproduction devices which technological advances may soon make easily and economically available.

To the same effect is a statement in the Varmer study at 62-63:

It has long been a matter of common practice for individual scholars to make manual transcriptions of published material, though copyrighted, for their own private use, and this practice has not been challenged. Such transcription imposed its own quantitative limitations; and in the nature of the event, it would not be feasible for copyright owners to control private copying and use. But reproduction for private use takes on different dimensions when made by modern photocopying devices capable of reproducing quickly any volume of material in any number of copies, and when

copies are so made to be supplied to other persons. Publisher's copies are bought for the private use of the buyer, and in some circumstances a person supplying copies to others will be competing with the publisher and diminishing his market.

Not only is such competition unfair to the publisher and copyright owner, but it may be injurious to scholarship and research. Thus, it has been pointed out that widespread photocopying of technical journals might so diminish the volume of subscriptions for the journals as to force the suspension of their publication.

Also, the Register's Report notes at 25-26:

Researchers need to have available, for reference and study, the growing mass of published material in their particular fields. This is true especially, though not solely, of material published in scientific, technical, and scholarly journals. Researchers must rely on libraries for much of this material. When a published copy in a library's collections is not available for loan, which is very often the case, the researcher's need can be met by a photocopy.

On the other hand, the supplying of photocopies of any work to a substantial number of researchers may diminish the copyright owner's market for the work. Publishers of scientific, technical, and scholarly works have pointed out that their market is small; and they have expressed the fear that if many of their potential subscribers or purchasers were furnished with photocopies, they might be forced to discontinue publication.

Finally, defendant says that it is unconstitutional to construe the copyright law so as to proscribe library photocopying of scientific or technical writings because such photocopying is consonant with the constitutional purpose of copyright "to promote the progress of science." That argument misses the mark. Article I, section 8, clause 8, of the U.S. Constitution grants to Congress the "Power * * * To Promote the Progress of Science * * * by securing for limited Times to Authors * * * the exclusive Right to their * * * Writings * * *." The word "Science" is used in the sense of general knowledge rather than the modern sense of physical or biological science. See Rich, *Principles of Patentability*, 28 GEO. WASH. L. REV. 393, 394-97 (1960); H.R. REP. No. 1923, 82d Cong., 2d Sess. 4 (1952); S. REP. No. 1979, 82d Cong., 2d Sess. 3 (1952). Congress has exercised its constitutional power by enacting, and revising from time to time, copyright statutes which are the method of, and provide a *system* for, achieving the constitu-

tional purpose. The system "promotes progress" by encouraging authors to write and publicly disclose their writings; by inducing publishers and entrepreneurs to invest risk capital in the dissemination of authors' writings; and by requiring other authors to create new writings, rather than plagiarize the old, all of which is in the public interest. *Mazer v. Stein*, 347 U.S. 201, 219 (1954), *rehearing denied*, 347 U.S. 949. Congress has broad discretion under the Constitution to prescribe the conditions under which copyright will be granted, the only express restriction being that any "exclusive right" must be for a "limited time." Nothing in the present statute, its legislative history or the case law suggests that Congress intended to exempt libraries or others from liability for wholesale copying of copyrighted works, whatever be the purpose or motivation for the copying. What defendant really appears to be arguing is that the copyright law *should* excuse libraries from liability for the kind of photocopying here in suit. That, of course, is a matter for Congress, not the courts, to consider for it involves questions of public policy aptly suited to the legislative process. In an analogous context in *Fortnightly Corp.*, *supra*, Justice Fortas noted at 408:

The task of caring for CATV is one for the Congress. Our ax, being a rule of law, must cut straight, sharp, and deep; and perhaps this is a situation that calls for the compromise of theory and for the architectural improvisation which only legislation can accomplish.

See also White-Smith Music Co., *supra*, where the Court noted at 18, that "considerations [of what the copyright laws should provide] properly address themselves to the legislative and not the judicial branch of the Government."¹⁴

The license defense

Defendant says it is licensed to copy the Count I, IV, V, and VI articles—by express license with respect to the Count I article and by implied license with respect to the Count IV, V and VI articles. The articles state on their faces that the research work therein reported was supported, at least in

¹⁴ There has been no dearth of activity to revise the 1909 Copyright Act. Some of that activity relates to library photocopying problems. See, e.g., Hearings on H.R. 4347 and other bills before Subcomm. No. 3, House Comm. on the Judiciary, 84th Cong., 1st Sess. 448, 459, 1133 (1965); S. 597, H.R. 2512, 90th Cong., 1st Sess. (1967); S. 543, 91st Cong., 1st Sess. (1969); S. Rep. No. 91-1219, 91st Cong., 2d Sess. 5 (1970); S. 644, 92d Cong., 1st Sess. (1971). For a brief history of legislative activity directed toward revision of the 1909 Copyright Act, see *Fortnightly Corp.*, *supra* at 396 n. 17; UCLA Project at 931-38.

part, by grants from defendant's Public Health Service. By way of background, the Public Health Service, through its Division of Research Grants, has for many years made grants-in-aid of public funds to physicians and scientists engaged in medical research. The grants are characterized by the Public Health Service as "conditional gifts" and are made annually on the basis of research proposals submitted to the Public Health Service by prospective grantees. Once a grant is made, the grantee is free to use the funds as he sees fit. The grantees are not Government employees nor are they in the service of the United States, and the Public Health Service does not supervise the research work. Typically, grantees use the funds to purchase equipment and supplies, pay salaries of technicians, pay travel expenses, and the like. From time to time, the Division of Research Grants issues policy statements setting out the conditions of the grants, including the rights and responsibilities of grantees with respect to patent and copyright matters. All grants are awarded subject to the express patent and copyright policy in effect at the time of the grant, unless the Public Health Service indicates otherwise.

Prior to July 1, 1965, it was the express policy of the Public Health Service not to reserve to the Government any rights in copyrighted publications stemming from grant-funded research. The policy statement in effect between 1956 and 1959 said that when a grant was made "without condition," any "books or related matter" could be "published privately" and the author was free to make arrangements with a publisher "*as if the Government had not contributed support.*" [Emphasis supplied.] Subsequent policy statements, issued in 1959 and 1963, though worded differently, were to the same effect and continued the earlier policy. Then, on July 1, 1965, the policy was modified. For all grants awarded after that date, the Government reserved a royalty-free license to "reproduce * * * translate * * * publish * * *, use and dispose of" any copyrighted publications resulting from "work supported by the Public Health Service." Grantees were still free, however, to arrange for publication and copyright, in the first instance, without approval of the Public Health Service.

The Count I article was coauthored by Dr. Victor A. McKusick who for many years received Public Health Service

funds to support his research. The article reports the results of research work supported in part by such funds and in part by private funds. The manuscript for the article was submitted to the editor of *Medicine* on August 19, 1964, but was not published until December 9, 1965. Between those dates, the manuscript was edited and augmented from time to time. Defendant contends that the article reports research work done under Public Health Service funds awarded after July 1, 1965; and that consequently, the Government has an express license to copy the article pursuant to the Public Health Service's post-July 1, 1965 copyright policy.

The record does not support defendant. The evidence shows that between August 19, 1964 and mid-1965, the authors made minor changes in the manuscript to reflect continuing research on the project reported in the manuscript. However, after mid-1965 (*i.e.*, July 1, 1965), no substantive changes were made in the manuscript. Any changes made were, at most, editorial in nature. Accordingly, defendant has failed to show that the Count I article reports research work done with Government funds granted after July 1, 1965; and the Government does not have an express license to copy the article.

There remains to decide whether the Government is impliedly licensed to copy the Count IV, V and VI articles,¹⁵ published in the *Journal of Immunology* in August 1965. The manuscripts were received by the publisher in December 1964. Defendant does not contend that the articles report research work done under funds awarded by the Public Health Service after July 1, 1965, and therefore does not contend that the Government has an express license to copy. Rather, defendant says that it has an implied license to copy because the Government provided "substantial funds * * * to the authors of the articles, to support the very research work reported in these articles," and that a license to copy should be implied on "general equitable principles to avoid injustice."

In another but analogous context, this court has held that when the Government provides funds to contractors for research and development, it is entitled to a license to use any inventions resulting therefrom, even in the absence of an express patent license clause in the contract. *Ordinance*

¹⁵ Though not urged by defendant, its arguments for implied license apply equally to the Count I article.

Eng'r Corp. v. United States, 68 Ct. Cl. 301, 353 (1929); *Mine Safety Appliances Co. v. United States*, 176 Ct. Cl. 777, 789, 364 F. 2d 385, 392, 150 USPQ 453, 459 (1966). This court has also held that it will liberally construe patent license clauses in Government research and development contracts so as to grant to the Government licenses to use inventions developed thereunder. *AMP Inc. v. United States*, 182 Ct. Cl. 86, 389 F. 2d 448, 156 USPQ 647 (1968), *cert. denied*, 391 U.S. 964. However, an implied license to use patented inventions will not be found when a contract contains express language to the contrary. *Eastern Rotorcraft Corp. v. United States*, 181 Ct. Cl. 299, 384 F. 2d 429, 155 USPQ 729 (1967). Similarly, if the Government has an established policy limiting its rights in proprietary property, that policy will not be overridden retroactively, even on equitable grounds. *Tektronix, Inc. v. United States*, 173 Ct. Cl. 281, 351 F. 2d 630, 147 USPQ 216 (1965).

This case, of course, is fundamentally different from patent license cases because the Public Health Service grants, being "conditional gifts," are not contracts in the same sense as Government supply contracts or research and development contracts. Nevertheless, the rationale applicable to patent license cases would appear sound here because the grants are made subject to compliance by grantees with express conditions and policies of the Government, through the Public Health Service. Viewed in that light, defendant cannot prevail. The Public Health Service had an established and express policy, prior to July 1, 1965, under which it reserved neither title to, nor any rights whatsoever in, publications stemming from Public Health Service grants. Copyright matters were to be dealt with "as if the Government had not contributed support." It is hard to conceive of language which more plainly disclaims any reservation of rights to the Government. After July 1, 1965, the Public Health Service expressly changed its policy; and no doubt the Government is licensed to copy, without royalty, publications stemming from awards granted thereafter. In sum, defendant has neither an express nor implied license to copy the Count I, IV, V, and VI articles.

It is pertinent to note that resolution of this issue in plaintiff's favor should be of minor practical consequence to the Government's future copying of articles stemming from Pub-

lic Health Service-funded research. The Sophar and Heilprin report found that 85 percent of the material photocopied by U.S. libraries is less than 5 years old, and 90 percent is less than 10 years old. Since the Public Health Service's express license policy is nearly 7 years old, most of the Government's prospective copying (as well as its copying for the past year or so) of articles stemming from grant-funded research, will be of articles which resulted from grants awarded subsequent to July 1, 1965, and will therefore be royalty-free.

III

Several other points raised by the parties merit comment. Defendant notes that the National Library of Medicine Act by which NLM was created (42 U.S.C. § 275, *et seq.*) provides at § 276(4) that the Secretary of Health, Education, and Welfare, through NLM, shall "make available, through loans, photographic or other copying procedures or otherwise, such materials in the Library as he deems appropriate * * *"; and that the Medical Library Assistance Act of 1965 (42 U.S.C. § 280b-1, *et seq.*) provides that grants be made to medical libraries for, among other things, "acquisition of duplicating devices, facsimile equipment * * * and other equipment to facilitate the use of the resources of the library." 42 U.S.C. 280b-7. Defendant suggests that by those statutory provisions Congress intended to exempt NLM and other grantee libraries from the copyright laws. As defendant puts it, " * * * the only reasonable interpretation [of the statutes] is that Congress knew that fair use would exempt such libraries from copyright infringement in the established use by libraries of such [photocopy] equipment." There is no merit to this. Nothing in the statutes or their legislative histories says anything about the copyright laws, and it cannot be inferred that Congress intended the statutes to be in derogation of the copyright laws, absent an express indication to the contrary.¹⁶ See generally, E. CRAWFORD, STATUTORY CONSTRUCTION § 227 (1940). No court has ever held that "fair use" applies to library wholesale photocopying; nor has there been a uniform and unchallenged policy among libraries and other institutionalized photocopyers on the bounds of "fair

¹⁶ H.R. Rep. No. 941, 84th Cong., 2d Sess. (1956); S. Rep. No. 2071, 84th Cong., 2d Sess. (1956); H.R. Rep. No. 1026, 89th Cong., 1st Sess. (1965); S. Rep. No. 756, 89th Cong., 1st Sess. (1965).

use." See note 11. Thus, it makes no sense to impute to Congress an intent for which there is no sound basis in judicial decision, or otherwise. The fact that the statutes authorize the libraries to make use, generally, of photocopying equipment and procedures, is not controlling or even very significant. Much material in library collections is either not copyrighted or is material on which the copyright has expired; and in either event, the material is in the public domain and can be freely copied.

Furthermore, the record shows that NLM, from the beginning, has been concerned about complying with the copyright laws and has never considered itself exempt therefrom. In 1957, NLM's Board of Regents discussed the library's photocopying practices and deemed them to create vexing copyright infringement problems. The Director of NLM was of the opinion that "sooner or later" the problems would bring "a test of the issue in the courts."

Defendant suggested at trial that payment of compensation to plaintiff for photocopying its journals would create a continuing undue and oppressive administrative and financial burden on NLM and the NIH library. Defendant has not pressed the point in its brief, perhaps because it is clear that plaintiff's right to compensation under 28 U.S.C. § 1498(b) cannot depend on the burdens of compliance. Nevertheless, defendant's point merits comment since courts should be mindful of the practical consequences of their decisions. Based on this record, defendant's fears are not justified. Both NLM and the NIH library already have administrative procedures by which they keep detailed records of photocopying. Both libraries require that written request slips be submitted by requesters of photocopies. The slips are a permanent record of the journals and pages photocopied. It would seem a routine, albeit tedious, matter to cull from those records the information necessary to calculate a reasonable royalty on the basis of the number of articles copied, or perhaps to come up with an acceptable formula for establishing a blanket annual royalty payment. Indeed, the evidence suggests that this is so. In 1967, NLM temporarily stopped photocopying articles from plaintiff's journals, as a result of plaintiff's charge of copyright infringement and requests for a reasonable royalty. NLM was able, as a practical matter, to flag all requests for photocopies from plaintiff's

journals from April 27, 1967 to May 29, 1967, in order to refrain from copying them. On about May 29, 1967, photocopying was resumed and was monitored for about 90 days. Satisfied that the 90-day period was a representative sample, NLM found that it would have paid plaintiff about \$250-\$300 if it had acceded to plaintiff's request for royalty payment. The Director of NLM testified that, in his opinion, this was "a very small sum—surprisingly small sum." Similarly, the NIH librarian testified that payment of royalties for photocopying "has nothing to do with the operation of the library in the fulfillment of * * * [its] function. It is an economic and budgetary consideration and not a service-oriented kind of thing."

Nor does it appear that payment of royalties to other publishers will create an undue or oppressive administrative burden. The Sophar and Heilprin report notes, at 58-60, that based on a study of the photocopying practices of U.S. libraries, less than 1,000 publishers provide the material photocopied by libraries, and that about 5 percent of that number provide about 40 percent of the material copied. This simply means that nearly half of the materials photocopied emanate from about 50 publishers. No doubt, the materials photocopied by NLM and the NIH library come from an even smaller number of publishers since those libraries are highly specialized. In any event, by using modern management practices including computers and the like, it would appear that NLM and the NIH library can, with minimum disruption, cope with the necessary recordkeeping.¹⁷

¹⁷ It has been suggested that there be established a clearinghouse for access, permissions and payments for photocopying of copyrighted materials. The clearinghouse would relieve institutional copiers of the burdens of royalty distribution and might also be instrumental in setting up blanket royalty arrangements, thus relieving the institutions from most recordkeeping requirements. See, e.g., the Sophar and Heilprin report at 82. The clearinghouse concept has also been alluded to in a congressional report:

* * * Despite past efforts, reasonable arrangements involving a mutual understanding of what generally constitutes acceptable library practices, and providing workable clearance and licensing conditions, have not been achieved and are overdue. The committee urges all concerned to resume their efforts to reach an accommodation under which the needs of scholarship and the rights of authors would both be respected. [Emphasis supplied.] [H.R. Rep. No. 83, 90th Cong., 1st Sess. 36 (1967).]

And it is interesting that Sophar and Heilprin found that librarians favored, two to one, the clearinghouse approach to the problem, even though many of those in favor "indicated a desire to settle an increasingly complex matter, rather than an enthusiastic approval of the idea." Sophar and Heilprin report, at p. v of the Summary.

Postscript: The issues raised by this case are but part of a larger problem which continues to plague our institutions with ever-increasing complexity—how best to reconcile, on the one hand, the rights of authors and publishers under the copyright laws with, on the other hand, the technological improvements in copying techniques and the legitimate public need for rapid dissemination of scientific and technical literature. The conflict is real; the solution not simple. Legislative guidelines seem appropriate.¹⁸ The Sophar and Heilprin report, at pp. viii-ix of the Summary, capsules the problem in a statement worth quoting:

From the viewpoint of the information scientist, copyright may appear as an impediment to the most efficient flow of information. It is apparently a blockage in an information system. Our early tendency was to oppose and try to limit the protection and control granted in copyright for the sake of efficiency. After careful analysis we no longer do.

There is a philosophical reason for not wanting to see copyright destroyed and there are a number of practical reasons. The philosophical reason is simply a belief that copyright is one of a number of ways in which our society expresses its belief and hope that an individual can continue his identity in a world of mass efforts by assuring the individual, his publisher or his association sufficient income from his ideas to maintain a degree of independence. The erosion of the economic value of copyright must lead to federal support of all kinds of writing and, of course, control.

The practical reasons flow from the philosophical reasons. Publishers, non-profit as well as commercial, will simply not be able to continue publishing under an eroded system. The scientific and other professional societies which, through their memberships, have done the most to develop information-handling tools and media are the ones most hurt by them. A means must be developed to assure payment to the copyright owner in return for

¹⁸In 1969, several bills were introduced in both the Senate and House to establish a National Commission on Libraries and Information Science. Also in 1969, H.R. 8809 was introduced to provide for a "National Science Research Data Processing and Information Retrieval System." See 1969 Register of Copyrights Annual Rep. 6. Earlier, in 1967, the Senate enacted S. 2216, 90th Cong., 1st Sess., by which there would be created a commission to study and compile data on the reproduction and use of copyrighted works. The House took no action on the bill.

unlimited and uncontrolled access to and duplication of the copyrighted work.

Our only concern and "vested interest" in copyright since we became interested in the problem "is to find a way to protect the 'exclusive Right' of an author to his 'Writings,' while permitting the advantages of modern information dissemination systems to become as useful as they may without weakening or threatening the economic urge and the need to create." We believe the two must become reconciled, not in the interests of compromise, but simply because both concepts are too valuable for either one to be permitted to severely harm or destroy the other.

FINDINGS OF FACT

1. This is a copyright suit under 28 U.S.C. § 1498(b). Plaintiff seeks reasonable and entire compensation for alleged infringement by the United States of certain copyrights in medical journals.

2. Plaintiff, The Williams & Wilkins Company, is a publisher located in Baltimore, Maryland. Though a relatively small company, plaintiff is one of the major publishers of medical journals in the United States. Plaintiff also publishes medical books. Plaintiff is a family-owned corporation, and its principal officers are William M. Passano and Charles O. Reville.

3. The Government agency accused of infringement is the Department of Health, Education, and Welfare, in particular the National Institutes of Health (NIH) and the National Library of Medicine (NLM). NIH and NLM are located in Bethesda, Maryland.

4. The petition was filed in this court on February 27, 1968, and was amended on July 23, 1970. The petition alleged infringement by reason of the Government's unauthorized photocopying of seven journal articles, identified below as Counts I to VII. The amended petition alleged infringement by reason of the Government's unauthorized photocopying of one journal article, identified below as Count VIII. The articles, and the journals in which they were published, are as follows:

Count	Article	Authors	Journal	Vol. Issue	Pages	Month	Year
I.	The Genetic Mucopolysaccharidoses	Victor A. McKusick, David Kaplan, David Wise, W. Brian Hanley, S. B. Suddarth, M. E. Sevicik, A. Edward Maumanees.	<i>Medicine</i>	44 6	445-463	Nov.	1965
II.	Supersensitivity and Subsensitvity to Sympathomimetic Amines.	Ulrich Trendelenburg	<i>Pharmacological Reviews</i>	15 2	225-276	June	1963
III.	Detection of Two Antibodies in Single Plasma Cells by the Paired Fluorescence Technique.	R. N. Hiramoto, M. Hamlin	<i>Journal of Immunology</i>	95 2	214-224	Aug.	1965
IV.	Fluorescent Antibody Staining	B. T. Wood, S. H. Thompson, G. Goldstein.	<i>Journal of Immunology</i>	95 2	225-229	Aug.	1965
V.	Chromatographic Purification of Tetramethylrhodamine-Immune Globulin Conjugates and Their Use in the Cellular Localization of Rabbit Gamma-Globulin Polypeptide Chains.	John J. Cebra, Gerald Goldstein.	<i>Journal of Immunology</i>	95 2	230-245	Aug.	1965
VI.	The Stability of Messenger Ribonucleic Acid in Anticancer Agents	Velta Lazda, Jason L. Starr.	<i>Journal of Immunology</i>	95 2	254-261	Aug.	1965
VII.	The Course of Non Specific Ulcerative Colitis: Review of Twenty Years Experience and Late Results.	Benjamin M. Banks, Burton I. Korelitz, Louis Zetzel.	<i>Gastroenterology</i>	32 6	983-1012	June	1957
VIII.	Occlusion of the Hepatic Veins in Man	R. G. F. Parker.	<i>Medicine</i>	38 4	389-402	Dec.	1959

5. (a) Plaintiff publishes 37 medical journals, all of which are copyrighted. Of these, 26 are published in conjunction with professional societies, with the copyright being owned by plaintiff in 13 of such journals and the societies owning the copyright in the remaining 13. The journal *Medicine* is published by plaintiff for its own benefit, *i.e.*, not in conjunction with a professional society. The journal *Pharmacological Reviews* is and has been published by plaintiff since 1909 in conjunction with the American Society for Pharmacology and Experimental Therapeutics. The *Journal of Immunology* is and has been published by plaintiff for about 50 years in conjunction with the American Association of Immunologists. The journal *Gastroenterology* is and has been published by plaintiff since 1946 in conjunction with the American Gastroenterological Association. The four journals above named are published with notice of copyright in plaintiff's name. Plaintiff has contracts with the above-noted professional societies, which contracts deal in part with copyright. Although there are differences in phraseology among the contracts, such differences have led to no problems in dealings between plaintiff and the societies with respect to copyright matters. So far as the record shows, the parties to the contracts consider it the responsibility of plaintiff to enforce the copyright by granting licenses or instituting appropriate lawsuits.

(b) The agreement relating to copyright between plaintiff and the American Society for Pharmacology and Experimental Therapeutics (ASPET), under which agreement *Pharmacological Reviews* is published, provides as follows:

* * * * *

5. COPYRIGHT. The Society is sole owner of the periodical but for the sake of convenience, copyright shall be taken out in the name of the Publisher. Procurement of copyright of each issue is the duty of the Publisher and the costs incident thereto shall be charged to the profit-and-loss account of the periodical. The Publisher may publish or permit others to publish excerpts from the periodical after publication but such excerpting shall not be so substantial as to interfere with the sale of the periodical.

* * * * *

10. REVERSION OF RIGHTS. In case of bankruptcy, assignment for benefit of creditors, or liquidation for any cause of the Publisher, or upon termination

of this Agreement for any cause stipulated herein, all rights conveyed under this Agreement by the Society to the Publisher shall revert to the Society forthwith.

* * * * *
 The agreement was in effect at all times here material. There is no evidence that ASPET objected to, acquiesced in, or was any way involved with, the bringing of this suit by plaintiff.

(c) The agreement relating to copyright between the American Association of Immunologists (AAI) and plaintiff, under which agreement the *Journal of Immunology* is published, provides as follows:

* * * * *
 5. **PROCUREMENT OF COPYRIGHT.** The Association is the owner of the periodical but for the convenience of both parties copyright shall be procured by and in the name of the Publisher, and the costs incident thereto shall be charged to the profit-and-loss account of the periodical. *The Association reserves the right to have the copyright assigned to the Association if at any time in the future this seems desirable.* [Emphasis supplied.]

* * * * *
 The agreement was in effect at all times here material. There is no evidence that AAI ever exercised its right to have assigned to it by plaintiff the ownership of any copyright registration in the *Journal of Immunology*. Nor is there evidence to show that AAI objected to, acquiesced in, or was any way involved with, the bringing of this suit by plaintiff.

(d) The agreement relating to copyright between the American Gastroenterological Association (AGA) and plaintiff, under which agreement *Gastroenterology* is published, provides as follows:

* * * * *
 (2) **COPYRIGHT.** The Association grants to the Publisher the exclusive right to copyright, in the name of the Publisher, and to renew such copyrights, all material published in the said Journal, and to publish the said work in all languages during the term of the copyright.

* * * * *
 The agreement has been in effect since 1942. There is no evidence that AGA objected to, acquiesced in, or was in any way involved with, the bringing of this suit by plaintiff.

6. (a) The Count I-to-Count VIII articles were published in their respective journals on or about the dates indicated in finding 4. The journals were published with a notice of copyright consisting of the word "Copyright," the symbol "©", the name "The Williams & Wilkins Company," and the year of publication affixed to the title page of, and elsewhere on, each journal. In due course, the Register of Copyrights issued to plaintiff, with respect to each of the journals, the following certificates of registration:

Journal	Certificate of Registration Number
<i>Medicine</i> , Vol. 44, No. 6.....	B 231973
<i>Pharmacological Reviews</i> , Vol. 15, No. 2.....	B 49574
<i>The Journal of Immunology</i> , Vol. 95, No. 2.....	B 216408
<i>Gastroenterology</i> , Vol. 32, No. 6.....	B 663158
<i>Medicine</i> , Vol. 38, No. 4.....	B 809926

(b) Only the issue of liability is now before the court; accounting, if any, is reserved for later proceedings. Defendant admits that at least one photocopy of each of the Count I-to-Count VIII articles was made by defendant's NIH or NLM without authorization of plaintiff within the pertinent accounting period, as follows:

Article	Date Photocopied	Name of Requester
Count I.....	9/29/67	Backman
" ".....	10/5/67	Gabor
" ".....	10/19/67	Backman
Count II.....	9/20/67	McCallum
Count III.....	9/27/67	McEnany
Count IV.....	9/27/67	McEnany
" ".....	11/13/67	Reynolds
Count V.....	9/27/67	McEnany
" ".....	11/13/67	Reynolds
Count VI.....	9/27/67	McEnany
Count VII.....	10/12/67	Bird
Count VIII.....	1/11/68	Fitcher
" ".....	12/68	Young

The persons named above as "Requester" are all physicians or other professional medical personnel who requested from NIH or NLM copies of the articles in connection with medical research work or patient care at NIH or elsewhere. The copies were retained by the requesters who, for the most

part, kept them in personal files as permanent documents for later reference and use, or put them in files available for use by coworkers or colleagues. The request by Dr. Pitcher of the Count VIII article was to NLM through an Army hospital library in Japan. All other requests listed above were to the NIH library and were made directly by the requester.

7. The number of subscriptions in the year 1969 and the annual subscription prices for the journals involved in this suit are as follows:

Journal	Approximate Number of Subscriptions	Price
<i>Medicine</i>	5,400	\$12.00
<i>Pharmacological Reviews</i>	3,100	15.00
<i>Journal of Immunology</i>	4,700	1 22.00
		2 44.00
<i>Gastroenterology</i>	7,000	1 12.50
		2 25.00

1 Members.

2 Nonmembers.

8. Plaintiff's journals, noted in finding 7, are widely distributed in medical libraries throughout the country, are in the collection at the NIH library and are included on a list of journals of widespread availability compiled by NLM.

9. (a) Plaintiff's function, as a publisher of medical and scientific journals and books, is to determine what is needed to advance knowledge in the field of medicine; determine who is qualified to write on that subject; and edit, produce and market their manuscripts. Plaintiff accepts manuscripts from physicians and related medical professionals for publication in an appropriate journal. The considerations which influence a contributor of a manuscript as to the journal to which to submit the manuscript include (i) the subject matter and length of the manuscript, (ii) the quality of articles published in the journal, (iii) the standing of the journal's editorial board, (iv) the nature of the journal's readership, and (v) the circulation of the journal. Contributors rarely publish their own articles because of the high cost involved and because acceptance by a leading journal marks the article as one of high quality. *E.g.*, *Gastroenterology* is considered the outstanding journal in its speciality field in the United States and probably in the world. Contributors submit man-

uscripts to *Medicine* because that journal publishes lengthy, definitive articles and is well-disseminated.

(b) A board of editors of each of plaintiff's journals screens the submitted manuscripts, and manuscripts suitable for publication are edited and revised, as necessary and within the discretion of the editors. Often, substantial editing is done by the editorial board; sometimes contributors are required to revise manuscripts prior to acceptance. If a journal is the official organ of a professional society, the society appoints the board of editors. The editors are responsible to the society and are compensated by the society which, in turn, shares with plaintiff the profits from journal sales, in accordance with the particular contractual relationship between plaintiff and the society. Revenues from plaintiff's journals are derived largely through subscription sales and also through advertising. The American Gastroenterological Association and the American Association of Immunologists get 50 percent of the profits from *Gastroenterology* and the *Journal of Immunology*, respectively. The American Society for Pharmacology and Experimental Therapeutics gets 90 percent of the profits from *Pharmacological Reviews*. Printing preparation costs are about 50-65 percent of the total cost of publication of plaintiff's journals.

10. (a) Authors whose manuscripts are accepted and published by plaintiff, including the authors of the articles here in suit, are not paid monetary compensation by plaintiff; moreover, some journals require that authors pay a fee for published pages in excess of a preselected number of pages. Authors are, however, compensated when plaintiff publishes their works by enhancement of their professional status, in that their works are screened by highly critical editors and are published in journals having wide dissemination and high reputation. Authors, therefore, submit manuscripts to plaintiff for dual purposes: to disseminate medical information for the public welfare; and to seek recognition from the scientific community from which flows increased professional and economic opportunity. Most articles published in plaintiff's journals, and like journals, are the result of research work done under private or public grant; and sometimes a requirement of the grant is that the research worker will seek to have the results of the work published. Sometimes, the grants include funds to pay for excess-page charges to a journal publisher.

(b) Ordinarily, there is no written agreement entered into between plaintiff and the authors of submitted manuscripts with respect to ownership of articles stemming from the manuscripts. However, by longstanding custom and absent any written or oral agreement to the contrary, an author who submits a manuscript for publication in a medical or other scientific journal assigns to the owner of the journal (i) the author's proprietary rights in any article stemming from the manuscript, (ii) the right to secure statutory copyright in any such article, and (iii) the right to enforce the copyright under the Federal copyright laws. There is no evidence that the authors of the articles in suit, or any like authors, ever questioned or challenged the ownership rights of plaintiff, or any like publisher of journal articles, or the right and authority of plaintiff, or any like publisher, to secure and enforce the statutory copyright in such articles.

11. Authors whose articles are published by plaintiff usually purchase from plaintiff reprints of their articles (on the average, about 300) for distribution to interested colleagues. In general, the number of reprints purchased by authors, per article, has not changed over the past 10 years. Most authors distribute reprints free of charge to those requesting them. Depending upon the importance of, and professional interest in, a particular article, all reprints are distributed by authors within several months up to several years after publication. If someone requests directly from plaintiff a copy of an article appearing in one of plaintiff's journals, plaintiff first refers the requester to the author for a reprint; then offers to sell (either directly or through a licensed reprint house) a back copy of the issue in which the article appeared; and, finally, refers the requester to the Institute of Scientific Information, plaintiff's licensee for making photocopies. (Finding 38.) Authors who want to reprint one of their articles from one of plaintiff's journals request plaintiff's permission to do so. Others wanting to reprint articles from one of plaintiff's journals usually ask permission of the author, as a matter of courtesy, and ask permission of plaintiff, as the copyright owner.

12. (a) NIH constitutes 10 institutes, each of which is concerned with a specialty of health and medical care. The mission of NIH is to advance health and well-being through the support of research in diseases, the support of educa-

tional and medical institutions, and improved biomedical communications. Generally, three types of activities are carried on by NIH: education and manpower training; communication of medical information; and research conducted by the various institutes. Research, as well as education and manpower training, is performed by Government employees of the institutes and also by private persons and organizations supported by NIH grants. Biomedical communication is the function of NLM. (Finding 20.) NLM employs over 12,000 persons, 4,000 of whom are professionals and 2,000 of whom have doctoral degrees. In fiscal 1970, NIH spent over \$1.5 billion for medical research, about \$100 million of which was for intramural medical research. The balance was spent either for other intramural programs or for grants to outside organizations.

(b) Total national support of medical research, both Federal and non-Federal, has increased enormously in the period 1950-1970. In 1950, only about \$160 million were spent. By 1970, the total spent was \$2.7 billion. In 1950, the Federal Government contributed less than half the funds available for medical research. In 1970, the Federal Government contributed nearly two-thirds.

13. A library is essential to the conduct of medical research. A principal product of research scientists is their publications and publication of results is a vital part of research. NIH maintains and operates a technical library which is open to the public. The library houses about 125,000 to 150,000 volumes, of which 30,000 are books. The balance is periodicals or journals. The NIH library subscribes to over 3,000 different journal titles, of which 600 are purchased in multiple copies. The functions of the NIH library include acquisition, selection and cataloging of journal and book materials, preparation of reference services, response to queries for specific information, bibliographic services, formulation of computerized searches, a translation unit, housekeeping service, and a library copy service. The library's budget for 1970 was about \$1.1 million.

14. The NIH library subscribes to all 37 journals which plaintiff publishes. For about one-third of such journals, the library gets more than one copy. The library gets two copies of each of the four journals involved in this suit.

15. As an integral part of its operation, the NIH library operates a comprehensive system of providing photocopies

of articles in scientific journals. Photocopying at the NIH library (as well as at NLM) includes making a photographic copy of an article on microfilm, and then using the microfilm for further photocopying. The NIH photocopying service uses two Xerox copying machines and two Recordac microfilm cameras. The microfilm cameras are used in conjunction with a Xerox Copy-Flo printer to provide NIH personnel with permanent copies of journal articles. The microfilm is destroyed after a hard Xerox copy is made. NIH leases its Xerox machines from Xerox Corporation which it pays according to the number of pages photocopied. Microfilm used to photocopy articles at the NIH library is sent to NLM for processing. Such processing could be done by any commercial developer having the necessary equipment. Four regularly assigned employees operate the NIH photocopy equipment. In fiscal 1970, the library's photocopying budget was \$86,000 and the library filled 85,744 requests for photocopies of journal articles, constituting about 930,000 pages. The average request was about 10-12 pages and the average cost per request was about \$1.

16. Photocopying services of the NIH library are available only to NIH personnel. Members of the general public, while they may use the library, are not permitted to have materials photocopied. Two kinds of service are provided: over-the-counter and by mail. To get a photocopy, the requester must submit a request slip and an authorization slip. Authorization slips permit copying of either 20 pages or less, or 6 pages or less. The requirement for authorization slips is a budgetary limitation to hold down photocopying costs. Costs of library operation, including photocopying, are shared by the various institutes of NIH on a pro-rata basis.

17. (a) The photocopying policies of the NIH library have been essentially the same from 1965 to the present. If the library subscribes to but one copy of a journal, that copy is maintained in the library for the use of readers. If the library subscribes to a second copy of a journal, such copy will circulate among interested persons at NIH. Upon the request of interested personnel, articles in journals are photocopied at no charge to the requester. The library's policy on photocopying is that, as a general rule, only a single copy of a journal article will be made per request and each request is limited to about 40 to 50 pages though exceptions may be,

and in fact have been, made in the case of long articles. Also, as a general rule, requests for photocopying are limited to only a single article from a journal issue. However, exceptions to this general rule are routinely made, so long as substantially less than an entire journal is photocopied, *i.e.*, less than about half of the journal. Coworkers can, and frequently do, request single copies of the same article and such requests are honored. Also, there is nothing in the library's photocopying policy to prevent a user from returning month after month to get photocopies of one or more articles from one issue of a journal.

(b) NIH library personnel will not knowingly photocopy an entire issue of a journal. However, it is possible for a single user to make a series of separate requests which will result in the photocopying of an entire issue. The photocopy equipment operators are instructed to bring to the attention of their supervisor what they believe to be attempts to copy a substantial part, or all, of a journal issue. Nevertheless, because of the large volume of photocopying done by the library, it is difficult and impractical to police and curb such attempts. Substantially more people receive photocopies of journal articles from the NIH library than would copy by hand substantial portions of articles. Photocopies made by the library are not returned by the users. Sometimes the users make further photocopies from photocopies obtained from the NIH library to distribute to colleagues or otherwise.

18. As a general rule, books (or monographs) which carry a copyright notice are not photocopied by the NIH library, even to the extent of a short chapter, without permission of the copyright owner. However, under special circumstances (the details of which are not clear from the record) and upon authorization of library supervisory personnel, exceptions are sometimes made to this rule to the extent of copying small portions, *e.g.*, charts or graphs, from books (or monographs).

19. Materials (*i.e.*, books and journals) not owned by the NIH library, and which are requested by users, are obtained by means of interlibrary loan. When an interlibrary loan is requested, the standard interlibrary loan form is used. Basically, the NIH library applies to interlibrary loan requests the same restrictions on photocopying as are applied to requests filled internally.

20. (a) The mission of NLM is the exchange and dissemination of medical information. NLM began as the library of the Surgeon General of the Army, which was founded in 1836. Later such library became the Armed Forces Medical Library; and in 1956, the library was transferred from the Department of Defense to the Public Health Service and renamed the National Library of Medicine. The statute creating NLM is codified as 42 U.S.C. §§ 275-280a (1970 ed.) which, in relevant part, reads as follows:

§ 275. Congressional declaration of purpose; establishment.

In order to assist the advancement of medical and related sciences, and to aid the dissemination and exchange of scientific and other information important to the progress of medicine and to the public health, there is established in the Public Health Service a National Library of Medicine (hereinafter referred to in this part as the "Library").

§ 276. Functions.

(a) The Secretary, through the Library and subject to the provisions of subsection (c) of this section, shall—

(1) acquire and preserve books, periodicals, prints, films, recordings, and other library materials pertinent to medicine;

(2) organize the materials specified in clause (1) of this subsection by appropriate cataloging, indexing, and bibliographical listing;

(3) publish and make available the catalogs, indexes, and bibliographies referred to in clause (2) of this subsection;

(4) make available, through loans, photographic or other copying procedures or otherwise, such materials in the Library as he deems appropriate;

(5) provide reference and research assistance; and

(6) engage in such other activities in furtherance of the purposes of this part as he deems appropriate and the Library's resources permit.

* * * * *

(c) The Secretary is authorized, after obtaining the advice and recommendations of the Board (established under section 277 of this title), to prescribe rules under which the Library will provide copies of its publications or materials, or will make available its facilities for research or its bibliographic, reference or other services, to public and private agencies and organizations, institutions, and individuals. Such rules may provide for

making available such publications, materials, facilities, or services (1) without charge as a public service, or (2) upon a loan, exchange, or charge basis, or (3) in appropriate circumstances, under contract arrangements made with a public or other nonprofit agency, organization, or institution.

§ 277. Board of Regents.

(a) Establishment; composition; * * *

There is established in the Public Health Service a Board of Regents of the National Library of Medicine * * *.

(b) Duties of Board; * * *

It shall be the duty of the Board to advise, consult with, and make recommendations to the Secretary on important matters of policy in regard to the Library, including such matters as the acquisition of materials for the Library, the scope, content and organization of the Library's services, and the rules under which its materials, publications, facilities, and services shall be made available to various kinds of users, * * *

* * * * *

(b) There is no evidence that the Surgeon General or any other agent of defendant has issued regulations implementing 42 U.S.C. § 276(c).

(c) The basic function of NLM is to acquire books, journals and the like relating to health and medicine to assure that all medical literature is available at one place. In addition to acquisition, NLM indexes and catalogs medical literature by means of *Index Medicus*, which is a compilation of citations to about 2,400 leading biomedical journals. *Index Medicus* is sold to the medical profession and enables medical practitioners to keep abreast of the current medical literature. NLM's catalog announces new publications and acquisitions by the library, thus providing a ready reference for other libraries.

21. (a) NLM has five operating components, one of which is called Library Operations. The Reference Services Division of Library Operations is responsible for administering the interlibrary loan system, which is a system whereby one library may request materials from other libraries. NLM also receives requests for loans of materials from Government institutions, medical schools, hospitals, research foundations, private physicians, and private companies including drug companies. NLM provides the same service to com-

mercial companies as it does to governmental and academic libraries. Requests by commercial companies, particularly drug companies, account for about 12 percent of NLM's service. Upon a request for materials, NLM determines whether to loan out the original material or to make photocopies of the material. As a general rule, articles from journals, when requested, are photocopied and the photocopies given free of charge to the requester, so that, in the case of journals, the term "loan" is a euphemism. If NLM receives a request for a paid photographic service which otherwise meets the conditions of an interlibrary loan, payment is rejected and a loan or photocopy is furnished free of charge.

(b) To make photocopies, NLM uses mobile 35-mm. microfilm cameras which have an electrical power line overhead and can move up and down an aisle of the library. Full-size photocopies are then made from the microfilm. Most photocopies are made by such microfilm technique. In fiscal 1968, NLM received about 127,000 requests for interlibrary loans, of which about 120,000 were filled by photocopying. Applying the average of 10 pages per request, about 1.2 million pages were thus photocopied.

22. (a) Interlibrary loan requests must be accompanied by a proper form, the format of which is standardized and used by libraries and other institutions throughout the United States. The loan form, as a general rule, must be signed by a librarian. However, NLM will at times honor requests from individuals (*e.g.*, physicians) or nonlibrary institutions. Upon receipt of requests for interlibrary loans, NLM stamps the requests by date and time, counts them for statistical purposes, and begins the sorting procedure. Generally, NLM does not know, nor does it make any attempt to find out, the purpose of the requests. NLM will supply copies of the same journal article to an unlimited number of libraries requesting copies of an article, one after the other, on consecutive days, even with knowledge of such facts.

(b) NLM is a regional medical library and serves the mid-Atlantic region. Requests for materials coming from regions other than the mid-Atlantic region are generally referred to the appropriate regional library, and the requester is advised to submit future requests to the appropriate regional library. NLM's stated policy in recent years is not to fill requests for copies of articles from any of 104 journals which are included on a so-called "widely-available list." Rather, the requester

is furnished a copy of the "widely-available list" and the names of the regional libraries which are presumed to have the journals listed. Exceptions are sometimes made to the policy, particularly if the requester has been unsuccessful in obtaining the journal elsewhere. The four journals involved in this suit are listed on the "widely-available list." A rejection on the basis of the "widely-available list" is made only if the article requested was published during the preceding 5 years. Requests from Government libraries are not rejected on the basis of the "widely-available list."

(c) NLM's policy is not to honor an excessive number of requests from an individual or an institution. As a general rule, not more than 20 requests from an individual, or not more than 30 requests from an institution, within a month, will be honored. In 1968, NLM adopted the policy that no more than one article from a single journal issue, or three from a journal volume, would be copied. Prior to 1968, NLM had no express policy on copying limitations, but endeavored to prevent "excessive copying." As a general rule, requests for more than 50 pages of material will not be honored, though exceptions are sometimes made, particularly for Government institutions. Requests for more than one copy of a journal article are rejected, without exception. If NLM receives a request for more than one copy, a single copy will be furnished and the requester advised that it is NLM's policy to furnish only one copy. Generally, requests for photocopies from books (or monographs) are rejected. NLM lends books (or monographs) for limited periods of time. In special cases (the details of which are not clear in the record), small portions of a book (or monograph), *e.g.*, charts or tables, will be photocopied.

23. (a) NLM, from time to time, issues statements to other libraries of its interlibrary loan policy. Its policy has remained essentially unchanged over the years. The statement of policy, as of January 1968, reads in pertinent part as follows:

* * * * *

Readers who cannot obtain medical literature in their regions and who cannot come to the National Library of Medicine in person may use the interlibrary loan service of the Library by applying through a local library *subject to compliance with the following regulations and instructions and the provisions of the General Interlibrary*

Loan Code. A large number of titles should not be requested at one time for one applicant or one institution.

FORMS OF LOANS

1. The National Library of Medicine reserves the right to determine whether material will be lent in the original form or as a photoduplicate.

2. Photoduplicates sent instead of original material will be supplied without charge to requesting libraries. Photoduplicates may be retained permanently by the borrowing library, unless return is specifically requested by NLM.

3. Since this is an interlibrary loan service, multiple copies will not be furnished.

4. With sufficient justification NLM may lend complete issues or volumes of serials when such loan does not impair other service, but in no case will complete issues or volumes or substantial portions of issues or volumes be copied as a loan. Copying of complete issues or volumes may be considered under special photographic services.

5. Original material will not be lent outside the United States.

METHOD OF BORROWING

1. Borrowing libraries will submit *typed* requests on the Interlibrary Loan Request form approved by the American Library Association. Requests made by letter or on other types of forms cannot be processed and will be returned to sender. Each item or item segment must be requested on a separate form.

2. Order of citation must follow directions on the Interlibrary Loan Request form.

3. Each request must be authenticated, in handwriting, by authorized personnel in the borrowing library. Unsigned requests will be returned.

4. It is expected that under all but the most unusual circumstances librarians will avail themselves of the resources of their region before directing requests to NLM.

* * * * *

SPECIAL PHOTOGRAPHIC SERVICES

1. Special photographic procedures are required to reproduce some items in the collection, and a charge will be made for this service. Cost estimates are available on request. NLM will consider requests for copying items such as: portraits, photographs, etchings, and other pictorial work; text and line drawings; facsimile reproductions; long runs of periodicals to complete holdings.

2. Advance payment is required for all such photocopying when the requests emanate from outside the Federal Government. Orders for materials in which there is a question of copyright restriction will not be accepted for special photographic service without an accompanying permission statement from the copyright owner.

(b) NLM operates its interlibrary loan system in accordance with the General Interlibrary Loan Code, as revised in 1956. The Code states in pertinent part:

IX. Photographic Substitution

1. Time may be saved in filling the reader's request if, in the application for a loan, willingness is indicated to purchase a photographic reproduction as a satisfactory substitute should the original material be unavailable for interlibrary loan. This is especially applicable to periodical and newspaper articles and to typescript theses.

2. The type of photographic duplication (as a substitute) that is acceptable (e.g., photostat; microfilm—negative or positive; record print; etc.) and the maximum price the borrowing library is willing to pay can appropriately be indicated on the original request. If preferred, the lending library may be asked to quote the estimated cost of such a substitution before filling the order.

3. Photographic duplication in lieu of interlibrary loan may be complicated by interpretations of copyright restrictions, particularly in regard to photographing whole issues of periodicals or books with current copyrights, or in making multiple copies of a publication.*

4. Any request, therefore, that indicates acceptability of a photographic substitution, under the conditions described above, should be accompanied by a statement with the signature of the applicant attesting to his responsibility for observing copyright provisions in his use of the photographic copy.*

5. Requests indicating acceptability of photographic substitute in lieu of interlibrary loan that comply with the above provisions are to be considered *bona fide* orders for copying services. The lending library, if equipped to do so, may fill such orders with no further correspondence or delay.

*These statements on photographic substitutions are based on the "Gentlemen's Agreement" written in 1933 by the National Association of Book Publishers (reaffirmed in 1938 by its successor the Book Publishers Bureau) and the Joint Committee on Materials for Research (representing the libraries). For the text of this agreement see the *Journal of Documentary Reproduction*, 2:29-30, March 1939. [Finding 41.]

24. Photocopies at NLM, for interlibrary loan purposes, are prepared using a microfilm camera and a Xerox Copy-Flo machine. Copying for in-house administrative purposes, oversized material, and material in oriental languages is done on Direct Copy Xerox 720 machines. Microfilm is destroyed after use. Each photocopy produced by the microfilm camera includes a statement as follows:

This is a single photostatic copy made by the National Library of Medicine for purposes of study or research in lieu of lending the original.

25. Since 1966 through 1970, there has been a steady decline in the amount of material or number of requests filled for photocopies through the interlibrary loan program of NLM. In 1969, the number of interlibrary loan requests filled was 110,573 and in 1970, 93,746. A principal reason for the decline is that regional libraries have taken on much of the burden of the program. The regional libraries operate in essentially the same manner as NLM except that some, if not all of them, charge a fee for photocopies furnished to requesters. The budget for the interlibrary loan operation at NLM in fiscal 1969 was \$166,152.

26. The Count I, IV, V, and VI articles acknowledge on their faces that the research work reported therein was supported in part by grants awarded to the authors by the Public Health Service of NIH.

27. The Division of Research Grants of the Public Health Service is a service organization to NIH. Applications for grant support from NIH come to the Division of Research Grants, which determines the institute of NIH to which they shall be referred and the review group to which the application shall be assigned. Such group then reviews the application and determines its scientific merit, and also reviews the application's proposed budget with respect to, *e.g.*, salaries for personnel, equipment, supplies and services, travel funds, funds for the purchase of publications or journals, and funds for the payment of page charges and other costs of publications. The group's recommendation is transmitted to the appropriate institute. If a grant is subsequently awarded, the appropriate institute provides the funds and monitors the performance of the work under the grant. Grants are awarded on an annual basis and are characterized by the Public Health Service as "conditional gifts." NIH sometimes

indicates at the beginning that it will support renewal applications. Renewal applications are administered by the Division of Research Grants. The scientific investigator under a grant award can pursue his research in any manner he feels appropriate, subject to limited budgetary control. Such investigators are not Government employees nor are they in the service of the United States; and the Public Health Service does not exercise supervision over the scientific techniques used in the research.

28. The Division of Research Grants, from time to time, issues policy statements with respect to copyright which set out guidelines delimiting the rights and responsibilities of grantees under NIH grants. The policy statements in effect for the years 1956 to the present are set out below in subparagraphs (a) to (d).

(a) With respect to grants awarded from November 1956 to 1959, the Public Health Service policy governing copyright was as follows:

When a grant or award is made without condition and a book or related material is privately published, the author is free to copyright the work and to make arrangements with his publisher as if the Government had not contributed support.

(b) With respect to grants awarded from 1959 to January 1, 1963, the Public Health Service policy governing copyright was as follows:

Copyright.—The author is free to arrange for copyright without reference to the Public Health Service.

(c) With respect to grants awarded from January 1, 1963 to July 1, 1965, the Public Health Service policy governing copyright was as follows:

COPYRIGHT The author is free to arrange for copyright without approval by the Public Health Service.

(d) With respect to grants awarded on or after July 1, 1965, the Public Health Service policy governing copyright was as follows:

Copyright Except as otherwise provided in the conditions of the award, when publications result from work supported by the Public Health Service, the author is free to arrange for copyright without approval. Any such copyrighted publications shall be subject to a

royalty-free, non-exclusive, and irrevocable license to the Government to reproduce them, translate them, publish them, use and dispose of them, and to authorize others to do so.

29. None of the Count I-to-Count VIII articles resulted from a Public Health Service grant which imposed conditions expressly modifying the copyright policies noted in finding 28, subparagraphs (a) to (c).

30. The policy statement dated July 1, 1965 (finding 28(d)), was the first public statement by the Public Health Service that it reserved the right to duplicate copyrighted works which resulted from Public Health Service grants. Prior to 1965, the Public Health Service had not addressed itself to the question of whether the Government should have a nonexclusive license in works resulting from grant funds, though it had for some years been the policy that such works could be photocopied (up to 15 copies) for in-house administrative purposes.

31. The copyright policy of the Public Health Service, noted in finding 28(d), which by its terms was to become effective in connection with work supported by grants awarded on or after July 1, 1965, appeared in the *Federal Register*, in modified form, for the first time on April 2, 1970, at 35 Fed. Reg. 5470 (42 C.F.R. § 52.23 (revised as of Jan. 1, 1971)).

32. Dr. Victor A. McKusick, a coauthor of the Count I article, started research, along with several coworkers, in 1954 on the subject matter of the article. Work has continued up to the date of trial. The research was supported in part by funds from a Public Health Service grant; in part by funds from grants from the Health Research Council, a private trust; and in part by other funds which cannot be traced to any specific grant or agency. The manuscript for the Count I article was submitted to the editor of *Medicine* on August 19, 1964, and the article was published on December 9, 1965. Changes to reflect ongoing research were made in the manuscript by the authors from time to time, up to about 6 months before publication (*i.e.*, about mid-1965). After about mid-1965, any changes in the manuscript were editorial in nature, *e.g.*, citations to new articles added as footnotes, stylistic changes, and the like. There is no evidence that the article reports any substantive research work done under funds from

a Public Health Service grant awarded on or after July 1, 1965.

33. Dr. Gerald Goldstein, a coauthor of the Count IV article, conducted research leading to its publication, which research was funded in part by Public Health Service grants. Such grants covered the years 1958 to 1966. The Count IV article was published in the *Journal of Immunology* in August 1965. There is no evidence to show when the manuscript for such article was completed, though the article states on its face that it was "received for publication" on December 18, 1964. There is no evidence to show that the article reported any substantive research work done under funds from a Public Health Service grant awarded on or after July 1, 1965.

34. Dr. John J. Cebra, a coauthor of the Count V article, conducted research leading to its publication, which research was funded in part by Public Health Service grants. The Count V article was published in the *Journal of Immunology* in August 1965. There is no evidence to show when the manuscript for such article was completed, though the article states on its face that it was "received for publication" on December 17, 1964. There is no evidence to show that the article reported any substantive research work done under funds from a Public Health Service grant awarded on or after July 1, 1965.

35. Dr. Jason L. Starr, a coauthor of the Count VI article, conducted research leading to its publication, which research was funded in part by Public Health Service grants. The Count VI article was published in the *Journal of Immunology* in August 1965. There is no evidence to show when the manuscript for such article was completed, though the article on its face states that it was "received for publication" on December 21, 1964. There is no evidence to show that the article reported any substantive research work done under funds from a Public Health Service grant awarded on or after July 1, 1965.

36. Plaintiff has established a licensing program to cover various forms of exploitation of its medical journals. The program includes the following:

- (i) Upon request, plaintiff grants permission, in the form of license, for reproducing a journal article as part of a newly published book or for reproducing articles in other forms, particularly for use by educational institutions.

(ii) Plaintiff has received requests from Government agencies and others for licenses to make multiple copies of journal articles, and plaintiff has granted such requests and has been paid therefor.

(iii) Plaintiff has granted licenses for the distribution and sale of microfilm editions of its journals, including the four journals in suit, to University Microfilm Company, Ann Arbor, Michigan, and Arcadia Microfilms, Spring Valley, New York, in consideration for a royalty paid to plaintiff.

(iv) Plaintiff has granted licenses, for a consideration, to two reprint houses in New York to furnish a requester with a reprint of a journal article or an entire journal.

(v) Plaintiff has granted a royalty-bearing license to the Institute for Scientific Information, Philadelphia, Pennsylvania, to provide requesters with copies of articles from plaintiff's journals.

(vi) Plaintiff has granted to several libraries (Veterans Administration Hospital library in San Francisco, California, the Dugway Technical Library and the Wilkin Research Foundation of New York) a license to make, on a continuing basis, single copies of articles from journals in return for the payment of royalties. Such licenses, however, have not produced royalties to date and two of the licenses are no longer in effect. The license to Wilkin Research Foundation was entered into in February 1970 and provides for a royalty of 5 cents per copied page, with accumulated royalties payable yearly.

37. Plaintiff receives about 45 to 60 requests per week to make copies from its various publications, about five of such requests being for copies of single articles from plaintiff's journals. Requests for copies of journal articles are handled by plaintiff as set out in finding 11.

38. Plaintiff receives about \$6,000 to \$7,000 per year for permissions granted to individuals to copy journal articles (single copies and otherwise). Such receipts are in addition to royalties received from the Institute for Scientific Information, reprint houses and microfilm licensing.

39. (a) Between 1959 and 1969, annual subscriptions to *Medicine* increased from about 2,800 to about 5,400, though subscriptions decreased slightly from 1968 to 1969. Annual

subscription sales increased from about \$20,000 to about \$60,000; and total annual income increased from about \$23,000 to about \$65,000. Between 1964 and 1969, annual subscriptions to *Pharmacological Reviews* increased from about 2,600 to about 3,100, though subscriptions decreased slightly from 1968 to 1969. Annual subscription sales increased from about \$19,000 to about \$21,000; and total annual income increased from about \$22,000 to about \$25,000. Between 1959 and 1969, annual subscriptions to the *Journal of Immunology* increased from about 2,600 to about 4,700. Annual subscription sales increased from about \$36,000 to about \$131,000; and total annual income increased from about \$38,000 to about \$185,000. Between 1959 and 1969, annual subscriptions to *Gastroenterology* increased from about 4,100 to about 7,000. Annual subscription sales increased from about \$49,000 to about \$155,000; and total annual income increased from about \$108,000 to about \$244,000.

(b) Between 1959 and 1966, plaintiff's annual taxable income increased from \$272,000 to \$726,000. In 1967, it fell to \$589,000; and in 1968, to \$451,000. Plaintiff's four journals in suit account for a relatively small percentage of plaintiff's total business; and over the years, such journals have been profitable, except that the *Journal of Immunology* showed losses in the period prior to 1961; *Gastroenterology* showed losses in 1967-68; and *Pharmacological Reviews* showed a loss in 1969. Profits from the journals have varied from less than \$1,000 to about \$15,000 annually. Plaintiff's share of the profits from the journals published under contract with medical societies has ranged from less than \$1,000 to about \$7,000. *E.g.*, in 1968, profit from *Pharmacological Reviews* was \$1,154.44 (on sales of about \$40,000). The profit was divided, \$1,039 to ASPET and \$115.44 to plaintiff. In 1969, net income from *Gastroenterology* was \$21,312.08 (on sales of about \$245,000) and \$11,532.35 of that amount was offset by losses the previous year, leaving a balance of \$9,779.73. The balance was split between plaintiff and AGA, plaintiff getting \$4,889.86.

There is no evidence to show whether any particular instance or instances of unauthorized photocopying of plaintiff's journals resulted in the loss of a particular form of revenue to plaintiff. It is reasonable to infer from the evidence, however, that extensive unauthorized photocopying of plaintiff's journals results in some loss of revenue

otherwise obtainable under plaintiff's licensing program. It is also reasonable to infer that plaintiff has lost, or failed to get, some undetermined and indeterminable number of journal subscriptions (perhaps small) by virtue of the availability of unauthorized photocopying. There is evidence that in at least one instance, a subscriber canceled a subscription to one of plaintiff's journals because the subscriber believed that the cost of photocopying of the journal had become less than the journal's annual subscription price. There is evidence that in another instance, a subscriber canceled a subscription at least in part because library photocopies were available.

40. (a) NIH (and so far as the record shows, NLM) has made no studies to determine the estimated costs over and above royalties which would be involved in paying publishers for photocopying part or all of their copyrighted journals. The costs involved in such an estimate would be essentially the salaries of the people who would make the necessary determinations. The Librarian of NIH testified that he is unable to make any estimate of such costs.

(b) In 1967, NLM temporarily ceased photocopying articles from plaintiff's journals. NLM was able, as a practical matter, to flag plaintiff's journals from April 27, 1967 to May 29, 1967, in order to refrain temporarily from copying from them. The flagging of plaintiff's journals was an administrative statistical operation performed by a library technician in the loan and stack section of NLM. On about May 29, 1967, NLM resumed photocopying articles from plaintiff's journals, and for about 90 days thereafter. NLM monitored such photocopying. Satisfied that such 90-day period was a representative sample, NLM found that it would have paid plaintiff about \$250 to \$300 if it had acceded to plaintiff's request for 2 cents royalty per page. The Director of NLM testified that, in his opinion, this was "a very small sum—surprisingly small sum."

41. (a) In 1935, there was issued a joint statement by the National Association of Book Publishers and the Joint Committee on Materials for Research regarding the photocopying by libraries and like institutions of copyrighted materials. The statement, later to become known as the "gentlemen's agreement," was the product of meetings and discussions between representatives of the book publishing industry and research-and-education-oriented organizations,

such as libraries. The representatives were interested in working out a practical accommodation of the conflict between (i) the legitimate interest of copyright owners not to have their works copied without compensation and (ii) the needs of scholars and research workers for copies of parts of copyrighted works to use in pursuit of scientific or literary investigation. The "gentlemen's agreement," along with the introductory statement accompanying it, reads as follows:

The Joint Committee on Materials for Research and the Board of Directors of the National Association of Book Publishers, after conferring on the problem of conscientious observance of copyright that faces research libraries in connection with the growing use of photographic methods of reproduction, have agreed upon the following statement:

A library, archives office, museum, or similar institution owning books or periodical volumes in which copyright still subsists may make and deliver a single photographic reproduction or reduction of a part thereof to a scholar representing in writing that he desires such reproduction in lieu of loan of such publication or in place of manual transcription and solely for the purposes of research; provided

- (1) That the person receiving it is given due notice in writing that he is not exempt from liability to the copyright proprietor for any infringement of copyright by misuse of the reproduction constituting an infringement under the copyright law;
- (2) That such reproduction is made and furnished without profit to itself by the institution making it.

The exemption from liability of the library, archives office or museum herein provided for shall extend to every officer, agent or employee of such institution in the making and delivery of such reproduction when acting within the scope of his authority of employment. This exemption for the institution itself carries with it a responsibility to see that library employees caution patrons against the misuse of copyright material reproduced photographically.

Under the law of copyright, authors or their agents are assured of "the exclusive right to print, reprint, publish, copy and vend the copyrighted work," all or any part. This means that legally no individual or institution can reproduce by photography or photo-mechanical means, mimeograph or other methods of reproduction a page or any part of a book without the written permission of the owner of the copyright. Society, by law,

grants this exclusive right for a term of years in the belief that such exclusive control of creative work is necessary to encourage authorship and scholarship.

While the right of quotation without permission is not provided in law, the courts have recognized the right to a "fair use" of book quotations, the length of a "fair" quotation being dependent upon the type of work quoted from and the "fairness" to the author's interest. Extensive quotation is obviously inimical to the author's interest.

The statutes make no specific provision for a right of a research worker to make copies by hand or by type-script for his research notes, but a student has always been free to "copy" by hand; and mechanical reproductions from copyright material are presumably intended to take the place of hand transcriptions, and to be governed by the same principles governing hand transcription.

In order to guard against any possible infringement of copyright, however, libraries, archives offices and museums should require each applicant for photo-mechanical reproductions of material to assume full responsibility for such copying, and by his signature to a form printed for the purpose assure the institution that the duplicate being made for him is for his personal use only and is to relieve him of the task of transcription. The form should clearly indicate to the applicant that he is obligated under the law not to use the material thus copied from books for any further reproduction without the express permission of the copyright owner.

It would not be fair to the author or publisher to make possible the substitution of the photostats for the purchase of a copy of the book itself either for an individual library or for any permanent collection in a public or research library. Orders for photo-copying which, by reason of their extensiveness or for any other reasons, violate this principle should not be accepted. In case of doubt as to whether the excerpt requested complies with this condition, the safe thing to do is to defer action until the owner of the copyright has approved the reproduction.

Out-of-print books should likewise be reproduced only with permission, even if this reproduction is solely for the use of the institution making it and not for sale.

(signed) ROBERT C. BINKLEY, *Chairman*
 Joint Committee on Materials for Research
 W. W. NORTON, *President*
 National Association of Book Publishers

(b) In the 1930's, photocopying of books and like materials was done principally by conventional photographic techniques. Starting about 1960, the new technology of electrostatic copying and other rapid, inexpensive copying techniques resulted in a dramatic increase in the instances and amounts of photocopying. During the past 10 years, the propriety of library photocopying has been the subject of many discussions at meetings and conferences of library and information groups. In 1957, the Director of NLM noted that "it is possible, if not indeed probable, that the years would bring, sooner or later, a test of the issue in the courts" posed by NLM's photocopying activities and the copyright law.

(c) Plaintiff's principal officers became aware of large-scale library photocopying in about 1962. Immediately thereafter, plaintiff's president made his views on the subject known to various library groups. In the course of exchanges with librarians, plaintiff's president learned of the statement called the "gentlemen's agreement" and expressed his views thereon essentially as follows: The statement is inconsequential to the issues of present-day photocopying because (i) it was written in the 1930's when copying processes consisted of blueprints, photostats or microfilm, processes significantly different from those principally used today, (ii) one party to the statement (National Association of Book Publishers) is a long-defunct organization to which plaintiff never belonged, and (iii) the National Association of Book Publishers apparently consisted not of periodical publishers, like plaintiff, but book publishers who were concerned with the publication (and unauthorized photocopying) of books (or monographs).

42. (a) In October 1966, defendant's General Services Administration issued a handbook, **COPYING EQUIPMENT**, identified by code number FPMR 101-6. The purpose of the handbook was to acquaint Government supervisory personnel with the various photocopying machines available on the market and to encourage Government agencies to make use of such machines in an economic and efficient manner. The introduction to the handbook notes as follows:

With the dispersal of office copiers throughout Government agencies, the need for a good hard look at the economy and effectiveness of office copying services has become increasingly apparent. The uncontrolled acquisition and use of office copying equipment has often re-

sulted in uneconomical mismatches of user requirements with machine capabilities and wasteful practices in operating copying facilities.

The introduction goes on to say that large organizational units should make studies of needs for equipment before making substantial investments. It is further noted:

Where such studies have not been made, an inquiry into the existing copying facilities will offer a high potential for savings. As a minimum, a goal of 10% reduction in overall copying and related paperwork costs would be feasible. This handbook has been prepared to guide managers and others responsible for office copying in providing economical and effective copying service which meets user requirements.

(b) The "Foreword" to the handbook notes in part:

The impact of document copiers on Federal operations has been substantial just as it has been in commerce and industry. At this writing there are at least 202 models of copiers available from some 37 different manufacturers or distributors. The United States Government alone has installed approximately 55 thousand machines and the yearly cost of office copying is estimated at 80 million dollars. An increasing number of cost-conscious executives are concerned about the predictions that this cost could double within the next 5 years.

(c) Chapter III of the handbook is entitled "Legal Aspects" and reads as follows:

Copying Laws

Copying laws are almost in the same category as speed limit laws—people forget they are there. Although the former involves much less risk than the latter, the penalty can be much greater. Most documents which are prohibited by law from being copied have their source in State or Federal Government. A partial listing is shown in figure 1. In case of doubt, legal advice should be obtained.

Copyright Laws

The most frequently violated law is the Copyright Law: namely, that law which prohibits the copying of copyrighted material without permission.

The Copyright Law is intended to protect the publisher or author from plagiarism. It gives him the right to say who may reproduce his written or published work, and to demand payment for it. However, the current widespread use of copying machines in reproducing lit-

erary works goes beyond the question of plagiarism. It is beginning seriously to affect the sale of published works, such as magazines, textbooks, and technical papers. Prior to this time, a user of such works desiring to have possession of a copy was obliged to purchase the publication if he could not borrow it for an indefinite period. Today, it is relatively simple to make copies of almost any printed matter by means of the office copier.

Because the copier has made it easy to reproduce published works, extra precaution is necessary. Where a notice of copyright is shown, either on the work itself, or by a general statement in the publication, the law is clear: it may not be copied unless permission of the publisher or author is obtained. Where doubt exists as to whether or not an item is copyrighted, the legal officer should be consulted.

Figure 1, accompanying Chapter III, is entitled "Material That May Not Be Copied" and notes in part:

1. Congress, by statute, has forbidden the copying of the following subjects under certain circumstances. There are penalties of fine or imprisonment imposed on those guilty of making such copies.

* * * * *

d. Copyrighted material of any manner or kind without permission of the copyright owner.

* * * * *

43. (a) The Board of Regents of NLM (finding 20(a)), at several meetings in 1957, considered the problems of copyright with respect to the operations of NLM. The minutes of those meetings are not in evidence. However, such minutes are discussed in a letter dated December 29, 1965, from Abraham L. Kaminstein, Register of Copyrights, to The Honorable John L. McClellan, United States Senate, as follows:

* * * * *

The new law amended a 1944 Public Health Service Act, which in 1956 was further amended by the transfer of the Armed Forces Medical Library to the newly established National Library of Medicine. The Act provides, *inter alia*, (42 U.S.C. 276) that the Surgeon General shall "make available, through loans, *photographic or other copying procedures or otherwise*, such materials as he deems appropriate. . . ." [Italics supplied] The 1956 amendment to the Public Health Service Act also provides for the establishment by the Surgeon General of a Board of Regents, which as a part of its duties is the

[to?] prescribe "rules under which the Library will provide copies of its publications or materials." Since the provisions of section 398 are basically no different from the provisions of the 1956 amendment, it may be of interest to ascertain the administrative interpretation of that earlier copying provision.

A study of the minutes of the Board of Regents discloses that the agenda for the very first meeting of the Board, on March 20, 1957, included the distribution of a paper entitled Considerations for the Formulation of Loan Policy (of the National Library of Medicine). That paper contains a clear recognition of the copyright problem:

"To start with, it must be pointed out that there are legal restrictions to the unlimited copying of published works; restrictions which are vague in some respects but which have been interpreted fairly definitely in most. The two most important interpretations for this problem are that whole works may not be copied and that multiple copies may not be made."

This policy paper was the subject of discussion at the meeting of the Board on April 29, 1957, at which the recommendations were approved. It is significant that the minutes of that meeting disclose the following:

"Dr. Mumford [the Librarian of Congress] raised the question of copyright restrictions. It was stated that while the recommended new policy would not obviate the copyright problems, it would not raise more, and probably raise fewer difficulties in this area than does the current policy."

Further evidence that the Board was aware that copyright problems existed appeared in the minutes of the Board meeting for September 23, 1957, in the following notation:

"The Director [of the National Library of Medicine] expressed his concern 'with the continuing vexing problem of copyright restrictions.' He indicated that the Library is proceeding as circumspectly as possible, but that it is possible, if not indeed probable, that the years would bring, sooner or later, a test of the issue in the courts . . . The Director took pains to indicate that despite the difficulties of the situation it seemed clear to him that the Library could do no other than pursue its present course, since a very large part, if not the major part, of the Library's services is dependent upon it."

The foregoing would appear to indicate that, from the outset of the establishment of the National Library of Medicine, there has been an awareness of the existence of copyright restrictions with respect to the use of the

copyrighted works in its collections. Nowhere does it appear that the policy-making body, the Board of Regents, considered that the above-quoted provision authorizing the Surgeon General to make the material in the Library available by "photographic or other copying procedures" was in any way in derogation of the rights granted under the copyright law to the proprietor of the copyright. On the contrary, the evidence indicates that the Library attempted to formulate a policy that would take due regard of the provisions of the copyright law.

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(b) In 1957, the then-Director of NLM, in discussing the problems created by NLM's policy of providing free photocopying services, stated as follows:

Let us now take a critical look at what has happened under these policies. Free photocopying has developed beyond reasonable bounds. For example, in a recent study conducted over a two month period, it was found that over 50% of all requests received could be filled by photocopying journal articles from 125 common journal titles of the last five years.

On the face of it, this is a need which the printing press, not the camera, is designed to fill. When a request from New York City is received for a photocopy of an article which appeared in last month's JAMA, it is apparent that the library is being treated as a cheap and convenient reprint service, and not as a library. It is felt NLM should not run a copying service *per se*; NLM must operate as a library, and all photocopying done should be an extension of normal library operations.

44. The Library of Congress operates a photoduplication service by which it provides photocopies of documents for a per-page fee. In 1965, electrostatic positive prints (Xerox) were provided at from 16 cents to 85 cents per sheet, depending on the quantity ordered and other factors. A brochure issued by the Library of Congress, effective October 1, 1965, stated in part:

Photocopying is done by the Library under the following conditions:

1. The Library will generally make photoduplicates of materials in its collections available for research use. It performs such service for research, in lieu of loan of the material, or in place of manual transcription. Certain restricted material cannot be copied. The Library reserves the right to decline to make photoduplicates requested, to limit the number of copies made, or to furnish positive prints in lieu of negatives.

2. Copyright material will ordinarily not be copied without the signed authorization of the copyright owner. Exceptions to this rule may be made in particular cases. All responsibility for the use made of the photoduplicates is assumed by applicant.

There is no evidence to show the circumstances under which the Library of Congress makes "exceptions" to its rule against photocopying copyright materials.

45. The PRINTING MANAGEMENT MANUAL of defendant's Department of Health, Education, and Welfare (in effect in 1962 and 1967) stated as follows with respect to copyright:

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A. General

Material protected by copyright generally may not be reproduced in any fashion, including photocopying or similar techniques, without the express permission of the copyright proprietor. However, it has been the widespread practice of libraries to have single copies made of copyrighted articles to further scholarly research, without consent of the copyright proprietor. Therefore, Department libraries may make such single copies, but every precaution should be taken to assure that such single copying is done only at the written request of an employee to further scholarly research.

B. Infringement

1. Since the Government may be subject to claim or suit for damages, every precaution must be taken to avoid infringement of a copyright by an employee of the Department.
2. Employees should be advised that infringement of a copyright by an employee of the Department, not in the performance of his official duties may subject the employee to a suit for damages.

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RECOMMENDED CONCLUSION OF LAW

Upon the foregoing findings of fact and opinion which are made a part of the judgment herein, the court concludes as a matter of law that plaintiff is entitled to recover reasonable and entire compensation for infringement of copyright, and judgment is entered to that effect. The amount of recovery will be determined in further proceedings before a trial commissioner pursuant to Rule 131 (c).