

NATIONAL LIBRARY OF MEDICINE

A N N U A L R E P O R T

Fiscal Year 1960

Washington: 1960.

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service

NATIONAL LIBRARY OF MEDICINE

ANNUAL REPORT

for the

FISCAL YEAR 1960

September 15, 1960

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CHAPTER I

OFFICE OF THE DIRECTOR

Members of the NLM staff have through the years become resigned, if not entirely reconciled, to the proposition that the internal organizational structure of the Library is by no means immutable. There have been many shifts and regroupings during the last decade, and no doubt there are many more to come. If a minor corollary of Parkinson's law holds -- that perfect alignment of forces is achieved only in the dying organism -- then a possible converse is that change is an indication of vitality.

Fiscal Year 1960 has been notable in that two major changes in the organizational structure occurred during the year. They are the creation of the Circulation Division on October 1, 1959, and the creation of the Technical Services Division on May 1, 1960. These changes are detailed elsewhere in this report. In addition, the new position of Assistant to the Director was established, and Miss M. Ruth MacDonald was chosen to fill that office. In addition to functioning as a staff assistant across the board, Miss MacDonald will have special responsibilities in the fields of training, recruitment, and direction of the NLM intern program; she will also share the Director's burdens in public relations and liaison with other library groups.

BOARD OF REGENTS

Meetings of the Board. The Board of Regents held two meetings, the first on November 13, 1959, and the second on April 11, 1960. At the first meeting the Board reviewed the activities of the previous year, examined and approved the proposed budget submission for FY 1961, and inspected the new machine-processing system used for publishing the Index Medicus. At the second meeting the Board viewed a demonstration of the working prototype of a mobile camera designed for use in the new building, discussed the question of using automatic data processing techniques in the Library, and reviewed preliminary estimates on the budget for FY 1962. At this meeting Dr. William B. Bean of Iowa was elected Chairman of the Board for the term beginning August 3, 1960.

Membership. On June 30, 1960, membership of the NLM Board of Regents was as follows:

Dr. Michael E. DeBakey, Chairman (Baylor University)
Dr. William B. Bean (Iowa State)
Dr. Leroy E. Burney (U. S. Public Health Service)
Mrs. Eugenie M. Davie
Dr. Thomas Francis, Jr. (University of Michigan)
Lieutenant General Leonard D. Heaton (U. S. Army)
Dr. Maynard K. Hine (Indiana University)

Rear Admiral B. W. Hogan (U.S. Navy)
Mr. Thomas E. Keys (Mayo Clinic)
Dr. William S. Middleton (Veterans Administration)
Dr. L. Quincy Mumford (Library of Congress)
Major General Oliver K. Niess (U.S. Air Force)
Dr. William W. Stadel (San Diego County Dept. of Medical
Institutions)
Dr. Theodore R. Van Dellen (Northwestern University)
Dr. Ernest H. Volwiler (Abbott Laboratories International)
Dr. Warner L. Wells (University of North Carolina)
Dr. John T. Wilson (National Science Foundation)

THE NEW BUILDING

Building Construction. The new building program began on June 17, 1959, when demolition of existing structures on the site was commenced. By the end of this fiscal year, when the schedule would call for 50% completion, the actual completion achieved was about 30%. The major factor affecting progress has been the extensive rock formations encountered and the subsequent blasting operations required. The Executive Officer, Mr. Ray W. Grim, in addition to his normal duties, has continued to ride herd on all problems connected with the construction program, and they have been many.

Building Equipment. Bids for shelving for the main stack areas were opened October 1, 1959; Virginia Metal Products Company was awarded the contract for \$172,377, which calls for the equivalent of over 8,000 single sections. Invitations to bid on special library furniture and equipment were issued by Public Buildings Service on June 27, 1960. A new xerographic processor was ordered on May 25, 1960; this will be used in place of the present rented unit and will be transferred to the new building.

Building Maintenance Services. By agreement with the Public Buildings Service, the National Institutes of Health will provide complete maintenance services for the new building and grounds on a reimbursable basis. In cooperation with the Insect and Rodent Control Section of the NIH, plans are being made to disinfect the new building before occupancy, as studies have shown that new buildings become infested while under construction, and that early extermination measures meet with greatest success.

MANAGEMENT SURVEYS AND STUDIES

The two major revisions of the divisional structure at NLM were preceded by careful studies. Before the year was out a new Committee on NLM Organization had been appointed, under the chairmanship of the Administrative Officer, Mr. John P. Spain, to study the mission of the Library and to recommend further modification in organization. This move followed on and was necessitated by the work of the Study Group on the Mission and Organization of the Public Health Service, which submitted its findings to the Surgeon General in the spring of 1960.

This report recommends assignment to the NLM of large new programs which will require additional planning staff and some revision of top-level NLM organization.

Cost Studies. The Bureau of the Budget requires that charges for NLM special photoduplication services be sufficient to recover the full cost of providing the services. The annual review of costs of photoduplication was completed; no adjustments were indicated in the existing schedule of charges. In another area, cost and production data were compiled on Index Division operations for fiscal years 1958 through 1960.

Mail Room Survey. The Mail Room operations were surveyed and many improvements were made: excessive time-stamping and duplicate sorting and handling were eliminated; scheduling of messenger trips was revised, and excess intralibrary mail delivery points were removed.

Performance Analysis System. Performance standards were revised at the beginning of the year. A new work unit, "Page microfilmed," at a standard of .008 (hours) was set for photoduplication. One of the work units in the acquisitions area was changed from "Prospects found not in Library" to "Prospects searched."

Issuance System. The new NLM Issuance System was established, consisting of two separate parts. The NLM Manual of Operations contains all issuances on organization and functions of the Library, and on policies and procedures of a technical library nature. The NLM Numbered Circular Series provides a mechanism for the issuance of administrative instructions covering policies and procedures on personnel, budget, supply, and other general management subjects.

Fire Organization. On April 11, 1960, a small transformer located near the basement stairwell caught fire. The trouble was located, the current switched off, the city Fire Department called, and alarms sounded. The ensuing evacuation of the building was so poorly executed that the Library's Fire Organization was revamped. In an exercise in May the time required for evacuating the building indicated a great improvement over the April experience.

Valuation of the Collections. From time to time during the past years NLM has been asked to put a valuation on its collections. Hesitation was based on the near-impossibility of doing so, which will be understood by most librarians. The Chief Auditor in the Division of Finance, however, insisted on a valuation to capitalize the Library's holdings in the General Ledger Accounts of the Public Health Service. The Growth of Collections report for the year ending June 30, 1959, was used as the basis for this valuation which, after much soul-searching, calculation, and debate, was set at a figure of \$31,937,705.

Equipment and Supply Services. A review indicates that 392 purchase orders were issued during the year, totalling \$93,167.60, including \$23,527.65 for binding.

PERSONNEL PROGRAM

Interns. Three new interns began a one-year training period in the Library in September 1959. The fourth cycle of the program will begin in September 1960, and three candidates (from the University of Illinois, the University of Wisconsin, and Columbia University) have been selected. The year's program consists of rotating assignments in each of the Divisions of the Library; visits to other libraries, publishing houses, and documentation centers; regularly scheduled seminars, and opportunity for special studies in subject or language areas.

Formal Training. During the year twenty-four NLM employees received formal training in the following subjects:

Information storage and retrieval	7
Automatic data processing	3
Bibliography of medicine	2
Foreign languages	7
Miscellaneous	5

In-Service Training. Fifty-two employees received in-service training in the following areas:

CSC Middle Management Institute	1
Computer Programming	3
Seminar on multilithing	18
Refresher course in dictation	5
IBM typewriter proficiency course	14
Courses at IBM and Eastman Kodak	11

Employee Awards. The following employees received awards during the fiscal year:

Mr. Roland G. Scott - cash award for special work performance in coordinating and executing a major shift of three-fifths of the Library's collections;

Mrs. Gladys B. Williams - cash award for a suggestion to expedite the shelisting of books;

Miss Marcella Fludd - scholarship award, one semester at Department of Agriculture Graduate School;

Mrs. Barbara Payne - scholarship award, one semester at Department of Agriculture Graduate School;

Mr. Robert A. Cross - length-of-service award, 30 years;

Mr. Edward A. Miller - length-of-service award, 20 years.

In addition, thirteen other employees received length-of-service awards for ten years of service.

DIRECTOR'S ACTIVITIES

A partial recounting of some of the Director's activities may serve to point up, in a special way, the widely varied areas in which the Library as a whole is involved.

Meetings. The Director represented NLM at national and international meetings held in Chicago, Cleveland, Charleston, Kansas City, Montreal, and Monaco. This last was a conference on ~~multilingual~~ abstracting in the English language, called by the Abstracting Board of the International Council of Scientific Unions (ICSU).

Committee Participation. The Director's assignments on three committees terminated either by reason of expiration of term or because the work of the committee was completed. His terms expired as a member of the Council of the American Association for the History of Medicine and of the Board of Directors of the National Federation of Science Abstracting and Indexing Services. He began a term as a member of the Advisory Committee of the Association of Research Libraries (1960-62). He has six continuing committee assignments affiliated with the Medical Library Association, the National Science Foundation, the American Cancer Society, the American Library Association, the Federation of American Societies for Experimental Biology, and the National Institutes of Health. He serves on a consultant committee for a book on library buildings, and as a member of a group advising on the new United Nations Library.

Conference Participation. The Director participated in outside conferences on such topics as preservation of scientific manuscripts, library architecture, Chinese science, and utilization of counterpart funds for library purposes.

Training. The Director functioned as both trainer and trainee. In the latter capacity he made a one week's trip to the West Coast to visit data-processing centers and projects concerned with information storage and retrieval, and he attended a sixteen week¹ seminar course at the Department of Agriculture Graduate School on the same subject. He gave a formal twelve-hour course of instruction to the Library's catalogers and indexers on the nature and use of the Library's new subject heading authority list.

Recruiting. The Director, along with two colleagues of the NLM staff, visited nine library schools and interviewed thirty-three persons in connection with the NLM internship program and other positions on the staff.

PUBLICATIONS

- National Library of Medicine Catalog, 1955-59. Washington, Judd & Detweiler, Inc., 1960. 4,167 p. (six volumes) (\$60 f.o.b. Washington)
- National Library of Medicine Annual Report, Fiscal Year 1959. Washington, 1959. 42 p. (Multilithed)
- Index Catalogue of the Library of the Surgeon-General's Office. Fifth Series, vol. I, Authors and Titles. Washington, 1959. 760 p. (GPO; \$5.50)
- National Library of Medicine News. (Monthly) Volume 14, nos. 7-12, 1959; Volume 15, nos. 1-6, 1960
- National Library of Medicine Services (Public Health Service Publication No. 507 (Revised December 1959)). Washington, 1959. 13 p.
- Current List of Medical Literature. (Monthly) Volume 36, 1959. (GPO; annual subscription, \$15)
- Index Medicus. (Monthly) (Replaces Current List of Medical Literature, beginning January 1960) Volume 1, 1960. (GPO; annual subscription, \$20)
- Bibliography of Medical Reviews. Volume 4. Washington, 1959. 298 p. (GPO; \$1.50)
- Film Reference Guide to Medicine and Allied Sciences. (Sponsored by Interdepartmental Committee on Medical Training Aids) 1960 Edition. Washington, 1960. 215 p. (GPO; \$1)
- Notable Contributions to Medical Research by Public Health Service Scientists. A Biobibliography to 1940 (Public Health Service Publication No. 752). Washington, 1960. 96 p. (GPO; 60 cents)
- Additional near-print publications are listed in Chapter III, Reference Services, p. 23

ARTICLES BY STAFF MEMBERS

- Brodman, Estelle. Our medical literature. Bulletin of the Medical Library Association, 47: 253-257, July 1959
- Brodman, Estelle, and Harvin, J. Marie. Medical Libraries in the Washington area. D. C. Libraries, 31: 25-29, April 1960
- Hawkins, Miriam, and Parker, Sheila M. Scientific translations: sources and services (Current medical library exhibits). Bulletin of the Medical Library Association, 48: 199-202, April 1960
- Rogers, Frank B. Future of medical indexing. Mississippi Valley Medical Journal, 82: 41, January 1960
- Rogers, Frank B. New Year's wishes (guest editorial). Bulletin of the Medical Library Association, 48: 209-10, April 1960
- Taine, Seymour I. New indexing program at U.S. National Library of Medicine. UNESCO Bulletin for Libraries, November/December 1959
- Taine, Seymour I. The new Index Medicus. D. C. Libraries, 31: 9-12, January 1960
- Uhler, Katherine L. Foreign medical directories. Bulletin of the Medical Library Association, 48: 44-78, January 1960
- Wright, Marjory H. Southern Asian materials in the National Library of Medicine. Bulletin of the Medical Library Association, 48: 142-148, April 1960

ADMINISTRATIVE OFFICERS OF THE NATIONAL LIBRARY OF MEDICINE

DIRECTOR - Frank B. Rogers, M. D.

OFFICE OF THE DIRECTOR

Assistant to the Director	M. Ruth MacDonald
Executive Officer	Ray W. Grim
Administrative Officer	John P. Spain
Supply Officer	Joseph McGroarty

CIRCULATION DIVISION

Chief	William H. Kurth
Head, Loan and Stack Section	(Vacancy)
Head, Binding Section	Helen Turnbull
Head, Photographic Services Section	Muriel C. Weins

HISTORY OF MEDICINE DIVISION (Cleveland, Ohio)

Chief	Dorothy M. Schullian
Head, Catalog Section	May G. Hardy

INDEX DIVISION

Chief	Seymour I. Taine
Assistant Chief	Edward A. Miller
Head, Subject Analysis Section	Edward A. Miller
Head, Composition Section	Lillian H. Washington
Head, Editorial Section	Maxine E. Kennedy
Head, Special Activities Section	Lloyd L. Wommack

REFERENCE DIVISION

Chief	Estelle Brodman
Assistant Chief	Robert B. Austin
Head, Reference Unit	Ellen G. Mayeux
Head, Special Projects Unit	Miriam D. Hawkins
Head, Documents Section	Charles A. Roos
Head, Art Section	Sheila M. Parker

TECHNICAL SERVICES DIVISION

Chief	Samuel Lazerow
Assistant Chief	Leslie K. Falk
Head, Selection and Searching Section	Leslie K. Falk
Head, Acquisition Section	James W. Barry
Head, Catalog Section	Eleanor R. Hasting
Head, Editorial Section	Denise Oudot

CHAPTER II

TECHNICAL SERVICES

On May 1, 1960, the Acquisition and Catalog Divisions were combined to form the Technical Services Division. The Catalog Division had been established in April 1945, and thus had existed as a separate entity for fifteen years. The new Division has a personnel ceiling of 68, and is organized into four sections: Selection and Searching, Acquisition, Catalog, and Editorial. The new organization emphasizes the unity of the whole process of acquisition and preparation of library materials, and looks toward an integration of functions which will permit a simplification of records and routines.

SELECTION AND SEARCHING PROGRAM

The year's acquisition activity was rich both in the discovery of new bibliographical selection sources and of institutions offering exchange items, and resulted in substantial increases in the Library's accessions. The list of source bibliographical titles regularly examined now totals 229 as compared with 196 titles at the end of 1959 and only 50 in 1954. In addition, of course, special lists are searched against the Library's holdings; such projects permit the filling of gaps in the collection and also provide significant tests of the Library's acquisition effectiveness in the areas involved. One such test revealed that in the area of French theses, for example, while NLM is receiving 75% of the output of Lyon, it is receiving very little from Bordeaux, Lille, and Nancy. Another project revealed that 25% of the 194 monographic items listed in Jugoslovenski sajam knjiga, 4 (1959) was not in the Library; on the other hand, a search of 225 Russian publications of 1955-56 imprint offered by the Saltykov-Shchedrin Public Library of Leningrad showed that only 11 items (less than 5%) were not in the collection. Of the 4,767 titles listed in World Medical Periodicals (2d ed.), it was found that 135 minor titles were not being received at NLM; these have now been ordered.

Russian Medical Literature. The chief source of Russian book procurement remained the Publications Officer in Moscow, but direct exchange with Soviet libraries and research institutes has increased greatly in the past several years.

Of the 1,115 Russian books acquired last year, 302 were obtained through exchange and gift requests, 664 through the Publications Officer, and 149 by purchase from dealers or by transfer from the Library of Congress. In the continuing drive to stabilize existing exchange relationships and establish new ones, new lists of offerings were sent to 87 institutions which engage in publishing activity.

As a result of this campaign, new exchange arrangements were established with the following institutions:

State Scientific Medical Library (Tiflis)
Institute of Experimental Morphology (Tiflis)
State Library of the Latvian SSR (Riga)
Lesgaft Institute of Physical Culture (Leningrad)
Institute of Forensic Psychiatry (Moscow)
Central Scientific Research Institute for
Evaluation of Work Capacity and Rehabilitation
of the Physically Handicapped (Moscow)
Rostov-on-the-Don Medical Institute
Strazhesko Institute of Clinical Medicine (Kiev)
Tashkent Medical Institute, Uzbek SSR
Filatov Ukrainian Experimental Institute of Eye
Diseases and Tissue Therapy (Odessa)
Zoological Institute of the Academy of Sciences,
Georgian SSR

Twenty-three other institutes have sent their publications without broaching the matter of exchange.

Fifty-two new Russian serial titles were added during the year, chiefly transactions of conferences and symposia papers published by various scientific institutes.

Chinese Medical Literature. An important achievement of the year was the processing (completed in January) of the entire backlog of approximately 800 modern Chinese books, which had accumulated over several years. In view of the prospect that final cataloging would be deferred indefinitely for the great majority of items, the Area Specialist set up a control file at the start of the work to make shelf retrieval easy, whether by title, author, or series. A few of the most important works were cataloged for the main collection; the others are kept in numerical order in the Division's area.

Some 300 additional works were received during the year, and these have been processed in the same manner. The 1,100 items apparently constitute a fairly complete representation of medical books from Communist China available commercially in Hong Kong. Of 217 unsolicited monographs transferred recently to the National Library of Medicine, all but 16 were found to be here already.

Japanese Periodicals. Filling in back issues of serial title holdings represents a tedious but important part of the acquisition process. There are the time-consuming problems involved in listing needs from existing library records and then of locating the elusive issues on the out-of-print market. The checking of a recently compiled record of missing issues of Japanese serials against a substantial list of older issues offered by a dealer resulted in enriching the collection by some 2,000 issues of 134 serials published during the last 50 years.

Indian Exchanges. In September and October exploratory letters were sent to 70 Indian medical research institutions asking if they published items of interest to the Library and proposing exchange. A number of letters have been received in response, some transmitting publications new to the Library.

PROCUREMENT PROGRAM

Use of Funds. More than \$85,000 was obligated for the purchase of medical literature during 1960, as compared with only \$81,500 obligated during 1959. As of the end of the year, almost \$69,000 had been paid out for 1960 orders, as compared with only \$63,000 paid out at the end of 1959 against 1959 orders.

The increased cost of library materials, revealed in the cost studies described below, does not alone account for the significant difference in the financial statistics for these two years. Improved handling of new orders, particularly those placed in difficult procurement areas, undoubtedly contributed to the improvement of fund use this year. A substantial increase in the number of orders placed and of monographs received supports this conclusion.

Fiscal Procedure. The Library's newly acquired authority to pay in advance for certain non-periodical materials removed a major stumbling-block in the acquisition process. The purchase of two major works was arranged for under this authority: Fifth Decennial Index to Chemical Abstracts (the first to highlight the need for the legislative authority) and Grosses Vollstaendiges Universal-Lexikon Aller Wissenschaften und Kuenste, 1732-54. The latter, a 68-volume work of singular value in the work of the History of Medicine Division, was offered in a limited reprint edition and on subscription only. Such major publications will be offered occasionally and they lend dramatic emphasis to the importance of the special appropriation language. Over the long haul, routine acquisition of so-called minor publications will provide continuing evidence that the authority is necessary. Many of these publications are offered at nominal, even insignificant, cost; but they must be acquired.

Cost Studies. Recent studies on the cost of American publications, undertaken by a committee of the American Library Association, have established a series of price indexes. The survey included the entire output of commercial books and a substantial sampling, approaching total coverage, of periodicals. As a part of this study the National Library of Medicine this year compiled the price indexes for medical books and periodicals. Base period and latest year figures are:

	<u>Average price</u>	<u>Index</u>
Periodicals 1947-1949	\$ 6.94	100.0
1960	10.28	148.1
Books 1947-1949	6.36	100.0
1959	8.56	136.0

Delivery Time Lags. A special analysis of dealer effectiveness was made during the year. Source File cards for four complete months were checked against the Outstanding and Received Order Records to determine the interval between order and receipt dates. The analysis revealed that 65% of Western European orders are received within 40 days and 85% within 50 days; 80% of American books are delivered by the Library's New York jobber within 20 days and 92% within 30 days.

Special Problems. The only known commercial book dealer in Indonesia reported that he has entered another field and will not supply books. Although a few major publications are available through importers in New York, limited exchange arrangements now constitute the major source of supply from this geographic area.

Africa as a whole remains a problem area. The dealer in the Union of South Africa reported difficulty with NLM orders on several occasions and was reluctant to handle requests for obscure and minor publications. Since several English firms maintain offices there, an attempt will be made to establish a new dealer relationship.

International Exchange. The use of Public Health Service publications as currency in the Library's exchange program has served to disseminate American medical literature more widely throughout the world. A special effort was made this year to establish exchange relations in areas where this material would be most effective in the development of newly organized medical research institutions. The result has been an increase in the number of publications received in the Library from institutions in the Asiatic and Latin American regions, as well as the furthering of the Service's publications distribution objectives abroad.

CATALOGING PROGRAM

The cataloging activity operated under the organizational pattern instituted in the fall of 1958, the most salient feature of which was the division of work into four language groups. It is difficult to judge the effectiveness of the new pattern, although statistics of production for the spring of 1960 show that the initial decline in the spring of 1959 has been more than recouped.

Card Files. The Old Public Catalog is now housed in 438 oversize card trays, and contains a varied assortment of cards. Some of these cards could be discarded because the information they contain is available in other sources; others should be weeded, but the lack of tracings and the variety of filing systems used make orderly weeding almost impossible. It would be desirable to reduce the size of the Old Catalog as drastically as possible before installing it in the Public Catalog Room in the new building.

The cards in the Subject Authority File will be filmed and discarded, but the Subject Subdivision cards will be retained because they provide an additional approach to information in the Subject Catalog.

No new cards have been added to the Process File since August 1958. This file now consists of eight trays: seven for medical dissertations, and one for material in foreign languages in non-Roman alphabets.

Subject Cataloging. With the closing of the 1959 card series late in September, subject cataloging policies and practices were completely revised by the change-over to the new combined cataloging and indexing subject heading authority list, Medical Subject Headings.

The Director presented several lecture-demonstrations in August and September to acquaint the staff with the structure and use of the main headings, the primary subheadings, and geographical, time, and form subheadings.

The utilization of MSH in subject cataloging has required considerable extra time, thought, and effort. With continued use and group discussion, however, problem areas are gradually being clarified.

After the decision was made to organize the New Subject Catalog on a combined alphabetical-classified basis, a number of tests were made to determine the most suitable pattern of arrangement and guide cards. In order to emphasize the index feature of the subheadings and to facilitate the use of the New Subject Catalog, colored guides in uniform arrangements were selected. A generous supply of printed subheading guides was then ordered: primary subheadings on left half-cut white guides, printed in italics; geographical and language subheadings on center third-cut yellow guides; time subheadings on right-center third-cut salmon color guides; and form subheadings on right third-cut blue guides. The main headings and cross-references were typed on center half-cut white guide card stock.

The New Subject Catalog was established in December by placing in the initial 36 trays all the main heading and cross-reference guide cards and inserting the subject entry cards. The apparent delay in establishing the new file was due to the need to await the receipt of all the printed guide cards.

Recataloging. As a result of the special efforts the staff has made, the 19th century subject collections have been completed and the recataloging of the 1801-1849 alphabet collection started. When this group of approximately 11,000 titles is finished, the 850 quartos, the 1,000 folios, and the 2,500 Cleveland pamphlets will be recataloged in that order.

This will complete the monographs except for some post-1800 titles in the History of Medicine Division and some titles in Oriental languages.

The number of serial titles in the Library has been variously estimated by the Circulation Division, the Catalog Division, and the Acquisition Division. In March 1958 the Acquisition Division reported that an inventory of its Serial Holdings File showed a total of 36,735 serial titles, of which 18,314 were not yet cataloged.

Since then 2,953 new serial titles and 1,601 old titles have been cataloged. Using the Acquisition Division's figures as a base, the totals at the end of March 1960 are: 39,688 serial titles; 22,975 cataloged (58%); 16,713 titles (42%) remaining to be cataloged.

NLM Catalog, 1955-1959. The publication of the second quinquennial issue completes ten years of close cooperative efforts between the Library of Congress and the National Library of Medicine. Possibly because of this milestone, both groups made special efforts to expedite the work of preparing the quinquennial Catalog. This resulted in its completion ahead of schedule and the expectation that it will be published before the end of the summer.

The 1955-1959 NLM Catalog will contain 4,167 pages, in six volumes. Part One, Authors (2,283 pages) contains 85,640 main entries, 21,382 added entries, and 16,730 name cross-references, a total of 123,752 entries. Part Two, Subjects (1,884 pages) contains 115,000 subject entries. The total for both Parts is 238,752 entries. (Comparable figures for the 1950-1954 AFML Catalog: 3,717 pages (1,994 and 1,723 pages) and 223,940 entries.)

The 1959 entries in Part One, Authors of the quinquennial Catalog (and not separately published) include 18,168 main entries, 5,338 added entry cross-references, and 2,320 name cross-references. Out of the total of 25,826 entries representing 1959 cataloging, 1,117 were prepared in the History of Medicine Division.

Policy Changes. Some simplifications of procedures for establishing name entries were put into effect in August. Rules for Oriental cataloging were modified to bring them into consonance with a change in the ALA Cataloging Rules. The entire NLM Manual on catalog procedures was rewritten and reorganized. Some abbreviations used on Name Authority File cards were "decontrolled."

Binding. The Binding Section, originally a part of the Acquisition Division, had become a section of the Catalog Division in June 1945; on October 1, 1959, it was transferred to the newly established Circulation Division. During this period 172,360 volumes were bound at the GPO and at various commercial binderies; an additional 77,068 volumes were bound, mended, or repaired within the Section. The total funds spent on binding during this period amounted to \$777,000, or about \$55,000 per year.

This would make the average cost per volume approximately \$4.50. The waiver obtained in 1956 and the use of commercial binderies since that time have substantially decreased the per-volume cost, as recent years' figures show.

SPECIAL PROJECTS

List of Medical Serials. For a long time the Medical Library Association has been interested in compiling a union list of medical serials. In 1959 when the National Library of Medicine decided to publish a list of its currently received medical serials, the Medical Library Association asked that the Library consider using its projected list as the basis for compiling a union list.

In January 1960 representatives of the Library met with members of a subcommittee of the Medical Library Association's Bibliography Committee to discuss NLM's draft proposals for the projected union list, Medical Periodicals in American Libraries. The proposals were that NLM issue a checking edition based on its holdings, circulate it to contributing libraries, do the editorial work, and prepare copy. The Medical Library Association would be the publishing body. The list would consist of substantive serial titles, plus other types considered important, in existence in 1950 or later, in the field of medicine broadly interpreted. Bibliographical information would be given. It was estimated that there would be about 7,000 entries, plus an indeterminate number of cross-references, and that it would take about two years to produce it. After some discussion the participants in the meeting decided to drop the wider project and rely on NLM's proposed list of currently received serials, which would answer many major purposes.

By early June the Working File which will form the basis of NLM's list of medical serials published since 1949 was completed. It consists of copies of Kardex cards made from the Serial Geographic File film; copies of Holdings File cards representing serials of which the Library has an issue for 1950-54, but not beyond 1954; and copies of catalog cards in the Holdings File. Provision has been made to keep the file up to date by the addition of new cards and the removal of cards for serials withdrawn from the Library's collection. A sample of the Working File reveals that it contains records for about 18,500 serials of which NLM has received an issue for 1950 or later. On the basis of selection criteria evolved in an effort to find a middle ground between including only substantive serials, on the one hand, and all serials of which the Library has an issue for 1950 or later, on the other hand, it is estimated that the list will include about 10,000 serial entries. The list is scheduled for publication near the end of 1961.

Index Medicus. The decision of the American Medical Association to discontinue the Quarterly Cumulative Index Medicus with

volume 60, 1956, left many institutions without a medical index covering the period 1957-59. The Library offered to supply these institutions with back issues of the Current List of Medical Literature from its duplicate stock. More than 200 institutions have requested and received 3,500 issues of the Current List from the Library. The issues for January-May 1957 are out of print; the American Medical Association has arranged to have these issues of the Current List reprinted and distributed to former CCIM subscribers.

CHAPTER III

REFERENCE SERVICES

On December 15, 1759, Amiel noted in his Journal, "Order is man's greatest need and his true well-being." The need for order is the need for understanding; complexities which can be sorted into categories are more easily understood. Since this is so, it is not surprising that a constant re-ordering of affairs occurs as new factors enter the picture. At some periods a series of re-arrangements may occur in close succession; at other times long periods of stable arrangements may continue.

Fiscal Year 1960 was a period of important re-arrangements in the Reference Division. During the summer of 1959 it took over the translation program under Public Law 480, Section 104(k), which was formerly handled by the National Institutes of Health. The Library's program of international relations also became the Division's responsibility. On October 1, 1959, with the activation of the newly-created Circulation Division, the Circulation Section was transferred from the Reference Division to the new division under the title Loan and Stack Section. In the same month the Reference Section was divided into a Reference Unit and a Special Projects Unit. Since November 1, 1959, the Reference Division has been responsible for producing the Bibliography of Medical Reviews, formerly prepared by the Index Division.

What were the purposes behind these changes, and how have they worked out?

For some time the Library had been considering the "physical book" as a distinct entity whose handling brings to the fore problems and solutions different from those of the "intellectual book." In the planning for the new building all groups concerned with this aspect of the Library's work had been placed contiguous to each other; for some years a seminar on "the physical book" had been presented to the intern group. By the creation of the Circulation Division the existing situation was regularized; in addition, the transfer of the Circulation Section was envisaged as a means to give the Chief of the Reference Division more time for carrying out additional responsibilities in connection with the translation, international relations, and publication programs. The International relations program hardly got off the ground during the year, and the translation program suffered from fear of its impermanence, which delayed attempts at long-range solutions for some of its problems. Preparation and publication of the Bibliography of Medical Reviews for 1960 was less than perfect, by a far cry. Unforeseen difficulties arose in the split of the Reference Section into two Units; nevertheless the number and caliber of publications produced under this arrangement bespeak a highly successful effort along these lines.

PUBLIC LAW 480

Since August 1959 the NLM has been arranging for the "translation, abstracting, and dissemination" of some segments of foreign medical literature, under the over-all guidance of the National Science Foundation. (P.L. 480 uses "soft" currency accruing to the United States under the Agricultural Trade Development and Assistance Act of 1954.) Contracts for this work have been signed with Israel and Poland; negotiations for a contract in Yugoslavia were nearing completion at the end of the year. Two volumes, begun under the aegis of NIH before the program was taken over by NLM, have already been published and distributed. These are: M. S. Mitskevich. Glands of internal secretion in the embryonic development of birds and mammals. (Moscow, 1957. 304 p.); Academy of Sciences, USSR. Works of the Institute of Higher Nervous Activity. Pathophysiological Series, Volume 2. (Moscow, 1956. 399 p.). Two other volumes are translated and being edited in the United States. Works awaiting translation are:

- Akademiia Nauk, USSR. Problems in evolution of physiological functions. 233 p.
- Fol'bert, G.V. Problems of physiological processes of fatigue and recovery. 244 p.
- Gordienko, A.N. Nervous control of immunogenetics. 257 p.
- Skulme, K.A. Problems in etiology, pathogenesis, and early diagnosis of cancer. 351 p.
- Trudy Instituta Vysshey Nervnoy Devatel' nosti, Seriya Fiziol., V. 1, 2. 625 p.
- Ibid., Seriya Patofiziologicheskaya, V. 1, 3. 728 p.
- Copernicus Polish Society of Naturalists. Animals under captive conditions of hibernation and hypothermia. 204 p.
- Acta Biochemica Polonica, V. 1-5, 1955-1959. About 2,000 p.

Since the duration of the translation program at NLM has been both short and uncertain (due to the uncertainty of appropriations in this area), stable procedures for it have not yet been established. Material for translation has been chosen in collaboration with scientists and librarians throughout the country; editing has been done on a voluntary basis by several people, and distribution lists have been worked out in cooperation with the Medical Library Association. If the budget is approved by Congress, a more detailed and thoughtful system must be established, and the question of the comparative worth of cover-to-cover translations, abstracts, or reviews of the literature for the transmittal of scientific information must be examined.

INTERNATIONAL RELATIONS

From its very foundation the National Library of Medicine, under all its titles, has been an international institution. In the pursuit of material to add to its collections, in the dispersal of its loan and reference services, in the personal relations of its staff members with their colleagues throughout the globe the NLM has recognized that at least in medicine this is indeed "One World." The recent extension of its interlibrary loan service was an expansion under this principle. In an attempt to coordinate some of the Library's international relations in one place, the Reference Division was given the responsibility in the summer of 1959 for carrying out most of this work. Two immediate results were an increase in the amount of time the Reference Division gave to foreign visitors and the working out of schemes for assisting in the training of foreign librarians.

PUBLICATIONS

The Reference Division issued a total of 21 publications; at the end of the year three additional publications were in press and work on six others was underway. Some of these are listed at the end of Chapter I; those issued in near-print format are as follows:

Arthropod-borne encephalitis; a bibliography covering literature of 1953 through 1958. (457 references) 1959. 61 p.

Biological effects of non-ionizing radiation on humans and higher animals. Revised. 1960. 13 p.

Caricatures, from the Art Collection of the National Library of Medicine. 1959. 24 p.

Check list of basic reference aids for small medical libraries. 1959. 14 p.

Leptospirosis; a bibliography of literature 1957-1959. (319 references) 1959. 39 p.

Medicine and the allied professions; sources of career information for students. 1959. 6 p.

Music therapy; a selection of references, 1952-1958. 1959. (22 references) 3 p.

Narcotic addiction; a selected list of references in English. 1959. 14 p.

Nobel prize winners in medicine and physiology, 1901-1959. 1959. 9 p.

Publications and services useful to the medical librarian. Addendum. 1959. 2 p.

Staphylococcal infection: supplement; a bibliography covering literature of June 1958 through July 1959. (285 references) 1959. 29 p.

Style manual (preliminary edition). 1960. 16 p.

Survey of Reference Room activities, Division of Special Health Services, Bureau of State Services, Public Health Service. 1959. 19 p.

Viral genetics; a bibliography of literature 1955-1959. (309 references) 1960. 34 p.

Medical portraits; a preliminary checklist of individuals in the Art Collection of the National Library of Medicine. 1960. 24 p.

Psychiatry for the non-psychiatric physician: a bibliography. (184 references) 1960. 29 p.

When the Reference Division took over the publication of the Bibliography of Medical Reviews in November 1959, new criteria for the selection of review articles were established and various methods of reproducing citations were tested. Work continues on this. Last year it was reported that studies were beginning on the theory of publications, design and format, cost factors, and on the distribution of publications. These have been continued in FY 1960 in the Special Projects Unit. A standard cover design, which might be used repeatedly with slight modifications to make an informal Library series of publications, appeared for the first time in mid-June.

STATISTICS

A cliché of 19th century science was to the effect that to understand a phenomenon one must be able to measure it. The quantification of library phenomena is as important as the quantification of any other natural occurrence. But as Raymond Pearl noted, "It is a question whether any more complicated relations than those of 'more' or 'less' can ever be really proved by the use of statistical methods alone and unaided, and indeed in not a few cases there is some doubt inhering in a statistical conclusion that A is more than B or C is less than D. Perhaps in the long run it will appear that the chief usefulness of the statistical technique in the methodology of science is the not unimportant one of suggesting problems and lines of attack on problems which must finally be solved, if they ever are solved, by the application of the methods of experiment and observation, or a close and integrated correlation of these methods with the statistical to reach a common end."

The "suggesting [of] ... lines of attack on problems" is an extremely important use of statistics. In line with this theory, much time and effort has been spent in the Reference Division in FY 1960 on the statistical counts of work done. Standards have been changed, forms for reporting statistics have been revised, categories of counting units have been reassigned, and definitions of the categories promulgated. It is sad to report, however, that in spite of all this activity the results are not felt to be all that could be desired. The present statistical counts are perhaps more accurate and useful than earlier ones, but this is all that can be claimed for them.

EXHIBITS

Main Exhibit Room

July - August 1959	Laughter - the best machine [caricatures and cartoons from the art collections]	Art Section
Sept.- Nov. 1959	The Public Health Service and Medical Research; some contributions, 1900-1940	Mrs. Barry
Dec. - Feb. 1960	<u>Index Medicus</u> (New Series)	Index Division
Mar. - May 1960	Pioneers of the Medical Motion Picture in the United States	Photographic Services Section

Second Floor Exhibit Space

June - Sept. 1959	The new NLM	Art Section
Oct. - Jan. 1960	Japanese Medical Prints by Yoshiiku Ochiai (1833-1904)	Art Section
Feb. - Mar. 1960	Medical America, [a selection of pictorial regional maps on the history of U. S. medicine]	Art Section
Apr. - May 1960	Famous Physicians and their Libraries	Art Section

Outside Exhibits. During July 1959 the NLM exhibit for May - June 1959: "Psychopharmaca; drugs for the soul" was on display in the Main Lobby of the Clinical Center, National Institutes of Health. The Art Section supervised the design and construction of two table-type panel exhibits for display at library conventions during 1960: a 3-panel exhibit with framed architects' drawing featuring the new NLM building, and a 16-panel exhibit of the Index Medicus (New Series).

CHAPTER IV

C I R C U L A T I O N

The Circulation Division officially came into existence on October 1, 1959. It encompasses the Loan and Stack Section (formerly the Circulation Section of the Reference Division); the Photographic Services Section (Office of the Director); and the Binding Section (Catalog Division). Mr. John P. Spain, Administrative Officer in the Office of the Director, served as Acting Chief of the new Division until the end of November when Mr. William H. Kurth transferred from the Library of Congress to take over the position.

FUNCTION AND PROGRAM

"The circulation function in libraries," it has been observed, "involves every user of library materials and the successful performance of the function is a measure of the effectiveness of all other duties to which librarians devote themselves. The best equipped library in the most modern plant and staffed with the most capable librarians would be a mausoleum of recorded knowledge if the circulation function was omitted. The processes and services which result in bringing users and library materials into productive relationship is the circulation function in libraries." ^{1/}

How, precisely, the users of the National Library of Medicine are brought into this "productive relationship" represents the substance of this chapter. The Circulation Division carries the responsibility for planning, organizing, and directing the support and service operations in the area of circulation, photoduplication, and binding, with the objectives of providing for the effective custody and preservation of the collection, its arrangement, and the maintenance of the stack areas. The Division's responsibility and productive relationship is best expressed and summarized in the circulation of library materials to readers and, more extensively, in the area of its interlibrary loan operations. It is in this area of service to the medical research community that the Division's other supporting operations find their purpose, and ultimately, judgment of their efficacy.

At the end of the year the new Division possessed a strength of 58 positions. These positions were divided, according to administrative units, as follows:

Office of the Chief		2
Loan and Stack Section		23
Photographic Services Section	(Miss Muriel C. Weins)	22
Binding Section	(Miss Helen Turnbull)	11

^{1/} Yenawine, Wayne S.: "Current Trends in Circulation Services," Library Trends 6:3, July 1957

CARE AND CUSTODY OF THE COLLECTION

The Division is responsible for the custody, arrangement, and conservation of the Library's collection currently comprising over 1,000,000 pieces of research material in a variety of formats, including periodicals, serials, monographs, documents, anatomical tables, lantern slides, charts, photographs, microfilms, and motion pictures. Effective servicing of these materials involves the Division in the necessary activities of maintenance of the stack area, re-arrangement of the collection, as well as conservation services such as binding and repair, including photoreproduction operations to assure optimum long-term preservation of the collection, and directly involves all three Sections of the Division.

The activities of the Binding Section in seeing that materials are appropriately and promptly bound and repaired occupy an important role in the care and custody of the collection. In addition, the poor paper program under the control of the Photographic Services Section is designed to convert seriously deteriorating publications into microfilm format and represents another basic supporting feature of the Division's activity in preserving and improving the Library's collections.

These programs, for purposeful application, require careful supporting investigations of technological developments relating to papers, bindings, lamination, and chemical treatments, as well as continued study of microfilming technology, to develop a well-integrated and viable program to conserve the collection.

Shifting of the Collection. Although no major shifting of the collection comparable to that of the previous year was necessary, minor shifting was accomplished throughout the year to meet the shelving requirements occasioned by the recataloging program and the continued pressure of new acquisitions of medical literature.

Damage and Infestation. Slight damage to the collection as a result of water seepage occurred twice during the year; fortunately the damage was localized and no books sustained irreparable damage. Entomologists of the Insect and Rodent Control Section, National Institutes of Health, visited the Library in April, with the view of surveying the degree of pestiferous infestation now present, and to survey methods of fumigation, in conjunction with cleaning of the collection prior to its placement in the new building.

Deterioration of Paper, and the Poor Paper Program. Under the direction of W. J. Barrow and supported by a grant from the Council on Library Resources, Inc., the Virginia State Library produced a significant report, with important ramifications for the Library's program, investigating the deterioration of book papers manufactured in the United States between 1900 and 1949.

Correlation of the report's detailed findings with the Library's holdings underscores the seriousness of the Library problem in this area. Barrow, in commenting on the findings, states, "If material which should be preserved indefinitely is going to pieces as rapidly as these figures indicate, it seems probable that most library books printed in the first half of the 20th century will be in unusable condition in the next century. Librarians will recognize that the problem is not a new one, but few will fail to be astonished at its magnitude." 2/

To provide an orderly program for preserving deteriorating printed materials, the Library's poor paper program has managed to convert large quantities of poor paper to relatively permanent microfilm. Although the program has advanced on a large scale, a significant drop in total production occurred during the fiscal year, when greatly increased interlibrary loan activity pre-empted the microfilm activity. Thus, in the previous fiscal year 42.9% of the microfilming activity was devoted to the poor paper program, 46.4% to interlibrary loan activity; in the fiscal year just ended, the proportion was 27% poor paper program, 63% interlibrary loan-connected microfilming.

With respect to the preservation microfilming of journals, a total of 639 journal titles are now wholly or partly on film in the Temporary Series. These titles are not cataloged, being entered solely in the Serial Record. Although no servicing problem has been encountered in the filling of requests from this series, it is apparent that the task of cataloging these titles will be sizable.

A somewhat variant problem is posed by such journals as the British Medical Journal, Lancet, the Journal of Physiology, and the Deutsche Medizinische Wochenschrift. All of these holdings extend well back into the nineteenth century, and all are on deteriorating paper. The question is not merely one of preservation, which could be met by microfilming, but also one of convenient reader access, since all are subject to relatively frequent reference use. The requirement, therefore, is for conversion to another format, which will at the same time meet the need for frequent, rapid, and convenient access by the reader. Because these and similar journals are of key importance and constitute a problem for medical librarianship generally, further investigation is being pursued.

1/ Barrow, W. J. : Deterioration of Book Stock; Causes and Remedies. Two Studies on the Permanence of Book Paper. Richmond, Virginia, The Virginia State Library, 1959

University of Berlin Thesis Filming. The pilot study of the filming of this series was completed. A total of 14,411 theses comprising 585,610 pages in varying states of physical preservation have been removed from 114 boxes on 29 shelves of stacks and reduced to 288 reels of 16mm. film. The accuracy of filming for this project has proved particularly noteworthy since retakes were necessary for only 285 pages. The theses, filmed fifty to a reel, with index cards produced by using facsimiles of the title pages, have proved easy to locate at the relatively low request level. An experiment has been undertaken to fill interlibrary loan requests from this series by reproducing images on sheet film from the roll film. Technical difficulties with the equipment and lack of favorable reader response have made the results of the experiment so far inconclusive. No difficulties have been encountered in filling requests by means of the CopyFlo. It is hoped that further thesis filming can be initiated during Fiscal Year 1961 as a measure for preservation and space control.

Binding Contract. The Library's binding contract is consolidated under the Departmental contract for commercial binding, the price for binding being \$2 per volume. The price for rebinding or recasing without sewing is \$1.70. Both prices include seven lines of lettering and the call number. Special work was billed at eight cents for each line over seven; volumes in excess of two and one-half inches in thickness were 35 cents each, and other special work was completed at \$2.75 per hour. Pickup of material was accomplished every two weeks.

Requests for Missing Issues. A regular part of the routine of collecting unbound serials from the shelves for binding is the preparation of requests for missing issues. A total of 330 requests were made for 1,099 missing issues of serials and forwarded to the Acquisition Section of the Technical Services Division. Requests are directed to three sources, with a stipulated time limit of one month for furnishing the material. The resources of the United States Book Exchange, Inc., will be explored first. If the material is not supplied after one month, claiming efforts will be directed consecutively to two out-of-print sources, each with a prescribed time limit of one month. Should these efforts to obtain original pieces be unsuccessful, the system calls for submission of the unfilled requests to the Loan and Stack Section, at which point the needed material will be borrowed as an interlibrary loan, microfilmed, and xero-graphic copies produced.

Management in the Binding Section. Work areas were reorganized in March for better utilization of space and improvement of the flow of work. The collect-for-binding and binding operations were placed in Room 109, and Room 111 was devoted to NLM binding, mending, repair, and dry-mounting operations.

The Head of the Section moved into Room 110. The storeroom was cleared and now houses the book-marking and book-plating operations. The corridor, cleared of recatalog monographs which were removed to Room B-10 in the basement, was then utilized for the sorting operation, with designated bins and shelves reflecting the various stages of the work. The Bindery Charge Record (PHS-2719) was interleaved with carbons in a snap-out form, so that the bindery charge and the binding record can be made simultaneously, thus eliminating one work operation.

CIRCULATION TO READERS

There were 41,906 requests for publications on the part of readers in the Reading Room; 9,270 readers were registered. The peak month occurred in October when 6,152 reader requests were received. Of all items requested, 5.1% were non-available (2,138). This is substantially less than the percentage of non-availables for interlibrary loan requests (12.7%). Apparently, the explanation for this is the fact that investigative work on the part of the reference staff -- question-and-answer -- is successful in eliciting the correct citation from the reader. The interlibrary loan requests, being inarticulate in this respect, are subject to a higher percentage of non-availability.

INTERLIBRARY LOANS

In the third year of the Library's new interlibrary loan policy the loan requests exhibited a trend of ever-mounting volume.

During the year 109,466 interlibrary loan requests were accepted, 30% more than in the previous year. The peak occurred in March (11,031 requests); the low month was August, 7,918 requests. Non-availables were 12.7% of the total orders accepted; this represents a slight improvement over the previous year when 13.8% of the requests were non-available. The slight improvement becomes more significant, however, when it is taken in context with the radical increase (30%) in the number of requests received. Even with the pressures of added intake the bibliographical work was prosecuted to the extent that a lesser percentage of items was reported non-available, and since available hours of staff time reflected no increase over the previous year, the ability to cope successfully with this expanded volume of interlibrary loan requests is commendable.

The disposition of the requests is of interest. Eighty-one percent of the requests is handled by photocopy; 6.3% is processed in the form of original material; the final 12.7% is non-available. The figure for non-availables does not imply simply inability to locate, although this is a component. Other factors represented in the context of non-availability are: materials in the commercial bindery, publications not collected by the Library, not on shelf, etc.

Statistical Survey. Plans for a "Statistical Survey of the Use of the Serial Collection on Interlibrary Loan" were approved in May and active work on the Survey began immediately. Utilizing punch card techniques the Survey will serve to produce data from several viewpoints. Primary data represent the titles requested during calendar year 1959, their language, and country of publication. The libraries requesting interlibrary loan during 1959 will be identified, as well as their location in terms of state and city, and will be designated as to type of library (university, medical school, public, etc.). Another feature of the Survey is to record the date (year) of the serials requested. Thus it will be possible, along with other tabulations, to ascertain exactly the number of requests in terms of specific years for individual titles. Some preliminary data are already available; for example, there appear to have been some 1,600 library users of the interlibrary loan facilities during 1959, and estimates of the number of individual titles requested are between 3,000 and 3,500.

DOCUMENTARY MEDICAL MOTION PICTURE PROGRAM

The archival collection of medical motion pictures grew slowly to a total of 593 films, plus a few sound filmstrips. This figure does not, however, reflect the potential growth of the program since individuals and organizations have promised donations at such time when the Library is physically able to service such a collection, after the move to the new building.

Film Reference Guide. The first edition published by NLM of the Film Reference Guide to Medicine and Allied Sciences has proved a gratifying success. The sponsors, the Interdepartmental Committee on Medical Training Aids, have expressed their satisfaction with the subject arrangement, and the public sale of more than two thousand copies by GPO indicates a growing interest in the publication. The Committee renewed the contract and requested more copies for distribution within their agencies. The 1960 edition will contain 1,991 current titles, 79 being withdrawn as obsolete and 144 constituting additions of new productions. The checking of the currency of distribution information is a unique feature of this publication.

The Library has cooperated with the Interdepartmental Committee on Medical Training Aids during the year by sending a representative to its monthly meetings where the most significant recurrent topic was patterns of distribution of medical motion pictures in the United States. The entire problem of the bibliographical control of motion picture information is under review.

Exhibit. An exhibit, "Pioneers of the Medical Motion Picture in the United States," aroused a good deal of interest, since the history of the medical motion picture has been curiously neglected both by medical and motion picture historians.

The exhibit was displayed at NLM for three months and is being loaned to other agencies. The donation of ten early films made by Dr. Daniel L. Borden, who was featured in the display, was a result of this exhibit.

PHOTOGRAPHIC SERVICES

Output of microfilm totaled 3,257,043 pages, of which 2,040,951 pages were related to the Interlibrary loan program, and 891,520 pages were filmed for the poor paper project.

The number of pages produced on the CopyFlo for external orders was 2,020,789 compared with 1,435,343 pages during the previous year; the difference indicates the pressures imposed by the 30% increase, over 1959, in interlibrary loan requests.

Cost Study of Photoduplication Operations. A study of cost factors involved in the production of microfilm, CopyFlo pages, and photostats, utilizing fiscal year 1959 as a base, was prepared in February 1960 in conjunction with the Executive Officer. NLM Circular No. 8, reciting the Library's price scale for these materials, was reissued without change.

Mobile Camera. Research and development on the mobile camera, designed to microfilm material requested as interlibrary loans in the stack area of the new building, proceeded during the year. A prototype camera, constructed by the Electronic and Technical Services Laboratory of the Public Health Service under the guidance of Mr. Emmet Murphy, was delivered to the Library in January. Special testing of the camera was begun immediately in the first floor stack area to simulate conditions in the new building, and the materials required for interlibrary loan purposes were serviced from specially contrived "ranges" in the test area. Operation of the prototype camera proved satisfactory from the technical standpoint. The prototype yielded valuable results, including the need to devise a lighting system generating less heat, better design of the cord, canopy, seating arrangement, etc. Consultation with various photographic equipment manufacturing firms followed, with the purpose of developing specifications and cost estimates for early consideration.

CHAPTER V

HISTORY OF MEDICINE

The Greek word stoa was assigned to a roofed colonnade or portico which opened on a public place. Renowned among such structures was the stoa in which Zeno lectured to his pupils and which gave its name to his philosophy. Ever after an aura of learning was associated with the word. As the move to Bethesda approaches, the History of Medicine Division, one of five divisions concerned with learning's contributions to health, would take as its text the familiar passage in the Gospel according to St. John, 5:2, "Now there is at Jerusalem, by the Sheep Gate, a pool, called in Hebrew Bethesda, which has five stoa (porches in the King James Version, arcades in Weymouth, porticoes in the Revised Standard Version, colonnades in the American Translation)."

To the end that the stoa which is the History of Medicine Division may best assist at the healing pool every effort was made during Fiscal Year 1960, and will continue to be made during Fiscal Year 1961, to bring the Division to a state of maximum readiness for the return to the parent library. It is desirable that basic tools of general bibliographical reference which are not available at the parent library be acquired now, and they are being purchased in facsimile when they cannot be procured in the original edition. It is desirable that the early books be returned in the best possible physical condition, and to this objective the Rare Book Craftsman is giving his most devoted attention. Cataloging, which looms Gargantuan in libraries historical or current, is being pushed; the year ends with American imprints through the year 1800 fully cataloged. In reference work, finally, a greater use of the Division's facilities by government physicians in the Washington area is apparent; it would almost seem that they are intentionally familiarizing themselves now with the even greater opportunities which will be theirs when the books are regularly available at Bethesda.

Staff Activities. Dr. Schullian continued as a member of the Council of the American Association for the History of Medicine and also of the Council of the Bibliographical Society of America and of its Supervisory Committee for the Third Census of Fifteenth Century Books in American Libraries. The Division was represented at the meetings of the Bibliographical Society of America in Providence, Rhode Island, October 9-10, 1959, and in New York January 22, 1960; the American Association for the History of Medicine in Charleston, South Carolina, March 24-26, 1960; the Institute on Catalog Code Revision, the American Library Association, and the Rare Books Section of the Association of College and Research Libraries, all in Montreal at various times during the period June 13-23, 1960.

Personnel. Vacancies were few and were filled with a minimum of disturbance. Dr. Harriet C. Jameson, Chief of the Division since September 1, 1954, and Head of the Catalog Section from January 3, 1950, to that date, accepted a position as Rare Book Librarian at the University of Michigan; her resignation took effect August 28, 1959, on which date the Assistant Chief, Dr. Dorothy M. Schullian, continuing her own previous duties, was appointed Acting Chief, to become Chief of the Division on April 19, 1960. Dr. Jameson left a Division steadily engaged in full descriptive cataloging of all its early holding, and closely knit by wise administration for the proper performance of all its other functions.

ACQUISITION

It is with admirable reason that so many libraries give primary listing in their annual printed reports to notable acquisitions. Acquisitions are the nutriment of any library. The History of Medicine Division has continued to purchase in all areas as its budget permitted and has also received items by gift. The most notable accessions are recorded here in the roughly chronological order of their production.

Incunabula. One item, Johannes Jacobi's Regimen contra pestilentiam, was added to the 501 incunables already in the Library's possession. This edition is thought to have been printed in Cologne about 1500 by Cornelis van Zierikzee; it has received the identifying number 245.23 in Klebs's Incunabula scientifica et medica.

European Imprints of the Sixteenth, Seventeenth, and Eighteenth Centuries. Occasional opportunities still arise to round out the Library's holdings in Hippocrates. Seven editions were purchased during the year; four of these had not been included on the Hippocrates Want List which was issued in 1954. One was acquired at the bargain price of \$1.13. Several editions of Galen, Caelius Aurelianus, and Avicenna were obtained, and a 1510-1511 edition of Rhazes which had stood imperfect on the Library's shelves in three successive buildings since 1872 was finally completed. Also late, but finally, came Antoine Saporta's De tumoribus ..., Lugduni, 1624 (Garrison-Morton 2971) and Stefano Lorenzini's Osservazioni intorno alle torpedini ..., Firenze, 1678, which is so important to the history of electroshock therapy and of embryology. Pharmacy, the pest, herbals, balneology, general therapeutics, and dentistry were represented in other accessions. Numerous dissertations, mainly from the universities of Leiden and Strasbourg, were added in a resolute effort to supplement the Library's already vast holdings in this form. Though they are seldom in themselves real monuments of medicine, they are nonetheless valuable for what they tell of the state of medicine in their periods and for biographical information which may occur in them on both the candidate and other individuals. It is gratifying, for example, to have the dissertation on muscular motion which Benjamin Alexander submitted at Leiden on December 1, 1761, eight years before the (posthumous) publication of his translation of Morgagni's Seats and causes of diseases.

Americana. No less resolute has been the effort in recent years to supplement the holdings in Americana. It becomes increasingly difficult, however, to find editions which the Library does not already possess in one or more copies. Only six editions were purchased during the year, of which three were replacements for poor or imperfect copies. Additional items were acquired by transfer from the main Library as they were discovered there in the course of work on the Check List of Medical Americana.

Manuscripts. If the Division still lacks an early, representative manuscript in the language of Hippocrates and Galen, it can nonetheless point to several newly acquired later manuscripts which could have been "institutionalized" nowhere more fittingly than at the National Library of Medicine. These include a general list of medical supplies on board the United States Frigate Constitution and of expenditures of them December 17, 1798, to May 1799, when the ship immortalized by Oliver Wendell Holmes was still very young and not yet celebrated for her victories in the War of 1812; a letter of January 17, 1824, to the former secretary of the Continental Congress inquiring why the writer's father-in-law, Dr. Charles McKnight, had never been paid by the National Government for services at the General Hospital August 1, 1780, to December 31, 1781; a series of more than fifty ledgers and day books recording the day-by-day practice in Williamstown, Massachusetts, from 1805 to 1896 of Dr. Samuel Smith and his son Dr. Andrew Murray Smith, who was present as Major in the 40th Massachusetts Regiment at Folly Island during the siege of Charleston in 1863; a letter written by William Alexander Hammond two days after his appointment as Surgeon General of the Army to express to the entomologist and physician John Lawrence LeConte of Philadelphia his thanks for support received in that city; and memorabilia of Colonel Harold Wellington Jones, some of which are concerned with his years as Director of the Army Medical Library. Other significant documents are a letter by John Bell to his London publishers, a letter by Charles Bell concerning his Hospital School to his friend John Richardson, and bulletins on the state of President Garfield's health after the attempted assassination.

Reference Collection. The welcome given monuments of medicine or important manuscripts is fervent, but no heartier in reality than that accorded new reference tools which ease the librarian's lot in the everyday performance of routine duties. A catalogue of Italian books from 1465-1600 in the British Museum, a checklist of Wing items in The Library Company of Philadelphia, a new bibliography of Albrecht von Haller — these and other tools like them will be consulted repeatedly through the years as work is done on the Library's copies of titles recorded in them. Ordered during the year, in facsimile, was the great encyclopedia of Zedler, the 64 volumes and 4 supplement volumes of which will be especially useful for biography and bibliography of the sixteenth and seventeenth centuries.

CATALOGING

The cataloger has recently been compared to Sisyphus, represented as rolling eternally up a hill a rock which never reaches the summit but invariably crashes down once more. This is not an entirely accurate picture. Items are cataloged steadily and surely at the History of Medicine Division, one by one and dozen after dozen until their numbers swell into the hundreds, and it is only in special cases that some recataloging is necessary. The trouble is that the hill grows higher on the material furnished by fresh accessions. Yet what cataloger worthy of the name would, if given the choice, prefer a closed, static, dormant collection of books to one vitalized by the constant addition of supplementary items?

Americana. In December 1959, for example, exactly as scheduled, cataloging of pre-1801 Americana was substantially completed. This cataloging had a second motive in the aid it would give to Mr. Robert B. Austin, in the preparation of his Check List of Medical Americana. As it turned out, through his knowledge of the Americana and his visits to other libraries, Mr. Austin worked in a reciprocal relation with the catalogers, helping them on many points and thus rendering the project mutually beneficial. It had been the intention to proceed immediately thereafter to post-1820 Americana at the History of Medicine Division. In the interests of economical cataloging, however, this undertaking has been deferred until the Division rejoins the parent library, when it can be accomplished far more efficiently with the help of reference tools for the later period which are housed there.

Hippocrates. Mr. Roger J. Trienens worked steadily throughout the year on the Division's outstanding collection of Hippocrates. The goal for the completion of this project, which includes both the editing of descriptions previously made but not yet printed in card form and the cataloging of editions acquired in recent years, is now November 1960. The present plan is to proceed then to the publication of a separate Hippocrates catalog in book form which will provide to medical historians, librarians, and classical scholars a careful bibliography of the works of Hippocrates in the National Library of Medicine through the year 1800.

Sixteenth Century Editions. On June 1 the catalogers resumed the cataloging of the general collection which had been interrupted in 1957 by the Americana project. Emphasis is now on the sixteenth century, though departure into the seventeenth will be expedient where the editions of one author appeared in both centuries and where a seventeenth century item is bound with one of the sixteenth. This seems almost a return to first essentials, since demands in acquisition and reference work come mainly in these centuries and since the Library's holdings of sixteenth century volumes alone outnumber the Americana by more than two to one. Cataloging of these European imprints will be slower because they are for the most part in foreign languages, because they are often physically larger than the Americana, and because many of them will present complicated bibliographical problems.

They are being accepted as a challenge, however, and they will most certainly offer a variety in medicine and printing which the Americana, in spite of their supreme importance in relating the beginning of medicine in this nation, and the Library's consequent and rightful fondness for them, were powerless to furnish.

REFERENCE

Reference work takes many forms. An interlibrary loan request arriving with an air of simplicity and innocence may initiate an extended search for proper verification of the reference. A straightforward letter requesting historical information is often answered quickly and in a few lines; another may be only one of a series of letters and answers which must continue through days and weeks before all the relevant information is provided to the customer. A visitor may wish to see briefly only a few representative volumes or may desire that dozens be pulled from the shelves for extended consultation. A reference librarian accordingly is many things to many persons and must possess both innate sagacity and much experience in order to distinguish the important from the unimportant and to decide how far each investigation should be carried.

Interlibrary Loans. Books were busily wrapped and dispatched throughout the year with the usual instructions (not always followed) to the borrowing library that they be tenderly handled and strongly packed for return. Loans of original material went to the United States and Canada and in one case to England. Increasingly, when photoprinks or film will serve as well and especially when the item desired is not large, requests are being filled by photoreproduction. The books suffer less wear and tear in this process, they are available for other requests and do not have to be called in from some library which has kept them beyond the normal loan period, and less paper work is required. Confusion in borrowing libraries as to which items are in Cleveland and which in Washington continues and can be cleared away only by reunion in Bethesda; meanwhile requests are frequently referred from parent to daughter library and vice versa, and a few days are always lost in the process.

Reference Assistance. Letters in answer to reference requests, long or short as circumstances required, went out as always to historians and bibliographers in this country and abroad. The notable feature about the Division's reference work during the year, however, was the number of flesh-and-blood readers who made the journey to Cleveland from points as far distant as New Jersey and Oregon to consult the sources in situ for periods ranging from a few hours to a few months. These readers included physicians, professors of history, librarians, and college students, and they worked in fields as diverse as pharmacy, psychiatry, medical entomology, pediatrics, yaws, and legal medicine. It is obvious that they and their counterparts may be expected in even greater numbers in Bethesda, and the Division was particularly pleased that one from the Walter Reed Army Institute of Research and another from the United States Naval Hospital wrote letters of appreciation to which the adjective "glowing" could be fairly applied.

This speaks well both for the status of history among busy physicians and for the Library's place in providing the sources.

Visitors. There were also many individuals who came to view but not actually to consult. When these individuals arrive unheralded, singly or in groups of two or three, representative volumes are informally displayed to them. When on advance notice they come in larger groups, an exhibit is set out for them and is explained in a more formal discourse. During this year the larger groups were constituted by the School of Library Science of Western Reserve University, the Committee on Vision of the National Research Council, and the Biological Sciences and Hospital Divisions of the Special Libraries Association. In addition, the Rare Book Craftsman displayed the Division's binding exhibit at the Cleveland Health Museum for the Physicians' Hobby Show. The Division cooperated as usual in exhibits at the parent library.

History of the Library. Ideally acquisition librarians, catalogers, and reference librarians should have time remaining from their duties to publicize in print the Library's collections. This is not normally possible in the History of Medicine Division at present, but at least the History of the Library, based largely on the Library's archives, makes progress as other tasks allow. On March 21-23, 1960, Dr. Schullian consulted additional materials at the National Archives. Note-taking continues in Cleveland; the Medical Library Association has accepted responsibility for publishing the volume, and the History should be ready in time to initiate the new era at Bethesda by commemorating the Library's achievements from 1836 to 1961.

* * * * *

Such is the year's work of the stoa called the History of Medicine Division - work which could have been accomplished only with the steadfast support of a conscientious and loyal staff. The deaths of two warm friends, Dr. William W. Francis and Dr. John F. Fulton, have brought sadness; the inspiration which they provided in the fields of medical history and librarianship will endure. The Division will continue to prepare for Bethesda in the coming year and to do its part to ensure that medical historians and librarians in this country and abroad shall marvel increasingly at the holdings and services of the National Library of Medicine. "Erstaunlicherweise," wrote Haller's bibliographer this year, "fanden sich mehrere Werke, die in Europa unauffindbar waren, in der National Library of Medicine der Vereinigten Staaten, die z. T. in Washington, z. T. in Cleveland, Ohio, liegt."

CHAPTER VI

I N D E X I N G

An extraordinary and turbulent year has been concluded, bringing to a close a period of more than two years which embraced the mechanization research project supported by the Council on Library Resources, Inc. The outstanding achievement of the past year culminated in tangible form in the first monthly issue of the new Index Medicus. Another significant event was the transfer of the responsibility for the publication of the Bibliography of Medical Reviews to the Reference Division. Substantial progress was recorded in completing the last two volumes of the Fifth Series of the Index-Catalogue, bringing at last into hailing distance the end of this seemingly interminable project.

RESEARCH PROJECT

The mechanization research project was completed at the end of the fiscal year, except for the terminal report. The report itself details the project's history and achievements; here it will suffice to comment briefly on certain aspects of the project.

First, as to the objectives of the project — an improved system of index publication and a by-product bibliographic retrieval system — the former was achieved; the latter was abandoned as impracticable. The new publication system involving use of the Listomatic camera and punched-tape composition machines appears to be capable of satisfying adequately the basic requirements of the operation. Despite evident shortcomings — some of which we will probably have to live with, others for which there is reasonable chance for eradication or diminution — there is already sufficient evidence that the new program has accomplished its mission of finding a more effective successor to the Current List of Medical Literature.

As for the ill-fated bibliographic retrieval system — despite the negative outcome, much valuable experience and knowledge has accrued which may well be of greater significance in the long run than the successful publication program. Through efforts in this area NLM received the impetus for further investigation of applications of more sophisticated mechanization techniques, which will continue to influence the policies of the Library in the future.

One additional comment is called for on this first experience in administering an extra-murally-supported research project. In short supply was an atmosphere of frank trial and experimentation, unfettered by the need to provide definitive warranties for the merits of each step of the project. The necessity for adhering to administrative regulations governing routine operations of Federal agencies is not particularly conducive to the best research effort.

Within this inflexible framework, it was often necessary -- in advance of the determinative trials -- to prepare a priori justifications for new techniques, equipment, or personnel. The opportunities for exploiting the potential of a research project to the full are thereby weakened. These constraints appear to be a less dominant factor in the general approaches employed by some of the organizations undertaking research projects under a contractual arrangement.

INDEX MEDICUS

At about the midpoint in the project the experimental phase, for all practical purposes, came to an end, and the operational phase of the Index Medicus was underway. The preparation of the first issue of a serial publication of relatively frequent periodicity is generally a nerve-racking task and this was particularly true in this instance, due to the requirement of simultaneously publishing the remaining issues of the expiring Current List of Medical Literature. The result of this circumstance was the side-by-side operation of two index publication systems for a major portion of the year. This was one of several serious impediments for the new venture. The January 1960 issue (Volume 1, Number 1) contained 6,216 items; this is the smallest of the seven issues of the Index Medicus which have been prepared and this distinction is likely to remain a permanent one. The February issue jumped to "normal" size (9,985 items). Due to the necessity of including all of the "old style" indexed material in the June issue as an aftermath of the broad changes made in the subject heading authority list, an all-time high of 15,829 items were published in June. The first six issues contained 61,161 items, which tallied almost exactly with the figure of 60,000 which was projected for this period.

Since currency has been one of the prime objectives of the new Index Medicus it is interesting to see how well the Library has done on this score to date. The backlog figures for the first six months of operation indicate an encouraging trend which, if continued, will result in a satisfactory level of currency. The number of articles estimated to be in process within the Index Division was as follows:

31 January - 25,407	30 April - 18,089
29 February - 23,615	31 May - 17,290
31 March - 22,321	30 June - 14,298

The backlogs at several of the individual work stations are also worth noting, particularly as to the degree to which journals are delayed in their ultimate deposition in the Library collection. The following table of backlog figures illustrates the achievement in this regard over the past six months:

	<u>31 January</u>	<u>30 June</u>
Indexing	5,128 articles	1,819 articles
Indexing Assistant	6,300	2,502
Input Typing	4,488	1,010
Proofreading	3,434	1,882

In the next six-month period it is expected that this trend will continue at a somewhat decelerated pace.

Actual indexing of material for the Index Medicus was begun early in August 1959 on a very limited scale, and by the following month the full resources of the professional staff were being channeled into this activity. The change-over to a new authority list with its new terms, revised subheadings, altered policies, and the elimination of the modification created problems for the satisfactory execution of the indexing function; many in areas of quality control are still in need of resolution. Sorely needed is an individual who can devote his full time to the maintenance, interpretation, and coordination functions related to the subject work of the entire Library.

It is obviously too early to attempt any appraisals of the user acceptance of the new Index Medicus; however, the letters and comments that have been received thus far indicate possible future trends, inconclusive though they may be. After listening for a decade to critical comment on such features of the Current List format as the fragmented citation, the reference by number in the indexes, and the concept of a "Register of Articles," the receipt of expressions of nostalgic regret at their passing is somewhat surprising. This is a phenomenon which has long been recognized as a pipe-dream of the harried users of bibliographic tools, in which specific, custom-built approaches magically become available for each search, without sacrificing anything in the process. In the role of compiler of indexes, NLM has learned the sad but immutable fact that this is not feasible to any considerable degree.

CURRENT LIST OF MEDICAL LITERATURE

The December cumulation, plagued by a succession of mishaps, finally appeared in April, thus ending this particular chapter in the history of the Library's indexing program. This cumulation covered the subject and author entries to 51,143 items published in the issues for July through November, 1959. The total for the nine and a half years of the monthly Current List's existence is approximately 984,850 articles. In fiscal year 1960 about 15,971 articles were indexed for publication in the Current List; 98,905 articles were indexed under the new style for the Index Medicus.

The Author Index of the cumulation was shipped to the contract printer early in January; when a strike developed at the plant, the GPO recalled the manuscript. By the time the strike was settled the annual contract with the printer had expired and a further delay ensued while a new contract was negotiated for the printing of the cumulation. By February all of the manuscript had been shipped to the printer and the way was cleared for wrapping up the final issue of the Current List.

After about a decade of astonishing continuity, the night-shift operations in the Index Division came to an end on January 22. Without these additional man hours it is certain that the Current List could not have existed as a monthly publication; however, the price paid for this achievement in terms of the minimal level of normal managerial controls and dependability was exorbitant.

This is certainly not the place to write the final epitaph of the Current List; in all probability, it will never be expressed in any way more appropriate than in the undeniably indispensable service it performed during its existence.

MEDICAL SUBJECT HEADINGS

The Library's decision to combine the subject heading authority lists on which the analysis of its monographic and serial materials is based brought to an end the existence of the tool used for this purpose in the Index Division for the past eight years. The SHAL (Subject Heading Authority List) of the Current List of Medical Literature fulfilled its vital purpose in a commendable fashion, improving steadily in quality with the passage of time and the garnering of experience in its use. The replacement of SHAL by the new all-purpose list Medical Subject Headings is, however, a progressive development both in principle and in execution.

At various times a number of people throughout the Library have been engaged, with the Director, in the compilation of the new authority list. The Index Division was asked to devote major effort to two phases. The intellectual deliberations and investigations leading to the choice of terms and cross-references was performed principally by Mrs. Gertrude M. Butler; many members of the Division staff participated in the second phase, namely, the preparation of punched cards, the subsequent tabulation of many provisional versions of the List, and the publication of MSH for dissemination to the public.

The first IBM tabulation of the List, which was to be used operationally in the Library's subject analysis activities, was run off in August 1959. From September until late in the fiscal year the original list of main headings and cross-references as well as the list of standard subheadings were in a state of constant revision. In April a final review was made and the last cards were punched and imprinted prior to their processing through the Listomatic Camera. The entire manuscript of MSH, in negative film form, was shipped out for reproduction on May 12; delivery is scheduled for the end of August. Tentative plans for the future include the preparation of near-printed revision sheets, as they are required, in the interim between editions of the printed list.

BIBLIOGRAPHY OF MEDICAL REVIEWS

Responsibility for publication of the Bibliography of Medical Reviews passed from the Index Division to the Reference Division in November 1959.

The last volume of the EMR prepared completely under the aegis of the Index Division is Volume 4, which appeared in July 1959. This volume has the distinction of being the first publication of the Library produced through the agency of the Listomatic Camera. There are 3,241 review articles cited therein, 2,807 of which came from journals indexed in the Current List.

At the end of October 1959 the Index Division had selected and processed 2,068 review articles for Volume 5 of the EMR, 338 of which emanated from non-Current List sources; this material was turned over to the Reference Division.

NLM has always had great confidence in the merits of the EMR and in its ultimate acceptance by the medical community as an important bibliographic aid. The favorable sales picture is encouraging evidence pointing in this direction. It is hoped that this fledgling will grow to maturity and wide recognition under the Reference Division.

FIFTH SERIES, INDEX CATALOGUE

Despite a nearly catastrophic development that occurred in the middle of the year, the over-all picture presented by the Fifth Series Project is now extremely bright. In December information was received by the Library that the cost of publishing the first volume was considerably higher than had been anticipated. Funds already allocated for this purpose and for the publication of the succeeding volumes suddenly became inadequate and new approaches for the solution of this crisis had to be explored with dispatch and imagination.

Several approaches were carefully studied and discussed before agreement was reached to attempt the publication of the remaining two subject volumes by a cold-type composition technique rather than by the original letter-press method used for the Author-Title volume. After the necessary waivers from GPO and approvals from Departmental and PHS levels had been obtained, the specifications for a composition contract were drawn up and submitted for open bidding. Bids were opened on June 20; the low bidder is the Langley Composition Company of Washington, D. C. As a result of these developments, completion of the entire Fifth Series Project in 1961 is now virtually assured.

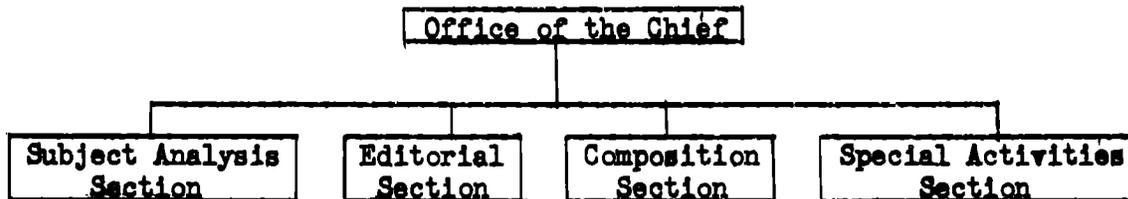
When the startling cost information on the Author-Title volume was received, a review of all of the Subject Section cards had been completed and deep inroads had been made into the final editing of the cards. The review operation ended in September with a grand total of 119,327 cards processed, and by December 70,071 cards had already been edited. Work was suspended while the fate of the project hung in the balance during the next three months.

Editing of the cards was resumed in March and by the end of the fiscal year a total of 97,517 cards had been prepared for submission to the contractor. When fiscal details have been cleared away, it is expected that the first delivery of cards will be made to the Langley Composition Company in July, with the balance to follow in monthly installments until the final delivery is made in October.

Prior to these events, in July 1959, reading of proof copy for the Author-Title Section was completed and all necessary material was returned to GPO for the final printing. The publication date of Volume One, Fifth Series, was November 13, 1959.

PERSONNEL

The introduction of an entirely new system inevitably causes repercussions in the fundamental structure of the organization. The transition from Current List to Index Medicus was no exception to this truism. After considerable deliberation the following organizational pattern was adopted.



The Subject Analysis Section comprises the professional staff of indexers; the Editorial Section consists mainly of sub-professionals who are responsible for proofreading of typed copy and for the conversion of the indexers' work into machine-usable form; the Composition Section performs the input typing, keypunching, and output imprinting operations; the Special Activities Section includes the IBM and Listomatic machine operations, preparation of the Fifth Series of the Index Catalogue, and other special projects relating to the entire Division or its components.

In January a start was officially made on the implementation of this table of organization with the writing of the first of a series of position descriptions. By the end of the fiscal year the actions stood as follows:

Actions completed:	9
Actions in process:	3
Actions to be started:	<u>12</u>
	24

Reorganization of the Division will probably be completed in the present calendar year.

The Index Division phase of the 1959-60 NLM Intern Program was completed just prior to the end of the fiscal year. The various operations of the Division were explained, and the interns had an opportunity to perform at most of the work stations. As in previous years, special emphasis was placed on the indexing function; however, the time allotted was not sufficient for a satisfactory grounding in the elements of the job. Visits for the interns, along with other members of the Library staff, were planned and made to Documentation, Inc., and Craftsman Press. Two seminars with a similarly expanded group were conducted on "Documentation" and "Mechanization."

PROFESSIONAL ACTIVITIES

Most of the cooperative professional projects in which the Index Division has been engaged during the last few years continued through Fiscal Year 1960; in addition, another major activity developed which is scheduled to be inaugurated early in the next fiscal year.

East European Project. The number of articles indexed from journals emanating from the East European countries remained at about the same level as in recent years. A total of 13,655 articles in this category were processed; 7,511 Russian articles were sent to the Monthly Index of Russian Accessions and 6,144 satellite items were transmitted to the East European Accessions Index. To facilitate the transport of this material a new arrangement was worked out, involving the use of a Xerox 914 Copier which will be procured by the end of the summer of 1960.

Russian Drug Index. Mr. Stanley Jablonski has compiled a Russian Drug Index which has been authorized as an official publication of the National Library of Medicine. After gathering all of the entries Mr. Jablonski submitted his material for technical review and comment to Dr. Robert Leonard, Assistant Professor of Pharmacology at George Washington University School of Pharmacy. This review has been completed and copy preparation will be undertaken shortly. Dr. Chauncey D. Leake, Assistant Dean of the Ohio State University Medical School, has consented to write a preface to the work.

Russian Neurochemistry Project. During the past year 92 articles were selected for duplication and subsequent transmittal to Dr. W.A. Himwich.

"American Documentation" Project. This year marks the end of the third year of the Division's participation in the location and abstracting of material suitable for publication in "Literature Notes" in American Documentation.

Exhibits. For the November meeting of the NLM Board of Regents the Division prepared an exhibit consisting of 16 panels depicting the various steps in the new system for the publication of the Index Medicus.

This material formed the nucleus of the official Library exhibit for December through February, and was subsequently on view at the annual meeting of the Medical Library Association. The exhibit material also went to Cleveland to serve as a visual aid for the Director's talk on Index Medicus at the convention of the Special Libraries Association. This exhibit will be sent for showing in Utah in September and at the A.M.A. Clinical Session to be held in Washington, D. C., in November.

Occupational Health Abstracts. The new service which the Index Division expects to add in the next year involves the abstracting of periodical articles in the field of occupational health. Final negotiations are in progress for this cooperative project with the Occupational Health Program, Division of Special Health Services, Bureau of State Services, PHS. Under the terms of the pending agreement, NLM will scan the American literature in the subject field and produce abstracts for approximately 100 selected articles each month. The experience acquired in the course of administering this new type of project will be useful in similar activity in the future.

Portraits. Portrait cards sent to the Art Section during Fiscal Year 1960 totaled 1,057.

Outside Activities. The requirement to channel substantial amounts of time and energy into outside professional activities mounts from year to year. The Chief of the Index Division is a member of the following organizations, in addition to the usual library associations:

American Documentation Institute
Committee on Bibliography
Committee on Research
Conference of Biological Editors
American National Committee for the Federation
Internationale de Documentation (FID)
Sub-Committee on Journal Title Abbreviations, Z39
Committee, American Standards Association
Division of Chemical Literature, American Chemical
Society
Executive Board, National Federation of Science
Abstracting and Indexing Services

Mechanized Service Projects. For the second successive year NLM cooperated with the Library of Congress in the preparation of its publication Symbols Used in the National Union Catalog of the Library of Congress. The one-line cards which were composed in the Library of Congress were photographed in the Listomatic Camera, returned to LC for rearrangement on a different axis, and run through the Listomatic a second time.

Another project, this one involving the use of the IBM Collator, was executed for the Cardiovascular Literature Project of the National Research Council. In preparation for the run of thousands of tabulating cards (each containing from one to three lines of copy) through a Listomatic Camera elsewhere, these cards were passed through the Collator with its Code Accumulate Device in order to count the number of lines per column. The use of the NLM Listomatic Camera for future volumes issued by the CLP is being explored.

ACQUISITION ACTIVITIES

	<u>1958</u>	<u>1959</u>	<u>1960</u>
SEARCHING			
Prospects considered for acquisition, not in Library	18,885	21,879	22,699
Prospects considered for acquisition, Library has	<u>17,877</u>	<u>21,842</u>	<u>23,028</u>
TOTAL	<u>36,762</u>	<u>43,721</u>	<u>45,727</u>
ORDERS			
Orders Placed	15,649	17,391	18,057
SERIAL RECORD			
New titles added	1,157	1,296	1,090
Titles currently received* (as of end of year)	11,700	12,862	13,835
PUBLICATIONS ADDED			
Serial pieces	75,028	68,532	69,103
Other	13,447	11,690	16,028
OBLIGATIONS FOR PUBLICATIONS			
(Includes for rare books	\$82,200	\$81,500	\$85,560
	10,679	9,699	\$ 9,396)

*Titles of which at least one issue has been received since January 1955

GROWTH OF COLLECTIONS

	<u>CURRENT YEAR</u>			<u>COLLECTION TOTALS</u>	
	<u>Added</u>	<u>With drawn</u>	<u>Net Gain</u>	<u>30 June 59</u>	<u>30 June 60</u>
BOOK MATERIAL					
1. Bound Monographs					
a. HMD	441	90	351	33,396	33,747
b. 1801-1913	10	2,116	-2,106	93,558	91,452
c. 1914-	<u>8,775</u>	<u>370</u>	<u>8,405</u>	<u>138,059</u>	<u>146,464</u>
Subtotal (1)	9,226	2,576	6,650	265,013	271,663
2. Bound Serials	<u>8,495</u>	199	8,296	250,770	259,066
Total Bound Vols. (1-2)	<u>17,721</u>	<u>2,775</u>	<u>14,946</u>	<u>515,783</u>	<u>530,729</u>
3. Theses	1,510	-	1,510	282,215	283,725
4. Pamphlets	<u>2,192</u>	<u>123</u>	<u>2,069</u>	<u>159,347</u>	<u>161,416</u>
Subtotal (3-4)	<u>3,702</u>	123	3,579	441,562	445,141
TOTAL BOOK MATERIAL	<u>21,423</u>	<u>2,898</u>	<u>18,525</u>	<u>957,345</u>	<u>975,870</u>
NON-BOOK MATERIAL					
1. Microfilms	197	1	196	1,898	2,094
2. Portraits and Pictures	<u>2,250</u>	6	<u>2,244</u>	54,053	56,297
TOTAL NON-BOOK MATERIAL	<u>2,447</u>	7	<u>2,440</u>	<u>55,951</u>	<u>58,391</u>
BOUND VOLUME EQUIVALENTS	-	-	-	15,000	15,000
GRAND TOTAL	<u>23,870</u>	<u>2,905</u>	<u>20,965</u>	<u>1,028,296</u>	<u>1,049,261</u>

CATALOGING STATISTICS

	<u>1958</u>	<u>1959</u>	<u>1960</u>
<u>COMPLETED CATALOGING</u>			
New Titles	15,005	12,850	11,298
Recataloged titles	<u>8,590</u>	<u>7,907</u>	<u>11,097</u>
TOTAL	23,595	20,757	22,395
Volumes reclassified and/or transferred	1,208	895	1,133
Catalog cards filed	151,332	148,241	115,817
Volumes shelved	33,141	25,944	31,412
Volumes withdrawn	<u>3,015</u>	<u>1,839</u>	<u>2,486</u>
<u>WORK IN PROCESS</u>			
Pieces	<u>3,471</u>	<u>3,894</u>	<u>3,567</u>

NATIONAL LIBRARY OF MEDICINE CATALOG (Annual)

	<u>1957 Volume</u>	<u>1958 Volume</u>	<u>1959 Volume</u> ^{1/}
<u>NUMBER OF ENTRIES:</u>			
Main	12,199	21,272	18,168
Added	2,966	4,618	5,338
Name cross-references	2,439	4,133	2,320

^{1/} The 1959 entries were not published separately, but were included in the 1955-1959 cumulated edition.

BINDING STATISTICS

	<u>1958</u>	<u>1959</u>	<u>1960</u>
Volumes sent to binder	13,116	12,799	13,345
Volumes returned from binder and processed	13,293	11,888	14,090
New volumes	(8,690)	(9,743)	(9,517)
Rebinds	(4,603)	(2,145)	(4,573)
Volumes bound at NLM	3,640	3,685	2,688
Volumes repaired at NLM	3,604	3,897	2,669
Volumes and pieces lettered	39,825	25,364	26,383
Pictures mounted	736	667	1,021

ART SECTION STATISTICS

	<u>1958</u>	<u>1959</u>	<u>1960</u>
Materials added to collection	2,378	958	2,302
Pictures	(1,492)	(935)	(2,250)
Other (e.g., lantern slides)	(886)	(23)	(52)
Pictures cataloged/indexed	1,659	1,955	1,435
Reference use of material (i.e., total pictures supplied)	1,003	866	560
Reference questions answered	286	322	302
By telephone	(119)	(106)	(113)
By mail	(68)	(102)	(105)
In person	(99)	(114)	(84)

CIRCULATION STATISTICS

	<u>1958</u>	<u>1959</u>	<u>1960</u>
Requests received	128,666	129,321	154,245
Requests filled	111,594	111,822	135,366
Requests unfilled	17,072	17,499	18,879
Rejected	(4,252)	(3,455)	(2,873)
Unavailable	(12,820)	(14,044)	(16,006)
Percentage of requests filled	86.7	86.4	87.8

ITEMS USED, BY MAJOR CATEGORY

Readers' requests in Library	40,121	39,094	39,768
Loans to individuals	154*	--	--
Photoduplication	11,373	--	--
Interlibrary loans	59,946	72,728	95,595
Photocopy	(53,048)	(67,069)	(88,618)
Original - Government	(4,284)	(2,958)	(3,719)
Original - Non-government	(2,614)	(2,701)	(3,258)

*For July and August 1957 only

<u>UNAVAILABLES</u>	<u>By percentage of total unavailables</u>			<u>By percentage of total requests accepted</u>	
	<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1959</u>	<u>1960</u>
Already on loan	18.0	11.9	9.4	1.3	1.0
Not in collection	31.7	30.8	30.4	3.4	3.2
At bindery	22.8	33.9	28.0	3.7	2.9
Missing	6.6	5.7	5.9	0.6	0.6
Does not circulate	4.2	6.6	7.4	0.7	0.8
Not identified	13.1	8.7	11.8	0.9	1.2
In process	2.4	1.2	5.8	0.1	0.6
At HMD	<u>1.0</u>	<u>1.0</u>	<u>1.1</u>	<u>0.1</u>	<u>0.1</u>
Total	99.8	99.8	99.8	10.8	10.4

PHOTOGRAPHIC SERVICES

TABLE I - EXTERNAL ORDERS

	1958	1959	1960
<u>EXTERNAL ORDERS COMPLETED</u>	64,421	69,595	90,984
By type of order:			
As interlibrary loan	(53,048)	(67,069)	(88,618)
Coupon, paid, and special	(11,373)	(2,526)	(2,366)
By type of service:			
Microfilm	(4,752)	(58)	(55) ^{1/}
Xerox CopyFlo	(57,106)	(65,093)	(86,698)
Photostat	(2,254)	(3,988)	(3,633)
Photographs and slides	(309)	(456)	(598)
<u>PAGES DUPLICATED FOR ORDERS</u>	1,360,997	1,449,660	2,051,885 ^{2/}
Microfilm:			
For CopyFlo orders	(1,075,843)	(1,435,343)	(2,020,789)
For Microfilm orders	(285,154)	(14,317)	(31,096)
Photostat	21,456	30,432	27,236
Photographs and slides	336	446	524
TOTAL	1,382,789	1,480,538	2,079,645
<u>CARDS</u>			
Microfilm		5,821	246
CopyFlo		33,780	240
Photostat			42

^{1/} Kalfax and positive microfilm (positive microfilm made by Recordak)

^{2/} Includes 4,320 pages reproduced from film file.

^{3/} Includes 10,934 pages reproduced from film file.

TABLE II - INTERNAL ORDERS

	1958	1959	1960
Microfilm pages	784,048	1,667,187	1,216,092
For film file	(157,970)	(298,030)*	(309,398)
For poor paper project	(577,970)	(1,335,459)	(891,520)
For interoffice orders	(49,039)	(33,698)	(15,174)
Paper reproduction pages	112,757	58,959	45,981
Photostat	(6,259)	(7,621)	(7,458)
CopyFlo	(106,498)	(51,338)	(38,523)
Photographs and slides	2,333	1,336	2,386
Cards			
Microfilm	120,930	48,547	246,921
CopyFlo	233,533	313,002	370,919
Photostat	197	--	82

* Theses

PHOTOGRAPHIC SERVICES

TABLE III - TOTAL PRODUCTION

	<u>1958</u>	<u>1959</u>	<u>1960</u>
Microfilm pages	2,145,045	3,112,527	3,257,043
Xerox CopyFlo pages	1,182,341	1,486,681	2,059,312
Photostat pages	27,715	38,053	34,694
Photographs and slides	2,669	1,782	2,910
Cards			
Microfilm	120,930	54,368	247,167
CopyFlo	233,533	346,782	371,159
Photostat	197	--	124

TABLE IV - ORDERS COMPLETED AS
INTERLIBRARY LOANS

	<u>1960</u>		
	<u>Government</u>	<u>Non-government</u>	<u>Total</u>
Metropolitan Washington	12,527	7,070	19,597
Outside Washington (U.S.A.)	17,073	32,401	49,474
Overseas	<u>6,166</u>	<u>13,381</u>	<u>19,547</u>
TOTAL	35,766	52,852	88,618

REFERENCE SERVICES

	<u>1958</u>	<u>1959</u>	<u>1960</u>
Requests by telephone	4,217	5,574	5,049
Government	(2,101)	(4,015)	(3,618)
Non-government	(1,116)	(1,559)	(1,431)
 Requests by mail			
Government	(137)	(53)	(423)
Non-government	(938)	(789)	(1,698)
 Readers assisted			
Government	(928)	(833)	(570)
Non-government	(1,985)	(2,141)	(1,306)
 TOTAL			
Government	(4,166)	(4,901)	(4,611)
Non-government	(4,039)	(4,489)	(4,435)
 Bibliographies prepared			
Government	(98)	(127)	(45)
Non-government	(236)	(199)	(106)
 Readers registered	7,049	8,877	9,270

HISTORY OF MEDICINE

	<u>1958</u>	<u>1959</u>	<u>1960</u>
<u>Acquisition</u>			
Editions searched	6,121	6,296	5,507
Editions recommended for purchase	622	669	503
Editions added to the collection	469	828	420
In book form	(461)	(780)	(406)
In microfilm	(8)	(48)	(14)
<u>Cataloging</u>			
Editions cataloged	773	724	488
Card mats produced	1,687	1,701	1,958
Catalog cards filed	11,944	9,243	6,806
<u>Binding</u>			
At commercial bindery	116	45	35
At hand bindery	<u>446</u>	<u>391</u>	<u>372</u>
TOTAL books bound	562	436	407
<u>Reference</u>			
Reference questions	191	198	195
Visitors	198	198	317
Interlibrary loan and photoduplication orders	356	419	447
Original material loaned	(238)	(230)	(219)
Filled by photoduplication	(118)	(189)	(228)
<u>Pages filmed</u>			
For acquisition	1,106	8,971	4,328
For security	83,368	94,579	90,322
For loan and special orders	4,700	4,476	12,595
 TOTAL	 89,174	 108,026	 107,245

INDEX MEDICUS
(Formerly CURRENT LIST OF MEDICAL LITERATURE)

DISTRIBUTION

	<u>1958</u>	<u>1959</u>	<u>1960</u>
<u>Paid Subscriptions</u>			
United States	1,816	1,955	2,014
Foreign	<u>1,136</u>	<u>1,216</u>	<u>1,178</u>
Total	2,952	3,171	3,192
<u>Free or Exchange</u>			
United States (Government)	658	728	728
Foreign	<u>951</u>	<u>914</u>	<u>938</u>
Total	1,609	1,642	1,666
GPO single copy sales and stock	220	220	250
Depository Libraries	256	270	285
NLM internal use and stock	191	158	134
<hr/>			
Journal titles indexed	1,594	1,633	1,626
Article indexes published	106,513	119,321	<u>112,304</u>

PERSONNEL STATISTICS

	<u>1958</u>	<u>1959</u>	<u>1960</u>
PERSONNEL AUTHORIZED	225	224	224
PERSONNEL ON DUTY (at end of year)	217	219	216
AVERAGE NUMBER OF PERSONS EMPLOYED	<u>217</u>	<u>218</u>	<u>216</u>
PERSONNEL ON DUTY			
Office of the Director	40	40	24
Photographic Services	(17)	(20)	--(a)
Technical Services Division	--	--	65(b)
Acquisition Division	29	32	--(b)
Catalog Division	49	50	--(a)(b)
Circulation Division	--	--	53(a)
History of Medicine	9	10	10
Index Division	44	42	40
Reference Division	<u>46</u>	<u>45</u>	<u>24(a)</u>
Total	<u>217</u>	<u>219</u>	<u>216</u>
Total productive man-hours (c)	378,665	382,439	381,916
Total non-productive man-hours (c)	74,519	69,009	68,131
PERSONNEL ACTIONS			
Accessions	47	41	51
Separations	37	39	48
Accessions during year, on duty	35	32	45
Promotions	31	25	22
Reclassifications: To higher grade	13	38	24
To same grade	34	61	13
Reassignment to lower grade	1	3	2
Reassignments	4	9	12
New positions established	3	8	8
Meritorious Civilian Service Awards	9	1	0
Monetary Awards (Superior Work Performance)	3	2	0
Special Service Awards	3	1	1
Approved adopted suggestions	1	2	1

- (a) On October 1, 1959, the Photographic Services Section (Office of the Director), Binding Section (Catalog Division), and Circulation Section (Reference Division) were combined into a new Circulation Division.
- (b) On May 1, 1960, the Acquisition and Catalog Divisions were merged into a Technical Services Division.
- (c) Non-productive man-hours are considered to be those hours expended on annual and sick leave, paid holidays, jury duty, off-the-job training, administrative leave, and excused time; i.e., weather conditions, visiting dignitaries, etc. All other man-hours, including paid overtime, are considered to be productive. Leave without pay and maternity leave are not reported in either category.

FINANCIAL STATISTICS

OBJECT CLASSES	1958 <u>Obligation</u>	1959 <u>Obligation</u>	1960 <u>Obligation</u>
01 - Personal Services	\$1,070,547	\$1,146,123	\$1,154,626
02 - Travel	9,251	10,971	11,150
03 - Transportation of Things	395	317	1,627
04 - Communications	11,486	14,675	18,165
05 - Rents and Utility Services	23,040	23,193	23,230
06 - Printing, Binding and Reproduction	91,543	80,656	97,432
07 - Other Contractual Services	42,891	26,108	32,543
08 - Supplies and Materials	44,936	41,336	48,981
09 - Equipment (Books)	137,053 (82,200)	114,403 (81,503)	89,672 (85,077)
11 - Contribution to Retirement	62,317	69,200	69,250
13 - Awards	1,125	519	151
15 - FICA	1,120	1,255	2,020
Appropriation Transfer to Library of Congress	--	5,000	--
ESTIMATED TOTAL OPERATING COST	<u>\$1,495,704</u>	<u>\$1,533,756</u> ^{1/}	<u>\$1,548,847</u> ^{1/}
<hr/>			
Obligations for Construction of New Library Building	\$ 18,133 ^{2/}	\$4,734,231	\$ 313,775
Obligations from Council on Library Resources Fund	--	39,191	33,793
Obligations from Strause Fund	--	14,026	--
Collections from Photoduplication Service	6,122	946	1,025

^{1/} Includes \$11,088 reimbursement from Veterans Administration (ICMTA)

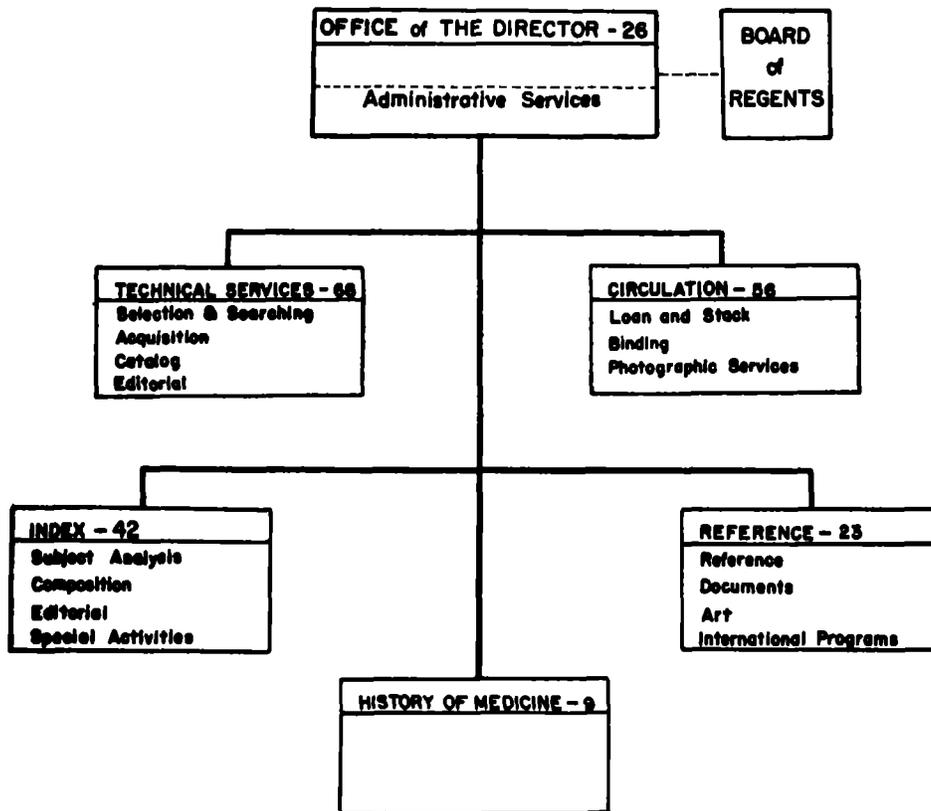
^{2/} Includes \$12,500 recovered from prior year's obligations

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE



NATIONAL LIBRARY OF MEDICINE

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May 1, 1960