

NATIONAL LIBRARY OF MEDICINE

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

Fiscal Year 1962

Bethesda: 1962

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

NATIONAL LIBRARY OF MEDICINE

ANNUAL REPORT

for the

FISCAL YEAR 1962

September 15, 1962

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OFFICERS OF THE NATIONAL LIBRARY OF MEDICINE

OFFICE OF THE DIRECTOR

Director

Deputy Director

Program Director for

Scientific Publications

Assistant to the Director

Special Assistant to the Director

Executive Officer

Assistant Executive Officer

Personnel Officer

Supply Officer

Dr. Frank B. Rogers

Mr. Scott Adams

Mr. Daniel Bailey

Miss M. Ruth MacDonald

Dr. Joseph H. Roe, Jr.

Mr. Ray W. Grim

Mr. John P. Spain

Mr. James D. Lawrence

Mr. Joseph McGroarty

BIBLIOGRAPHIC SERVICES DIVISION

Chief

Subject Heading Specialist

MEDLARS Liaison Officer

Acting Head, Subject Analysis Section

Head, Processing Section

Mr. Seymour I. Taine

Miss Winifred Sewell

Mr. James P. Riley

Mr. Constantine J. Gillespie

Mr. Lloyd L. Wommack

HISTORY OF MEDICINE DIVISION

Chief

Dr. John B. Blake

REFERENCE SERVICES DIVISION

Chief

Deputy Chief

Head, Reference Section

Head, Loan and Stack Section

Head, Photoduplication Section

Head, Preservation Section

Mrs. Mildred C. Langner

Mr. Edward A. Miller

Mr. Charles A. Roos

Mrs. Maxine K. Hanke

(Vacancy)

(Vacancy)

TECHNICAL SERVICES DIVISION

Chief

Head, Selection and Searching Section

Head, Acquisition Section

Head, Catalog Section

Head, Editorial Section

Mr. Samuel Lazerow

Mr. Leslie K. Falk

Mr. James W. Barry

Miss Eleanor R. Hasting

Mrs. Lela M. Spanier

CHAPTER I
OFFICE OF THE DIRECTOR

On April 16, 1962, the National Library of Medicine began operations in its new \$7 million building in Bethesda, Maryland. This was the culmination of a forty-four year effort. In 1918, in the mid-30's, and again in 1945 building plans had been far advanced. Intensive planning by the Library staff was resumed in 1954; the more recent chronological landmarks are as follows:

August	1956 - National Library of Medicine Act passed; authorization for new building
April	1957 - NLM Board of Regents selected building site
June	1957 - Design contract awarded to O'Connor & Kilham, Architects
July	1958 - Construction funds appropriated
February	1959 - Final review of building plans and specifications
May	1959 - Construction contract awarded to Arthur Venneri Company
June 12	1959 - Ground-breaking ceremony
June 17	1959 - Construction begun
December 14, 1961	- Dedication ceremony
April 16	1962 - Occupation of new building

By the end of April 1962 the History of Medicine collection had been returned from Cleveland; by May 3, 1962, all NLM collections were located in the new building and were under a single roof for the first time in more than twenty years. On May 11, 1962, the slip from the Hippocrates plane tree on the island of Cos, presented to NLM at the Dedication Ceremony by the Greek Ambassador, was planted on the Library grounds to symbolize the successful completion of the building and moving operations.

At the time of the dedication on December 14, 1961, the building was 96% complete, but only the Main Reading Room, in which the Ceremony was held, was finished, with considerable disarray elsewhere. Senator Hill and Secretary Ribicoff spoke at the Ceremony, and Dr. Worth B. Daniels, Chairman of the Board of Regents, presided. More than 1,200 persons attended, and many stayed for the symposium on "Books and Medicine," held on the following day.

As the fiscal year ended contractors were working at small jobs in many areas to correct omissions and deficiencies; the ceramic tile mural for the public catalog area was not yet in place; and mechanical systems, notably the ventilating and air-conditioning systems, were still being balanced out.

MOVING THE LIBRARY

Actual moving operations commenced on March 5, 1962, with the dispatch of the 19th century monographs, the first of 150 vanloads of book material comprising the general collections of the Library. The order of the move was dictated by several important considerations: 1) a requirement to maintain maximum continuity and efficiency of program operations; 2) correlation of movement of book material with dismantling and re-use of 36,000 linear feet of bracket stack shelves; 3) relationship of work flow to book materials and library tools, e.g., card catalog, serial record, indexing operation, interlibrary loan, and reader service functions; and 4) rearrangement of the collections in the new building on the basis of the degree of use.

The move progressed satisfactorily to its completion on May 3, 1962, meeting the schedule specified in the move contract. The Bibliographic Services Division was transferred overnight, suspending operations on Thursday, April 5, at 5 p.m. and resuming operations in the new building at 8:30 a.m., Friday, April 6, 1962. The following Thursday remaining elements of the Library were moved, together with special equipment, furniture, and work materials. This phase of the move ended Friday evening. On Monday, April 16, 1962, the Library was officially opened to the public at its new address: 8600 Wisconsin Avenue, Bethesda, Maryland.

Move Plans. Moving of the Library involved a host of factors, considerations, and priorities. The progress of building construction, receipt and placement of new furniture and equipment, and the erection of shelving necessitated close observation and attention. Examination of the old building in Washington from the structural and physical standpoint (e.g., exits, corridors, loading platform, consideration of the single stack elevator and need for additional, temporary elevator facilities) was a primary consideration. Study of the book collections, their magnitude, characteristics, and the priority in which they should be moved, as well as the time schedule in which this could be accomplished, represented another set of critical factors. The extent of staff participation in the course of move planning and in actual moving operations also had to be carefully considered. Negotiations with the moving industry, suitably timed, had to be accomplished in collaboration with the General Services Administration; methods and techniques, as well as exact definitions of the respective roles of the Library and the mover, had to be specified. Operations of the Library's Divisions and their service functions required review and close study to determine their inter-relationship during the course of the move operation. The aspect of "general housecleaning" to

obviate the moving of nonessential furniture, equipment, and supplies was a consideration in the pre-moving stage. Other important factors dealt with the cleaning of the books (accomplished at the time of the move through use of an air blower), the insecticiding of the old building at suitable times prior to the moving operation, and the sanitization of the new building.

The basic requirement, broadly stated, was a study of the various capabilities, operations, techniques, and priorities and the shaping of them into coherent, reasonably constructed phases. The result was the preparation of the NLM Master Move Plan.

Confronting the Library was the need to transfer some 1,000,000 pieces of library material (books, journals, pamphlets, theses, microfilms, portraits, etc.), as well as 36,000 linear feet of steel shelving, IBM equipment, varied photoduplication equipment, catalog card cabinets, administrative records, and selected furniture items--all the appurtenances of a large research library. These were crammed into all parts of an old building beset with space and structural limitations. In addition, the History of Medicine Division, located in Cleveland, Ohio, with a collection of approximately 35,000 volumes of rare book materials, presented a set of vastly different factors.

Planning of the move was facilitated through the establishment of a Move Committee; the Committee provided representation from each division and served as a communications medium to inform the staff of the development of the construction program and moving plans. In addition, it identified projects for study, targeting such projects to fit into the existing move plan. A series of "Move Memoranda" were issued covering the spectrum of operations, readiness of portions of the new building, arrangement of the collections, and announcement of the final Master Move Plan. The Move Committee was an essential device in the programming and execution of the move operation.

Arrangement of the Collections. "Moving," in the context of planning and transfer and rearrangement of the Library's material, began in mid-1961 with a preliminary study of the book collections: their nature and extent, characteristics, demand placed upon them, and the growth factors inherent in the different collections. Measurement was accomplished by sampling procedures using "linear feet" as a mathematically more tractable unit of measurement than "volumes." The total collection of library materials was computed at some 65,000 linear feet. This preliminary planning was aided, at this juncture, by the concurrent development of a study of the use of the serial collection in the interlibrary loan operation; this study indicated a markedly high use of recently published materials. Extended studies were pursued on a more rigorous basis and expanded into provisional plans, beginning in October 1961. Collaterally, studies were made in the new building: size of the stack areas, amount of shelving (some 188,000 linear feet), location of elevators, and especially of the distances radiating from

the "axis" represented by the elevator connecting Levels A, B, and C with the Reader Service Desk in the Main Reading Room. Mathematical models were then constructed for the different combinations in which the collections could be placed (linear feet of books per shelf) taking into account the expansion to be allowed for the growth factor, and its "complement," the accessibility of the collections for optimum servicing. Most importantly, however, the various collections and their characteristics were carefully examined in the light of the Library's new environment and projected economics of operation. Thus, the problem consisted not simply of planning to move the collections in their existing organizational pattern but of studying the collections and the new environment and shaping the plan into a coherent pattern for improved service, balancing the factors of growth and accessibility. For example, the collection of journals comprised some 26,000 linear feet. Studies indicated that some 70% of the use of these journals was directed toward the journals published during the past 16 years (the studies yielded a "decay" rate on a year-by-year basis). The decision was made to segment the collection of journals: those published from 1946 to date would be extracted from the basic journal collection during the course of the move, thus improving access to the most used materials by reducing the amount of stack space to be searched.

The most used journals, 1946 to date, were designated for placement on Level A within the smallest possible radius from the elevator servicing the Reader Service Desk, which would provide convenient access to these volumes for reader demand, and also be commensurate with generous provision for growth. Another enormously important factor was the development of mobile microfilm cameras, the purpose here being to microfilm materials for interlibrary loans in the stack areas (actually, at the ends of the ranges where the journals were shelved). The placement of these "prime demand" journals was designed to maximize, as well, the tactical operation of the mobile camera system. By concentrating the journals in most demand, the cameras would traverse relatively less area than if the entire journal collection of some 26,000 linear feet were spread out; that is, the "yield" of volumes per range could be raised substantially.

Placement of the 19th and 20th century monograph collections was planned for Level B. The 20th century collection was to be shelved around the elevator axis (roughly within a radius of 75 feet), but with extremely large growth potential to cope with the high rate of growth this collection experiences. On the other hand, the 19th century collection of monographs experiences negligible growth. Here the decision was to compress the collection, providing only fair access from the elevator, and shelving it adjacent to and behind the 20th century monograph collection. The two stacking formulas, or densities, may be contrasted. With the seven-shelf section, the top and bottom shelves were left vacant for the 20th century collection; utilizing 50% of the five remaining shelves for books, with every tenth section vacant. (A portion of the 20th century collection has five shelves filled 66% with books, but these shelves border on ranges of completely unoccupied shelving, and the design was to preserve the radius of 75 feet, reserving the unoccupied ranges for extreme long-term expansion.)

In the 19th century collection shelving plan the top shelf is used with only the base shelf left vacant; shelves are filled with books to approximately 83% (5/6 of capacity), with every fifteenth section vacant as an emergency feature. The ratio of use between the two collections was a vital consideration in the contrasting design; for each use of a 19th century monograph there are ten uses of a 20th century monograph.

Early in the move planning there was agreement that book trucks would be used to transport the book collections from the old building in Washington; 200 new book trucks with three shelves 36" long supplemented the existing supply. This choice, in preference to packaging or boxing, was adopted principally on the basis of a simulated move in May 1961, the results of which were highly encouraging.

Concurrently, plans were being developed for the moving of the rare books from the Library's History of Medicine Division in Cleveland, Ohio. Here entirely different methods were used, primarily due to the nature of the volumes. Important considerations were individual wrappings for most of the books, a detailed inventory for the majority of the rare books, and investigation of the availability of reliable containers.

Execution of the Move. In order to achieve efficiency it was advisable to move relatively large quantities of material from a given floor, e. g., all of the basement materials, which for the most part consisted of little-used materials, and planning considered this factor. Another advantage was obvious: a goodly portion of the basement materials occupied steel shelving; beginning the moving with the basement collections permitted the immediate dismantling of these shelves and re-erection in the new building.

The first phase covered the period March 5 through April 11; the old building was the center of library service during this period. Requests for volumes needed for reader service and the loan activity were filled--(principally during April 1 - 11) by returning this small number of volumes to the Washington building on the moving vans.

The second phase, beginning April 12, was the moving of the most essential library materials and supporting equipment, including the reference collections, the remainder of the 1946-to-date serials (begun somewhat before April 12), and card catalog trays. This phase ended April 14; during this time the Library was closed to readers, but interlibrary loan operations were maintained.

The third phase began with the opening of the new building on April 16; the Bethesda building now became the center of operations. By this time some 65% of the book materials had been

moved; most significantly the basic collections were in place in the new building. At this time there were some 17,000 linear feet of pre-1946 serials and other miscellaneous materials remaining in the old building. The last volume was shelved in the new building at 5:15 p.m. on May 3, 1962. (This was Revista Zootecnica, Buenos Aires, 1942.)

Some of the procedures may be cited briefly. Book trucks were employed, and one moving van accommodated from 60 to 65 book trucks, depending on the size of the van. This was about 550 linear feet of books per van. Movement was somewhat better than two vans per day, including the cycle of loading books at the old building and shelving them at the new building. At certain times separate book collections were moved concurrently, increasing the daily movement rate. This practice, however, was attuned to the general move schedule, not to the desirability of increased movement per se. A particularly hindering factor was the limited elevator facilities (one) in the old building; in addition, the limitations of the old building with respect to suitable exits provided challenges. The loading platform, for example, was supplemented by a portable outside elevator for removing book materials and equipment from the second and third floors of the old building.

The moving was accomplished with great smoothness and efficiency. The major credit for this highly successful operation must be given to Mr. William H. Kurth and Mr. Ray W. Grim of the NLM staff.

FINANCIAL MANAGEMENT

Work commenced on the budget for 1962 in January 1960, when program chiefs were asked to prepare and submit preliminary program plans and budget estimates. As FY 1962 ends many actions have already been taken affecting future years. The budget request for 1963 has been under active development and consideration for at least eighteen months and is awaiting action in the Congress. The budget request for 1964 has been under consideration for six months.

Financial management activities reached a new peak again in 1962. In addition to the continuing accounts for operations and construction, new allotments were acquired for the former Russian Scientific Translation Program, MEDLARS, and the extramural program carried out with foreign currencies. Ten agreements were entered into or extended with other Government agencies involving transfers of funds into or from the Library's accounts.

The budget request for 1962 was the fifth annual budget prepared by the Library under the Public Health Service, the first having been that for 1958. The Library's operations budget in 1962 totaled \$3,528,000, including comparative transfers for the Science Translation Program (\$412,000) and MEDLARS (\$1,050,000).

A significant change occurred in procedures of the Bureau of the Budget (BOB) this year with the result that representatives of the Library, PHS, and DHEW met twice with BOB's Budget Examiner to discuss

the Library's programs and plans with particular reference to status of projected extramural programs, relationships of extramural programs and MEDLARS, workload statistics for budget purposes, construction program and operating costs in the new building, and employment levels over the last five years.

For several years now the Library has prepared with little difficulty annual reports to the BOB on utilization of automatic data processing equipment and to the National Science Foundation on funds used for research and development, R & D plant, and scientific and technical information activities. These reports were somewhat more difficult this year due to the activities of the Science Translation Program and MEDLARS. Future reports promise to become major undertakings as the Library's programs continue to flourish.

OFFICE SERVICES

Office services activities also reached a new high in 1962. In addition to carrying out regular functions, substantial time and effort were directed towards ordering, receiving, storing, and placing of equipment and furnishings in the new building, establishing new operating relationships with service organizations for support of building maintenance and operations, and disposing of surplus equipment and furnishings from the old building.

Most of the equipment for the new building was purchased by the General Services Administration from equipment lists furnished by the Library. While this effort extended over a three-year period, the most trying problems occurred this year when it was necessary continuously to check on and coordinate procurement actions to insure delivery before moving day, to delay shipment or arrange storage for other equipment until delivery could be accepted at the new building, to assemble and place equipment piece-meal throughout the building on the heels of the general contractor and cleaning group, and to deal with the seemingly never-ending stream of small but important actions required during the transition from the old to the new building.

Normal procurement actions issued in 1962 totaled approximately \$182,000. New equipment for the Library building (ordered over a three-year period) totaled approximately \$569,000 and included special furniture, book stacks, photographic equipment, special equipment for the Public Catalog and Reading Rooms, museum cases, book trucks, lunchroom furniture, housekeeping equipment, typewriters, and general office furniture.

Equipment from the old building valued at more than \$47,000 was declared surplus to the needs of the Library and transferred to other government agencies and educational institutions. Following is a listing of the receiving organizations and of the kind and value of equipments received by each:

Public Health Service

Desks, chairs, steel shelving, miscellaneous office furniture
\$ 7,855

Department of Health, Education, and Welfare

Book trucks, stools, desks, bookcases, chairs, etc. 13,706

Department of the Army

Chairs, desks, printwasher, stainless steel sinks,
etc. 6,554

Department of the Navy

Bookcases, desks, chairs, etc. 1,280

General Services Administration

Fans, air conditioner, fire extinguisher, etc. 552

Ohio State Department of Education

Bookcases, desks, chairs, etc. 4,861

Mississippi State Department of Education

Desks, chairs, stools, etc. 11,662

Maryland State Department of Education

Bookcases 660

Sales Center, GSA, Brentwood, Maryland

Miscellaneous equipment, including that in need of
repair, for public sale 14,214

PERSONNEL

During the first quarter of FY 1962 the technical aspects of personnel administration in the Library were carried out as usual in the Division of Personnel, Office of the Surgeon General, PHS.

On October 1, 1961, the Library was delegated authority to classify positions from GS-1 through GS-11 and to make appointments to positions in those grades. Under this arrangement the large majority of Library personnel work is carried on within the Library by its own employees.

These new authorities were not delegated specifically to deal with the impact of the move on Library operations, but without them that impact might have been even more severe than it was. During the year the record number of 72 employees left the staff; it is safe to say that the move of only 12 miles, within the metropolitan area, either directly caused or contributed to approximately half of these separations.

The impending move not only was the cause of the greater number of separations within the year but also impeded recruiting efforts for replacements. Many candidates declined positions or were not selected because of their unwillingness or inability to make the eventual move to Bethesda. It was difficult also to attract prospects from the north west metropolitan area to the downtown location even for a temporary period.

From a staff of 218 at the end of August 1961, employment steadily declined until March 31, 1962 (two weeks before the move), when the low point of 197 employees was reached. In the last three months of the year intensified recruiting efforts resulted in the hiring of 34 new employees, and the fiscal year closed with a staff of 211.

Some difficult recruiting problems still remain, but the worst is over, and prospects seem good for a steady increase in staff in the forthcoming year. Although recruiting was the principal and most critical activity of the Personnel Office, some progress was made in other areas. Seventy-one position descriptions were prepared and approved, many of them for positions with more than one incumbent.

A new Library Promotion Plan was adopted on October 23, 1961. Eleven promotions were effected under these new procedures. The remaining promotions resulted either from assumption of new duties by Library employees or were made under the previous promotion plan administered by the Division of Personnel, PHS.

Eight employees received cash awards under the PHS Incentive Awards Program. Four of these were for superior performance related to the move to Bethesda; two were for superior performance related to catalog maintenance and preparation of Biomedical Serials. The other two awards were for beneficial suggestions in the Reference Services Division for more efficient handling of materials in process for interlibrary loan and the employment of a dual mask plate on a 35mm. camera.

REORGANIZATION

In line with recommendations of the Study Group on Mission and Organization of the Public Health Service, changes in NLM organizational structure were approved by the Surgeon General on August 4, 1961, to

- 1) simplify the structure and change the title of the Index Division to

Bibliographic Services Division; 2) combine the Circulation and Reference Divisions into a new Reference Services Division, and 3) establish an Extramural Program under the direction of the Deputy Director. Concurrently, the functions of the Library were expanded to include 1) supporting and encouraging programs of publications support to assist scientific groups in the organization, analysis, and processing of medical literature; 2) studying the adequacy and availability of library collections of the scientific medical literature in relation to national research and educational requirements and developing plans for strengthening these resources; 3) supporting basic studies designed to contribute to the improvement of information-handling concepts and mechanisms applicable to the storage, retrieval, and dissemination of medical literature, and 4) encouraging productive scholarship by supporting qualified individuals engaged in work on research monographs, critical literature reviews, bibliographies, special data compilations, and historical studies relating to the medical sciences.

EXTRAMURAL PROGRAM

Fiscal year 1962 has been a year of greatly increasing concern within the Congress, the Executive Branch, and the Public Health Service for problems related to the communication of the results of biomedical scientific research. The Senate Committee on Reorganization intensified and broadened its inquiries into the practices of Federal agencies; the Science Information Panel of the President's Scientific Advisory Committee held a year-long series of hearings; and the Appropriations Subcommittees, in reviewing the Service's appropriation requests, showed continuing concern over the state of medical communication.

In March 1961 the House Appropriations Committee had requested the Director, National Institutes of Health, to report his plans and progress toward the better communication of research results to health practitioners. It was agreed that the National Library of Medicine and the Bureau of State Services, PHS, should share the responsibility for such reporting, and as a result each agency submitted a report on this subject to both the House and the Senate Committees as a part of their presentations on the FY 1963 budget.

With increasing emphasis medical groups have focused attention on various aspects of the medical communication problem. The Joint Committee on Continuing Medical Education of the American Medical Association and the Association of American Medical Colleges sponsored the Dryer report, in which improved communication practices, as a function of continuing education, are featured. The National Advisory Health Council continued its interest throughout the year as did other National Advisory Councils. The AAMC concerned itself with problems of medical school libraries, both in relation to the Medical Education Facilities Construction Bill (HR 4999), and the established institutional grant program.

The lack of common agreement on the definition of a PHS mission for the improvement of medical communication has been an impediment to the establishment of program functions, including the Library's Extramural Program. As a significant step toward the resolution of the Service's responsibilities, the Surgeon General appointed Dr. F. Ellis Kelsey of the Division of General Medical Sciences, NIH, as a special staff assistant to undertake inquiries leading to the presentation of a Service-wide draft program before a group of outside consultants in October 1962. It is expected that the administrative determinations resulting from this review will help to clarify the lines of future development for the Library's Program. Against this background, the Library took a series of steps to implement those functions of the Extramural Program which it could undertake under existing or readily obtainable authorities.

Science Translation Program. At the beginning of the fiscal year the Library assumed responsibility for the management of the Science Translation Program, transferred from the Division of General Medical Sciences, NIH. Mr. Mordecai Hoseh, formerly of Chemical Abstracts Service, was appointed Program Officer. A first step was to undertake, through a contract with the Institute for Advancement of Medical Communication, a field study of the effectiveness of the existing mechanisms for communicating Soviet research information in this country.

The study employed three techniques: 1) the counting of references as a measure of translation use; 2) the parallel refereeing of translated Soviet papers by American editors, and 3) an extensive interview schedule to collect opinions of scientists and librarians. The study demonstrated that American editors would accept for publication about one out of three Soviet papers as meeting American standards, that there had been no significant increase in citation of the Soviet literature since the translation program began, and that distribution was inadequate.

The Library thereupon entered into negotiations with the Federation of American Societies for Experimental Biology to establish a contract whereby a larger coverage of the Soviet literature could be more critically evaluated by American editors, and the resulting translations widely distributed. This contract was signed on June 20, 1962. Another event of consequence was the conversion of Abstracts of Soviet Medicine from a separate publication to a translation effort with multiple outlets in the subject sections of Excerpta Medica.

Public Law 480 Program. The Extramural Program continued to conduct the PL 480 translation program in coordination with the National Science Foundation. By negotiated agreement with the Foundation the bulk of foreign currencies available in FY 1962 were transferred to the Foundation for the procurement of translations in Poland, Yugoslavia, and Israel. The Library retained amounts for its own programming use in these countries, and accomplished preliminary work toward new uses of

available foreign currencies. The Polish Ministry of Health, for example, agreed to publish five additional medical journals initially in the English language, to undertake the preparation of international critical reviews, and to conduct bibliographical work at the Principal Medical Library, Warsaw. Similarly, the Israeli Ministry is willing to undertake critical reviews for publication.

Translations resulting from the PL 480 program have been distributed to 400 American medical libraries, and have been made available to others by sale through the Office of Technical Services, Department of Commerce.

Library Facilities and Resources. In May the Extramural Program undertook an intensive inquiry into the needs of medical libraries in terms of physical facilities, resources, and personnel.

Publication Support Program. A major step in the activation of the Extramural Program came with the appointment of Mr. Daniel Bailey, former Information Officer for the Division of General Medical Sciences, NIH, in April. Mr. Bailey conducted negotiations with the NIH and other agencies of the Public Health Service leading toward the establishment of an advisory committee on scientific publication, the assumption by the Library through this committee of preliminary review functions, and the transfer of management responsibility for certain support activities. Under the terms of agreements concluded with the Division of Research Grants, NIH, and endorsed by the PHS members of the Advisory Committee, the Library will assure DRG that a "contextual review" is provided for all publication grant applications; on certain multidisciplinary grants, this "contextual review" will be the primary and sole review; on certain categorical grants, the "contextual review" will supplement the primary review supplied by Study Section. It is expected that the Library will begin this program of contextual reviews on applications to be submitted to the National Advisory Health Council at its November meeting.

INTERNSHIP PROGRAM

The program of internship was different from those of previous years in that each intern was separately assigned and the length of each assignment varied. The interns, Miss Karen Hampe (University of Wisconsin), Miss Elizabeth Sawyers (University of California at Los Angeles), and Mr. David A. Smith (University of Illinois), entered the program on September 5, 1961. Miss Hampe completed her assignment in April and was then transferred to a position in the Technical Services Division. The other interns will complete their programs in July 1962.

Recruiting Program. Early in the fall of 1961 plans were made for the library school recruiting program. Announcements of the 1962/1963 Internship Program were sent to all American and Canadian library schools in November and December. During the period of February 13-27, 1962, the Assistant to the Director visited Emory, Atlanta, Michigan, Chicago, Illinois,

Wisconsin, and Western Reserve. Fourteen librarian candidates, representing six library schools, applied for the three 1962/1963 intern appointments. On March 30 the names of the successful candidates were announced:

Miss Patricia Ann Anderson, University of North Carolina
Miss Marcia Ginguld, Columbia University
Miss Lucille E. Wiggin, University of Michigan

NLM MOTION PICTURE

After the completion of the motion picture script early in FY 1962, there was a planning session in August with the director and photographer relative to scenes to be shot in the 1887 building. These scenes were filmed on November 13-16, on both still and motion picture color film. Additional scenes were filmed in the new building during the December Dedication Ceremonies and the April 13 meeting of the Board of Regents. The major portion of the film, the record of the Library's operations in its new building, is expected to be scheduled early in the fall of 1962. The resulting documentary motion picture will have its premiere showing at the Second International Congress on Medical Librarianship in June 1963. The motion picture is being made under a contract with the Audiovisual Section of the Communicable Disease Center, PHS.

The Medical Arts and Photography Branch of the National Institutes of Health made extensive contributions to the NLM pictorial record. Dr. Malcolm S. Ferguson and members of his staff were most generous in responding to requests from the Library for assistance in photographing scenes and events connected with the dedication and occupancy of the new building.

VISITORS

The Library continues to attract visitors from all over the world. They come singly and in groups, announced and unannounced, for short or long visits. Three foreign medical librarians had extensive work-study schedules in the Library: Miss Maren Hvardal (Norway), August 21 - September 15, 1961; Mr. Charles Tettey (Ghana), August 21 - October 13, 1961; Mrs. Nareumol Therayothin (Thailand), May 7 - June 30, 1962.

SECOND INTERNATIONAL CONGRESS ON MEDICAL LIBRARIANSHIP

Planning for the 1963 Congress was a prominent task throughout the year. Many committee meetings and conferences were held, letters were received from and sent to all points on the globe, and Congress publicity items appeared in various journals and calendars. In June a second brochure and a return report form were printed in the four official languages of the Congress.

BOARD OF REGENTS

The Board of Regents held two meetings, on December 14, 1961, and on April 13, 1962. Building problems, moving problems, budget problems the progress of MEDLARS, and the progress of the Extramural Program occupied the major part of the Board's attention. On the evening of Dedication Day, December 14, the Board held a banquet at the Sheraton Park Hotel, and many Board "alumni" attended. Senator Lister Hill, Mr. Boisfeuillet Jones, Dr. Frank B. Berry, and the speakers for the Symposium on the next day were guests of the Board on this occasion.

Drs. Brill, Carlson, and Jarcho joined the Board in the fall; Dr. Worth B. Daniels served as Chairman of the Board during the year, and was succeeded in April by Dr. Warner L. Wells. The membership of the Board at the end of the year was as follows:

Dr. Norman Q. Brill (UCLA)
Dr. Harve J. Carlson (National Science Foundation)
Dr. Worth B. Daniels (Washington, D. C.)
Lt. Gen. Leonard D. Heaton (U. S. Army)
Dr. Maynard K. Hine (Indiana University)
Dr. Hugh H. Hussey, Jr. (Georgetown University)
Dr. Saul Jarcho (New York City)
Rear Adm. E. C. Kenney (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. Robert M. Stecher (Cleveland)
Dr. Luther L. Terry (U. S. Public Health Service)
Dr. William L. Valk (University of Kansas)
Dr. Theodore R. Van Dellen (Northwestern University)
Dr. Warner L. Wells (University of North Carolina)

CHAPTER II

TECHNICAL SERVICES

The year's work in the Library's technical services activities was marked by unprecedented production decreases in virtually every program area. These decreases arrested the steady annual increases in these activities which have been the rule since 1950, and may be ascribed, in part at least, to a highly abnormal personnel turnover rate and to preoccupation with the Library's move to Bethesda.

The Technical Services Division was greatly handicapped throughout the year by severe personnel shortages, many of them in key positions. For several months there were fifteen vacancies; at no time after October were there fewer than six vacancies. At the end of the fiscal year only 59 of the Division's 66 positions were filled.

On the positive side, the year was highlighted by the publication of Biomedical Serials, 1950-1960, a list which is rapidly becoming one of the Library's most important bibliographical tools, and by the beginning of the Division's involvement in the MEDLARS program. During the year personnel of the Division participated in a series of discussions relating to computer control of journal receipts and to the mechanics underlying the inclusion of monographic citations in Index Medicus.

SELECTION AND SEARCHING PROGRAM

Area Control. The work of location and selection of the world's medical literature was carried on by a staff of six area specialists, responsible for five main areas and a sub-area. Changes in definition were minor. Rumania was shifted from Area Three to Area Two, the latter now consisting of all the Romance languages; the countries of Bulgaria, Yugoslavia, Estonia, Latvia, Lithuania, Finland, and Albania were made the responsibility of one person. For Area Six, comprising oriental languages, the Selection and Searching Section has no specialist, but two catalogers with these language skills accomplished a great deal of the selection, as well as searching, of Chinese and Japanese prospects. Occasional help with Korean material was furnished by a member of the staff of the Bibliographic Services Division. In order to improve the area specialists' control over their selections and to utilize language skills and special knowledge more thoroughly, all reviewing of searched materials was established on an area basis early in the year.

Last year's report of the area organization inadvertently omitted mention of government publications in the United States. This important category is included among the responsibilities of the Area Five specialist.

New Selection Sources. During the year sixteen new serial sources for use in selection of materials for the Library were evaluated and added to the Library's List of Prospect Sources. These additions are:

Akateeminen kirjakauppa. New books published in Finland.
Helsinki.

Australian national bibliography. Canberra, National Library of Australia. (Superseding two previous lists of the "Commonwealth National Library")

Bibliographie courante des documents, comptes rendus et actes des réunions internationales. Bibliographical current list of papers. Brussels, Union of International Associations.

Books from Hungary. Budapest.

Carti noi. Bucharest.

Ciencia interamericana. Washington, D. C., Division de Fomento Científico, Union Panamericana.

Ekspres informacija. Vilnius.

Fichero bibliográfico hispanoamericano. New York.

Greek bibliography. Athens, General Direction of Press, Research, and Cultural Relations Division.

Hague. Koninklijke Bibliotheek. Bibliografie van in Nederland verschenen officiële en semi-officiële uitgaven.

Impressa publica regni daniei. Bibliografisk fortegnelse over statens tryksager og statsunderstøttede publikationer . . . København, Det Kongelige Bibliotek.

Magyar orvosai bibliográfia. Bibliographia medica hungarica. Budapest.

Medellin, Colombia. Escuela Interamericana de Bibliotecología. Boletín de adquisiciones de la biblioteca.

Mental health book review index. Flushing, N. Y., American Foundation for Mental Hygiene.

La Ricerca scientifica. Notiziario. Roma, Consiglio nazionale delle ricerche.

Technical book review index. Pittsburgh, Special Libraries Association.

Special Searching Projects. As in previous years, certain substantial searching jobs were of interest both as events in themselves and for the information they furnished as to the strength of holdings in various national and subject areas. The French and German holdings of the Library were tested by the searching of 740 titles offered by the Universitätsspital Bibliothek in Zurich. Of these books, published in the first half of this century, approximately 80% were already represented in the edition named, 13% only in other editions, and less than 7% were works new to the Library.

The searching of 246 Bulgarian books received from the State Library "Vassil Kolaro" in Sofia indicated NLM's strength (or weakness) for the post-war period. Of these books, published between 1945 and 1960, 60% were found to be already represented in the collection.

The receipt of Repertório de ediciones 1960-1961 presented the opportunity to check the Library's holdings of Argentine books and to order many that had been missed. Of the 582 items which were selected and searched, 19% were determined to be lacking.

A basis for checking the Library's strength in a special subject area was furnished by the checklist of 171 journals presented in the article "An estimate of comparative literature resources supporting research in medicinal and pharmaceutical chemistry in major libraries in the United States" (Bulletin of the Medical Library Association, vol. 50, no. 1, January 1962). Of these the Library currently receives 121 of the 171 titles listed, including all journals on the list in medicinal and biological chemistry as well as 29 in pure chemistry.

Sample Serials Collection. Certain types of serials directly occasioned by medical or health-seeking activity, but containing little or nothing of medical discussion or news will be retained by the Library in sample issues only. Some 200 of these serials, accumulated over the years, were organized as the nucleus of a "sample serial" collection, microfilmed, and added in this form to the Library's holdings. In the future it is planned to process, file, and record the samples in yearly accumulations.

Cooperation with Translation Program. In response to a suggestion from the Head of the Library's Science Translation Program, changes in the selection procedure were instituted late in May for the purpose of bringing to the Program's attention books published in the Soviet Bloc and in Yugoslavia which seem worthy of consideration for translation.

Pertinent citations will be photographed twice and the second prints forwarded to the Science Translation Program.

PROCUREMENT PROGRAM

Soviet Bloc Procurement. The exchange of current journals with the State Central Medical Library (Moscow) continued on a slightly accelerated basis; the Library now receives 61 Russian titles in exchange for 34 American. The number of Russian monographs added to the collection totaled almost the same as last year's 1,250. Of these monographs 611 came from the Publications Officer in Moscow, 347 from gift and exchange sources, 189 as transfers from the Library of Congress, and 100 from dealers.

A number of Soviet libraries were added as sources of exchange during the year. The most noteworthy of these new exchange partners are the Academy of Sciences of the Armenian SSR, the Epidemiological Station in Novosibirsk, the Moscow Medical Institute, and the Sanitary Institute in Tashkent.

In addition to these new exchange sources, some of NLM's established exchange relationships in Sofia and Bucharest continued to be fruitful throughout the year. A total of 663 titles were received from the State Library "Vassil Kolaro" in Sofia. As a result of this excellent performance, NLM's holdings of current Bulgarian books are estimated to be much higher than for earlier segments of the post-war period. The relationship with the librarian of the Medico-Farmaceutic Institute of Bucharest reached a high point at the end of the year with this Library's acceptance of his offer of the Medical Faculty's doctoral theses from 1875 to 1944, numbering almost 5,000, together with other dissertations from the Faculties of Medicine of Cluj, Jassy, Târgu-Mures, and Timisoara.

Index Review Copy Project. Solicitation of review copy subscriptions to journals regularly included in Index Medicus was continued throughout the year. Foreign publishers as a group were approached but with somewhat less immediate success than was encountered last year on the domestic scene. By late June, replies on 43% of the 651 individual titles showed 32% accepted and 11% refused; the 70 titles refused outright are controlled by two publishing firms. In addition, procedures were worked out between the Bibliographic Services Division and the Acquisition Section of Technical Services Division for prompt reporting of titles newly selected for regular indexing.

Gift Acquisitions. This year the Library received two rather extensive gifts given in appreciation for services provided by the Library. The first was the offer of 750 duplicate titles from the Universitätsspital Bibliothek in Zurich. Of these books approximately 20% were added to the collection. Late in the year a gift of 135 monographs and 15 linear feet of periodical issues was received. This material represented the medical material, exclusive of rare books, out of a private Ecuatoriana collection purchased for the Latin American Institute at Southern Illinois University.

Refinement of Fiscal Procedures. In March the Public Health Service requested the Library to cease sending a vendor card for each item appearing on vouchers to be processed for payment by the Voucher Audit Section of the Division of Finance. This is a significant improvement in the tailor-made invoice payment system devised in 1956. With this decision, the burden of proof in the post-audit review rests almost completely on the control records in the Library. From a management point of view the decision is particularly gratifying; this step in the process was included in 1956 against the recommendation of Library personnel.

A secondary benefit accrued to the Library from this decision. The dealer-arranged file of payment cards, covering orders from 1956 through March 1962, was transferred to the Acquisition Section by the Chief Fiscal Officer. This card file provides raw material for review and analysis of dealer effectiveness. Formerly, permanent record files were rearranged and analyzed when retrospective studies were required. There is a real possibility in the near future of machine compilation, on a current basis, of the varieties of data significant in management analysis.

CATALOGING PROGRAM

Cataloging in General. The number of titles cataloged during the year decreased substantially, except for two categories. There was a gain of approximately 500 titles in new monographs; the count of recataloged serials totaled 2,672, more than double that of last year. The decreases in the other categories are accounted for by a loss of available cataloging time and by the completion in 1961 of the recataloging of monographs. In addition, there was a decrease in the number of new serial titles received for cataloging from 1,824 in 1961 to 1,106 in 1962.

Help was received from a visiting librarian from Thailand who cataloged a group of Thai language serials, using the Library of Congress rules. As the reference tools necessary to establish corporate entries are lacking, the cataloging is considered temporary.

Subject Cataloging. Revisions in Medical Subject Headings caused fewer changes than expected in the New Subject Catalog. Cards for approximately 60 titles were revised in order that the subject changes would be represented in the 1960-1964 NLM Catalog; however, these changes were effective too late to be included in the 1961 Catalog.

During July and August a follow-up study of the use of MeSH headings was made. The objective was to study the use of subdivisions; under which subjects they were used, the total number of times they were used, and which subdivisions, if any, were not used. The results showed that each topical subdivision had been used at least twice, the least used being cerebrospinal fluid and the most used being therapy (332 times).

It was shown also that the least used form heading was portraits and the most used were periodicals, bibliography, and popular works; time subdivisions were used so infrequently that one might question their real value.

Parallel with this study was another made to identify those MeSH main headings which had not been used by the catalogers. The count showed that there were 1,771 such headings, the majority of which were for specific items such as veins, arteries, surgical procedures, and the like. This study pointed up an interesting difference between monographs and journal articles--although no books required the main heading CATARACT EXTRACTION, there were 4-1/3 columns of entries under this heading in the Cumulated Index Medicus.

HMD-NLM Cataloging. The arrival of the History of Medicine Division in Bethesda greatly facilitated the discussion of mutual problems. In an early discussion there was agreement on new procedures involving shelflist designations and relocation of certain materials.

Recataloging. Recataloging during the year was limited to hospital reports, Japanese language monographs, and Russian serials; a few serial titles were recataloged by special request of the Reference Services Division.

The recataloging of hospital reports proved to be far more time-consuming than expected. The establishing of entries was difficult, and on more than one occasion a cataloger spent long periods of time ferreting out the history of a single hospital and its relationship to another institution or governmental unit.

The recataloging of serial hospital reports is further complicated by deficiencies in the records. Some serial titles were entered in the Serial Record and others were not; some items had never been processed for the Library. At the end of the year approximately 1,500 volumes remained to be recataloged.

The Japanese language monographs also presented problems in recataloging. The material was located in three areas of the old building--basement, second floor, and fourth floor; each of these collections had to be searched in order that related material could be handled at the same time. In many instances titles were found to be translations from another language, necessitating further search to determine whether the Library possessed the original, in which case the Japanese entry was a candidate for withdrawal. Errors in binding and transliteration provided additional complications. The Japanese collection is still not completely cataloged; many of the titles were published before 1800, and work could not be done until the needed reference tools, shelved in the HMD collection, became available.

All current Russian periodical titles were recataloged by the end of the year and a beginning was made on the non-current titles. Long runs of serial titles were involved, and the cataloger worked in the stack area

for the duration of this project to avoid transporting large numbers of volumes from the shelves to another work area.

Among the miscellaneous serials recataloged during the year were 32 early American journals for the Monuments of Medicine Collection and several long runs of abstracting serials for the "Z" collection.

Card Catalogs. The move to new and larger quarters called for a general review of the Library's card catalog files for needed expansion and/or rearrangement; preliminary measuring and labeling was completed in the old building before the files were moved.

The Official Shelflist and the Name Authority File required no adjustment and were moved intact. The expansion of the Official Shelflist into the best of the cabinets formerly holding the Name Catalog had been planned; this was not done, however, in view of the probability of its being housed in cabinets in the Public Catalog Room eventually.

Of the remaining files, the Name Catalog and Old Public Catalog exhibited the greatest need for change. The most extensive expansion operation, of course, involved the Name Catalog. The contents of 660 very full trays were expanded into 1,034 trays in the new catalog card cabinets. The Old Public Catalog was rearranged in preparation for the move. It had been composed of two files, an alphabetical shelflist for the old collection and a name catalog, each tray containing portions of both files. Before being moved to its new location the alphabetical shelflist was separated into other trays and the two files are now housed in separate sections of the catalog card cabinet.

Biobibliography Collection. In preparation for moving the Biobibliography Collection was very carefully reviewed early in January with three objectives in mind: 1) to remove outdated and little used material; 2) to add new material or reinstate material previously withdrawn from this collection; and 3) to select material for shelving in the Public Catalog Room in the new building.

Each title was reviewed, its ultimate destination indicated, and the necessary changes made in the records. These changes, in conjunction with similar inventories in progress in other parts of the Library, resulted in the Catalog Maintenance Unit's handling of 1,651 transferred titles during the period January 1 - May 31, 1962. A normal work load in a comparable period of time is approximately 200 titles.

Additions and Changes in the Classification Schedule. One new number, WD 750 for space medicine, was added to the National Library of Medicine Classification during the year. This number will be used for all aspects of space flight, with the exception of human engineering and technology. It will include titles on space biology in addition to strictly medical material.

Other changes in the Classification involved the addition of various form numbers, the substitution of new terms for old, e.g. Podiatry for Chiropody, Endodontics for Root Canal Therapy, the addition to the Geographical Tables of FM 2, Isle of Man, and HG 6, Gold Coast, Ghana.

The decision was made to add WX 2 to the 19th century schedules and to the reports falling in this number regardless of the publication date. This decision was based on two factors: the serial form of the reports and the fact that many of the reports span the 19th and 20th centuries and would normally require full classification.

PUBLICATIONS

The Published Catalog. The 1961 NLM Catalog was published in April 1962. In general it follows the same format as the 1960 volume with the exception of one major change in the subject section, where for the first time the tracings on the cards were not reproduced. This change saved an estimated 143 pages that would have been required if the old format had been retained, and permitted maintenance of the \$20 price.

Biomedical Serials, 1950-1960. In January 1962, Biomedical Serials, 1950-1960; a Selective List of Serials in the National Library of Medicine, compiled by Lela M. Spanier, was sent to press, some two years after its inception. It was published on May 3 as Public Health Service Publication No. 910. From the initial planning stages through the final review and packaging for shipment to the printer it is estimated that the preparation of this major bibliography required approximately 57 man months.

Intended primarily as a guide to the substantive biomedical serials of which the Library holds at least one issue for the period 1950-1960, it also serves as an invaluable tool for the identification of serials. In this latter capacity the list can be used in the acquisition, cataloging, reference, and interlibrary loan activities of libraries. It is already proving its worth to the shelving, interlibrary loan, circulation, and reference operations of this Library and will be used constantly in the serials recataloging program. The list can also be used as a checking edition for regional union lists of medical serials.

There are 8,939 titles in the list, selected from a working file of about 18,500 serials represented in NLM for the years covered by the bibliography. The entries have been made under title, and they are arranged alphabetically, word by word to the end of the title, ignoring initial articles and internal articles, conjunctions, and prepositions. The entries, but not the cross references, are numbered. For each entry the following bibliographic information is given: title, publishing or issuing body, place of publication, descriptive holdings information or imprint date, frequency, and notes relating to the period covered. Symbols are used to indicate those serials for which NLM had received no issue later than 1958 at the time of editing and those completely acquired serials for which there are large gaps in the 1950-1960 period.

By the close of the fiscal year, analysis of those titles for which the Library had received no issue later than 1958 had provided the identification of serials needing special claiming. This claiming is being done on a geographical basis, and should bring in many of the missing issues. Plans are also being made to examine the list in various ways--for example, the determination of the patterns of biomedical serial publication. In addition, cards for newly-received serials are being cumulated for a possible supplement.

MEDLARS

By the end of the year the Technical Services Division was deeply involved in the Detailed Design phase of MEDLARS. Computer control of the receipt of indexed journals is an integral part of the system; frequency and similar data were supplied to the contractor for use in planning this control. Another essential feature of MEDLARS is the inclusion of monographic citations in Index Medicus. This means that the NLM Catalog in its present form will probably cease with the publication, early in 1965, of the quinquennial edition for 1960-1964. Current planning calls for the inclusion of citations for American monographs in Index Medicus early in 1964, and for inclusion of all monographic citations beginning in 1965. At the end of June design of monographic citation format was well under way. An extensive simulation study is scheduled for the early part of the next fiscal year.

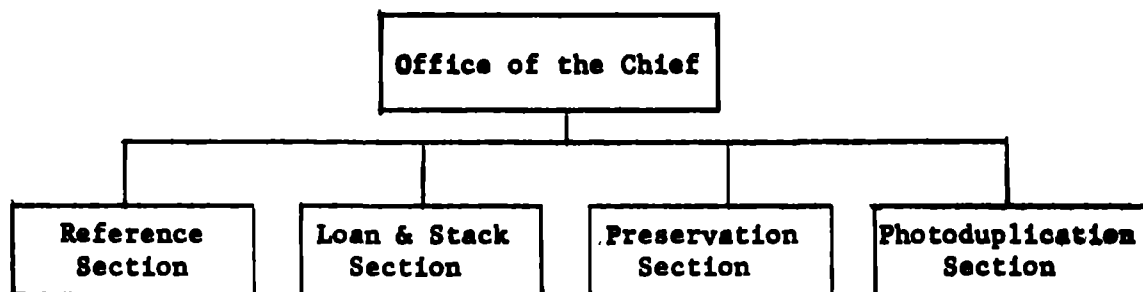
In addition to the progress on these primary objectives, certain matters having to do with the secondary objectives were being discussed with the contractor. Among these are the automation of the entire Serial Record, computer processing of acquisition transactions, and computer production of catalog cards.

CHAPTER III

REFERENCE SERVICES

The Reference Services Division was established in August 1961 when the Circulation and Reference Divisions were combined. A Division Chief was appointed in September and the former Chief of the Circulation Division became Deputy Chief of the newly formed division.

Initially the Reference Services Division was divided into two Sections: Circulation and Reference. The Circulation Section was further organized into the Loan and Stack, Photoduplication, and Preservation Units. Extensive study of the administrative procedures of the Division produced the final organizational pattern which became effective on June 10, 1962.



Personnel. Immediately upon its establishment the Division began a complete personnel survey. Rewriting of the job descriptions for the entire Division was accomplished after much study, deliberation, and travail; in some cases these new descriptions made significant changes in duties. Many hours were spent in interviewing applicants for the positions vacated by those who left the staff before and after the Library's move to Bethesda. The loss of personnel was happily somewhat balanced by the fact that the new location provided its own supply of applicants.

The Move. This Division, which has as its charge the care, protection, and service of the collection, was centrally involved in the move. That it managed to answer reference questions and fill interlibrary loans even while the material itself was being moved out is a feat to be lauded. The Reference Services Division is happy that the difficulties of moving have been surmounted and overcome. It wishes to pay tribute to its Deputy Chief, William H. Kurth, who "master-minded" the move and whose untold hours of planning, directing, and supervising ended in an accomplishment that is a model for other libraries to study and follow.

Cooperative Activities. The Chief of the Division has participated in many conferences on the implications of MEDLARS, specifically with regard to its applications to reference procedures.

Reference Collections. The Reading Room collections consist principally of a monographic collection, an index and annual review collection, a current or unbound journal collection, and a five-year collection of the most used journals. These were carefully screened for obsolescent material (several hundred titles were withdrawn), and the monograph collection especially was considerably expanded in the new building. Expansion has greatly facilitated reference work and has enhanced the browsing value of the collection for the public. A number of title and subject indexes to these collections were devised; formerly exhibited in the form of end panels, these will eventually be mounted on a rotary device to be maintained at the Reader Service Desk.

Work in Progress. At year's end Mr. Jaroslav Nemec was bringing to completion an extensive investigation into the history of medicolegal relations and terminology.

Miss Miriam D. Hawkins and Miss Elizabeth G. Moseley made progress (despite the heavy demands of routine and other special assignments) in revising Check list of basic reference aids for small medical libraries. The revised list will be completed in July and ready for distribution in the early fall.

Mrs. Edith D. Blair is compiling a preliminary directory of medical libraries outside the United States. This directory will be published early in 1963 and will be distributed in June to members of the Second International Congress on Medical Librarianship. Mrs. Blair is also compiling a selected bibliography of medical education which will be completed early in the summer of 1963.

Mrs. Genevieve N. Schiffmann is preparing a list of honorifically named medical and biological institutions. The list will include brief historical data and biographical information.

In April 1962 the National Library of Medicine agreed to compile, under contract with the Division of Health Mobilization, Public Health Service, bibliographies on burns and wound infections. Dr. Dorothy Bocker has completed the bibliography on burns, which lists 769 references and covers the literature from 1952 to date. The bibliography on wound infections, also compiled by Dr. Bocker, will be completed in July.

LOAN AND STACK SECTION

From February to May most of the personnel of the Loan and Stack Section was engaged in move activities almost exclusively during the regular eight-hour work day, while routine Section duties were performed on an overtime basis. Through the cooperation of other Sections in the Reference Services Division and in the Library in curtailing all requests

except the most urgent, and in volunteering additional personnel, the loan service was continued throughout the entire move--albeit somewhat tardily in some instances. For the months of March, April, and May, during the critical time of the move and the adjustment period, the library received 36,460 interlibrary loan requests--approximately 900 more than were submitted during the same period in 1961. That the majority of these were filled as quickly as they were is almost a miracle. At one point in the move the backlog of interlibrary loans totaled 3,000. A combination of extra manpower, postponement of all non-priority duties, and the willingness of some key library assistant personnel to work twelve hours a day for six and seven days a week prevented a critical interlibrary loan work situation and also helped to bring the backlog down to a reasonable amount. The Library rejoices in the fact that it could justify the faith that other libraries evidently had in the National Library of Medicine's ability to carry on in the face of tremendous difficulties.

Immediately preceding the move several projects relating to the maintenance and organization of the general collections were given priority. In the past, arbitrary divisions of the collections were necessitated by inadequate shelving facilities; for example, segments of the theses collection were shelved in four widely separated areas, as was the "Z" collection. These segments had to be brought together; the stacking formula for the new building called for a consolidated collection with four main divisions: pre-1946 serial material; 1946-plus serials; 19th century monographs, and 20th century monographs. As much integration as possible was accomplished in the old building. Adding to the complexity of the move plans was the scheduling and completion of the following projects: screening of the 19th century monograph collection for 1914 and later imprints, resulting in the shifting and interfiling of approximately 7,000 volumes into the 20th century collection; reshelving of the entire oriental collection because of expansion needs and classification, which in most cases relocated titles; interfiling of the 20th century octavo and quarto collection.

The split serial collection and the bringing together of other collections, the mobile camera and other new devices produced a need to examine old procedures, to reorganize certain activities, and to develop a thorough training program for old and new staff alike. One of the most valuable recent changes is the rotating schedule for library assistants who work with interlibrary loan requests in the stack areas. During a two-month period each man is responsible for loan searching, shelving, and general stack maintenance in an assigned area. The major advantages of this system are: 1) a thorough knowledge of one area is obtained before rotation to the next area; 2) quality control of loan searching, shelving, and maintenance is possible since each man is totally responsible for his area; 3) the individual members of the staff prefer this system, enjoying the sense of responsibility and the opportunity to perform a thorough and complete job. An over-view shows that shelving and searching are now accomplished with more ease and speed, mainly because of a better

knowledge of each specific area. Presumably, after a year each library assistant will have attained thorough knowledge of the entire collection. With all the advantages presented in the new building, the Loan and Stack Section should be able to provide a rapidity and quality of service not feasible in the old quarters.

Early in 1962 the Section cooperated on two preliminary surveys for the serial recataloging program of the Technical Services Division. An improved arrangement of the serial collection, one more suitable to meet the demands of the interlibrary loan and reader services, has been needed for many years. The problem of "translating" a request, frequently received in abbreviated form and occasionally with inaccuracies, to a precise shelf location is compounded by title changes, corporate body entries, and geographical terms. For the past few years the List of Journals Indexed in Index Medicus has been the only convenient source for the pages working in the stack area to use in locating difficult-to-identify titles. Now Biomedical Serials is proving to be of considerable value as an index to the collection. It is particularly helpful in locating Japanese material which can be, and is, received in one of three forms: translation, modified Hepburn transliteration, and the Nippon system of transliteration.

In Fiscal Year 1962, 129,213 interlibrary loan requests were submitted. Of the total loan requests received, only 10% were not available, as opposed to 12.7% in 1961. The peak load of 14,279 loan requests was received in May; in December only 7,448 were submitted. The peak month for reader requests occurred in January when 5,297 requests were received; the low month was April with 2,525 requests.

Survey of the Interlibrary Loan Operation. A comprehensive study entitled Survey of the Interlibrary Loan Operation of the National Library of Medicine, by William H. Kurth, is now in press with publication expected by late summer.

Loan-Bindery Procedure. In this procedure, when an item requested for loan is found to be at the bindery, a letter is sent to the requester with the information that the volume desired is at the bindery and his request will be filled when the volume is returned. From the program's inception in December 1960 to June 1962, 5,036 loan requests were processed in this manner. Of this total, 4,582 were completed (2,994 in Fiscal Year 1962), 65 were treated as "non-availables" and 389 were in process at the end of the year.

Document Collection. On completion of the move, responsibility for maintenance of the document collection was transferred from the Reference Section to the Loan and Stack Section. Rather brief operational experience points out numerous problems in servicing a collection of this nature in a closed stack area. Examination of a hundred or more

volumes or pieces among the various statistical, administrative, and research report series of this collection by a single individual within one day is not unusual. Lack of coordination between cataloging and indexing services poses grave retrieval problems for the library assistant who frequently is called upon to perform extensive research work in order to identify the lineage of obscure administrative and research organizations or to unravel intermixed organizations and series.

PRESERVATION SECTION

Projected goals of the Preservation Section were sharply cut back to meet moving requirements and various other exigencies.

Binding Unit. The binding operation was plagued throughout most of the year by problems with the commercial bindery. Material was held for months and significant quantities were substandard in workmanship. In April, after the plant was closed by labor problems, the contract was canceled and arrangements were made with another firm for binding the most critical items. At the end of the fiscal year 73 titles are still held by the original contractor and, unhappily, some are holding up completion of interlibrary loan requests. Experience with the second bindery was also somewhat unfortunate since springback covers were not furnished for the most used serial titles. Rectification of this contractual failure will further hamper reader and loan services. The problems produced a 21% decrease in commercial binding activities, a deficit which will have to be made up during the coming year, unfortunately at prices which are more than 50% higher than those under the last contract.

Work Simplification. After a study of the binding procedures by Miss Elizabeth Sawyers, NLM intern, work was simplified by discontinuing the continuation sheets for commercial binding and the shelf charges for newly-acquired unbound monographs. Additional simplification of work processes will be introduced during the coming year.

Micro Preservation Unit. During the year 366 titles were added to the Temporary Series File. This collection, initiated as a temporary repository for uncataloged serial titles on film, now comprises 1,288 titles. Though this was more than double the number of titles preserved in the preceding year, total page production decreased about 20%, from 689,954 to 570,662 units.

Newspaper type serials are now preserved only in microfilm form. Among the 61 titles receiving this treatment are such publications as Dia Medico, Orizzonte Medico, General Electric X-ray News, and Contact.

The magnitude of the paper deterioration problem in the substantive serial collection (W1's) was estimated on the basis of random sampling techniques. A sample of slightly more than one percent of the

total collection revealed that 1.18% required immediate attention (within a year) and 3.23% should be converted within five years. Projecting these percentages against the total W1 serials collection produces an immediate filming requirement of 1,567,000 pages and a five-year program for an additional 4,289,000 pages, or an average yearly production of 1,171,000 pages for the next five years. Attainment of this goal is dependent on successful recruiting of microphotographers to fill existing vacancies.

Documentary Medical Motion Pictures. The entire medical motion picture collection of 665 titles was transferred in February to the Audiovisual Section of the Communicable Disease Center in Atlanta, Georgia, along with its records relating to acquisition and history. The superior facilities of the Center for film handling and distribution assure improved service to the medical community from this unique collection.

The Center also assumed responsibility for future editions of the Film Reference Guide for Medicine and Allied Sciences and the Cancer Motion Picture Guide.

PHOTODUPLICATION SECTION

Output of microfilm totaled 2,840,400 pages, of which 2,243,862 pages related to the interlibrary loan program. A new all-time production record was achieved under difficult conditions of personnel shortages and readjustments during the two-month-long upheaval of the move. (Though the total pages produced was up only 2%, total pages for interlibrary loan activity increased 8%.) The effect on total production of the 8% increase in page production for interlibrary loan service was largely offset by a decline in page production for the micro preservation program.

New Equipment and Research. The capacity of the photoduplication service was considerably enhanced by the acquisition of new equipment, most of which replaces similar items which had seen many years of service. Indeed, some had been acquired from "war surplus" sources. New items include five mobile microfilm cameras, a Xerox Foto Flo, a Paragon Revolute dryer, a Recordak Reliant microfile rotary camera, a Recordak portable microfile camera, a Durst Laboratory enlarger, a Burke and James floor model contact printer, a Crown Graphic camera, a Color-Trans lighting system, as well as auxiliary items needed for full utilization of the already existing items.

Mobile Cameras. Preliminary testing during the summer of 1961 of the first mobile camera constructed by the Machine Tabulation Division of the Bureau of Census was highly promising, and orders were placed for four additional units. During the fall of 1961 additional changes were made to increase mobility and operator convenience. The

first camera was placed in operation in March 1962 shortly after the initial segment of the serial collection was shelved on A-level. Difficulties with density were encountered due to the effect of the excellent stack lighting on the unique photo cell mechanism of the MRD model camera. The problem was overcome to a reasonable degree by operator training, though a permanent solution would require use of diffusers on the fluorescent lights. Within another month the remaining four cameras were received, checked out, and placed in operation. In the roving camera operation books are brought from the shelves to the end of the range and deposited on distinctively painted shelves at a height convenient to the camera operator. The camera then moves down the aisle, stopping at each range for the microfilming.

Concurrently with the move, the substantive (W1) serials were split by date, with the 1946-plus serials shelved on A-level and the pre-1946 serials shelved on C-level. Though the roving camera operation was inaugurated on both levels, the C-level operation was soon discontinued in favor of a fixed camera station in a central location because the demand for this material proved insufficient to warrant mobile operations. Two months' experience indicates that the pre-1946 volumes, which constitute 67% of the total substantive serial collection, produce only 18% of the total interlibrary loan filming requirements. Numerous significant advantages of the mobile camera are in evidence. Today four to five booktrucks are engaged in the interlibrary loan filming operation compared to an average of 30 under the old system. There is great improvement in the accessibility of materials, particularly for reader service. Equally important is a sizeable reduction in physical effort as well as less risk of damage to the material by reduction in sorting and handling steps.

The Move. The Photoduplication Section played a major role in the move by direct support of the Move Committee and various operational and administrative units through extensive copying of plans, charts, and other related documents, and by compiling a graphic record of all phases of the move including loading and handling techniques. Microfilming operations were maintained without interruption or undue delay by simultaneous operations at both buildings. The CopyFlo machine was in action at the new building two days after operations ceased in the old building, with normal production achieved within one week.

Physical Environment. The removal of the Photoduplication Section from the dark, cramped, dirty location in downtown Washington to the modern, spacious, cheerful quarters in Bethesda brought marked changes in operations. Nearby construction projects and other factors at the old building had brought in a daily load of destructive soot and grit. Equipment thoroughly cleaned in the morning was gritty by afternoon, a condition hardly conducive to proper maintenance of delicate lenses and film emulsions. Work was frequently ruined by the inability to maintain proper solution temperatures in the darkrooms during the heat of summer

and the extreme cold of winter. The quarters in the new building compare favorably with the best and are definitely superior to those of most photographic installations.

Cost Study of Photoduplication Operations. A study of the cost of various photocopy processes of the past year was completed in November 1961. Though most unit costs had increased significantly, the decision was made to leave current fees for special photographic services unchanged. The unit cost of the CopyFlo operation actually declined during this period by 12%, due to replacement of the rented machine with a purchased model and to improved methods of reclaiming selenium drums.

CHAPTER IV

B I B L I O G R A P H I C S E R V I C E S

Within the space of a few weeks the final volumes of the three-quarter-century-old Index-Catalogue appeared and the MEDLARS contract was signed. The break with the past and the leap into the future symbolized by these events characterized the year. Although the change was not as abrupt as might appear--the Index Mechanization Project of 1958-1960 having served as an excellent transition--it was in this year that the Library inaugurated and constantly expanded a new course whose ultimate outlines are only dimly discernible at this stage.

The dominant activity of the Bibliographic Services Division was the MEDLARS program. There are genuine difficulties in administering two major activities simultaneously, the on-going operations and the computer system project. The selection of a very able contractor for the latter has been a major factor in preventing this schizoid situation from getting out of hand. As for the other operations of the Division, despite serious personnel deficiencies, the move of the Library to Bethesda, and a conglomeration of other major and minor plagues, the loyalty and industry of the staff, coupled with the managerial footwork that has sustained the National Library of Medicine indexing program in the past, kept the show on the rocky road that was traversed this year.

MEDLARS

On August 14, 1961, after a delay of several months, the contract for the first phase of the MEDLARS project was signed. Under the terms of the contract, for a fixed price of \$85,000 the General Electric Company agreed to perform the following services that had been described in their Technical Proposal: study and analysis of the problem; development of system concept; test for feasibility and economics; presentation of a final system concept.

Working sessions between the contractor and the Library staff were held two to three times a week. From these meetings there gradually evolved the study, analysis, and definition of the problem. Formal System Performance Specifications were issued in November, which covered the performance requirements. These delineations were viewed as a set of design parameters firm enough for the preliminary design of the system to proceed; it was expected, however, that as each facet was examined further, the performance specifications would be modified, subject to the approval of the National Library of Medicine. These specifications have been revised and modified twice during the fiscal year.

In November the General Electric Company submitted two additional reports:

(1) A progress report, which summarized the tasks accomplished during the first three months of Phase I and those remaining to be completed, technical memoranda prepared, and vendors and manufacturers contacted.

(2) The Output Subsystem Interim Report, describing the efforts to resolve the knotty problem presented by the MEDLARS high-speed, high-quality printing requirements. General Electric concluded in this latter report that "Photo-composition printing systems will satisfy the MEDLARS requirements but require a development program."

The Public Health Service and the Department of HEW received copies of these documents and representatives met with the MEDLARS teams for critical review and discussion of them. It was agreed that the MEDLARS teams were progressing satisfactorily and that the specifications were indicative of a thorough understanding of the MEDLARS requirements.

The MEDLARS project was subdivided into three separate subsystems based on the flow of information through the system, namely: Input and Conversion, Manipulation (computer configuration), and Output. During the remaining two months of Phase I, major emphasis was given to the evaluation and comparison of the alternate Manipulation Subsystem configurations.

On January 12, 1962, the General Electric Company gave a formal, all-day presentation before an audience consisting of Library staff members and representatives from other Government agencies active or interested in information handling, summarizing the results of their work on the preliminary design phase. On January 31 the Final Technical Report was submitted, ending the first phase of the project.

The Final Technical Report describes the MEDLARS preliminary design effort, including a description of the recommended system, the alternate configurations considered, and the steps taken to arrive at the recommended system. In the report each subsystem configuration was explained and equipment recommendations made. For Input and Conversion, punched paper tape typewriters were recommended. Since these machines do not have to be ordered immediately, General Electric recommended that the final selection of machines be delayed until detailed design specifications are completed, equipment specifications are prepared, and quotations obtained from appropriate equipment manufacturers. For the Manipulation Subsystem, all available computer equipments meeting the system and schedule requirements were evaluated, and the Minneapolis-Honeywell 800 was selected as the computer which best satisfied the requirements. The recommended Output Subsystem consisted of off-line graphic arts composing equipment (GRACE) and an on-line medium-speed computer printer. The GRACE will be utilized for preparation of Index Medicus, most of the recurring bibliographies, and several of the demand bibliographies; the on-line computer printer will be used for man-machine communication, especially during

the input editing, as well as for most demand bibliographies and a few recurring bibliographies. The computer printer is an item of equipment regularly supplied by the manufacturer; GRACE will require a special development sub-contract for its production.

Contractual discussions relating to Phase II began in January; but the actual signing of the contract did not materialize for almost a half year. Fortunately for the continuity of the project, the Government exercised its option for Phase II that had been a stipulation of the Phase I contract, and work on the project was not suspended. It is virtually impossible to record the tangled sequence of events that transpired between the end of the first phase and the signing of the contract for the second phase. On June 22, 1962, agreement by all parties was finally reached and the contract was signed, at a price of \$954,000.

The detailed design, as defined in the final agreement, "begins with the finalization of the system specifications. Detailed specifications for equipment and material will be prepared; computer programs will be specified in detail, prepared, checked out and documented; plans will be completed for personnel training, site preparation plans issued, and program management plans completed to integrate all tasks for the detailed design and implementation periods; and one Graphic Arts Composer and three input typewriters will be procured."

The General Electric Company prepared and sent out specifications for GRACE and the input transition typewriters. Since GRACE will require a development program, the evaluation of manufacturers' proposals was very deliberate and involved, and was complicated by the delay in signing the contract; the elapsed time permitted manufacturers to submit changes in price and delivery dates, which required further evaluation by General Electric. At the close of the fiscal year General Electric was still engaged in the evaluation; in July the Library expects to receive General Electric's recommendation relative to the GRACE and the input typewriters sub-contracts.

In February General Electric submitted Facility Installation Specifications which detailed the site preparation requirements for MEDLARS equipment areas in the new building. At several meetings with representatives of the architect, General Electric, and the Library, the specifications were reviewed and revised. The architect's drawings will probably be completed in July, at which time the necessary steps will be taken to begin the construction.

Considerable work has been done on the detailed subsystem programming module specifications. General Electric held several presentations in June to explain the programming approaches adopted or under consideration.

The Contractor also devoted attention to training and staffing requirements for the new system. It had early become apparent that most of the data processing positions would probably be filled from within the Library, and therefore considerable emphasis was placed on staff training in these areas. Continuing the broad program reported last year, the following external training was given during the year:

<u>Staff Member</u>	<u>Course</u>	<u>Institution</u>
Riley	Data Processing; Mechanics and application Sept. 18, 1961 - Jan. 19, 1962	George Washington University
Riley	Fundamentals of Data Processing June 1-4, 1962	Minneapolis-Honeywell
Gillespie	Technical Libraries and Automatic Data Processing October 26-27, 1961	Civil Service Commission, Brookings Institution
Gillespie Scott Washington Wommack	Electronic Data Processing-General Sept. 24, 1961-May 20, 1962	USDA Graduate School
Gillespie	Information Retrieval in Action April 18-20, 1962	Western Reserve University, Cleveland, Ohio
Scott	Seminar in Search Strategy April 30-May 18, 1962	Drexel Institute of Technology, Philadelphia
Davis Washington	ARGUS Programming Course June 11-22, 1962	Minneapolis-Honeywell

Mrs. Davis and Mrs. Washington have been assigned to programmer-trainee positions and are now receiving on-the-job training with the General Electric Company.

Other computer applications earmarked for future implementation, the so-called "secondary objectives" of MEDLARS, also were included in the Phase II contract. Included in these secondary objectives are the following:

(1) A parallel system for the storage and retrieval of text images, tied in with the bibliographic citations that represent them in the basic MEDLARS.

(2) A decentralized national network of mechanized search centers utilizing the MEDLARS input data centrally processed and compiled at the National Library of Medicine.

(3) Conversion of the Library's Serial Record File to the computer in order to facilitate the control of posting, claiming, and general information relating to the medical serial literature entering the collection. Other potential applications may be discovered in the course of the present investigation.

The general outlook for the MEDLARS project is promising. Despite slippage resulting from the unfortunate contract impasse, the primary objectives of the project appear to be attainable within a time framework close to the originally set target dates.

INDEX MEDICUS

The third year of Index Medicus production continued the fairly routine operational pattern which was set last year. The increased quantity of journal receipts, the unpredictable mechanical lapses, and the juggling of personnel due to existing vacancies have been factors in the overall production picture.

The number of items published in Fiscal Year 1962 is 141,911. This figure exceeds last year's total by approximately 12,000 items and also exceeds the calendar year 1961 total by approximately 2,000 items. The size of the individual monthly issue was fairly stable throughout the year; only one issue (February 1962) dropped below 10,000 items (9,577), all others ranging between this low figure and the high of 13,534 items in the March 1962 issue.

The projected figure for Fiscal Year 1963 is 145-150,000 items. Personnel shortages caused by the Library's move to the new building made serious inroads into processing production, and the goals have had to be lowered somewhat.

The Listomatic camera continued to be a weak point in the production line. Recognizing the shortcomings of the National Library of Medicine camera, Recordak loaned the Library a second camera which was more satisfactory than its predecessor. The filming of the cumulation was especially trying because of camera shortcomings and novel film problems occasioned by switching from panchromatic film to monochromatic. Characteristics of the new film relating to image stability and background density had to be learned painfully through trial and error.

Although the increase was not as explosive as that of last year, the number of copies of Index Medicus published and distributed rose again this year. Beginning with the August 1961 issue the total printing was increased from 7,200 to 7,500 copies. The complete breakdown of this total is given in statistical appendix X.

The 357 journal titles added to the Index Medicus List of Journals Indexed represent almost three times the number added in the previous fiscal year, and for the entire list they constitute an increase of about 20%. The United States and Japan again lead other countries of the world in number of journals added; 89 American and 70 Japanese journals were added this year, compared with 33 American and 24 Japanese periodicals in the last fiscal year. This trend will probably continue next year since it is the result of a deliberate policy aimed at enlarging the coverage of material emanating from those countries. Several geographical areas are represented in Index Medicus for the first time: Albania, Kazakh SSR, Afghanistan, Taiwan, Lithuania, North Korea, and South Korea.

The Bureau of the Budget authorization for printing Index Medicus covered the three-year period ending June 30, 1962. A new authorization covering a five-year period was received just two weeks before the old one was due to expire. The new authorization provides for a maximum of 10,000 pages per year, \$65,000 for printing copies for Library distribution and use, and annual publication of Medical Subject Headings as the second part of the January issue of Index Medicus.

CUMULATED INDEX MEDICUS

Final assembly of Volume 2 of Cumulated Index Medicus began immediately after the December issue of Index Medicus had been merged with the preceding eleven issues. To meet the time schedule two eight-hour shifts were instituted at the beginning of November; within one month the entire Author Section had been filmed and sent to the American Medical Association. Within the next month all machine operations had been performed on the Subject Section and film suitable for offset printing had been produced and dispatched. Preparation of the January and February issues of Index Medicus was sandwiched into this same two-month period. Strict adherence to a realistically planned schedule and reasonable machine reliability were the keys to the successful execution of this huge task.

The final shipment of the Author Section film was sent to the American Medical Association on December 1. This Section consisted of 1,577 pages, an increase of 65 pages over Volume 1 but 78 pages less than were used in the monthly issues for Volume 2.

In order to enable the American Medical Association to gain an early start on printing and binding, the Subject Section was delivered in three separate shipments of film. This Section consisted of 2,741 pages, an increase of 367 pages over Volume 1 but a decrease of 859 pages from the total of pages used in Index Medicus. About 800 feet of film had to be re-run due to undetected Listomatic camera malfunctioning. Before the end of December all cumulation film, except two rolls which were en route, had been received by the American Medical Association.

The three-volume set of Cumulated Index Medicus, Volume 2, appeared in March. The books are similar to those for the first volume except for the imprinting of the American Medical Association seal at the base of the spine; a better grade of paper was used, which should prolong the life of the volumes.

SUBJECT ANALYSIS

Responsibility for the revision of Medical Subject Headings (MeSH) and for integration of the subject aspects of MEDLARS was assigned to Miss Winifred Sewell, who joined the staff in May 1961 as the Subject Heading Specialist. This is the first time that the Library has had a full-time specialist in this area. After several months of preliminary discussions and planning, work was begun on the new subject heading structure.

The first step involved the development of a meaningful framework within which the vast field of medicine and its paramedical tributaries could be subdivided for more convenient investigation and manipulation. Broad categories, such as Anatomy, Organisms, Diseases, Drugs and Chemicals, were established. Authoritative lists of terms were sought out from many sources and were checked with the headings already in Medical Subject Headings. A detailed study of these existing headings was made, based on a qualitative and quantitative analysis of the contents of the 1960 Cumulated Index Medicus.

Material for suggested new headings, withdrawals, and cross-references consisted of: suggestions from revisers and catalogers; analysis of all cross-references in Medical Subject Headings; suggestions resulting from a careful examination of the citations under the most-used headings in the 1960 and 1961 Cumulated Index Medicus, suggestions made by indexers during a special indexing project in which they were allowed to use any term, whether in Medical Subject Headings or not, which seemed useful in indexing the article at hand; examination of recognized authorities such as national and international nomenclature conventions and standard texts.

Special attention was given in revising Medical Subject Headings to its ultimate use by MEDLARS for machine searching. It is envisioned that indexers will supply two categories of subject headings: print and non-print. Headings in the "print" category will appear in the printed issues of Index Medicus; headings in the "non-print" category will be stored in the computer for machine searching purposes only. It is anticipated that under MEDLARS the number of subject headings used for each article indexed will increase to an average of approximately eight headings per article.

A particularly difficult aspect of the study has been the resolution of the "subheading" problem. There is general agreement that

the 67 subheadings now employed are inadequate and that the coming of MEDLARS relegates the benefits of subheadings to the printed Index Medicus alone. Indexing of material for the 1963 Index Medicus will probably commence with a drastically curtailed use of subheadings.

Along with the revision of Medical Subject Headings, a separate categorized list of subject headings is being prepared. This list will contain all the main headings related to a particular subject and will show, at a glance, the entire subject heading structure for a particular subject field.

The original target date for completion of the entire project was the early part of the summer of 1962; the major part of the revision has been completed, but much more work lies ahead.

OTHER PUBLICATIONS

Bibliography of Medical Reviews. On January 19, 1962, the first cumulation of Bibliography of Medical Reviews was delivered to the Library. This volume, the sixth in the series, had been a difficult one to bring to publication because of differences in style and subject analysis characterizing the entries as they originally appeared. Approximately 40,000 entries required examination and revision in order to produce a uniform entry for the cumulation.

Bids for preparing camera copy for this publication were invited; Walter Conway and Associates, Inc., was awarded a contract which stipulated completion by September 21, 1961. The handsome volume prepared subsequently by the Government Printing Office was a completely satisfactory product. An additional feature is the excellent prefatory article entitled "The Review Literature of Medicine" by Scott Adams, Deputy Director of the Library.

Based on the experience gained from publishing earlier volumes and the cumulation, the decision was reached to make Bibliography of Medical Reviews a true by-product of Index Medicus. One step in that direction was taken in September 1961 when the practice was inaugurated of including in Index Medicus issues all review articles indexed for non-Index Medicus journals. After completing the cumulation, the next annual volume (Vol. 7) was finished and dispatched for printing; it is expected from the printer on or about July 20, 1962.

Upon completion of work on the manuscript for Volume 7, a schedule change was made that moved up the preparation of Volume 8 to a point in time before the assembly of the 1962 Cumulated Index Medicus is begun. Volume 8 will, therefore, appear earlier than former volumes. At the end of Fiscal Year 1962 there were 4,206 articles from Index Medicus journals and 1,028 articles from non-Index Medicus journals selected for the 1962 volume of BMR. Additional articles will be selected before the December Index Medicus is completed.

Index-Catalogue, Fifth Series. Receipt of the second and third volumes of the Fifth Series closed the door finally on the project to which the Library had committed itself in 1950--the publishing of supplementary volumes of the Index-Catalogue comprising the file of previously unpublished monographic entries. The pleasing appearance of these final volumes contributed to the general satisfaction with which they were greeted upon their arrival in the Library at the beginning of the fiscal year.

Russian Surgical Staplers. Mr. Jablonski's annotated bibliography was completed in August. The finished book was received in the Library on November 9, and since that date many copies have been distributed. Public reaction to this work has been very favorable.

SPECIAL ACTIVITIES

Occupational Health Abstracting Project. The abstracting project arranged between the National Library of Medicine and the Bureau of State Services, Public Health Service, in August 1960 was continued into Fiscal Year 1962. During the second year 466 abstracts from 139 journal issues were prepared. It is anticipated that this program will be continued into Fiscal Year 1963 along the same or similar lines.

Cyrillic Bibliographic Project. This year, as in Fiscal Year 1961, the number of articles processed from East European journals and turned over to the Library of Congress' Cyrillic Bibliographic Project rose considerably. This year's total is 19,745 articles, an increase of 14% over the 17,165 items gathered in Fiscal Year 1961. The increase was evident in both the East European and Russian articles. The East European articles totaled 6,812 in Fiscal Year 1961 and 8,621 in 1962; there were 10,353 Russian articles last year, compared with 11,124 articles this year. The percentage of the entire Index Medicus load represented by these figures remained amazingly constant. The entire East European segment constituted 14% of the total in both years, and the Soviet material represents 9% of the mass.

The copying arrangements, using the Xerox 914 Copier, continue to be efficient and rapid and, on the whole, quite satisfactory.

Russian Neurochemistry Project. In this year 116 articles were selected, photostated, and sent to Dr. Williamina A. Himwich in Galesburg, Illinois.

Dictionary File. The Bibliographic Services Division continued to maintain its file of chemical and drug names and technical and foreign expressions which are too new to be found in any dictionaries or reference works. During the year 1,131 new terms were added to this file and 232 cards were withdrawn. The total of cards on file at the end of the year is 13,914.

Portraits. Cards for 910 portraits were sent to the History of Medicine Division. This in an increase of more than 200 over last year.

American Documentation Project. In the fifth year of NLM participation in this project 94 abstracts were prepared for publication in the "Literature Notes" section of American Documentation.

Journal Title Abbreviations. Revision of the form of journal title abbreviations used in Index Medicus was a major effort this year. The work culminated in an article entitled "Abbreviations for Medical Journal Titles" by Dr. Frank B. Rogers and Mrs. Thelma Charen to be published in the Bulletin of the Medical Library Association. This paper is an exhaustive treatment of the Library's position and includes a history of international efforts in this area, rules for the establishment of abbreviations, and a dictionary of selected abbreviations utilized by the Index Medicus system. Preprints of the article were useful in securing acceptance of many of the principles on which the Index Medicus system is based by the American Standards Association Z39 Committee's Subcommittee on Journal Title Abbreviations. From this and other efforts, it may be that the new system will contribute importantly to the development of a real international standard for the abbreviation of titles of medical periodicals.

Special Index Project. In November the Robert A. Taft Sanitary Engineering Center in Cincinnati requested that the Library prepare a special index to the Report of the Committee on Environmental Health Problems to the Surgeon General. The index was completed on December 7, with the material categorized under some 120 main headings derived from the material itself, with modifying phrases used under the major main headings representing the most important subjects in the Report. The printed product was a handsome document and the Library is pleased to have contributed to it in this small way.

Cerebrovascular Project. Early last year a cooperative pilot study was begun with the Joint Council Subcommittee on Cerebrovascular Diseases of the National Institute of Neurological Diseases and Blindness and the National Heart Institute. A preliminary bibliography on cerebrovascular diseases was prepared for January-August 1961, including all references in Index Medicus during this period under subject headings selected by the Subject Heading Specialist and Dr. Murray Goldstein, Executive Secretary of the Joint Council. At a meeting of the Council in October it was agreed that the study would be continued through 1962. A cumulative Cerebrovascular Bibliography for 1961 was distributed to a carefully selected list of investigators in the field. Continued receipt of the bibliography by the investigators depends on their supplying "feedback" to the Council by answering a questionnaire distributed with the January-April 1962 issue and others to be sent out subsequently. The January-April issue included a key-word index prepared by Herner and Associates.

National Institutes of Health Division of Research Grants Project. During this fiscal year five separate Listomatic filmings were made for this organization to aid in the production of Research Grants Index. In September NLM provided positive paper copy for 18,000 cards involved in the setting up of the DRG subject category list. A meeting of representatives of the Library, Division of Research Grants, and the Public Health Service was held in October 1961, when it was agreed that the Library would film Research Grants Index in August 1962 and would provide other interim runs. Another group of cards, comparable in quantity, was run through the camera on December 21, and between March and June three more listings were made.

Indexing of Federation Proceedings. At the request of Mrs. Claire K. Schultz, MEDLARS consultant for the Library, a special project was executed involving indexing of the abstracts of articles submitted for the annual meeting of the Federation of American Societies for Experimental Biology. The abstracts and index were published in the March 1962 issue of Federation Proceedings. The subject fields covered by the abstracts were: biochemistry, pharmacology, physiology, nutrition, immunology, and experimental pathology. The project was useful as an introduction of the indexers to other existing heading systems.

Japanese Journal Project. In order to systematize the large-scale addition of Japanese journal titles to Index Medicus, several qualitative and quantitative analyses were performed. Mrs. Ahlbers and Mr. Kim compared the number of articles from non-Index Medicus Japanese journals which have been abstracted in Japan Science Review: Medicine with the number abstracted in Excerpta Medica: Abstracts of Japanese Medicine, and identified the journals most frequently cited in these publications. There were 309 journal titles not indexed in Index Medicus. Japan Science Review cited 146 different journal titles and Abstracts of Japanese Medicine cited 291. The results were also categorized to indicate the number of articles from the 309 journal titles found in either or both of the abstract journals. On the basis of these findings, many new journals were indexed this year, and next year another large number of Japanese journals will be added.

MOVE TO THE NEW BUILDING

In October 1961 the Bibliographic Services Division became directly involved in the Library's master move plan. A housecleaning preparatory to the move was initiated; supplies which were no longer required were returned to the Supply Office. Frieden, Recordak, and Xerox equipment would require special handling during the move, and the necessary preparations were made by the respective manufacturers.

Meanwhile the floor plan layout in the new building was undergoing a number of revisions. The final change came in the week of the move when the architect expressed dissatisfaction with the appearance of the desk

partitions from the first floor. The subsequent rearrangement proved to be a definite improvement over the previous layout. The Division's move was scheduled to begin on the afternoon of Thursday, April 5, and continue through April 6. Prior to the move there was a concentration on keyboarding operations so that non-keyboarding functions could be performed while the machines were not available. On Wednesday, April 4, five manual typewriters were delivered to the new building and placed on the appropriate indexers' desks; on the evening of the same day, Friden prepared half of the Justowriters for moving, and delivered them to the new building the next day. At this point the new building had equipment for five indexers and half of the Justowriter operators.

Packing for the move was intensified on Thursday afternoon. The editing backlog and the material for indexers and input typists was placed in staff members' cars and delivered to the new building. On Friday morning the staff reported for duty in the new building at 8:30 and, after brief orientation, work commenced. By 9:15 the members of the staff were working away as if they had been there for weeks. By Monday, April 9, the staff was completely settled in the new building. The move had been executed smoothly, systematically, and with virtually no lost production time.

PERSONNEL

In August the name of the Division was officially changed from Index Division to Bibliographic Services Division. The organization of the Division remained the same, with three components: Office of the Chief, Subject Analysis Section, and Processing Section. At the same time the remaining members of the short-lived Special Projects Unit were transferred to the Reference Services Division. Mr. Edward A. Miller, Assistant Chief of the Division, remained only until August 16, 1961, when he was transferred to the Reference Services Division. Mr. Constantine J. Gillespie then assumed the position of Acting Head of the Subject Analysis Section. Mr. James P. Riley reported to the Library in July 1961 as Special Assistant to the Chief, serving throughout the year as MEDLARS Liaison Officer between the National Library of Medicine and the General Electric Company.

Personnel losses directly attributable to the Library's move to Bethesda were substantial; the unhappy coincidence of the timing of the move with the inception of the planned staff build-up for MEDLARS created serious manpower shortages. Production for Index Medicus suffered noticeably; less apparent was the neglect of many supporting activities that are not easily measurable. With about ten vacancies at the year's end and about ten more expected in the next few months, it is obvious that recruiting will be a major activity of the Bibliographic Services Division in the coming year.

Award. Mr. Seymour I. Taine was the recipient of the first Ida and George Eliot Prize awarded by the Medical Library Association. The prize of \$100 was given to Mr. Taine on June 6 during the MLA annual meeting in Chicago for his work as Principal Investigator of the National Library of Medicine Index Mechanization Project, judged an outstanding contribution in the field of medical librarianship.

CHAPTER V

H I S T O R Y O F M E D I C I N E

Overshadowing all other events of the year in importance for the History of Medicine Division was its return to the main Library in April 1962. Born as a wartime emergency measure, after twenty years of separate existence the "Cleveland branch" is closed. The Library is grateful to the Cleveland Medical Library Association for housing the orphan and for the fine spirit of cooperation exhibited all this while. The move disrupted the ordered pattern of the Division's existence and caused a virtual suspension of its usual services for three months. The move also brought the loss of two valuable members of the Division's small professional staff. But the beneficial effects of closer cooperation with the other divisions of the Library in daily operations are already apparent. There is evidence that the new building and the location of the collection in metropolitan Washington are attracting more people to the Library to use the books.

The move has also forced upon the History of Medicine Division the necessity of reexamining its policies and procedures, and offers the Division the opportunity to reformulate them in such ways that the Library may better serve the needs of medical historical scholarship and therefore of medicine itself. In Cleveland the History of Medicine Division sometimes may have tended to seem a thing apart from the rest of the Library. It pursued the even tenor of its ways, building the collection, cataloging it, and contributing quietly to scholarship. In Bethesda it may continue to do these things, but here, as a coordinate Division of a dynamic organization, it faces the challenge of proving that history is not merely an ivory-tower pursuit for those with no interest in the world of affairs, but that it has relevance to the present. The History of Medicine Division takes delight in its beautiful surroundings in the Library's new building, recognizing that it is undeniably a showplace. But old books are not museum objects, only to be looked at and admired for their beauty and rarity; they are the working tools of the historian, intended for use. The History of Medicine Division serves many diverse interests, but it will always bear in mind that its primary function is to provide a laboratory for historical investigation of medicine. It is dedicated to the principle that history alone can provide that perspective which no discipline can afford to lose.

One thing is certain as the History of Medicine begins its first full year in the new building: there are changes ahead. It is hoped they will serve in a constructive way to the benefit of history and of medicine.

THE MOVE

Moving a rare-book collection over several hundred miles of highway posed problems quite different from those of moving the rest of the Library from 7th and Independence to 8600 Wisconsin Avenue. For the History of Medicine Division the security of the collection against loss or physical damage was a prime consideration. The first step was a careful inventory of the books, more elaborate than the usual reading of the shelves, based on the shelflists. This not only provided a necessary proven basis for packing slips and shipping records, but also turned up some of those errors in shelving and listing which are bound to occur in any collection after twenty years. It was a time-consuming operation which could hardly be justified for a collection of ordinary value, but the byproducts in improved shelving order and in errors revealed and corrected have been salutary. About fifty books listed in the records were not spotted before or since the move, but some will be turned up or eliminated as the ghosts of erroneous records. It is assuring to know that all the rest of the listed works are actually on hand.

Physical protection of the collection was provided by careful packing, including individual wrapping, for all books printed before 1701 and many later volumes, by an experienced moving company under the supervision of the Library staff. Sealed vans and armed guards provided security in transit. Fortunately, the final protection was never cashed in--an insurance policy of six million dollars with Lloyd's of London.

PERSONNEL

The History of Medicine Division began the year with a depleted staff of seven full-time members and one part-time member (the hand bookbinder). In August Dr. Dorothy M. Schullian, Chief of the Division, resigned to take up in the fall the post of Curator of the History of Science Collections at Cornell University. In September Dr. John B. Blake took up his duties as the new Chief. More staff changes occurred at the time of the move. Miss Mae J. Surtz, who had been the Division's secretary almost since the day of its establishment in Cleveland in 1942, retired after more than twenty years of Government service. One of the catalogers, Miss Jane F. Gibbs, and the clerk-typist, unable to make the move from Cleveland to Washington, resigned. Miss Gibbs' knowledgeable handling of the intricacies of card production and editing are sorely missed. Balancing these losses in part were the accession of a new secretary and a clerk-typist and the transfer of Mrs. Genevieve A. Kennedy from the Reference Services Division, who came to the History of Medicine Division in April.

The extra burden of work occasioned by the move and a depleted staff was felt by all, but none more than by Miss Sheila M. Parker. While the new Chief remained in Washington during the premove months, Miss Parker took on the difficult task of handling administrative liaison and the daily affairs of the "Cleveland branch," in addition to her work as acquisitions, reference, and interlibrary loan librarian. Her outstanding effort and accomplishment deserve special mention.

ACQUISITIONS

Acquisitions activities for the past year also reflect the effects of the move. With the small staff spending nearly full time on the move and related activities from January through May, searching, recommending for purchase, and editions added reached the lowest point in many years. After the Division reached Bethesda, however, the advantage deriving from closer association with the Acquisitions Section was almost immediately apparent. It is now possible to send out orders much faster, once the decision to purchase is made, and this should result in fewer "sold" reports. Such reports represent not only a book that is lost for the Library but also the wasting of precious time of the staff members who searched to no avail. A rare book collection cannot allow itself to fall behind in the competitive business of acquisitions; lost opportunities may not repeat themselves for years, if ever.

The History of Medicine Division, which has since its founding housed the Library's manuscripts as well as its early books, has embarked upon a policy of seeking more actively than in the past to collect the papers of contemporary physicians. Such documents are unique and valuable sources for many segments of history. They should be selected now, insofar as this is possible, and preserved for the future, before they are dispersed or destroyed. Once gone, they can never be retrieved or replaced. Under the new program the Library has acquired two significant collections and some individual items of merit, and has received a number of favorable responses as to the future disposition of their papers from men still active in medical affairs.

Other outstanding acquisitions for the year included three early Arabic manuscripts, seven additions to the Library's outstanding Hippocrates collection, and, most notable of all, the New York, 1775, edition of John Jones' Plain Concise Practical Remarks on the Treatment of Wounds and Fractures, a dedication-day gift from Dr. D. Rees Jensen. This country's first work on military medicine has long been a prime desideratum for the Americana collection.

CATALOGING

During the first half of the year cataloging continued at nearly the same rate as last year. Special attention was given to Hippocrates items and to 16th century imprints. Since January the move and loss of personnel have brought new cataloging to a virtual halt.

One event of particular satisfaction to the Division was the appearance of Mr. Robert B. Austin's Early American Medical Imprints. Although conceived and edited by Mr. Austin, the cataloging staff of the History of Medicine Division contributed much of the basic material.

REFERENCE

The History of Medicine Division serves historical and bibliographical reference needs of visitors, telephone inquirers, and correspondents. From July 1961 through March 1962, HMD-Cleveland had 125 visitors, including 58 who came in student groups. A real working reader was admittedly an event. HMD-Bethesda stopped counting visitors the day it opened; the stream has been steady and continuous ever since. Most, it is true, have come to look-- at the building, at the array of incunabula, or at a work of history chosen at random from the open shelves. Many took this opportunity to acquaint themselves with some of the Library's riches, and give promise of returning.

There is value in serving those who wish only to satisfy some spiritual need simply by touching or examining a rare book or by viewing in serried array the enshrined intellectual heritage of their profession. But the full value of a great collection such as that in the History of Medicine Division is realized only as the books are used in research. Since the Division was opened to the public in Bethesda on May 14, thirty-five different readers have registered to use material from the rare book collection. Their interests have ranged from the earliest Arabic manuscripts (the first reader registered) to the Confederate States Medical and Surgical Journal (the last). Both of these persons knew exactly what they wanted, but many do not. They must be assisted in finding their ways through the intricacies of the catalog or in tracking down sketchy or erroneous citations. In anticipation of this increased load, the Division prepared registration sheets and special call slips. To supervise the Division's Reading Room with the small staff it has been necessary to assign reference responsibilities to the remaining two catalogers.

Mail reference, including interlibrary loan, has continued as in the past except during the period of the move when all books were in cartons. The Division is continuing to cooperate on special projects, such as the revision of Pollard and Redgrave's Short-Title Catalogue of English books, and has agreed to help in the preparation of a new Italian Short-Title Catalogue, a program sponsored by a group of American universities. Such efforts make the riches of the Library's holdings better known among scholars everywhere. Perhaps when these works are complete fewer dealers will proudly list "no copy recorded in America" for works that may be found in the Index-Catalogue. While less concerned than other NLM divisions with all the ramifications of MEDLARS, the History of Medicine Division nevertheless looks forward to receiving from the system current bibliographical information on the history of medicine. One new duty added to the work of HMD after the move was the care of the Library's collection of prints and photographs. Requests flow in steadily for copies of material in this collection. The old books, many of which contain fine portraits and other engravings and woodcuts, add significantly to our total pictorial resources for the historical aspects of medicine.

STAFF ACTIVITIES

Dr. Blake continues to serve as Secretary-Treasurer of the American Association for the History of Medicine and as a member of the History of Medicine Study Section at the National Institutes of Health. During the year he was elected Vice Chairman of the Conference on Science Manuscripts, and he was also reelected to the Executive Committee of the Washington Society for the History of Medicine. He was invited to participate in a meeting of a special committee on archives of the American Psychological Association in an advisory capacity. In June he visited the St. Louis Medical Society to advise on the future of its library's historical program.

During the year Dr. Blake presented papers at meetings of the American Philosophical Society, the Washington Society for the History of Medicine, and the Handerson Medical History Society in Cleveland. Miss Parker spoke at a meeting of the Cleveland chapter of the Special Libraries Association. Dr. Blake also attended the annual meetings of the American Association for the History of Medicine, the Medical Library Association, History of Science Society, and the American Historical Association. In July 1961 the History of Medicine Division was well represented at the Oberlin and Cleveland meetings of the Rare Books Section of the Association of College and Research Libraries, the American Library Association, and the Bibliographical Society of America. Miss Hardy attended the annual meeting of the Ohio Academy of Medical History.

Dr. Blake also spent several weeks in the Rare Books Division and the Manuscripts Division of the Library of Congress and in the Folger Library, observing their operations. He visited medical historical libraries and other rare book collections in Cambridge, New Haven, New York, Kansas City, Chicago, and Los Angeles. The opportunity to observe some of the methods of several outstanding research libraries and to discuss policies with members of their staffs proved invaluable to the new Chief in planning for the opening of the History of Medicine Division in its new setting.

ACQUISITION ACTIVITIES

	<u>1960</u>	<u>1961</u>	<u>1962</u>
SEARCHING			
Prospects considered for acquisition, not in Library	22,699	29,275	22,531
Prospects considered for acquisition, Library has	<u>23,028</u>	<u>19,763</u>	<u>13,991</u>
Total	45,727	49,038	36,522
<hr/>			
ORDERS PLACED	18,057	19,800	16,397
SERIAL RECORD			
New titles added	1,090	1,336	739
Titles currently received (as of end of year)	13,835	14,082	14,875
PUBLICATIONS ADDED			
Serial Pieces	69,103	69,968	63,959
Other	16,028	16,951	11,338
OBLIGATIONS FOR PUBLICATIONS			
(Included for rare books	9,396	8,323	8,981)

*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 1961</u>	<u>30 June 1962</u>
BOOK MATERIAL					
1. Bound Monographs					
a. HMD	188	13	175	34,110	34,285
b. 1801-1913	87	770	-683	89,597	88,914
c. 1914-	<u>9,883</u>	717	<u>9,166</u>	<u>155,199</u>	<u>164,365</u>
Subtotal (1)	10,158	1,500	8,658	278,906	287,564
2. Bound Serials	<u>4,681</u>	7	<u>4,674</u>	<u>266,199</u>	<u>270,873</u>
Total Bound Vols. (1-2)	<u>14,839</u>	<u>1,507</u>	<u>13,332</u>	<u>545,105</u>	<u>558,437</u>
3. Theses	876	--	876	284,006	284,882
4. Pamphlets	<u>2,796</u>	--	<u>2,796</u>	<u>163,113*</u>	<u>165,909</u>
Subtotal (3-4)	<u>3,672</u>	<u>--</u>	<u>3,672</u>	<u>447,119*</u>	<u>450,791</u>
TOTAL BOOK MATERIAL	<u>18,511</u>	<u>1,507</u>	<u>17,004</u>	<u>992,224*</u>	<u>1,009,228</u>
NON-BOOK MATERIAL					
1. Microfilms	208	--	208	2,315	2,523
2. Portraits & Pictures	472	1	471	57,034	57,505
TOTAL NON-BOOK MATERIAL	680	1	679	59,349	60,028
BOUND VOLUME EQUIVALENTS	--	--	--	15,000	15,000
GRAND TOTAL	<u>19,191</u>	<u>1,508</u>	<u>17,683</u>	<u>1,066,573*</u>	<u>1,084,256</u>

*Adjusted to include 505 pamphlets added in FY 1961 and not previously counted.

CATALOGING STATISTICS

<u>COMPLETED CATALOGING</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>
New titles	11,298	12,284	11,719
Recataloged titles	<u>11,097</u>	<u>14,902</u>	<u>5,538</u>
TOTAL	22,395	27,186	17,257
Volumes reclassified and/or transferred	1,133	1,348	3,474
Catalog cards filed	115,817	135,683	121,220
Volumes shelved	31,412	43,663	31,163
Volumes withdrawn	2,486	1,855	1,497
<u>WORK IN PROCESS</u> - Pieces	<u>3,567</u>	<u>4,300</u>	<u>4,572</u>

NATIONAL LIBRARY OF MEDICINE CATALOG
(Annual)

<u>NUMBER OF ENTRIES</u>	<u>1959*</u>	<u>1960</u>	<u>1961</u>
Main	18,168	18,219	20,260
Added	5,338	4,614	6,510
Name cross-references	2,320	3,644	5,003

* The 1959 entries were not published separately, but were included in the 1955-1959 cumulated edition

BINDING STATISTICS

	<u>1960</u>	<u>1961</u>	<u>1962</u>
Volumes sent to binder	13,345	13,855	10,870
Volumes returned from binder and processed	14,090	11,518	13,838
New volumes	(9,517)	(8,018)	(9,927)
Rebinds	(4,573)	(3,500)	(3,911)
Volumes bound at NLM	2,688	2,624	3,721
Volumes repaired at NLM	2,669	2,360	1,105
Volumes and pieces lettered	26,383	34,591	26,119
Pictures mounted	1,021	116	31

ART SECTION STATISTICS

	<u>1960</u>	<u>1961</u>	<u>1962</u>
Materials added to collection	2,302	813	473
Pictures	(2,250)	(738)	(471)
Other (e.g., lantern slides)	(52)	(75)	(2)
Pictures cataloged/indexed	1,435	555	592
Reference use of material (total of pictures supplied)	560	1,214	805
Reference questions answered	302	307	220
By telephone	(113)	(118)	(76)
By mail	(105)	(98)	(97)
In person	(84)	(91)	(47)

CIRCULATION STATISTICS

	<u>1960</u>	<u>1961</u>	<u>1962</u>
Requests received	154,245	174,781	178,860
Requests filled	135,366	152,768	161,090
Requests unfilled	18,879	22,013	17,770
Rejected	(2,873)	(4,198)	(3,039)
Unavailable	(16,006)	(17,815)	(14,731)
Percentage of requests filled	87.8	87.4	90.0

ITEMS USED, BY MAJOR CATEGORY

Readers' requests in Library	39,768	43,510	47,605
Interlibrary loans	95,595	109,258	113,485
Photocopy	(88,618)	(102,463)	(106,967)
Original - Government	(3,719)	(3,130)	(3,334)
- Non-Government	(3,258)	(3,665)	(3,184)

UNAVAILABLES

	By percentage of total unavailables			By percentage of total requests accepted	
	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1961</u>	<u>1962</u>
Already on loan	9.4	8.2	4.3	0.8	0.4
Not in collection	30.4	32.8	42.0	3.3	3.6
At bindery	28.0	18.1	5.7	2.7	2.2
Missing	5.9	10.3	15.7	1.0	1.2
Does not circulate	7.4	6.1	7.3	0.6	0.6
Not identified	11.8	11.6	16.0	1.1	1.3
In process	5.8	11.4	8.0	1.1	0.7
At HMD	<u>1.1</u>	<u>1.5</u>	<u>1.0</u>	<u>0.1</u>	<u>0.1</u>
Total	99.8	100.0	100.0	10.7	10.1

PHOTOGRAPHIC SERVICES

TABLE I - EXTERNAL ORDERS

	<u>1960</u>	<u>1961</u>	<u>1962</u>
<u>EXTERNAL ORDERS COMPLETED</u>	90,984	104,943	108,454
By type of order:			
Interlibrary loan	(88,618)	(102,463)	(106,967)
Coupon, paid, and special	(2,366)	(2,480)	(1,487)
By type of service:			
Microfilm	(55)	(42)	(247)
CopyFlo	(86,698)	(97,353)	(96,907)
Photostat	(3,633)	(3,507)	(188)
Xerox 914 Copier	-----	(3,204)	(10,476)
Photoprints*	-----	(176)	(205)
Photographs and slides	(598)	(661)	(431)
<hr/>			
<u>PAGES DUPLICATED FOR ORDERS</u>			
Microfilm:	2,040,951	2,072,119	2,243,862
For CopyFlo orders	(2,009,855)	(2,037,757)	(2,229,372)
For microfilm orders	(31,096)	(34,362)	(14,490)
CopyFlo (from film file)	10,934	13,760	5,223
Photostat	27,236	16,475	1,081
Xerox 914 Copier	-----	31,644	103,160
Photoprints*	-----	1,526	2,454
Photographs and slides	<u>524</u>	<u>1,359</u>	<u>658</u>
Total	2,079,645	2,136,883	2,356,438
<hr/>			
<u>CARDS</u>			
Microfilm	246	750	
CopyFlo	240	11,250	6,583
Photostat	<u>42</u>	-----	-----
Total	528	12,000	6,583
<hr/>			

*Reported under "Photostat" in 1960

PHOTOGRAPHIC SERVICES

TABLE II - INTERNAL ORDERS

	<u>1960</u>	<u>1961</u>	<u>1962</u>
Microfilm pages	1,216,092	703,433	596,538
For film file	309,398	-----	6,644
For poor paper program	891,520	689,954	570,662
For interoffice orders	15,174	13,479	19,232
Paper reproduction pages	45,981	29,919	70,710
Photostat	7,458	3,133	1,120
CopyFlo	38,523	19,186	31,549
Photoprints	-----	116	486
Xerox 914 Copier	-----	7,484	37,555
Photographs and slides	2,386	1,975	2,054
Cards - Microfilm	246,921	267,097	199,701
CopyFlo	370,919	297,642	227,232
Photostat	82	-----	-----

TABLE III - TOTAL PRODUCTION

	<u>1960</u>	<u>1961</u>	<u>1962</u>
Microfilm pages	3,257,043	2,775,552	2,840,400
CopyFlo pages	2,059,312	2,070,703	2,266,144
Photostat pages	34,694	19,608	2,201
Xerox 914 Copier	-----	39,128	140,715
Photoprints	-----	1,642	2,940
Photographs and slides	2,910	3,334	2,712
Cards - Microfilm	247,167	267,847	199,701
CopyFlo	371,159	308,892	233,815
Photostat	124	-----	-----

TABLE IV - ORDERS COMPLETED AS INTERLIBRARY LOANS

	<u>1962</u>		<u>Total</u>
	<u>Government</u>	<u>Non-Government</u>	
Metropolitan Washington	15,876	5,760	21,636
Outside Washington (U.S.A.)	18,377	47,628	66,005
Overseas	<u>5,142</u>	<u>14,184</u>	<u>19,326</u>
Total	39,395	67,572	106,967

REFERENCE SERVICES

	<u>1960</u>	<u>1961</u>	<u>1962</u>
Requests by telephone	5,049	5,740	5,661
Government	(3,618)	(3,736)	(3,793)
Non-Government	(1,431)	(2,004)	(1,868)
 Requests by mail			
Government	(423)	(145)	(167)
Non-Government	(1,698)	(1,070)	(1,072)
 Readers assisted			
Government	(570)	(797)	(956)
Non-Government	<u>(1,306)</u>	<u>(2,338)</u>	<u>(2,386)</u>
Total	9,046	10,090	10,242 10,242
Government	(4,611)	(4,678)	(4,916)
Non-Government	(4,435)	(5,412)	(5,326)

Readers counted	9,270	9,984	11,544
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HISTORY OF MEDICINE

	<u>1960</u>	<u>1961</u>	<u>1962</u>
<u>ACQUISITION</u>			
Editions searched	5,507	5,012	1,974
Editions recommended for purchase	503	495	303
Editions added to collection	420	388	147
In book form	(406)	(382)	(145)
In microfilm	(14)	(6)	(2)
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<u>CATALOGING</u>			
Editions cataloged	488	357	186
Card mats produced	1,958	1,650	1,232
Catalog cards filed	6,806	5,789	4,497
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<u>BINDING</u>			
At commercial bindery	35	38	81
At hand bindery	<u>372</u>	<u>56</u>	<u>52</u>
Total books bound	407	94	133
<hr/>			
<u>REFERENCE</u>			
Reference questions	195	164	103
Readers	317	138	160
Interlibrary loan and			
Photo-duplication orders	447	545	433
Original material loaned	(219)	(282)	(237)
Photocopies	(228)	(263)	(196)
<hr/>			
<u>PAGES FILMED</u>			
For loan and special orders	12,595	17,720	11,765
For security	90,322	21,963	598
For acquisition	<u>4,328</u>	<u>749</u>	<u>715</u>
	107,245	40,432	13,078

INDEX MEDICUS DISTRIBUTION

	<u>1960</u>	<u>1961</u>	<u>1962</u>
<u>Paid Subscriptions</u>			
United States	2,014	2,473	2,485
Foreign	<u>1,178</u>	<u>1,591</u>	<u>1,740</u>
Total	3,192	4,064	4,225
<u>Gift and Exchange</u>			
United States	728	786	757
Foreign	<u>938</u>	<u>900</u>	<u>947</u>
Total	<u>1,666</u>	<u>1,686</u>	<u>1,704</u>
Single Copy Sales and Stock	250	1,047	1,168
Depository Libraries	285	289	289
NLM Internal Use and Stock	<u>134</u>	<u>114</u>	<u>114</u>
Total	<u>669</u>	<u>1,450</u>	<u>1,571</u>
Total Distribution	5,527	7,200	7,500
<hr/>			
Journal titles indexed	1,626	1,775	2,132
Citations published	112,304	130,000	141,911
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INDEX MEDICUS

SCHEDULE OF COMPLETED ISSUES

Issue	1961		1962	
	No. of Items	Date Shipped	Date Received	No. of Items
	<u>Vol. 1, Nos. 7-12</u>		<u>Vol. 2, Nos. 7-12</u>	
July	10,572	June 10	July 7	12,939
August	10,280	July 8	Aug. 3	12,368
September	10,407	Aug. 9	Aug. 26	12,555
October	11,455	Sept. 8	Oct. 4	12,251
November	10,663	Oct. 7	Nov. 2	13,325
December	10,471	Nov. 9	Dec. 1	10,410
	<u>Vol. 2, Nos. 1-6</u>		<u>Vol. 3, Nos. 1-6</u>	
January	12,980	Dec. 13	Jan. 25	10,380
February	10,387	Jan. 12	Feb. 7	9,577
March	10,790	Feb. 10	Mar. 14	13,534
April	10,016	Mar. 10	Apr. 7	11,825
May	9,666	Apr. 7	May 1	11,557
June	12,313	May 9	June 2	11,190
Total	130,000			141,911

PERSONNEL STATISTICS

TABLE I - PERSONNEL ON DUTY

	<u>1961</u>	<u>1962</u>
Personnel authorized	224	234
Personnel on duty (at end of year)	216	211
Average number of persons employed	218	209
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<u>PERSONNEL ON DUTY</u>		
Office of the Director	27	28
Extramural Program	3	7
Bibliographic Services Division (Index Division)	46	45
History of Medicine Division	9	7
Reference Services Division (Reference Division)	13	65
(Circulation Division)	52	
Technical Services Division	<u>66</u>	<u>69</u>
Total	<u>216</u>	<u>211</u>
<hr/>		
Productive man-hours*	380,539	369,388
Non-productive man-hours*	73,606	66,839

*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.

TABLE II - PERSONNEL ACTIONS

	<u>1961</u>	<u>1962</u>
<u>ACCESSIONS</u>		
Career Conditional	(7)	(11)
Temporary	(32)	(23)
Reinstatements	(3)	(9)
Transfers (to NLM)	(12)	(22)
Commissioned Officers		(2)
<u>LOSSES</u>		
Resignations	(22)	(19)
Expiration of appointments	(10)	(4)
Transfers	(9)	(37)
Separations	(0)	(4)
Retirements	(1)	(6)
Death	(3)	(1)
Commissioned Officer	(0)	(1)
CONVERSION TO CAREER - CAREER CONDITIONAL	21	21
PROMOTIONS	57	48
REASSIGNMENTS	37	37
CHANGE TO LOWER GRADE	0	2
PAY ADJUSTMENTS	0	8

FINANCIAL STATISTICS

<u>Obligations for</u> <u>Library services and resources</u>	<u>FY 1960</u>	<u>FY 1961</u>	<u>FY 1962</u>
11 Personnel Compensation	\$1,154,626	\$1,285,179	\$1,260,116
12 Personnel Benefits	74,925	91,543	96,418
21 Travel	11,150	18,756	22,599
22 Transportation of Things	1,627	970	3,993
23 Rents, Communications and Utilities	41,395	44,201	53,689
24 Printing, Binding and Reproduction	97,432	131,681	86,528
25 Other Services	29,039	36,792	208,002
26 Supplies and Materials	48,981	46,652	40,695
31 Equipment (Books)	89,672 (85,077)	94,277 (85,655)	89,749 (85,046)
Appropriation Transfer to Library of Congress	,	8,000	8,000
ESTIMATED TOTAL OPERATING COST	\$ 1,548,847	\$ 1,758,051	\$ 1,869,789

Other Obligations:

Science Translation Program	.....	.....	389,604*
Scientific Activities Overseas	.....	.....	732,820.
Construction of Library Building	313,775	379,382	459,409
Council on Library Resources Fund	33,793	373	.....
MEDLARS	.....	.....	1,039,029
<u>Collections for</u> <u>Photoduplication Services</u>	1,025	1,225	2,079

*Includes \$129,061 obligated by NIH for grants.

Editor's Note: Object Classification Codes used in this year's NLM Annual Report reflect the complete renumbering and realignment of such codes announced in BOB Circular No. A-12.

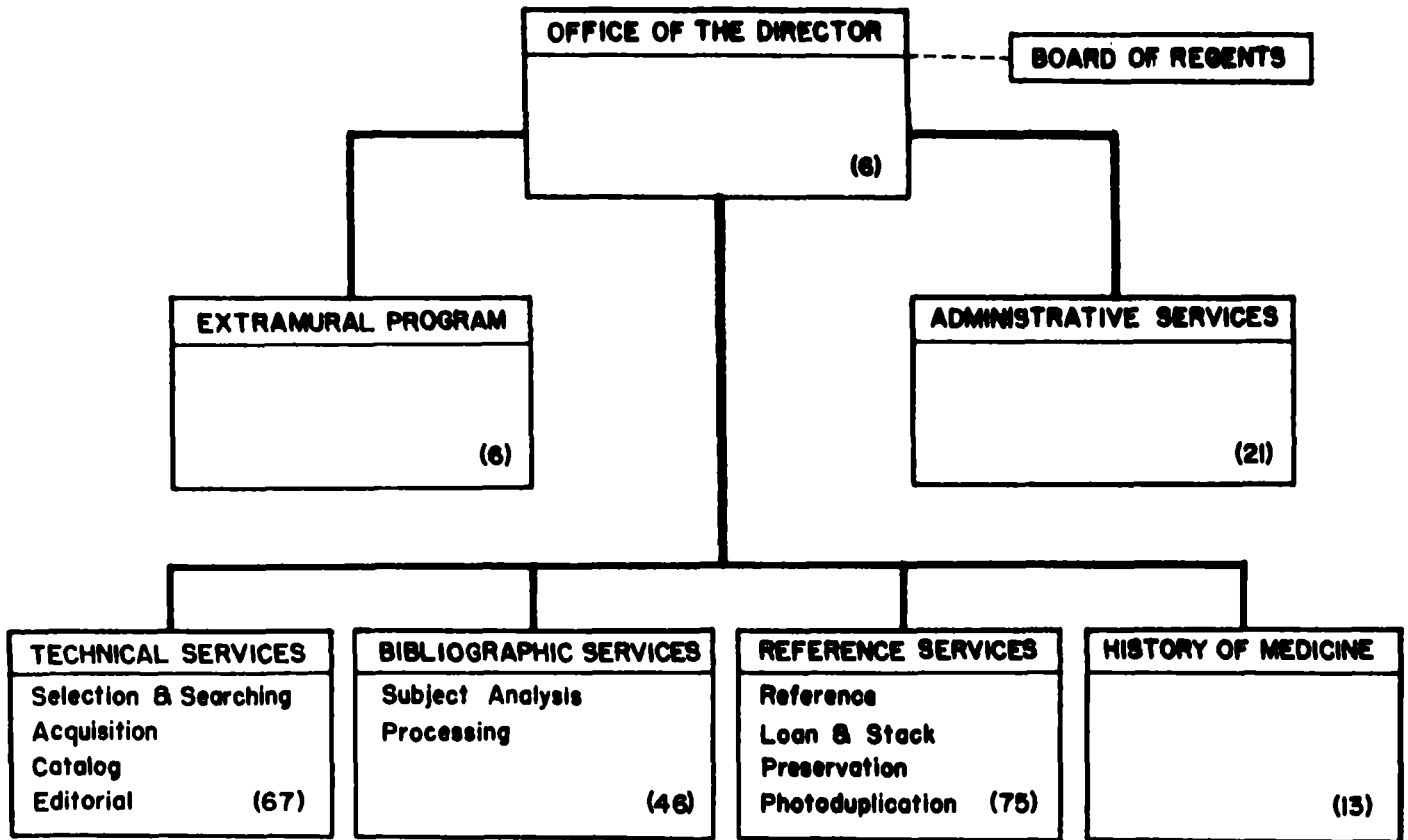
PUBLICATIONS

- National Library of Medicine Catalog, 1961. Washington, Library of Congress, 1962. \$20
- National Library of Medicine Annual Report, Fiscal Year 1961. 58 p. (Multilithed)
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June 30, 1962