

Appendices

For at least half a century, at one time or another, members of the staff thought about compiling a full-scale history of this institution, but some event always intervened to prevent them from doing so. I was fortunate in being asked to write this account, and I am indebted to Martin Cummings, Director, NLM, and to John Blake for being allowed adequate time and support for the task. It may be too much to expect that a history of this scope is free from error, but I trust that my mistakes are not so serious as to be misleading. It is my hope that the publication of this history will coincide with the 25th anniversary of the passage of the National Library of Medicine Act, a milestone in the affairs of the Institution.

HONORS

Members of the staff of the National Library of Medicine have received many honors, including Department of Health, Education, and Welfare superior service awards, citations from associations, honorary degrees, university alumni awards, Public Health Service commendations, medals, certificates, plaques, diplomas, prizes, honorary corresponding memberships in learned societies, and election to the presidencies of professional groups. The Library presents two honors to members of the staff, the Regents' Award and the Director's Award.

Regents' Award for Scholarship or Technical Achievement

- 1970 Jaroslav Nemeč for bibliographical scholarship, particularly for publication of *International Bibliography of Medicolegal Serials*.
- 1971 Stanley Jablonski in recognition of his outstanding skill as a lexicographer, particularly for publication of *Illustrated Dictionary of Eponymic Syndromes and Diseases and their Synonyms*.
- 1972 Thelma G. Charen, for conceiving, developing and implementing the MEDLARS indexing manual and training program.
- 1973 Manfred J. Waserman for initiative and accomplishments in historical research utilizing unique material in the National Library of Medicine's manuscript collection.
- 1974 Sharon L. Valley for initiative and creativity in developing unique toxicology information products and services.
- 1975 John Cox for exceptional technical and managerial contributions to the development and implementation of MEDLARS II.
- 1976 Myron J. Adams, Jr., in recognition of his originality and creativity in improving the learning process for health professionals.
- 1977 Emilie V. Wiggins for her efforts in making the NLM catalog file conform fully

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to Anglo-American rules, and for her massive restructuring and modernization of the *NLM Classification*.

- 1979 Tamas E. Doszkocs in recognition of his technical creativity in developing two experimental on-line bibliographic search tools.
- 1980 Mary E. Corning for her book *A Review of the United States Role in International Biomedical Research and Communication: International Health and Foreign Policy*.

*Director's Award for Outstanding Contribution
to the Library's Programs*

- 1969 Ralph A. Simmons in recognition of his superior handling of the extremely difficult contractual arrangements pertaining to the development of MEDLARS II.
- 1970 Jerome Barnett for management of the reorganization of the National Medical Audiovisual Center and administration of the center.
- 1974 Henry M. Kissman, Mary E. Corning, Norman P. Shumway, for exceptional achievements and contributions to the Library.
- 1975 Melvin S. Day for effective leadership and management.
- 1976 Albert M. Berkowitz for leadership and administrative skill in serving the diverse needs of the users of the Library.
- 1977 Mary E. Corning, John B. Blake, Peter D. Olch for their participation in the "Colloquium on the Bicentennial of Medicine in the United States," sponsored by the Josiah Macy, Jr. Foundation.
- 1978 Clement P. Fowler for the design, direction, and coordination of the exhibit on Health Sciences Communications Technology.
- 1979 James J. Hartman for his outstanding performance in providing a sound personnel management program for the Library.
- 1980 Joseph Leiter for leadership in heading the task force developing plans for MEDLARS III.

Selected Statistics of the National Library of Medicine

Fiscal Year to June 30	1957	1958	1959	1960	1961	1962	1963	1964	1965
Appropriations ¹	1,315	1,450	1,526	1,566	1,738	2,066	3,335	4,074	3,958
Size of collections ²	922,079	938,768	957,345	975,870	992,224	1,009,228	1,021,784	1,039,692	1,058,428
Requests filled for readers in the Library ³	33,919	40,275	39,094	39,768	43,510	47,605	70,791	84,267	81,842
Reference services provided ⁴	9,546	8,396	9,588	9,241	10,254	10,345	13,418	20,154	20,931
Requests for interlibrary loans filled	18,735	60,302	73,147	96,042	109,803	113,918	135,344	131,039	149,055
Serial titles received ⁵		11,700	12,862	13,835	14,082	14,875	13,888	15,358	16,557
Recurring bibliographies									6
Authorized staff ⁶	223	225	224	224	224	234	242	268	291
Total Grant and contract awards									
Instructional media produced by NMAC									
Audiovisual loans filled									

STATISTICS

The published annual reports of the Surgeon General's office began to mention the Library's appropriation in 1871, the growth of the collection in 1872, and other information thereafter. Beginning in 1923 statistics on binding were added, in 1925 the number of readers registered, number of interlibrary loans, and number of borrowing libraries. At the end of fiscal year 1944 the Library began to issue its own reports, and eventually to place in them a wide variety of statistics, including acquisitions (number of searches, orders placed, new serial titles added, discontinued serial titles, total current serial titles received, serial pieces processed, other publications processed, obligations for publications, obligations for rare books, duplicate shipments made and received, duplicate pieces shipped and received, etc.); growth of collections (number of theses, pamphlets, bound serial volumes, microforms, audiovisuals, pictures, and manuscripts added; numbers of books added by era, total volumes; total of nonbook materials, etc.); cataloging (number of catalog cards made, cards filed, volumes shelved, volumes withdrawn, pictures cataloged, etc.); binding (number of volumes sent to binder, volumes returned from binder, volumes bound at NLM, volumes repaired at NLM, pictures mounted, obligations for binding, etc.); circulation (number of requests received for interlibrary loan, loan requests filled by photocopy and by original, requests received and filled for readers in library, requests unfilled for various reasons, etc.); reference services (number of requests received by telephone, by mail, and from readers in library, number of requests from government employees, number of readers registered, etc.); photographic services (number of pages mi-

Selected Statistics of the National Library of Medicine (Continued)

1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	Sept 30 1976
9,685	20,192	21,674	18,160	19,573	21,436	24,127	25,150	26,329	28,850	35,637
1,084,932	1,116,565	1,164,633	1,193,299	1,231,612	1,263,881	1,323,394	1,363,694	1,399,852	1,338,667	1,396,924
94,125	94,815	99,009	87,154	82,655	88,302	78,676	76,708	70,980	82,934	126,394
22,718	26,852	26,792	25,857	23,163	22,041	24,535	26,075	29,173	31,286	44,700
152,610	148,942	129,372	119,283	102,596	104,439	121,938	126,051	141,232	175,856	260,178
18,482	19,650	18,459	19,448	20,964	22,161	23,132	23,787	24,642	25,228	18,326
9	10	11	16	18	23	24	24	24	28	28
352	397	536	470	475	467	469	466	466	458	472
56	340	485	478	464	528	450	239	200	155	133
		157	81	70	50	50	55	34	71	84
		92,731	79,251	72,865	85,000	60,000	64,500	56,000	58,050	53,227

crofilmed, number of photostats, of glossy prints, etc.), history of medicine (acquisitions, cataloging, volumes bound, pages microfilmed, modern manuscripts cataloged, reference questions answered, etc.), bibliographic services (number of articles indexed, recurring bibliographies, journals indexed, abstracts entered, etc.), number of on-line searches for all data bases, number of off-line prints for all data bases, grants (number of new grants, active grants, allocations for various grants programs, etc.), titles of NLM publications available from the Government Printing Office, and the number of each printed for sale, personnel (ceilings, resignations, transfers, etc.), National Medical Audiovisual Center (number of motion pictures, videotapes, slide series, filmstrips, and other materials produced and distributed, etc.), and financial resources and allocations.

Certain statistics are available elsewhere. Those on the growth of the collections may be found in the letters of transmission at the front of each volume of the *Index-Catalogue* beginning with series 1, vol 16, 1895, skipping series 2, vols. 1 and 2, and resuming with vol 3, 1898. The numbers given in the *Index-Catalogue* are, presumably, as of the date of the letters of transmission, they sometimes differ from those in the annual reports, which are for June 30, the end of each fiscal year. Appropriations may be found in appropriation acts, and in the annual *NIH Almanac*. The *Almanac* also lists the number and amount of research grants, number and amount of research contracts, and personnel from 1968 onward, data on the Library Building, general information about NLM, and chronologies of important events and legislation.

NOTES TO SELECTED STATISTICS

These statistics are copied from the published annual reports except those for audiovisuals, which were supplied by NMAC, and for grants/contracts, supplied by EMP.

In consulting any annual report to obtain statistics, the reader should also look at the reports for the following two years because they may give revised numbers.

A transitional quarter of a year, covering the months of July, August, and September, was added in 1976 to make the new fiscal year end on September 30. Therefore the figures for 1976 cover a period of 15 months.

¹ A breakdown of financial resources, including reimbursements, supplemental appropriations, obligations, and allocations may be found in the annual reports for each fiscal year.

The appropriation of \$21,674,000 for 1968 included \$1,762,000 transferred along with NMAC from the Communicable Disease Center.

² For statistical purposes the Library's holdings were divided into book material and non-

book material. The former comprised bound monographs (subdivided into chronological eras), bound serials, theses, and pamphlets. The non-book material included pictures, modern manuscripts, microforms, audiovisuals, and other forms. The figures given here are for book material. Each year some pieces were withdrawn from the collection, so that the net gain was slightly less than the number of volumes added.

The size of the collections for 1961 was revised in 1962, 1968 in 1969, and 1975 in 1976. The revised figures are given above. The decrease in 1975 resulted from the withdrawal of almost 60,000 theses from the collection.

³ Requests filled for readers, 1957-1963, do not include HMD, from 1964 they include HMD.

⁴ Reference services provided, 1963-1965, do not include HMD.

⁵ The figures for serial titles received in 1968 and 1969 are from the annual report for 1970.

⁶ The authorized staff refers to the number of full-time permanent employees. The actual number of persons on duty was almost always

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lower than the authorized strength. The Library also employed part-time and temporary workers.

The large increase in the authorized staff during 1968 resulted from the transfer of the National Medical Audiovisual Center to the Library, and augmentation of the computer staff.

In the annual reports statistics for the History of Medicine Division are given separately. I have added the statistics from HMD to those from the other Library Divisions to obtain totals for; requests filled for readers, reference services provided, and requests for interlibrary loans filled.

MEMBERS OF THE BOARD OF REGENTS

<i>Name</i>	<i>Address</i>	<i>Dates on Board</i>
Ismael Almodóvar	President, University of Puerto Rico	1978-1982
William G. Anlyan	Dean, School of Medicine, Duke University	1968-1972 Chairman: 1971-1972
Vice Adm. Willard P. Arentzen	Surgeon General, USN	1976-1980
Bruno W. Augenstein	Vice President for Research, The Rand Corporation	1967-1971
William O. Baker	Chairman of the Board, Bell Telephone Laboratories	1969-1973
William B. Bean	Professor and Chairman, Department of Internal Medicine, University of Iowa	1957-1961, 1965- 1969 Chairman: 1960-1961
Basil G. Bibby	Professor of Dentistry, University of Rochester	1956-1959
Lt. Gen. Richard L. Bohannon	Surgeon General, USAF	1963-1967
Daniel J. Boorstin	Librarian of Congress	1980-
Norman Q. Brill	Professor and Chairman, Department of Psychiatry, University of California, Los Angeles	1961-1965 Chairman: 1964-1965
Vice Adm. Robert B. Brown	Surgeon General, USN	1965-1969
Leroy E. Burney	Surgeon General, USPHS	1956-1961
Harve J. Carlson	Director, Division for Biological and Medical Sciences, NSF	1962-1972
Thomas C. Chalmers	President and Dean, Mount Sinai School of Medicine of the City University of New York	1978-1979
John D. Chase	Chief Medical Director, VA	1974-1978

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Eloise E. Clark	Assistant Director for Biological, Behavioral, and Social Sciences, NSF	1973–
Vice Adm. J. William Cox	Surgeon General, USN	1980–
Susan Y. Crawford	Director, Archive-Library Department, American Medical Association	1971–1975
James Crutcher	Chief Medical Director, VA	1978–1979
Gwendolyn S. Cruzat	Professor of Library Sciences, School of Library Science, University of Michigan	1980–1984
Jean A. Curran	Advisor, Charities Trust of Bigham Associates Fund, New England Medical Center	1956–1959
Vice Adm. Donald L. Custis	Surgeon General, USN. Chief Medical Director, VA	1973–1976, 1980–
Worth B. Daniels	Professor of Medicine, Georgetown University	1956–1957; 1961–1962. Chairman both terms
Eugenie Mary Davie	Former Vice President American Heart Association	1958–1961
Nicholas E. Davies	Piedmont Hospital Atlanta, Georgia	1978–1981
Vice Adm. George M. Davis	Surgeon General, USN	1969–1973
Michael E. De Bakey	Chairman, Department of Surgery, and Chancellor, College of Medicine, Baylor University	1956–1960 Chairman: 1959–1960
Russell A. Dixon	Dean, College of Dentistry, Howard University	1963–1967
Robert H. Ebert	Dean, Harvard Medical School	1967–1971 Chairman: 1970
S. Paul Ehrlich, Jr.	Acting Surgeon General, USPHS	1973–1974
H. Martin Engle	Chief Medical Director, VA	1966–1970
F. Emmet Ferguson, Jr.	Ferguson-Houston Colon- Rectal Clinic, Jacksonville, Florida	1978–1982
James C. Fletcher	President, University of Utah	1970–1971
Thomas Francis, Jr.	Professor of Epidemiology, School of Public Health, University of Michigan	1956–1960
Herman H. Fussler	Director, University of Chicago Library	1963–1967

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Alfred A. Gellhorn	Vice President for Health Affairs and Director of the Center for Biomedical Education, City College of the City University of New York	1962–1966
Henry N. Harkins	Professor and Chairman, Department of Surgery, University of Washington School of Medicine	1962–1966
Lt. Gen. Silas B. Hays	Surgeon General, USA	1956–1959
Lt. Gen. Leonard D. Heaton	Surgeon General, USA	1959–1969
Bernice M. Hetzner	Professor of Library Science, University of Nebraska Medical Center	1971–1975
S. Richardson Hill, Jr.	President, University of Alabama in Birmingham	1978–1980 Chairman: 1979–1980
Maynard K. Hine	Dean, School of Dentistry, Indiana University	1959–1963
Rear Adm. B. W. Hogan	Surgeon General, USN	1956–1961
William N. Hubbard, Jr.	President, The Upjohn Company	1963–1967, 1972–1976 Chairman: 1965–1967, 1974–1976
Hugh H. Hussey, Jr.	Director, Division of Scientific Activities, American Medical Association	1960–1964
Edward J. Huth	Editor, Annals of Internal Medicine	1979–1983
Saul Jarcho	New York Academy of Medicine	1961–1965
Lt. Gen. Hal B. Jennings, Jr.	Surgeon General, USA	1971–1973
Rear Adm. E. C. Kenney	Surgeon General, USN	1961–1965
Thomas E. Keys	Librarian, Mayo Clinic	1958–1962
Jack M. Layton	Dean, College of Medicine, University of Arizona	1969–1973 Chairman: 1972–1973
Champ Lyons	Professor and Chairman, Department of Surgery, Medical College of Alabama	1956–1959 Chairman: 1958–1959
Mary Louise Marshall	Librarian, Tulane University School of Medicine	1956–1958
J. Stanley Marshall	President, Florida State University	1971–1974
Angelo M. May	Physician, San Francisco	1971–1975

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William D. Mayer	President, Eastern Virginia Medical Authority	1980–1984
Walsh McDermott	Professor and Chairman, Department of Public Health and Preventive Medicine, Cornell University Medical Center	1964–1968
John P. McGovern	Professor and Chairman, Department of History of Medicine, Graduate School of Biomedical Sciences, University of Texas	1970–1974 Chairman. 1973–1974
Maj. Gen. Joseph H. McNinch	Chief Medical Director, VA and Former Director, NLM	1963–1965
John W. Mehl	Acting Director, Division for Biological and Medical Sciences, NSF	1973
Doris H. Merritt	Dean, Office of Research and Sponsored Programs, Indiana-Purdue University at Indianapolis	1978–1980
Max Michael, Jr.	Executive Director, Jacksonville Hospitals Educational Programs, Inc.	1968–1972
William S. Middleton	Chief Medical Director, VA	1957–1963
Charles E. Molnar	Director, Computer Systems Laboratory and Professor of Physiology and Biophysics and Electrical Engineering, Department of Physiology, Washington University	1980–1984
L. Quincy Mumford	Librarian of Congress	1956–1974
Marc J. Musser	Chief Medical Director, VA	1970–1974
Lt. Gen. Paul W. Myers	Surgeon General, USAF	1978–
Maj. Gen. Oliver K. Niess	Surgeon General, USAF	1958–1963
Maj. Gen. D. C. Ogle	Surgeon General, USAF	1956–1958
Lt. Gen. Robert A. Patterson	Surgeon General, USAF	1972–1975
Lt. Gen. Charles C. Pixley	Surgeon General, USA	1977–
Lt. Gen. Kenneth E. Pletcher	Surgeon General, USAF	1967–1970
Isador S. Ravdin	Professor of Surgery, University of Pennsylvania	1956–1958 Chairman. 1957–1958
Julius B. Richmond	Surgeon General, USPHS	1977–1981
Cecil G. Sheps	Professor of Social Medicine, University of North Carolina at Chapel Hill	1978–1980

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Kathryn M. Smith	Dean, School of Nursing, University of Colorado	1966–1970
Benjamin Spector	Professor of Bioanatomy, Tufts University	1956–1957
William W. Stadel	Director, Mental Health Services, San Diego, California	1957–1961
Robert M. Stecher	Cleveland Metropolitan General Hospital, Cleveland, Ohio	1960–1964
Jesse L. Steinfeld	Surgeon General, USPHS	1970–1973
William H. Stewart	Surgeon General, USPHS	1965–1969
Morris Tager	Professor and Chairman, Department of Microbiology, Emory University	1964–1968
Lt. Gen. Richard R. Taylor	Surgeon General, USA	1973–1977
Luther L. Terry	Surgeon General, USPHS	1961–1965
George W. Teuscher	Dean, Dental School, Northwestern University	1968–1972
Lt. Gen. Alonzo A. Towner	Surgeon General, USAF	1970–1972
John L. Townsend	Chairman, Department of Medicine Howard University	1979–1983
William L. Valk	Professor and Chairman, Department of Surgery, University of Kansas	1960–1964
Theodore Van Dellen	Northwestern University	1959–1963
Joseph F. Volker	Chancellor, University of Alabama System, Birmingham	1974–1977
Ernest H. Volwiler	Chairman of the Board, Abbott Laboratories	1956–1960
Frederick H. Wagman	Director, University of Michigan Library	1967–1971
Ethel Weinberg	Associate Dean, Medical College of Pennsylvania	1974–1976
Warner L. Wells	Department of Surgery, School of Medicine, University of North Carolina	1959–1963 Chairman: 1962–1963
Kelly M. West	Professor of Medicine and of Continuing Education, University of Oklahoma	1978–1979 Chairman: 1978–1979

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James F. Williams II	Medical Librarian, Vera P. Shiffman Medical Library, Wayne State University	1977–1981
Martha E. Williams	Professor of Information Science, College of Engineering, University of Illinois	1978–1982
John T. Wilson	Assistant Director for Biological and Medical Sciences, NSF	1956–1962
Stewart G. Wolf, Jr.	Regents Professor of Medicine and Psychiatry, Oklahoma Medical Research Foundation	1965–1969 Chairman: 1967–1968
Barnes Woodhall	Vice Provost, Duke University Medical Center	1964–1968
Alfred R. Zipf	Executive Vice President, Bank of America	1966–1970 Chairman: 1969–1970

SELECTED CHRONOLOGY OF THE NATIONAL LIBRARY OF MEDICINE*

- 1818 Congress established the permanent Medical Department of the United States Army. Joseph Lovell, appointed Surgeon General, soon began to purchase reference books and journals for his office. Pp. 1
- 1840 The Library's earliest known list of publications was drawn up, a manuscript notebook entitled "A Catalogue of the Books in the Library of the Surgeon General's Office, Washington City, 1840." Pp. 5
- 1864 The first printed catalog, a pamphlet, listing 485 titles, including about 50 journals, totaling approximately 2,100 volumes, was issued. Pp. 19
- 1865–1895 In 1865 Surgeon General Joseph Barnes placed John Shaw Billings in charge of the collection. In 1895 Billings retired from the Army and Library to direct the Department of Hygiene at the University of Pennsylvania, and later the New York Public Library. Pp. 25
- 1866–1887 The Library and Army Medical Museum were housed in Ford's Theatre, where President Lincoln had been assassinated on April 14, 1865. Pp. 27
- 1869 The Library published its first bibliographies: *List of Works on Cholera in the Library of the Surgeon General's Office . . .*, *List*

*This chronology is an expanded version of the one prepared by Manfred Waserman which appeared in *Bull. Med. Lib. Ass.* 60: 551–8 (1972).

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- of Works on Yellow Fever . . . , and List of Works on Military Surgery* Pp. 33
- 1871 The decision was made to develop the collection into the "National Medical Library." Pp. 34
- 1872 *Catalogue of the Library of the Surgeon General's Office . . .* In this catalog, listing about 13,000 titles, Billings placed an alphabetical index of subjects, foreshadowing his monumental *Index-Catalogue*. Pp. 79
- 1873–1874 The institution was now the largest medical library in the United States. Its catalog required three printed volumes, listing about 50,000 titles. Pp. 86
- 1876 Billings published the *Specimen Fasciculus of a Catalogue of the National Medical Library* to show his plan of indexing and cataloging the collection to librarians, physicians, Army medical officers, and government officials. Pp. 119
Robert Fletcher joined the Library staff. Pp. 123
- 1879 *Index Medicus; a Monthly Classified Record of the Current Medical Literature of the World* began in January. Compiled under the supervision of Billings and Fletcher (and later, other members of the staff), it continued until 1926 (except 1900–02). Pp. 132
- 1880 The first volume of the *Index-Catalogue of the Library of the Surgeon General's Office* was published. Pp. 129
- 1883 Surgeon General Robert Murray consolidated the Army Medical Museum and the Library into a single entity called the "Museum and Library Division," and placed Billings in charge of the division. Pp. 162
- 1885 President Chester Arthur approved a bill authorizing a new building "for the safekeeping of the records, library, and museum of the Surgeon General's Office . . . to be constructed . . . in the vicinity of the National Museum and Smithsonian Institution," on March 2. Pp. 164
- 1887 The Library and museum moved from Ford's Theatre to the newly constructed building on the Washington Mall. Pp. 168
- 1891 Fielding Hudson Garrison joined the Library staff as a clerk. He remained with the Library until 1930, when he went to Johns Hopkins. Pp. 195
- 1895 The final volume of the first series of the *Index-Catalogue* was published. The first series contained 176,364 author entries, 168,557 subject entries for books and pamphlets, and 511,112 subject entries for articles. Pp. 176
- 1895–1897 Lt. Col. David Lowe Huntington, Librarian. Pp. 185
- 1897–1902 Maj. James Merrill, Librarian. Pp. 186
- 1902 Maj. Walter Reed, Librarian. Pp. 187
- 1903–1913 Lt. Col. Walter Drew McCaw, Librarian. Pp. 189

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- 1912 Fielding Garrison published his list of "Texts Illustrating the History of Medicine . . .," later revised by Leslie T. Morton, *A Medical Bibliography (Garrison and Morton)* . . . Pp. 196
- 1913 Fielding Garrison published *An Introduction to the History of Medicine*, which went through several editions. Pp. 198
- 1913–1919 Col. Champe Carter McCulloch, Librarian. Pp. 219
- 1919 Col. Paul Frederick Straub, Librarian. Pp. 239
- 1919 Brig. Gen. Francis Anderson Winter, Librarian. Pp. 241
- 1919–1925 Brig. Gen. Robert Ernest Noble, Librarian. Pp. 242
- 1922 The old name "Library of the Surgeon General's Office" was replaced by a new name, "Army Medical Library," on January 10. Pp. 243
- 1925–1927 Lt. Col. James Matthew Phalen, Librarian. Pp. 243
- 1927–1932 Col. Percy Moreau Ashburn, Librarian. Pp. 244
- 1927 *Index Medicus* was merged with the *Quarterly Cumulative Index*, forming the *Quarterly Cumulative Index Medicus*, published by the American Medical Association with financial assistance from the Carnegie Institution. Pp. 249
- 1932–1936 Maj. Edgar Erskine Hume, Librarian. Pp. 259
- 1933 The Library received the William F. Edgar bequest. Pp. 276
- 1936–1945 Col. Harold Wellington Jones, Librarian. At his suggestion the old title "Librarian" was changed to the new title "Director" in May 1944. Pp. 271
- 1937 Microfilming of literature for patrons was started in the Library. The camera was provided, and the service managed, by a volunteer, Atherton Seidell, a Washington chemist. This "Medicofilm" service lasted until 1942. Pp. 279
- 1940 Atherton Seidell organized "Friends of the Army Medical Library," which existed until 1945. Pp. 279
- 1941 The *Current List of Medical Literature* began publication January 1. It was financed and edited by Atherton Seidell, under sponsorship of the Friends. The *List* was a rapid finding aid to current articles, microfilm copies of which were available at a nominal cost. The Library assumed publication of the *List* in September 1945. Pp. 281
- 1942 The government leased a portion of the Dudley P. Allen Memorial Library Building from the Cleveland Medical Library Association, and the Library transported its rare books there for protection during the war. In 1945 the Cleveland Branch was renamed the History of Medicine Division. The Division remained in Cleveland until 1962, when it moved back to the Library. Pp. 296
- The library organized its own microfilm operation, named "Photoduplication Service." Pp. 300

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- 1943 The Library was inspected by a team of professional librarians, the cost being borne by the Rockefeller Foundation. Directors followed the team's recommendations, embodied in *The National Medical Library; Report of a Survey of the Army Medical Library*, in modernizing the institution. Pp. 292
- 1944 The "Association of the Honorary Consultants to the Army Medical Library" was organized. The association advised and assisted the institution until 1952. Pp. 302
- 1945 In August the first number of the *Army Medical Library Newsletter* was published. Later it was renamed the *Army Medical Library News*, and eventually the *National Library of Medicine News*. Pp. 332
- 1945-1946 Col. Leon Lloyd Gardner, Director. Pp. 311
- 1946-1949 Col. Joseph Hamilton McNinch, Director. Pp. 313
- 1947 The Army Medical Museum moved from the building, and the Library expanded into the vacant space. Pp. 343
- 1948 The preliminary edition of the "Army Medical Library Classification" was produced. The *Classification* was published in 1951, and subsequent editions appeared periodically. Pp. 322
- 1949-1963 Col. Frank Bradway Rogers, Director. Rogers was the last of the long line of Army medical officers who directed the Library. Pp. 315
- 1949 The institution published its first annual catalog, *Army Medical Library, Author Catalog, 1949*. From 1950 until 1965 the AML and Library of Congress cooperated in producing annual and cumulated volumes. Pp. 323
- 1950 *A Catalogue of Incunabula and Manuscripts in the Army Medical Library*, by Dorothy M. Schullian and Francis E. Sommer, was published. Pp. 329
- 1950 The *Current List of Medical Literature* was revised, enlarged, and changed from a weekly to a monthly periodical in July. Pp. 325
- 1951 The Library compiled its first policy manual on scope and coverage. Pp. 321
- 1952 Director Rogers formed the "Friends of the Armed Forces Medical Library," an organization of volunteers. The Friends went out of existence in 1956. Pp. 335
- 1952 The Secretary of Defense placed the institution under the Army, Navy, and Air Force, and renamed it the Armed Forces Medical Library, on March 4. Pp. 351
- 1954 The institution published the *Subject Heading Authority List used by the Current List Division Armed Forces Medical Library*. Pp. 328
- 1955 The Task Force on Federal Medical Services of the second Hoover

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- Commission released a report recommending that the institution be designated the National Library of Medicine Pp 352
- 1955 The Library discontinued the *Index-Catalogue* with volume 11 of series 4. Citations to monographs were selected from the large backlog of accumulated cards and published in a special three-volume fifth series in 1959 and 1961 Pp 324
- The Armed Forces Institute of Pathology moved from the building
The Library now had the entire structure for its use Pp 347
- The Library began to microfilm deteriorating publications for preservation of the text Pp 458
- 1956 On March 13 Sen Lister Hill and Sen John F Kennedy submitted to Congress Bill S 3430 "to promote the progress of medicine and to advance the national health and welfare by creating a National Library of Medicine " Pp 353
- President Eisenhower on August 3 signed legislation transforming the Armed Forces Medical Library into the National Library of Medicine, and placing it in the Public Health Service Pp 355
- 1957 In April the Board of Regents of the Library selected a site on the grounds of the National Institutes of Health in Bethesda as the location for a new building Pp 356
- Director Rogers initiated a new loan policy stating, partially, that the library would no longer lend to individuals only to other libraries, and that it would provide photocopies of articles without charge in lieu of volumes Pp 453
- The Library began its Intern Program designed to give qualified librarians advanced training to enable them to assume posts of responsibility in medical institutions Pp 463
- 1958 Director Rogers and editor Seymour Tame began development of a mechanized system for producing the Library's publications Pp 365
- 1959 A groundbreaking ceremony was held on June 12 to mark the start of construction of the building in Bethesda Senator Lister Hill dug the first earth. Pp 356
- In July the Public Health Service and American Medical Association signed an agreement under which NLM would publish a monthly bibliography, *Index Medicus*, designed to replace NLM's *Current List* and AMA's *Quarterly Cumulative Index Medicus*. The first number of *Index Medicus* was produced by the new mechanized system, and issued in January 1960 Pp 367
- Part of the Russian Scientific Translation Program was transferred from the National Institutes of Health to NLM in August The remainder was transferred in 1961 Pp 396
- 1960 The *National Library of Medicine Medical Subject Headings* was published Revisions were issued periodically thereafter Pp 328

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- The Library initiated development of a computerized bibliographic system named MEDLARS (medical literature analysis and retrieval system). Pp. 368
- 1961 Dedication ceremonies for the new building were held in the main reading room on December 14. Pp. 357
- 1962 On March 3 the first books were moved from the old building in Washington to the new building in Bethesda. The last book was shelved in the new building on May 3. Pp. 359
The new building opened its doors to the public on April 16. Pp. 359
- 1964 Martin Marc Cummings, Director. Pp. 393
MEDLARS began regular operations. The first bibliography produced by the system was the January number of *Index Medicus*. Pp. 372
The Library began to accept requests for demand searches produced by MEDLARS. The service was changed in 1973 to an on-line service, MEDLINE. Pp. 376
The new, high speed phototypesetter named GRACE, graphic arts composing equipment, developed for NLM, began regular operations, producing the August number of *Index Medicus*. Pp. 373
The old Library-Museum Building on the Mall in Washington was designated as a Registered National Historic Landmark. Pp. 360
The Library began to decentralize MEDLARS by awarding a contract to University of California at Los Angeles to serve as a search center. Pp. 378
The Library received the bequest of Emma Wheat Gillmore. Pp. 465
- 1965 The first recurring bibliography produced by MEDLARS, *Index to Rheumatology*, was published in January. Pp. 375
The Billings Centennial was celebrated at the Library on June 17. Pp. 466
On October 22 President Lyndon Johnson approved the Medical Library Assistance Act, authorizing NLM to aid the Nation's medical libraries in expanding their services to the health community. Pp. 399
The Drug Literature Program was started. Pp. 411
- 1966 NLM began to publish the *National Library of Medicine Current Catalog*, one of the first regularly recurring completely automated book catalogs. Pp. 381
The Toxicology Information Program was established. Pp. 413
The British MEDLARS center began to operate. This was the first center outside of the United States. Pp. 379

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- 1967 The Drug Literature Program and the Toxicology Information Program were combined to form the Specialized Information Services. Pp. 414
 The National Medical Audiovisual Center was transferred from the PHS's Communicable Disease Center to the Library on July 1. Pp. 434
 The Library selected the Francis A. Countway Library as the regional medical library to serve the New England states. Countway was the first of the 11 libraries in the regional medical library network. Pp. 404
 Director Cummings established the Library's Research and Development Program. Pp. 419
- 1968 The old Library-Museum Building was demolished so that the site could be used for construction of the Hirschhorn Museum and Sculpture Garden. Pp. 360
 The Library was transferred from the Office of the Surgeon General of the Public Health Service to the National Institutes of Health on April 1. Pp. 445
 On August 3, President Lyndon Johnson signed Public Law 90-456 designating the proposed NLM annex as the Lister Hill National Center for Biomedical Communications. Pp. 420
- 1970 In January MEDLARS produced the first regular monthly number of *Abridged Index Medicus*, designed to present citations on clinical medicine to practicing physicians. Pp. 383
 On March 13 President Richard Nixon approved the Medical Library Assistance Extension Act, extending the original law for 3 years. This was the first of the extension acts, the others being enacted in 1973, 1974, 1977, and 1978. Pp. 404
 The Library opened the AIM-TWX on-line retrieval service to a selected group of users in June. This service permitted users to communicate with MEDLARS. It was replaced by MEDLINE in November 1972. Pp. 422
- 1971 MEDLINE was opened to a selected group of users in December. Pp. 384
- 1972 TOXICON, the on-line service covering the areas of pharmacology and toxicology, was opened to regular subscribers on Oct. 1. It was the forerunner of TOXLINE, 1973. Pp. 415
- 1975 The Library accepted MEDLARS II from the contractor on January 3. Planning for the second generation of MEDLARS had started in 1966. Pp. 388
 On February 25 the U.S. Supreme Court upheld the right of the Library and other noncommercial libraries to provide single copies of articles to scholars. Pp. 457

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- 1976 The Library celebrated the Bicentennial of the United States of America. Pp. 466
- 1979 MEDLARS III task force was established, the first step in NLM's objective to develop a coherent library automation program to satisfy NLM's operational and service requests in the future. Pp. 389
- 1980 The Lister Hill National Center for Biomedical Communications was dedicated on May 22, with Senator Hill and other prominent persons in attendance. Pp. 431

BIOGRAPHIES OF STAFF MEMBERS

When I began to write this history I hoped to place in the text or notes a biographical sketch of each person who contributed to the development and excellence of the Library. Gradually I learned that we had practically no information about the first generation of staff members, the ex-soldiers who came from battlefields and hospital posts to operate the Library, or about the second generation, the contemporaries of Fielding Garrison and Albert Allemann. While the early librarians were assiduous in accumulating biographical information about others, they seldom retained information about their associates. Of Wise, Roehrig, Steigers, Neumann, Tibbets, Israeli, Shaw, Stone, Fogarty, Hall, Bickel, Stockman, and many others who labored conscientiously to assemble this Library, and to whom all users of its collections and great bibliographies are indebted, we know very little. Much of what I uncovered is incorporated into the text or notes.

When I reached the recent period I found the situation different. There was adequate biographical information concerning staff members. But there are and have been so many worthy persons associated with this institution during the past third of a century that inclusion of sketches would have turned this history partially into a biographical dictionary. Furthermore I could not have completed this work in a reasonable length of time if I had also written hundreds of biographical sketches. With regret I decided that the biographical information already in print would have to suffice. Data on recent staff members may be found in *A Biographical Directory of Librarians in the United States and Canada*, *American Men and Women of Science*, *Who's Who in the East*, *Who's Who in America*, other biographical dictionaries, and biographies and obituaries in professional journals.

SOURCES OF INFORMATION ON THE HISTORY OF THE LIBRARY

The earliest correspondence and other records concerning the books and journals purchased for the Surgeon General and officers of the Army Medical Department, the literature that formed the foundation of the National Library of Medicine, are in the National Archives. In the Archives is also the correspondence between the Directors of the Library and the Surgeons General

concerning appropriations, legislation, facilities, *Index-Catalogue*, personnel, the original Library-Museum Building in Washington, and other library matters.

The earliest records in the National Library of Medicine consist almost entirely of letters addressed to, and copies of letters sent by, John Shaw Billings. Some of the copies are complete letters that Billings wrote for his clerks to transcribe and mail. Other copies are abbreviated, sometimes scrawled so rapidly that they are almost undecipherable. I assume the clerks, familiar with Billings style, transcribed these into readable letters. I have not referred to the outgoing as "copies" or "rough drafts," but as "letters" that Billings sent.

Fielding Garrison thought that Billings "was a poor letter writer—too busy most of the time . . ." (letter, Garrison to George H. Simmons, May 11, 1915: MS/C/166). With deference to Garrison, who had the advantage of a firsthand association with Billings, I have come to a different opinion. Billings letters were intended as communications, not literary productions, and as such they are informative, concise, and unambiguous.

Not many records of Billings and his successors remain to tell us of activities in the old buildings from the 1860's to the 1950's. The small group of librarians was too busy operating the institution and providing service to consider the needs of future historians. They saw no reason to maintain and store correspondence and other records; and as years passed by there was scarcely space for medical books and journals, let alone space for out-of-date records. Correspondence, memos, and other papers were thrown away as soon as they were no longer required for administrative or legal purposes.

The records of the Billings era, 1865–1895, fill 28 manuscript boxes in NLM's History of Medicine Division. Billings took his personal and nonlibrary correspondence with him when he left Washington, and it remained at the New York Public Library, where he was director, after he died in 1913. Billings' 15 successors at the Library left relatively few records—the total accumulation from 1895 to 1963 fills only 70 manuscript boxes, a few bound volumes, and a run of letterpress books.

It is important to remember that the earliest correspondence now in the Library referring to a certain subject, such as interlibrary loans, may not have been the first correspondence on that subject. The first may have been thrown away a century ago, and we only assume that what remains is the first. Billings may have started interlibrary loans and other activities a few years earlier and under other circumstances involving different persons than existing records indicate.

The Army Medical Museum and Army Medical Library were closely related in the Surgeon General's Office, in Ford's Theatre, and in the Library-Museum Building in Washington. Some of records of the museum concerned the Library and vice versa. When the museum moved in 1947 it took its early records with it. These are now maintained in the Otis Archives of the museum, at Walter Reed Medical Center.

The Library has a number of its older records, including notebooks listing

acquisitions, 1870's–1940's; titles of journals received, starting in 1869; names of recipients of volumes of the *Index-Catalogue*; orders to booksellers in various years of the 20th century; volumes sent on interlibrary loan for several years; and registers of visitors to the Library, mainly from 1888 onward.

The most important modern records are those of the Board of Regents. Minutes of the Board have been prepared for every meeting. Stenographic transcripts have been made of most meetings and tape recordings of some. Documents with background information have been prepared and distributed prior to many meetings. The accumulated records of the Board are available at the Library.

Writings from the Library on medical literature, medical bibliography, and a wide variety of other topics, began with Billings in the 1870's. He was interested in many things. A list of his publications comprises 171 titles. His own view of his works is reminiscent to all who write: "I am one of those unfortunate scribblers," he said, "who never get an article written to suit them, and when I see one of my papers in print I always see some changes which I wish to make" (letter to T. F. Rodenbaugh, July 22, 1882). Frank B. Rogers, one of Billings' successors, brought many of his articles together in *Selected Papers of John Shaw Billings* (1965), which also contains a bibliography of Billings' publications.

Shortly after Billings died in 1913 his family asked Fielding Garrison to write a biography. Garrison's *John Shaw Billings, a Memoir*, published in 1915 at the family's expense, is a primary source of information on the Library. But Garrison wrote the book so rapidly that he scarcely had time for reflection, and for this reason the book lacks details of the Library that would interest us, details so easy for him to have obtained but now beyond recall.

Many of the books and articles published by Fletcher, Garrison, McCaw, McCulloch, Ashburn, Neumann, Hume, Jones, and other members of the Library family are mentioned in the notes of this present history. Almost all of their writings may be located through *Index Medicus* and *Index-Catalogue*. A partial list of writings about NLM is in Manfred Waserman's "Historical Chronology and Selected Bibliography relating to the National Library of Medicine," *Bull. Med. Lib. Ass.* 60:551–8 (1972).

In 1960 the Library began placing in its annual report a bibliography of writings by staff members. These bibliographies were continued in the annual reports each year with the exception of 1967–1969 and 1972. After the Library became attached to NIH in 1968, a list of writings by NLM employees was also placed in NIH's annual *Scientific Directory . . . Annual Bibliography*. Articles published by staff members and others after MEDLARS began to produce bibliographies were listed in Literature Search 76-34, "The National Library of Medicine: selected references for the biomedical literature," prepared by Leonard J. Bahlman, containing 471 citations, January 1966 through July 1976; and Literature Search 78-21, prepared by Sheila Proudman, 69 citations, August 1976 through July 1978.

Information, mostly statistical, about the Library was included in the annual

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reports of the Surgeon General's office from about 1870 onward. In 1944 a separate annual report of the Library was prepared in typescript and kept at the institution. The Library's report for FY 1944-45 was published in *Bull. Med. Lib. Ass.* No report was prepared for FY 1945-46. Reports for fiscal years 1947 through 1950, consisting of abridgements of divisional reports, were prepared in mimeograph form; copies are in NLM. Beginning in 1950 the Library published annual reports for distribution.

The monthly *Army Medical Library Bulletin*, begun in November 1945, became the *Armed Forces Medical Library Bulletin* in June 1952, the *National Library of Medicine Bulletin* in October 1956, and the *National Library of Medicine News* in January 1964. An index 1966 onward is the publication office.

Several works written by persons outside of the Library contain information on various aspects of NLM. Daniel S. Lamb, pathologist of the museum for half a century, produced "History of the United States Army Medical Museum, 1862 to 1917, compiled from the official records." He issued this compilation in mimeographed form, apparently for his friends in the museum and Library. Copies are rare; one is in HMD, NLM. Robert S. Henry's *The Armed Forces Institute of Pathology, Its First Century, 1862-1962* (1964) contains information on the Library, particularly on the buildings shared by the museum and Library. George J. Olszewski's *Restoration of Ford's Theatre* (1963) does not discuss the Library, but it does present an interesting, illustrated account of the building that housed the Library for 20 years. Marilyn Casey Bracken wrote her Ph.D. thesis, "An Analysis of the Evolution of the National Library of Medicine; implications for the development of scientific and technical information networks," at American University in 1971. This thesis, a copy of which is in NLM, contains statements and views of members of the Library staff.

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ABBREVIATIONS

The following abbreviations have been used in the notes and text.

AFIP: Armed Forces Institute of Pathology
AML: Army Medical Library
AMM: Army Medical Museum
CPP: College of Physicians, Philadelphia
GPO: Government Printing Office
HMD: History of Medicine Division
JH: Johns Hopkins, Welch Medical Library
LC: Library of Congress
LHNCBC: Lister Hill National Center for Biomedical Communications
MS/B/-, MS/C/-, MS/FB/-: Manuscript collection call numbers, NLM
NA: National Archives
NLM: National Library of Medicine
NMAC: National Medical Audiovisuals Center
NYPL: New York Public Library
SGO: Surgeon General's Office