Medical Librarianship

By ESTELLE BRODMAN, Ph.D.

JUST as there were nurses long before the profession of nursing came into formal being, so there were medical librarians before there was a profession of medical librarianship. As late as 1853, a meeting of American librarians in Philadelphia was attended not by librarians as such, but by clergymen, educators, some lawyers, and a few physicians, all of whom acted as librarians as well. Indeed, it might be said that librarianship as a profession did not begin to take shape until after the American Civil War, and medical librarianship, as differentiated from general librarianship, not until about the turn of the 20th century. Even then, when the Medical Library Association was founded, there were more physicians acting as librarians than there were professional librarians.

Today, medical libraries and medical librarians serve public health workers daily all over the country, especially by bringing them up-to-date information on the professional problems with which they are faced and by showing them how others have solved similar problems. Since medical libraries are one of the modern tools of the public health worker, a knowledge of their development and present status should be of interest.

In order to understand the late development of medical librarianship, it is necessary to consider the conditions prevailing before the mid-19th century. For a profession to develop, there must be a large body of information available, a need for specialized techniques in handling the information, and a substantial number of people who need the information but do not have the time or inclination or ability for acquiring the specialized techniques.

Dr. Brodman is assistant librarian for reference services, Armed Forces Medical Library, Washington, D. C. She is also editor of the Bulletin of the Medical Library Association and author of the recent publication, Development of Medical Bibliography.

Growth of Medical Literature

The first requirement for the development of medical librarianship was the existence of a large body of medical information. Medical literature has been accumulating for many centuries. Perhaps the earliest nonmagical medical works that have come down to us are the Egyptian papyri, the Papyrus Ebers and the Papyrus Edwin Smith, named after their modern discoverers but actually written about the 16th century B. C. from even earlier texts. The Papyrus Ebers is a medical treatise and the Papyrus Edwin Smith a surgical work (*1*), but both give such clear and accurate clinical descriptions as to leave no doubt of the high state of medicine at that time.

These papyri are not isolated examples of medical writings. There are copies of Indian medical works from the 7th to the 5th centuries B. C., the Susruta, the Atreya, and the Vagbhata, the first of which can be compared to the Papyrus Edwin Smith for its surgical cases and to modern works for scientific reasoning about such things as the relationship of mosquitoes to malaria and dead rats to plague.

Chinese medicine also produced literature of a fairly high order somewhere between the 3d and 10th centuries B. C., and the writings of such Greek and Roman physicians as Hippocrates, Galen, and Celsus are known to all who have contact with medicine. Even during the so-called dark ages of Europe, medical literature was prepared, laboriously copied by hand, and circulated to interested persons, as shown by the books which we possess from that period: the writings of Constantinus Africanus, Roger of Palermo, Roland of Parma, Henri de Mondeville, and Guy de Chauliac, and the Regimen Sanitatis Salernitanum, among others.

Indexes to Medical Literature

With the invention of the printing press in the mid-15th century, the ability to reproduce books cheaply in large quantities led to an increase in the available literature in all fields, including medicine. It is a truism that physicians read medical literature primarily to learn what others have done in similar situations; it follows from this that the physician must be able to learn of the existence of writings bearing on his problem. As the printing press increased the medical works available to him, the physician found it increasingly difficult to learn about the existence of pertinent published information and to acquire it when aware of it.

As early as 1506, a new form of medical writing appeared, the list or bibliography of previous publications (*2*), to which the physician could refer when he wished to learn what had been written on a particular subject or by a particular person. The earliest printed medical bibliography, the De Medicine Claris Scriptoribus of Symphorien Champier, was followed by numerous other such lists, growing in size as the literature grew, and splitting into subdivisions by subject or by period of time, as the growing bulk of medical writings demanded.

Further intensifying the growth of medical literature was the emergence of the magazine or journal, which contained a number of contributions in each issue and which was meant to be continued indefinitely. The first medical magazine (periodical) was probably the *Acta medica* published in Copenhagen in the 17th century by the great Danish anatomist and physician, Thomas Bartholin. The first medical journal printed in the vernacular was probably Nicolas de Blegny's *Nouvelles découvertes sur toutes les parties de la médecine*, begun in Paris in 1679. From these and from the pages of the transactions of the many learned societies which included medicine among the other sciences came such an increase in the literature that readers were swamped. It is estimated that today approximately 7,000 to 8,000 medical serials are published throughout the world.

The amount of medical literature available caused Wilhelm Gottfried Ploucquet, the German medicolegal expert and bibliographer, to complain bitterly of excess as early as 1808. "The job would be simpler," he said, "if the legacy were smaller, but the wealth of material overwhelms us, and we are blinded by too much light . . . To make matters worse, no day passes but someone throws another article on this mountain of material . . . Our life is too short, and there are so many books; money is so scarce, and there is so little time."

Specialized Techniques

The output of literature during the last few years of the 18th century began to be overwhelming, and the acceleration caused by the scientific discoveries of the mid- and late-19th century made a new approach to the problem imperative. In the 1860's, under the prodding of Joseph Henry, the first secretary of the Smithsonian Institution in Washington, D. C., the Royal Society of London began the collection and indexing of scientific literature, using groups of workers who were guided by a special committee of the society's members. The Royal Society Catalogue may be said to be the first large-scale joint venture into cooperative bibliography, and was a realistic attempt to meet a changed situation by adopting new methods to solve the problem. It has become the prototype of most of the bibliographic work done in the sciences since then. The most famous medical examples of this method are, of course, the *Index-Catalogue of the Library of the Surgeon-General's Office*, the *Quarterly Cumulative Index Medicus*, and the *Current List of Medical Literature*. Science bibliographers are now attempting to find still another

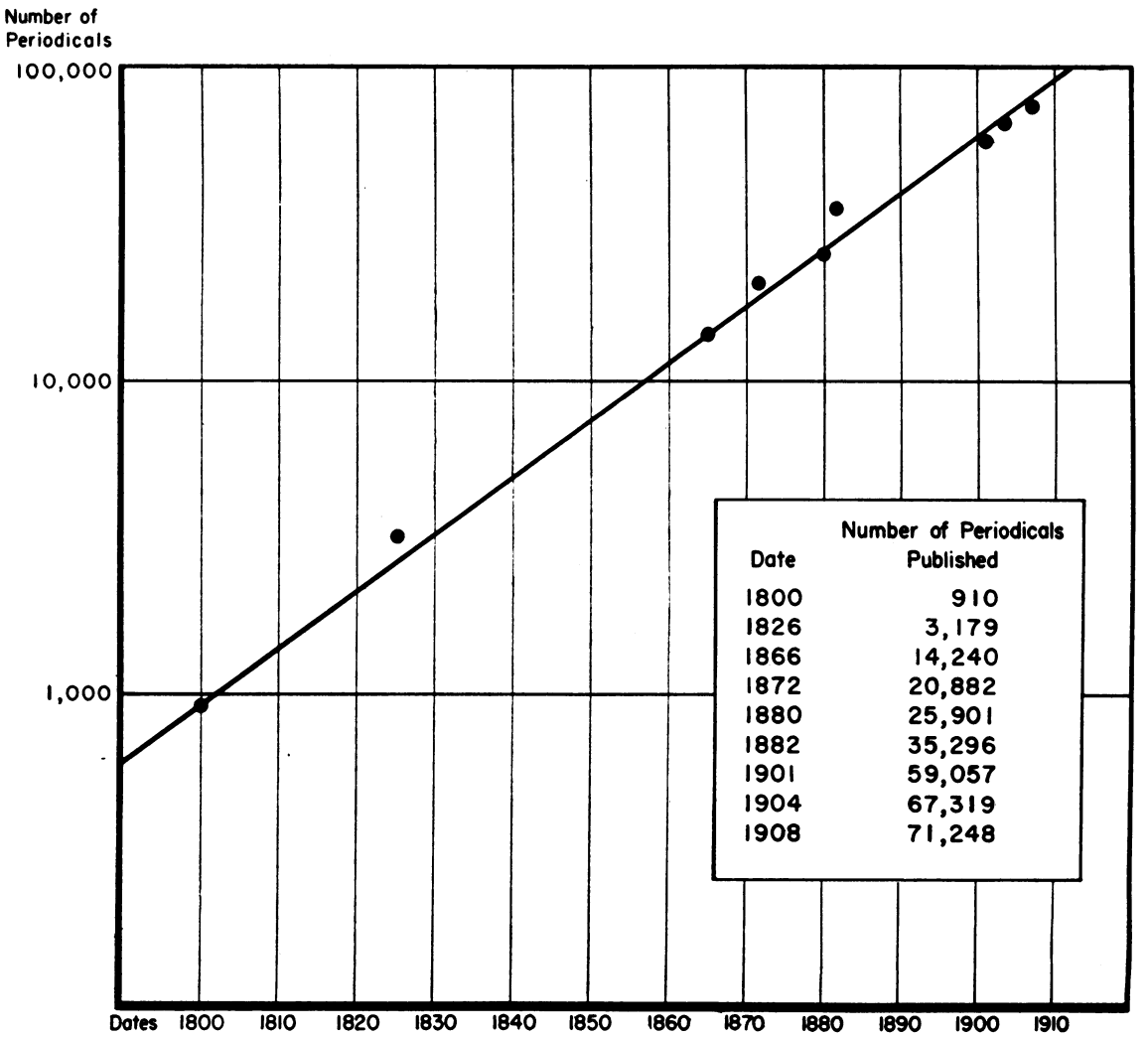
solution to the problem by the use of machines and newly developed storage devices.

This method of indexing the literature—bringing together a number of people to work jointly on a body of data—provided the second prerequisite for the growth of medical librarianship, specialized techniques. By the third quarter of the 19th century, medical literature had grown to such proportions that specialized techniques for handling it had to be devised. These techniques, in turn, required so much time to master and practice that physicians were unable to continue their previous work in the field. In addition, the amount of literature, which had made it more and more difficult for the private practitioner to afford to acquire or house a medical library, had caused the proliferation of "public" medical libraries. Thus, the profession of medical librarianship began to come into being in the 1880's and 1890's and was so strong by 1898 that a Medical Library Association could be founded in that year.

Education for Medical Librarians

The development of medical libraries paralleled that of libraries in other fields. The American Library Association was founded in 1876, and the first school of librarianship started in 1887 at Columbia University in New York City. Eleven years later there were enough people engaged in the field of medical libraries to

Growth of periodical literature, 1800–1908.



make possible the organization of an association of medical librarians, and soon thereafter education for medical librarianship was discussed.

As the number of people engaged in library work grew, apprentice classes were held in large libraries and theoretical courses were given in colleges and universities to provide specialized education for librarians. Within these schools, a trend toward more courses, more hours of attendance, and more theoretical discussions gradually appeared. This trend was aided by the depression of the 1930's; since it was difficult to obtain jobs, more people were willing to lengthen their stay in school.

In the late 1920's and early 1930's, it began to be realized that not every kind of librarianship was exactly the same as every other kind. At first this led to library school classes based upon the group served by the library—college and university libraries, public libraries, or children's libraries. Later, the subject material handled became the criterion, and from a somewhat undifferentiated course on special libraries there sprang up courses on law librarianship, music librarianship, and medical librarianship. That this fractionation is likely to continue is shown by the fact that the Joint Committee on Library Education, set up by various American library associations, is investigating possible curriculums in still other portions of library work, such as journalism. On the other hand, a feeling has also arisen that there is indeed a core of study to which it would be well for all librarians to be exposed. In the late 1940's, many library schools in America revised their courses (and at the same time their scheme of degrees) to include the same core curriculum for all students. In the present setup, medical librarianship continues to be taught as an adjunct to the core curriculum.

Formal courses in medical librarianship began in the United States in 1937 and have continued to this time, thanks in part to the fact that this country was not disrupted by World War II as soon or as deeply as European countries. There have also been several attempts at education for medical librarians in other countries (*3,4*).

Since training in medical librarianship is a universal problem, the United Nations, through its specialized agencies, the United Nations Educational, Scientific and Cultural Organization and the World Health Organization, has concerned itself with it. Workshops and courses for European medical librarians have been held or planned; traveling fellowships have been arranged to enable medical librarians from economically backward countries to visit medical libraries in other places; and the World Health Organization in the 1950's appointed the former head of its own library to visit medical libraries throughout Europe and give suggestions and whatever other aid was needed.

Medical Library Services

Since the training of medical librarians is based on the services they are expected to provide, it is profitable to consider what medical libraries offer. Public health workers are recipients of all these services. The most important part of any medical library is its collection; with a well-chosen stock of books, journals, and bibliographical indexes, the library will be of use to anyone truly seeking its information. The selection of materials is, therefore, a primary concern of the medical librarian, and the smaller the budget the more carefully must the selection be made. Once the collection has been brought together, the next step is preparing it for use by such devices as catalogs, classification systems, book markings, proper shelving, and the like. And, finally, the medical librarian helps the user through his knowledge of what is in his own collection and through his ability to obtain other material from outside collections. Occasionally, the librarian will make abstracts, reviews, or bibliographies for readers, though this is not common practice, and sometimes he will arrange for translations.

To prepare to perform these services, the medical librarian is ordinarily trained academically in colleges and schools of librarianship and by on-the-job internships. At present, there are more than 35 schools of librarianship in the United States which require a college degree for entrance. Students expecting to work in medical libraries usually present some academic scientific background before entering library school, though unfortunately not as many have this training as are needed. An-

other prerequisite for good work in a medical library is a knowledge of foreign languages, for, although it may be true that at present a large portion of medical research is reported in English, there is still a sizable amount in other languages. And the past literature, on which the present is based, contains perhaps 80 to 90 percent foreign material. The more German, French, Italian, or Russian a medical librarian can understand, therefore, the more valuable he will be.

The Medical Library Association has set up a voluntary certification program for medical librarians, which calls for college and library school training, with a special course in medical bibliography and librarianship, a course now given at three universities in the United States—at Columbia University in New York City, at Emory University in Emory University, Ga., and at the University of Southern California in Los Angeles. Scholarships are provided by the association to aid people taking these courses.

Present Status

Salaries offered medical librarians today generally start at around $3,000 a year and tend to go up to about $6,000, though heads of large medical libraries may receive as much as $9,000–$12,000. Since many medical libraries are connected with teaching institutions, the working conditions, vacations, pensions, and privileges tend to approach university standards. Normally about 60 new medical librarians can be absorbed each year, but the annual production of these specialized workers ranges around 30 a year. As a result, many nonspecialized librarians find their way into medical library work.

The number of medical libraries now in existence in the United States is not definitely known, but some 600 are members of the Medical Library Association, a professional organization international in scope but predominantly American in character. These include libraries in hospitals, medical schools, medical societies, nursing and dental schools, pharmaceutical libraries, psychiatric libraries, and at least eight libraries in departments of health. For membership in the association, a library must maintain a collection of 1,000 or more medical and allied books of which at least 500 must have been published in the preceding 10 years; receive regularly a minimum of 25 journal titles appropriate to the institution; and have regular hours of opening and a regular attendant in charge.

The American Medical Association (*5*) and the American College of Surgeons (*6*) have also promulgated standards for libraries in the field of medicine; and the American Dental Association (*7*) and the National League of Nursing Education (*8*), for libraries in their fields, especially in hospitals approved by them for the training of interns and residents. The American Medical Association, the American College of Surgeons (*9*), the National League of Nursing Education (*10*, *11*), and the Veterans Administration (*12*) have even gone so far as to publish lists of books and journals useful to such libraries, and the American College of Surgeons has even included hints on the administration of the collection (*13*). In the military field, the Office of the Surgeon General, United States Army, has long had a board for the review of medical books and journals, and it regularly publishes lists of officially "approved" books (*14*).

Although many guides and minimum standards have been established, the actual state of medical libraries in the United States varies enormously. Collections range from a few hundred out-of-date volumes and broken runs of journals to such mammoth libraries as the Armed Forces Medical Library, with its stock of close to 1 million titles, its receipt of over 4,000 periodicals, and its staff of over 200 people. The large majority of American medical libraries contain between 20,000 and 40,000 volumes, receive about 200 magazines regularly, spend approximately $800 annually for other purchases, and have one or two professional librarians and a clerical worker on their staffs.

Future of Medical Librarianship

The major problems of medical librarianship today are these: (*a*) how to acquire, store, and make available the constantly enlarging body of literature being produced; (*b*) how to recruit and keep librarians trained in sciences,

languages, and librarianship at the salaries now offered, and (*c*) how to bring the information in the medical libraries to the attention of persons in communities away from the main medical centers. The first problem is being attacked vigorously on several fronts by a number of workers using the techniques of engineering, electronics, photography, and librarianship (*15*), so far with only a modicum of success. "Package libraries" of the American Medical Association and the American College of Surgeons, the photo-duplication service of the Armed Forces Medical Library, and the extension services of State and medical school libraries have been attempts to solve the last problem. The matter of recruiting for medical librarianship, however, still remains a crucial one.

Summary

The medical library profession is a young one, and, as a young profession, it is dynamic and flexible in outlook and methods. Variations are still to be encountered in all phases of its work as the needs of the institution of which the library is a part dictate and as its users demand. At the same time it is a profession proudly descended from another of ancient and honorable lineage. Like medicine itself, it exists to serve; as such it demands of its adherents the questing mind and the willing heart. In return it gives them a modicum of wealth, some personal respect, and the sure knowledge of a socially useful life.

REFERENCES

(*1*) Breasted, J. H.: The Edwin Smith surgical papyrus. Chicago, University of Chicago Press, 1930.

(*2*) Brodman, E.: The development of medical bibliography. Baltimore, Medical Library Association, 1954.

(*3*) Federation Internationale de Documentation: Rapport sur l'activite du Secretariat General de la Commission Mixte de l'Enseignement et du Statut Professionels Archivistes, Bibliothecaries, Conservateurs de Collections, Documentalistes; Annee 1953–1954. 24 Juillet 1954, 8 pp. Mimeographed.

(*4*) First International Congress on Medical Librarianship, London, 1953. Transactions. *In* Libri, vol. 3, 1953.

(*5*) American Medical Association. Council on Medican Education and Hospitals: Hospital medical library suggestions. Chicago, The Association, 1954, 18 pp.

(*6*) American College of Surgeons: Manual of hospital standardization. Chicago, American College of Surgeons, 1946, p. 72–73.

(*7*) American Dental Association. Council on Dental Education: The dental library. J. Am. Coll. Dent. 12: 202 (1945).

(*8*) National League of Nursing Education. Education Committee on Standards: Essentials of a good school of nursing. New York, The League, 1952, p. 55–57.

(*9*) American College of Surgeons. Department of Literary Research: The hospital medical library. Chicago, American College of Surgeons, 1946, p. 72–73.

(*10*) National League of Nursing Education. Committee on the Nursing School Library: Manual for the nursing school library. New York, The League, 1947.

(*11*) National League of Nursing Education. Committee on the Nursing School Library: Guide for the development of libraries in schools of nursing. New York, The League, 1952.

(*12*) U. S. Veterans Administration. Special Services. Library Services: Basic list of medical books and journals for VA hospitals, centers, and domiciliaries. Revised. Washington, D. C., U. S. Veterans Administration, 1952, 22 pp.

(*13*) Prime, L. M.: The hospital library and its administration. Bull. Med. Lib. A. 28: 81–90 (1939/40).

(*14*) U. S. Army. Office of the Surgeon General: Books [and journals] having approval of SGO Board for Review of Medical Professional Books and Periodicals. Washington, U. S. Army, 1952. Supp.

(*15*) Ridenour, L. N., and others: Bibliography in an age of science. Urbana, University of Illinois Press, 1951.