

## NEWER DEVELOPMENTS IN MEDICAL REFERENCE WORK

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IF we mean by the term "reference work," aid or assistance rendered to the user of a library, reference work in medical libraries probably has existed since the Dark Ages. From the time of Galen well into the Seventeenth Century the physician depended on the aphorisms of the great figures, Hippocrates and his followers, in his practice of medicine.<sup>1</sup> The inspired words of Hippocrates, Aristotle, Galen and later Avicenna were the foundation of medieval medicine. At that time the physician cured his patients by finding out what the early medical geniuses had done, and he acted accordingly.<sup>2</sup> This meant early recourse to the library. In his medical practice the library was the doctor's storehouse of information. And the librarian, in his reference capacity, had a comparatively simple task of tracking down information limited in scope and subject.

How different and how much more inclusive is the reference function in the modern medical library! Today in large medical centers reference libraries have been established, partly from the need of organizing the avalanche of literature that has piled up and partly to fulfill a demand for specialized services to users of the library.

The librarian, with his knowledge of bibliographic tools, has been able to cut paths and make light from the darkness of the multitude of medical papers, experimental research, and incidental case reports.

In order to keep abreast of the literature the librarian and medical bibliographer have continued the process of classifying articles and cross indexing them. This work has contributed to the integration of medical research. The librarian not only has made the literature accessible to the student and research worker but also by this process of classification he has brought together studies of all subjects in their related settings. It is true that skill is required to extract the total literature from the bibliographic indexes. Here is where the librarian's responsibility lies. He knows the machinery with which he works. And because of the complexities involved in tracking down references his vocation has become that of a specialist.

It is well known that research is of little practical value unless a report of it is published. It is just as axiomatic that individually published research is of little consequence unless it becomes integrated with the scheme of the whole and is made available to the scholar. Without mod-

ern indexing facilities and without competent medical librarians to guide the scholar, research would be of little consequence and individual articles would be lost.

Ten years ago Mr. James Ballard,<sup>3</sup> director of the Boston Medical Library, suggested a growing emphasis on the liberal interpretation of librarianship. Mr. Ballard defined bibliographic research as the assembling of relevant data for use in scientific research. To him bibliographic research meant not only the preparation of bibliographies but included the special services of abstracting materials, the translation of articles, analytic surveys of the literature and collection of case reports. Mr. Ballard's ideas have been adopted in many medical libraries, among them the library of The Mayo Clinic.

The preparation of medical bibliographies is the chief service rendered by a reference department. Some of the users of the library like to look up their own material but seek orientation from the librarian on where to find it. Others feel that the librarian should take the initiative in this bibliographic work. This means then that the librarian must be alert not only as to the use of such ordinary medical library tools as the Index Catalogue of the Surgeon General's Office, the Quarterly Cumulative Index Medicus, the Index Medicus, and the Catalogue of the Royal Society of Scientific Papers, but also in the various German Zentralblatter and Handbuch's which are not listed in the indexes but contain many excellent contributions to medical literature.

A closely related service dependent on the use of bibliographic tools is the verification of references. This is an important step in the preparation of medical papers. And the library coöperates with the division of publications in this verification. At other times the librarian is given an inadequate, emaciated piece of a reference to a supposed article in the medical literature. His task is to complete the reference. Recently such a reference was made to an article entitled, "Fifty undiagnosed cases." These cases probably went undiagnosed even as far as the librarian was concerned. No mention was made as to the subject, time, or author, and bibliographic research on this problem would have been futile. More often, however, the references can be completed. For instance, it is a simple task to complete a reference to Behring's article on giant-cell tumors.

Another service of the reference department is the answering of questions of an informative, but not of a medical character. Such questions are: What are the dimensions of the Graf Zeppelin? What is the highest speed an automobile has attained? What is the correct usage,

“worse comes to worst” or “worst comes to worst?” A knowledge of general reference tools is a prerequisite to the answering of such questions.

Even though the library is rather complete from a modern viewpoint, there are times when certain books or journals desired are not in the library. To aid the reader there are two possibilities. The librarian may find the abstract of an article in one of the abstracting journals, or if the original article is in an unfamiliar language an abstract may similarly be found. The other possibility is to secure the journal or book from another library. This procedure, interlibrary loan, requires a special knowledge of (1) bibliographic verification of the reference, and (2) location of the place where the book is to be obtained.

Closely related to interlibrary loan service is the translating service under supervision of the librarian. It would not be hard to prove that many members of the medical profession are unable to read other than their own language. Therefore, this service is a valuable one.

A library perhaps gains in usefulness by having its shelves accessible to the readers. Open stacks, circulation of bound and unbound books and journals, and no fines for late books, where this is practicable, contribute to increased use of the library. This, of course, increases the librarian's work, because new readers need orientation in where to find various books and journals. To aid them, the librarians can give informal talks on the use of the library.

An experiment launched with considerable success at the clinic last year was a somewhat formal lecture on the principles of medical bibliography and bibliographic citation. It consisted, in the main, of an analysis of about forty of the chief bibliographic tools useful in research. This was followed by a discussion of the importance of complete bibliographic description of references to the literature, the need for verification of the completed reference and a few rules on citation.

An important service a library can offer is the recording of references to the literature as they appear. It is a problem for some workers to review the current literature. In some ways the “Kongress Zentralblatt für die gesamte innere Medizin” is useful. It would be more useful to us were it in English. The library of the clinic subscribes to about 600 journals and a librarian records new articles on particular phases of medicine at the request of members of the staff.

The librarian can render other services, such as the location of addresses of physicians on the Continent of Europe, biographic sketches, bibliographic information about new and old medical books, besides the

ordinary matters of library economy. Mention should be made of the personal services offered to users of the library. In brief these include ordering of books and caring for the binding of books for personal use.

## REFERENCES

1. Thayer, W. S. Importance of the library in medical practice. *Med. Jour. and Rec.* 124:715-718 (Dec. 1) 1926.
2. Billings, J. S. Methods of research in medical literature. *Tr. Assn. Am. Phys.* 2:57-67, 1887.
3. Ballard, J. F. Information, reference and bibliographic service. *Med. Libr. Assn. Bull.* 17:18-27 (July-Sept.) 1927.