

(Catholic University of America) and seven that have been dropped since the second edition. Though not so stated, this probably was done because these institutions did not respond when queried.

This useful reference gives comparable information on an international scale similar to our national directory compiled by Cosby Brinkley (reviewed in *CRL* 24:171-172). It does not follow the convenient tabular form of that directory, but each entry follows a general pattern. Sizes, types of copy, and prices are given, with additional notes of particular interest about institutions listed. Though it does not list as many services in the United States as does Brinkley (22 vs. 120), it does include four (Brown University, Linda Hall, Lithographic Technical Foundation, and University Microfilms) that are not in that listing. This is a necessary continuation of a valuable reference tool.—Hubbard W. Ballou, *Columbia University Libraries*.

Scholarship

American Doctors and German Universities; a Chapter in International Intellectual Relations, 1870-1914. By Thomas Nelville Bonner. Lincoln, Neb.: University of Nebraska Press, 1963. 210p. \$4.25.

Although there is not much on libraries in this brief book, the librarian interested in the history of American scholarship will find it fascinating indeed. Arthur Bestor has noted that the years between 1875 and 1917 resulted in a "transformation of American scholarship" (*Library Quarterly* 23:164-79), for it was during this period that numerous young Americans studied at German universities and enthusiastically brought back a desire to develop on our soil universities modeled on the German pattern. As Bonner's new book points out, in no discipline was this more true than medicine, particularly the basic medical sciences, where the German emphasis upon the primary place of original research and the crucial importance of the laboratory method had a lasting influence on those who transformed American scholarship during the fifty-year period. Bonner notes also in a subsection of the prologue, "The Lure of the German Univer-

sity," the fascination of Americans with the unaccustomed freedom of teaching (*Lehrfreiheit*) and freedom of learning (*Lernfreiheit*), while the description of Henry I. Bowditch of his evolution as a student gives full credit to the impact of the great teacher upon the promising student (p. 72). Perhaps it is a further indication of the indirect influence that the latter description could well be written of a similar impact in some graduate schools in America today.

Professor Bonner calls his book "A Chapter in International Intellectual Relations," indicating that his scope is not so broad as that of Bestor and others, for "doctors" with whom he deals are "medical doctors," not those who earned the PhD. Essentially, he has traced the German influence on American medicine during the period 1870-1914, and has examined thoroughly the main sources both in this country and in Germany. What emerges is an examination in depth of German influence on a specific discipline.

The book is divided into four sections. The first major section, "The German Magnet, 1870-1914," describes the pattern of migration (no fewer than fifteen thousand American medical men undertook some kind of serious study in a German university during the period), the chief centers to which students migrated (quantitatively, Vienna and Berlin), student life (including its praise for German science and its unhappiness at the undemocratic aspects of German social and political life), and the impact of foreign study on those who were to revolutionize medical education at Johns Hopkins, Harvard, Yale, and elsewhere.

The second part, "Vienna, Berlin, and the Clinical Specialities," is a record of postgraduate study in practical clinical applications of German medical science. Both Vienna and Berlin attracted older American practitioners who wanted to come for relatively short periods and study under one of the acknowledged masters. It was not at all uncommon to find groups of American doctors in both cities who had secured the services of a popular instructor to lecture in English on the latest methods, a forerunner of the modern day "short course," perhaps. Bonner discusses the advantages as well as the disadvantages of this type of instruction, noting especially the criticism of Flexner in

his *Medical Education in Europe* (1912). He also discusses in this chapter indirect influence of German medicine through immigrant German doctors who taught those Americans who did not go abroad to German universities. While this kind of influence is admittedly difficult to measure, Bonner presents an interesting case.

"German Universities and the Basic Medical Sciences in America" is the most important section for medical education. If the German impact upon such specialities as ophthalmology, laryngology, and gynecology was profound, "the mold of the basic medical sciences in nineteenth- and twentieth-century America was cast in Germany" (p. 108). In contrast to the older men who were interested in the clinical part of medical science, the younger men, generally just out of medical school, were intrigued by the basic medical sciences, and this training was found not in Berlin and Vienna but in some of the smaller German universities, such as Leipzig, Strassburg, or Breslau. While numerically this group was not large, they exerted an impact upon American medicine out of all proportion to their numbers, for included were such men as Welch, Mall, Minot, and Chittenden. Bonner's method here is to take up various subjects such as "Pathology and Bacteriology," and trace the German influence through specific Americans who became American masters in these fields.

The last major section notes the turning of the tide: "German Doctors in America before 1914," when the visits to this country by German medical men resulted in increased respect for American medicine. Bonner takes issue with those who have dated the development of American medicine after the issuance of Flexner's famous Carnegie report in 1910. He presents rather convincing evidence that the tide had begun to turn much nearer the beginning of the twentieth century. Not that he labors the point nor loses scholarly caution in hedging his remarks, but he does point out that, from a widespread conviction that American medicine was inferior, the German doctors by 1910 were turning to praise and appreciation.

The outbreak of World War I brought to an end this almost unparalleled chapter in the transmission of scientific culture. American medicine had taken the German models, adapted them to their own situation, and

had begun to forge ahead of their own teachers. Prewar Germany had been the mecca not only for American doctors but for those from England, France, and Russia as well, demonstrating the international character of science. After World War I the capital of the medical and surgical world moved across the Atlantic.

Professor Bonner has provided an interesting and informative record of the international influence of scholarship in medicine. His book is more important for the general reader than the title indicates. One can only hope that other intellectual historians will do as well for other disciplines.—*Edward G. Holley, University of Houston.*

Special Libraries

Medizinische Bibliotheken in der Deutschen Demokratischen Republik. . . . Berlin: Deutscher Demokratische Republik, Ministerium für Gesundheitswesen, Abteilung Wissenschaft, 1963. 63p. and 2 plates.

This is a first attempt, made under the editorship of Edith Krauss, head of the library of the Deutsche Akademie für Ärztliche Fortbildung in Berlin, to present an overview of the medical libraries in East Germany. All the medical libraries of the area are listed, plus the medical sections of large general libraries, as for example the Deutsche Staatsbibliothek in Berlin, and of university libraries. To be included, a library must have had: (1) at least five hundred volumes; (2) subscriptions to at least ten journals; (3) an alphabetical or classified catalog; or (4) a full time employee.

The entries are arranged first by place, in alphabetic order, and then by the principal words in its title. In the cities where there are many libraries, such as Berlin or Leipzig, the list is further divided by whether they are open to the public, or are in institutes and clinics, or in hospitals. The usual information is given for each place: name, telephone number, whether it circulates materials, hours of opening, holdings in books and journals, subject fields collected, catalogs, publications, number of seats in the reading room, photographic equipment, rules for readers, and the year of foundation. A subject index to the numbered en-