Review Articles

The Printed Book Catalogue in American Libraries: 1723-1900. By Jim Ranz. (ACRL Monograph No. 26) Chicago: ALA, 1964. vii, 144 p. Paper. \$3. (64-17055).

The scope of this study is broader than its title suggests; it is actually a concise history of cataloging in the United States to 1900. In fact, this slender volume comes close to being a terse history of American librarianship, thus demonstrating the central role that cataloging has played in library development. The great names in American librarianship of the period are all here, Charles C. Jewett ("probably the outstanding librarian of the day"), William F. Poole, Charles A. Cutter, Melvil Dewey, and William I. Fletcher, along with many of lesser stature. The contribution of each is told succinctly. Although biographical data are kept to a bare minimum, the personalities of these men are still clearly discernable.

Issued originally in 1960 at the University of Illinois as a doctoral dissertation comprising some 332 pages, this work has been effectively abridged to about one-third its original length. Although produced inexpensively from typewritten copy, the volume is attractively printed and is free from typographical errors. The author's style is brisk, his words are well chosen, and, though a predilection for library history is probably requisite to the choice of this book for Sunday afternoon reading, it deserves the attention of every responsible cataloger and library administrator. Its ninety-nine pages of text provide the over-all view of the evolution of the dictionary catalog that is essential not only to understand why cataloging is done as it is today, but also as a basis for considering alternatives to current practice. Noting the misplaced enthusiasm that greeted such an impractical innovation as the "Rudolph indexer" in the early 1890's should give one pause before waxing eloquent over a modern counterpart.

The treatment is in part chronological and in part topical, with a brief initial section on the European cataloging heritage with which our colonial librarians began. The formulation of cataloging rules, the framing of subject headings, the evolvement of corporate entry, and the long debate over the very purpose of a catalog are all treated with remarkable clarity. Although not purporting to trace the development of the card catalog, Dr. Ranz has, nevertheless, provided the essential historical data on its origin. The natural progression from the preparation of copy for a printed catalog on slips or cards, to the use of these same slips or cards as entries in a catalog arranged in drawers, first for the exclusive use of librarians, then for the public, is related simply and convincingly.

During the course of his study, Dr. Ranz examined some one thousand library catalogs published by American libraries. "The great majority of them," he reports, "were rather poorly done, exhibited few innovations in cataloging techniques, and were frank imitations of the leading library catalogs of the day." Of these one thousand, Ranz describes 179 "which, collectively, embody most of the significant developments in printed book catalogs prior to the end of the nineteenth century." This list, filling some fifteen pages, should prove a valuable source to future students of cataloging history. There is also a bibliography of the books and periodical articles that the author found "most useful."-Russell E. Bidlack, University of Michigan.

The Myth of the Britannica. By Harvey Einbinder. New York: Grove Press, 1964. 390p.

Harvey Einbinder, a consulting physicist, appears to be a disillusioned young man. Until a few years ago he had assumed, as had most people, that whatever he read in the *Encyclopaedia Britannica* was accurate and reasonably up-to-date. Then one day he discovered that the article on Galileo in the 1958 edition of the set still retained the legend of the Leaning Tower, disproved by Cooper more than twenty years before.

A check of other articles revealed additional errors, and he eventually amassed a record of inconsistencies and inaccuracies which he described in articles which appeared in *Encounter* and in the *Columbia University Forum* in 1960-61. Reactions to his articles encouraged—or incited—him to continue his study of the encyclopedia, the results of which have now been published in *The Myth of the Britannica*.

What does Dr. Einbinder expect of a general encyclopedia and the *Encyclopaedia Britannica* in particular? His thesis is that an encyclopedia should "provide a distillation of modern learning in a form that can be absorbed by educated readers." Modern, as opposed to outmoded, learning embraces all knowledge in all areas and must be presented so that students can find an introduction to any topic in any field, and supplementary information which would lead them beyond their textbooks.

Scholars are expected to incorporate in their articles the latest findings of research and to interpret these findings in the light of relevant principles and insights. In like manner, accounts of the lives of historical persons must reflect contemporary scholarship. Accurate presentation of the facts of their lives and activities, without bias or prudery, should be the criterion if readers are to understand the nature of the man and his place in the culture of his day.

While the encyclopedia is a reference book of facts and information, the literary style of its articles should be both vivid and stimulating, free from the jargon which is understood only by the specialist and from the pedantic tone of a dull textbook. Essays on classics of literature should treat them emotionally as well as intellectually, incorporating quotations from the work when necessary to capture the spirit of the writing.

Finally, the Encyclopaedia Britannica and every encyclopedia is expected to contain up-to-date information with the highest degree of accuracy and with reasonably current bibliographies. These, then, are some of the criteria against which Einbinder measured the Encyclopaedia Britannica.

Using the 1958 edition for his intensive study, Einbinder presents in a most entertaining style his evidence against the infallibility of the "great EB." He found many articles reprinted in their entirety from the ninth edition (1875-89), the tenth (1902-03), and eleventh (1910-11). (In an appendix he lists 666 such articles still appearing in the 1963 edition.) Examples of poor revision of articles and promiscuous deletions to fit a given space are recorded, and they highlight his criticism of the editorial policies of the encyclopedia.

Failure to keep articles current is documented by such citations as one to the article on Feathers which states that the principal use is in making quill pens, or the entry on the camel which still keeps to the old belief that water is stored in their humps. Franklin Roosevelt's biography stops with his first term in the presidential office; and there is no recognition of the new phylum established in 1955, Pogonophora.

The author believes that too many biographical sketches were written with the intent of making the men appear as respectable members of society. His illustrations include the omission of any details of the sexual deviations of numerous writers and artists and the eulogistic treatment of people like Edward VII, General U. S. Grant, and Theodore Roosevelt. There is the absence of any treatment of some men important in their times, such as Joseph McCarthy, André Malraux, and Jacques Maritain.

These and hundreds of other examples contribute to Einbinder's conclusion that the "Britannica is not an adequate synthesis of current knowledge," but rather "an enormous hodge-podge of thirty-eight million words," which, in Dr. Einbinder's opinion, "cannot be accepted as the reference standard of the English-speaking world by anyone who is seriously concerned with intellectual values." (p. 303.)

Three chapters on the commercial aspects of the *Encyclopaedia Britannica* deserve close attention, for it may well be true that commercialism and intellectual stature are incompatible and that as commercialism increases scholarly attainments decrease. It seems unrealistic to have salesmen earning \$20,000 a year and sales managers up to \$70,000, while the scholar continues to be paid at the 1929 rate of two cents per word. An additional commercial pressure on the scholar is the necessity of squeezing a "grow-

ing mass of information into a limited space." Only three million more words are used in the Britannica today than in 1929, an amazing fact when one realizes that, in the sciences alone, more research has been done since 1950 than in all the years before.

What is the answer? To Einbinder it is the establishment of a new major encyclopedia. Whether this is possible or practical, the author and all users of the *Encyclopaedia Britannica* hope that the editors will take effective measures to improve this reference work.—Margaret Knox Goggin, University of Florida.

Information Storage and Retrieval: Tools, Elements, Theories. By Joseph Becker and Robert M. Hayes. New York: Wiley, c1963. xi, 448p. \$11.95. (63-12279).

Messrs. Becker and Hayes have written the most useful book in English on the subject of information storage and retrieval (ISR). The text is carefully organized, the various ISR methods are clearly and accurately described, and the selected illustrations contribute to a better understanding of equipment and principles.

The authors are particularly well qualified by training, experience, and interest to write this book, for in combination they have had formal education in engineering, mathematics, and library science; practical experience in libraries and large information centers; and teaching experience in the field covered by this book. The footnotes and the list of journals containing material on ISR attest the authors' thorough study of the literature.

The book is refreshingly free of descriptions of methods for which exaggerated claims have been made but which have rarely proved to be as successful in practice as they were claimed in print.

Becker and Hayes point out the interdisciplinary character of their subject and warn that while their book is intended for the newcomer, the newcomer should not be a beginner to the field. Thus the nonlibrarian will find Chapter 2 a succinct history of librarianship and a useful account of the accomplishments of librarians in creating and working with records about information.

The librarian will learn in Chapter 3 why subject specialists have felt themselves forced, by deficiencies of librarianship, to develop more satisfactory control over information. Here coordinate indexing, mechanized coding, formalized abstracting, and facet analysis (in classification) are contrasted to library procedures (selection, circulation, reference), controls (classification schedules, subject heading authority lists), and products (the dictionary card catalog) as described in Chapter 2.

Chapter 4 describes the information framework and the user, including a handy block diagram so that specialized equipment and methods can be evaluated against the needs of a total system. The authors particularly stress the fact that no total system has been attempted yet, using either a single general purpose machine or a complex of equipment.

Various printing methods are described, perhaps too fully, in Chapter 5, but they lead into a useful description of machine language and the many coding methods used in this kind of writing and reading. This description clearly shows the difficulties which exist in the effort to make satisfactory automatic character readers serve as input devices.

Chapter 6 deals with analysis, logical processing, and the computer. The authors describe the structure of the general purpose digital computer, various binary coding methods used to represent numbers and letters, the commands used to instruct computers in their operations, the process of programing computers, and the use of programing subroutines, editing routines, and compilers. There is a logical flow chart to show how a problem is treated, but unfortunately the problem is expressed mathematically. The chart could have been prepared differently and more usefully for readers of this book; it would show the computer output as information or references. rather than as data enabling a computer to continue a later run.

This chapter also includes a treatment of computerized information-searching experiments, indexing and abstracting experiments (both manual and automatic), language data processing, automatic file organization (and reorganization), and special purpose selec-