on page 47. The important part of the Yale catalog is the "Additions to Stillwell." In this part, the descriptions are more satisfactory and fuller than in the Goodhart catalog; they include size, a good selection of bibliographical references and occasionally important notes on the contents, incipits, explicits, and in some few cases on collation and type. For this part the editors compiled a GW, Hain and Proctor concordance. Neither catalog contains the "luxury" of a name-index of editors, translators, and compilers (not appearing as entries), or indices of places of printing or names of printers.

Both these catalogs, different as they are, are adequate for the specialist in incunabula. The introduction and pleasant presentation of the Goodhart volume will attract others, but they in turn will be severely handicapped by the paucity of information; neither catalog takes the trouble of even giving full citations of their bibliographical references. The Yale catalog was obviously planned as a tool; this task it performs well, but without charm or imagination. Both catalogs will be useful in spite of their limitations.—*Rudolf Hirsch, University of Pennsylvania Library*.

Commentary on Prussian Instructions

Kommentar zu den Instruktionen für die alphabetischen Kataloge der Preussischen Bibliotheken. By Hermann Fuchs. Wiesbaden: Otto Harrassowitz, 1955. 302 p.

This commentary on the Prussian Instructions is of special interest not only because of the prominence of the author, an acknowledged authority in the field who for many years directed the German Union Catalog, but also because of its appearance at a time when a revision of the instructions is already in progress. Like its predecessors, Luise Bernhardi's "Manual" and Dale Sass' "Explanations," which appeared respectively in 1923 and 1927, this "Commentary" is designed to help the German cataloger in his difficulties with the Prussian Instructions, which were adopted contemporaneously with the Anglo-American rules in 1908 but have since remained immune to change.

The need of these interpretive aids has sometimes been cited as evidence of the continued obsolescence of the Prussian Instructions and of a need of their thorough revision. This need is now generally recognized, and a partial draft of a new code has been prepared and vigorously discussed by German librarians at their conference in Bremen in 1954. In view of this situation, the timeliness of Dr. Fuchs' commentary may appear questionable. The author takes cognizance of the fact, but expresses the belief that the Prussian Instructions will continue to govern German cataloging for some time to come and that, in any event, the prospective revisions are likely to change fundamentally only the rules for anonymous works and works of corporate authors, which occupy the lesser part of his book. Actually, the publication of the commentary at this time may be regarded as quite apropos. For, in debating the pros and cons of the proposed revision at the Bremen conference, Dr. Fuchs recognized the compelling reasons for a revision, but felt that the enormous difficulties entailed in reconstruction of the catalogs based on the Prussian Instructions warranted another effort to try to make the instructions work (*cf.* "Für und wider die Preussischen Instruktionen," *Zeitschrift für Bibliothekswesen und Bibliographie*, v.1, p. 173-85). The commentary may thus be regarded, even if not so intended, as an illustration of the result of such an effort and as a demonstration of a possible alternative to revision. Furthermore, the work is really more than a commentary on the Prussian Instructions; it is an elaborate and reasoned exposition of an important cataloging system by one of its most competent exponents, and as such the commentary will be valuable not only to those who practice the system, but also to those who would revise and improve it as well as to all others engaged in a re-evaluation of their own cataloging systems.

Although seemingly self-sufficient, the commentary does not dispense with the Prussian Instructions. To use it, the cataloger is required to have a thorough knowledge of the instructions. He can then turn to the commentary to find how the instructions are to be interpreted and applied, how

to deal with cases not provided for in the instructions, and, occasionally, even how and when he might deviate from them.

Thus, for example, he will learn from the instructions that additions in the transcription of a title are to be enclosed in curves when supplied from the book itself or in brackets when supplied from other sources, and that in transcribing the author statement the author's name is to be completed. Turning to the commentary he will find that the author's name may consequently have to be transcribed in a form such as *von A(lb[ert]) Bitzius*, and also the suggestion that this sort of pedantry might advantageously be dispensed with, as it is in the examples given in the commentary itself. The course recommended by Dr. Fuchs is, in this case, similar to that adopted in our own revision of the descriptive cataloging rules—to repeat the author's name after the title only when it differs in form, not in completeness, from that used in the heading. On the other hand, in pagination he indicates such a form as *VIIS., S.9-105*—a form not specifically prescribed in the instructions and one discarded in our own revision of the descriptive cataloging rules as another pedantry.

The question of when and how references (used to serve also the function of added entries) should be made, which in the Prussian Instructions occupies two rules covering a little more than two pages, assumes in the commentary the character and proportion of a major aspect of the cataloging code, extending over sixty-five pages; and some of the examples cited would puzzle an American cataloger, such as the entry of an authorless list of an artist's works entitled "Daniel Wohlgemuth. Gemälde, Graphic . . ." under *Wohlgemuth Daniel* construed as the title heading with a reference from *Wohlgemuth, Daniel* as the name of the artist. What is surprising as well as interesting, however, is to find the grafting by Dr. Fuchs of a principle of corporate entry into a cataloging system which denies the concept of such an entry. In dealing with the problem of appositions, Dr. Fuchs introduces the distinction between "individual names" and "generic names" of institutions, etc., and prescribes the entry of the latter under the name of the place. Thus *Akademischer Verlag München* is entered in the commentary under *München* while in the Prussian Instructions it is entered under *Verlag*.

The commentary occupies several times the space occupied by the Prussian Instructions, but four-fifths of the text are devoted to the design of the main entry and to the various types of references required under the system. Only one-fifth of the book is devoted to the structure of the headings for works without personal authors and to the arrangement of the entries in the catalog, the two problems which occupy three-quarters of the text of the instructions and which present the most serious difficulties. The perplexed cataloger turning to the commentary for light on these problems will find there a confirmation that they are indeed difficult, that these matters require from the cataloger a capacity for independent decision, that the realities of the situation are too varied to be encompassed in hard and fast rules, and that some of the criteria which he is required to follow are hard to define sufficiently—such as the order in the heading of an attribute and noun when they combine to express an "individual concept."

It is still difficult to digest the rules for "Komposita" and to comprehend why *United States* should so appear in the heading but *Vereinigte Staaten* or *United Nations* should be inverted, why *Interim Report* should so be entered but *Joint Report* should be entered as *Report Joint*, why the *American Labor Yearbook* should so be cited in the heading but the *American Engineer Weekly* should be transformed into *Engineer-Weekly American*. If there is any difference of concept or grammatical structure, it would seem to be very elusive.

The basic criticism of the Prussian Instructions, which gave rise to the demand for their revision, is that they were designed by grammarians for grammarians and that, whatever their merit may once have been, the principle of grammatical structure which underlies their method of catalog entry is not suited to present-day catalogers, present-day readers, and even present-day books. Dr. Fuchs' commentary does not alter this fundamental fact, but it is doubtful that the German libraries can remain forever wedded and faithful to an extravagant principle

which is bound to aggravate continuously their catalogers and readers and to hinder them in their operations and services. But if Dr. Fuchs' commentary is not to stop the course of the revision in progress, it will contribute to a sound revision. For aside from interpreting the instructions, Dr. Fuchs discusses throughout the commentary many cataloging issues which every code must consider and resolve, and these discussions will benefit all who are interested in the problem of cataloging generally and particularly all who are engaged in the preparation or revision of cataloging codes.

In his chapter on cataloging in Milkau's *Handbuch der Bibliothekswissenschaft* (1933) Rudolf Kaiser deprecates the thought that a catalog once well made can forever be continued, and says that "here, too, the saying is valid: every time has its catalogs." This is a time of widespread re-examination of cataloging thoughts and methods, and in Germany as in other countries the time for a new catalog seems to have arrived.—*Seymour Lubetzky, Library of Congress.*

Machine Literature Searching

Machine Literature Searching. By James W. Perry, Allen Kent, and Madeline M. Berry. New York: Interscience Publishers, 1956. 162p. $3.75.

This volume reprints ten essays that originally appeared in *American Documentation* during the last two years and adds five new chapters.

The first chapter deals with the general background material and outlines machines searching requirements; the second covers the intellectual problems involved in preparing material for machine searching and the types of indexing; the third, the conversion of indexes to make them more suitable for machines handling; the fourth, the methods used by the authors in collecting terms; the fifth, the method developed by the authors for attempting to systematize terminology for code development so that the specific terms will all be joined with generic broader terms; the sixth, the method for constructing a code to increase the effectiveness of machine searching; the seventh, the need for determining uses to be made of the information

so that the level of headings can be made suitable; the eighth, definition of the operational criteria for determining whether a retrieval system is efficient and evaluation of the retrieval system; the ninth, the operational characteristics of searching machines including such characteristics as ability to identify one or more patterns, interpretation of certain patterns denoting the beginning and end of an organized sequence, ability to handle generic relationships as well as specifics, detection of logical relationships between criteria, etc.; the tenth and final essay in the reprinted group is a discussion of the factors underlying development of machine language.

Chapters 11-15 (pages 72-134) are the new materials in the book. Chapter 11 discusses the purpose of machine language, analytical and synthetical relations, machine language and machine capabilities, relationship of machine language to codes, methods of showing relationships by codes, etc. Chapter 12 covers the problem of coding of diagrams, of geographic areas, and of chemical structural formulas. Chapter 13 handles the encoding of abstracts by reducing redundancy of words so that they may be searched directly by machines. Chapter 14 deals with searching strategy and association-trails.

The final chapter, entitled "A Look Into the Future," is quite general and concludes that there are "a number of theoretical and practical problems [that] will require careful investigation. Even when utmost care is devoted to perfecting information processing methods, major investments of effort and money will be required to process research and professional publications so that they may be used most effectively. Such investment is apparently justified particularly in the field of science and technology."

The basic assumption that underlies this series of studies is that we have machines capable of doing literature searches. The authors state: "Modern automatic equipment is able to scan and recognize index entries . . . Scanning can be directed to one or simultaneously, several entries. Speeds of operation are such as to permit scanning and correlating of generic and specific aspects of indexes in reasonable time" (page 1). As a matter of fact there are no machines in production that will do even a fraction of what