PRINCIPLES OF BOOK CLASSIFICATION.

BY E. WYNDHAM HULME.

Introduction.

All classification is a means to an end. The objects of a classification must be defined before its construction can be attempted, and conversely the principles of construction must be selected with direct reference to the objects which the classification is intended to subserve. Before "we begin to build we must first survey the plot," i.e. we must have the whole plan of the building clearly set before us.

What then are the objects of a book classification? What its principles of construction? To these questions we can find no adequate or consistent answer in the literature of the subject.

The only treatise dealing with the theory of book classification is the well-known manual of Dr. E. C. Richardson, with whom we regret to find ourselves in serious disagreement. This writer starts from the assumption that book classification is merely an adaptation of the theoretical order of the sciences—the difference between the two systems being adjustments in the latter necessitated by the concrete or indivisible structure of books. And his conclusion is that "the closer a classification can get to the true order of the sciences and the closer it can keep to it, the better the system will be and the longer it will last" (p. 69).

To this theory there are two objections:

(A) It attaches to co-ordination (i.e. to the order of the classes) an importance incompatible with the type of classification to which book classification belongs. All classifications may be divided into two groups, (a) mechanical, (b) philosophical. The former, to which book classification belongs,
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deal with the mechanical assembling of material objects into classes, while the latter are concerned with the ordering of our ideas of things. As a rule mechanical classifications are left unco-ordinated: but when, as in the case of book classification, a systematic co-ordination of classes is introduced, this operation must always be of secondary importance.

If, therefore, we were in agreement with Dr. Richardson, that the co-ordination of book classifications should follow the true order of the sciences, we should still be unable to acquiesce in his dictum that the test of the efficiency and permanent value of such classifications was to be found in the degree in which the order of their classes approximated to those of the higher type.

(B) If the sequence of classes in book classification is to be determined mainly by that of the true order of the sciences, it must be for the reason that the functions of the two orders are identical, or at any rate, closely allied; for we have started from the axiom that function and order are intimately connected. But this is a proposition which no one attempts to defend. Philosophical classification aims at teaching the essential relations between classes of things: while book classification, according to Dr. Richardson, is "the having the most-used books together (i.e. the books most used together) in the classes in which they are used together" (p. 55). The functions of the two orders, therefore, are essentially distinct, and this being so there will be a strong prima facie case for believing that the orders of the two systems will also be divergent.

Our position, therefore, may be stated as follows: hitherto the definition of book classification has not been accurately formulated. The confusion of its type with that of philosophical classification has not only obscured its real nature but has materially hindered the formation of sound canons of construction and criticism. Hence systems abound, while as yet no sound theory of construction has been formulated. Until this has been done no consistent teaching of the subject is possible and the advent of any scheme of universal classification indefinitely deferred.

Holding these views we now beg leave to introduce a brief
outline of the theory of book classification with the following definition: viz. that book classification is a mechanical time-saving operation for the discovery of knowledge in literature. Books are our theme, and the discovery of knowledge in books by the shortest route our aim and object.

Chapter I.—The Principles of Classification.

All classification is the assembling of things, or our ideas of things, by reason of their common characteristics, resemblances, or attributes; i.e. by selected features distinctive of the units severally and therefore common to the class collectively. Thus the test of membership of a class is the possession of the attribute or attributes common to the class.

The simplest form of classification is that which has for its object the bringing together of like material in bulk with a view to the economy of its subsequent distribution and consumption. This is effected industrially by various mechanical sorting, sifting, separating, or concentrating processes familiar to us all. In these industrial processes classification results from the redistribution of particles of the original heterogeneous material into groups of standard composition, size, or weight.

Distinct in method but related in type to these industrial processes are the filing methods common to the business or record side of Administration or Commerce. These are systems of arranging documents with a view to the economy of their storage, location, and examination. They may be described as administrative index systems. Their efficiency depends upon the bringing together of all related matters into a common file. As a general rule the files are arranged in a numerical or other purely artificial order, the object of which is to facilitate reference to the files. But in certain cases—such as that of library classification—it is desirable to assert some definite relationship between the files or classes of matters, and in such cases the system becomes a co-ordinated index system. In library administration the above types are both represented—the unco-ordinated in the alphabetical subject catalogue, the co-ordinated in the class catalogue. The superiority of the latter system consists solely
in this—that it admits of a partial reproduction on the shelves
of the order of the books as set forth in the class catalogue.
But apart from this efficiency the two systems are substan-
tially identical, and their mechanism interchangeable. The
alphabetical catalogue presents its classes in index order and
secures thereby the advantage of immediate reference. The
class catalogue sacrifices this advantage, but asserts a rela-
tionship between classes by presenting them in class order.
But whatever efficiency is secured by the plotting of the rela-
tionship between classes can be equally well asserted verbally
by means of references. Hence the rules for the construction
of the alphabetical and class catalogue are logically one and
the same. Both systems are concerned in classifying the
same material by the same attributes for the same purpose.
The difference between the two is merely formal, and rests in
the method of presenting the results for public use. With
this preface we may pass to an examination in detail of the
methods of book classification.

Books may be classified in two ways—directly on the
shelves; indirectly by their titles in the class catalogue.
Although the two systems differ in extent, they are the same
in kind, and our remarks here may be read as applying to
either system indifferently.

Book classification consists essentially of four operations.
1. Definition, or the formulation of class headings.
2. Registration, i.e. the mechanical assembling of books
in classes in accordance with their definition.
3. Co-ordination, i.e. the tabulation of these headings in
an order indicative of some common relationship.
4. Notation, i.e. a shorthand symbolization of the classes,
locating their relative position in the system without the
recital of the class headings.

Definition provides a standard of comparison by which
books are examined, and accepted or rejected as members of
the class in process of formation. Definition may be com-
pared to Statute Law and Registration to the executive acts
which make the Statute operative. The result of these two
operations applied to a collection of books is its simple index
classification, the effect of which is to impart to a collection
an efficiency which it did not before possess. For research which was hitherto possible only by the examination of each work separately on the shelves is now limited to the examination of one or more classes of books. The economy is purely one of time. It may be summarized as the shortening of distances to be travelled—a reduction of eye strain—of consequent mental fatigue as well as of the physical labour of locomotion.

To what condition, if any, is this efficiency subject?

Obviously, unless the attributes by which a collection is classified correspond with those of which the reader is in search, no increase of efficiency results. The arrangement, for instance, of incunabula under the towns in which they were published is of no assistance to searchers in quest of incunabula on a given subject, and an alphabetical arrangement by authors would be equally inefficient; for in either case the entire list must be examined before the object of the inquiry is attained.

And, secondly, assuming that the attributes upon which a classification is based correspond in substance with those of which a reader is in search, it is clear that the degree of efficiency obtained under a given classification is conditioned by the principles on which the classification has been constructed. We have, therefore, to ask ourselves:—

(a) By what attributes should books be classified?

(b) On what principle is the definition of class headings to be determined?

Both these questions are of considerable importance and require careful and separate examination.

(To be continued.)
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Chapter II.—Principles of Division in Book Classification.

THEORETICALLY the choice of attributes by which books can be classified is unlimited; for the possession of any attribute, however trifling, may be made a principle of division (principium divisionis) by the simple process of dividing all books into two classes, (a) possessing, (b) wanting the particular attribute. In practice, however, this unlimited power of selection is possessed only by the bibliographer; while the library classifier is restricted in practice to a few essential attributes of books. The relationship between the two arts, however, is so close that we propose to devote a chapter to its elucidation. This can best be shown by a systematic classification of the principles of division employed in book classification, distinguishing those which are peculiar to bibliography from those common to bibliography and library classification.

Some valuable pioneer work has been done in this direction by Prof. Ferguson in his "Some Aspects of Bibliography" (Edinburgh, 1900). In this work Prof. Ferguson groups under 16 headings the leading principles of division employed by bibliographers in the construction of their class bibliographies. They are: (1) date; (2) place; (3) printer; (4) material; (5) type; (6) size; (7) illustration; (8) language; (9) subject; (10) group of authors; (11) individual authors; (12) single books; (13) anonymous books; (14) suppressed books; (15) rare books; (16) general bibliographies. Each of these classes is illustrated by descriptions of recent examples of bibliographies compiled on the above principles.
To the student who has mastered the contents of the above essay, and who has further familiarized himself with the construction and use of the principal bibliographies in common use, we now submit the following systematic classification of the principles of book classification.

We begin by dividing book attributes into two primary classes:

A. Accidental attributes, acquired by books subsequent to their issue.

B. Inseparable attributes, i.e. attributes inherent in books prior to such issue.

Attributes in class A will necessarily be founded upon circumstances arising out of the life-history of books, and these we shall further divide into attributes:

A (r) common to an edition or portion of an edition.

A (e) peculiar to single copies of works.

A (r) will comprise the history of editions or portions of editions, and will include events arising out of the relation of an edition to its environment, e.g. (r) The State or other authority (Ferguson 14); (2) Natural forces, e.g. destruction by fire, etc.; (3) Variation in the relation of supply and demand—e.g. rarity—market value, etc. (Ferguson 15), e.g. book auctioneers, booksellers' catalogues, and other registers of book-prices.

A (e), though numerically a much stronger class, is not represented in Ferguson's list. Broadly it comprises the entire history of book tradition, or the successive ownership of books, including the modifications undergone by books during such ownership.

To this class therefore belong (a) all administrative catalogues and registers of libraries, public and private; (b) attributes founded on modifications effected in books by their owners, e.g. extra annotation (books annotated by Coleridge); extra illustration (county histories, etc.); inlaying to larger size; methods of attachment in libraries (e.g. chained books); style of rebinding (e.g. books bound by Roger Payne).

To this classification the student may demur that many catalogues included in A (e) are accepted in practice as standard works of reference in national, literary, or subject bib-
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This of course is the case. Nevertheless, all proprietary catalogues primarily assert, and are consequently subject to this ownership limitation. A class list or class bibliography may be approximately complete in respect of a given class of literature—the corresponding library publication never can be so. The librarian may know of the past existence of books recorded, but not transmitted to his time—of unique copies preserved elsewhere—of long lists of desiderata which he hopes to acquire; but none of these can be recorded in his class list or class bibliography without materially altering its scope and definition.

We now pass to class B which comprises attributes inherent in books at their date of issue. This class will be again divided into:

(1) Physical.

(2) Non-physical attributes.

B (1) will consist of attributes derived from the mechanical constitution and make-up of books (Ferguson, Class 2-7). The facts forming the basis of this class are the foundation of the science of mechanico-historical bibliography, or the natural history of books—a science which classifies literature by the mechanical characteristics of its typography and execution in so far as these throw light upon its common origin or provenance. This science therefore covers the history of the genesis and distribution of printing and the general plotting of the output of the printing press according to date, printer-publisher, and place of origin. These characteristics are for the most part peculiar to this branch of systematic bibliography. In the purely utilitarian schemes of library classification, the physical characteristics of books are admitted as principles of division only in the case of MSS. which are often treated as a separate collection, and of size characteristics which necessarily determine the primary division of every shelf classification.

We may therefore pass to our final class B (2), viz. the inseparable and non-physical attributes of books. These are common both to the bibliographer and library classifier. Being somewhat numerous it will be convenient in place of a simple enumeration to group the principal attributes accord-
As a discussion of the different principles of book classification and arrangement cannot be adequately dealt with within the limits of our space, we shall confine ourselves to a few general remarks on the above scheme, which merely represents the order in which various principles are customarily applied in general book classification schemes. It will be seen that certain principles of division appear at several stages of the act of classification.

Exact classification (i.e. classification carried out to its fullest extent) employs various combinations of the above principles, the particular combination varying with the class of literature dealt with and the function which the classification is intended to subserve.

For the primary requirements of library service it will be seen two distinct classifications are needed:

A. An arrangement of works by marks which will best conduce to their ready identification, i.e. by their authors or titles.

B. A classification based upon the most important intrinsic characteristics of books, viz. their topic or literary form.

A. The primary function of the author and title catalogue is that of a finding list. It may be described as a hybrid index classification based upon the alternative of entering...
works under the names of their authors, if ascertainable (or disclosed), or under some portion of their titles if not thus ascertainable. Its secondary function is the assertion of authorship. Both functions are adequately secured by codes of catalogue rules, though the codes vary considerably according to the relative importance attached to the two functions. Cataloguing practice, however, concerns us here only in so far as it indicates the extent to which the function of the topical class catalogue is satisfied or has been usurped by the author and title catalogue. At first sight it would appear impossible that the two should conflict. The line of division between authorship or title, and topic or literary form is so clear that confusion of function seems out of the question. So far from this being the case, it is generally admitted that the author and title catalogue is an efficient class catalogue in respect of certain classes of literature, and that here will this class of literature be studied by preference by the students to whom it appeals. Now let us see how this has come about.

The tendency of modern cataloguing practice has been to break up the old class or form headings (academies, almanacs, anonymous works, catalogues, dictionaries, etc.), and to substitute direct entry under authorship or title headings. At the same time a practice has grown up of supplementing and completing the literature of headings and entries by the formation of special class appendices directly bearing upon their subject matter. Thus under Homer we find not only editions, translations, and commentaries of the poems, but appendices dealing with their lexicography, archaeology, geography, and authorship. Under Shakespeare, appendices on the life, characteristics, and celebrations of the poet; under Bible and Liturgies a conspectus of the entire literature of biblical and liturgical study. The rules regulating this duplication of entry and consequent formation of topical headings have been left intentionally vague and discretionary (cf. Library Association Record, Feb. 1906, where an extension of the practice is suggested). All that can be said of the practice is that classifications have crystallized around certain headings of individual or personal interest, leaving in solution the whole
of general subject-matter to be classified elsewhere. There is therefore no sharp line of demarcation between the general (author and title) and the general topical classification of a library. So far as the former possesses an efficient classification of individual subject-matter, the only additional efficiency obtained by transferring these headings and appendices to the general topical classification is that on the shelves these classes are brought into existence and co-ordinated in some convenient order. But for the purposes of research, inasmuch as these classes will be most conveniently studied in the author and title catalogue, the printing of these classes in the class catalogue will be uneconomical, and the two systems must be brought into line by direct reference from the class to the author and title catalogue.

(To be continued.)