## CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laura Catherine Colvin. <em>Ruth S. Leonard</em></td>
<td>389</td>
</tr>
<tr>
<td>In the Mail. <em>J. Mills</em></td>
<td>392</td>
</tr>
<tr>
<td>DC Number on LC Cards. <em>Verner W. Clapp</em></td>
<td>393</td>
</tr>
<tr>
<td>DC Numbers on LC Cards: A Supplement. <em>L. Quincy Mumford</em></td>
<td>405</td>
</tr>
<tr>
<td>Editorial Comment: Classification</td>
<td>413</td>
</tr>
<tr>
<td>In the Mail. <em>John P. Rash</em></td>
<td>414</td>
</tr>
<tr>
<td>Classification Schemes for the Arrangement of the Literature of Protestant Denominations. <em>Thomas P. Slavens</em></td>
<td>439</td>
</tr>
<tr>
<td>La Roche College Classification System for Phonorecords. <em>Sister Mary Alvin and Sister M. Michele, C. D. P.</em></td>
<td>443</td>
</tr>
<tr>
<td>Phonograph Record Classification at the United States Air Force Academy Library. <em>Helen J. Stiles</em></td>
<td>446</td>
</tr>
<tr>
<td>A Proposal for the Method of Adapting the Dewey Decimal Classification Scheme to Meet the Needs of India. <em>Meena Krishnaswami</em></td>
<td>449</td>
</tr>
<tr>
<td>Ranganathan's Classification Ideas: An Analytico-Synthetic Discussion. <em>Pauline Atherton</em></td>
<td>463</td>
</tr>
<tr>
<td>SYNTOL—A New System for the Organization of Information. <em>Susan Artandi</em></td>
<td>473</td>
</tr>
<tr>
<td>Citation and Subject Indexing in Science. <em>Geraldine M. Matthews and James van Luik</em></td>
<td>478</td>
</tr>
<tr>
<td>Reclassification: A Bibliography. <em>Howard F. McGaw</em></td>
<td>483</td>
</tr>
<tr>
<td>Implications of the <em>National Register of Microform Masters</em> as Part of a National Preservation Program. <em>Edmond L. Applebaum</em></td>
<td>489</td>
</tr>
<tr>
<td>Regional Groups</td>
<td>497</td>
</tr>
<tr>
<td>Reviews</td>
<td>499</td>
</tr>
<tr>
<td>Index</td>
<td>503</td>
</tr>
</tbody>
</table>
EDITORIAL BOARD

Editor, and Chairman of the Editorial Board ............... ESTHER J. PIERCY

Assistant Editors:
RICHARD M. DOUGHERTY ........ for Acquisitions Section
PAUL S. DUNKIN
for Cataloging and Classification Section
WILLIAM H. HUFF ............... for Serials Section
ALLEN B. VEAVER ............... for Copying Methods Section

Editorial Advisers:
Maurice F. Tauber (for Technical Services)
Doris Ransom (for Regional Groups)

Managing Editor: ....................... DORALYN J. HICKEY

Business Assistant:
David Turiel (for Advertising)

Circulation Manager: .................... MRS. ELIZABETH RODELL

Library Resources & Technical Services, the quarterly official publication of the Resources and Technical Services Division of the American Library Association is published at 2901 Byrdhill Road, Richmond, Va. 23205. Editorial Office: Processing Division, Enoch Pratt Free Library, 400 Cathedral St., Baltimore, Md. 21201. Circulation and Business Office: 50 E. Huron St., Chicago, Ill. 60611. Subscription Price: to members of the ALA Resources and Technical Services Division paying ALA dues of $6.00 or more, $2.00 per year, included in the membership dues; to members paying less than $6.00, and to nonmembers, $5.00 per year, single copies $1.25, orders of five or more copies (same issue or assorted), $1.00 each.

"Second-class postage paid at Richmond, Va., and at additional mailing offices."

LRTS is indexed in Library Literature and in Library Science Abstracts. Its reviews are included in the Book Review Digest.

Editors: Material published in LRTS is not copyrighted. When reprinting the courtesy of citation to the original publication is requested. Publication in LRTS does not imply official endorsement by the Resources and Technical Services Division nor by ALA, and the assumption of editorial responsibility is not to be construed necessarily as endorsement of the opinions expressed by individual contributors.
Laura Catherine Colvin

RUTH S. LEONARD
Associate Professor
School of Library Science
Simmons College, Boston

Laura Catherine Colvin

Laura C. Colvin's distinguished career as cataloging librarian and cataloging teacher began as assistant to Earl Gregg Swem, the notable bibliographer and Librarian of the College of William and Mary. Laura—Phi Beta Kappa graduate of William and Mary, with honors in history—was well qualified to gain valuable experience under the guidance of Dr. Swem while assisting him in editing and indexing the William and Mary College Quarterly Historical Magazine.

Dr. Swem's encouragement led Laura to go North in 1933/34 to the University of Michigan for her professional education in librarianship. Here she came in contact with such giants in the library profession as William Warner Bishop, Eunice Wead, and particularly Margaret Mann. Laura Colvin's intellectual prowess, analytical mind, and pioneering spirit responded to Margaret Mann's teaching. Later, in 1937/38, she returned as a Carnegie Fellow to the University of Michigan for her sixth-year master's degree.

Laura Colvin's first cataloging position was at Swarthmore College.

Volume 9, Number 4, Fall 1965
Library, 1934/35, after which she became Assistant Librarian and Head Cataloger, Agnes Scott College Library, 1935-42. Concurrently, 1940-42, she was Editor of the Union Library Catalog of the Atlanta-Athens Area, Emory University. This union catalog—unique in plan and organization—continues to flourish. During the summer of 1939, at the University of Illinois Library School, Laura Colvin had her first taste of teaching. Preceding her appointment as Assistant Professor, School of Library Science, Simmons College, she returned in 1942/43 to the Swarthmore College Library as Acting Chief of the Cataloging Department.

Simmons College recognized Laura Colvin’s leadership qualities and her sound contributions to its teaching program, for she was promoted to the rank of Associate Professor in 1948, and to Professor in 1952. In the summer of 1951 she served as consultant in serial records to the Acquisitions Unit, United Nations Library. She has also taught in the summer schools of Columbia University and the University of California, Berkeley.

Laura Colvin carries on the high ideals of Margaret Mann, yet she is, in her own right, an original thinker and an enthusiastic teacher who stimulates students to meet the responsibilities of the sixties and the goals of the future. To the classroom—in introductory and advanced courses, and in seminars—she brings a scholarly, creative approach which permits the student to link the principles of bibliographic control and service with comparative practice. She brings also to the classroom her sense of humor and the warmth of her friendly, lively personality. Both students and graduates are among her many friends. Her reputation and influence as a teacher are nation-wide.

Acceptance of responsibility as member, chairman, or officer of a variety of committees and organizations on the local, state, regional, and national levels has always been a special characteristic of Laura Colvin’s professional life. A selection of her “extra-curricular” activities in the cataloging field follows: She has been chairman, Southeastern Regional Group of Catalogers, 1940-42; chairman, Council of Regional Groups, 1945-48; chairman, Boston Regional Group of Catalogers and Classifiers, 1947-48; and chairman, Margaret Mann Citation Committee, 1953-54. She was vice president, 1948/49, and president, 1949/50, of the Division of Cataloging and Classification. In any undertaking she is sound in judgment and thorough in performance. Organizational problems of the Division of Cataloging and Classification and of the Cataloging and Classification Section have had the benefit of her creative thought and her sense of integrity.

In 1954 Laura Colvin was appointed to the original ALA Catalog Code Revision Steering Committee to represent cataloging teachers. As assiduous and loyal committee member, she has continued to evaluate cataloging principles with the perspective of a teacher and with the long view toward the future. She has questioned or supported the various drafts of the proposed rules, both from theoretical and practical angles and from national and international standpoints, with characteristic discrimination and goodwill.

Library Resources & Technical Services
Her book, *Cataloging Sampler*, published in 1963, is a pioneering work in its concept and organization. Separate studies demonstrate cataloging control records, the elements of the dictionary card catalog, comparative practices for analyticals, series, serials, and nonbook materials, related works, and relationships in the card catalog. Additional special studies, such as the cataloging process at the Library of Congress, branch cataloging, the classified catalog, andrieflisting cataloging are also included. This volume is, indeed, a comprehensive picture of American cataloging practice of inestimable value as a reference source for students and catalogers.

Laura Colvin has the personal charm, warmth, and generous spirit of the Virginian who is attuned to appreciate the peculiar combination of openness and reserve, provincialisms and sophistication of the Bostonian. She is a cosmopolite who has lived and worked for at least brief periods in eight states, has spent two sabbatical leaves in England, and has travelled on the continent of Europe as well as in Canada, the western states of the United States, and Hawaii. Among her favorites are Hawaii and Nantucket, Williamsburg and London; Margery Allingham and C. S. Lewis, Louis Lyons and Eric Sevareid; the *New Yorker* and WGBH-FM; the Boston Symphony and the theater.

The award of the Margaret Mann Citation to Laura C. Colvin for her significant achievements as cataloger, author, leader, and teacher is highly appropriate, for Margaret Mann made her strongest contributions to the cataloging profession in these particular spheres. Friends and colleagues rejoice that this well-deserved highest honor has come to Laura Colvin.

**FRICK RECEIVES DEWEY MEDAL**

Bertha M. Frick, former associate professor and currently a teacher in summer sessions at Columbia, received the Melvil Dewey Medal for 1965 at the Detroit Conference.

The citation read in part: "In addition to her teaching, Miss Frick served as editor of three editions of *Sears List of Subject Headings*. . . . She also served on the Dewey Decimal Classification Editorial Policy Committee. . . . Her interest in medieval western manuscripts has led her to travel widely in preparation for her forthcoming book on manuscripts. . . ."
IN THE MAIL
CLASSIFICATION

In your Winter 1965 issue, the Report of your Classification Committee included remarks on the Bliss Classification which call for comment.

The BC is by no means confined to Australia (approaching 100 libraries, throughout the British Commonwealth, many of them academic, use it, e.g. the new University of Lancaster has recently adopted it). Admittedly, the maintenance service is less frequent than that of DC or LC; but the Bliss Classification Bulletin now appears annually and a programme of extensive additions in recently developed subjects is now under way (e.g. the last Bulletin contained a classification of Electronics which exceeds the provisions of DC or LC in this field). Specific requests for expansion of a particular class can be met. The comment on the "manuscript version" seems to be quite irrelevant to the problem of possible adoption.

I think the BC deserved more consideration than it received in the Report; it is a far more likely contender for adoption in academic libraries than the other five systems dismissed. The Report commends it as a "good logical system"; but in a situation where logic can give ten thousand different answers the criterion of helpfulness is more pertinent. The BC was a direct response to the inconsistencies and inadequacies of DC and LC and whilst it is by no means flawless, at the level of subject analysis demanded in most book classification it is decidedly superior to these two systems.

It is comprehensive; the Report seems to equate this with a degree of enumeration of ready-made class numbers, which is a fallacy. BC, like DC, has considerable synthesis and its detail can often exceed that of LC.

It is flexible; the Report seems to equate this with hospitality in notation. The BC notation is more ordinal than hierarchical and since it also uses the fraction principle, it is more flexible than either DC or LC. BC notation is generally briefer than DC or LC. It is also flexible in another way in which DC and LC offer practically nothing; i.e., it allows numerous alternative arrangements from which the librarian can choose. In at least one case a British college library chose BC in preference to LC by reason of its much greater adaptability in the Literature class.

Most academic libraries operate as self-service stores to some extent. The shelf arrangement of the stock is the first line (and a neglected one) in the important job of indexing, i.e., indicating subject resources. The better the arrangement the better the service, and BC has a strong claim to providing the best arrangement for a modern book collection.—J. Mills, Hon. Editor, Bliss Classification Bulletin, Aslib, London, England.

INSTITUTE ON INFORMATION RETRIEVAL

The Library School of the University of Minnesota is holding its second Institute on Information Retrieval, November 10-13, 1965. The Institute, conducted by the Center for Continuation Study under the direction of Wesley Simonton will focus on recent developments in indexing theories and search strategies, library mechanization of bibliographical records, and the relation of regional and specialized information services to national agencies and activities, with special reference to the bio-medical sciences.

Registration fee for the Institute will be $25.00. For further information concerning registration and program details, write to: Director, Center for Continuation Study, University of Minnesota, Minneapolis, Minnesota 55455.
THE RECENT REPORT of the Classification Committee* on the types of classification available to new academic libraries is calculated to alarm not only the academic but all users of the Decimal Classification (DC). The Committee found that the proportion of Library of Congress (LC) cards bearing DC numbers was low ("DC numbers appear on LC cards for about 35% of titles"); that even this proportion may decrease ("It is said that fewer DC numbers will appear on LC cards in the future"); and that DC is more expensive than LC because of the necessity of supplying class-marks not provided by the cards ("Obviously, the DC is more costly in this respect, and only the advantages derived from its use can counterbalance this cost").1

How did this situation develop?

Out of curiosity as to events insufficiently noted or comprehended at the time, the writer (for most of the period a member of the LC staff, for part of the time the chairman of the DC Editorial Policy Committee and currently a member of the board of Forest Press which publishes DC) has made the gathering of historical facts which follows.

The Catalogers' Baby

The demand for placing DC numbers on LC cards was coeval with the cards themselves. At the very ALA conference in Waukesha in 1901 at which Herbert Putnam announced the LC catalog card service, the Catalog Section by a vote of 70 to 0 favored putting DC and EC (Expansive Classification) numbers on printed catalog cards.2

Renewed from time to time during the next quarter of a century,3 the demand acquired a new urgency in the mid-twenties.

"100s of libraries weep and wail because DC numbers ar not on yur printed cards," wrote Melvil Dewey to Mr. Putnam in January 1925. "I know enuf of practical affairs to realize that it wud cost something to add them, but it wud be an immense help to the 100s of people who use DC."4

At the Seattle Conference of ALA in 1925 the librarian of the John Crerar Library (C. W. Andrews) brought to the meeting of the Catalog Section a resolution stating the opinion that the addition of DC numbers

---

* I. e., the Classification Committee of the Cataloging and Classification Section, Resources and Technical Services Division, American Library Association.

Volume 9, Number 4, Fall 1965
would greatly increase the usefulness of LC cards and asking that Council take steps accordingly. The resolution was adopted.\textsuperscript{5}

The following year, at the Atlantic City Conference, 1926, the Catalog Section again voted to request the Executive Board to make arrangements for printing DC numbers on LC cards, “it being definitely understood that the Library of Congress shall be put to no expense whatsoever in connection with the work, that it shall have no responsibility for the work done, but that it shall have such general supervision of the corps of workers as will ensure against their special work’s interfering with the ordinary work of the Library of Congress.”\textsuperscript{6}

Plans were laid accordingly, and it was fully “expected [by LC] that, beginning with January 1, 1927, arrangements would be made by which the decimal classification numbers, in addition to Library of Congress classification would be added to Library of Congress cards issued after that date.” Although this did not prove feasible within the period ending June 30, 1927, it was nevertheless at that time still expected to begin shortly.\textsuperscript{7}

During 1927, meanwhile, in preparation for the expected development, the DC editorial office was moved from Albany to Washington\textsuperscript{8} and given space at LC at the invitation of the latter, with the motive (in Mr. Dewey’s words) of “extending still further the [Library’s] already great services to the libraries of the country at large.”\textsuperscript{9}

On July 15, 1929, Carl Milam, secretary of ALA, addressed a circular letter to libraries, pointing out that the “matter of printing the decimal classification numbers on the Library of Congress cards has been under discussion for over 25 years,” and inviting subscriptions (at the rate of approximately 10 percent of each library’s payments to LC for catalog cards) to underwrite a project, approved by LC, for applying DC to the cards. It was proposed that the work would be performed at LC which would provide working space and desks but would assume no other expense or responsibility (however, in the event, ALA and LC made up a shortage, the latter by contributing clerical assistance); the money would be collected and the work directed by ALA.\textsuperscript{10}

\textit{The ALA Office for DC Numbers on LC Cards}

Mr. Milam’s appeal was successful. On April 1, 1930 David J. Haykin established at LC the ALA Office for DC numbers on LC cards with himself as the sole occupant.\textsuperscript{11} He had previously been chief cataloger at the New York State Library, and thereafter head of the cataloging department of the Queens Borough Public Library. He was later to become successively chief of LC’s Division of Documents, of its Cooperative Cataloging and Classification Service, and of its Subject Cataloging Division; its Specialist in Classification and Subject Headings, the Editor of DC, and recipient of the Margaret Mann Award for 1957.

In reporting the establishment of the Office, Charles Harris Hastings, chief of LC’s Card Division and a principal (possibly the principal) instigator of the project, records an anecdote which has been incorporated

\textsuperscript{3}94
into the hagiology of American librarianship. "I have attended," he re-called, "several conferences in regard to the application of decimal classification numbers to the Library of Congress cards at which Mr. Dewey was present. No matter how pessimistic the rest of us were as to the outcome when the conference started, before it was over we agreed with Mr. Dewey that the numbers must be printed on. At the last conference we were convinced as usual by his logic and wit. His closing words were to this effect: 'When I see the decimal classification numbers appearing on the Library of Congress cards I shall be ready for the nunc dimittis.'"12

After working single-handed for four months, Mr. Haykin was joined in August 1930 by Anna Lenschow and Alice Kenton.13 In January 1932, however, he was appointed to LC's Division of Documents, and in April 1932 his place was taken by Julia C. Pressey.14

The ALA Office, organized (in Mr. Hastings' phrase) "along correct lines" by Mr. Haykin, continued for three years and three months—to June 30, 1933. LC regarded the project as "an unqualified success."15 So far from any longer avoiding responsibility for the activity, LC now moved to take it over.

**The DC Section is Created**

In his budget estimates for the fiscal year beginning July 1, 1933, Mr. Putnam included an item for three new positions with which to establish a DC section.

At the hearings before a subcommittee of the Appropriations Committee at which this request was presented, Mr. Putnam first emphasized the "self-supporting" character of LC's catalog card distribution service. He then explained that the card distribution activity is a business "and the same principle as applies to some other businesses applies to this one. If your sales fall off you try to improve the quality of your goods."

Now it appears that the sale of catalog cards had been dropping off of late, but luckily an opportunity had presented itself for improving the quality of the goods. Mr. Putnam described it as follows:

Now for years past the users of the decimal system have appealed to us to put the decimal numbers, as well as our own, on the cards. . . . They were so earnest about it that for three years past they put up nearly $24,000 to try the experiment of inserting these decimal symbols. . . . Now, the three people we are asking for are three people, equivalent to the three that they have had on temporarily for that purpose, to enable us habitually to put on the decimal symbols, adding to the quality of the card, adding to the service the card renders, and ultimately, though I am not saying so to these other libraries, of course, enabling us to increase the price of the cards accordingly.16

Mr. Putnam's confidence in the committee was not misplaced. Funds for the three positions, at gross salaries of $7,800, were allowed;16 on June 30, 1933 the ALA Office ceased to exist; and the next day its staff became the DC Section of the Card Division.17

But, after all, its stay in the Card Division was limited to exactly one year! At the end of that time (July 1, 1934) it was relocated in the Co-
operative Cataloging and Classification Service; on July 1, 1940 it became the DC section of the Subject Cataloging Division; and on November 24, 1958 it was merged with the DC Editorial Office (which had at that time been operated by LC since January 1954 under contract with Forest Press) to become the Decimal Classification Office.

However, whether in or outside the Card Division, the Section was self-supporting. In 1951, for example, it was reported that "Strict accounting is kept of the cost of maintaining [the DC] Section and this cost is taken into consideration by the Card Division in the pricing of catalog cards for sale. Since money from such sales is returned to the Treasury, the Section is self-supporting." Also, the Library's absorption of the DC numbers activity fully justified Mr. Putnam's hope of recouping lost sales by improving "the quality of [the] goods." At the end of the first decade of the DC project LC reported that "the placing of [DC] classification numbers on Library of Congress catalog cards doubtless encouraged more libraries to subscribe to the cards." In spite of the Depression, card sales increased by more than a third (36%) during the period.

The Number and Coverage of Titles Classified by DC

Mr. Haykin, single-handed, commenced the assignment of DC numbers to LC cards on the first of April 1930; already by the second week in April cards with these numbers were beginning to appear! In his first three months he assigned numbers to 3,917 cards (this was at the rate of 15,668 per man-year—a significant work-load figure).

In September 1930 the staff of the project was increased (as we have seen) to three positions. When the ALA Office was terminated on June 30, 1933 the total number of titles classified had been 102,282 at an expenditure of less than $26,000, "making the cost per book close to 25 cents."

But the next year (fiscal year 1934) was the one in which the project really flourished. In that one year in the Card Division the Section classified no fewer than 42,314 titles!

This, however, was the high-water mark. From 1934 began the long decline which may be observed in Table I. There the Classification Committee's worst fears are more than justified. In the 31-year span 1934-1964 the annual assignment of DC numbers to LC cards dropped from 42,314 to 21,977, and the proportion of LC cards bearing DC numbers from 99% to 26%—substantially lower than the 35% estimated by the Committee. The consistent 31-year trend seems fully to justify the Committee's fears for the future.

What Was Intended?

Before drawing conclusions regarding the situation depicted by Table I, it is proper to inquire what was the intention lying behind it.

The discussion at Atlantic City in 1926 leaves no doubt that the Catalog Section wished DC numbers to be applied to all LC cards, not only...
TABLE I

<table>
<thead>
<tr>
<th>Years</th>
<th>Annual average of LC cards in regular series</th>
<th>Annual average of titles classified by DC</th>
<th>Column 3 as a proportion of column 2 (percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1934</td>
<td>42,880</td>
<td>42,314</td>
<td>99</td>
</tr>
<tr>
<td>1931–5</td>
<td>38,781</td>
<td>35,078</td>
<td>90</td>
</tr>
<tr>
<td>1936–9</td>
<td>37,770</td>
<td>32,284</td>
<td>85</td>
</tr>
<tr>
<td>1940–9</td>
<td>46,101</td>
<td>30,750</td>
<td>67</td>
</tr>
<tr>
<td>1950–9</td>
<td>62,848</td>
<td>26,755</td>
<td>43</td>
</tr>
<tr>
<td>1960–4</td>
<td>67,233</td>
<td>25,657</td>
<td>38</td>
</tr>
<tr>
<td>1964</td>
<td>82,999</td>
<td>21,977</td>
<td>26</td>
</tr>
</tbody>
</table>

a Source: LC Annual Reports, 1931–1964. The data for 1931–1943 are by calendar years; for 1945–1964, by fiscal years; for 1944, 1951–3, not reported.
b Source: LC Annual Report, 1964: 111. The data are by fiscal years.

Currently but retroactively. The unqualified objective was "to have Decimal Classification numbers printed on Library of Congress cards." The reason for doing the work at LC was that it was "where practically all books for which cards are printed are available, where the cards are being printed for new books, and where cards for the old books are being constantly reprinted to replenish the stock—making the addition of D. C. numbers feasible." This intention was explicit in Mr. Milam’s circular of July 15, 1929, already quoted. "Numbers are at first to be supplied on all cards currently printed for books in English and on as many for books in foreign languages as may be practicable; later, if funds permit, they are to be put on all cards printed or reprinted." There was nothing unclear about this original intent.

By the summer of 1930, Mr. Haykin, though still without assistance, could state that "The following classes of books currently catalogued by the Library of Congress are being assigned decimal classification numbers:"

(a) All books in English, with the exception of city directories, telephone directories and nearly all current fiction.

(b) Some foreign books, as many as the time of the present staff will permit.

(c) Nearly all serial publications"; and by September 10, 1930, after he had acquired his two assistants, the Office was not only classifying books in "all languages," but was even reported as classifying books that LC was not itself classifying, e.g., law. In the final report of the ALA Office it was stated, "For nearly 3 years most of the material currently cataloged and classified by the Library of Congress has been classified also by this office. Certain types of books, however, such as English and American fiction, have not been classified. On the other hand, no small amount of older material, in the process of recataloging, reclassifying, or preparation for reprinting, has found its way through this office."

And then came this prediction, quoted (and presumably endorsed) by LC: "Users of decimal classification numbers on L. C. printed cards..."
therefore may reasonably expect to find D. C. numbers on a large proportion of L. C. cards bearing order numbers beginning with 31, 32, and 33; on a fair proportion of cards (especially for books in the English language) bearing order numbers beginning with 30; and on an increasing proportion of cards bearing earlier numbers."14

The intent was still unchanged in 1937. Miss Pressey, the head of the DC Section, in answer to her own question, "do we classify all books which the Library of Congress acquires?" responded, "almost, but not quite. In general we do not classify current American and English fiction, . . . American family histories and genealogies and city directories."27

A description of the work in 1938 suggests why the figures for LC cards and for DC numbers were at that time so close together.

The daily stint of the Decimal Classification section is set by the output of the Catalog and Classification Divisions. The books to be classified decimally are brought in at intervals during the day. By the end of the day most of them have been classified, only those which present unusual problems in classification being carried over for further study. The disparity between the figures for the Classification Division and those for the Decimal Classification section . . . is accounted for by the fact that some publications of minor importance are not classified by the latter, while, on the other hand, new editions of some works previously classified by the Classification Division require Decimal classification.28

Foreshadowings of Parkinson! In 1940 appeared the statement, "Although the first task of the section is to classify books, other duties gain in importance."29 This no doubt accounted for the dropping-off in production in the last years of the thirties, which may be seen in column 3 of Table I. It became clear that the Section needed more staff if it was to perform its "first task." Accordingly, in his estimates for 1940, Mr. Putnam requested an additional assistant for the Section. This person was to be a paragon "with a good background of general information, some skill in mathematics, a knowledge of cataloging and the decimal classification, and some knowledge of French and German," to do the decimal filing and assist in classifying the simpler books in English—all at sub-professional grade 4.30 The Appropriations Committee deferred the request on the grounds that Mr. Putnam was retiring and that his successor should be given the opportunity to state his preferences.31

The following year, however, the new Librarian of Congress, Archibald MacLeish, incorporated Mr. Putnam's request into his own estimates for 1941.32 The Appropriations Committee allowed 50 new positions to be assigned to the processing activities (among which the Committee specifically mentioned Decimal Classification), "in the manner deemed most advisable by the Librarian."33 This was March 19, 1940.

Still in 1940, but later than March, Miss Pressey, again describing the work of the Section, gave no hint of a change in policy. Nor did she mention the new position that had been requested, and in principle granted, for the Section.34
Enter the Librarian's Committee

However, between April 1940 and September 15, 1941 (the date of the Annual Report of the Librarian of Congress for 1941) something happened.

As already recalled, the DC Section became part of the Subject Cataloging Division on July 1, 1940 in the reorganization of the processing activities effected by Mr. MacLeish. In the account of this matter contained in the 1941 Annual Report we are told that "The reorganization affected the work of the Decimal Classification Section relatively little. Its personnel and procedures remained essentially unchanged." Then comes this remarkable statement: "This section assigns Decimal Classification numbers only to books which libraries using that classification are likely to acquire and classify"!

What was the source of this extraordinary about-face? One looks in vain in the usual places for an official explanation by LC. One looks in vain for any reference to the matter in the copious contemporary discussions of the reorganization of LC. One looks in vain for any notice by the Division of Cataloging and Classification of ALA which had set the whole project in motion but which had just heard a report from Miss Pressey indicating that all was as usual.

What happened was this. On June 15, 1940 (the day after the Germans entered Paris) the body known as the Librarian’s Committee had reported to Mr. MacLeish. This was a high-level group, appointed in April 1940 to advise especially with respect to the processing activities. With respect to DC its members could be quite objective, since not one of them came from a library using this classification. One especially respected member of the group was, in addition, quite openly opposed to the LC catalog card distribution system, which he charges with having "probably cost the libraries of the United States more money than any other single event that has occurred in library history," not even excepting the invention of printing!

Given this background, it is perhaps not too surprising that the Committee not only recommended that the DC Section be not increased in size, but even that its work be reduced. To reach this recommendation the Committee asserted the novel (and undeniable) principle that the service of the Section was addressed primarily to the "popular public libraries." It then drew the non-sequitur that it was unnecessary to provide DC numbers for all titles cataloged by LC, and concluded by recommending that the Section should follow a "much more selective" policy than in the past.

This then is the background of a change of policy as radical as it was unpublicized.

For perhaps the most remarkable feature of the event was the lack of notice given to it. No hint of the Committee’s recommendation was included in the published summaries of its report. No announcement appears to have been sent to ALA. Instead, on July 15, 1941, two weeks after the close of the fiscal year on which the effect of the new policy is de-
scribed in concrete detail in the 1941 Annual Report, the DC Section addressed a questionnaire “To the Head Classifier or Cataloger,” stating that the Section “in the near future” might “have to consider” omitting DC numbers from certain types of books, and soliciting the recipient’s preferences for omission. (The questionnaire made specific suggestions for omission; one of these was for books in Portuguese outside of the 4oo’s and 8oo’s). No published record of the results of this questionnaire has been found.

1941-1965

The new policy, introduced without discussion at a time when minds were preoccupied with other matters, stuck. Ten years later (1951) it was reaffirmed. The task of the DC Section was at that time described as one of “assigning D. C. numbers to such books as are likely to be acquired by the general libraries of the country.”

An immediate bonus from the policy change of 1940-1941 had been that the additional position which had been granted in principle at the request of two Librarians of Congress was no longer needed for the DC Section and could be used elsewhere. Indeed, in 1941 there were not even enough books complying with the new policy to keep the regular staff of the Section busy, and this released time for some rather unusual tasks. As the years went by the number of suitable books declined steadily; by 1958 it had fallen to 23,058 and was apparently felt to be smaller than desirable, for, in reporting the merger later that year of the DC Section and the DC Editorial Office, it was remarked that “The consolidation is expected to result in the assignment of Decimal Classification numbers to a progressively larger proportion of the titles for which the Library of Congress prints cards.”

The expectation was not realized, however; six years later production was even lower than before.

How, it may be asked, is it possible to maintain service in spite of a steady 31-year decline in production? The answer, which could have been predicted on theoretical grounds, has recently been provided by LC. The fact is that although DC numbers are applied to only a fraction of the cards (26% in 1964), this fraction, representing the more popular titles, accounts for a large proportion of the sales (80% according to LC). The explanation of the steady decline now becomes clear: in spite of LC’s good intentions, the forces of economics and of managerial efficiency made it almost impossible for LC to avoid skimming the cream off the DC numbers market with a progressively diminishing and currently very meagre effort. (In passing, admiration should be accorded to the expert selection that satisfies 80% of the requests with 26% of the titles.) This was possible because concurrently there has always been an escape valve for any dissatisfaction with the service: if a library found DC too costly because of the paucity of DC numbers, it could switch to LC. A trend of this kind, in evidence for some time, will be hastened by the re-

Library Resources & Technical Services
cent cost studies. Indeed one such instance has been announced since the publication of the Committee's report.44

Conclusion

It is apparent from the foregoing that—in spite of LC's increasing hospitality to DC over the years as witnessed by its gifts of office space to the DC Editorial Office beginning in 1927 and to the ALA Office for DC Numbers beginning in 1930, its establishment of the DC Section in 1933 and its acceptance of the responsibility for the editorial work from 1935 to date; and in spite of the personal interest and sympathy of a series of Librarians of Congress and members of their staffs—LC has inadvertently become entangled in a painful conflict of interest situation.

In 1927-1933 the great desideratum was to get DC numbers on the LC cards. At that time LC facilitated the objective to the maximum but refused to become financially involved. In 1933, however, apparently fascinated by the success of the project, LC took it over. In hindsight this was OK because LC was then giving DC and LC "equal time"; but it would have been even better if LC had then developed an arrangement for consulting with the customers (Miss Pressey's lament at that period for the lack of customer feedback may be recalled in this connection).34

In hindsight it can be seen (I was there at the time and did not see it then) that the real mistake occurred in 1940 when LC—without consulting with the parties really affected—accepted policy guidance from a group which was not only not directly concerned but which was if anything cool to the program. The consequences of that change of policy are now clear.

It is difficult to perceive an exit from the situation other than that LC should resume giving "equal time" to DC and LC on its cards. Not only would such a resumption carry out the intention stated by Dr. Putnam to the Appropriations Committee in 1933, not only would it remove the conflict of interest in which LC now finds itself, but—more importantly—it would result, as described by Dr. Putnam, in enormous savings of effort for libraries throughout the country and the world whose costs are and will continue to be unnecessarily increased by the lack of DC numbers on LC cards.

LC has twice gone to Congress for staff for this activity and was easily successful both times. The situation calls for staff even more loudly today than in 1933 or 1940. As for cost, in 1964 LC sold more than 50 million cards; even $100,000 divided into that number would add less than two-tenths of a cent to the price of a card and would be trifling in comparison with the savings to be effected.

The Cataloging and Classification Section has in the past taken great satisfaction in having initiated the DC numbers activity;45 it would not be inappropriate if the Section should once more take a consumer responsibility with respect to this activity, allying to itself, as it did in 1925, the administrative interest also.

Volume 9, Number 4, Fall 1965
REFERENCES

17. *AR* 1933:158; 1940:278.
18. *AR* 1935:246 (dates given erroneously); 1940:278.
22. *AR* 1940:278.
35. *AR* 1941:207.
39. Circular letter as described in text.
40. AR 1951:80.
41. AR 1941:207. One of these was an inquiry into the attitude of “representative” librarians to Mr. Dewey’s simplified spelling as a result of which the Section proceeded to “transform” into “standard” spelling the index of the 14th edition of the DC (for which LC had no responsibility whatsoever), accomplishing this minor miracle in less than two weeks. We are thus treated to the interesting spectacle of the unreconstructed spelling reformer, no sooner underground, being “transformed” into “representative” orthodoxy on time taken from the application of his own classification and with the cost of the exercise being charged into the price of LC catalog cards. This may be supposed to be one of the risks of serving the “country at large.”
42. AR 1959:19-20.

CATALOG CODE

The Council on Library Resources, Inc. has made another grant, of $7,931, to ALA for the Anglo-American Code, which is to be completed by the end of this year and published in 1966. (This brings to $82,399 the CLR contribution to this project which has also been supported by the Library of Congress and the ALA Publications Office.)

Scope of the work has broadened since it began with the revision of rules for author and title entries over a decade ago. The new code will include provisions for descriptive cataloging and rules for non-book material in addition to the rules for entry.

MUSIC CATALOGING

The International Cataloging Code Commission of the International Association of Music Libraries met in Dijon, France, June 30-July 6. The Council on Library Resources, Inc., granted travel money to the Music Library Association to enable Virginia Cunningham to attend the meeting and present the final draft of the Rules for Full Cataloging of Music for the approval of the Commission. Mrs. Cunningham, Head of the Music Section, Descriptive Cataloging Division, Library of Congress, has for several years been at work for the Commission on the draft of an international cataloging code for music.

A comprehensive and practical guide, this new volume is designed to insure the easiest and fullest use of the library’s collection and to show librarians how to make arrangements for this use in the most expeditious way possible. After an introductory chapter on general procedures and preliminaries, Miss Piercy treats every phase of processing, devoting a chapter to each. Appendices include directions for typing catalog cards, rules for alphabetical filing in a small dictionary catalog, a glossary of library terms used in the book, a list of library publishers and suppliers, summary tables of the Dewey Decimal Classification, a bibliography, and a checklist on which each librarian may record his own preferences among the many methods and practices noted and evaluated by the author. An index completes the volume.

SEARS LIST OF SUBJECT HEADINGS. 9th Edition. Edited by Barbara Marietta Westby. 1965. $8.00

Approximately 315 new subjects, many from the rapidly expanding fields of science and technology, have been included in this new edition, just published last month. Another 80 headings have been changed in wording or in form, or transferred from the status of a see reference to a specific entry, many of these changes having been made to reflect modern terminology. Other improvements include the enlargement of the list of subdivisions which may be used; the addition of a partial “key” under Kennedy, John Fitzgerald, with special subdivisions for presidents; and the expansion of the subdivisions under Presidents—U.S. The introductory section, “Suggestions for the Beginner in Subject Heading Work,” by Bertha M. Frick, has been retained without change from the earlier edition.


An introduction on the use of the Decimal Classification; First, Second, and Third Summaries; General Tables, with 2,528 classification numbers (an increase of 434); a Table of Standard Subdivisions; an Area Table, which can be applied to all classes requiring a geographic arrangement; a schedule of “divide-like” notes; a list of abbreviations used in the text; and the Relative Index, with more than 21,000 entries (an increase of 3,000) make up this new edition, which is based on the 17th edition of the full schedules and published by Forest Press. Major changes include the addition of the Area Table, complete revision of the schedule on psychology, and expansion of the schedules on aeronautics, astronautics, biology, Africa, the UN, civil rights, the Revolutionary and Civil wars, the life of Christ and Christian Church history, and many other subjects.

order from

THE H. W. WILSON COMPANY

950 University Avenue, Bronx, New York 10452
DC Numbers On LC Cards: A Supplement

L. QUINCY MUMFORD
Librarian of Congress
Washington, D. C.

The Library of Congress appreciates the courtesy of the Editors of LRTS in granting space for us to comment on several points in Mr. Clapp's paper, "DC Numbers on LC Cards," and to supplement Mr. Clapp's interpretation of the subject with additional information on its history.

The principal points in Mr. Clapp's paper on which we wish to comment follow.

Point I

That ALA and later LC undertook to assign DC numbers to all LC cards when the service was instituted in 1930.

Comment

The possibility of having DC numbers on all LC cards in the interest of full bibliographical service to the Library community can be inferred from the circular statement of Mr. Milam, but it should also be noted that the statement includes the important qualification "if funds permit." The Annual Report of the ALA Office for Decimal Classification on LC cards for 1930/31 states under the paragraph "Scope":

At first only books in English, which means largely copyright books, were assigned numbers. Soon after the staff increased to three it was found possible, however, to undertake the classification of all books currently cataloged by LC (with some exceptions as noted below). As an experiment it was even attempted to classify some of the "reprint" books, that is, books for which cards are being reprinted. The experiment had to be given up when the influx of current books increased in the autumn.

The point is that from the beginning "all books" were classified because "it was found possible . . . with some exceptions" and that the experiment of expanding to reprints was dropped because too many other items were coming into the office.

In the progress of the work of the Office in the first decade, the subsequent decrease in DC application coincided with diversion of the DC Section's time to other activities not directly productive of numbers on LC cards but nonetheless of benefit to users of the DC. These factors were as follows: (1) Notes and Decisions was initiated; (2) a shelflist was established and maintained; and (3) the burden of correspondence and of consultation increased. Later came the preparation of the concordance between the 14th and 15th editions and the effort (at the demand of the
users) to classify titles by both editions. Again, in the period 1955-1957, the Section diverted countless hundreds of hours, which might otherwise have gone into application of DC to books, in helping the DC Editorial Office to develop a 16th edition that would be more widely acceptable to users and bring DC back into the tradition that had been temporarily abandoned by the 15th edition. Further, work on preparation of the 17th edition of the DC, recently published, inevitably resulted in fewer books being classified. Equally important with the increase in commitments to editorial operations is the increased complexity of the schedules in recent editions of the DC, corresponding to the increase in complexity of the literature.

As to LC commitment, Miss Pressey's and Miss Kenton's recollections in a letter of comment are significant. Miss Pressey states: "We know of no such commitment. At first it probably was Mr. Haykin's ideal that all cards have DC numbers; quite likely he and Mr. Hastings discussed it at their frequent lunches together and may have agreed. But later Mr. Haykin came to see that it was neither practical nor necessary. During the first year, Miss Kenton remembers that Mr. Haykin tried assigning DC numbers to cards being reprinted, but gave it up for two reasons: the quantity was too great and would slow down the flow of work, and classifying from the cards only was too risky."

Another effort connected with the application of DC has resulted in an error in Mr. Clapp's table of proportion of application. From 1931 to 1935, over 4,500 DC numbers were applied to titles in the CA series. (This series was comprised of provisional and temporary entries designed primarily for use in the Library of Congress.) Mr. Clapp has picked up this count of application but has applied it against "regular" titles and consequently has shown a higher proportion of DC application in the earlier years than was actually the case.

It should also be noted that Mr. Haykin, with the exception of a two-year period when he served as Chief of the Documents Division in 1932-1934, was the responsible officer in charge of the DC number work at the Library of Congress for over 20 years, first as the Director of the ALA Office for DC and then successively as Chief of the Cooperative Cataloging and Classification Service and of the Subject Cataloging Division. It can certainly be stated, therefore, that the DC number work under his direction during this period had the most capable direction that LC could supply for the work, and direction continues at that high level.

When LC in 1933 took over the responsibility for the work, it took it over on the same level of financial support as that supplied by the ALA from 1930 to 1933 and as a part of the self-supporting card distribution service. It can also be noted that it was, no doubt, quite fortunate that Dr. Putnam was able to secure the necessary appropriation for the take-over by LC, in view of the serious effects of the depression in the year 1933 and the years following. Otherwise the operation might well have been discontinued for lack of support from any quarter during the depression.
Point II

That the policy was changed somewhere around 1940-41.

Comment:

The Librarian's Committee recommendation on the DC Section was as follows:

This sub-section is transferred from the present Cooperative Cataloging and Classification Service and becomes a separate unit. The group should be seated with the classifiers so that it can share readily in the flow of the work. The sub-section should not grow in size; on the other hand, the amount of work it does should probably be reduced rather than increased. It is not necessary to add Decimal Classification numbers to all titles cataloged by the Library of Congress for it should be recalled that this is primarily a service for popular libraries.* Accordingly, time should not be taken to classify difficult, highly specialized works such as libraries are unlikely to acquire. This applies to old and rare books especially. In other words, the subsection should adopt a much more selective policy than it has in the past.

The members of the Librarian's Committee were the following: Carleton B. Joeckel, Chairman, Andrew D. Osborn, and Paul North Rice. Among others, Keyes D. Metcalf assisted the Committee as a consultant. It is noted for consideration that Messrs. Metcalf, Osborn, and Rice were prominent in the work of the ALA Catalog Section in the 1920's and 1930's, and it is reasonable to assume that the underlined statement in the quote above, i.e., "for it should be recalled that this is primarily a service for popular libraries," represents their recollection of the discussions in the 1920's on the matter of DC numbers on LC cards. Further, in substance the Committee recommended that, since the DC numbers work was on the basis of self-support from sales of cards, its application and other work should, therefore, be limited to a selection of titles for DC number assignment that would benefit the maximum users of the LC card service. That the DC was intended as a service for popular libraries is borne out by Godfrey Dewey's foreword to Edition 15 Revised, which states, "The guiding principle for this revision was adaptation to the needs of the general library collection of up to 200,000 volumes, eliminating over-detailed expansions useful only to the special library or for very large collections."

The 1940 recommendation did not result in any marked change in activity, however, as the number of titles given DC application from 1937 to 1945 indicates:

- 1937—33,871
- 1938—34,060
- 1939—27,436
- 1940—28,977
- 1941—27,939
- 1942—32,512
- 1943—27,594
- 1944—34,328
- 1945—32,020

* Italics supplied.
Point III

That policy guidance affecting LC's application of DC numbers was not sought from the parties concerned.

Comment:

On July 15, 1941, the DC Section sent a questionnaire to all card subscribers (about 6,500), mailed through the Card Division. The questionnaire listed numerous categories of literature suggested for elimination of DC numbers. Subscribers were asked to state whether or not the elimination of these types of literature would inconvenience them greatly. From the replies received in the 2,261 questionnaires which were returned, there was adequate justification to authorize the DC Section to discontinue classification of these categories. Again in October 1946 the DC Section sought advice in Cataloging Service Bulletin Number 5. In 1951, after publication of the 15th edition of DC, another questionnaire was sent out to all card subscribers requesting advice on whether or not both the 14th and 15th edition numbers should be used on LC cards. In these cases, as well as others, there is ample evidence that LC asks for advice on the problem of assigning DC numbers. The Library of Congress has through the years sought the advice of subscribers on matters of policy. It considers that the responses to the questionnaires noted above represent in the main the application policy desired by the majority of subscribers.

Mr. Clapp, in a discussion on January 18, 1965, expressed the view that responsible catalog librarians answering the 1941 questionnaire could not be considered to carry as great weight as did the members of the ALA Catalog Section who, in 1926, requested that DC numbers be printed on, presumably, all LC cards. We cannot share this view, for at least four reasons: (1) The answers to the 1941 questionnaire were based on actual use, over a period of ten years, of DC on LC cards, not on a priori hopes based on theoretical considerations; (2) the persons answering the questionnaire had a closer day-to-day familiarity with the exact requirements of their libraries than did the 1926 group; (3) the questionnaires were answered only by libraries actually buying or using LC cards; and (4) many card subscribers are not ALA members, and their requirements are also significant.

Point IV

That economic factors affect the application of DC numbers to LC cards.

Comment:

There is no question that the DC number improves the sales potential of LC cards. At the same time, the usefulness of the DC number decreases with cards for certain types of publications. In any year, LC prints large quantities of cards for only about 30 percent of the new titles it catalogs (mainly English-language titles and titles to which DC num-
bers are assigned). Our inventory controls indicate that for the most part we need only about 60 cards each for the remaining 70 percent of the year’s new titles (mainly foreign-language titles). Consequently, the 30 percent of our stock which gets the extra quantity printing represents the live and volume sale stock. This is confirmed by our continuing analysis of sales, which shows that about 93 percent of all cards distributed are for English-language titles and that, at the least, an average of 80 percent of all cards sold have the DC number. Mr. Custer has referred to this latter point in his communication to the Editor of LRTS which appeared in the Spring Issue, 1965, 9:212. These considerations are of utmost significance as concerns the current policy of DC number assignment and also are of equal importance in the establishment of an equitable price structure in the event it were decided to apply DC numbers to all cards printed. The Library of Congress cannot, therefore, accept the suggestion that this additional funding for such over-all application of DC numbers be secured by adding two-tenths of a cent to the present price structure. On the expected basis of use return to the great majority of our subscribers, this would indeed be a most inequitable and arbitrary method to pursue. We may add here that the Library would be interested in receiving constructive suggestions for alternative methods for funding for such a purpose. In fiscal 1965, the Card Division sold 61,489,201 cards. On the basis of sales analysis, this means that over 48,000,000 cards carried the DC number, another 12 percent (over 7,200,000) were for cards printed before 1930 or for fiction, etc., and not within the scope of the program, with the remainder (6,000,000) consisting of cards for foreign-language titles. As to the latter, a fair percentage would represent cards printed before 1930. It would appear that the recommendation of the Librarian’s Committee was sound in satisfying our subscribers’ needs.

Miss Pressey’s comment on this factor is significant:

“Moreover, analysis of Card Division sales plus plain common sense would indicate that classification of some categories of books, even those in English, would be of little value. For example, adding a DC number now to cards for a book published in the 1930’s might help a few libraries that are buying the book for the first time or reclassifying the book; but adding a DC number to a book published currently would help hundreds of libraries.”

LC has not sought, as Mr. Clapp says, to “skim the cream off the DC numbers market.” Its efforts have been directed to the benefit of the great majority of subscribers.

An additional comment is necessary in regard to Mr. Clapp’s statement that “in spite of the depression, card sales increased by more than a third during the period.” In the Annual Report of the Librarian of Congress, 1937, p. 137, a printed table of statistics of sales from 1901 to 1937 appears in the report of the Card Division. Table I shows the sales statistics as reported by Mr. Hastings for the period 1930-1937, and the figures for 1938-1940 are added with estimated cards sold for this period.

Analysis of Table I shows that the annual number of cards sold for the
### TABLE I

<table>
<thead>
<tr>
<th>Date</th>
<th>Subscribers</th>
<th>Amount of Sales</th>
<th>Cards Sold</th>
<th>Average Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1930</td>
<td>5,011</td>
<td>$242,580</td>
<td>12,129,000</td>
<td>.02</td>
</tr>
<tr>
<td>1931</td>
<td>5,485</td>
<td>259,653</td>
<td>12,983,000</td>
<td>.02</td>
</tr>
<tr>
<td>1932</td>
<td>5,704</td>
<td>248,385</td>
<td>12,419,000</td>
<td>.02</td>
</tr>
<tr>
<td>1933</td>
<td>5,704</td>
<td>207,289</td>
<td>10,364,000</td>
<td>.02</td>
</tr>
<tr>
<td>1934</td>
<td>5,704</td>
<td>206,454</td>
<td>10,323,000</td>
<td>.02</td>
</tr>
<tr>
<td>1935</td>
<td>5,738</td>
<td>213,125</td>
<td>10,656,000</td>
<td>.02</td>
</tr>
<tr>
<td>1936</td>
<td>5,883</td>
<td>234,374</td>
<td>11,716,000</td>
<td>.02</td>
</tr>
<tr>
<td>1937</td>
<td>6,128</td>
<td>264,564</td>
<td>12,026,000</td>
<td>.02</td>
</tr>
<tr>
<td>1938</td>
<td>6,311</td>
<td>289,072</td>
<td>13,130,000</td>
<td>.02</td>
</tr>
<tr>
<td>1939</td>
<td>6,500</td>
<td>297,696</td>
<td>13,530,000</td>
<td>.02</td>
</tr>
<tr>
<td>1940</td>
<td>6,500</td>
<td>325,252</td>
<td>14,784,000</td>
<td>.02</td>
</tr>
<tr>
<td>Total &amp; % increase</td>
<td>29.7%</td>
<td>$2,788,384</td>
<td>131,060,000</td>
<td>(+34.1%)</td>
</tr>
<tr>
<td>11 year average</td>
<td>5,879</td>
<td>253,489</td>
<td>11,914,545</td>
<td>(+21.9%)</td>
</tr>
</tbody>
</table>

* *39,332 of this increase due to some large orders for cards for a WPA Project at the Boston Public Library.

years 1932-1937 fell below 1930 and 1931 sales and that there was an increase for the period 1938-1940 ranging from 1 percent in 1938 over 1931 to 14 percent in 1940 over 1931. Dollar sales showed the same decline for the period 1932-1936 and then increased from 1 percent to 25 percent for the 1937-1940 period over 1931 because the price of cards was increased in 1937. The average yearly sales in dollars for the period 1931-1940 was $254,578, $5,075 less than the sales for 1931; and the average number of cards sold for the period was 12,193,000—790,000 cards less than the 12,983,000 cards sold in 1932. These figures do not include sales to government libraries or sales of publications. It should also be noted that card sales, on the average, had normally increased about 10 percent annually over the period from the beginning of the card service until 1931, as Mr. Hastings noted in the Annual Report for 1931. The application of the DC number to the LC card has, no doubt, increased its sales potential; but, in view of the sales pattern observed from the beginning to date, it would be difficult in view of all the considerations involved to attribute the sales increase for the period 1930-1965 to the factor of the DC number application.

**Point V**

That because of the "new" policy decision in 1941, there were not enough books complying with this policy to keep the staff of the Section busy, and this released time for some rather unusual tasks. Cf. his footnote 41:

One of these was an enquiry into the attitude of "representative" librarians to Mr. Dewey's simplified spelling as a result of which the Section proceeded to "transform" into "standard" spelling the index of the 14th edition of the DC

* 410 *

Library Resources & Technical Services
for which LC had no responsibility whatsoever), accomplishing this minor miracle in less than two weeks. We are thus treated to the interesting spectacle of the unreconstructed spelling reformer, no sooner underground, being "transformed" into "representative orthodoxy" on time taken from the application of his own classification and with the cost of the exercise being charged into the price of LC catalog cards. This may be supposed to be one of the risks of serving the "cuntry at larj."

Comment:

The evidence available to us does not support this statement. We offer Miss Pressey's account of her recollection concerning the "transformation."

In her letter of January 7, 1965, commenting on this historical interpretation of the facts, she states:

The truth in regard to the questionnaire mentioned by Mr. Clapp* is as follows: At that time the DC was governed by a small committee (kind of a predecessor of EPC) of the Lake Placid Club or Forest Press. The 14th edition was almost ready for the printer.

Mr. Haykin and I were invited to the next meeting of the Committee and were provided with a set of rules and examples to study. The general rule, as I remember, was that the first word of each index entry should be in conventional spelling, but all others were to be in a variety of simpler spelling. This resulted in such horrible hybrids as "Psychology, fisiologic" and was worse than we had in earlier editions. The Committee present at the meeting agreed to conventional spelling, provided the change was made before a certain date. Mr. Mazney, Mr. Getchell, Miss Kenton, and I worked on it. Miss Kenton and I concentrated on correcting the spelling; Mr. Getchell to catch resulting changes in alphabeting. Miss Kenton and I did not take library time for it. I took annual leave and Miss Kenton joined me evenings and weekends. Incidentally, this was far from a "congenial" task: it was extremely irritating. But we knew that using the index as it stood would be more irritating to us and all users of it, for the next ten years or so.

Point VI:

That LC has inadvertently become entangled in a conflict of interest.

Comment:

We cannot accept this in the light of our foregoing comments as well as the following considerations:

1. LC has never advocated the use of its classification to other libraries. Inquirers are referred to classification authorities to make their own decision. Sales of LC's classification schedules provide no direct financial benefit to LC.

2. This is also true as regards its card distribution service. By law,

* This refers to the account of this matter in Mr. Clapp's earlier draft but in substance given in his article.

Volume 9, Number 4, Fall 1965
cards are to be made available at cost plus 10 percent. They have not been advertised nor has any other effort been made to sell them to libraries.

3. It took over the work of assigning DC numbers started by ALA as a convenience to LC card-subscribers and has applied the numbers on the basis of maximum use.

4. It has housed the DC editorial office free of charge since 1927.

5. In 1954, at the request of the Forest Press and at the urging of the ALA Division of Cataloging and Classification, it undertook the responsibility for the editorial work on the 16th edition on a contract basis. In doing so it diverted countless hundreds of hours to aiding the owners and publishers of DC in preparing an Edition 16 that would be widely acceptable to users and would bring DC back into the tradition that had been temporarily deserted by Edition 15. These hours were deducted from the time of both the administrative staff and the staff involved in applying DC to books.

6. In 1958 it agreed to continue this arrangement with the Forest Press on a contract basis for editorial work. This resulted in a consolidation of the DC Section with the DC Editorial Office to form a new Decimal Classification Office and thereby improve both editorial and application procedures.

7. Under this arrangement, it does not set editorial policy. It follows policy directives given by the Decimal Classification Editorial Policy Committee and the Forest Press.

Other Considerations

The Classification Committee, in its report of May 15, 1964, indicated that it had studied the problem facing new academic libraries as to a decision on what classification system would prove most adaptable and most durable over a long period of time. It narrowed its field of study to a survey of the comparative merits of the DC and LC classifications. It found that both these systems are growing, are being kept up to date with quarterly revisions, and Dewey, at least, now has a users' guide to it. In its consideration of the question "Is the choice of LC or DC a function of the size of the collection?" it recommended Dewey for libraries with general collections up to 200,000 volumes in size, and the Library of Congress system for those expected to be larger and for those small libraries with specialized collections. In arriving at this conclusion, the Committee analyzed a large number of factors that must be considered: size and type of collection, divisional or central library, favorable and unfavorable characteristics of each system, costs of application, etc. It is evident that the factors affecting the Committee recommendations are several and that the lack of DC numbers on LC cards is not major, though the Committee unfortunately has erred in stating that "65% of cards purchased from LC have no DC number." Actually, at least 80 percent of all LC cards sold carry the DC number—over 48 million cards in fiscal 1965 alone. It seems clear from all of the foregoing that the burden on
users of DC occasionally to supply classification when not provided on the LC card is not great.

In conclusion, I should like to suggest that the willingness of the Library of Congress to assume for the benefit of other libraries the responsibilities involved in producing the latest editions of the Dewey Decimal Classification and in applying the DC number to over a million titles since 1930 speaks for itself.

EDITORIAL COMMENT: CLASSIFICATION

Possibly never in the history of this magazine or its predecessors has anything generated so much reaction (certainly none with so emotional a reaction!) as the Report of the RTSD Classification Committee on “Types of Classification Available to New Academic Libraries,” published in the Winter 1965 issue. Letters came from Australia, New Zealand, England, and Scotland, as well as from all corners of the United States. There have also been oral comments and comments thrown into letters on unrelated subjects. Dewey supporters felt that Dewey was not fairly treated; LC supporters were equally disturbed by that scheme’s treatment—in fact, these two reactions so well balanced one another, the Committee is justified in feeling it hit a fair midpoint. Bliss also had its defenders as did Rider and U.D.C. Few of the reactions were mild.

It is with some trepidation, therefore, that we publish other studies, these made by individuals, comparing various classification schemes in specific applications, or recommending revision. We hasten to add that these are the authors’ judgments, recommended by neither the Editors nor any ALA body; we publish them, not as established or recommended practice, but as examples of methods of evaluation and study.

In particular, we would never recommend wholesale or impetuous revision or “adaptation” of existing classification schemes. Too many libraries have faced or are facing expensive reclassification because of past improvisation. Once tampering of numbers is begun, the movement accelerates, and the innovator finds himself (and his successors) committed to moving farther and farther away from the source until he is boxed in by running out of numbers. Even in the beginning he is launching an expensive process which denies his library the cost- and labor-saving services offered by printed cards, bibliographies, and other aids.

Further, he is taking his library out of cooperative and centralized movements as well as contributing to confusion of library users. Large libraries are facing it that “custom” cataloging and classification are luxuries of the past, and small libraries must know that they need all of the help they can get. As various critics have pointed out, neither LC nor DC is designed for the subject-departmentalized library; in fact, it is debatable if the scheme promising ideal break-down is possible in today’s world of interlocking subject disciplines. But it would seem more prudent to organize departments around a chosen classification than to distort the classification to meet pre-determined ideas of departmental content.—EJP

Volume 9, Number 4, Fall 1965
I have recently read the Classification Committee’s report, “Statement on Types of Classification Available to New Academic Libraries,” in the winter 1965 issue of LRTS, and wish to express my disappointment that the Committee could not arrive at more accurate and satisfying conclusions. While DC and LC are presented completely and candidly, it seems to me that the other schemes mentioned have been treated without the completeness of approach which they deserve, nor have the conclusions reached been documented as completely as they might have been. Believing that the statements as given do not provide a sufficient basis for serious choice, I should, therefore, like to point out some of the inaccuracies printed and bring to light several omissions.

The statement on the Bliss classification is especially inaccurate, quite possibly leading the unknowing librarian not only to believe that it is an Australian scheme* but also that it “is not being kept up-to-date.” It is, however, an American product and is readily available from the H. W. Wilson Company, which published the second edition in 1953.** It is used in something approximating its first edition form at City College in New York, where the late Mr. Bliss was librarian for some forty years, and where some half million volumes are classified by it. It is also used at the Southern California School of Theology in Claremont and at a considerable number of libraries in the United Kingdom. It is kept up to date by the irregular publication, whenever sufficient material is available, of the Bliss Classification Bulletin, edited in London but published and distributed gratis by Wilson; the September 1964 issue (naturally this appeared after the Committee had composed its Statement, but I give it here as an example) included an extensive expansion of electronics and an announcement that a school edition of the classification was nearing completion. This does not seem to be evidence that Bliss is a dying swan.

Bliss utilises a letter notation, but only for subject arrangement; constantly mnemonic numerals may be prefixed or suffixed to any class number to indicate either or both location or form. Bliss, therefore, is more flexible than DC or LC. It is also more capacious, for if only three digits or less are used as a class number with the Cutter-Sanborn tables, the theoretical capacity of the scheme is above 529,512,000 different titles. In practice, ten percent of this might be considered a working maximum, but even so there are scarcely a dozen libraries in the world that would have to worry about it. If the auxiliary schedules are applied below the Cutter number, and they would be required in some areas (e.g., literature), the theoretical capacity of the scheme soars into the billions. Bliss is, in fact, infinitely capacious, while at the same time it is equally suitable for use in a small home or professional library.

Another advantage which might be mentioned is Bliss’ acknowledgment of

---

* Editor’s note: An Australian librarian questions “the rather incredible statement” that Bliss is used extensively in Australia. He says “only two of the twenty or so major libraries use Bliss plus, possibly, a few special libraries.”

** Editor’s note: The H. W. Wilson Company now reports that Bliss went out of print July 1, and they have no plans to re-issue, revise, or supplement it. They are negotiating with reprint companies concerning the possibility of its being issued in some form.
"consensus," an idea which accepts the fact that certain subjects belong together because scholarly opinion views them as related; thus, Bliss places psychology after medicine and before education. However, he also provides alternative places for many controversial collocations, so that if libraries adopting the scheme feel strongly that certain subjects belong in different places, they can be placed there with a minimum of difficulty and without alteration of the scheme. The major disadvantages of Bliss are that it reflects a slightly Anglo-Saxon bias (much less than DC or LC) and that its Roman alphabet notation would not facilitate its easy adoption in Communist China, Thailand, or the Soviet Union; also, the detail in the physical sciences and the technologies might not be adequate for extremely large collections. The "user's guide," if one were thought necessary, is to be found in Mr. Bliss' compendious introductions to each volume, and in the extensive directions, often including examples, given in the tables themselves. The standard British books on classification (Mills, Sayers, Philips) all have sections on Bliss.

So much for describing Bliss. One further remark remains. Why do we need to know that "the manuscript version does not agree with the published version"? Who on earth is going to use a manuscript version? And if someone has a manuscript version, then who stole it from the City College archives? This is like saying that the King James version of the Bible does not agree at every point with the Revised Standard Version, or that the first scribblings of a librarian's annual report do not (at least, they should not) represent the final report presented to the trustees.

The description of Rider's *International Classification* is even more fragmentary, but perhaps understandably, since this is not so easily available for examination. But to say that it is "quite similar to (DC)" is to show misunderstanding. Excepting that they are both library classifications, they have scarcely a thing in common. Neither in notation, in philosophy, nor in collocation of main classes are Dewey and Rider similar. Only occasionally in the enumeration of some topics is there any indication of a DC source, but even here the result often evinces more originality than dependence. Beyond a few blank spaces, there is no provision in Rider for expansion, and the author did not intend there to be any although he admitted that a fourth series of letters could be added to the three-letter class numbers originally provided (but he would not add them). Since Mr. Rider died after having published only the preliminary edition, and since there is no library currently using the scheme, it is unlikely ever to see use. Further, there are areas, this writer having noted particularly theology and literature, which are poorly developed and would not be suitable for use anywhere on the basis of literary warrant.

The Committee ought also to have been aware of developments in the field from knowledge of the pertinent literature. One such development of particular interest to academic libraries began to occur around 1954 at University College, London. This resulted in a detailed classification whose notation and method of publication (i.e., in parts, irregularly) resemble LC, yet whose main classes progress in a completely different fashion and offer a generally briefer notation. It exists, basically, as an attempt to combine in a single classified catalog the holdings of numerous departmental libraries with those of a central bookstack. Beyond a few technical difficulties which we cannot discuss here, it deserves serious consideration, especially as an answer to libraries with large divisional collections (and to question 5 in the Statement). The principal disadvantages are that only a limited supply of copies are currently available (beyond
this writer's own copy, probably no other copy is yet available outside of Great Britain) and that there is no guide to use of the scheme beyond Kenneth Gar-side's article in the December 1954 Journal of Documentation.

I regret that the Committee felt that all new academic libraries would be general libraries, that there would be no new law, business, architecture, library service, social work, public health, medical, dental, or theological schools established, most of which, in a university system, would certainly have their own libraries, and most of which would suffer from having to use a general classification either through excessively long call numbers or through unhelpful collocation of subjects. But since the Committee appears to have been responding to a more specific need to guide general libraries, I shall not venture upon the problems which specialised libraries present. There are, however, two further schemes which should be mentioned, especially if an institution does not contemplate a collection larger than 200,000 volumes. These are the Classification Scheme of the Lamont Library (Harvard, 1950) and the Cheltenham Classification (2d ed., Cambridge, W. Heffer, 1958), which is used in England. The Lamont scheme was specifically designed for an undergraduate general collection, is available free on request to Harvard, and has an excellent "user's guide" in the form of the printed classified catalog which the Lamont Library issued in 1953. The notation looks like DC and the collocation is reminiscent of DC, but it turns out to be quite individual, especially by frequently reverting to an alphabetical arrangement of topics. The Cheltenham scheme was designed for school libraries and is a bit weak in philosophy and psychology, but there is no other reason why it would not prove satisfactory for junior college or small college collections. To the imaginative librarian, it offers interesting mnemonic and number-building qualities. Its notation is a letter followed by cumulative numbers, which may be decimally subdivided. And Cheltenham has an introduction and notes which are so lucid that no librarian could possibly have any difficulty applying the scheme.

The principal disadvantage with both the Cheltenham and Lamont schemes, if it can be called a disadvantage, is that they are not maintained. This is not, however, a real disadvantage, since all of the classes provided are sufficiently general to allow extremely specific books to find a place without requiring subdivision or addition. Any well-proportioned general scheme could, in fact, go on indefinitely without expansion so long as some automatic repeating mechanism, such as form divisions or a time device, were constructed as a mnemonic adjunct to every class. The idea of minute subdivision, while arising from several sources, is alone responsible for the current concern over having every scheme adequately maintained or else thrown out. I can only comment that, if everything must be maintained for us, it implies that we are sloppy housekeepers.

There are actually many acceptable classifications for a new academic library. It is unfortunate to think that few library school students ever encounter any other classifications (in the sense of actually working with them) beyond DC or LC, for it seems to have stifled our thinking about classification.

In considering DC and LC the Committee has done a generally acceptable job, and the value of this Statement seems to be blunted only by a premature assumption that only two classifications are good and that all others are essentially worthless. In the future, perhaps, the Committee will have an opportunity to issue a revised statement.—John P. Rash, Union Theological Seminary Library, New York, N. Y.
ELIZABETH CASELLAS, Assistant Professor
Graduate School of Library Studies
University of Hawaii, Honolulu
(formerly with Stewart, Dougall & Associates, New York)

To evaluate a classification for a marketing collection, it is necessary to consider the following:

1. Basic characteristics of the classifications, as a whole.
2. Skeleton structure of the classifications for marketing.
3. Classification of industries.
4. Form divisions.
5. Geographical divisions.
6. Frequency of combination of use of form and geographical divisions.
7. Distinctive characteristics of the classifications.
8. Indexes.
10. Advantages and disadvantages of each classification.

This paper attempts to compare three classifications by considering these points.

1. Basic Characteristics of the Classifications
   a. Harvard Business Classification—
      To understand the internal structure, it is necessary to appreciate the treatment accorded four different elements:
      (1) The relation of business to other subjects—the activities of the state, or conditioning economic and social forces.
      (2) The element of time—economic resources, economic and business surveys and economic and business histories.
      (3) The functional divisions of business activities—including the historical evolutions of a particular institution or section of the country.
      (4) The relation of business functions to particular business institutions—general organization of business, procurement of personnel and materials and the acquisition of financial support, and interspersed with the analysis of these various business functions will be found the various service types.
of business, such as marketing, insurance agencies and banks and investment houses.

The main stem of the classification derives from an analysis of business functions. The general scheme of classification calls for three main elements: the subject analysis—particularly of business organization and activity; the Industries List, a logical analysis of industries and services; and a Local List (or geographical list).

b. The Library of Congress Classification

Originally based on the now defunct Expansive Classification made in the late nineteenth century by C. A. Cutter, it was never intended for universal application, and was based entirely on the books in the Library of Congress. The various subject departments of the library compiled systems for their own collections, and each class was therefore developed, more or less in isolation, by experts in the bibliography of the subject. Little provision for synthesis exists, and the same country may have many different numbers, according to the main class. Its notation also differs from DC in that it consists of two capital letters followed by numbers as integers and not as decimal fractions. New subjects are intended to be dealt with by gaps left at what is hoped are suitable points in the sequence of numbers.

All schedules are pertinent to a marketing collection except perhaps C, D, M and N.

c. The Dewey Decimal Classification

Widely known in public and school libraries, it is rarely used by research libraries. The great contribution made by the DC was its principle of “relative location,” that is, the numbering of positions on shelves. Relative location allowed subjects to be moved about on the shelves as new books were added and enabled new subjects to be inserted at the appropriate places. The universe of knowledge is divided into nine fields, which Dewey numbered from 1 to 9 and made a notation for the subdivisions of each field by simply adding the necessary figures on the righthand end.

DC does admit the principle of synthesis—classifying complexes by assembly of their elements—in certain fields. The simplest are the division of subjects by geographical location and chronological period. Dewey, himself, recognized the need for such synthesis from the beginning, and it is a pity that later editions of DC have failed to follow his example. The method has several advantages; it ensures consistency in classifying, it economizes on the size of the scheme’s schedules, and it means that certain symbols always have the same meaning whenever they appear in a class number, which makes for ready recognition and fewer mistakes.

The geographical numbers are taken from Class 900 History and usually, though not always, follow the symbol 0. Thus, as 942 is England and 310 is Statistics, 310.942 is Statistics in England.

Provision for synthesis does occasionally occur elsewhere. A schedule of industries appears in 620 to 699, and these divisions may be used at suitable places such as:

• "Library Resources & Technical Services"
2. SKELETON STRUCTURE OF THE CLASSIFICATIONS FOR MARKETING

The following offers the skeleton structure, and should not imply that the main class is necessarily appropriate for marketing, in the pure sense. For example in DC: 368—Insurance would not be as pertinent as 368.013—Marketing—Sales techniques, buyers' interest (of insurance). Nevertheless, the skeleton structure shows the logical sequence of the subjects and any skips which may occur between subject areas (DC: 388 to 658.8). Professor C. I. Gregg prepared an analysis of the field of marketing which became a guide for the S and T schedules.

a. Harvard Business Classification—

Primary Schedules

S  Marketing
S.  A-Z Relations to other subjects.
SB  Theory.
SF  Organization.
SG  Research.
SH  Location of sales or branch offices.
SL  Pricing.
SM  Sales administration. Sales management.
SN  Sales force management.
SO  Sales promotion.
SP  Advertising.
SQ  Ownership transfer. Sales contract.
SR  Delivery.
SS  Credit and collections.
ST  Wholesale marketing.
SU  Storage. Warehouses.
SV  Retail selling.
SW  Retail store management.
SX  Agencies for retail distribution. (Stores classified by type of organization.)

T  Foreign marketing. International trade. Foreign trade—General works.
T.  A-Z Relation to other subjects.
TB  Import duties.
TD  History.
TE  Statistics of imports and exports.
TF  Trade in particular commodities.
TG  General manufacture (with breakdowns for Textiles, Paper, Machinery, Metal, Chemicals, Rubber, Leather, Glassware and Pottery and TGX for all others).
TH Export and import business.
TJ Foreign market research.
TK Foreign trade opportunities. Foreign market analysis (e.g., Marketing for shoes in India, etc.).
TL Buying.
TM Foreign sales administration, sales management.
TP Sales promotion.
TS Shipment and delivery.
TT Credit and collections.
Use if prefer to keep mercantile credits with foreign marketing rather than JR credit management.

(Missing letters are omitted in the schedule.)

Related Schedules

E Economic resources.
F Business and economic conditions.
H Business organization and administration.
I Industrial management.
Q Primary industries and engineering.

Other than S and T, the most frequently used schedules are R and Q.

b. Library of Congress Classification—

Primary Schedule

HF 3001—3002 U. S. Commerce statistics.
3003—3004 Export statistics.
3005—3006 Import statistics.
3007 Internal commerce (Interstate Commerce, etc.).
3008 Congresses.
3010—3012 Directories.
3021—3031 History (General and U. S. by period).
3041—3150 Foreign commerce of/with a particular area.
3151—3163 Local commerce—by geographical area.
3211 America (General) Commerce.
3212 Inter-American commissions, conferences, etc.
3221—4040 Other countries.
5415 Marketing—"books dealing collectively with the various functions of marketing" . . .
2 Marketing research.
3 Market surveys. Consumer research, motivation research, etc. General; by place, in HC; maps, G.
Cf. HB801, Consumption (Economics).
4 Distributive education.
Cf. HF1101-1181, Commercial education.

HF 5417 Maintenance of prices. Price fixing.
5421—5426 Wholesale trade.
5429 Retail trade.
5431—5436 Cooperative business. (Particular companies. "Net price" agreements, discount systems, etc.)
5437 Buying.
5438 Salesmanship.

Library Resources & Technical Services
HF 5441—5444 Commercial travelers.
5446—5459 Canvassing.
5461 Department stores.
5466—5468 Mail-order business.
5470—5483 Markets, fairs and related works. (Including vending machines.)
5484—5495 Warehousing and storage.
5505—5585 Credit periodicals; general works, installment plan, credit information agencies, credit insurance.
5801—6191 Advertising.
HG 3701—3781 Credit theory, institutions, credit instruments, commercial credit, foreign credit, consumer credit, bankruptcy, insolvency.

Related Schedules—That are frequently used.

T Technology—General.
S Agriculture.
Z Bibliography and Library Science.
   40—115 Writing, Paleography.
   116—550 Book industries and trade.
   551—661 Copyright and intellectual property.
   662—997 Libraries and library science.
1001—1200 General bibliography.
1201—5000 National bibliography.
5001—8000 Subject bibliography.
8001—9000 Personal bibliography.

The following schedules also appear occasionally in a Marketing Collection:

E—F History (for Certain Collective Biography).
J Political science.
L Education.
R Medicine (chiefly for medical dictionaries and directories).
U Military science.
V Naval science.

Other than H, the most frequently used is T—Technology.

c. Dewey Decimal Classification—

301.15 Public opinion.
310 Statistics.
311 Statistical method.
312 Demography.
313.319 General statistics of specific countries.
331 Labor economics.
332 Financial economics.
334 Cooperation and cooperatives.
336 Nontax revenues.
337 Tariff policy.
338 Industrial economics and production economics.
339 Income and wealth.
Insurance (i.e., 368.013 Marketing—sales techniques, buyers' interest).

Public services; public utilities.

381-382 Commerce.

383-384 Communication services.

385 Railroad transportation.

386 Inland water transportation.

387 Marine transportation.

388 Highway and urban transportation.

620-699 Industries. (Included is 658.8 Marketing and 659.1 Advertising.)

Marketing.

.801 Sales psychology.

.807 Sales & teaching of marketing.

.81 Sales planning.

.817 Sales records and analysis.

.82 Sales promotion.

.83 Market research and analysis.

.84 Marketing channels (methods).

.85 Salesmen and salesmanship.

.86 Wholesale marketing.

.87 Retail marketing.

.88 Credit and collection methods.

.89 Salesmanship in specific businesses.

Advertising.

3. CLASSIFICATION OF INDUSTRIES

a. Harvard Business Classification—

Industries may be classified in two basic ways: (1) Q—Primary industries, which includes various agricultural, forestry, marine, mining and all types of engineering industries, such as metals, machinery, power generation and electrical engineering industries, such as machinery, transmission, communications and atomic energy or R—Manufacturing industries. Construction. Services, and (2) appending the numerals of the Industries List to the appropriate letter notation. Such numerals would be separated from the letters of the chief notation by a colon (:).

Thus, Aluminum may be classified:

QGFA or as :935 appended to the appropriate business function.

ACH:335 Price control of aluminum.

CH:335 Public relations in the aluminum industry.

DRG:335 Manufacturing costs in the aluminum industry.

HE:335 Organization for management and control in the aluminum industry.

QGFA may also be subdivided by the Local List.

QGFA:73 Aluminum in Canada.

It is not necessary to use the minor divisions in a small collection, or in every class in a large one. Under some conditions, and for certain special purposes, it will be found advantageous to use the smallest subdivisions. . . . It may also be used for files of "special data"—pamphlets, clippings, cata-
Despite the detail of the Industries List, it still is not as detailed as might be needed for special collections. For example: Under :49-Paper and paper products, there is only:

:491 Newsprint.
:492 Book and writing paper. Tissue paper.
:493 Kraft and wrapping paper.
:495 Coated paper. Wall paper.
:496 Paper boxes and containers.
:499 Other paper products.

Under RBL—Paper—there are 42 classes for this category. Thus, Q and R offer considerable more detail.

The disadvantage of these two methods of classifying industries is that all materials pertaining to an industry are not put together. For example:

:561 Airplanes. Hydroplanes.
SGCD:561 Potential users of hydroplanes.
LG:561 Fire prevention and protection of hydroplanes.
JDB: Amount of capital. Requirements for business purposes for hydroplanes.
ICJ:561 Location factors for plants—transportation—for hydroplanes.
RHEC Manufacture of hydroplanes.

The American Marketing Association defines marketing as: “The performance of business activities that direct the flow of goods and services from producer to consumer or user.” With such a wide scope, it is understandable why marketing specialists often need to know: “All there is to know about a given product.” The necessity of having material on a given industry in so many schedules is undoubtedly a weakness in the classification, itself, for marketing.

b. The Library of Congress Classification—

Theoretically, if the work is chiefly economic in character it is classed in “H”: Electronic Industries Association. Fact Book. Washington. Annual. HD9696. If the work is technical, rather than economic: EEM; electronics engineers master. Catalog and Directory of Electronic Products Sold Direct to Manufacturers. TK7870.

This is a clear-cut case since the second work contains no statistics and the first is not technical. The confusion lies in those works which have statistics and yet are technical in nature or when only the annual statistical issue is to be classified, and all other issues not owned by the particular library are technical and not statistical. For example: Marine Engineering Log—Annual Maritime Review and Year-
book Issue. (The annual statistical issue of the technical periodical.) The collection does not include any other issues of the periodical and there is no provision in H for Statistics of Shipbuilding. Therefore, it must be classed VM1. The combination of statistics and technical is illustrated by: A Congressional Hearing on Prices of Hearing Aids—Some valuable statistics and some technical material. No provision, thus far, is made for Statistics of Hearing Aids, and it is, therefore, classed in RF300 (medical schedule). In certain instances, there is exactly one half economic and one half technical material.

One of the most cumbersome arrangements is HD9999—Misc. industries and trades, A-Z. Thus, the modified Cutter number becomes a part of the classification:

- HD9999.A2 Abrasives
- HD9999.A5 Air conditioning
- HD9999.A8 Artificial flowers
- HD9999.B1 Barbers’ supplies
- HD9999.B16 Basket making etc.

There is no connection between the adjacent industry (even a peripheral relationship) except an accidental alphabetical one.

c. Dewey Decimal Classification—

Industries are represented between 620 and 699, with some numbers not being appropriate, such as 640 Home Economics. Manufactures are represented between 670 and 689. The difficulty in DC is that the decimal system creates long numbers so that when a form or geographic division is added to that, the length becomes completely impractical. For example: 676.288—Paperboard. 676.28805—Paperboard periodical. In addition, industries are not classified with enough detail. The advantage that it has over LC is that all material on the industry is shelved together. There is no separation between technical and economic materials.

4. FORM DIVISIONS

a. Harvard Business Classification—

Two form lists have been developed: the *Material-Form List* (relating to the physical character and the origination or sources of the material) and the *Subject-Form List* (inner character of the books).

---

**Material-Form List**

1. Bibliographic
   - .12 Bibliographies.
   - .16 Indexes.

2. Encyclopedic
   - .22 Encyclopedias.
   - .24 Dictionaries.
   - .25 Directories.
   - .26 Handbooks.
   - .27 Ready reckoners, tables, etc.
   - .28 Yearbooks. Almanacs.

---

* 424 *

*Library Resources & Technical Services*

4. Illustrative

- .42 Prints. Photographs.
- .44 Films.
- .48 Museum specimens.

5. Manuscript

- .52 Administrative documents: directors' records, etc.
- .54 Account books.
- .56 Letters and correspondence.

6. Promotional, including specifications

- .62 Trade catalogs.
- .64 Price lists.
- .66 Advertisements.

7. Corporate publications, nonbusiness, and government

- .72 Universities. Colleges. Schools.
- .74 Congresses. Conventions.
- .76 Societies. Associations. Institutes.
- .78 Government publications.

8. Corporate publications, business

- .82 Corporations.
- .84 Trade associations.
- .86 Labor unions.

9. Periodicals

Examples of use are:
- S.26 Marketing handbook.
- S.9 Marketing periodical.
- S.24 Marketing dictionary.
- S.12 Marketing bibliography.
- S.46 Marketing maps.

Subject-Form List

- .01 Theory.
- .02 History.
- .03 Biography.
- .04 Statistics.
- .05 Education. Textbooks.
- .06 Law. Regulation.
- .07 Finance.
- .08 Accounting.
- .09 Costs.

Examples of use are:
- SG.02 History of marketing research.
- S.05 Education in marketing.
- S.09 Costs of marketing.

Form divisions which do not appear in either DC or LC, but are used in Harvard:

Volume 9, Number 4, Fall 1965
**Material-Form List**

1. Abstracts and review  
2. Illustrative  
   - Prints, Photographs  
   - Films  
   - Maps, charts, gazetteers, atlases  
   - Mechanical drawings, plans, blueprints  
   - Museum specimens  
3. Manuscript  
   - Administrative documents, directors’ records, etc.  
   - Account books  
   - Letters and correspondence  
4. Promotional, including specifications  
   - Trade catalogs  
   - Price lists  
   - Advertisements  
5. Corporate publications, nonbusiness and govt., universities, colleges, schools  
   - Congresses. Conventions.  
   - Govt. publications  
6. Corporate publications, business corporations  
   - Trade associations  
   - Labor unions  

**Subject-Form List**

- Finance  
- Accounting  
- Costs  

In LC costs appears as a separate assignment from several different points of view:

- HD47 Cost of production.  
- HF5716 (Under Bus. Math.) Tables of cost, quantity, weight, etc., of particular commodities.  
- HD6977-7688 Cost of living.  
- HD4945 Cost of living statistics.  
- HB161 Economic theory of cost.  
- HF5686.C8 Cost finding.  
- HB380 Economic theory of cost of labor and wages.  
- HF5734 Cost marks (included in the index to the 3rd ed., but not in the schedule, itself).  
- HJ9750 Cost accounting.

b. The Library of Congress Classification—

- **426** Library Resources & Technical Services
"In cases where a class number has no special provision for form sub-
division, it is LC's practice to establish .A1, A-Z for periodicals and
.A2, A-Z for societies, when needed." Thus, it would seem that the
Proceedings of the American Marketing Association would be classified
HF5415.A2A4. However, the number of titles that must be
classed, has necessitated the following for the serial: HF5415.A554.

Unfortunately, "LC has not been consistent in applying this
consistently in entering later titles." It, therefore, becomes necessary
to interpolate, so that alphabetical sequence of authors is possible.

Certain class numbers have their own form divisions "built in"
the class: HF5487 Warehousing and storage in the U. S.
.A1-3 Periodicals, Associations.
.A4 Documents, other than laws, regulations.
.A5 Laws and regulations.
.A6 Nonofficial (Manuals, etc.). By date.
.A7-Z General works. Policy, legislations, taxation, administration.

Grout states that
the LC form divisions vary among the several schedules, but that under gen-
eral subjects the form divisions as a whole are:
1. Periodicals.
2. Yearbooks.
3. Societies.
4. Congresses and exhibitions.
5. Collections.
7. Theory, Method, Scope. Relations to other sciences.
8. History of the subject.
11. Study and teaching. Textbooks.
12. General special. (Used for works dealing with the subject in general,
or with several principal aspects of it treated from a particular point of
view, or in a particular relation.) See U. S. Library of Congress, Classification
Division. Class P: P-PA, 1928. p. iii.

There appears to be some disagreement as to the validity of this
observation, though nothing else pro or con could be found in the
literature.

c. Dewey Decimal Classification—
There are nine basic form divisions which may be added to any
subject, if applicable.

Further refinements are also possible: 05 breaks down into 058
Annuals and 059 Almanacs. The advantage is the ease in identifica-
tion, since 05 has the same meaning as a form division throughout
the classification, just as the Harvard, but unlike LC.

Marketing is 658.8

Volume 9, Number 4, Fall 1965
Sales Psychology is 658.801, which is in direct conflict with the form division, the Theory of Marketing. 658.802—658.809 present no conflict.

Sales Policies is classified 658.812.

The form divisions thus become considerably cumbersome.

In general, the use of form divisions in LC follows the first definition of form (the particular arrangement or method of treatment of a work—pure form), but in DC, the classic nine form divisions are really subdivisions of classes which are applicable to all or almost all of the ten classes. . . .

5. GEOGRAPHICAL DIVISIONS

A. Harvard Business Classification—

"... If the material being handled seems to require subdivision according to geography, the numerals of the local list may be utilized. In this case, it is the Baker Library practice to use no punctuation mark between the letter and the Local List." An example would be RCD32—Pottery manufacturing of England or SBN36—Costs of distribution in Germany.

... It is possible to use both the Local and Industries Lists for an individual call number, although in reality cases are not numerous where subdivision of material by both location and industry as well as by subject is essential. Such elaborate treatment naturally results in long notations. ... Thus, Distribution Channels of Shoes in Italy would carry the notation of SGQ641 :40 or Distribution Channels in Italy of Shoes would be: SGQ40 :641. . . . This combined use, however, would be common only in large collections used for reference purposes, where the client of the library would be supposed to have had considerable experience in using libraries.
The Local List includes all U. S. cities of 25,000 inhabitants or over as given in the 1930 Census . . . and all foreign cities with 200,000 inhabitants or over . . . It may seem that the List has been developed in too great detail (but) it is by no means necessary to use the minor divisions in a small collection, or in every class in a large one. For certain special purposes, as in the arrangement of local histories, photographs of geographical scenes, maps and city plans, it may not be found too extensive.

b. The Library of Congress Classification—
Geographical divisions are achieved in two ways:

(1) Specific numbers assigned to countries.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE2801-3560</td>
<td>Railways—other countries</td>
</tr>
<tr>
<td>2801-2810</td>
<td>Railways—Canada</td>
</tr>
<tr>
<td>2811-2820</td>
<td>Mexico</td>
</tr>
<tr>
<td>2821-2825</td>
<td>Central America</td>
</tr>
<tr>
<td>2824.B7</td>
<td>British Honduras</td>
</tr>
<tr>
<td>2826-2830</td>
<td>Panama</td>
</tr>
<tr>
<td>2831-2835</td>
<td>Costa Rica, etc.</td>
</tr>
</tbody>
</table>

If the numbers assigned to a given country equals five use table with five numbers. For example: HE2821-2825—Central America. Use under each:

1. Serial publications.
2. Separate documents. By date.
3. General works.
4. Local, A-Z.
5. Special railroads or companies, A-Z.

Thus, Central American railway serial publications: HE2821
Central American railway separate documents: HE2822
Central American railway general works: HE2823
Central American local railway works by rail railway (A4 represents local railway and P5 the author):

Central American railroads or companies, A-Z: HE2825.A4P5
(A4 represents particular company and P5 the author):

If the numbers assigned to a given country equals ten use table with ten numbers. For example: HE2801-2810—Canada. Use under each:

1. Serial publications.
2. Separate documents. By date.
3. Laws, legislation, etc. Other than serial publications.
4. Directories.
5. General works.
6. Administration.
7. Public policy.
8. General
   .1 Biography collective.
   .2 Individual, A-Z.
9. Local, A-Z.
10. Special railroads or companies.

Thus, Canadian railway serials: HE2801
Canadian separate documents. By date: HE2802.1963
Canadian railway laws, legislation, etc. HE2803

Volume 9, Number 4, Fall 1965
(2) **By Cutter number**

- HD9757—Lumber industry of the United States.
- HD9757.A2 in southern states.

The Cutter number may be written out in the schedule, as in this instance, or it may be simply directed:

- HD9004—Agricultural and other plant and animal product statistics. By country, A-Z. (For explanation see section 7b, below.)

"Works on marketing in individual countries other than the United States are placed in HF5349, A-Z by country.\(^2\) This is a general number used for business histories by country. Thus, there is no distinction between books dealing collectively with the various functions of marketing in individual countries other than U. S. and other business histories. However, this is not as chaotic as it might seem, since many of the subject areas have their own classifications for historical works or general works in other countries.

For example: HG186-188 Personal finance—Europe and other countries. HJ9921-9933 Public accounting—Canada, other American countries, Europe, Asia, etc.

"Marketing of a product in a specific geographical area can also be reflected in this sub-class (HD9000-9999) by means of applying the tables which immediately follow HD9999."\(^2\)

For example: HD9510-9529 Metal industries (20 numbers, thus requiring Table A).
- HD9521 Metal industries of Great Britain (9510 plus 11 for Great Britain).

Bogardus points out the disadvantage of “unnecessarily detailed emphasis on geographic and chronological arrangement which is not as important to business libraries as a subject breakdown. LC usually sub-divides by country, form or time, in the main sub-division, and relegates the breakdown by industries or specific subjects to further expansion. Business libraries would prefer to have this reversed.”\(^3\)

c. **Dewey Decimal Classification—**

The Geographical divisions are mnemonic. Instructions in the schedules will indicate to divide like 930-999 or like 940-999. Simply take the number indicated in the schedule and add it to the “country number,” eliminating the first digit of the country number.

Thus: 666.5—Manufacture of porcelain ( chinaware).
- 942 England.

The difficulty in combining the numbers assigned to marketing and the geographical divisions is the extreme length of the numbers:
6. FREQUENCY OF COMBINATION OF USE OF FORM AND GEOGRAPHICAL DIVISIONS

The frequency of combination of use of form and geographical divisions is rare for all three classifications for the following reasons:
1. The need for such close classification is necessary only in very large or very specialized collections.
2. The majority of titles in American libraries are geographically usually confined to the U. S. Therefore, geographical division is needed only when there is material on more than one country for that particular number.
3. Form divisions are needed only when numerous titles are held within a class. Certainly a few titles would not require any form divisions, unless a specialized or large collection were knowingly being acquired.

In all cases, elaborate treatment naturally results in long notation.

7. DISTINCTIVE CHARACTERISTICS OF THE HARVARD BUSINESS AND LIBRARY OF CONGRESS CLASSIFICATION

The list is not intended to be an exhaustive one, but only a limited number of highlights from each:

a. Harvard Business Classification

Relationship notation and its use—
Material appears from time to time which is concerned with the relationship of certain business functions to subjects not covered by the main functional classification, such as the relation of business leadership to psychology. . . . As far as seemed desirable, such relationships have been covered by entries in the classification. This provision, however, may well be defective even as regards current literature, and it will doubtless become inadequate in the future.4

While our classification does provide for special relationships to other subjects under marketing, S.A-Z, we have never actually used any of these letter subdivisions there. Where we have, as under B and N, we have not consistently used the same letter for the same sort of subject relationship. . . . N.B was originally chosen for books dealing with the relationship of labor to philosophy and psychology because B is the symbol the Library of Congress uses in its classification for that field. Similarly the Library of Congress uses E for history; H for economics; J for politics; R for science and technology; and U for military science and war. So we have used N.F; N.H; N.R and N.U for books relating labor to those fields. I do not know why W was chosen for art unless it was felt that N.N might be ambiguous and I suppose C was chosen for religion because B had already been used for philosophy.

By the time a subdivision for books on the relation of labor to education
was needed, this use of LC was evidently forgotten. I have no idea why D instead of L or A was used.

Under B, economic theory, I find we have used B.A for economics in relation to politics; B.F for economics in relation to psychology and B.T for economics in relation to technology, which does not follow our scheme under N at all. . . . We really don’t use these letter subdivisions very much and you are the first person who has questioned our use of them, as far as I know.  

Despite the confusion in its use, Relationship Notation still could have some use in the field of marketing. For example: there has been certain monographic literature on the Relationship of Law to Marketing and one can visualize S.K (if the LC letter is used) or S.L. This Relationship Notation is unique among these three classifications.

b. Library of Congress Classification—

**LC Book Numbers**

The arrangement of the material within each class is generally alphabetical by author and title. The “internal” notation used to designate the individual books is based upon a simplification of the book numbers devised by Cutter. The specificity of the LC Classification (usually) keeps the number of books in each class at a minimum so that the long numbers in the Cutter tables are unnecessary. The following tables form the basic pattern of the scheme:

1. Where initial consonants (except the letter S) are followed by vowels or r, for second letter:  
   a e i o r u  
   3 4 5 6 7 8

2. Where initial vowels are followed by consonants, for second letter:  
   b d l m n p r s t  
   2 3 4 5 6 7 8

3. Where the initial letter S is followed by consonants or vowels, for second letter:  
   a ch e h i m o p t u  
   2 3 4 5 6 7 8 9

Since the numbers are used decimally they are indefinitely expansible:

1. Names beginning with consonants:
   - Carter .C3  
   - Cecil .C4  
   - Cinelli .C5  
   - Corbett .C6  
   - Cox .C65  
   - Crockett .C7  
   - Croft .C73  
   - Cullen .C8

2. Names beginning with vowels:
   - Abernathy .A2  
   - Adams .A3  
   - Aldrich .A4  
   - Allen .A5  
   - Archer .A7  
   - Arundel .A78  
   - Atwater .A87  
   - Austin .A9  
   - Ames .A6
3. Names beginning with the letter S:

<table>
<thead>
<tr>
<th>Name</th>
<th>Cut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sabine</td>
<td>.S15</td>
</tr>
<tr>
<td>Saint</td>
<td>.S2</td>
</tr>
<tr>
<td>Schaefer</td>
<td>.S3</td>
</tr>
<tr>
<td>Schwedel</td>
<td>.S35</td>
</tr>
<tr>
<td>Scott</td>
<td>.S37</td>
</tr>
<tr>
<td>Seaton</td>
<td>.S4</td>
</tr>
<tr>
<td>Sewell</td>
<td>.S43</td>
</tr>
<tr>
<td>Shank</td>
<td>.S45</td>
</tr>
<tr>
<td>Shipley</td>
<td>.S5</td>
</tr>
<tr>
<td>Smith</td>
<td>.S6</td>
</tr>
<tr>
<td>Steel</td>
<td>.S7</td>
</tr>
<tr>
<td>Storch</td>
<td>.S75</td>
</tr>
<tr>
<td>Sturges</td>
<td>.S8</td>
</tr>
<tr>
<td>Sullivan</td>
<td>.S9</td>
</tr>
</tbody>
</table>

The difficulty with the system is that if the catalog assigns only one letter and one number for the book number, and if a second book by the same author on the same subject is acquired sometime later, it is necessary to go back and change the first book number or risk having the newer title incorrectly placed in alphabetical sequence on the shelves.

A further adaptation of the Cutter number for book arrangement appears in the so-called "official Cutter" (.A1, .A2, etc., as needed). This is used extensively for publications of government organization, societies, and other corporate bodies and also, at times, for personal authors, when they constitute the subject represented by the class or subdivision. Used in such classes the Cutter number is a device by which all works for which the particular organization or personal author is responsible are kept together on the shelf ahead of descriptive or critical works by other authors. This type of Cutter number may appear in table form if applicable to a number of subjects. The following illustrates this practice:

HA Statistics
   United States
730 Cities, A-Z
   Under each:
      .A1-5 Official
      .A6-Z Nonofficial

Hoage states that "this practice of expanding the notation by the use of Cutter numbers can complicate the assignment of numbers, because it may involve consulting the Library of Congress' official shelf list for clarification."9

Furthermore, the practice can lead to peculiar clusters. For example: the "official" document for statistics of Natural Gas Companies is that of the U.S. Federal Power Commission. The nonofficial would be Gas Facts of the American Gas Association. Following the practice, the book number for the Federal Power Commission would begin with A and the publication of the American Gas Association would begin with A.

8. INDEXES
   a. Harvard Business Classification—

   There is a combined relative index for all schedules. There are no cross-references, but there are many direct entries under specific
terms and indirect entries under more general terms, i.e.: transportation, bus and bus transportation. A unique feature is that government agencies are interwoven in the index with subjects and the agencies are classified, i.e.: U. S. Federal Communications Commission—YAF, YEED, YET or U. S. Federal Power Commission—YJL. It is obvious that this is a great timesaver, since so much material in the field of marketing has corporate authorship. When there is only a direct entry (i.e., open-end investment companies—KSJ), the indirect entry gives the general class: investment companies—KS.

b. Library of Congress—
There is no combined index, but only an index to each class. They are of varying detail, with some references to other related schedules. Cross-references are not as frequent as might be desired. LaMontagne stated that “the separate indexes for each volume of the schedules now constitute approximately 1200 two-column pages.”

c. Dewey Decimal Classification—
There is a combined relative index, which contains many “see references,” usually indicating: “See specific subjects.” Unique features are: (1) Numbers previously assigned are included to show comparison. (2) Place names are entered under name of town or county. There are 24 entries for Jackson county—one for each state represented with a separate classification for each.

9. FREQUENCY OF REVISIONS

a. Harvard Business Classification—
The first edition was published in 1937 and the second edition in 1960. No supplementary additions were issued, other than the Industries List (the 4th edition in 1949) and the Local List (3rd edition in 1937). Despite the slowness of revisions, it is so detailed that there is comparatively little need for revision.

b. Library of Congress—
The quarterly, LC Classification—Additions and Changes, give current revisions and are incorporated in revised editions of the schedules, but with separate indexes for the Additions and Changes.

Hoage states that “a weekly list of tentative additions and changes with necessary cross-references and index entries is compiled by the Editor of the Classification Schedules and distributed to the staff in mimeographed form. Executive level staff meetings are held in order to make the final decisions on the topics and numbers. As soon as changes and additions are approved, they are added to the copies of the schedules used by the staff. Later the revisions are incorporated in revised editions of the schedules.”

Foskett states that “each class is revised and new editions are pub-
lished independently," which leads to the curious result that some classes (such as H) have had frequent revisions (and others less frequently).

c. Dewey Decimal Classification—

10. ADVANTAGES AND DISADVANTAGES OF EACH CLASSIFICATION

a. Harvard Business Classification—
Advantages
(1) "A detailed and exact outline of the fields of business . . .
(2) Excellent index.
(3) Provision for keeping it current.
(4) Flexibility"15
(5) Satisfactory explanatory introduction to the Classification.
(6) Apparent willingness of the Harvard Staff to offer further help by correspondence within a reasonable length of time.
(7) Greater speed possible in classifying, due in part to corporate authors appearing in index.

Disadvantages
(1) "Long notation.
(2) Difficulty in shelving and reading shelves.
(3) Unnecessary complexity for the small library.
(4) No real place for the industries as main headings unless the entire scheme is revised.
(5) Unfamiliarity by many librarians and patrons."

b. Library of Congress Classification—
Advantages
(1) Terminology and subject handling is logical, detailed and reasonably accurate.
(2) Full index with each schedule, with some cross-referencing to other related schedules.
(3) Frequent revision.
(4) Great possibilities for expansion and adaptation in use of form tables, geographic tables, subject tables, book numbers and unused classifications.

Disadvantages
(1) Long call numbers.
(2) Emphasis on geographical and chronological arrangement, which is usually not as important to business libraries as a subject breakdown.

Volume 9, Number 4, Fall 1965
Unfamiliar to many special librarians and clerical assistants.
Lack of mnemonic value (geographically, chronologically or in form numbers).
Lengthy book numbers frequently unavoidable.
Confusion and overlapping between T (for manufacturing industries) and H.
Inadequate provision for many smaller industries. (HD9999)

C. Dewey Decimal Classification—
Advantages
1. Wide use and the familiarity of most librarians with it.
2. Frequent revisions.
4. Relative index.
5. Relative simplicity in use and application.
6. Ease in shelving and reading shelves.

Disadvantages
1. Planned for use in general and public libraries rather than in special libraries.
2. The order in which related subjects stand on the shelves is not logical.
3. Widely separates business and economic subjects with unrelated classes in between.
4. Limited in amount of expansion that can take place. (Almost no unused numbers and expansion of existing numbers result in long call numbers.)
5. Certain marketing functions already have such long call numbers, that they become too burdensome when geographical or form divisions are added.

11. Final Choice of a Classification for a Marketing Collection.

The Dewey Classification is the least desirable choice because of its lack of detail and cumbersome notation. The Harvard Classification would be second choice because of its limited subject scope and inadequate treatment of industries. Industrial Marketing requires an understanding of the technical, as well as the economic characteristics of an industrial product. For example, a study entitled: “The Market for Potentiometers” would necessitate an understanding of the product, itself, before marketing information could be obtained. The T schedule of the LC classification affords a detailed analysis of industries that is absolutely unavailable in DC or Harvard.

Furthermore, LC cards give the LC classification which is usually unchanged in the current LC additions and changes. While the DC classification given on the cards is sometimes completely outmoded by complete revisions in later editions, there is a tendency to more frequently add to the LC classification, rather than completely shift subjects to other numbers. Therefore, the LC numbers on the cards usually remain usable.
The Harvard Classification is only for Business. Other subject areas are possible only by placing the letter Z as a prefix to the needed LC classification. Thus, it is necessary to combine the Harvard with another classification for broader subject coverage. In the LC classification, almost all schedules can be used for a marketing collection. Education statistics are placed in L, religious statistics in B, medical directories in R, etc.

Thus, a very detailed classification, but broad in scope is possible with the Library of Congress classification. Therefore, despite difficulties of overlapping and omission of needed subjects (such as New Products), the Library of Congress classification remains the best choice for a Marketing Collection.

REFERENCES

10. Letter from Helen E. Honey, Head of Catalog Department, Harvard University, Graduate School of Business Administration. Baker Library, Nov. 4, 1963.
15. Material not in quotations is by the author.
At Last!...

A GUIDE TO CURRENT BOOK REVIEWS IN MORE THAN 200 PUBLICATIONS!

BOOK REVIEW INDEX

PINPOINTS 40,000 REVIEWS YEARLY

FOR ONLY seven cents A DAY!

Book reviews are the “Consumers’ Reports” of the library world, vital to the librarian for the selection and evaluation of books, for the preparation of book talks and new acquisitions exhibits, and for meeting efficiently and effectively the needs created by the myriad interests of both adult and student patrons. But reviews of many books are difficult to find.

Now, for less than seven pennies a day, you can have Book Review Index at your elbow, and put an end to the needle-in-a-haystack searches for reviews you have been forced to undertake in the past whenever current reviews of current books have been needed.

Published monthly, and covering more than three times as many general, specialized, and scholarly periodicals as any comparable service, Book Review Index provides citations of new reviews within an average of about five weeks following appearance of the reviews.


Sample of Book Review Index Citations

KRAUS, Robert—The Bunny’s Nutshell Library
Book Week—M. S. Libby—11 April 65—p 13
Library Jnl—L. Dudley—v 90—15 April 65—p 202
NY Times Book Rev—G. Woods—v 70—11 April 65—p 26

KRESSING, Harry—The Cook
Best Sellers—v 25—15 April 65—p 42
New Yorker—v 41—1 July 65—p 188
Saturday Rev—G. Hicks—v 48—1 May 65—p 33

KRIEGER, Murray—Window to Criticism
Books Abroad—T. R. Hart—v 39—Spring 65—p 211

Each Index citation includes (1) author’s name, (2) book title, (3) name and date of reviewing publication, (4) name of reviewer (if review is signed), and (5) page on which review begins.

Regular monthly issues of the Index are published approximately three weeks after the end of the month covered by the contents of each issue; every third month’s issue also cumulates the previous two monthly issues.

Yearly subscriptions, covering twelve issues and an estimated 23,000 titles and 40,000 reviews, are $24—two dollars a month for a publication that now is saving librarians and researchers hundreds of valuable hours yearly, as well as enabling them to make more intensive searches and better-informed decisions.

Publication Schedule and Subscription Rates
Published Monthly Cumulated Quarterly $24.00 Per Year

ORDER ALL ISSUES TO DATE ON 30-DAY APPROVAL

GALE RESEARCH COMPANY 1400 Book Tower
Detroit, Michigan 48226
It may be useful in some institutions, such as denominational historical societies, seminaries, colleges, and ecclesiastical offices, to have the materials of a given religious body shelved together. The present study has been made, therefore, to evaluate available classification schemes as to their adequacy for arranging a large collection of literature of denominational material. Roman Catholic and Jewish collections have been excluded because they have their own schemes, such as those by Lynn-Peterson and A. S. Freidus.

Dewey Decimal Classification

The Dewey Decimal Classification scheme is inadequate for a large denominational collection, because the only subdivisions provided are those for form and geography. The scheme is inferior in this respect to the classified bibliographies available for the various denominations. The only means, therefore, of keeping together denominationally-oriented biblical studies, theological works, devotional and practical books, positions on the nature of the church, and sermons would be to withdraw them from the general collection and to shelve them separately. The scheme would quickly become overcrowded in the few numbers provided.

Classification Décimale Universelle

The Classification Décimale Universelle is in most respects better than the Dewey scheme for the arrangement of a large denominational collection. It, for one thing, provides for a few more subdivisions than does Dewey. Its provision for auxiliaries by form, language, race, geography, time, point of view, etc., as well as its provision for relating two aspects, could be useful in bringing together more of the materials of a given denomination than could the Dewey system, although it is not as useful for this purpose as some of the other schemes.

A Bibliographical Classification by Bliss

Most of the limitations of the Dewey and the Classification Décimale Universelle for the purpose being considered are corrected in the Bibliographical Classification by Bliss. The most useful feature of this sched-
ule for denominational material is Schedule 16, which may be used for specification under any sect. Further provision is made for applying Schedule 2 or 3 under history and under such divisions as missions and religious societies. Schedules 6 and 7 are applicable to the categories for sacred books, founders, saints, leaders, and teachers. A combination of these would be adequate for subdividing a large collection of denominational materials, while Schedule 16 would be adequate for a modest collection.

Although this scheme is more specific in this section than is the Library of Congress scheme, some questions may be asked about the order of the Bliss subdivisions. Why, for example, is history and biography introduced in the middle of the form divisions with which the schedule begins? Further, why are apologetics separated widely from theology when their subject matter is almost identical? The schedule, in spite of weaknesses such as these, is, in general, orderly and clear.

Other attractive qualities about the schedule include its objectiveness. The separate schedules, for example, may be applied to any denomination, whereas Dewey and UDC provide comparable subdivision only for the long-established branches of Christendom. Bliss also has an up-to-date quality which is reflected in the section for the relationship of the denominations to the ecumenical movement under "Special subjects." An attempt is made to keep the system current through the Bliss Classification Bulletin, published by the H. W. Wilson Co., but these appear so infrequently as to be of limited value. More importantly, the system is flexible, giving many alternatives which may be adapted to local situations.

Yet, other factors, such as lack of accompanying catalog cards, satisfaction with other schemes, and problems associated with reclassification to a new scheme, make it questionable whether this system will receive wide-spread adoption for the classification of denominational collections.

Colon Classification

The Colon system would be the least appropriate for the classification of the literature of a minor Protestant denomination of any surveyed. Although it has some value in showing relationships, its originator has little help for the solution of problems associated with the arrangement of materials of Protestantism. It is impractical for the classification of a large collection of such materials, as the separations are not practical, the materials could not be brought together easily, the major types of literature are not included, the subdivisions would have to be invented, the references are inadequate, and most of the books available would not fit into the scheme.

Rider's International Classification

Neither would Rider's International Classification be practical for a large collection of denominational material. Although, unlike the Colon Classification, it provides letters for Protestant sects, its lack of provision
for subdivisions would make it unworkable for large collections. It would be impossible to bring the material on a denomination together; this material would, therefore, be scattered more than in the Dewey and UDC schemes.

Classification of Union Theological Seminary

Unlike some of these lesser-known schemes, the system of the Union Theological Seminary library in New York vies in popularity with Dewey and the Library of Congress schemes for the classification of theological collections in the United States. This scheme treats Christianity as central, and every subject is seen within this perspective. It has continuous revision through the classification of books in its home library, in a way similar to that by which the Library of Congress scheme is kept current; and these revisions are made available to the users of the scheme through publication of supplements and accessions lists.

Although its subdivisions are more specific than those for the Dewey, UDC, Colon, and Rider schemes, it is not as specific as the Bliss or the Library of Congress systems in this area. The subdivisions in this scheme are logical and practical, but the principal criticism at this point is that they do not encompass the literature. The classifier would, therefore, be forced to invent a scheme of his own. Although the scheme has much to recommend it for the classification of a collection of denominational material, it is not as specific as Bliss or the Library of Congress systems.

The Library of Congress Classification

When this scheme was devised, many topics were divided by denomination; yet it was found to be impossible to separate all materials in this manner. The solution was to provide for the major categories of theology and then to list the denominations with subarrangements under each. The periodicals, societies, collected works, history, liturgy, and biography were, for example, listed under each denomination.

While a few periodicals in Christendom are nondenominational, most are aligned with a sect. A class number is given in the system for the general ones, while the denominational periodicals are listed with the material of the sect. Preference is given to the sectarian material, in fact; yet the section, "Movements transcending geographical and denominational lines and theological disciplines," for BR 1620-53, is a recognition that this is not always possible. The result has been a scheme which is quite detailed at the point being evaluated and which is, further, clear and concise in its terminology.

Yet the system is not without faults. The classification of denominational materials on theological education, hymnology, and sermons for children and young people in BV is not consistent with the general philosophy of the scheme. Further, no provision is made in the subdivisions for such works as denominational ethics and architecture. The scheme may, in fact, have to be expanded for the classification of a strong denominational collection.

Volume 9, Number 4, Fall 1965
Conclusions

The most detailed classification for bringing together the literature of a minor Protestant denomination, then, is that of Bliss. This scheme is superior to that of the Library of Congress in minuteness of subdivision and is equally as good for up-to-dateness, objectivity, logical divisions, and clarity of terminology. Both systems are superior to most of the classified bibliographies available.

Yet other considerations tend to make the Library of Congress a preferable scheme for a large collection of denominational material. First, it could be expanded and adapted locally at those points where it is inadequate. Secondly, it is easier to use than is Bliss, especially with its provision of numerous examples. Thirdly, the advantage of using the Library of Congress printed cards with their suggestions for classification is a factor to weigh in the selection of a scheme. Lastly, it is a widely-tested system which will probably be kept up-to-date.

ELSIDORE CONFERENCE PROCEEDINGS

The proceedings of the Second International Study Conference on Classification Research, held at Elsinore, Denmark, September 14-18, 1964, have been published by FID/CR in cooperation with the Danish Centre for Documentation. The volume will include the papers prepared and a record of the participants’ discussion following each presentation.

It is being distributed by Munksgaard, 47 Prags Boulevard, Copenhagen S, Denmark, at a price of 9.50 (6,4 D.kr).

BELGIAN NATIONAL UNION CATALOG

In 1962 the Bibliothèque Royale de Belgique began, with the cooperation of all Belgian libraries, a union catalog showing the location of current foreign periodicals. The catalog (some 125,000 cards listing over 45,000 titles) was available for consultation either in person or by mail, telephone, or telegraph.

It has now been published in book form—2 volumes of about 1,000 pages each, price—2400 FB, or about $250. Orders may be placed with the printer, Culture et Civilisation, 115 Avenue Gabriel Lebon, Bruxelles 16, or questions may be addressed to Mme. M. Huysmans, Chief of the Union Catalogue Section, Bibliothèque Royale de Belgique, 4, Boulevard de l’Empereur, Bruxelles 1.
TWO YEARS AGO we accepted the challenge of putting the record collection of our college music department into some kind of order. We made a study of the systems that were in use in several libraries in the area, but found them unsuitable for our needs. Since it seemed inadvisable to adopt a method that still left many problems unsolved, we felt that the only alternative left to us was to devise a classification system of our own.

Our first decision was to try to keep all the works of one type of music shelved together in one place since this would prove to be a decided advantage for both our teachers and our music students. However, we found that the Dewey classification numbers for the various forms of music require from five to eight spaces and were too cumbersome for our use; thus we worked out a code consisting of a combination of letters for each type which could be limited to three units at most. As an aid to memorization we chose the first letter(s) of the form name. In a few instances where duplication would have resulted, a third letter was added to make a distinction between the two types, in some cases the first letter of the second word:

- Symphonies — Sy
- Symphonic Poems — SyP
- Choral Music — Cho
- Chorale Preludes — Chp

A problem that soon presented itself while sorting the records for classification was the great number of LP's containing selections of several composers and including more than one form. An example is the RCA Victor record containing both Tchaikovsky's Nutcracker Suite and Waldteufel's Skaters' Waltz. With Dewey's 001-099 (General Works) as a precedent, we classified all such recordings as General Works, using a G as the symbol.

The code that resulted from the preceding considerations emerged as shown on the following page. Although we did not establish a pattern of major categories which could be expanded by subdivisions such as Dewey's decimal principle provides, our code can be enlarged or modified.
quite easily, as there are many letters and possible combinations of letters which have not yet been used.

<table>
<thead>
<tr>
<th>B</th>
<th>Ballades</th>
<th>Mu</th>
<th>Musicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ba</td>
<td>Ballets</td>
<td>N</td>
<td>Nocturnes</td>
</tr>
<tr>
<td>Ca</td>
<td>Cantatas</td>
<td>Op</td>
<td>Operas</td>
</tr>
<tr>
<td>Ch</td>
<td>Chamber Music</td>
<td>Opr</td>
<td>Operettas</td>
</tr>
<tr>
<td>Cha</td>
<td>Chants</td>
<td>Or</td>
<td>Oratorios</td>
</tr>
<tr>
<td>Cho</td>
<td>Choral Music</td>
<td>Ov</td>
<td>Overtures</td>
</tr>
<tr>
<td>Chp</td>
<td>Choral Preludes</td>
<td>Pa</td>
<td>Passion Music</td>
</tr>
<tr>
<td>Chu</td>
<td>Church Music</td>
<td>Po</td>
<td>Polonaises</td>
</tr>
<tr>
<td>Co</td>
<td>Concertos</td>
<td>Pr</td>
<td>Preludes</td>
</tr>
<tr>
<td>D</td>
<td>Dances</td>
<td>R</td>
<td>Rhapsodies</td>
</tr>
<tr>
<td>Dr</td>
<td>Dramatic Music</td>
<td>Se</td>
<td>Serenades</td>
</tr>
<tr>
<td>E</td>
<td>Etudes</td>
<td>Sn</td>
<td>Sonatas</td>
</tr>
<tr>
<td>F</td>
<td>Fugues</td>
<td>So</td>
<td>Songs</td>
</tr>
<tr>
<td>G</td>
<td>General Works</td>
<td>Su</td>
<td>Suites</td>
</tr>
<tr>
<td>I</td>
<td>Incidental Music</td>
<td>Sy</td>
<td>Symphonies</td>
</tr>
<tr>
<td>In</td>
<td>Instructional Records</td>
<td>Syp</td>
<td>Symphonic Poems</td>
</tr>
<tr>
<td>Inv</td>
<td>Inventions</td>
<td>T</td>
<td>Television Music</td>
</tr>
<tr>
<td>J</td>
<td>Jazz</td>
<td>Va</td>
<td>Variations</td>
</tr>
<tr>
<td>M</td>
<td>Marches</td>
<td>W</td>
<td>Waltzes</td>
</tr>
<tr>
<td>Mo</td>
<td>Motion Picture Music</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since many records would have the same classification symbol, it became necessary to make a further distinction so that each record would have its own specific "call number." As we felt it would be advantageous to shelve the works of one composer together wherever possible, at least within each category, we decided to assign a symbol for each composer consisting of the first letter of his surname and a number taken from the Cutter-Sanborn Table, which corresponds to the author number assigned to books in ordinary library procedure. For records containing the works of more than one composer, we used VC to signify Various Composers. For each record of this kind in a category we added an arabic numeral following the VC for further identification. In our collection the record containing Nutcracher Suite and Skaters' Waltz is classified as a VC since the works were composed by two different men. We have added the number 13 to this symbol as we already have twelve other records of various composers in General Works. The complete composer symbol we have assigned for this record is, therefore, VC-13.

It may be noted, however, that a record containing several works of the same type by more than one composer would be classified under that form, but would be assigned a VC symbol. The record containing Lerner and Loewe's My Fair Lady and Rodgers and Hammerstein's The King and I is classified under Mu, since both works are musical comedies, but the composer symbol used is VC since these works were written by different composers.

Another problem we had to consider was the difficulty of locating some of the records on the shelves because of their differences in size. We noticed that 7" and 10" records are hard to find, and that even single LP's
can be “lost” between bulky albums of 78 rpm’s. This we solved in two ways: (1) The number 7, 10, or 12 was included in the call number following the code letters to indicate the size of the record; (2) a small s was added after the size number to signify single records, while an m (multiple) was used to designate albums containing two or more records.

The Chopin recording, Music to Remember, was given the classification number G-10s since it contains several selections of different types of music, and it is a 10” single record. As Chopin’s symbol in the Cutter-Sanborn Table is C54, the complete call number for this recording is:

\[ \text{G-10s} \]
\[ \text{C54} \]

The Gondoliers by Gilbert and Sullivan is classified as follows: Opr-7m

It is an operetta recorded in an album of twelve 7” records, and the Cutter-Sanborn symbol for the composer is S94.

This last addition to our call number makes it possible to keep all multiples together at the beginning of each section, and the 7” and 10” records can either be shelved together before the 12” records in each section, or they can be placed on separate shelving. Incidentally, records classified as General Works can also be moved to the beginning or to the end of the collection if this proves to be more convenient than keeping them in their place alphabetically.

As a final mark of differentiation, we placed a small s before the classification symbol for stereophonic records as a reminder that these are to be used only on record players that have been designed for that purpose. Thus a stereophonic recording of Rodgers and Hammerstein’s Sound of Music is classified as:

\[ \text{sMu-12s} \]
\[ \text{R69} \]

In summary, a final analysis of our call number would be as follows:

<table>
<thead>
<tr>
<th>Classification symbol</th>
<th>12&quot; Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composer number</td>
<td></td>
</tr>
<tr>
<td>(Taken from Cutter-Sanborn Table)</td>
<td></td>
</tr>
<tr>
<td>Number of record by the same composer in each category</td>
<td></td>
</tr>
</tbody>
</table>

After two years of experimentation and revision, we feel that we have finally solved most of the problems that seemed to defy any logical method of classification of music records in our own collection. It is our hope that the La Roche College Classification System for Phonorecords will be of help in solving these same problems in other colleges and libraries that are attempting to classify their collection of music recordings.
ONCE A LIBRARY HAS DECIDED to classify phonograph records, a do-it-yourself system seems to be the rule. Neither Dewey Decimal nor Library of Congress provides a music classification system which can be adapted easily to a phonograph record collection. Spoken records further add to the difficulty of using a purely music classification scheme.

After studying and rejecting a number of such schedules, we concluded that we might as well follow the pattern set by many other libraries and make our own system at the USAF Academy Library. As we began to work with the problem, we found that devising a system and then putting it into service was exciting—if classification can ever be said to be exciting. This was a much less cut-and-dried business than classifying into an already established system, and to watch the scheme develop and fall into place became absorbing.

As a start, we checked other systems and record libraries and read everything we could find on phonograph record classification. Then we looked at our record collection and tried to judge where it was going. History, literature, and language records would certainly be played both in and out of the classroom. Musical recordings would also have a dual instructional-recreational use. We did not intend to limit ourselves to classical music, although that is what the bulk of the holdings would be. We knew that cadets and other patrons enjoyed musical comedies, light opera, and jazz, and the record library should contain some of this sort of music. We set no maximum figure, but estimated that we would not exceed five thousand records. The USAF Academy Library’s stacks are open, including the phonograph records, and our classification system had to be handy for browsers. Of course it should be flexible with simple notation.

The result turned out to resemble the Dewey classification, although a Dewey abbreviated and modified, with the decimal point moved one place to the left. The first part of the schedule (Classes 10 through 23) covers music records. This corresponds roughly to the Dewey 780’s, with extra features added such as the separate popular vocal and instrumental sections. The second part of the schedule (Classes 28 through 99) contains spoken records and follows Dewey more closely.

The music part is divided into six major areas:

10 General
12 Dramatic music. Opera. Radio, TV, film, other theater music. Ballet
• 446 •

Library Resources & Technical Services
Classes 13 through 19 are arranged by the performing instrument or voice—that is, by medium. Where we have deviated (in Classes 12, 21, 22, and 23) it is because jazz, folk, popular, and theatrical records are most often thought of and asked for in these terms. This has proved to be a good idea; the distinction is not hard to make and does not seem to involve much overlap.

The second breakdown may be by (1) medium—the performing instrument or voice; (2) form—the structural design of a musical composition, such as a symphony or concerto; or (3) type—used here to designate a special kind of music such as folksongs.

The following is an example of a typical breakdown:

16 Keyboard instruments
   .1 Piano
      .12 Piano sonatas
   .4 Early forms, Harpsichord, clavichord, etc.
   .5 Organ
   .9 Other keyboard instruments. Accordion.

There are always arbitrary decisions which must be made in working with a classification system. One of ours was to stick with Dewey and place concertos with orchestral works, subdivided by the featured instrument. This is why piano concertos fall in 15, not in 16. We also agreed to classify a record according to the medium on which the music was performed, rather than the medium for which it was written. For instance, music composed for the harpsichord but played on the piano falls in 16.1 (piano music), not in 16.4 (harpsichord music).

Throughout the music schedule, Classes 10 through 23, we extended most of the numbers one place beyond the decimal. This may seem to be close classification for the size of our record collection. Actually, it provides just about the proper number of spaces for our music section, enabling us, for example, to separate keyboard music into piano, organ, and harpsichord records, or to break down our several hundred dramatic music recordings into opera, operatic selections, other theater music, and ballet. We soon expanded the piano class to two places beyond the decimal, and other breakdowns will be made as sections become unwieldy.

In the spoken record schedule, Classes 28 through 99, we generally used the main class number only, again with subdivision past the decimal available if needed. In English and American literature we have enough records to justify form divisions; in other literatures our holdings are not extensive and can be contained easily under the main class numbers.

In a few cases we found that we had classified too closely. Religion and language are two subjects that did not require as many places as we had allowed for them, and we may recatalog these sections eventually. However, we consider that it does no harm to have rather scattered call

* 447 *
numbers in some areas, a feeling perhaps carried over from our work with the regular Library of Congress schedules where it is common to have only one or two books in a particular number, or perhaps none at all. This same feature has proved to be one of the chief merits of our record classification schedule—we have a logical place for any sort of record that may come along, whether it be grand opera or airplane sounds. Although not all possible places are filled, enough of them are used to make the schedule worthwhile.

Cutting throughout the collection is by main entry, with work number or letter as needed. We avoid cutting a numerical sequence, such as a group of symphonies or sonatas. We find that marking a Beethoven piano sonata as No. 16, rather than calling it S16, helps to keep it in proper numerical order on the shelf.

We catalog our phonograph records, using Library of Congress cards when we can get them and following LC format with some omissions. We copy LC main entries and conventional titles from the Music and Phonorecords section of the National Union Catalog on our locally-typed cards for the sake of consistency and ease of filing in the music catalog. We do try to simplify our own cards by omitting such phrases as “phonodisc,” “microgroove,” “title from slipcase,” “program notes on slipcase,” and “recorded in . . .” Our subject headings are not as complete or voluminous as LC tracings suggest. For example, where LC might show SONGS (HIGH VOICE) WITH PIANO, we would use only SONGS, and we would consider TRIOS a sufficient subject heading for a record which LC would trace as TRIOS (HARPSICHORD, RECORDER, VIOLA DA Gamba).

We make added entries for most featured performers but not for orchestras or conductors. We do not analyze many collections, but we add contents notes if a record seems important enough to warrant them. Our music catalog is located close to the records themselves; however, we place additional cards in the public catalog for such things as plays, poetry, and historic speeches—another reason for using the regular LC form of main entry.

We have worked with this classification scheme for about six years, modifying and correcting it as required, eliminating or expanding numbers while our collection grew to its present 2,700 records. It is not a static schedule and probably never will be, but coupled with the music catalog it has served our needs comfortably. Our borrowers seem to have no trouble locating the records they want, and they even manage to re-shelve fairly well.

As in Dewey Decimal book classification, our music schedule can be adapted to suit the needs of a large or small record library. Whole numbers may serve the purpose in some libraries; others might wish to go several places beyond the decimal, depending on the size and emphasis of the particular collection. We will be happy to furnish a copy of our classification schedule to interested librarians. A copy is also on deposit at the Special Libraries Classification Center, Western Reserve University, Cleveland, Ohio.

* 448 *

Library Resources & Technical Services
A Proposal for the Method of Adapting the Dewey Decimal Classification Scheme to Meet the Needs of India

MEENA KRISHNASWAMI
Bangalore, India

The 16th edition of the Dewey Decimal Classification did not take into consideration the changes that have occurred in India with her emergence as an independent nation. India is not in essence a Christian country with what is termed a "Western" culture. There are two major religions in India—Hinduism and Islam, and a number of minor religions such as Buddhism, Jainism, Christianity, Zoroastrianism, etc. The states that constitute the Union of India are formed on a linguistic basis; these languages, fourteen in number, are old and have a rich literature of their own. The numbers provided by Dewey for these religions and literature and other aspects of Indian culture are inadequate and do not permit expansion without extending the decimal number unduly.

Great dissatisfaction has been voiced by Indian librarians.* Some have asked for a uniform national classification scheme, and others for a modification of Dewey. "A scheme of classification to be adapted by the Indian libraries must embody within itself a full discussion of those subjects particularly, which are of primary importance to India such as Sanskrit, Persian and Arabic languages, the various modern Indian languages, Indian arts and music and a comprehensive survey of the various social sciences, the study of which are being undertaken by the scholars of India or are likely to be taken up in the near future by the intelligensia of the land."1

The Colon Classification scheme provides adequately for these needs of India, but it has been rejected by many libraries in India because of its complex nature, unwieldy structure, and complicated scheme of long numbers. The Dewey Decimal Classification is the scheme most widely used in India because of its simplicity, hence the desire of many Indian librarians to find a method of modifying and adapting Dewey to the peculiar needs of India.

Since the numbers provided by Dewey are inadequate, it is hereby proposed to transpose certain numbers in the tables to meet the needs of India. Since the Dewey Decimal scheme was primarily meant for the

* Editor’s note: This paper was, of course, written before Sarah Vann visited India and discussed these problems with Indian librarians, and before the 17th ed. of Dewey was published.

Volume 9, Number 4, Fall 1965 • 449 •
Protestant American culture and people, it is proposed that the numbers provided for America be utilized for India and the numbers provided for India be used for America. The reasoning behind this line of thought is that just as the United States does not expect to have a voluminous collection of Indian material, so also India does not expect to have vast quantities of books pertaining to the United States. There is no necessity there for books on the history of the United States to be classified in such detail as provided by Dewey. Just as the scheme provides but one base number for India in the 900 class, so also it is felt that one base number is sufficient to classify books on U. S. history in the Indian libraries.

It might be argued that the proposed method of transposing the base numbers assigned to one country to another would upset the scheme and hinder its being used universally. This is true. But is it possible to use Dewey without any modification? Even the libraries in the United States adopt the scheme to meet their own collections and clientele. How would it benefit a library, in a non-Christian, non-English speaking and non-American country, to use Dewey as it is without any modifications? A library in such a country would have little need for such detailed classification of books on the Christian religion, the various European languages and American history. The writer in making this statement has in mind all of the newly-emerging nations.

S. Mukherji pleads for the expansion of the Dewey Classification numbers but suggests that, "Our expansion must be confined to specifically those numbers that have been basically allotted to the main divisions of Indian subjects. We may not take and expand any other number which might have already been used in D. C." He also urges that notation be brief and simple. But the expansion of numbers allotted to Indian topics would have to be carried to great lengths in order to meet the present needs. For instance, the specific number allotted to Indian literature is in two ethnic groups—891—literature of other Indo-European languages, and 894—literature of Finno-Ugric, Turkic, and other linguistic groups. Under these individual base numbers Dravidian literature has been assigned the number 894.8 and Tamil literature 894.811. A detailed and more specific classification of Tamil literature by form and/or genre would make the classification number very long. For example, Tamil drama would be 894.8112, and the collected works of a single dramatist would be 894.8112081. Tamil literature for children and young adults would be 894.811068 when subdivided by form. How could the notation be brief and simple and at the same time give all the necessary information (form and/or genre) if the specific number for that particular Indian topic has to be carried out beyond the third decimal place?

The Dewey scheme is simple and logical and readily lends itself to any kind of modification. Since it was made for a specific country and culture, those class numbers that are specifically assigned to that particular country and culture could be transposed and used for any particular country and culture.
Any country that wants to adapt the Dewey Classification to its peculiar needs, especially in the 900 class, could do so by transposing the numbers assigned to the United States and its own numbers. The U. S. numbers are chosen because the scheme was primarily written for the United States. Out of the 10 numbers allotted to the North American continent, 7 have been allotted to the United States. This is the only country in the entire schedule that has been allotted so many numbers. Hence it is not logical and reasonable to transpose the numbers allotted to the United States with those of the country desiring to adapt the Dewey Decimal Classification scheme to its peculiar needs?

The various numbers assigned to other branches of knowledge such as the Pure Sciences, Technology, and the Social Sciences need not be transposed or changed. The Social Sciences would, of course, need a slight modification wherever the topic is divided by country, e.g., Statistics.

For the purpose of this paper numbers have been transposed and the tables worked out for the 900, 800, and 400 classes only. If so desired, the changes needed for the other classes could be prepared.

States and Territories That Form the Indian Union

States

- Andhra Pradesh
- Assam
- Bihar
- Gujarat
- Jammu & Kashmir
- Kerala
- Madhya Pradesh
- Madras
- Maharashtra
- Mysore
- Orissa
- Punjab
- Rajasthan
- Uttar Pradesh
- West Bengal

 Territories

- Andaman & Nicobar
- Dadra & Nagar Haveli
- Delhi
- Goa, Daman & Diu
- Himachal Pradesh
- Laccadive, Minicoy & Amindive
- Manipur
- Tripura

The Indian states and territories are not grouped into regions as has been done with the states in the United States; for the sake of convenience, ease, and logic, the writer has arbitrarily grouped the states into regions. This grouping is based on the geographical proximity of one state to another in the same group. The following table provides the regions with their base numbers.

| 974  | WEST  |
| 974.1 | Delhi |
| 974.2 | Gujarat |
| 974.3 | Himachal Pradesh |
| 974.4 | Jammu & Kashmir |
| 974.5 | Punjab |
| 974.6 | Rajasthan |

Volume 9, Number 4, Fall 1965
975
East
975.1 Assam
975.3 Bihar
975.5 Uttar Pradesh
975.7 West Bengal
976 Central
976.1 Madhya Pradesh
976.3 Maharashtra
976.5 Orissa
977 South
977.1 Andhra Pradesh
977.3 Kerala
977.5 Madras
977.7 Mysore

Territories
978
Use for general & comprehensive works about 2 or more territories
978.1 Andaman & Nicobar
978.3 Goa, Daman & Diu
978.5 Laccadive, Minicoy & Amindive
978.7 Manipur
978.9 Tripura

Delhi and Himachal Pradesh are Union territories but they have been separated from the other territories and placed with the other states in the base number 974 because of the geographical proximity and also because the history of these two territories is closely linked with that of the other states in the number.

Pakistan, Bhutan, Nepal, Sikkim, and Ceylon are also included in the base number provided by Dewey for the subcontinent of India. In transposing the numbers assigned to India for the United States we find that the above mentioned countries are left without a number. This is solved by assigning the base number 979 to these countries. Hence we have:

979
Pakistan
Use for general & comprehensive works; works about both East & West Pakistan
979.1 East Pakistan
979.2 West Pakistan
979.3 Nepal
979.5 Sikkim
979.7 Bhutan
979.9 Ceylon

The assignment of subdivision numbers under the base number 979 is not arbitrary but in keeping with the Dewey Decimal Classification scheme. 979 will apply to any material that treats of both East and West Pakistan as a whole. 979.1 and 979.2 have been assigned to East and West Pakistan respectively, because Indian libraries will have large
quantities of material on Pakistan since prior to 1947 India and Pakistan together formed the subcontinent of India. It would also be convenient for libraries to reclassify material which once was considered as Indian but now pertains to the history of Pakistan, e.g. the discoveries at Mohenjo-daro and Harappa.

The period division of 954 (Indian History) according to the 16th edition is as follows:

.01  Early history to Moslem conquests, ca 650
.02  Moslem period, ca 650-1774
.03  British rule, 1774-1947
.04  Republic of India, 1947

This division is faulty. The historians' traditional division of Indian history is Ancient India, Mediaeval India, and Modern India. But these divisions are too broad since a reader's approach to the history of a country is generally either by dynasty or historical events. Hence need arises for providing a more detailed period division. The period divisions proposed are as follows:

973  History of India—use for general & comprehensive works
973.01  Ancient, from the beginning to 323 B.C.
973.02  Mauryas, B.C. 323-A.D. 320
973.03  Guptas, A.D. 320-499
973.04  Kanauj, 499-1206
973.05  Sultanate of Delhi, 1206-1526
973.06  Mughals, 1526-1774
973.07  British rule, 1774-1947
973.08  Independence, 1947-

The base number 973 is used for all general and comprehensive works. These period subdivisions could be further subdivided by individual dynasties and rulers:

973.05  Sultanate of Delhi, 1206-1526
973.051  Slave dynasty
973.052  Khilji dynasty
973.053  Tughluk dynasty
973.054  Sayyid dynasty
973.055  Lodi dynasty

Until a certain period in history, South India had her own history independent of the North. The period divisions proposed include the period divisions of the history of the South. For example:

973.04  Kanauj, 499-1206
973.041  Harsha-vardhana, 606-c.647
973.042  Early Chalukyas, 543-757
973.043  Eastern Chalukyas, 650-1122
973.044  Rashtrakuta dynasty, c.760-973
973.045  Chola kings, c.846-1279

These subdivisions could be further subdivided by individual rulers.

Volume 9, Number 4, Fall 1965  •  453  •
Early Chalukyas, 543-757
Pulakesin I, 543-4
Pulakesin II, 608-42
Vikramaditya I, 655-80
Vikramaditya II, 733-46
Kirthaharma II, 746-57

With the advent of the Mughals there should be no difficulties, since the histories of the North and the South merge and form one.

PROPOSED TABLES FOR THE UNITED STATES TO BE USED IN INDIAN LIBRARIES

<table>
<thead>
<tr>
<th>Period divisions</th>
<th>Geographic divisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>954.01</td>
<td>Discovery &amp; exploration to 1607</td>
</tr>
<tr>
<td>954.02</td>
<td>Colonial period, 1607-1775</td>
</tr>
<tr>
<td>954.03</td>
<td>Revolution &amp; confederation, 1775-1789</td>
</tr>
<tr>
<td>954.04</td>
<td>Constitutional period, 1789-1809</td>
</tr>
<tr>
<td>954.05</td>
<td>Early 19th century, 1809-1845</td>
</tr>
<tr>
<td>954.06</td>
<td>Middle 19th century, 1845-1861</td>
</tr>
<tr>
<td>954.07</td>
<td>Civil War, 1861-1865</td>
</tr>
<tr>
<td>954.08</td>
<td>Later 19th century, 1865-1901</td>
</tr>
<tr>
<td>954.09</td>
<td>Twentieth century, 1901-</td>
</tr>
</tbody>
</table>

- **NORTHEASTERN STATES**
  - Maine
  - New Hampshire
  - Vermont
  - Massachusetts
  - Rhode Island
  - Connecticut
  - New York
  - Pennsylvania
  - New Jersey

- **SOUTHEASTERN STATES**
  - Delaware
  - Maryland
  - District of Columbia
  - West Virginia
  - Virginia
  - North Carolina
  - South Carolina
  - Georgia
  - Florida

- **SOUTHCENTRAL STATES**
  - Alabama
  - Mississippi
  - Louisiana
  - Texas
  - Oklahoma
  - Arkansas
  - Tennessee
  - Kentucky
The numbers .7, .8, and .9 could be used as and when the necessity arose. The number provided by the 16th edition for travel and description does not pose any serious problem. 915 is the base number for Asia and that for India is 915.4. The base number for the North American continent is 917 and that for the U. S. is 917.7. All that has to be done in this case is to transpose the numbers. Thus we have 915.4 for the U. S. and 917.7 for India.

The languages and their literature pose the greatest problem. According to the 1962 Official Reference Manual published by the Ministry of Information and Broadcasting, Government of India, the languages of India are:

- Assamese
- Bengali
- Gujarati
- Hindi
- Kanarese
- Kashmiri
- Malayalam
- Marathi
- Oriya
- Punjabi
- Sanskrit
- Tamil
- Telugu
- Urdu

Volume 9, Number 4, Fall 1965 • 455 •
The Proposed Table for the Languages of India

<table>
<thead>
<tr>
<th>Base Number</th>
<th>Language</th>
<th>Base Number</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>810</td>
<td>Sanskrit</td>
<td>85M</td>
<td>Marathi</td>
</tr>
<tr>
<td>81H</td>
<td>Hindi</td>
<td>86O</td>
<td>Oriya</td>
</tr>
<tr>
<td>820</td>
<td>English</td>
<td>86U</td>
<td>Urdu</td>
</tr>
<tr>
<td>830</td>
<td>Bengali</td>
<td>87O</td>
<td>Tamil</td>
</tr>
<tr>
<td>83A</td>
<td>Assamese</td>
<td>87M</td>
<td>Malayalam</td>
</tr>
<tr>
<td>840</td>
<td>Punjabi</td>
<td>88O</td>
<td>Kanarese</td>
</tr>
<tr>
<td>84K</td>
<td>Kashmiri</td>
<td>88T</td>
<td>Telugu</td>
</tr>
<tr>
<td>850</td>
<td>Gujarati</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The base number assigned by Dewey for English literature has been retained because English is still one of the official languages of India. The other official language is Hindi. The Official Languages Bill passed in both the Houses of the Parliament on Tuesday, May 7, 1963, provides for the continuance of English beyond 1965 and thus removes the constitutional restriction on its use. The grouping of the other languages has been on the basis of similarity between the two languages. The exception to this would be 86O and 86U—Oriya and Urdu. (Not being a philologist, this writer is not in a position to vouch for this. Given more time and facilities for research the writer is willing to clarify this. Thus for the time being, these two languages are grouped together for convenience.)

The numbers provided by Dewey in the 800s are not sufficient to cover the 15 languages of India. The editors of the 16th edition, in the Introduction, suggest different methods of variation: “Altho the DC is a classification based on figures used decimally, it may be modified and supplemented by letters of the alphabet used in several ways and for a variety of purposes. In the first place, letters may be used as a substitute for one or more digits in the class number, as recommended above, or they may replace the whole class number.” This writer proposes that the method of providing variation by using a letter of the alphabet along with a base number would suit the peculiar language needs of India. The reason for placing the letter in the unit place is to facilitate the subdivision according to genre and simplify shelving, also to show the similarity between the two languages. It is easier to commit to memory a series of numbers that have the letters at the end than numbers where the letters are in the middle. For instance, 8M5 would be Marathi literature and 8M7 would be Malayalam literature if the letter were inserted in the 10th place of the base number before subdivision by genre. Placed thus, the number in the unit place could be mistaken for the genre number. Whereas it would be 85M and 87M respectively if the letter is used in the unit place, and the division by genre would stand out clearly. Using the letter in the unit place also sounds better to the ear. Transposing the base numbers with this modification would be more useful to Indian libraries than retaining them as they are in the 16th edition because Indian libraries would not expect to have large collections of non-Indian literature.
| Volume 9, Number 4, Fall 1965 | 457 |

**Proposed Table for Literature**

<table>
<thead>
<tr>
<th>810</th>
<th><strong>SANSKRIT LITERATURE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>811</td>
<td>Sanskrit poetry</td>
</tr>
<tr>
<td>812</td>
<td>Sanskrit drama</td>
</tr>
<tr>
<td>813</td>
<td>Sanskrit fiction</td>
</tr>
<tr>
<td>814</td>
<td>Sanskrit essays</td>
</tr>
<tr>
<td>815</td>
<td>Sanskrit oratory</td>
</tr>
<tr>
<td>816</td>
<td>Sanskrit letters</td>
</tr>
<tr>
<td>817</td>
<td>Sanskrit satire and humor</td>
</tr>
<tr>
<td>818</td>
<td>Sanskrit miscellany</td>
</tr>
<tr>
<td>819</td>
<td>Translations into Sanskrit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>81H</th>
<th><strong>HINDI LITERATURE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>81H1</td>
<td>Hindi poetry</td>
</tr>
<tr>
<td>81H2</td>
<td>Hindi drama</td>
</tr>
<tr>
<td>81H3</td>
<td>Hindi fiction</td>
</tr>
<tr>
<td>81H4</td>
<td>Hindi essays</td>
</tr>
<tr>
<td>81H5</td>
<td>Hindi oratory</td>
</tr>
<tr>
<td>81H6</td>
<td>Hindi letters</td>
</tr>
<tr>
<td>81H7</td>
<td>Hindi satire and humor</td>
</tr>
<tr>
<td>81H8</td>
<td>Hindi miscellany</td>
</tr>
<tr>
<td>81H9</td>
<td>Translations into Hindi</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>820</th>
<th><strong>ENGLISH LITERATURE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>821</td>
<td>English poetry</td>
</tr>
<tr>
<td>822</td>
<td>English drama</td>
</tr>
<tr>
<td>823</td>
<td>English fiction</td>
</tr>
<tr>
<td>824</td>
<td>English essays</td>
</tr>
<tr>
<td>825</td>
<td>English oratory</td>
</tr>
<tr>
<td>826</td>
<td>English letters</td>
</tr>
<tr>
<td>827</td>
<td>English satire and humor</td>
</tr>
<tr>
<td>828</td>
<td>English miscellany, translations into English</td>
</tr>
<tr>
<td>829</td>
<td>Old English</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>830</th>
<th><strong>BENGALI LITERATURE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>831</td>
<td>Bengali poetry</td>
</tr>
<tr>
<td>832</td>
<td>Bengali drama</td>
</tr>
<tr>
<td>833</td>
<td>Bengali fiction</td>
</tr>
<tr>
<td>834</td>
<td>Bengali essays</td>
</tr>
<tr>
<td>835</td>
<td>Bengali oratory</td>
</tr>
<tr>
<td>836</td>
<td>Bengali letters</td>
</tr>
<tr>
<td>837</td>
<td>Bengali satire and humor</td>
</tr>
<tr>
<td>838</td>
<td>Bengali miscellany</td>
</tr>
<tr>
<td>839</td>
<td>Translations into Bengali</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>83A</th>
<th><strong>ASSAMESE LITERATURE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>83A1</td>
<td>Assamese poetry</td>
</tr>
<tr>
<td>83A2</td>
<td>Assamese drama</td>
</tr>
<tr>
<td>83A3</td>
<td>Assamese fiction</td>
</tr>
<tr>
<td>83A4</td>
<td>Assamese essays</td>
</tr>
</tbody>
</table>
Assamese oratory
Assamese letters
Assamese satire and humor
Assamese miscellany
Translations into Assamese

Punjabi literature

Punjabi poetry
Punjabi drama
Punjabi fiction
Punjabi essays
Punjabi oratory
Punjabi letters
Punjabi satire and humor
Punjabi miscellany
Translations into Punjabi

Kashmiri literature

Kashmiri poetry
Kashmiri drama
Kashmiri fiction
Kashmiri essays
Kashmiri oratory
Kashmiri letters
Kashmiri satire and humor
Kashmiri miscellany
Translations into Kashmiri

Gujarati literature

Gujarati poetry
Gujarati drama
Gujarati fiction
Gujarati essays
Gujarati oratory
Gujarati letters
Gujarati satire and humor
Gujarati miscellany
Translations into Gujarati

Marathi literature

Marathi poetry
Marathi drama
Marathi fiction
Marathi essays
Marathi oratory
Marathi letters
Marathi satire and humor
Marathi miscellany
Translations into Marathi

Oriya literature

Oriya poetry

Library Resources & Technical Services
862 Oriya drama
863 Oriya fiction
864 Oriya essays
865 Oriya oratory
866 Oriya letters
867 Oriya satire and humor
868 Oriya miscellany
869 Translations into Oriya

86U URDU LITERATURE
86U1 Urdu poetry
86U2 Urdu drama
86U3 Urdu fiction
86U4 Urdu essays
86U5 Urdu oratory
86U6 Urdu letters
86U7 Urdu satire and humor
86U8 Urdu miscellany
86U9 Translations into Urdu

870 TAMIL LITERATURE
871 Tamil poetry
872 Tamil drama
873 Tamil fiction
874 Tamil essays
875 Tamil oratory
876 Tamil letters
877 Tamil satire and humor
879 Translations into Tamil

87M MALAYALAM LITERATURE
87M1 Malayalam poetry
87M2 Malayalam drama
87M3 Malayalam fiction
87M4 Malayalam essays
87M5 Malayalam oratory
87M6 Malayalam letters
87M7 Malayalam satire and humor
87M8 Malayalam miscellany
87M9 Translations into Malayalam

880 KANARESE LITERATURE
881 Kanarese poetry
882 Kanarese drama
883 Kanarese fiction
884 Kanarese essays
885 Kanarese oratory
886 Kanarese letters
887 Kanarese satire and humor
888 Kanarese miscellany
889 Translations into Kanarese

Volume 9, Number 4, Fall 1965

459
88T TELUGU LITERATURE
88T1 Telugu poetry
88T2 Telugu drama
88T3 Telugu fiction
88T4 Telugu essays
88T5 Telugu oratory
88T6 Telugu letters
88T7 Telugu satire and humor
88T8 Telugu miscellany
88T9 Translations into Telugu

890 GERMAN LITERATURE
891 FRENCH LITERATURE
892 ITALIAN LITERATURE
893 LATIN LITERATURE
894 GREEK LITERATURE
895 SPANISH LITERATURE
896 PORTUGUESE LITERATURE
897 RUSSIAN LITERATURE
898 SEMITIC LITERATURE
899 LITERATURES OF OTHER LANGUAGES

It will be noticed that there is no provision in the tables for American literature. The language in which American literature is written is English, and for the purposes of Indian universities the base number provided for English literature takes care of this.

The division of the 400's would be similar to that given in the 16th edition. The numbers provided in the proposed table for the 800 class would be substituted wherever necessary. However, a change has to be made with the 400 base number. According to Dewey this number stands for Comparative Linguistics. In the 800 class it has been proposed to use 810 for Sanskrit and 81H for Hindi. With the 400 class this is not possible and hence we have 41S and 41H for Sanskrit and Hindi languages respectively.

<table>
<thead>
<tr>
<th>Proposed Table for Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>410</td>
</tr>
<tr>
<td>41S</td>
</tr>
<tr>
<td>41S1</td>
</tr>
<tr>
<td>41S2</td>
</tr>
<tr>
<td>41S3</td>
</tr>
<tr>
<td>41S4</td>
</tr>
<tr>
<td>41S5</td>
</tr>
<tr>
<td>41S6</td>
</tr>
<tr>
<td>41S7</td>
</tr>
<tr>
<td>41S8</td>
</tr>
<tr>
<td>41S9</td>
</tr>
</tbody>
</table>

The same form division is to be followed for the other languages.
<table>
<thead>
<tr>
<th>Code</th>
<th>Language</th>
<th>Code</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>41H</td>
<td>HINDI</td>
<td>48T</td>
<td>TELUGU</td>
</tr>
<tr>
<td>420</td>
<td>ENGLISH</td>
<td>490</td>
<td>GERMAN</td>
</tr>
<tr>
<td>430</td>
<td>BENGALI</td>
<td>491</td>
<td>FRENCH</td>
</tr>
<tr>
<td>43A</td>
<td>ASSAMESE</td>
<td>492</td>
<td>ITALIAN</td>
</tr>
<tr>
<td>440</td>
<td>PUNJABI</td>
<td>493</td>
<td>LATIN</td>
</tr>
<tr>
<td>44K</td>
<td>KASHMIRI</td>
<td>494</td>
<td>GREEK</td>
</tr>
<tr>
<td>450</td>
<td>GUJARATI</td>
<td>495</td>
<td>SPANISH</td>
</tr>
<tr>
<td>45M</td>
<td>MARATHI</td>
<td>496</td>
<td>PORTUGUESE</td>
</tr>
<tr>
<td>460</td>
<td>ORIYA</td>
<td>497</td>
<td>RUSSIAN</td>
</tr>
<tr>
<td>46U</td>
<td>URDU</td>
<td>498</td>
<td>SEMITIC</td>
</tr>
<tr>
<td>470</td>
<td>TAMIL</td>
<td>499</td>
<td>LANGUAGES</td>
</tr>
<tr>
<td>47M</td>
<td>MALAYALAM</td>
<td></td>
<td>OTHER</td>
</tr>
<tr>
<td>480</td>
<td>KANARESE</td>
<td></td>
<td>LANGUAGES</td>
</tr>
</tbody>
</table>

REFERENCES


UNIVERSITY OF NEVADA LIBRARY INVESTIGATING TELEFACSIMILE

A sum of $3,723 has been granted to the University of Nevada for an experiment in the library application of telefacsimile, by the Council on Library Resources, Inc. The experiment is scheduled to start October 1 and be completed January 31, 1966.

Plans call for the use of Magnafax machines, manufactured by Magnavox, with transmission by telephone circuit between the University of Nevada Library at Reno and the University of California Library at Davis. In a second phase of the experiment, transmission between Reno and the University of Nevada's branch at Las Vegas is planned.

The experiment is expected to yield information on techniques and on the quality of reproduction of material transmitted and its adequacy as a substitute for the inter-library loan of books, periodicals, and other material.
ANGEL AND STONE

by Howard Nemerov

In the world are millions and millions of men, and each man, With a few exceptions, believes himself to be at the center, A small number of his more or less necessary planets careering Around him in an orderly manner, some morning stars singing together, More distant galaxies shining like dust in any stray sunbeam Of his attention. Since this is true not of one man or of two But of ever so many, it is hard to imagine what life must be like. But if you drop a stone into a pool, and observe the ripples Moving in circles successively out of the edges of the pool, and then Reflecting back and passing through the ones that continue to come Out of the center over the sunken stone, you observe it is pleasing. And if you drop two stones, it will still be pleasing, because now The angular intersections of the two sets form a more complicated Pattern, a kind of reticulation regular and of simple origins. But if you throw a handful of sand into the water, it is confusion, Not because the same laws have ceased to obtain, but only because The limits of your vision in time and number forbid you to discriminate Such fine, quick, myriad events as the angels and archangels, thrones And dominations, principalities and powers are delegated to witness And declare the glory of before the lord of everything that is.

Of these great beings and mirrors of being, little at present is known, And of the manner of their perceiving not much more. We imagine them As benign, as pensively smiling and somewhat coldly smiling, but They may not be as we imagine them. Among them there are some who count The grassblades and the grains of sand by one and one and one, And number the raindrops, and memorize the eccentricities of snowflakes. Some of the greater ones reckon and record the tides of time, Distinguishing the dynasties of mountains, races, cities As they rise, flower, fall, to whom an age is as a wave, A nation the spray thrown from its crest, while one, being charged With all the crossing moments, the comings together and drivings apart, Reads in the chromatin its cryptic scripture as the cell divides; And one is the watcher over chance events and the guardian of disorder According to the law of the square root of n, so that a certain number Of angels or molecules shall fall in irrelevance and be retrograde.

So do they go, those shining creatures, counting without confusion, And holding in their slow, immeasurable gaze all the transactions Of all the particles, item by atom, while the pyramids stand still In the desert and the deermouse huddles in his hole and the rain falls Piercing the skin of the pool with water in water and making a million And a million designs to be pleasingly latticed and laced and interfused And mirrored to the lord of everything that is by one and one and one.

(Reprinted by permission; © 1960, The New Yorker Magazine, Inc.)
Ranganathan's Classification Ideas: An Analytico-Synthetic Discussion*

PAULINE ATHERTON
Documentation Research Project
American Institute of Physics, New York

THE FOLLOWING QUOTATION is from the opening sentences of Ranganathan's *Prolegomena to Library Classification*:

When one is engaged on a problem, the most useful ideas occur suddenly. They seem at once to cast a flood of light over murky tracts of half-formed thought, and promise reward to further exploitation. . . . These surprise ideas present themselves as ready-made wholes, coming at the oddest moments.

I agree with him wholeheartedly. This spring while waiting for a bus in the rain, I looked at a puddle of water. An idea suddenly occurred to me. I thought that puddle of water could very well be a universe of knowledge, dark and muddy, maybe shallow, maybe deep (I couldn't tell from looking at it—I would have had to step in or measure it to find out). The drops of rain falling into the puddle lose their individual identity just as the information in books and articles in a library does. As I gazed at the drops of rain falling into the puddle, I watched them make circles ever widening; the circles from one raindrop intersected circles made by another raindrop. This, I thought, is an apt description of the effect made by the information in books and articles on the universe of knowledge. Howard Nemerov said it much better, in his poem *Angel and Stone* (reprinted at the beginning of this paper). A book may treat a topic in minute detail, but its content can reverberate throughout all fields of knowledge. Sometimes the thought-content of one article intersects the thought-content in several books and articles. When we classify a book or article for future use, we try to provide a means for doing something similar to “retrieving” a raindrop from a puddle, if such a thing could be done! Now the person retrieving a raindrop would have to know, among other things, the molecular structure of the raindrop—what foreign material it contained (such as dust and microscopic life) and he would need to record what happened when the raindrop broke the surface tension of the puddle. In comparison, the classifier would need to analyze the content of the book (or article) into isolated ideas or “facets” of the subject mentioned. He would need to know if it contained any material foreign to the major subject discussed or if it presented an unusual combination of ideas which would affect the potential

* First written as a talk before the Classification Research Study Group at McGill University, Montreal, in June, 1960; revised for publication in January, 1965.

Volume 9, Number 4, Fall 1965 • 463 •
use of the book or article. He would need to record the relationship of
this book or article to the rest of the material on that subject which has
already been recorded. Standing in the rain that day, I thought of what
the classifier, with his puddle of knowledge and raindrops of books and
articles, would need to know about Ranganathan's ideas on classification.
I thought of this because this classifier is intuitively applying some rules
of classification which Ranganathan has now formalized. To know all
the rules may make each classifier's work more consistent with every
other and could make the work of each easier.

So here I am, about to embark on an explanation which I hope will
help you understand his ideas, his theories, and procedures so that you
can retrieve information from your own muddy puddle, if you have one.

This is not a sales talk for the Colon Classification, the library classi-
fication system devised by Ranganathan. This paper is intended to be a
personal analysis and synthesis of his writings on the subject of classifica-
tion—nothing more. If it should motivate you to read further on your
own, so much the better. Appended to this paper is a list of suggested
readings.

As one reads Ranganathan, it is apparent from the very outset that
his approach to the subject of classification is different from the usual
approach. He starts with an explicitly-stated set of postulates or guide-
lines and a set of principles, in the form of stated canons. He then
proceeds as a classificationist. He develops a classification system (the
Colon Classification) and determines its consistent application of the
canons. The everyday work of the classifier is governed by these same
postulates. That is why his work goes far beyond his own system.

Ranganathan's close association with mathematics throughout his
life has caused him to approach classification in this way. (Classification
has sometimes been called the mathematics of librarianship). The result
has been a number of publications with many significant ideas and a
new approach to old problems. What has been said about mathematics
may now be said about library classification. An enormous change in
attitude took place in mathematics around 1800 which is responsible for
many contributions to modern mathematics. This change in attitude
came about when mathematicians realized that Euclid's postulates need
not be regarded as "self-evident truths" at all, but rather as mere man-
made assumptions. The result in mathematics has been a new-found
freedom where various mathematical systems could be created and where
mathematics could be applied to many practical problems. Perhaps
Ranganathan's work will help change librarians' attitudes and will pro-
vide them with a new-found freedom from the enumerative classification
such as DC and LC. It would seem to me that we are more than ready for
such a change in attitude—if not in large, old libraries, at least in new,
small ones and the new information centers. The proper classification
system for the retrieval of documents from muddy puddles in our li-
braries, information centers, and computerized retrieval systems is not
one which fixes a single number or term to the raindrop before it falls

• 464 •  Library Resources & Technical Services
in but one that can identify facets of information in each document when it is required to do so. (It has been noted that if an ordinary shipping tag were affixed to each molecule of a pint of water and the result mixed with all the waters of all the oceans, the only things one would see when observing an ocean would be shipping tags. Howard Nemerov commented on this activity of "numbering raindrops" in the poem cited earlier.)

There are indications that new classification systems being devised today to solve our practical problems have applied some of Ranganathan's ideas. Jessica Melton, in a paper on the compatibility of the Colon Classification and the Western Reserve University System (used in their mechanized information retrieval system), points up a similarity in method which can be explained only in terms of the application of ideas Ranganathan has expounded.\textsuperscript{1} Vickery, in his book, \textit{Classification and Indexing in Science}, acknowledges his debt to Ranganathan. The work of the Classification Research Group in England is a direct result of their study of Ranganathan's work and an application of it. We get the most satisfactory explanation of his ideas in the reports of this group. Many of these reports are in the CRSG Loan Collection at the SLA Classification Center located in Cleveland at Western Reserve University.

Even though Ranganathan's approach to the subject of classification and the approach of his followers is similar, the outward appearance of their work is not. The notations used are not universally accepted. Each worker has devised his own notation. His followers apply his methods within a restricted universe, usually a special library, while he has tried to develop a satisfactory classification system for all knowledge. His explanation of the need for a universal classification system cannot be denied: "experience has shown that the entire field of knowledge is at the bottom so inter-related that progress in any portion of it affects every other portion sooner or later. Special classifications are thus outmoded . . . a universal classification is therefore, more suited." Nevertheless, his early idea that one man can devise such a system is untenable. Such a universal classification would have to be worked out by several subject specialists applying the same method of classification to their respective fields. To elaborate on this, I will need to define classification, what and why we classify, and how to go about it.

\textit{Definition of Classification}

Ranganathan defines library classification as "an uncovering of the thought-content of a written or expressed unit of thought." In all its minutest details he thinks classification is what it should be only when the thought-content as a whole is uncovered—all the \textit{phases} (meaning relationships or influences with other subjects) are apprehended; all the \textit{facets} (meaning thought-units or isolated ideas corresponding to a class or fundamental category of concepts) are expressed; and \textit{all the foci} (meaning the specific \textit{characteristics} of the material being analyzed) are uncovered. To say it in one sentence, he thinks that
classification is the method by which a written or expressed unit of thought is exhaustively analyzed in terms of entirety rather than in terms of parts. He defines classification in still another way which is not contradictory but is related more to the use of the term as a “scheme” rather than as an “act.” In his “Library Classification Glossary” he calls classification a scheme or statement showing the filiatory sequence (meaning hierarchy) of the classes fitted with terminology and notation. Such a scheme may be an analytico-synthetic faceted classification involving analysis of a subject into its facets according to a set of postulates, the translation of the facets into ordinal numbers on the basis of a notation system for facets and their relationships, then a synthesis of these numbers into a class number. Such a scheme does not provide ready-made class numbers for every subject. Or a classification scheme may be enumerative where there is a schedule of ready-made numbers and an enumeration of most of the classes. At the Dorking Conference Ranganathan described the enumerative classification as one suited to a relatively-finite and lethargic universe of knowledge, but found the analytico-synthetic classification was needed to face the challenge of the infinite, ever-growing, and turbulent universe of knowledge.

The What and Why of Classification

The what of classification for most of us today is that turbulent universe of knowledge, that muddy puddle I described earlier. In his paper for the GLS Conference on Bibliographic Organization in 1950, Ranganathan tried to describe the behavior (or tactics) of knowledge by means of a diagram which incorporates some mathematical concepts based on Boolean algebra.

In this diagram (Figure 1) he includes the counter-tactics of classification which represent an attempt to organize that knowledge. He gives specific examples of these conditions or tactics in Elements of Classification, but it is not difficult to think of many more. A few examples serve as illustration: (1) Denudation—current electricity would be the smaller circle within the larger circle of electricity; (2) Dissection—Judaism and Buddhism would be co-ordinate classes or segments in the large circle of Religion; (3) Lamination—Biochemistry would be the shaded area and the large circles would be biology and chemistry; (4) Loose-assemblage—(the formation of a new subject by bringing one subject into relation with another but with no forming or sharpening the first subject) the one example which comes to mind is Documentation which is a loose assemblage of librarianship and communication theory. Table II explains some of the tactics of classification which Ranganathan identifies in Figure 1.

Ranganathan has described satisfactorily what we are trying to classify and he has also expressed the why of classification:

Few workers are able to name their specific subjects exactly. It is a broader or a narrower subject that is usually thought of. Workers can get full satisfaction . . .
### TACTICS OF FIELD OF KNOWLEDGE

<table>
<thead>
<tr>
<th>Diagram</th>
<th>Name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Denudation Subordinated classes or chain of classes</td>
<td>Sharper focus Decimal- fraction notation Infinite hospitality in chain</td>
</tr>
<tr>
<td>2</td>
<td>Dissection Co-ordinate classes or array of classes</td>
<td>Additional focus Octave notation Infinite hospitality in array</td>
</tr>
<tr>
<td>3</td>
<td>Lamination Composite-class</td>
<td>Compound focus Faceted notation Infinite hospitality in facets*</td>
</tr>
<tr>
<td>4</td>
<td>Loose-assemblage Combination-class</td>
<td>Complex focus Phased notation Infinite hospitality in phases*</td>
</tr>
</tbody>
</table>

*See definition given earlier in this paper.*  
*See Table II for examples.*

By now it should be obvious that a classification scheme which does not provide counter-tactics for the tactics and complications of knowledge, will not prove satisfactory for very long. A satisfactory scheme must have certain qualities if it is to be a useful component of a retrieval system. These qualities have been outlined by Ranganathan:

*Volume 9, Number 4, Fall 1965*
HELPFUL QUALITIES IN A CLASSIFICATION SCHEME WHICH PROVIDE FOR REVISION AND PERPETUATION

1. Individualization of every subject in the classes.
2. Infinite hospitality in array (co-ordinate within a class or co-ordinate classes).
3. Infinite hospitality in a chain (subordinate within a class).
4. Infinite hospitality in facets when there is a compound focus caused by lamination of two basic classes.
5. Provide for phase analysis (compound or complex class).
6. Permanence of meaning and absence of homonyms within the scheme.
7. Provide for elimination of synonymous class assignments.
8. A mixed notational base: digits of more than one conventional group.

Tests for these qualities in any scheme can be made by assessing its provision or arrangement for an application of the following canons:

THE CANONS OF CLASSIFICATION
(See list of suggested readings at end of paper for titles of books which explain these canons in detail.)

For Characteristics (Foci)
1. Canon of Differentiation
2. Canon of Concomitance
3. Canon of Relevance
4. Canon of Ascertaintiability
5. Canon of Permanence
6. Canon of Relevant Sequence
7. Canon of Consistency

For Array
8. Canon of Exhaustiveness
9. Canon of Exclusiveness
10. Canon of Helpful Sequence
11. Canon of Consistent Sequence

For Chain
12. Canon of Decreasing Extension
13. Canon of Modulation

For Filiatory Sequence
14. Canon of Subordinate Classes
15. Canon of Co-ordinate Classes

For Terminology
16. Canon of Currency
17. Canon of Reticence
18. Canon of Enumeration
19. Canon of Context

For Notation
20. Canon of Relativity
21. Canon of Expressiveness
22. Canon of Mixed Notation

The How of Making a Classification Scheme

Having analyzed the difficulties, it would have been unfortunate if Ranganathan had not provided a method of solution. His classification scheme is a direct result of his analysis of the problem. Like Euclid in mathematics and Rameau in music, his work must be recognized as the basis for an understanding of the theories, techniques, and procedures in...
library classification. In his many writings on the subject, he has presented the theory which must underlie a classification scheme if it is to provide all the detail, variety, flexibility, and simplicity required for modern information indexing. He has also provided the method for the application of such an analytico-synthetic classification scheme once it is devised—it is called facet analysis. Any classification scheme which meets the standards or canons of classification will be an acceptable device. For that reason, the rest of this paper will be an explanation of the steps in the construction of an analytico-synthetic faceted classification scheme, and an application of it by means of facet analysis. It would be folly to devise an analytico-synthetic faceted classification on the basis of my exposition of the method (which is really a dangerous condensation of a rather complicated process), but if all this sounds like a reasonable idea, then, by all means, follow up with the reading of Ranganathan's Prolegomena and Vickery's book, Faceted Classification, or test the classification scheme you use against the canons of classification. Might we not all be better off today if Melvil Dewey could have checked his scheme against these canons?

If you know the subject you wish to classify, it should not be too difficult for you to follow the steps outlined in Table I. First you determine and establish the primary or fundamental categories which would divide the field according to helpful characteristics. Ranganathan,

| TABLE I |
| STEPS IN THE CONSTRUCTION AND APPLICATION OF A FACETED ANALYTICO-SYNTHETIC CLASSIFICATION |

<table>
<thead>
<tr>
<th>Steps:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In a given field of knowledge, establish a basis for dividing the field by helpful characteristics. Isolated ideas can be grouped into categories by applying these characteristics of division. An array of co-ordinate classes will be derived from the consistent use of one and the same characteristic.</td>
</tr>
<tr>
<td>2. Organize the categories into suitable facets (basic class, isolate idea, or thought unit—not a subject in itself) and assign a helpful sequence in which they are to be used.</td>
</tr>
<tr>
<td>3. Fit the schedule of facets with a notation that will permit the fully-flexible combination of word groups that is needed.</td>
</tr>
<tr>
<td>4. Provide an index for the terms or word groups (foci or isolates of a given facet).</td>
</tr>
<tr>
<td>5. Classify material by using the standardized procedure for facet analysis (postulational approach to classification):</td>
</tr>
<tr>
<td>a. Idea Plane: Analyze the subject into its facets and name the isolates in each facet.</td>
</tr>
<tr>
<td>b. Idea Plane: Rearrange the names of the isolates so as to conform to the syntax of the classificatory language adopted.</td>
</tr>
<tr>
<td>c. Verbal Plane: Change the name of each isolate into the standard terminology found in the scheme of classification.</td>
</tr>
<tr>
<td>d. Verbal and notational planes: Translate the name of the isolate in each facet into isolate number with the aid of the schedule for the facet and the devices applicable to it.</td>
</tr>
<tr>
<td>e. Notational plane: Synthesize the basic class number and the different isolate numbers into the class number with the aid of connecting symbols.</td>
</tr>
</tbody>
</table>

Volume 9, Number 4, Fall 1965
working with the whole universe of knowledge, uses the fundamental categories—Space, Time, Matter, Energy, Personality—because these can be applied equally well to any field after they are translated into the language of the field. Vickery, working within a restricted universe, e.g., soil science, divided the field into property, part, measure, parent material, process, and operation. J. Binns analyzed the subject field of electronic, mechanical, and electrical engineering into the fundamental categories of industries and professions, plants and machines, components, materials, physical phenomena, operations, agent (meaning instruments and equipment), language and form of publication, and geographical divisions.

Once you have established these primary or fundamental categories, terms can be grouped in these categories. The sequence in which these categories should be combined needs to be decided upon and the facets under which individual terms (foci or isolates of the scheme) will be grouped need to be determined. In a limited field, it is helpful to maintain a glossary of terms with an indication of the proper facet for each term. The analysis of the terms into facets should not depend on the interpretation of each classifier. The classification-maker should provide this guidance.

Next the schedule of facets is fitted with a notation that permits a flexible combination of terms. Only in this way can you provide for all the tactics of knowledge: denudation, dissection, lamination, and loose-assemblage.

The How of Classifying By Facet Analysis

The method of facet analysis using a classification scheme devised as described above is rather simple. It has been compared to the work of an apothecary compounding a mixture according to any given prescription. The thought-content of the document gives the prescription. The short schedules for the facets give the ingredients. The connecting symbols and the digits (includes letter, punctuation marks, and other symbols for relationships) correspond to the adhesives and other materials used to bind all the ingredients into a state of consistency and stability.

The application of facet analysis is shown in Table II. Three different classification systems are used: Ranganathan’s Colon Classification,

TABLE II
APPLICATION OF FACET ANALYSIS USING THREE DIFFERENT CLASSIFICATION SYSTEMS

1. Start with the title of the work.
   Ranganathan: Leaf-virus of wheat and spraying of chemicals in Michigan in 1958
   Vickery: Salinity in relation to irrigation
   Richmond: The Black Death and men of learning

2. Derive from the “raw” title the full descriptive title, remembering to include the Basic Class into which this work falls.
   R: Disease of leaf of wheat caused by virus and curing by spraying of chemicals in Agriculture (BC) in Michigan 1958

   470

   Library Resources & Technical Services
V: Salinity (a property) in relation to irrigation (an operation) in Soil Science (BC)
Ri: Influence of Bubonic plague (Black Death) on men of learning (medieval education) in History of Science (BC) Western Society, 14th C. Europe

3. Analyze the title in terms of isolates or units of thought. These isolates must be attached to the basic class and cannot be a subject in themselves.
R: Disease Leaf Wheat Virus Curing Spraying Chemicals Agriculture (BC) Michigan 1958
V: Soil Salinity relation to Irrigation Soil Science (BC)
Ri: Bubonic plague influence medieval education History of Science (BC) Western Society 14th C. Europe

4. Transform the isolates into fundamental categories:
R*: Disease (E) Leaf (P) Wheat (P) Virus (P) Curing (E2) Spraying (E3) Chemicals (P) Agriculture (BC) Michigan (S) 1958 (T)
V: Salinity (Property) related to Irrigation (Operation on Soil) Soil Science (BC)
Ri: Bubonic Plague (Medicine-Disease) influence Medieval Education (non-scientific subject) Western Society (Cultural milieu) History of Science (BC) 14th Century (Time) Europe (Space)

5. Arrange isolates in standard facet order. Sharpen the focus of the facet. This arrangement is important when more than one isolate falls into the same fundamental category.
R: Agriculture (BC) Wheat (P) Leaf (P) Disease (E) Virus (P2) Therapy—Curing (E2) Chemical (P3) Spraying (E3) Michigan (S) 1950's (T)
V: Soil Science (BC) Salinity (Property) Irrigation (Operation on Soil)
Ri: History of Science (BC) Bubonic Science (Medicine-Disease) Medieval Education (Non-scientific subject) Western Society (Cultural milieu) in 14th Century (Time) Europe (Space)

6. Transform facet numbers into standard notational terms.
R: J (BC) 382 (P) 5 (P2) 4 (E) 23 (P2) 6 (E2) 3 (P3) 5 (E3) 7381 (S) N5 (T)
V: Soil Science (BC) 6s (specific physico-chemical property) 4f (irrigation—operation on soil)
Ri: WC (Scientific subject—Medicine) J3E (non-scientific subject) V (cultural milieu) 31 (space/time)

7. Synthesize facet numbers and class numbers, using facet and relationship indicators.
V: 65/4f
Ri: WC(7)$J3E$V@31
Note: (7) is indicator for phase relationship

Vickery's classification scheme for Soil Science, and Phyllis Richmond's for the History of Science. Facet analysis can best be applied when you use a faceted classification scheme, but it is not essential. If you don't, just be prepared to go as far as you can until the fixed notation (such as DC) will not allow you to open the door of hospitality to a new (or sharper) focus of a given subject.

Conclusion

This brief explanation may help to explain why some people are so enthusiastic about Ranganathan's work. B. I. Palmer,5 in his review of the 5th edition of the Colon Classification had this to say:

Ranganathan has elevated the study of classification from the description of vague feelings and the drawing of remote analogies to an objective science. The

* (E)—Energy; (P)—Personality; (S)—Space; (T)—Time.

Volume 9, Number 4, Fall 1965 • 471 •
notation reveals the hierarchy of the scheme, has mnemonic features, and produces an infinitely flexible tool which reflects unerringly in a formalized way each phase and facet, each twist and turn of a specific subject. The notation matches micro-thought at deeper and deeper levels by a notation of greater length and complexity. . . . He has shown us the full potentialities and limitations of notation and provided us a method of analysis which lies at the back of all constructive work that is being done in the field of classification today.

Ranganathan’s own system is well worth study by those who contemplate constructive developments in bibliographic classification, but even without the study of Colon, a great deal can be learned from his thoughts on classification theory in general. Anyone attempting to make a new classification or devise a thesaurus of terms would benefit from a serious exploration of analytico-synthetic faceted schemes.

The range of Ranganathan’s ideas goes beyond the library field. Information science (better called informatology, the study of information handling and processing techniques) has also felt the effect. It would probably be impossible to estimate the extent to which consciously or otherwise, the WRU system and other mechanized systems have been influenced, even guided, in their development by Ranganathan.

The following statement by Ennis6 struck me with double force when I was trying to summarize my thoughts on classification theory and Ranganathan’s contributions to our work in the muddy puddle called the universe of knowledge:

. . . there is a continuum of effects as a given technological change echoes more and more distantly through society, somewhat similar to the way the disturbance rings of a pebble thrown into a lake spread out in widening and weakening circles. The problem is to know when to stop looking for effects—either because they are too distant in time or too distant in social space from the point of origin.

Acknowledgement

The author is indebted to Phyllis Richmond, Robert J. Howerton, and John S. Rippon for their helpful criticism when this paper was first written.

REFERENCES

2. Ranganathan, S. R. Classification and Communication. Delhi, University of Delhi, 1951. p. 185.
SYNTOL — A New System for the Organization of Information

SYNTOL was developed in France by J. C. Gardin sometime between 1960 and 1962. The system is still highly experimental, has had limited application, and that only in the French language. It is claimed to be a

Volume 9, Number 4, Fall 1965

© 1965
general system that can be applied to any subject field and implemented on a variety of computers.

SYNTOL has often been called, rather ambiguously, automatic, giving the impression that content analysis and the assignment of index tags to documents is an automatic procedure. However, it is known that the system was designed to "rely on human indexing at the input stage and on a man/machine combination to produce the required output."3

The letters SYNTOL stand for Syntagmatic Organization Language, but the name is not considered entirely satisfactory since it describes only part of the representation model, the syntagmatic or horizontal organization. Discussions of SYNTOL as a distinct system for information organization are based largely on the application of the method at the Centre d'Analyse Documentaire pour l'Afrique Noire in the field of cultural anthropology. The collection there consisted of informative abstracts, 10 to 15 lines in length.

SYNTOL is an indexing system in which the intellectual content of documents is described through the use of an index language. That is, that part of the information content of the document which is to be stored is expressed at the input stage in the index language of SYNTOL. Thus, indexing requires human intellectual effort and is manual as well as largely empirical.

The index language of SYNTOL is compiled empirically and is based on the literature and the assumed needs of the field. Terms are entered into the system in natural language; special notation or coding is optional. In machine applications SYNTOL terms must be converted into machine language. The specificity of index terms varies from "state" to "state" depending on the level at which SYNTOL is applied. Considerable skill is expected from the indexer in assigning terms. He must be able to interpret texts in terms of the SYNTOL language and he must constantly build and revise the vocabulary. Thus, the indexer has the dual role of indexer and of builder of schedules.

There are two basic kinds of SYNTOL terms. In the paradigmatic or vertical organization, relations among terms are established a priori without reference to any particular document, such as in classification schemes. In the syntagmatic or horizontal organization relations are expressed a posteriori after they have been explicitly found in a given document. Thus, indexing is based on lists in which the arrangement of terms is alphabetical and conceptual. The conceptual arrangement of terms corresponds to the paradigmatic organization and is made up of loosely-defined hierarchies in which the relation between any terms and its parent classes is that of inclusion. The alphabetical list is a rearrangement of the classified list in alphabetical order. Each term is accompanied by a definition and examples of its use, by the formal category to which it has been assigned, and the designation of the semantic class (or classes) with which it is associated in a given schedule. Formal categories are pseudo-grammatical categories to which terms are assigned a priori to permit the formulation of general syntactical rules. The fol-
lowing four categories are used: predicates, entities, states, actions. In addition to the two lists just described there is a thesaurus, which is an alphabetically-arranged list of equivalents between natural language expressions and SYNTOL terms. This was primarily designed for experiments in automatic indexing.

At least four kinds of syntactical relations have been established between terms:

<table>
<thead>
<tr>
<th>Syntactical Relations</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>predicative</td>
<td>increasing . . . . . . . unemployment</td>
</tr>
<tr>
<td>associative</td>
<td>brain . . . . . . . . . . cells</td>
</tr>
<tr>
<td>consecutive</td>
<td>effect of electricity . . . . . . . . . on . . . . . . . . . . muscles</td>
</tr>
<tr>
<td>coordinative</td>
<td>alternate use of coal . . . . . . . . . or petroleum as sources of energy</td>
</tr>
</tbody>
</table>

Index terms may also be used with individual role or facet indicators. There are two facet registers in SYNTOL, Source and Thematics. Source has eight headings: original language, translation language, abstracting language, form, context, date, origin, special components. Thematics has five headings: beings, theme, time, space, and mode.

The index language of SYNTOL can be applied on several levels which correspond to the various "states" of the system. State 1, the thematic level, corresponds to a very general kind of facet classification. State 2 implies thematics and terms derived from the schedules with class prefixes assigned to them. At State 3 uninterpreted syntagmas are added. Syntagmas are paired descriptors which are uninterpreted when a relationship between two terms is indicated, but the nature of the relation is not specified. Syntagmas can also be created by substituting for terms the classes to which they belong. At State 4 interpreted syntagmas are added. These specify the nature and the orientation of the relations between terms. Higher states are claimed to be theoretically possible by further refining the relations between terms which make up the syntagmas.

If we translate the various states of the system into more conventional language, then at State 1 it is possible to indicate such things as bibliographic data, the language of the document, its overall theme, and so on. At State 2, in addition to the above, descriptors are used to indicate subject content. At this level SYNTOL corresponds to a simple coordinate indexing system not using roles and links,* since it is possible to post-coordinate at both the descriptor and at the class level.

For example, an article which deals with the use of aspirin to cure

* In coordinate indexing links serve to show that terms are related to each other but they do not indicate how terms are related to each other. To provide for indication of function, role indicators are used. These provide rudimentary grammar or functional relationships for terms.

Volume 9, Number 4, Fall 1965 • 475
headache in women would have the index terms assigned: Headache, Women, Aspirin, Chemotherapy; and the corresponding generic terms: Symptoms, Humans, Drugs, Therapy. All these terms could be searched individually or on a post-coordinate basis at both the descriptor and the class level.

At State 3 syntagmas or linked descriptors are introduced. These can be likened to rudimentary pre-coordinate subject headings which again can be post-coordinated either at the descriptor or at the class level. In the previous example we would have the following syntagmas: Headache/Women, Aspirin/Headache, Chemotherapy/Women—and at the class level—Symptoms/Humans, Drugs/Symptoms, Therapy/Humans. In the second syntagma, headache is linked with aspirin, but the resulting precoordinate index term does not show whether aspirin is the cure or the cause of the headache.

At State 4 more refined pre-coordinate index terms are created, because it is possible to indicate a limited number of very general relationships between the terms which make up a syntagma. In these types of syntagmas the objective is to "amplify links so that they convey the same information as roles and links taken together." A consecutive relation between aspirin and headache can be indicated, for example, but this will still not show whether the aspirin causes or cures the headache.

Thus, despite the general relations which can be indicated between terms at State 4, only logical relations in the Boolean sense* can be used for searching purposes. In other words, it is not possible to instruct the machine to find the effect of A on B. To get a causal relation the relation must be made explicit and it is necessary to set up A causes B as a term.

On a pre-coordinate basis SYNTOL can be searched under each index tag used at the thematic level. As we proceed from the lower states toward the higher ones, it becomes possible to search under individual descriptors and under individual syntagmas. All these can, of course, also be searched on a post-coordinate basis.

An interesting feature of the SYNTOL program is that it allows for variations, that is, it is possible to switch from one state to another in decreasing order of complexity. This results in the broadening of the search. Other devices for the broadening or narrowing of the search are called modulations. Paradigmatic modulations are of two kinds: generalization and summation. Generalization will broaden the search because a more generic term is substituted for the specific term in the search instruction. Summation substitutes for a generic term a more specific one, located under it in the paradigmatic tree. This will narrow the search. Syntagmatic modulations make it possible to take into consideration or to disregard relations between terms or to accept a relation other than the specified one. Through these modulations searches can be made more specific or more general. An a priori modulation means the initial

---

* Boolean algebra is an algebraic technique for handling classes of things with the operations of AND, OR, and NOT.

---
formulation of the search instruction,* and a modulation is *a posteriori* when a search instruction is reformulated in response to such quantitative feedback as the number of documents retrieved. While most of the features just discussed can be found and could be built into many other systems, in SYNTOL they are consciously integrated into a single system.

SYNTOL tends to be more interesting as a post-coordinate than as a pre-coordinate system. As a post-coordinate system, at the word level it corresponds to a coordinate indexing system which does not use roles and links. At the syntagmatic level it may be thought of both as a coordinate indexing system using roles and links and as a concept coordinating system. In the former case the combined effect of roles and links is achieved through the use of highly-formalized relationships between terms and through the orientation of these relationships. The post-coordination of syntagmas intends to increase specificity and is similar to "concept" co-ordination.

If we examine SYNTOL as a pre-coordinate system, then it is possible to think of syntagmas as subject headings in which two terms are put together either with no indication of relationship between them such as in aspirin/headache or, in which some general relation is indicated, such as the consecutive relation between aspirin and headache.

All this, of course, adds up to a partial discussion of SYNTOL to which a lot more should be added. Unfortunately, there is only insufficient information available on such important things as index language performance or operational costs. Consistency of indexing has been reported to be generally poor with no quantitative information given. One reason for inconsistency could be the lack of explicit directions on how to build the vocabulary and on how to index.

SYNTOL as a system for the organization of information is interesting to think about and certainly worth discussion. The system deserves to be brought to the attention of a larger audience than it has had so far, especially in the United States. More information is needed, however, before it will be possible to draw meaningful conclusions about the system and to ascertain whether or not SYNTOL has different, unique, or superior characteristics as compared to other systems.

* A search instruction is the expression of an information request in terms of the system which is to be interrogated.

REFERENCES


2. Discussion of SYNTOL is largely based on the following: Gardin, J. C. SYNTOL, New Brunswick, N. J., Graduate School of Library Service, Rutgers, the State University, 1964. (Editor's note: See review in this issue.)

3. Ibid., pp. 13-14.

4. Ibid., p. 27.

Citation and Subject Indexing in Science

GERALDINE M. MATTHEWS
Librarian, Research Library
Central Wisconsin Colony and
Training School, Madison, Wis.
and
JAMES VAN LUUK
Assistant Professor, Library School
University of Wisconsin, Madison

That the control of Scientific Literature is one of the major bibliographic problems of today is widely acknowledged; and a substantial portion of current professional writing is preoccupied with proposing solutions to this problem. In general, two approaches have been emphasized: some researchers have concentrated their efforts in the area of subject control; while others have sought to apply the citation principle long employed in the field of law, where it was originated by Shepard in 1873.

A citation index is an a posteriori index whereby the user is referred to more recent citations from older ones. To the uninitiated user the citation index may at first be somewhat perplexing. The unfamiliar format and organization are largely responsible for the user’s initial disorientation. One must begin with the name of an author who has published an article in a journal listed by a citation index. The name appears in the index with the date of publication, name of the journal, volume and page number. Indented below this entry is an alphabetized list of all authors who have referred to this article in the bibliographies of their papers plus the date of publication, name of the journal, volume and page number of each such entry. Although citation indexes are not a recent innovation, the application of this method of bibliographic control to the sciences is a fairly new development.

Eugene Garfield can be considered the person who has most encouraged the use of the citation index approach in the United States. As early as 1953, Garfield reported his basic work in the field and predicted that implementation of this approach was no more than five to ten years in the future. With few modifications in his original position, the first edition of the Science Citation Index (SCI) was published in 1963 consisting of citations from the 1961 literature. Since then, Garfield has received grants from the National Science Foundation and The National Institutes of Health to continue his work on the potential uses of the citation indexing process.

According to the literature, proponents of citation indexes believe that the citation approach can avoid the most vexing problems in sub-
ject indexing, namely: rapidly changing terminology, illogical categories, and non-specificity. In discussing *Science Citation Index*, Garfield asserts that the citation index approach "automatically leads to . . . group(s) of related works," makes possible "direct linking of conceptual information," enables discovery of papers when appropriate terminology is not known, and provides "useful leads toward unspecified information objectives."

The Weinberg Report² has stated: "The Panel believes that citation indexing, particularly in combination with permuted title indexing, will come to be used widely, and its use will alter both the way in which we think of the technical literature and the way we manage it."

Several research studies concerning citation indexes are now in process or have been completed. These studies are designed to provide information as: can the citation index process reveal papers relevant to the subject which are not revealed by conventional indexes?³ does the pattern of citation reveal anything significant regarding the value of the references being cited?⁴ what is the utility of the technique known as "bibliographic coupling"?⁵ how can citation indexes be used for information searches?⁶ and what is the value of citation indexes in sociological and historical research?⁷

Critics assert that citation indexes cannot be considered an adequate retrieval tool, and that were similar effort expended on conventional indexes, they would perform the functions claimed to be unique to the citation methods. It has also been suggested that even though all cited references in an article are indexed, those ideas and key words not covered by cited references would remain excluded, and the most valuable parts of a research paper, i.e. the author's own ideas, would fare no better than they do in conventional indexing.

It is evident from the foregoing resume that the potential applications of citation indexing of the literature of science are of interest to many people. However, in addition to the research projects cited above which are now in progress, other characteristics inherent in citation indexing should also be examined. In order to know whether or not a citation index is a pertinent and valuable tool, it must be demonstrated that citation indexes are doing something which conventional indexes cannot do or cannot be reasonably designed to do.

Once coverage and clerical routines have been outlined, citation indexing becomes primarily a mechanical process. While this minimizes the work involved in the compilation, it also introduces problems. One of the most important of these problems is that of unspecified citations. An examination of the citations listed in the index will not specify how relevant the citations are to the original paper, to each other, or to the purposes of the reader. Since in effect each author through his bibliography is a potential indexer, the assumption must be made that the citation is valuable. In practice, however, the reader knows only that the author cited a work because he felt it contributed to his paper. The fact is that citations may or may not be part of a bibliography for a variety of

*Volume 9, Number 4, Fall 1965* • 479 •
reasons. Citation in a bibliography may have been used to document a procedure or a statistical process which has little to do with the purpose of the paper. Exclusion may come about as a result of editorial policy, and inclusion may consist of a general reference to an original work rather than to the secondary source which was actually used. The need here is to obtain an estimate of the degree of correlation between the citations used and the subject in question, as well as correlations of a comparative yield from indexing when the author is citing as opposed to the use of subject headings.

In addition to the question of unspecified citations, the problem of non-citation should be mentioned. The scientist who publishes in a widely-read journal an article which does not have a bibliography and, therefore, may not be frequently cited, will indeed appear in a citation index, but the paper cannot be retrieved indirectly through the index. Unfortunately, unless the article is read and cited by others within a short time, the paper may be lost for the period when it could make its greatest impact. One could suggest that all articles should have bibliographies. Though this suggestion would not require increased subject entries, it would obviously increase the number of citation index entries. Thus, for this situation, the author entries in the index are not functioning as subject headings, for when an author cites no one and is not cited prior to publication of the Science Citation Index, he is neither indexing himself nor being indexed by others. Certainly, the chances of a paper being cited will vary according to which end of the time span covered by the citation index that the paper was published. For example, an article published at the beginning of a twelve-month time span will have a twelve times greater chance of being cited by someone than one at the end of this period. Therefore, in this instance at least, the citation index is not functioning as it was designed to function. Assuming that both citation and subject indexing services are covering the same journals, a subject index would include such a paper whether cited or not on publication; it would also be included in the citation index, but only as an author entry. Investigation is needed to determine the frequency of non-citation coupled with lack of bibliographies and its effect on the utility of a citation index.

Reasons for non-citation can include worthlessness and publication in a journal not covered by the Index. Garfield suggests that the problem will be resolved when referees evaluate all papers submitted to journals and reject those that do not meet certain standards of literature searching. While Garfield's proposal might increase the reliability factor in a citation index, it is probably not a possible solution considering the growing size of the literature covered by the Index. Also the suggestion that the Science Citation Index can be used as a subject index and for the same reason has yet to be proven.

The general belief has been that a citation index should be as inclusive as possible. The question here is whether or not wider coverage would result in a more useful index. In an accumulation of 1.4 million

• 480 • Library Resources & Technical Services
citations, the editors of Science Citation Index found that the average paper is cited less than 1.5 times in the period covered by each edition of the Index.* For practical purposes this citation average may be too low since it suggests multiple entry into the SCI to get a number of citations equivalent to that found through a subject index, and the chances are that more citations will be required because of the unspecified nature of this form of retrieval. However, a subject index not being mechanical cannot be issued promptly, which gives the citation arrangement a special value. Furthermore, since 1.4 million citations cover only the year 1961, a significant increase in coverage would result in an index of considerable size, increasing the requirement for multiple entry into the Index. Another question relating to both size and usage of Science Citation Indexes which should be investigated concerns their format; citation indexes are generally published in book form. This appears to be a limiting factor since the use of bibliographic coupling techniques is automatically limited. If on the other hand Science Citation Indexes were published on tapes, complete bibliographic coupling would be possible, and this might lead to a form of automatic subject retrieval.

In summary, several problems warrant further investigation. (1) Does the linear nature of the Index (this means a citation index cannot be cluttered if there exists a constant for the average number of citations per author) mean that it will eventually end in the loss of any practical utility due to sheer physical proportions resulting in excessive entrance requirements; i.e., what is the optimum size of the Science Citation Index? (2) An analysis of the Index is needed to determine the frequency with which cross-disciplinary citations occur. (3) The utility of the citation approach when restricted to a narrow subject field must be investigated. (4) An analysis of "noise" level is required. (5) Does subject indexing or citation indexing more effectively bring together related citations? (6) Is the book format the proper one for Science Citation Indexes?

The use of citation indexes to facilitate the search of scientific literature is being widely investigated and discussed. The results of these studies and, perhaps, answers to some of the questions raised in this paper should help to determine in what way the citation approach is applicable to the literature of science.

---

* On this point one needs to investigate: (1) whether there is a constant for the average number of articles cited per source article; (2) the chances an author has to be cited when he publishes at the beginning versus the end of the time-span covered by SCI; (3) based on an infinite continuum whether the chances of an article being cited by SCI grows rapidly and then tapers off; scientific literature has a tendency not to refer to most papers after a certain number of years.

** Restriction to a narrow subject field must be defined in terms of the mechanics of the Science Citation Index.
REFERENCES


Stechert-Hafner, Inc.

FOUNDED IN NEW YORK 1872

FOREIGN FICTION

FOREIGN FICTION SERVICE—Libraries interested in keeping their collections of foreign fiction up to date may subscribe to our Foreign Fiction Service. They will automatically receive each month selected new fiction in French, German, Italian, Portuguese, or Spanish. Libraries may decide for themselves the number of titles to be supplied monthly. Further information on request.

London/Paris/Stuttgart/Bogota

31 East 10 Street/New York 3, N.Y.
IN JANUARY OF 1964 the Wilson Library of Western Washington State College began to classify all new accessions according to the Library of Congress classification, and, at the same time, it established a plan for converting certain sections of its previously-classified DC material to the new system. As a consequence of being involved in this project, I was invited to share our experience with the members of the Pacific Northwest College Library Association at its annual conference in Seattle on March 20th, 1965.

One of my reasons for accepting this obligation was that I would thereby be compelled to read or review the relevant literature and thus become better qualified to administer our program. In preparation for this talk, therefore, I made a rather systematic study of the transitions experienced by other libraries, the strong and weak features of LC and DC, and whatever helpful advice I could secure from other librarians who had published reports of their respective situations. The following bibliography, with brief notes pertinent to the theme of my paper, is offered with the hope that it will serve at least as a preliminary guide to some of the articles and chapters bearing on this subject. Notes have not been appended in a few cases where the nature of the journal (Library Trends, for example) or the title or subtitle of the article make the subject or treatment fairly obvious. In several instances an appropriate quotation may serve as suitable orientation for the person wishing to select particular material. The absence from the list of perhaps equally important contributions may be accounted for simply by unavailability or lack of additional time. If the annotations are slanted toward an abandonment of DC, this is due to the fact that in my case the decision had been made, the die cast, and my staff and I committed to a professional life with LC.


*Editor's note: Dr. McGaw reports that so much time "was spent in selecting, reading, and making notes," he never got the paper written, and the time for the talk was spent on "questions, answers, and comments."

3. Boisen, Harold L. "A Venture in Reclassification." *College and Research Libraries*, 6:67-72. December 1944. Conversion of a 15,000-volume collection from standard to greatly modified LC, for purposes of showing broad classifications only. "Our present set of schedules with their geographical tables, seventy pages in all [as compared with the 'approximately 6500 pages' of LC schedules] promises to be adequate." Samples of the Geography adaptation (50 pages of notation reduced to one) and the English Literature adaptation are shown.


7. Cox, Carl R. "Reclassification Planning at the University of Maryland." Mimeographed material (11 p.) dated April 22, 1963, made available by the Library. Statement of careful plans to convert more than 300,000 volumes from DC to LC over a period of three or four years, using "two professional catalogers and twenty clerical positions in various grades." Cards are reproduced by a Xerox 914 copier. LC classification is accepted without deviation. (Hopefully, this material, or something similar, will be published so that policies and practices agreed upon after countless hours of thought and experiment may, if desired, be adopted by other libraries without duplicated effort.)

8. Downey, Howard R. "Dewey or LC?" *Library Journal*, 89:2292-93. June 1, 1964. Report on questionnaire answers, from 27 college libraries (bookstock 57,000 to 1,389,943; average under 250,000) in institutions with enrollments between 5,000 and 6,000 students.

9. Eaton, Thelma. "Classification in College and University Libraries." *College and Research Libraries*, 16:168-76. April 1955. Results of a questionnaire distributed to the 904 accredited institutions in U.S., Alaska, Canal Zone, and Hawaii which are listed in the 6th (1952) edition of *American Universities and Colleges* (replies from 744). Number and percent of libraries is shown for eight different size brackets, from 25,000 volumes and under to 1,000,000 plus (over 86% under 200,000). LC used in 103 (13.8%), and in 69 of the libraries under 200,000. "Half of the changes from DC to LC classification have occurred in libraries with less than 100,000 volumes."

11. ——. “Epitaph to a Dead Classification.” *Library Association Record*, 57:428-30. November 1955. “In general . . . the college libraries have repudiated the new classification [15th edition of DC] on two counts: (1) it is too broad for most collections and, (2) changes in the scheme involve expensive reclassifications.”


13. Fraser, Lorna D. “Cataloguing and Reclassification in the University of Toronto Library, 1959/60.” *Library Resources & Technical Services*, 5:370-80. Fall, 1961. Ten-year plan for reclassifying some 300,000 most-used volumes (out of total of 1 1/4 million) from local scheme to LC.


15. ——. “In praise of Error; with Some Animadversions on the Cost of Descriptive Cataloging,” *Library Journal*, 90:582-85. February 1, 1965. A plea for libraries to take full advantage of the excellent centralized cataloging of LC. Asheville-Biltmore College, Asheville, N. C., where the author is assistant librarian, has had the first 10,000 titles in its library classified and cataloged at “92 cents per title. Nobody knows just what the average cost is elsewhere, but it is widely rumored to be in excess of $3 per title. This differential of $2 would yield a net savings of around $400,000 for a library of 200,000 titles.”


18. Ham, Jessie G. “Reclassification of the University of South Carolina Library Collection.” *Journal of Cataloging and Classification*, 11:221-32. October 1955. Conversion from Cutter Expansive to DC of 56,113 volumes over 7-year period, under trying conditions, at average cost of $1.69 per volume ($3.07 per title); detailed procedures and statistics, some of possible value to libraries changing to LC.

20. Haykin, D. J. "Book Classification and the Problem of Change." *College and Research Libraries*, 16:370-74. October 1955. "Even the separation of 400 from 800 and of 300 from 900 can be explained on the basis of the Baconian system or an accepted order of the sciences at the time the Dewey Decimal Classification came into being; yet hardly anybody would find the separation reasonable now."


22. Kilpatrick, Norman L. and O'Donnel, Anna M. "Reclassification at the State University of Iowa." *Journal of Cataloging and Classification*, 8:12-17. March, 1952. Conversion to LC from modified DC; a 9-month project involving 66,200 volumes (24,364 titles) at per-volume cost of less than 45 cents; detailed procedure, plus production figures and operating statistics.

23. MacPherson, Harriet D. "Reclassification of College and University Libraries." *College and Research Libraries*, 1:159-64+. March, 1940. Includes report on answers to four general questions addressed to twenty college and university library administrators regarding LC; size of collections ranged from 50,000 to 4,000,000 volumes, with six under 200,000. "In the final analysis, thirteen of the seventeen libraries [no response from one; unusable replies from the other two] considered the reclassifying had been worthwhile . . . ."


25. "Reclassification at the University of Mississippi Library." *Library Journal*, 78:199. February 1, 1953. Conversion of 120,000 books from DC to LC, at rate of 5,000 per month.

26. Reichmann, Felix. "Cornell's Reclassification Program." *College and Research Libraries*, 23:369-74; 440-50. September, 1962. Change from local scheme to LC under difficult conditions. Project started in 1948 and, at time of writing, 600,000 volumes, representing 222,000 titles, had been reclassified and recataloged, with 225,000 volumes still to be handled. Reasons for policy and procedural decisions given; personnel enumerated; etc.

27. Shaw, Ralph R. "Classification Systems." *Library Resources & Technical Services*, 7:119-18. Winter, 1963. "Any hierarchical system that attempts to anticipate all the possible rearrangements and subordinations and relationships of subjects really is attempting to determine the answers to all questions of science before we can ask the questions."

28. Tauber, Maurice F. *Cataloging and Classification; v. 1, pt. 1 of The State of the Library Art*, ed. by Ralph R. Shaw. New Brunswick,
Graduate School of Library Service, Rutgers University, 1960. Reclassification and recataloging, p. 149-66.


33. ———. "Reorganizing a Library Book Collection—Part II." College and Research Libraries, 6:341-45. September 1945. Discusses four problems: (1) order or procedure of reclassification, (2) aspects of recataloging and current cataloging practices, (3) disposition of new acquisitions, and (4) routinizing of activities on an efficient basis (includes Markings on exteriors of books, Re-use of old cards, etc.).

34. ———. "Special Problems in Reclassification and Recataloging." College and Research Libraries, 4:49-56. December 1942. Deals with treatment of bibliographies, biographies, textbooks, juvenile works, periodicals, theses, etc.; discusses Experimentation in filing, Discarding and storage, Union catalogs, etc.


37. "University of Houston changes to LC Classification." Library Journal 88:1640. April 15, 1963. Reclassification of 150,000 DC items "will begin in January 1964." (From the University of Houston’s annual report for 1962/63, made available by Edward G. Holley, Director of Libraries; the time contemplated for making the changeover is given as seven years. "Since the decision to change means not only a better system for the libraries but also eventual savings in processing costs, conversion is especially timely as the university steps up its rate of acquiring library materials." According to Dr. Holley, the book collection may reach a half-million volumes by the end of the decade.)
38. U. S. Office of Education. *Library Statistics of Colleges and Universities*, 1963-64; "Institutional Data." Government Printing Office, 1965. Table 3 (p. 132-57) includes the designation of the classification scheme used by the reporting libraries. Of the total number—1,673 (the discrepancy between this figure and 1,663, the number cited in the Introduction on page 1, is accounted for)—twelve hundred and six libraries (72.1%) use DC, 250 (14.9%) use LC, 102 (6.1%) use some other classification, and 115 (6.9%) use two or more systems. Together, the DC and LC arrangements constitute almost seven eighths (87%) of the total, and the libraries using LC make up more than a fifth (20.7%) of the number using DC.


**PUBLISHED PROCEEDINGS OF CONFERENCES, MEETINGS, AND SYMPOSIA**

Announcement has been made of the formation of InterDok Corporation, an information and documentation organization serving the fields of science, engineering, and technology.

InterDok's medium for the dissemination of information is the *Directory of Published Proceedings*. The *Directory* is a monthly compilation of currently-published proceedings of scientific and technical meetings, symposia, and congresses on a national, as well as an international basis. The main proceedings listing is arranged in chronological sequence based on the original date of the conference or symposium. Publisher and pricing information is also included. Cross indexing is provided by the location-of-conference index, as well as a subject descriptor index. Both cross indexes are arranged alphabetically. The first issue of the *Directory* was announced for September, 1965.

InterDok Corporation will also make available to its subscribers a centralized acquisitions service for proceedings cited in the *Directory*. The annual subscription rate is $38.00 for the subscribers in North America, and $48.00 for subscribers in Europe, Asia, Africa, Australia, Central and South America.

Current plans for expanding InterDok's science information services include coverage of the technical conference paper literature. Additional information may be obtained by writing to InterDok, 6 Kenneth Road, White Plains, New York.
Implications of the National Register of Microform Masters as Part of a National Preservation Program*

Edmond L. Applebaum
Executive Officer
Processing Department
Library of Congress, Washington, D. C.

Here is a theorem for our time: It is easier to transmit information than to record it; it is easier to record information than to preserve it; it is easier to preserve information than to locate and recall it once it has been recorded and preserved.

We probably take more seriously than any previous generation the need to preserve man's intellectual heritage. At the same time we are deeply concerned about the deterioration of existing records and the problems inherent in the rapid increase of the record currently being produced. Faced with these factors only, I think we are capable of arriving at good and reasonable solutions. One further great pressure exists, however. We are not permitted merely to store away the record for the hypothetical use of some hypothetical posterity. The record must be so stored that today's and tomorrow's progeny can use it as well.

The National Register of Microform Masters, referred to hereafter as the Register, has been devised as one element in marshalling an attack on these problems. The idea of listing microfilms and providing information about locations and holdings is not new. The Philadelphia Bibliographic Center initiated the Union List of Microfilms in 1941, published the first issue in 1942, and by 1951 was able to produce a cumulative listing 25,000 microfilms owned by 197 institutions. Newspapers on Microfilm, published by the Library of Congress since 1953, began in 1948. Since 1951, the Library of Congress has also maintained in its Information Bulletin the Microfilming Clearing House, listing plans for large scale microfilming and providing progress reports on the status of such projects. But the Register provides several new elements, the most important of which is the emphasis on a master microform earmarked for preservation.

Here again, the basic idea is not new. On July 27, 1952, the Librarian of Congress issued General Order No. 1506 concerning the administrat-


Volume 9, Number 4, Fall 1965

489
tion of the Library's microreproduction program. Requirements for microfilming materials already in the collections were spelled out as follows:

1. as a measure of preservation against deterioration
2. in order to provide an extra copy for security purposes
3. in order to reduce storage or binding costs
4. in order to fill orders received by the Photoduplication Service, when the Service wishes to retain the negative

The regulation went on to say that the justification for each such preservation program "shall include reference to the importance of the material, its physical condition, the rate of deterioration, the availability of other and more permanent copies, and the relation of the project to a systematic schedule of preservation filming." The General Order stated the future policy of the Library insofar as master microforms earmarked for preservation were concerned:

All negative films which are in the possession of the Library of Congress are hereby placed under the control of the Chief of the Photoduplication Service, and shall be transferred to the physical custody of the Service as rapidly as practicable. Negatives under the control of the Service shall be used for reproduction only. Positive prints may be purchased on the basis of approved purchase requisitions to meet reference service needs as they arise.

This regulation thus established a file of master microforms from which even the Library of Congress had to purchase a copy if it wished to have one for service or reference use.

The Register has emerged in its present form only after much consideration and some intensive interchange of views. Early in 1960, the Council on Library Resources, Inc., provided the Association of Research Libraries with a grant of $11,550 for the purpose of making a study of the problems of the bibliographic control of microforms. The aim of the study was "to develop with the cooperation of scholars, librarians and the producers of microforms a comprehensive mechanism for bringing scholarly material in microform under bibliographic control."

The study was conducted by Wesley Simonton, of the Library School, University of Minnesota, with the assistance of the ARL Committee on the Bibliographic Control of Microforms, comprising Herman Fussler, Director of Libraries, University of Chicago; Stanley Pargellis, then Librarian, Newberry Library; and George Schwegmann, Chief, Union Catalog Division, Library of Congress. Professor Simonton's report appeared in the Minutes of the Fifty-Seventh Meeting of the Association of Research Libraries on July 8, 1961, and in Library Resources & Technical Services, vol. 6, no. 1, Winter 1962.

The Simonton report was approved in principle by the membership of the ARL at its July, 1961 meeting. The ARL Committee, its membership consisting of the original committee members and Gordon Williams, Director, Midwest Inter-Library Center (now the Center for Research Resources).
Libraries) was instructed to bring the report to the attention of appropriate persons and to take whatever steps were necessary to secure the effective implementation of the six Simonton recommendations. The Committee, under the chairmanship of Herman Fussler, reported at the January 26, 1964 meeting of the ARL on the status of each of the recommendations, indicating that each had been or was being implemented. The Committee also proposed that it be discharged and "... that further responsibilities, especially under Recommendation 2 ..., be assigned to the ALA-RTSD Committee on Resources."

Recommendation 2 embodied Simonton's detailed description of a new bibliographic record that would list microform masters. The Library of Congress accepted responsibility for receiving reports of such masters and indicated that it was prepared to provide information from the resulting files subject to the limitations of its staff and budget. It indicated, furthermore, that a published bibliography, if it could be financed, was contemplated for the future.

In preparation for such an eventuality, the Subcommittee on the National Union Catalog of the ALA-RTSD Resources Committee, turned its attention to the scope, format, and possible financing of such a bibliography. The Subcommittee is chaired by Gordon R. Williams. Members are Douglas W. Bryant, John W. Cronin, Charles David, Ralph E. Ellsworth, Herman H. Fussler, George A. Schwegmann, Jr., and Frederick H. Wagman. A day-long session of this committee on April 28, 1964, was particularly productive, and detailed decisions were reached on a number of points.

One of the determinations made was that the projected publication should be a register rather than a bibliography as envisioned by Simonton. The register would tie to the full bibliographic entries appearing proposal, the register would make known what materials had been in the book catalogs of the Library of Congress. In line with Simonton's copied and where microform masters available for reproduction were located, thus preventing duplication and facilitating procurement of copies.

In October 1964, the Library of Congress submitted a request to the Council on Library Resources for a grant of $35,000 to be expended over a two-year period for the purpose of initiating work on this publication. The Library indicated that after this two-year experimental period, the Register should become a supplementary feature of the published National Union Catalog. The Council granted the Library funds for this purpose in February, 1965.

Meanwhile the NUC Subcommittee met on December 17, 1964 and March 1, 1965. One of the items on its agenda each time was to further define and clarify the shape the Register should take. Items will be identified and arranged numerically by LC card number or NUC card number as given in the LC book catalogs. The card number will be followed by the author's surname and initials, with a very brief title. Items not having an LC card number or an NUC number will be listed
separately, arranged alphabetically, with a brief entry sufficient to identify them. The form of the master and its location will be indicated by symbols.

The Register will list two types of masters, one type known simply as a Master microform and the other known as a Master preservation microform. The former will be one used only to make copies for use, and one from which single copies are available at any time and for a reasonable price. The latter, in addition to the above requirements, must be of archival quality, must be housed in a temperature controlled, fireproof space, and must be owned by a responsible non-profit institution. Both types of masters must meet the specifications of the American Standards Association in regard to film stock and permanence, and should, if possible, meet the requirements of completeness, collation, image placement, reduction ratio, target, etc., as set down in the Specifications for Library of Congress Microfilming.

It should be again emphasized that the Register is concerned only with master negatives (or in exceptional cases with positives when these are the master copies and used only to make copies for use).

The Register will include foreign and domestic books, pamphlets, serials, and newspapers; and foreign doctoral dissertations. It will not include technical reports, typescript translations, foreign or domestic archival materials, or U. S. doctoral dissertations or master's theses. The Register will be issued in annual volumes with frequent cumulative supplements.

Reporting to the Register will be by means of a copy of the LC card on which is marked the additional information concerning type and quality of microform and location. A special form for reporting will also be available for use, if desired. All agencies, libraries, and commercial producers are invited to report microform masters that conform to the above standards. Reports should be addressed to the National Register of Microform Masters, Union Catalog Division, Library of Congress, Washington, D. C. 20540.

What are the implications of the Register for a national preservation program? One of the first effects will be to bring to the attention of library administrators the need to establish policies concerning preservation of the materials in their collections—all of which are deteriorating at one rate or another. The library community has not yet fully faced up to this need. Perhaps it is because many libraries have simply not been confronted by the problem to any large extent.

Some libraries are using their only microform copies as service copies, and, in some instances, these represent the most complete files available, or even unique and irreplaceable copies. The opportunity to find this out by checking the Register should eventually serve to eliminate the practice.

Master microform files have developed here and there by chance as photoduplication offices experienced continuing demands for photocopies of research journals and other items issued by their institution or
known to be held by the institution's library. The Register should be a factor in encouraging the formulation of effective preservation policies including requirements for establishing appropriate master microform files and for regularizing existing practices.

Establishment of the Register should help bring to the attention of all concerned an awareness of existing technical and bibliographical standards and should hopefully lead to increasing efforts to make archival quality a meaningful term—a goal equally for producers, storers, and servicers of microcopies. There should be other eventual benefits from the establishment of the Register. The more comprehensive the list grows, the less the wasteful duplication of copying will take place, and the more funds should be available for further usefully-directed preservation endeavors. An increased sense of responsibility should prevail with the implied commitment to preserve reported master microform holdings.

Insofar as the broader implications of a national preservation program are concerned, it can be said that the Register is an excellent first step. It should lead to increased awareness, cooperation, control, and coverage. But many other areas still require attention.

What is to be done about the preservation of originals that are not wholly suitable for copying in microform? Can copying techniques and materials be improved even more with preservation in mind? The use of color in printing is of increasing importance; will copying in color for extended preservation be possible? How should we go about planning to preserve the current output as it appears?

Here I should like to call to your attention a paper published in the Minutes of the Sixty-Fifth Meeting of the Association of Research Libraries, January 24, 1965. It is entitled "The Preservation of Deteriorating Books: An Examination of the Problem With Recommendations For a Solution" and is a report of the ARL Committee on the Preservation of Research Library Materials. The report was prepared for the Committee by Gordon Williams with the aid of a grant from the Council on Library Resources.

The Abstract that accompanies this report reads as follows:

Because of the rapid deterioration of nearly all paper made since the last decades of the nineteenth century, many books have already become unusable and all but a small portion of the remainder are very rapidly approaching this condition. Prompt and effective action is required to prevent losing the essential information they record.

The technical and administrative problems involved in preventing this loss are discussed, and it is concluded that the most effective and efficient way to insure the continued availability of this information to all scholars is to establish a central agency that will insure the physical preservation of at least one example of every deteriorating book and that will make photocopies of these preserved originals readily available to all libraries. The operations of the central agency and the collateral responsibilities of research libraries are described, and methods of organization and financial support are outlined.
The report is thought-provoking and involves some long-range planning. It treats of deacidification sprays and low-temperature housing as possible preservative measures for books; it discusses the promotion of increased use of durable book papers; it compares the cost of book storage against the cost of weeding; it compares the cost of deacidification and cold storage of original volumes, to be microfilmed on demand, against the cost of immediate microfilming without preservation of the original volumes. It raises again the question of the permanence of microfilm. In conclusion it sets forth a proposal whereby a central preservation agency, supported by the Federal Government, might undertake to fulfill the objectives of a national preservation program.

At the January 24, 1965 meeting of the Association of Research Libraries, Douglas Bryant, Chairman of the Committee, described the report as follows:

The essentials of the plan now proposed are its flexibility, establishment of a central agency, federal support, the preservation of what research libraries possess, use for preservation of the best technical means available, dissemination to libraries of copies of what is preserved, and bibliographical control through the National Union Catalog.

Bryant specifically stressed the flexibility of the plan in the light of possible technological advances.

At the same meeting, the ARL membership voted unanimously to endorse the report in principle.

The preservation plan, as a large-scale undertaking, may possibly have to contend for funds with such other proposals as library automation, centralized acquisitions, and centralized cataloging. On the other hand, it is equally conceivable and greatly to be desired that far-reaching plans such as these, with their great potential for libraries, be linked together whenever possible to assure the widest benefit that may be derived from a total system.

What can the librarian do right now to help in the development of a national preservation program? First, he can turn his attention to establishing sound policies and practices for the preservation of deteriorating materials in his library's collections. He can insist on the provision of microcopies of only the highest quality. He can guarantee that irreplaceable microcopies in his collections do not become damaged or destroyed because they have been treated as ordinary service copies. Finally, he can help reduce duplication and facilitate the procurement of copies by reporting his holdings of master negatives to the National Register of Microform Masters.

HAWAIIAN UNION LIST

The Hawaii Library Association and the University of Hawaii have collaborated on a third edition of the Union List of Serials in the Libraries of Honolulu.

The price of this revised edition is $20. Orders may be sent to the Hawaii Library Association, P. O. Box 3941, Honolulu, Hawaii, 96812.
The library profession in general and documentation in particular lost one of its most valuable members in the death, suddenly of a heart attack, of Mortimer Taube, on September 3. His energy had been so boundless that the shock of his passing has been felt by the thousands of librarians and others who have respected his contributions to librarianship and the field of information science. Some 700 persons assembled on very brief notice during a holiday weekend to pay their respects to him at the funeral service.

Much might be written about Dr. Taube. He was documentalist, librarian, surveyor, editor, writer, and teacher. His biography in Who's Who in America refers to him as a "documentalist." Yet, Mortimer Taube was quite proud of the fact that he was a librarian, since it gave the basis for his understanding of problems facing all who deal with recorded knowledge. His experience at Mills College, Rutgers University, Duke University, and the Library of Congress gave him the practical knowledge of the technical services that are so intertwined in information storage and retrieval. His writings prior to his more recent interest in documentation were concerned with classification, book selection, surveying libraries, and bibliography. It was with the development of Documentation, Inc., however, that he established himself here and abroad as one of the leaders in the documentation movement. He established, if he did not invent, coordinate indexing as a major tool. His work in this area aroused considerable discussion in the library press and gave him an international reputation. Actually, this activity was closely related to his experiences at the Library of Congress and with other government agencies, and to his important early work in attempting to introduce effective methods for the control of technical report literature. He was prompt to exploit such tools and techniques as mathematics and the computer—and as prompt to speak against what he felt were misapplications of these tools and techniques.

The breadth of his interests, based on training in philosophy and his recognition of the place of mathematics in information theory, gave him an opportunity to take leadership at meetings and conferences, and on committees. He was among the gadflies of the profession, irritating and forcing the less energetic to think. He was sometimes impatient with his critics, yet he was always helpful, without many people knowing of his many acts of kindness, to colleagues and friends and students. He could single out able people and give them the proper guidance and support. A pioneer thinker and synthesizer, he fought for his convictions hard, but was willing to listen to evidence against them when it was presented. His book, Computers and Common Sense, the Myth of Thinking Machines, drew barbed shafts from some, but it proved a stimulant to those who had not been aware of the role of information.
In a lengthy review of Taube's work entitled *Emerging Solutions for Mechanizing the Storage and Retrieval of Information* (Volume 5 of his *Studies in Coordinate Indexing*), Frank B. Rogers (College and Research Libraries, 21:489-92, November, 1960) observed: “It is curious to note the relative lack of attention which Taube's work has received in the library press . . . It is curious for many reasons; Taube's writing is of brilliant clarity, marred only occasionally (and not at all in his two most recent and best volumes) by excessive polemical zeal; always full of apt metaphor; rarely padded with a single extraneous phrase; loaded with seminal ideas of great power.” In the years since this review Taube's works have received more of the attention they deserve.

Those of us at Columbia University who came to know him as a teacher and colleague recall his verve, his vibrant and orderly mind, and his keen sense of humor. It is difficult to understand the passing of one as young and full of life as Mortimer Taube, but his contributions will remain with us as landmarks in the growth of information science. We could do worse than remember a phrase he was fond of these last few years: “Seek simplicity—and distrust it.”

——Maurice F. Tauber, Professor
School of Library Service
Columbia University, New York

---

**CUSHING-MALLOY, INC.**
1350 North Main Street
ANN ARBOR, MICHIGAN

**LITHOPRINTERS**
known for

**QUALITY—ECONOMY—SERVICE**

Let us quote on your next printing

---

Catalogue Card Duplicator, to print library catalog card (3 × 5), $54.00.

Card Duplicator, to print library catalog card (3 × 5), post card (3½ × 5½) and 4 × 6 card, $64.50.

Living Stamp, to print call number, address, label, etc., $24.50.

*All patented. Performance guaranteed.*

With a new ink to dry in 10 minutes. Orders “On Approval” invited.

Please order direct from inventor:

**Chiang Small Duplicators**
53100 Juniper Rd.
South Bend, Indiana, U.S.A. 46637

---

Library Resources & Technical Services
Regional Groups

DORIS RANSOM, Chairman
Council of Regional Groups

IN ADDITION TO A REPORT on the activities of the Council of Regional Groups at the 1965 ALA Conference, included in this report are thirteen regional group meetings held recently.

Each year about half of the members of the Council of Regional Groups struggle early from their hotel beds to attend the 8:30 A. M. discussion meeting during the ALA Conference. Once we all are awake, the meeting becomes a rather lively and productive one. The Detroit meeting was typical in concentrating attention on program planning. It was typical also in the members' interest in automation, centralized processing, and book catalogs as potential program topics for meetings. This year a fourth topic was discussed (the revised cataloging code, which again is not new), and a fifth was briefly mentioned (training of technical service staff). In addition, two bright ideas not on program topics were described (a brochure on how to plan a program and a series of "occasional letters" from a group chairman to the other officers). Additional information and names of suggested speakers are available on request.

Forty-six persons braved a sudden downpour to attend the Council's luncheon in Detroit. No program had been planned, and guests and members mingled in cheerful if damp informality.

The Southern California Technical Processes Group heard David R. Hoffman (Library Technology Project) describe some of the investigations which LTP has engaged in, including catalog card reproduction, centralized book processing, and photocopying.

The Florida Resources and Technical Services Roundtable heard Florence D. Cleary (University of South Florida) speak on the history of the organization of library materials.

The Resources and Technical Services Section of the Kansas Library Association approved revisions of its bylaws during a business meeting. John Glinka (University of Kansas) spoke on technical services aspects of the last ALA Conference.

At a joint meeting of the College, Junior College, Reference, and Technical Services Sections of the Michigan Library Association, the first session was devoted to cataloging; Barbara Westby (Detroit Public Library), W. Victor Bielinski (Northwood Institute) and David Remington (Alanar) spoke on various aspects of commercial processing serv-
ices. At the second session Mr. and Mrs. Norman Lathrop, professional indexers, described the indexing of the *Flint* (Michigan) *Journal*, and James M. Ethridge (Gale Research Company) spoke on his firm's history and publishing program.

The New England Technical Services Librarians formally became a section of the New England Library Association by amendment of its bylaws. At another meeting, the group heard Ralph T. Esterquest, Harold Bloomquist, Ann Curran, and Jacqueline Colby (all of Harvard University) discuss the computerizing and merging of the catalogs of the libraries of the Columbia, Harvard, and Yale University medical schools.

The Catalogers' Section of the New Jersey Library Association became the Technical Services Section through changes in its bylaws approved at its business meeting.

As a preliminary to its annual statewide meeting, the Technical Services Round Table of the Ohio Library Association held a regional or district meeting with the program centering on the subject of the training of technical services staff. Robert Donahugh and Dorothy Carpenter, both of the Youngstown Public Library, led a lively discussion of clerical staff training.

The Northern Ohio Technical Services Librarian heard Andrew D. Osborn (University of Pittsburgh) present a words-and-pictures history of book catalogs from the earliest ones to the most modern products of today's machines.

The Technical Services Division of the Oklahoma Library Association heard a panel discussion of current topics in technical services. Alice Phelps Pattee (Oklahoma State University) reported on the general situation in cataloging today; J. Michael Bruno (University of Oklahoma) discussed automation as it affects acquisitions librarians; and Sam Smoot (Tulsa City-County Library System) described his library's book catalog production.

The Ontario Resources and Technical Services Group heard Margaret Beckman (University of Waterloo) read a paper on the administrative organization of technical services. At the business session which followed, the Group's questionnaire on cataloging costs and the St. John survey of Ontario libraries were among the topics discussed.

The Philadelphia Area Technical Services Librarians held a dinner meeting at which the principal business was the election of officers.

The Texas Regional Group of Catalogers and Classifiers held its first meeting as a round table affiliated with the Texas Library Association. Following the business meeting, Olivia Faulkner (Library of Congress) addressed the group on "Descriptive Cataloging in the Library of Congress, Present and Future."

A new regional group—so new that its name is not yet official—is being formed to cover the state of Tennessee. I take this opportunity to extend the felicitations of the Council of Regional Groups to the Tennessee technical services librarians and to the first chairman of the group, Elizabeth Greer of Joint University Libraries, Nashville.
REVIEWS

(Editor's note: Reviews published in this magazine have a deliberately-chosen viewpoint. That is, reviewers are asked to consider publications primarily on the basis of their meaning and contribution to the areas of our interest: the building of library collections and the absorption, care, and control of the materials comprising the collections.)

Gardin, J. C. SYNTOL. New Brunswick, N. J., Graduate School of Library Service, Rutgers, the State University, 1965. (Rutgers Series on Systems for the Intellectual Organization of Information, vol. 2).

In 1960-1962, EURATOM contracted with J. C. Gardin and his associates at the French National Center for Scientific Research (CNRS) to produce a unique, systematic "language" (using that term in both its linguistic and mathematical senses) for information retrieval. This "language" was to be one to which other kinds of systematic languages (indexes, classifications, sets of descriptors, etc.) could be related, and it was to form the basis for making "a more general program in the field of automatic documentation, independent, to a certain extent, of the content of documents, the kinds of classification or indexing systems, searching methods, etc." (p. 11) Such a language was to transcend the needs, peculiarities and limitations of any one subject. In other words, it was to be a system that would be generally applicable to all fields.

Mimeographed reports of the work of Gardin and his associates were available in French and English for limited distribution in 1962-63, and published in 1964. A published report, in French, of experimental work also appeared in 1964. There have been no extensive descriptive articles available in English until the present summary made for the Rutgers Seminar.

The fundamental analytic part of the SYNTOL system is based on two types of relationships:

1) paradigmatic (patterned)—relationship between index terms in information languages, indicated a priori (i.e. intuitively or with "empirical judgment") and introduced at the beginning because of obvious validity in a subject field. A hierarchical or any type of classification may be used for this aspect.

2) syntagmatic (word relationships)—relationship between two terms, holding for a specific document. Syntagmatic examples are difficult to explain. Essentially they boil down to arbitrary assignment of lexicon index terms to formal categories which are used to develop association rules for an "embryonic grammar" (p. 34). The relational unit at the syntagmatic level is called a "syntagma," which is defined in the glossary as a pair of syntactically associated terms with the association factor specified or unspecified, literal or ordinal (an arbitrary number), generic (class) or specific (subclass). The logical relations between terms may be unlimited ("Thematics") or limited ("Scheme"). The syntagmatic feature consists of descriptors taken from the document, indicating four relationships which are predicative, associative, consecutive and co-ordinative. As with other systems that deal primarily with words, a thesaurus is developed for this part of the system.

SYNTOL attempts to combine the best features of classification and ad
vanced coordinate indexing. Gardin regards the latter as the more significant and believes that eventually it should take over and determine the paradigmatic part of the subject analysis. The total system of SYNTOL also includes descriptive cataloging, which is used for the basis of "source" information, and an informative abstract, upon which all the subject analysis is based.

In practical application, although a computer is used as a data processing device, automatic features are minimal, and the input and output require human effort. Abstracting and indexing are done by humans, and a middleman converts all inquiries into a form the computer can handle, either by breaking down the inquiry into a series of weighted questions or by substituting interchangeable terms or relationship factors. For example, the hierarchy in the paradigmatic part of the analysis may be used as the source of one implicit term to replace dozens of explicit ones. This process, which Gardin calls "modulation" (and which others have been known to term "classification") is done by a human brain, though conceivably under certain circumstances it might be mechanized in the future. Generalization may be introduced if needed, so that further modulation is made. For example, one may substitute "the effect of antibiotics on cats" for a non-productive searching query "the effect of penicillin on cats," or one may use related terms in a hierarchy as substitutes for the query term, a sort of substitution of terms in chain (upwards or downwards) or in array (sideways).

The results of SYNTOL, given in a single, unelaborated example at the back of the book, consist of four parts:

I. CATALOGUE
   accession number and descriptive cataloging

II. ABSTRACT
   indicative abstract

III. SOURCE
   place, date, original language, translation language, nature, context, content, details, etc.

IV. CONTENT
   1) Thematic level: scale [class level] theme space
      focus time
      beings mode
   This is essentially a faceting procedure expressed in a manner similar to multiplane classification schemes.
   2) Syntagmatic level: a diagram and formula indicating the four basic relationships (R₁—predicative, R₂—associative, R₃—consecutive, R₄—co-ordinate) between concepts expressed in words, taken from the abstract.

The example given, unfortunately, does not show how a hierarchical classification is used at the paradigmatic level.

In order to read this book, it is recommended that the reader who is not an expert in linguistics have an unabridged dictionary handy. Some of the words used, such as "transivity," are not even in it. A most difficult and involved style makes Gardin's explanations, particularly of the paradigmatic and syntagmatic analyses, which are the meat of the book, extremely difficult to follow. Some parts, notably pp. 25-42, are almost unintelligible. The editor has tried to clarify spots by adding sections from the unpublished preliminary seminar paper given to participants, but even this helps little. The author's own translation of his French into English is part of the difficulty. For example, "ichelle" as a paradigmatic (classification) expression has been translated as "scale" where "level" might have conveyed its meaning more clearly.

The discussion by the panel of experts, which apparently is summarized by Gardin rather than given in toto, does not add much to understanding...
of SYNTOL, although the comments in many instances are interesting in themselves.

One may hope that a better description of SYNTOL, one that will do greater justice to its original features, will be made in English. The present description confuses rather than clarifies.—Phyllis A. Richmond, Supervisor of River Campus Science Libraries, University of Rochester, Rochester, New York

The ALA Membership Committee has established a goal of 30,000 members, to be achieved on or before the sixth annual Membership Day, October 21, 1965. If you are not a member of the American Library Association and of its Resources and Technical Services Division, why not join now? Application forms may be secured from the American Library Association, 50 East Huron Street, Chicago, Illinois 60611.

The USED BOOK PRICE GUIDE

An ALPHABETICAL REFERENCE FOR PRICING & BUYING

Rare, Scarce, Old and Used Books

Mildred S. Mandeville, compiler

PART 3

Actual Retail Prices From over 200 Dealers’ Catalogs Received Between Spring 1963 & Spring 1964 (inclusive)

- Impartial presentation of used book prices. (from U. S. & Canadian catalogs only)
- Wide range of titles—double columns—convenient size volumes.
- Contains no duplicates of our other Parts.
- Maximum of information with each listing.
- Conditions of books described.
- Supplement (for buying) identifies each listing with specific dealer-catalog—giving address and pertinent terms of business. (Use with UBPG).
- Each listing personally selected, entered, and checked by the compiler.
- Authentic count—The same edition of a book offered by 2 or more dealers is counted only as one.
- 30 day approval for libraries.

EACH PART COMPLETE IN ITSELF

Price: Part 3

<table>
<thead>
<tr>
<th>Price</th>
<th>Part 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part 3</td>
<td>Part 2</td>
</tr>
<tr>
<td>(1964)</td>
<td>(1963)</td>
</tr>
<tr>
<td>13,600 listings</td>
<td>12,000 listings</td>
</tr>
<tr>
<td>cloth . . . $8.00</td>
<td>$8.00</td>
</tr>
<tr>
<td>paper . . . $6.00</td>
<td>$5.00</td>
</tr>
<tr>
<td>supplement . . . $2.00</td>
<td>$2.00</td>
</tr>
</tbody>
</table>

Part 1—sold out—now being updated & enlarged.
Part 2—went into a 2nd printing within 3 months.

PRICE GUIDE PUBLISHERS
Kenmore Station
Kenmore, Washington 98028
If your library doesn’t have this, you can borrow it for 90 days.

To receive the SCI for a no-obligation trial period of three months, write today to Dept. 23-4
INSTITUTE FOR SCIENTIFIC INFORMATION 325 Chestnut Street Philadelphia Pa 19106
British Museum Printed Catalog. “In the Mail” (Wilson) 199.

CATALOG, BOOK see BOOK CATALOGS
CATALOG CODE see CATALOGING—RULES
CATALOG, DIVIDED. “Does Dividing the Catalog Relieve Congestion? A Reply” (Shore) 337-338.
CATALOGERS. “Encounter with a Cataloger” (Gore) 363-366.
—. Cataloging Sampler (Colvin) review, 381-382.
—. “IJ Book Processing Kits,” 288.
—. “1964: Peek into Paradise” (Dunkin) 43-48.
CATALOGING—RULES. “Catalog Code Revision,” 403.
—. “Notes Toward a Code for Computer-Produced Printed Book Catalog” (Weinstein and George) 319-324.
CATALOGING—RULES—MUSIC. “Music Cataloging,” 403.
CENTRALIZED PROCESSING. “Processing Center for California Junior College Libraries—A Preliminary Study” (Moore) 303-317.
Chicorel, Marietta. “West German Book Prices,” 207-209.
CIRCULATION. “Computerized Circulation Work: A Case Study of the 357 Data Collection System” (McCoy) 59-65.
—. “Citation and Subject Indexing in Science” (Matthews and van Luik) 478-482.
Clapp, Verner W. “DC Numbers on LC Cards,” 393-403.
CLASSIFICATION. “Adapting LC Schedules to DC Notation” (Lorenson) 210-212.
—. “The Advantages and Disadvantages of a Classified Periodicals Collection” (Borden) 122-126.
—. “Automated Classification and Indexing, For Libraries?” (Black) 35-52.
—. “Classification” (Percy) 413.
—. “Classification Schemes for the Arrangement of the Literature of Protestant Denominations” (Slavens) 439-442.
—. “Classifying Children’s Books” (Jones) 246-248.
—. “Conclusions and Recommendations” (Second International Study Conference on Classification Research) 113-117.
—. “DC Numbers on LC Cards” (Clapp) 393-403.
—. “DC Numbers on LC Cards: Supplement (Mumford) 405-413.
—. “In the Mail: Classification” (Mills) 392.
—. “In the Mail: Classification” (Rash) 414-416.
—. “La Roche College Classification System for Phonorecords” (Sister Mary Alvin and Sister M. Michele) 443-445.
—. “Phonograph Record Classification at the United States Air Force Academy Library” (Stiles) 446-448.
—. “A Proposal for the Method of Adapting the Dewey Decimal Classification Scheme to Meet the Needs of India” (Krishnaswami) 449-461.
—. “Ranganathan’s Classification Ideas: An Analytico-Synthetic Discussion” (Atherton) 469-473.
—. “Reclassification: A Bibliography” (McGaw) 483-488.
—. “Relative Effectiveness of . . . Classifications for a Marketing Collection” (Casellas) 417-437.
—. “Some Random Thoughts on the Cost of Classification” (O’Bryant) 367-370.
—. “Statement on Types of Classification Available to New Academic Libraries” (RTSD. Classification Committee) 104-111.
—. “Use of Library of Congress Classification Decisions in Academic Libraries” (Morrison) 293-342.
Classification Committee see RTSD. Classification Committee
COLLEGE LIBRARIES. “Processing Center for Junior College Libraries—A Preliminary Study” (Moore) 303-317.
—. “Use of Library of Congress Classi-
lished Decisions in Academic Libraries” (Morrison) 235-242.

COLLATION CLASSIFICATION. “Ranganathan’s Classification Ideas: An Analytico-Synthetic Discussion” (Atherton) 469-473.


Colvin, Laura C. Cataloging Sampler; a Comparative and Interpretive Guide, review of, 581-582.

Colvin, Laura C. “Laura Catherine Colvin” (Leonard) 389-391.

COMPUTERS see DATA PROCESSING

“Computerized Cataloging: The Computerized Catalog at Florida Atlantic University” (Perreault) 20-34.


Copying METHODS. “A Book Catalog Prepared by Camera and Computer” (Jones) 205-206.


—. “Developments in Copying Methods, 1964” (Dougherty) 157-162.

—. “Implications of the National Register of Microform Masters as Part of a National Preservation Program” (Applebaum) 489-494.

Copying Methods Section see RTSD. Copying Methods Section

Costs. “Some Random Thoughts on the Cost of Classification” (O’Bryant) 367-370.

—. “West German Book Prices” (Chicorel) 207-209.


Custer, Benjamin A. “In the Mail” (DC Numbers on LC Cards) 212.

CUTTER NUMBERS see AUTHOR NOTATIONS

D

“DC Numbers on LC Cards” (Clapp) 393-403.

—. (Custer) 212.

—.: Supplement” (Mumford) 405-413.

DATA PROCESSING. “Automatic Classification and Indexing, For Libraries?” (Black) 33-52.


—. “The Computer and Catalog Filing Rules” (Perreault) 325-331.

—. “Computerized Cataloging: The Computerized Catalog at Florida Atlantic University” (Perreault) 20-34.


—. “Computerized Serial Records” (Culbertson) 53-58.

—. “Data Processing Aids in Acquisitions Work” (Schultheiss) 66-72.

—. “Dissemination of Information” (Warheit) 73-89.

—. “The Hardware of Data Processing” (Gull) 6-19.

—. “Introduction to Data Processing” (Heiliger) 5.

—. “The Library of Congress Project” (King) 90-93.

—. “The Machine and the Librarian” (Parker) 100-109.

—. “The MEDLARS Project at the National Library of Medicine” (Austin) 94-99.

—. “Notes Toward a Code for Computer-Produced Printed Book Catalogs” (Weinstein and George) 319-324.


—. “Two Serial Control Card Files Developed at the University of Illinois, Chicago” (Schultheiss) 271-287.

—. see also AUTOMATION

Decimal Classification Editorial Policy Committee. Annual Report 1963/64, 103.


DEPARTMENTAL LIBRARIES. “The Death of the Departmental Library” (Legg) 351-355.

DETOUR PUBLIC LIBRARY. “Cataloging the Contents of Certain Recordings” (Anderson) 359-362.

DEWEY, MELVIL see MELVIL DEWEY MEDAL

DEWEY DECMIAL CLASSIFICATION. “Adapting LC Schedules to DC Notation” (Lorensen) 210-212.

—. “DC Numbers on LC Cards” (Clapp) 393-403.

—. “DC Numbers on LC Cards: A Supplement” (Mumford) 405-413.


—. “In the Mail” (DC Numbers on LC Cards) (Custer) 212.

—. “A Proposal for the Method of
Adapting the Dewey Decimal Classification Scheme to Meet the Needs of India" (Krishnaswami) 449-461.

—. “Relative Effectiveness of . . . Classifications for a Marketing Collection” (Casellas) 417-437.

—. “Statement on Types of Classification Available to New Academic Libraries” (RTSD. Classification Committee) 104-111.

DIRECTORY OF PUBLISHED PROCEEDINGS.

“Published Proceedings of Conferences, Meetings, and Symposia,” 488.

“Dissemination of Information” (Warheit) 73-89.

DIVIDED CATALOG SEE CATALOG, DIVIDED

Dougherty, Richard M. “Year’s Work in Acquisitions,” 459-466.


E-F

Editor recommends: 176.

Editorial comment: Classification, 413.

Elsinore Conference see Second International Study Conference on Classification Research


EXCHANGES. “Let’s Exchange Profitably” (Novak) 345-351.

Fall, John. “PAIS, Fiftieth Anniversary,” 231-234.


FILING. “The Computer and Catalog Filing Rules” (Perreault) 325-331.

—. “A Filing System for the Machine Age” (Popecki) 323-327.

FLORIDA ATLANTIC UNIVERSITY, BOCA RATON. “Computerized Cataloging: The Computerized Catalog at Florida Atlantic University” (Perreault) 20-34.

FOREIGN LANGUAGES—DICTIONARIES. Dictionarium Bibliothecarri Practicum (Zoltán) review, 252-253.

Frick, Bertha M. “Frick Receives Dewey Medal,” 391.


G-H

GANFIELD, JANE. “President-Elect Submits Resignation,” 517.


Gore, DANIEL. “Some Random Thoughts on the Cost of Classification” (O’Bryant) 367-370.

“Government Publications, Japanese” (Fukuda) 249-250.


“The Hardware of Data Processing” (Gull) 6-19.

HARVARD BUSINESS CLASSIFICATION. “Relative Effectiveness of . . . Classifications for a Marketing Collection” (Casellas) 417-437.

HARVARD UNIVERSITY LIBRARY. “Catalog of Persian Books,” 362.

“Hawaiian Union List,” 494.

HEBREW MATERIALS. “The Acquisition of Hebrew and Yiddish Books” (Brunswick) 377-379.

Heiliger, Edward M. “Introduction to Data Processing,” 5.


I

ILLINOIS UNIVERSITY, CHICAGO see UNIVERSITY OF ILLINOIS, CHICAGO

INDEXING. “Automated Classification and Indexing, For Libraries?” (Black) 35-52.

—. “Citation and Subject Indexing in Science” (Matthews and van Luik) 478-482.

—. “Dissemination of Information” (Warheit) 73-89.

—. Indexing Terms of Announcement Publications for Government Scientific and Technical Reports (Hammond and Rosenborg) review, 251-252.

—. SYNTOL (Gardin) review, 499-501.

—. “SYNTOL—A New System for the Organization of Information” (Artandi) 473-477.

Library Resources & Technical Services
"Indexing Services," 287.

India—Libraries—Classification. "A Proposal for the Method of Adapting the Dewey Decimal Classification Scheme to Meet the Needs of India" (Krishnaswami) 449-461.

Information Retrieval see Data Processing

InterDok Corporation. "Published Proceedings of Conferences, Meetings, and Symposia," 488.

"Institute on Information Retrieval," 392.

Interlibrary Loans. "Source of Irreverence: ULS" (Waldeck) 243-244.


International Study Conference on Classification Research see Second International Study Conference....

J

"Japanese Government Publications" (Fukuda) 249-250.


Junior College Libraries see College Libraries

Kauffman, Alice F. Dictionarium Bibliothecarii Practicum (Zoltán) review, 252-253.


K

La Roche College. "La Roche Classification System for Phonorecords" (Sister Mary Alvin and Sister M. Michele) 443-445.


Library of Congress. "Implications of the National Register of Microform Masters as Part of a National Preservation Program" (Applebaum) 389-494.

—. "The Library of Congress Project" (King) 90-93.

—. "Reclassification: A Bibliography" (McGaw) 483-488.

Library of Congress Cards. "DC Numbers on LC Cards" (Clapp) 993-993.

—. "DC Numbers on LC Cards: Supplement" (Mumford) 405-413.

—. "In the Mail" (DC Numbers on LC Cards) (Custer) 212.

—. "Some Random Thoughts on the Cost of Classification" (O'Bryant) 367-370.


Library of Congress Classification. "Adapting LC Schedules to DC Notation" (Lorenson) 210-212.

—. "Relative Effectiveness of . . . Classifications for a Marketing Collection" (Casellas) 417-437.

—. "Some Random Thoughts on the Cost of Classification" (O'Bryant) 367-370.

—. "Statement on Types of Classification Available to New Academic Libraries" (RTSD. Classification Committee) 104-111.


Library Surveys see Surveys

Library Terminology see Foreign Languages—Dictionaries


"A Look at the Future Through Bifocals" (Brown) 261-269.

Lopez, Manuel D. "Subject Catalogers—Equal to the Future?" 371-375.


M

M. Michele, Sister. "La Roche College Classification System for Phonorecords," 443-445.

"The Machine and the Librarian" (Parker) 100-103.


Volume 9, Number 4, Fall 1965

MANUSCRIPTS. "Manuscript Collections and Archives—A Unitary Approach" (Bernier) 212-220.


Mary Alvin, Sister. "La Roche College Classification System for Phonorecords." 443-445.

Matthews, Geraldine M. "Citation and Subject Indexing in Science." 478-482.


"The MEDLARS Project at the National Library of Medicine" (Austin) 94-99.

MELVIL DEWEY MEDAL. "Frick Receives Dewey Medal." 391.


MICROFILMING see COPYING METHODS

MICROFORMS see COPYING METHODS

Mills, J. "In the Mail: Classification." 392.

MINNESOTA. University see University of Minnesota

"Misery is a Short Footnote" (Richmond) 221-224.


Mumford, L. Quincy. "DC Numbers on LC Cards: A Supplement," 405-413.

"Music Cataloging," 403.


NATIONAL REGISTER OF MICROFORM MASTERS. "Implications of The National Register of Microform Masters as Part of a National Preservation Program" (Applebaum) 489-494.

"The National Union Catalog, Pre-1956 Imprints" (Williams) 269-270.

NEVADA. University see University of Nevada


O


ORGANIZATION OF INFORMATION see CLASSIFICATION; INDEXING; SUBJECT HEADINGS

P

"PAIS, Fiftieth Anniversary" (Fall) 231-233.


"PeeK into Paradise" (Dunkin) 143-148.

PERIODICALS see SERIALS


"Computerized Cataloging: The Computerized Catalog at Florida Atlantic University," 20-34.


PHONORECORDS. "Cataloging the Contents of Certain Recordings" (Anderson) 399-392.

"La Roche College Classification System for Phonorecords" (Sister Mary Alvin and Sister M. Michele) 443-445.

"Phonograph Record Classification at the United States Air Force Academy Library" (Stiles) 446-448.

Pierce, Esther J. "Classification" (Editorial) 413.


PROCEEDINGS IN PRINT. "Aerospace Librarians to Publish," 142.

"Processing Center for California Junior College Libraries—A Preliminary Study" (Moore) 303-317.

PUBLIC AFFAIRS INFORMATION SERVICE. BULLETIN. "PAIS, Fiftieth Anniversary" (Fall) 231-233.

"Published Proceedings of Conferences, Meetings, and Symposia," 438.


R

RTSD. Committee on Resources. Subcommittee on the National Union Catalog. "The National Union Catalog, Pre-1956 Imprints" (Williams) 269-270.

Nominees, 1964/65, 111-112.


Library Resources & Technical Services
Publications for Government Scientific and Technical Reports (Hammond and Rosenborg) review, 251-252.


SYNTOL. SYNTOL (Gardin) review, 499-501.
——. “SYNTOL—A New System for the Organization of Information” (Artandi) 473-477.

T-U

Taube, Mortimer (Tauber) 495-496.

——. “Technical Services in 1964” (Tauber and Stephens) 177-190.

“The Technical Services Librarian and the Profession” (Field and Treyz) 200-204.

TELEFACSIMILE. “University of Nevada Library Investigating Telefacsimile,” 461.


TRANSLATIONS CENTER see SLA TRANSLATIONS CENTER

Treyz, Joseph H. “The Technical Services Librarian and the Profession,” 200-204.

UNION CATALOGS. “Belgian National Union Catalogue,” 442.

UNION LIST OF SERIALS IN THE LIBRARIES OF HONOLULU, 494.

U. S. AIR FORCE ACADEMY LIBRARY. “Phonograph Record Classification at the United States Air Force Academy Library” (Stiles) 446-448.

UNIVERSITY LIBRARIES. “The Death of the Departmental Library” (Legg) 351-355.

University of Illinois, Chicago. “Aids in Acquisitions Work” (Schultheiss) 66-72.
——. “Computerized Serial Records” (Culbertson) 53-58.
——. “Two Serial Control Card Files Developed at the University of Illinois, Chicago” (Schultheiss) 271-287.


University of Nevada. “University of Nevada Library Investigating Telefacsimile,” 461.

University of Santa Clara. “Let’s Exchange Profitably” (Novak) 345-351.

V-Z

van Luik, James. “Citation and Subject Indexing in Science,” 478-482.


Waldeck, Fred. “Source of Irreverence, ULS,” 243-244.


Wilson, R. A. “In the Mail: The British Museum Printed Catalog,” 199.


YIDDISH MATERIALS. “The Acquisition of Hebrew and Yiddish Books” (Bruswick) 377-379.

“Zsz,” 344.

YOU CAN HAVE A WELL ROUNDED PRINTING, STORAGE and FILING PROGRAM when you use PERMALIFE, a Thorographic paper by Standard of Richmond. PERMALIFE is acid-free and absolutely dependable. A life of several hundred to a thousand and more years is assured.* Use PERMALIFE with confidence for

- Library Catalog Card Stock
- Envelopes for storage of documents and manuscripts
- File folders for storage of maps and large documents
- Letterheads
- Reprints

PERMALIFE is beautiful in look and feel, and will give true copies by photo offset. PERMALIFE TEXT and PERMALIFE BOND are water-marked for your protection. For permanency use PERMALIFE and be sure.

*According to tests made of PERMALIFE by the W. J. Barrow Research Laboratory. Details upon request.

STANDARD PAPER MANUFACTURING CO.
RICHMOND, VIRGINIA
FOR LIBRARIES:

ONE SOURCE FOR ALL PAPERBOUND BOOKS

Now in our sixteenth year of distributing paperbound books—both mass market and quality lines. Now you can combine your orders for such publishers as Bantam, Pocket Books, Ace, Avon, Pyramid, Signet, Mentor, with your orders for Scribner, Anchor, Dover, Apollo, Ann Arbor, etc. Virtually all books listed in PAPERBOUND BOOKS IN PRINT may be ordered from us.

Ask for our circular:
“One Source for Paperbacks”, (Lists publishers whose books we stock, time to allow for delivery, etc.)

PAPERBOUND BOOK DISTRIBUTORS
(A division of Book Mail Service)
82-27 164th Street•Jamaica 32, New York•Phone: OL 7-4799
How does the library keep 36 violins 16 violas

With the all new phonograph record album protector by Bro-Dart! Heavy duty .012 mil vinyl plastic, clear as crystal, protects and beautifies the sleeve or album. Long wear is assured by the exclusive beaded edge — the strongest possible seam. There's a built-in plastic pocket to hold a circulation card and 1, 2, 3 or 4 manila pockets to keep records dust-free.
Rigid back cover features removable inserts in attractive colors. It's new! It's reusable, washable, doubly durable.

And then, there's a Plastil-Kleer® phono-jacket cover a clear vinyl jacket for the LP sleeves — plain or with exclusive cataloging tabs. Standard or heavy duty weights.

The Plastil-Kleer record and sleeve holder. Protection for the sleeve and the record. Covers of tough polyester film hold the LP sleeve—sturdy pockets hold the records. Write for complete information.

Only by Bro-Dart Industries
Dept. 15448, 56 Earl St., Newark, N. J. 07114
1888 S. Sepulveda Blvd., Los Angeles, Calif. 90025
IN CANADA: Bro-Dart Industries (Canada) Ltd.
520 King St., West Toronto, Ontario
For Libraries That Want Quality Bookbinding

Glick Bookbinding Corp.

Specialists in the Binding and Rebinding of Books and Periodicals

Serving Institutional, Public And Research Libraries Since 1905

We Have Moved—Our New Address Is
32-15 37th Avenue
Long Island City 1, New York
Stillwell 4-5300

In Nassau and Suffolk
Ivanhoe 3-9534

In New Jersey
Mitchell 2-5374