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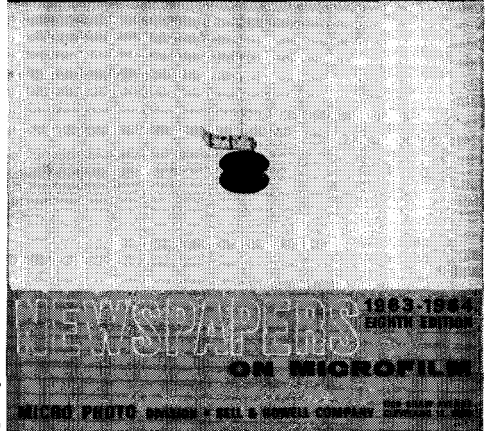
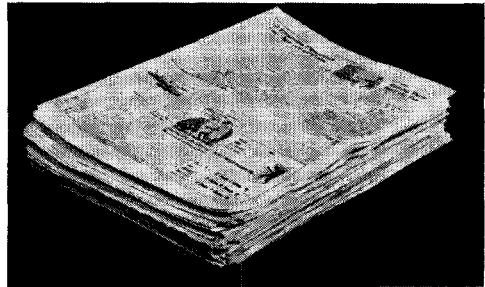
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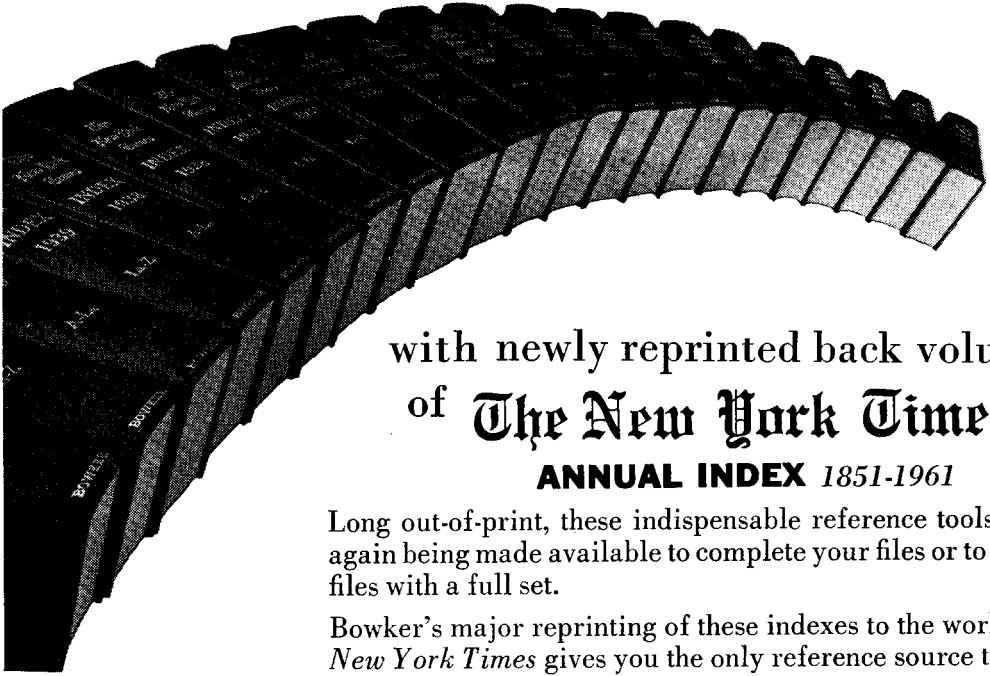


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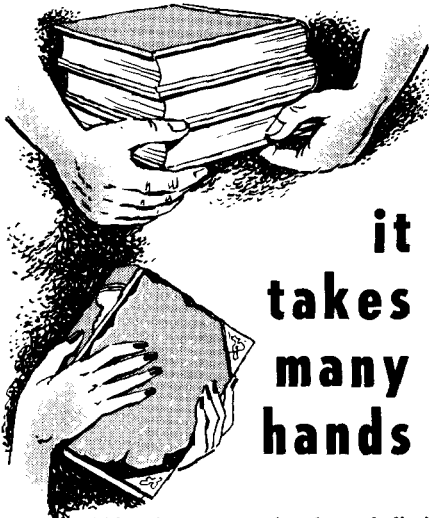
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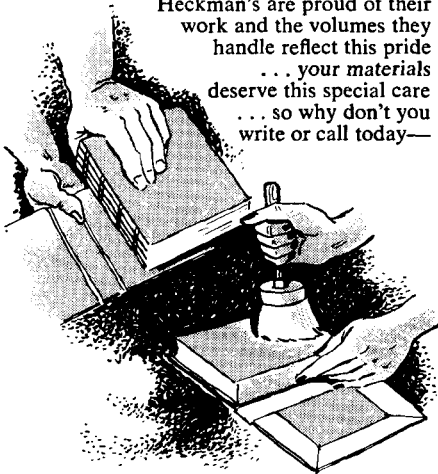
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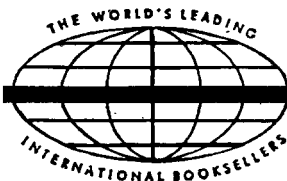
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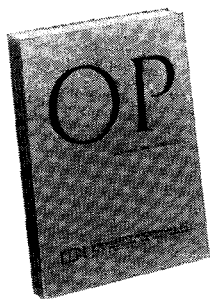
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Practical Application of Automation in a Scientific Information Center—A Case Study

C. K. BAUER, Manager, Scientific and Technical Information Department
Lockheed Aircraft Corporation, Marietta, Georgia



THE LOCKHEED-Georgia Company's Scientific and Technical Information Department's biggest problem has been to select and obtain the most promising scientific information in the least possible time and at the least possible cost. Machine processing and programming of data are expensive, so we were concerned with the costs that might be involved in converting a large conventional information center to a mechanized one. Although intrigued by the fantastically complicated electronic machines in existence today, it was felt that by using existing data processing programs and systems that have proved economical, machine documentation and retrieval costs could be kept within reason.

To prove our case and to give added backing, we asked the Data Processing Department to undertake a feasibility study. The purpose of the study was to determine the over-all suitability of electronic data processing equipment for processing data in all the company's information centers. The request for the feasibility study further stipulated that, as far as possible, existing electronic data processing programs and systems should be used. In this way, we hoped to reduce the necessity for large expenditures. We felt that once we had applied mechanization to information recording and retrieval through use of computer equipment already

in-plant, it would be a rather easy task to incorporate improvements in the initial system or to convert it to a more elaborate system at some later date. This approach was definitely preferable to one of waiting until a more feasible, more applicable, and (maybe, but not likely) less-expensive system became available.

Another prime purpose of the study was to determine how to use mechanization to provide a wider range and greater depth of service to scientific and engineering personnel. All repetitive manual handling of the same data was to be reduced to a minimum. We wanted to develop a much more detailed indexing system, a more effective filing and retrieval system, and a more efficient method of handling requests and purchased data with an absolute minimum of manual operations required by clerical personnel. I would like to point out that the kind of automation we have developed, and which I prefer to call "mechanization of information data," should not be used as a reason to eliminate personnel. The reduction in manual processing time should give an opportunity to produce more information, review more data, serve more engineers and scientists, and do a more complete job with the same amount of personnel. Such improvements have given us the opportunity to challenge the misleading claim that machine documentation eliminates human hands and brains.

We consequently have not only mechanized the information service and used personnel in a more efficient way, but have also converted and trained some of our clerical people to do keypunching directly in the offices of the Department. To this extent we are doing our own processing, which permits

Condensed from a paper of the same title presented at the National Aero-Nautical Meeting, Washington, D. C., April 8-11, 1963, and available in its entirety as preprint 698C from the Society of Automotive Engineers, Inc., 485 Lexington Avenue, New York 10017.

us to be more independent than if we had to depend on materials being processed in another organization.

Mechanized Tools

With this kind of conversion, our personnel keypunch into IBM cards the data required to produce typical library tools such as author, title, subject, and report number cards. IBM cards are also to be used in a charge-out system and to produce print-out records previously prepared manually, cumulative book indexes, and an automated card catalog system.

The following computer-processed outputs have been produced:

1. A cumulative call number index (shelf-list) and accession number index (report control list) in lieu of conventional card files. By use of the carbon-copy print-out process, each information center receives a book-form index.
2. A cumulative index of report numbers in lieu of a conventional card file, with a carbon copy for each information center.
3. A cumulative personal author index for books and reports in lieu of a conventional card file, with a carbon copy for each information center.
4. A cumulative corporate author index for books and reports in lieu of a conventional card file, with a carbon copy for each information center.
5. As an interim measure, for each information center through multiple computer print-out on card stock, three 3 x 5 catalog cards (two subjects and one call number card) all containing complete bibliographic information for each newly acquired book. (To be interfiled in present card file for sufficient continuity.)
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7. One 3 x 5 subject catalog card for each information center through multiple computer print-out on card stock, for each newly acquired magazine. (To be interfiled in present card file for sufficient continuity.)
8. Utilizing IBM cards with customary circulation entries for charge-out records. (One card to be filed by the borrower's name for inventory purpose; one card to be filed by call number for books or by report number for reports.)
9. Through this mechanized charge-out system, produce overdue notices by borrower's name and a check list for returned items.
10. Generate print-out reports containing detailed information on the expenditures and balances of each procurement budget used in the acquisition of information material.
11. A mechanically prepared subject index (for each information center through carbon-copy print-out process) in lieu of a conventional card file, using a "Keyword in Context" title system.
12. An accession list announcing all information material received, prepared through computer print-out process on Multilith stencils for large reproduction.

Items 1 through 11 are essential tools in any information service and, as far as a manual system is concerned, require the most detailed and time-consuming, thus most costly handling. Our change to a mechanized system for the production of these items and our gradually converted card catalog to a fully automated book catalog is the most unique feature and one of the bigger savers of money and space in our mechanized process. For the librarian who has to work with these tools and for the scientist who loves to "browse" through card catalogs, I would like to put them at ease by stating that by using these mechanized book catalogs we have not lost nor sacrificed the flavor of card catalogs for books and reports.

"Keyword in Context" System

The submittal of the right scientific information at the right time to the right man is a must in our team effort. This is accomplished through extensive literature searches and information retrieval. It is here where we make our biggest contribution. Oddly enough, the job of scanning the literature

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IONIZED	RECOMBINATION OF DISSOCIATED AND IONIZED AIR	R62-00008044	C	Z	
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Figure 1: Specially devised KWIC index for books and reports

from the hundreds of thousands of scientists and engineers throughout the world and covering millions of printed pages, is still performed manually by most documentalists and information specialists. In our case, for example, we accumulate and review an equivalent of four inches of shelf space per month of the most important abstract journals in our fields of interest. These publications list approximately 16,000 abstracts or entries of research and development information material issued every month. All the documents we select manually are requested and obtained, but only then are they absorbed into our whole information collection through mechanized processes. The solution of this paradoxical situation surely constitutes a most important research effort in itself.

Our close association with our scientific and engineering team guides us in the appropriate selection and acquisition of reports and books, but to record and process them sufficiently and effectively by subjects, we again use our basic set of IBM cards, which produces for us the "Keyword in Context" or KWIC index. This mechanized system permits us to index, review, and select information holdings for the use of our clientele in an efficient and economical manner. This kind of indexing is based on the listing of significant words, called "keywords," together with the words surrounding them. We found the original KWIC system to be a most economical tool for information retrieval but felt that we could achieve a sig-

nificant improvement and make the system more useful by rearranging the print-out as shown in Figure 1.

In our system the keyword appears in alphabetical order, on the left margin of the page, all by itself. It is followed by the complete title, with the keyword repeated in its normal sequence and surrounding words. This kind of keyword arrangement eliminates the need for a separate bibliographic listing of all titles. In addition to the complete title, the appropriate control number or report number, together with location and description of the item, completes the bibliographic entry per item. In cases where the titles are not descriptive enough, we include additional keywords, model designations, or other useful tags that produce a more effective information retrieval tool.

Use and advantages of such an index are:

1. Our KWIC page layout, because of the separation of the keyword and the inclusion of the complete title, eliminates the preparation of an additional bibliographic listing.
2. Through the computer carbon-copy print-out process we issue for each information center a monthly subject index of *all* our holdings. Under our previous system each information center maintained a card catalog of only its own holdings.
3. A cumulative index is prepared quarterly, and quarterly lists are merged to produce a yearly index. A copy of this index is located in each information center.

4. By retaining in each information center a complete subject index in the KWIC format, we are able to perform detailed literature searches for our clientele.
5. We have not only eliminated the costly manual maintenance of a subject card catalog but through mechanization have expanded our subject area by using a larger amount of keywords per unit of information material with appreciably less cost involved.
6. The use of magnetic tape for the storage of all input information enables us to produce mechanically-prepared subject bibliographies and listings of classified reports obtained in the course of specific defense contracts. The latter is used for the return or destruction of appropriate classified reports in the event of a contract closure.
7. The submittal of copies of our magnetic tape to all other major divisions of the Lockheed Aircraft Corporation furnishes a complete and current listing of our information material and encourages corporate-wide use of our holdings.

The method of producing a KWIC subject index has found further useful application in various areas. For example, it has been applied to indexing all company-prepared proposals. The previous manual system employed various decentralized files, and it was difficult for management to identify and retrieve the data in them. In actual practice, the retrieval of former proposals was generally dependent on the memories of the personnel preparing a new proposal. By centralizing all proposals and indexing them by the KWIC system, we will now be able to provide rapid cross-referencing of related past proposals for the benefit of a new proposal.

The indexing and maintenance of all the auditors' reports of Lockheed-Georgia Company through the last 12 years has become another costly burden. These reports cover an auditor's review and findings of the function and responsibilities of each department, division, office, and branch. The ever-recurring changes of organizational structures and reassignments of responsibilities to other units developed into a nightmare for those who had to trace many details and locate double responsibilities. The use of the

KWIC indexing system, applying as many keywords and cross-references as possible, will change this nightmare to a relieved awakening process. Reliance on memory and many hours of searching will no longer be necessary, and duplications of functions and responsibilities will be more readily discernible.

The application of a KWIC index to the review and evaluation of present Company or branch procedures and the conversion of these into a more streamlined tool in Company planning provide other potentials for our mechanized system.

A double-barreled application for the saving of unnecessary expenditures, time, tests, and manpower is the "Interservice Data Exchange Program" or IDEP, a nation-wide program to which we contribute certain test data and other technical information. The program gives access to more than 12,000 documents submitted to a national data center. These documents reflect results of component tests carried on by defense contractors throughout the United States. Through our contribution we are entitled to the acquisition of these data, and when received they are indexed through the KWIC program. Such detailed indexing as applied to a special collection enables us to make these data available to our engineers for the solution of their problems with the most economic result. Complete and quick submittal of test data and the avoidance of required tests are made possible due to IDEP data.

Based on this experience, we are further using our KWIC system as a retrieval tool in establishing other specialized collections in large independent research areas such as radiation effects data, manufacturing research, marketing, human engineering, vendor data, specifications, and slides.

Monthly Accession Lists and Yearly Reports

Our accession list is a byproduct of our basic set of IBM cards. The list is actually our written communication with our users. It tells scientists and engineers what we have added to the collection during the past month, together with its location and availability (See Figure 2). It is the product of computer print-out, this time on Multilith

ACCESSION LIST		DPR 58-766	01-08-63	PAGE 43
Subject	HYPERSONIC WIND TUNNELS			
Control No.	R62-00007646	DESIGN PERFORMANCE AND OPERATIONAL-CHARACTERISTICS OF THE ARL TWENTY-INCH-HYPERSOIC WIND TUNNEL		Title
Location	S			
Report No.	ARL-62-392	CHIC STATE U COLUMBUS OHIO		Corporate Author
Control No.	R62-00007647	INVESTIGATIONS OF CO-AXIAL AIR INJECTION- IN A HYPERSOIC WIND TUNNEL		Title
Location	S			
Report No.	ARL-62-394	CHIC STATE U RES FOUNDATION COLUMBUS OHIO		Corporate Author
Control No.	R62-00007853	INITIAL CALIBRATIONS + PERFORMANCE OF THE ARL TWENTY-INCH HYPERSOIC WIND TUNNEL		Title
Location	S			
Report No.	ARL 62 393	CHIC STATE U COLUMBUS OHIO		Corporate Author
Control No.	R62-00008182	DESCRIPTION + PRELIMINARY CALIBRATION TESTS OF A SMALL ARC HEATED HYPERSOIC WIND TUNNEL		Title
Location	S			

Figure 2: Accession list showing control number location, report number, title, and corporate author

stencils for reproduction and distribution throughout the Lockheed-Georgia Company and the various major divisions of the Corporation. Its features are:

1. The accession list is produced inexpensively by a direct computer print-out on the multilith masters, thus eliminating the photo-reduction process.
2. The information material is listed alphabetically by its major scientific language descriptor, and the user can go directly to his field of interest without any matching of subjects.
3. Additional cross-reference listings are unnecessary, since all listings give complete bibliographic entries, including location of needed material. The list therefore becomes a single, integrated reference tool.
4. The cumulative issues of such lists give the engineer a handy desk reference of our complete holdings, in book form, arranged by major subjects or descriptors.

In addition to the monthly print-out items, the mechanized system produces three yearly reports that further streamline our process requirements. They are:

1. Journal expiration lists. With over 500 journal subscriptions being maintained through various agents, the proper handling of subscription renewal becomes a rather time-consuming task. Based on the input cards (item 7) of the monthly outputs, renewal lists for each agent can be prepared as required.

2. Management reports.

- a. A cumulative item usage report, specifying frequency and year of usage for each item.
- b. A library-usage report by departments and employee.

These two tabulations together with the monthly procurement budget reports (item 10) of our monthly outputs are the answer to any manager's dream, as they eliminate the necessity of preparing, by manual means, the statistical data that have become an absolute necessity when negotiating with top management on such subjects as personnel, equipment, budget, and space.

Cost Data

Installation of a mechanized system depends not only on meeting the requirements of a dynamic information center but also on management acceptance of a cost survey. Important savings in time and money are the most convincing and influential tools one can use for acceptance. We submitted cost data based on the following process and activity items, supported in this paper by a fictional pay scale of \$2.50 an hour.

1. Processing 150 new books per month, including catalog cards (if not available from the Library of Congress) and circulation records.
2. Processing 1,250 new reports per month, including catalog cards and circulation records.

3. Processing 425 periodicals per year, including catalog cards and routing slips.
4. Preparation of overdue notices.
5. Preparation of monthly accession list.
6. Preparation of monthly financial report.

Monthly Costs Eliminated by Mechanized System

Labor: 467 hours × \$2.50 per hour =	\$1,168.00
Labor includes typing of: 1) temporary catalog cards, 2) reproducible masters for catalog cards, 3) headings on LC cards, 4) monthly accession list, 5) monthly financial reports.	
Material =	64.00
Includes LC cards, forms, numerical index card masters, ribbons, etc.	
Reproduction costs =	140.00
Total	\$1,372.00

Monthly Costs for Mechanized System

Labor: 141 hours × \$2.50 per hour =	\$353.00
Includes keypunching.	
Material (IBM card supply)	15.00
Keypunch machine rental	70.00
Reproduction costs	50.00
Monthly Total Cost Added	\$488.00
Data Processing Operations (all items prorated on a monthly basis including supplies)	290.00
Total	\$778.00

Summary

Monthly costs eliminated	\$1,372.00
Less monthly costs added	778.00
Total Monthly Savings	\$ 594.00

Transition Costs

Cost of programming (3 man-months)	\$2,400.00
One month operation of both manual and mechanized system	778.00
Total	\$3,178.00

At the present volume of operation, the cost savings break-even point occurs after five months, and savings accumulate at the rate of \$600.00 per month thereafter.

Equipment

The following IBM equipment is used in our mechanized system:

1. For keypunching we use a Double Programmed Keypunch Machine 026.
2. All IBM cards are taped on a 1401 Computer.
3. A 7080 Computer is used for tape sorting and runs.
4. Our book catalog indexes are printed on a 1403 Printer.
5. For KWIC index we are using a modified 7090 Computer (now called 7094).

Total run time in the Data Processing Department for all outputs of the system is less than two and one-half hours per month, including taping, sorting, and printing.

Summary

We are now providing each information center with complete records, in book form, of all our holdings. Under our previous system, the Sci-Tech Information Center maintained a union card catalog, and each information center held catalog cards of its own specialized holdings only. This increase in capability and service has been accomplished without adding personnel or space. In due time we shall apply our book cataloging system to all information material previously indexed manually on catalog cards, thus releasing several card files and gaining additional floor space. Further, our staff is now able to broaden the sphere of our acquisition program, since the processing of acquired material is performed with greater speed, more thoroughly, and at less cost. The KWIC index allows us to cover a greater volume of subjects, which in turn enables us to provide our scientists and engineers with a wider range and greater depth of services in our responsibility of information retrieval.

The Information Goals of Engineers Joint Council

STANLEY KLEIN, Assistant Secretary and Editor, "Engineer"

Engineers Joint Council, New York City



Agner International

THE ENGINEERING profession is made up of many sovereign organizations. Most are technical societies that primarily serve the information needs of practicing engineers. Meetings and publication services represent their *raison d'être*. They range in size from the 350-member American Institute of Consulting Engineers to the 160,000-member Institute of Electrical and Electronics Engineers. Taken altogether, they sweep over the entire spectrum of engineering activities. In sum, they represent the profession L. Sprague de Camp lauded in his *The Ancient Engineers*: "Civilization as we know it today owes its existence to the engineers."

Engineers Joint Council serves as a focal point for professional activity among these technical societies. It is a voluntary federation that functions as an interdisciplinary forum. Through EJC, leaders of the profession review issues that involve engineering and, in concert, bring to bear the profession's resources on problem areas.

EJC started in 1941 under the impetus of the war-time atmosphere. Five societies had banded together on an informal basis to render coordinated engineering support to the United States government in its activities related to the war effort. They called themselves the Joint Conference Committee. Through the years the objectives and activities of the Conference expanded. In 1945 the name was changed to Engineers Joint Council, reflecting the broadened scope. This was followed in 1946 with the adoption of a constitution and bylaws and the creation of a more formal organizational structure. EJC was incorporated in 1958 as a non-profit and educational organization.

Today EJC provides interdisciplinary coordinating functions and a professional forum for 21 United States engineering societies having a combined membership of over one-half million engineers. It is involved in a broad range of activities that include the development of a National Academy of Engineering, study of the nation's engineering research needs, increasing the profession's participation in national and international affairs related to technology, the conduct of engineering manpower studies, salary surveys, college enrollment analyses, the providing of secretariat services, and many other programs. This paper discusses only EJC's information activities.

EJC Takes Action

The existence of an information problem requires little introduction. Its challenge, however, persists—How can we improve the storage and retrieval of technical information which is still subject to century-old methods in its flow and handling? Since EJC's member societies have as their primary mission the dissemination of technical knowledge, this area loomed as a natural one for EJC to explore. The long-term existence and character of the societies themselves are at stake.

The landmark for EJC's involvement with the problems besetting information handling occurred on January 17, 1962, the day of the EJC Symposium on Engineering Information. Its highlight was the presentation by EJC of a two-step action plan designed to promote the adoption of a relatively new concept in information storage and retrieval and at the same time to introduce a basis for compatible information systems throughout the nation. The action plan penetrates directly to the heart of the problem in information handling—the obsolescence of the

traditional classification approach and the lack of a more effective intellectual methodology to replace it. The plan was devised to suit the needs of the information center that has access to machine processing facilities as well as the individual engineer who wishes to maintain a personal document file. Machine handling is envisioned, however, as the only long-term hope for restoring order to the congested flow of information and to its efficient and timely retrieval.

The system EJC advocates to provide such flexibility is called concept-coordination, or equivalently coordinate indexing, and includes the use of links and role indicators. It is essentially the same system first used by the American Institute of Chemical Engineers in its journal, *Chemical Engineering Progress*. EJC's intent is to have abstracts, key words with links and roles, and other appropriate bibliographic information accompany all engineering-oriented documents and articles that have lasting interest.

The information would all appear on a standard 3x5 index card format. Users would simply incorporate the standardized source-prepared indexing and retrieval material into their information networks, files, and systems. (Individuals with small document collections will not need to use the role indicators. They are to be provided, however, for information centers whose scope of technical interests encompass many disciplines and subject areas and which therefore require this processing refinement to minimize false retrieval.) Vocabulary control would be maintained through use of a technical thesaurus specifically designed for indexing and retrieval purposes.

To bring about this information innovation on a nation- and profession-wide basis, EJC assumed responsibility for assuring two essential developments: 1) the development of an engineering-wide thesaurus structured specifically for information retrieval and 2) making available training in the concept-coordination methodology.

Developing the Thesaurus

Prior to the Symposium, EJC had already acted to develop the capability for creating a thesaurus in anticipation of EJC Board

approval. It had entered into a contract with the Defense Documentation Center (then ASTIA) for the revision of that agency's thesaurus. Shortly after the Symposium, EJC was in a position to submit to the National Science Foundation a proposal for the study of engineering terminology, which would lead to the development of a more comprehensive, engineering-wide thesaurus. NSF awarded the grant, and during early summer of 1962 Eugene Wall came to EJC to serve as Director of the project. Wall was a major participant in the development of the DuPont, DDC, and AIChE thesauri.

As a starting point, Wall solicited subject heading lists, classification lists, indexes, and other technical vocabularies from the technical societies and other organizations to form a comprehensive vocabulary pool. About 119,000 terms were contributed by 16 different groups, including NASA, AEC, *Engineering Index*, and the Engineering Societies Library, in addition to the technical societies. The term contributions were key-punched onto IBM cards for processing, and a master word list was then developed for detailed study. It comprised 14,000 terms selected on the basis that two or more sources had contributed them.

For the actual terminological study effort, 131 engineers with backgrounds in the major fields of engineering volunteered 130 man-weeks (27 weeks). They selected terms for detailed analysis, resolved ambiguities in term meaning, developed and recorded cross references between terms, and provided explanatory notes and definitions whenever needed. They treated 10,500 terms. A final report of the study was submitted to NSF last fall (1963) along with a supplementary proposal, which has been approved, for final editing of the work and for converting the edited results to a punched card format for further processing and eventual publication. The thesaurus is expected to be available for sale by May 1, 1964.

Training in Coordinate Indexing

In March 1962, two months after the Symposium, and again in March 1963, EJC offered to its member societies a week-long course in the abstracting and coordinate in-

Key Words with Roles

Link

A Evaluation—8, Study—8, Dust—9, Environment—9, Litter—6, Temperature—6, Feathers—6, Type—7, Quantity—7, Poultry—, Broiler—, Laying Hen—, Auburn University—.

63-029

Accession
Number

Because dust interferes with efficiency of equipment designed for environmental control an evaluation was made of amount and type of dust resulting from broilers and laying hens housed in cages with and without litter.

Abstract

Poultry Dust: Origin and Composition, J. Koon, J. R. Howes, W. Grub and C. A. Rollo

AGRICULTURAL ENGINEERING 44: (11) 608-609, November 1963.

Bibliographic
Information

Sample coordinate indexing/abstracting card published at source by American Society of Agricultural Engineers.

dexing of technical literature under the direction of Bart Holm of the DuPont Company. Demand by many private companies and government agencies for the training, however, impelled EJC to search for a way to provide abstracting/indexing training on a more far-reaching scale. Volunteers had contributed much time and effort towards training society personnel. They could not be expected to continue to do so. Thus, EJC entered into an agreement with Battelle Memorial Institute to extend coordinate indexing training on a fee basis throughout the United States. The arrangement provided for a two-year, exclusive EJC endorsement of the courses, held under the direction of John C. Costello, Jr. of Battelle. In return, Battelle adheres to EJC specifications. (Battelle has also published a comprehensive set of training materials.) During 1963 about 200 persons received this training. Up to 90 sessions have tentatively been scheduled throughout the United States for 1964. In addition, Australia, Great Britain, Sweden, and Japan have invited Costello to set up training sessions abroad.

So far, about seven societies and four commercial publications have implemented, or are planning to implement, an abstract/coordinate indexing service. The American Society of Agricultural Engineers carries out a model program. In one source, namely its monthly journal, the Society provides on a loose page abstracts and key word indexes with links and roles for its conference papers

as well as for articles appearing in that month's issue of *Agricultural Engineering*. Eventually, the societies may cease publication of a heterogeneous mixture of journal articles altogether, and in their place publish abstracting bulletins. On a selective basis, then, individuals and information centers could obtain the actual reference documents as needed from the source institution or from a proposed engineering information center.

Information Systems Committee and Engineering Information Center

Responsibility for the action plan and all EJC information activities is invested with the Information Systems Committee (ISC) under the chairmanship of Walter M. Carlson, the Defense Department's Director of Technical Information. The full Committee consists of 40 individual members representing the engineering societies and EJC. Because of this unwieldy size, an eight-man Steering Committee assumes responsibility for devising policy and programs and for the supervision of operating projects. Walter Carlson as Chairman of the ISC and Ken Lowry of Bell Telephone Laboratories as Vice-Chairman are both ex-officio members of the steering body. The other six members are Bart Holm, DuPont Company; John McPherson, International Business Machines; Eugene Wall, formerly with EJC and now with Auerbach Corporation; Frank Speight, American Society for Testing and Materials; and Don Laird, National Science Founda-

tion, on leave from the State University of Pennsylvania.

Operating support and program implementation are provided by the EJC staff and a Director of Information Services who is employed specifically to provide professional competence on a day-to-day basis. Until recently the Director was Eugene Wall; his newly appointed successor is Frank Speight. Funds for specific programs and staff support are drawn primarily from the National Science Foundation, the Engineering Foundation, and from the regular EJC budget.

To assure maximum services to the engineering profession, the ISC has also proposed, with EJC endorsement, the eventual creation of an Engineering Information Center. The Center would use coordinate indexing techniques to provide a variety of services, including current awareness announcements, retrospective searches, and profile matching deliveries. The *Engineering Index* and the Engineering Societies Library are conceived as the cornerstones for any such information center. In fact, it is likely to simply consist of these two organizations, working together even more intimately than they do now, equipped with modern machine processing devices and providing a variety of updated and new services. EJC's primary role here is to provide the leadership for over-all coordination and for introducing modernized services that effectively meet engineers' needs.

Engineering Literature Studies

EJC is also involved in other facets of information problems. The value and availability of foreign engineering literature, for example, represent one such interest. Under a grant from the National Science Foundation, EJC has been conducting a pilot study of the German engineering literature. Its bibliographic research component is being handled by the Drexel Institute of Technology under sub-contract to EJC. The study will serve the immediate need of identifying sources of German engineering literature, its production and flow pattern in Germany, and its availability in the United States, including recommendations for acquisition.

For the longer term, the pilot program hopefully will also establish guidelines and study procedures for analyzing the engineering literature of other nations. Such understanding of the world's literature production would provide valuable input information into the proposed information center and in addition enable other documentation centers, libraries, and individuals to better plan foreign engineering literature acquisitions. The pilot German literature study is expected to be completed by mid-1964.

To learn how practicing engineers do use information in the conduct of their professional activities, EJC has encouraged Drexel to undertake an information use study, which is based not on engineering disciplines but rather on personnel functions, such as management engineering, design engineering, research engineering, test engineering, and so on. In addition to the Drexel study, Auerbach Corporation, a Philadelphia-based information sciences firm, has been awarded a contract from the Department of Defense to study the information use patterns of engineers and scientists employed by the military services. Finally, Herner & Company, under a grant from the National Science Foundation, is studying the AICHE coordinate-indexing/abstracting program, particularly the extent to which it is being used in the field. All these studies and others will be used in determining the specific services and facilities that EJC eventually promotes.

One seldom mentioned but essential component of the EJC program is to alert engineers to the value of technical literature and to encourage their more intensive use of it. This is primarily done through *Engineer*, the quarterly newspaper of EJC, which is circulated to about 300,000 engineers. Its editorial material concentrates on information resources and activities both in-house and elsewhere.

Last year EJC sponsored an hour-long educational-TV program entitled, "Modern Information Resources for Tomorrow's Engineers." EJC also continuously feeds stories on its programs to the technical press. A large number of EJC's publications deal with the information field and EJC activities within it.

EJC Information Publications

	PRICE
Study of Engineering Terminology and Relationships Among Engineering Terms	\$1.00
Proposed EJC Course of Action in Field of Information Systems	.50
Information Systems—Essential Tools in Engineering Application for the Needs of Society	1.75
Information Retrieval Thesauri	1.00
Small Scale Information Retrieval Systems	.50
The Mechanization of Information Dissemination	.50
Proceedings of the Engineering Information Symposium	2.00
Information Handling Systems and Technical Information Flow	.50
Information Retrieval—The Problem . . .	
Coordinate Indexing—A Solution	1.00
Thesaurus of Engineering Terms	Inquire
ENGINEER (quarterly)	.60 a yr.

Technical Meetings

EJC is also concerned with another major information activity—the technical meeting. Similar techniques used by EJC for streamlining publication activities are also applicable to improving the value of technical meetings. A request for funding will be submitted to the National Science Foundation for the development of a technical meetings information center, which would eventually tie in with the previously mentioned proposed information center. The primary mission of the meetings center would be to prevent duplication of technical meetings and to provide a central source for information about them, both for those who attend meetings and for those who schedule and plan them.

The Center will also provide a certification service. Meetings will require clearance by the Center before they can be advertised to the technical community and industry as an accredited meeting of the Center. Also anticipated is the development of proposed standards for the planning and preparation of technical meetings. The standards would require adequate descriptive statements of meetings and specific sessions, in the same manner a college catalog describes the content and level of sophistication of its courses.

Attitudes and a Philosophy

The breadth and depth of EJC's information programs clearly require a cooperative

spirit among information producers and users. It is as necessary a resource as are money, manpower, and materials. Without it, the program as currently conceived cannot succeed. A recent letter from the Past-President of EJC, Dr. Eric A. Walker, to the presidents of EJC societies made the observation that, "This subject (information) is of paramount importance to the engineering community and that significant realignment of traditional functions and approaches must evolve if it and the societies are to adequately serve the future needs of the members. We need the closest collaboration and committed participation on the part of the societies to assure the development of sound concepts and services as a cooperative venture of the profession."

EJC's unique position in the engineering community makes it perhaps the most appropriate body to bring about wide-scale improvements. The federal government is probably the only other body that could also do so—but with the leverage of power. Members of government have often stated that unless the technical community takes meaningful action, it cannot continue to stand aloof from the problems of technical information handling.

EJC in taking up this challenge of technical information has developed the following operating philosophy: *Technical information provides a valuable resource for the conduct of engineering activities. The ever-increasing fund of scientific knowledge and technological innovation is placing new demands on the profession's information handling and dissemination facilities and systems. Furthermore, technology itself is creating new techniques and machinery for the more efficient and timely distribution of technical information. Our nation's emphasis and dependence on technological development makes it imperative that the engineering profession fully develop these more efficient methods of information dissemination and that engineers learn to utilize literature resources more effectively.*

It is in this spirit that EJC has evolved its specific programs and will continue to do so.

Urban Planning and Housing Literature in 1963

MRS. ELSA S. FREEMAN,* Librarian

U. S. Housing and Home Finance Agency, Washington, D. C.



THE BIBLE's opening book deals with humans in a woodland; its last one, "Revelation," envisions the Holy City. The nomadic, agrarian peoples described in the Old Testament have become urbanized in the New Testament. Think of the happenings in the environs of Jerusalem! Significantly, Paul's letters were to groups in cities such as Ephesus, Corinth, and Rome. Whether man likes it or not, he has inexorably migrated from a rural to a metropolitan setting.

The movement is a world-wide force. Moreover, the urban blight accompanying it is peculiar neither to the present time nor to the Western Hemisphere. However, the transition today is more painful since it is particularly rapid and on a larger scale.

There is an expanded public awareness of the trend toward urbanism. Interest in housing has, of necessity, always existed. In the past decade many American cities have embarked on urban renewal, for better or for worse. A variety of persons and institutions have become involved. These include city planners, architects, builders, sociologists, civic and business leaders, research organizations, and municipal governments. There has also been a growth of academic preoccupation with the city, as evidenced in the emergence of urban institutes, graduate programs, and collaborative efforts in urban affairs by established disciplines (30). Urban economics is being defined and urged as a province of research (77). The burgeoning of popular paperbacks in these fields reflects the increased interest (39, 52, 103, 109, 110).

* The views expressed are not necessarily those of the Housing and Home Finance Agency. They may sometimes not even be the writer's but rather her analysis of the studies. The numbers in parentheses refer to specific items in the Bibliography.

In the past year the literature was characterized by a concern with social welfare as well as physical planning. The emphasis has been on a metropolitan area attack, beyond building codes, individual homes, and slum clearance (60). Much has also been written on restoring to the city the aesthetics, livability, and atmosphere of the small town.

Although pen service is paid to the metropolitan approach, the suburbs tend to be denigrated or neglected. However, a few enlightened souls, instead of setting the suburbs against the central city, see them as complementary (87).

Most writers search for satisfactory rather than optimum solutions, for the feasible rather than the perfect (41). The less flamboyant writers view with neither alarm nor complacency. Many are aware that the present consensus may not be the correct one. However, the role of the utopian community (31, 33, 70) in establishing ideals is recognized. Unfortunately, the leaven of humor is present scarcely at all.

Some of the authors describe the situation with disinterest and scholarliness, for examples (9, 12, 16, 20, 32, 37, 41, 46, 47A, 66, 67, 70, 105). Some prescribe, offering their own or someone else's pet solutions (1, 10, 11, 19, 24, 25, 31, 52, 74, 79, 107). Some analyze and interpret (22, 29, 32, 37, 42, 49, 108). Some make projections (45, 103). Some exhort (13, 25, 39, 60, 73, 104, 110). Fewest remedies are offered by the objective reporters and the analysts. It is recognized, however, that identifying and defining the problems are first steps toward solutions.

The above categories are not mutually exclusive nor are some necessarily superior to others. This is also true in the classifications that follow. Moreover, many books fit several categories.

As the key to urban living, some favor design, some open areas, some artifacts, some personal relations, some transportation, and so on. These, of course, are all to be enhanced forms from what they are today. In the wider perspective on urbanism, greater consideration for human needs and aspirations has evolved. The role of the architect and physical planner has lessened and that of the social scientist and social planner has expanded (22, 60, 62, 66).

There is a growing sensitiveness toward social challenges in urban renewal and public housing. Many of the early programs are now viewed as having been too narrowly conceived—too much emphasis was given to material surroundings and scant attention paid to the human elements involved (10, 19, 39, 74, 104). The citizen and his organizations have moved from being figureheads into more active participation in the urban renewal process (14). There is less residential clearance, more rehabilitation of existing dwellings, and preservation of historic buildings (98). Housing, renewal, and relocation efforts are attempting to avoid creating aseptic slums.

Some observers, while emphasizing human congeniality, believe that this may best be achieved through the use of open space. They want to create a gay commons where people can meet spontaneously (24, 88). A good proportion of writers still advocate physical planning to stop the inchoate spread of inhumane communities (21, 79). Some (13) believe that man is altering his ecological situation so radically, unaesthetically, and irrationally that he is endangering his own future. Many want improved landscaping (27) and land use (44, 64); some want better mass housing and subdivision planning (49, 88, 89). The development of cluster high-rise buildings and town houses in city and country is noted. Much of this is to save land costs and make better use of what remains.

Architecture is still very much in the forefront (43, 50, 110). These works on architecture mentioned are planning-centered, and general architectural works and biographies are not considered here.

Many books are historic reviews and/or cross disciplinary analyses; some delving into

the philosophic and sociologic foundations of urban life (12, 32, 37, 46, 73, 87, 90, 107, 108). The emphasis of several studies is primarily evaluative (42, 60, 74). An international view of cities is the subject of two reports (49, 86).

The metropolis in its larger context, with its intergovernmental relations, joint community facilities, suburbia, and similar situations is the topic of other literature (17, 25, 47A, 52, 67, 75, 82, 94, 103, 109).

Metropolitan complexes are experiencing a dual pull. On the one hand are the concentrated markets and cultural activities that attract people to the city. On the other are the changes in transportation and communications that are lessening dependence on the urban core, save for contact-oriented enterprises. Thus city growth and decentralization coexist.

Housing, a fulcrum for all other considerations, is just that for many of the observers (26, 58, 59, 85, 105, 111). They are especially interested in low and middle income housing. Public housing is being agonizingly and smugly reappraised, earlier hopes chastened by nearly three decades of experience.

A description of the political forces that can support or thwart is central in six books (7, 16, 28, 41, 53, 105). Some works favor local and private leadership rather than federal (11, 39).

A host of books discuss the mortgage and financial underpinnings that make much of this possible or other aspects of the real estate business and industry. Appraisal, housing markets, municipal bonds, how to sell a house, and how to buy one, are among the multitude of practical situations presented (1, 20, 29, 34, 38, 40, 47, 55, 56, 68, 69, 71, 76, 78, 80, 81, 83). Materials, building codes, specifications, cost calculators, construction methods, and other such vital technical matters are the preoccupation of these tomes, generally corporately authored (3, 4, 18, 36, 89, 100, 101).

The specialized areas have not lacked racoonteurs. Since man is inhabiting the earth longer, housing for the elderly is blossoming. A spate of well illustrated books is fortunately included (9, 48, 54, 63, 72, 93(b),

96, 97). The deepening concern with minority groups is evidenced mostly in journal articles, but also in monographs (5, 23, 95).

New federal projects in open space and recreation are being recorded (84, 99). The excellent, handsome series of 28 reports issued by the U. S. Outdoor Recreation Resources Review Commission, on which most of these programs are based, were published just prior to 1963.

A treatise on subdivision law appeared (112). Mobile homes house many (106). Essentials such as refuse collection and disposal received due study. A renaissance of interest in transportation is reflected (27A, 35, 51, 52, 66).

In the fields of urban studies and housing, there are several very helpful annuals (2, 53, 59, 80, 91, 102). Many include definitive essays. SLA authors, who are members of the Planning, Building, and Housing Section, produced two authoritative bibliographic tools (6, 8).

Although the following subject heading schedules were developed prior to 1963, they are listed here because they are basic to organizing collections in the field (57, 93(d)).

In addition to those previously noted, other helpful bibliographies were published (15, 61, 92, 93(a)(c)). Three serially issued bibliographies are described with the periodicals: National Housing Center, *Library Bulletin*; U. S. HHFA Library, *Housing and Planning References*; and U. S. Bureau of Public Roads, *Urban Transportation Research and Planning*.

A few magazine articles have been commented on above and are noted in the Bibliography, but most have not been. Those that were documented appeared in journals that do not generally publish significant articles in the fields under consideration. Since it is difficult to single out articles from journals specializing in the fields, it seems more appropriate to designate these periodicals. The following list is suggestive rather than exhaustive. Particularly momentous series of articles published in 1963 are noted. Some non-specialized magazines are included because they regularly carry important contributions.

Periodicals

American Builder
American City
American Institute of Architects. *Journal*. Six articles on "Urban Design"
American Institute of Planners. *Journal*
American Society of Planning Officials. *Planning Advisory Service. Information Report* No. 166, Jan. is "Apartment Densities for Medium Size Cities;" No. 173, July is "Usable Open Space."
Appraisal Journal
Architectural Forum
Architectural Record
British Housing and Planning Review
Building Materials (British)
Buildings
Community Planning Review (Canadian)
Construction Review
Cooperative Housing
Earoph (East Asia Regional Organization for Planning and Housing)
Ekistics
Fortune. Six articles on "Real Estate Markets"
Habitat (Canadian)
House & Home. Series of eight articles on the "New Housing Industry"
Housing (British)
Housing Review (British)
Illinois University, Bureau of Community Planning. *Research Digest*
International Housing Bulletin
International Council for Building Research Studies and Documentation. *Bulletin*
Journal of Housing
Journal of Property Management
Land Economics. "Current Trends in Urban Renewal," by R. C. Weaver. Nov. p. 325-41
Law and Contemporary Problems
Landscape Architecture
Metropolitan Transportation and Planning
Mortgage Banker
NAHB Journal of Homebuilding
National Civic Review
National Housing Center. *Library Bulletin*
Nation's Cities (volume 1 is 1963)
Neue Heimat (German)
Overseas Building Notes (U. K. Building Research Station)
Plan (Swedish with English summaries)
Practical Builder
Pratt Planning Papers (volume 1 is 1962-1963)
Progressive Architecture
Savings and Loan News
Savings Bank Journal
Town and Country Planning (British)
Town Planning Institute Journal (British)
Town Planning Review (British)
Traffic Quarterly
U. S. Bureau of Public Roads Library, *Urban Transportation Research and Planning. Current Literature*
U. S. Housing and Home Finance Agency, Library. *Housing and Planning References*
U. S. Public Housing Administration. *PHA Highlights* (No. 1 is July-August, 1963)
U. S. Urban Renewal Administration. *Urban Renewal Notes*
Urban Land Institute. *Research Monographs* (No. 7, "Property Taxation and Urban Land Use in Northeastern New Jersey"). *Technical Bulletins*

(No. 47, "Innovation vs. Traditions in Community Development," December)

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5. AVINS, Alfred. *Open Occupancy vs. Forced Housing under the Fourteenth Amendment: A Symposium on Anti-Discrimination Legislation, Freedom of Choice, and Property Rights in Housing*. New York: The Bookmailer, 1963. 316p.
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8. BENTLEY, Howard B. *City Planning and Urban Renewal: a Guide to Available Reference Tools*. *Library Journal*, vol. 88, April 15, 1963. p.1621-4.
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11. CHAMBER OF COMMERCE OF THE UNITED STATES. *Basic Decisions in Community Development*. Washington, D. C.: 1963. 150p. In community development, renewal, housing, public works, construction industry, and building codes, Chamber favors local responsibility with leadership by chambers of commerce, trade and professional associations, business firms. Opposes principal federal programs for urban improvement and housing for low-income families and recommends local, state, and federal government support, in that order, to encourage local groups to improve their communities.
12. CHAPIN, F. Stuart and WEISS, Shirley F., eds. *Urban Growth Dynamics in a Regional Cluster of Cities*. New York: Wiley, 1963. 484p. illus. Results of research on the dominance of urbanization in American society. Research performed by 18 scholars in fields of anthropology, city and regional planning, economics, political science, social psychology, and sociology.
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people—not passive people patiently waiting to have their condition corrected by some benevolent outside agency, but with all kinds. The majority display a healthy desire to have a hand in shaping their own destinies and resent attempts by outsiders, however well intentioned, to shape their lives for them. Failure to recognize this early enough has been a weakness of urban renewal.

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Land Lords. New York: Random, 1963. 302p. illus. Biographies of men who used land, not for what they could take from it, but because land itself had value. Some of these entrepreneurs were motivated by profit, some by altruism, some by ego. Discusses early speculators like Jay Cooke, men like Henry Flagler and his Florida playground for the rich, Abraham Kazan who backed cooperative housing to help overcome New York slums, Henry Black, king of skyscraper builders, Fred French and his white-collar cities, the Levitts and their towns, and William Zeckendorf, a speculator.

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- and to distinguish between those serving markets outside the area and those the local economy.
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86. U.S. CONGRESS, SENATE, COMMITTEE ON BANKING AND CURRENCY. *Study of International Housing*. Subcommittee on Housing, 88th Congress, First Session. Washington, D. C.: Government Printing Office, 1963. 416p.
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● The late John F. Kennedy was many things to many people, and to librarians he was a champion of greater, better, and more accessible libraries. In his honor, there will be a John F. Kennedy Memorial Library on the Harvard campus, and President Lyndon Johnson, in his State of the Union Message, has urged the continuity of his predecessor's programs, among them—"We must build more libraries in every area. . . ." ● Not only a writer of merit and a prodigious reader, the late President edited "As We Remember Joe," a 60-page illustrated volume of tributes to his brother Joseph, killed in World War II. The book was privately printed in 1945 by the Harvard University Press. Only recently was the Library of Congress able to obtain a copy, since only 40 copies were printed for private distribution. This copy originally was a gift of the editor of *Book Collecting World* to the crew of the "USS Joseph P. Kennedy" 18 years ago. When it was known that another copy was unobtainable, the crew donated theirs to LC. ● From the November 18, 1963 "Antiquarian Bookman" come some world records in literature: the smallest book was the handwritten "Poems by Edgar Guest," which is less than one-eighth of an inch square; the highest price paid for a printed book was \$200,000 for a Gutenberg Bible; the longest novel is "Clarissa Harlowe" by Samuel Richardson, which contains 984,870 words; the most prolific writer was Lope Felix de Vega Carpio who wrote 1,800 comedies plus novels and poetry; the highest rate ever paid to a writer was \$30,000 to Ernest Hemingway by "Sports Illustrated"; the longest poem in English is "The Sacred War—Reduced to a Poem Euike," by Robert Barret; the largest publisher is the U.S. Government Printing Office; and the largest library is the United States Library of Congress, which, as of June 30, 1962, contained over 12 million volumes and pamphlets, more than 14½ million manuscripts, over two and one-half million maps and views, and over two million volumes and pieces of music plus a half million phonograph records. The two buildings cover 16 acres and contain 270 miles of shelving. The largest non-statutory library is the New York Public.

A Working Microfilm Card Catalog

H. MATSUMIYA and M. BLOOMFIELD, Culver City Library
Hughes Aircraft Company, Culver City, California

EARLY IN 1963 the Hughes Aircraft Company's Culver City Library opened a branch library some five miles away in the new Space Systems Division Building at El Segundo. One of the initial problems that confronted the branch was the duplication of the Hughes Aircraft union catalog maintained at Culver City, in which the holdings of the three major libraries of the company are listed. It should be noted that union catalogs are maintained at two other Hughes sites besides the Culver City Library. It was decided that the new branch library should have a copy of the catalog for it to do an effective job, and thus the problem was one of duplication.

After a casual approach to the problem, three possible methods of duplication were suggested: 1) a book catalog, 2) a regular card catalog, and 3) microfilm. With these three possibilities in mind, vendors were approached who could give their ideas about prices and feasibility. Whichever method was chosen, microfilming of the entire union catalog would be the first process, and if there were to be any cumulations, they would also have to be done initially by microfilming. This is the only practical way to start duplicating catalog cards. We would have preferred to use a method by which we inserted catalog cards at the rate of 1,000 a minute and have duplicated cards produced at the same rate for ten cents per 1,000 cards. This machine has yet to be invented!

Analysis of Three Possible Methods

The book catalog approach was felt to be the cheapest and most efficient method; however, almost as soon as some statistical studies were completed, a book catalog was found to be unwieldy, at least in the way it would have been prepared. A total of 160,000 cards had to be reproduced. With some reduction, 12 catalog cards could be placed on a single page. By simple division, this

meant that the book catalog would be over 10,000 pages. The pages would have to be on fairly thick stock to stand the wear the catalog would receive, and it would have to be bound in many volumes. Once this was considered, the idea lost most of its appeal. The Library of Congress book catalog method was also considered. This would have entailed the additional cost of making an offset plate and then running only one page per plate, which would be very wasteful. The cost could have easily been blown up to \$50,000 by this method, and the result would have still been unacceptable. The estimate received for microfilming the catalog and obtaining 8½ by 11 sheets in bound form was approximately \$10,000.*

The second approach of using a regular card catalog seemed to be as logical as one could believe possible. By reproducing the card catalog branch patrons were certain to be satisfied. To reproduce the catalog as it exists at the main library involved microfilming the cards, preparing duplicate cards from the microfilm, and purchasing furniture to house the catalog. Several vendors were requested to estimate the price for reproducing exact duplicates of the union catalog. The price generally was five cents for each card, including the microfilming process. With 160,000 cards to reproduce, the reproduction cost would be approximately \$8,000. In addition, six 45 drawer catalogs would have to be purchased to house the cards. These six pieces cost about \$800 each or a total of about \$4,800. Thus the total cost rose to almost \$13,000. Another factor considered, but not priced, was that a total of 54 square feet of floor space would be required in the branch. The branch was small enough without this additional space requirement.

The third method considered was using

* The prices quoted in this article will fluctuate from vendor to vendor and from area to area. They are included for comparative purposes only.

microfilm cartridges with the Recordak Lodestar reader. Since each process began with microfilming, we felt that the cheapest method would be one where the microfilm itself could be used as the catalog. The literature was searched to see if anyone had ever used microfilm for a working catalog, and nothing was found. We were sure that many catalogs had been microfilmed but did not find anything in the literature describing a working catalog used in microfilm form. One of the major Hughes libraries had microfilmed its catalog and provided microfilm copies throughout its facilities. Their success with this method swayed our thinking. However, this Hughes library has conventional catalogs for use in the library and their microfilm catalogs were not used by patrons. Our system would replace a conventional catalog in the library proper of the branch with a microfilm card catalog. We had seen a performance of the Lodestar reader-printer with microfilmed catalog cards and felt that it would be practical to use the Lodestar system. We believed microfilm would give us an effective method for reproducing the union catalog, although microfilm was not considered for the catalog of the branch's own collection.

It was our opinion that microfilm would also be the cheapest method. It was decided that the printer part of the Lodestar reader would not be necessary with a catalog, for we could not conceive of any occasion where someone would need to have a copy of the catalog cards. Our estimate was approximately \$650 for the microfilming and about \$1,000 for the Lodestar reader. This was \$8,000 cheaper than using the book catalog and almost \$11,000 cheaper than the full-size duplication.

Preparation of Supplements Studied

When considering which method to use, the process of preparing supplements to the catalog was investigated for each of the three methods. To keep a book catalog up-to-date, either weekly supplements would have to be prepared or cards could be held aside for a long period of time and then a fairly large supplement brought out. To prepare

weekly supplements meant microfilming some 800 cards a week and then having some 65 pages reproduced. This would cost about \$2,000 a year. Fifty-two supplements a year would have to be prepared and they present a formidable task to use. The alternative to weekly supplements would be to reproduce cards weekly and hold these cards for larger supplements. This would allow us to keep the union catalog up-to-date and let us prepare supplements to the main book catalog every two or three months. This method would increase the total cost by five cents a card or an additional cost of about \$2,000 a year. Because the idea of having the initial duplication of the union catalog in book form was rejected, the means of preparing the supplements convinced us even more that the catalog should not be prepared in book form.

Next supplements were considered for a standard card catalog. Eight hundred cards a week would have to be duplicated. The delay in keeping cards out of the union catalog while the microfilm process took place was not felt to be a factor. The yearly cost of \$2,000 to reproduce the 40,000 cards has already been calculated above. In addition to this, the cost of filing time and catalog trays had to be added. It takes an average of an hour to file 100 cards, and with this labor charge at about \$2 an hour, the labor cost totals about \$800 a year. We also calculated that it cost approximately \$13 to house a thousand cards or a yearly cost of \$650. This comes to a total of \$3,450 a year for the maintenance of just one duplicate union catalog in conventional form.

After finishing these calculations, these two means of supplementing the catalog were compared with the cost of microfilming the complete catalog three times during the year. Instead of providing supplements, a new up-to-date catalog would be issued to the branch every four months. There would be no storage problem. There would be a delay in the completeness of the catalog at the branch, but a four-month delay was felt to be acceptable. The cost of duplicating the entire catalog three times a year was three times \$650 or \$1,950. The micro-film cata-

log would have all the deletions removed. Deletions would be impossible to pull from the book catalog and would represent an increased cost to the standard catalog. The cost of microfilming will be kept at approximately \$2,000 a year by lengthening the time between complete refilming over the ten-year period.

Ten-Year Costs

The three methods were then compared for ten-year costs. The book catalog would cost \$10,000 initially plus at least \$2,000 a year in maintaining it or a total of \$30,000. The standard catalog would cost initially \$13,000 plus about \$3,500 a year to maintain for a ten-year total of \$48,000. The microfilm catalog cost about \$2,000 initially and will cost about \$2,000 a year to maintain or about \$22,000. Thus the microfilm catalog will save at least \$8,000 over the book catalog and \$26,000 over a standard catalog for a ten-year period. If the savings of the two other locations going from a standard catalog to a microfilm catalog were considered, the savings would be even greater. Additional microfilm catalogs made from a master microfilm catalog would not have the charge for the time spent in feeding the catalog cards to the camera. The single branch catalog would cost \$2,000 a year to maintain whereas if we were to maintain a second catalog at another location, the second microfilm catalog would cost only \$600 (\$200 per catalog times three).

Operation of System

With the foregoing cost analysis completed, the decision was made that a microfilm catalog would fill the needs of the Space System Branch, and microfilming began.

The catalog was microfilmed and placed into 33 Lodestar cartridges. Microfilming took place in the library so that the catalog was available to both the library staff and library patrons during the four days needed to complete the work. The cartridges are four inches square and one inch thick and are placed in a convenient container occupying a table top area of only a foot by a foot and a half square. Each cartridge stores 100

feet of 16mm film and is self-threading. The microfilm reader and cartridges occupy only part of a standard desk top.

The Lodestar reader operates very simply. Cartridges are all labelled with the portions of the alphabet they cover. Once the proper cartridge has been selected, it is inserted into the reader, which automatically starts the reader. An advance switch transports the film across the viewer at variable speeds up to 600 feet per minute. Viewing speed may be held constant at any desired speed and sharp focus is easily maintained. When the film is removed, the reader automatically shuts itself off.

There are drawbacks to the microfilm. These drawbacks are not felt to be significant, but they are present. First, it is impossible for more than one person to use the catalog at a time, but since the branch is fairly small, it was felt that traffic to the catalog would not overload it. The second drawback is that of time of search. It takes longer to find something on the microfilm catalog than it does for the standard catalog. In a sample experiment, it took an average of about 20 seconds to find any card in the standard catalog, whereas it took an average of 40 seconds with the microfilm catalog. However, these drawbacks were not significant in our evaluation of a microfilm union catalog at the branch.

Since none of the patrons were familiar with the new method of providing a catalog, an educational task was necessary. The most effective way was to give actual demonstrations of the microfilm catalog system. Once users had been shown how to use the Lodestar reader and the microfilm cartridges, they became as adept at using the microfilm as they had been in using the standard catalog. The ease with which the system was inaugurated at the branch has been quite gratifying.

The advantages we felt we had gained by the use of the microfilm catalog system far outweigh its disadvantages. First of all, the microfilm system is cheaper than the other methods we had considered. Secondly, it takes up far less space than a conventional catalog. And thirdly, we feel that the microfilm catalog is almost as easy to use as the conventional catalog.

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News and Notes

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The Midwinter Meeting of the Board of Directors and the Advisory Council was held at the Sheraton-Belvedere Hotel in Baltimore, February 13-15, 1964. Approximately 90 Chapter Presidents, Division Chairmen, Committee Chairmen, Special Representatives, and other officers were present for the three days of concentrated meetings and discussions. Chapter and Division officers met separately for dinner on Thursday evening, and on Friday night Board and Council members were joined by members of the Baltimore Chapter for dinner and a speech by Dr. Patrick B. Storey, Associate Professor of Medicine, School of Medicine, University of Maryland, who described his recent tour of the Soviet Union with the American Medical Exhibit.

The first meeting of the Advisory Council was devoted primarily to an enlightening discussion of the proposed professional standards for objectives, services, and staff. A number of Chapters, including Southern California, Western New York, Toronto, St. Louis, and New Jersey, and the Advertising Division have given the standards considerable thought, and their representatives made numerous suggestions for changes and improvements. Ruth S. Leonard, Associate Professor, School of Library Science, Simmons College, and the consultant on professional standards, was present and will take the proposals and ideas under advisement as she works on the final drafts of the standards.

Council members were also urged by the Membership Committee Chairman, Alleen Thompson, to encourage student memberships and to follow-up on other members who have neglected to pay their 1964 dues. Loyd Rathbun described what Massachusetts librarians are planning for National Library Week as an example of fruitful NLW activity, Eugene B. Jackson outlined the background and objectives of the ADI-SLA Joint Operating Group (JOG), Joel Williams discussed the National Library Statistics Coordinating Project, and Dr. Frank Schick and Robert J. Havlik spoke on the Library Services Branch's program of collecting statistics about special libraries. The proposals from the Connecticut Valley Chapter relating to accrediting were withdrawn as it was felt that attention is being given to the problem by the ALA Commission on a National Plan for Library Education, on which the Association is represented. Dr. Frank McKenna, Division Liaison Officer, outlined the evolution of past and present Division structures as they have changed in response to new developments and interests.

The Board adopted a resolution of appreciation for Mrs. Elizabeth M. Hutchins' contributions as Chairman-Elect of the Advisory Council until her recent resignation. Robert W. Gibson, Jr. has accepted Board appointment to fill her post until a successor is selected in the forthcoming annual election. Actually Mr. Gibson was pressed into service as Chairman of the Advisory Council since Charles Zerwekh, Jr., the elected Chairman, was unable to attend as was Margaret Madden, Chapter Liaison Officer.

Three recommendations submitted by the Ad Hoc Film Study Committee Chairman, Edward G. Strable, were approved: 1) that the Association produce a professional, 16mm color motion picture on special librarianship; 2) that a SLA motion picture fund, with a goal of \$50,000 be established; and 3) that a Motion Picture Fund Committee be appointed to plan for and procure the funds needed to produce the film. The Association itself will start this special fund after the financial situation has been appraised.

The Board received with favorable appreciation the thoughtful report prepared by the Ad Hoc Committee to Study a SLA Research Program in which it was asserted that the Association has a responsibility to cooperate with other organizations and individuals engaged in basic or applied research applicable to the special library field. The proposal that a high level staff person be employed who would be responsible for research coordination as well as information and library functions was deferred until the Association's financial situation becomes clearer.

A completely revised Chapter Manual, prepared by the 1963 Chapter Relations Committee, was approved by the Board. Copies are being mailed to Chapter Presidents who are asked to distribute them to appropriate Chapter officers. Others may request a copy if they need to know the detailed procedures of operating a Chapter.

Consultation Service Committee Chairman, Mrs. Gloria M. Evans, reported that the first 1964 issue of the Consultation Service *Newsletter* has been mailed to Chapter Consultant Officers and Professional Consultants. Concern was expressed over the fact that some Chapters are charging for consultation service in opposition to the Association's stated policy that "this service is free (except for expenses) if the visit does not require more than one day."

The Chairman of the Bylaws Committee, Mrs. Margaret H. Fuller, said that to date eight Chapters, seven Divisions, and two Sections have submitted their bylaws for approval. All other subunits are urged to follow suit immediately so that by June the Committee can report that no subunit is operating under bylaws that are in conflict with the Association's Bylaws. In this connection the Board reaffirmed its earlier decision that failure to comply with this request may result in the withdrawal of allotments.

Ten \$1,000 scholarships will be awarded for the 1964-65 academic year instead of the eight previously announced. Mrs. Alice P. Hook, Chairman of the Scholarship and Student Loan Fund Committee also asked that the word "accredited" in the scholarship requirements be clarified, and it was decided that the library schools to which scholarship applicants are applying must be "accredited by ALA."

A correction should be made in the official minutes of the June 11, 1963 Annual Business Meeting. Line 57 of page 3 should read "2,697 ballots," not 2,897.

The Public Relations Committee has been studying the design and use of "SLA Putting Knowledge to Work." The Chairman, Marian G. Lechner, reported that the Committee feels the term "insignia" should be used for this device and that it be retained as is with the addition of "Special Libraries Association" spelled out below the art work and, when appropriate, the name of a Chapter, Division, or Section. The Committee further recommended that the insignia be used as widely as possible within the limits of dignity, i.e., on jewelry, stationery, membership cards or gummed stickers, that arrangements for implementing approved uses of the insignia be made by the Executive Director, and that expenses and profits from uses of the insignia become part of the general operating budget, except when materials are designed for use by a Chapter or Division, in which case they would assume any expenses or profits.

A letter from Dr. L. E. Kuentzel, written on behalf of the American Society for Testing Materials and asking if any group within SLA would cooperate with ASTM in preparing a cross-reference index to the *CODEN for Periodical Titles* or in standardizing the four-letter codes, was discussed. No formal action was taken for it was felt that such a cooperative venture would be most appropriate as a Chapter project.

The theme for the 56th annual Convention, to be held in Philadelphia in 1965 will be "Library Cooperation—Panacea or Pitfall?" Invitations for the 1974 convention were received from the Cincinnati, Colorado, Connecticut Valley, New Jersey, Pittsburgh, and Washington, D. C. Chapters, and the Board accepted that tendered by Cincinnati.

At the request of the Nonserial Publications Committee, the Board gave preliminary approval to the proposed publication "Dictionary of German Chemical Abbreviations," which is being sponsored by the Chemistry Section, and approved an additional expenditure for the production of the second edition of *Picture Sources*. A project of the Picture Division and edited by Celestine G. Frankenberg, this work was delivered from the bindery early in March and is now on sale for \$6.75.

Herbert S. White, Chairman of the Recruitment Committee, reported that seven John Cotton Dana Lectures have been arranged at library schools for the fall of 1964: Atlanta University—Burton E. Lamkin; University of Kentucky—Ethel S. Klahre; University of Michigan—Eugene B. Jackson; Texas Women's University—Mrs. Helen Redman; University of British Columbia—Marjorie Griffin; University of California at Los Angeles—William Jorgensen; and Columbia University—lecturer still to be selected.

Reporting for the Special Classifications Committee, Chairman Meredith S. Wright stated that a flyer soliciting subject heading lists, thesauri, and any other material dealing with the classification of information was mailed to approximately 1,200 professional and trade associations early in February. The American Association of Law Librarians is already cooperating with the Center in its campaign to acquire more material. The general policies relating to the Committee, responsibilities of the Director of the Special Classifications Center, and the code of operation of the Center were approved.

Virginia Garland, Chairman of the Technical Book Review Index Committee, presented the January 1964 issue of TBRI, with its new bright red outside cover and redesigned inside format, as concrete evidence of the good work the new printer is doing.

The Board approved nine recommendations submitted by the Joint Libraries Committee on Fair Use in Photocopying and the Copyright Law Revision Committee, and they will now be transmitted to the Register of Copyright. The proposal that the Joint Committee hereafter be responsible for covering developments in the whole broad area of copyright was also approved.

Elizabeth Ferguson, SLA representative to the New York World's Fair Advisory Committee, reported that \$80,000 was still needed for scholarships and training for the staff for the American Reference Center. There is also a need for translators of general reference articles of about 800 words from English into German, French, and Spanish. Translators who can volunteer some time and talent should write Miss Ferguson at the Institute of Life Insurance, 488 Madison Avenue, New York 10022.

The Board concurred with the Advisory Council in endorsing three recommendations made by Gordon Randall, Representative to the Library Technology Project Advisory Committee: 1) that the LTP Director be thanked for his proffered assistance with R & D activities; 2) that the Foundation Grants Committee be encouraged to use LTP assistance in its project proposals; and 3) advise LTP of the Association's interest in having a publication series on the results of comparative performance testings of widely used library supplies and equipment.

The next meetings of the Board of Directors will be held in St. Louis on June 7 and 12, while the Advisory Council will convene on the evening of June 8. The Fall Meeting of the Board of Directors is scheduled for September 24-25 at the Belmont Plaza Hotel in New York City. The Mid-Winter Meeting of the Advisory Council and Board will be held at the Marrot Hotel, Indianapolis, February 11-13, 1965.

SLA Sustaining Members

The following organizations are supporting the activities and objectives of Special Libraries Association by becoming Sustaining Members for 1964. This list includes all applications processed through February 21, 1964. Former 1964 lists inadvertently omitted several organizations that joined early in the year.

ABBOTT LABORATORIES LIBRARY
AEROJET-GENERAL CORPORATION
AETNA STEEL PRODUCTS CORPORATION
AMERICAN CAN COMPANY
AMERICAN CYANAMID COMPANY
AMERICAN ELECTRIC POWER SERVICE CORP.
AMERICAN IRON AND STEEL INSTITUTE
AMERICAN TOBACCO COMPANY
AMPEX CORPORATION
ARGONNE NATIONAL LABORATORY
ATLAS CHEMICAL INDUSTRIES, INC.
BELL & HOWELL RESEARCH CENTER
BELL TELEPHONE LABORATORIES
BETHLEHEM STEEL COMPANY
BOEING COMPANY
R. R. BOWKER COMPANY
BRIDGEPORT PUBLIC LIBRARY
BUSINESS AND PROFESSIONAL WOMEN'S FOUNDATION
LIBRARY
CARRIER CORPORATION
CHEMCELL LIMITED
CHIVERS BOOKBINDING COMPANY
CIBA PHARMACEUTICAL COMPANY
COLORADO STATE UNIVERSITY LIBRARIES
CONSOLIDATED EDISON COMPANY OF NEW YORK
CONSOLIDATION COAL COMPANY
CONTINENTAL CARBON COMPANY
CORNELL UNIVERSITY LIBRARY
CORNING GLASS WORKS
DALLAS PUBLIC LIBRARY
DOW CHEMICAL COMPANY
DOW CHEMICAL LIBRARY
E. I. DU PONT DE NEMOURS & COMPANY
Lavoisier Library
E. I. DU PONT DE NEMOURS & COMPANY
Technical Library
EASTMAN KODAK COMPANY
ESSO RESEARCH & ENGINEERING COMPANY
F. W. FAXON COMPANY, INC.
FEDERAL RESERVE BANK OF NEW YORK
FORD MOTOR COMPANY
GENERAL ELECTRIC COMPANY OF SCHNECTADY
GENERAL FOODS CORPORATION
GENERAL MOTORS CORPORATION
Public Relations Library
GENERAL MOTORS CORPORATION
Research Laboratories
GLICK BOOKBINDING CORPORATION
B. F. GOODRICH RESEARCH CENTER
HARVARD GRADUATE SCHOOL OF BUSINESS
ADMINISTRATION
IDAHO STATE COLLEGE LIBRARY
INDIANA STATE LIBRARY
JOHNS-MANVILLE RESEARCH & ENGINEERING
CENTER
WALTER J. JOHNSON, INC.
KAISER ALUMINUM & CHEMICAL CORPORATION
LIBRARY AFL 5643 APO 238, NEW YORK
ELI LILLY AND COMPANY
LOCKHEED MISSILES & SPACE COMPANY
LYBRAND, ROSS BROTHERS & MONTGOMERY
MARATHON OIL COMPANY
MELLON NATIONAL BANK AND TRUST COMPANY
MINNEAPOLIS-HONEYWELL REGULATOR
COMPANY
MINNESOTA MINING & MANUFACTURING
COMPANY
NATIONAL ASSOCIATION OF ENGINE AND BOAT
MANUFACTURERS
NATIONAL BANK OF DETROIT
NATIONAL CASH REGISTER COMPANY
NATIONAL LEAD COMPANY
NATIONAL PUBLICATIONS COMPANY
NEW YORK LIFE INSURANCE COMPANY
NEW YORK PUBLIC LIBRARY
NEW YORK TIMES
PENNSYLVANIA STATE UNIVERSITY
PEOPLES GAS LIGHT & COKE COMPANY
PITTSBURGH PLATE GLASS COMPANY
PORT OF NEW YORK AUTHORITY
PRENTICE-HALL, INC.
PROCTER & GAMBLE COMPANY
PUBLIC SERVICE ELECTRIC & GAS COMPANY
PURE OIL COMPANY
RADIATION, INC.
RADIO CORPORATION OF AMERICA LABORATORIES
RAND CORPORATION
REPUBLIC AVIATION CORPORATION
ROCKEFELLER OFFICE LIBRARY
ROHM & HAAS COMPANY
ROYAL BANK OF CANADA
ST. JOHN'S UNIVERSITY LIBRARY
SHAWINIGAN CHEMICALS LTD.
SHELL DEVELOPMENT COMPANY
SPACE TECHNOLOGY LABORATORIES, INC.
SQUIBB INSTITUTE FOR MEDICAL RESEARCH
J. W. STACEY, INCORPORATED
STANDARD OIL COMPANY OF CALIFORNIA LIBRARY
STAUFFER CHEMICAL COMPANY
STECHELT-HAFNER, INC.
STERLING-WINTHROP RESEARCH INSTITUTE
SUFFOLK COOPERATIVE LIBRARY SYSTEM
SYSTEMS DEVELOPMENT CORPORATION
TECHNICAL BOOK COMPANY
TEXAS GAS TRANSMISSION CORPORATION
J. WALTER THOMPSON COMPANY
TIME INCORPORATED
UNION ELECTRIC COMPANY
UNITED COMMUNITY FUNDS & COUNCILS OF
AMERICA, INC.
UNITED STATES AIR FORCE ACADEMY
UNITED STATES STEEL CORPORATION
UNIVERSAL OIL PRODUCTS COMPANY
UNIVERSITY OF CONNECTICUT
UNIVERSITY OF MARYLAND
UNIVERSITY OF MINNESOTA LIBRARY
UNIVERSITY OF OKLAHOMA LIBRARY
UNIVERSITY OF TEXAS
UNIVERSITY OF WASHINGTON LIBRARY
WILLIAM JOHN UPJOHN ASSOCIATES
UPJOHN COMPANY
WAYNE STATE UNIVERSITY
H. W. WILSON COMPANY
WORCESTER FREE PUBLIC LIBRARY
WYETH LABORATORIES, INCORPORATED

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Changes in LSB Staff

The Library Services Branch of the Department of Health, Education, and Welfare's Office of Education recently announced changes in its staff. Paxton P. Price, Missouri State Librarian since 1949, has become Director of the Library Services Branch, succeeding John G. Lorenz, who is now Director of the Division of Continuing Education and Cultural Affairs. This Division, under the Bureau of Educational Research and Development, includes the Adult Education Branch, a new Cultural Affairs Branch, and the Library Services Branch. Henry T. Drennan, Public Library Specialist, is now Coordinator, Public Library Services. Another Coordinator is Mary Helen Mahar, former School Library Specialist.

Gift Wrapped?

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TODAY THERE IS a definite mood on the part of many professional people, students, and even some librarians that can be illustrated by the following excerpts, taken from an exceptional and timely editorial deploring the easy path of indifference to honesty, distaste for hard work, and success by angles.¹ *Viz.*, Paul Revere: "What do you mean, me ride through every Middlesex village and town? And in the middle of the night yet. Why pick on me? Am I the only man in Boston with a horse?" Patrick Henry: "Sure, I'm for liberty. First, last, and always. But we've got to be a little realistic. We're a pretty small outfit. If we start pushing the British around, someone is going to get hurt."

The author feels that it is a sorry situation when a person of integrity should be considered a "square." "Square" in recent usage meaning not being "with" the modern philosophy of the it-doesn't-matter-how-you-play-the-game-so-long-as-you-win set.

Pirated Books from Formosa

For an example of this philosophy among some librarians, consider the case of the Formosa books, those rather poor quality, pirate imprints produced by the photo-offset copying process, which continue to filter into the United States from Nationalist China despite the fact that their import is illegal. They enjoy particular popularity on American campuses today.²

Lately, to avoid legal restrictions, a rice paper catalog³ expressly cites that its purpose is to serve readers all over the world and that all publications in the catalog are for PRIVATE CIRCULATION only (the capital letters are theirs). The publisher prefers personal checks, authorized bank drafts, money orders, or postal orders collectable in the United States or in England and specifies FULL PAYMENT in advance. The reason for

the insistence upon drafts collectable in the United States or England is obvious—the standard currencies most easily convertible internationally are pounds sterling, the U.S. dollar, and the Swiss franc. The publisher also states in the catalog that, "We have to sign names on every book for our readers to indicate PERSONAL USE. Our books are not to be resold." It is interesting to note that correspondence and orders are referred to a representative located in, of all places, the Portuguese colony of Macao, next door to Hong Kong, from which latter port many of the pirate books are mailed to the United States.

In one specific case, *Dr. Zhivago* (1961, \$1.75), I recall that even the copyright notice appeared. In some other cases the publisher's imprint and copyright date are deleted altogether. What about copyright? Possibly the letter of the law was not violated since Nationalist China is not a member of the current International Copyright Convention.⁴ I haven't examined enough of these books to accurately survey the legality of copyright infringements, but it does seem to me that librarians, of all people, should question whether or not this practice is ethical in the light of present day needs and standards.

Titles in the catalog cover a wide range of subjects, from language, the arts, novels (recent), pure science, engineering, dictionaries, agriculture, the social sciences, medicine and pharmacy, to the biological sciences. Most of the above categories include works of considerable reference value to undergraduate and advanced students as well as being designed to appeal to professional and cultural interests. In other words, the appeal of the catalog is directed to the educated, alert, and responsible citizen.

Many titles in the Hoover catalog are of interest to librarians. This particular catalog contains books that are clearly reference tools of the library trade—to cite some examples, *Cutter and Sanborn Three-Figure Author Ta-*

ble (cloth bound, \$2.50; leather bound \$4.00); Mann, *Introduction to Cataloging and Classification of Books* (\$1.87); A.L.A., *School Libraries for Today and Tomorrow* (\$.63); Tauber, *Technical Services in Libraries* (\$2.50); Heinritz, *Purchasing Principles and Applications* (3rd ed., 1959, \$3.75); Cornell, *Essentials of Educational Statistics* (1956, \$1.63); Black, *Law Dictionary* (new rev. ed., \$10.00); Doris, *Complete Secretary's Handbook* (\$2.50); Fowler, *Concise Oxford Dictionary* (\$2.25); Marks, *Mechanical Engineers' Handbook* (6th ed., 1958, \$10.00); Cook, *New Library Key* (\$1.00); and *Public Information and Press Handbook* (\$1.25).

Prices are quoted in denominations of American dollars, Hong Kong dollars, and British pounds sterling. Nearly all the titles are printed in the English language. An estimate of the total number of titles offered in this particular catalog is approximately 2,600.

The quality of the material produced by this press is far from professional. Ignoring the condition of the binding entirely, in the text itself it is easy to detect blanks and omissions where the photo-offset copying process has not printed correctly. The type is, therefore, often rather difficult to read with ease, and the same inferior conditions can be observed in the illustrations and pictorial matter. In addition, some of the Formosa editions are photo-reduced from their originally published size, causing further deterioration, to the illustrative material particularly.

The Formosa catalog is evidently simple enough to come by—one need only to request a copy "completely free of charge."

Several years ago the selling of these imprints was vigorously prohibited in one of the leading engineering schools,⁵ resulting in a number of student suspensions for the offense ("The expulsions were considered necessary on moral grounds"). You may recall also that when these books first came to attention in the United States that the Post Office denied them the use of the mails because of alleged copyright infringements.⁶ However, the traffic is still very much in evidence today, as outlined above, although it is not, understandably, generally publicized.

There are, of course, other sources of pirated editions in the world today. I refer specifically to one recently exposed publishing operation operating in Iran.⁷ Also, there are the various considerations of Communist lack of respect for the International Copyright Convention, which, I suspect, will eventually leave its mark in the international book trade. For instance, a noted English physicist authored a thorough reference work in his field that subsequently went out of print and was not reprinted. Several years later he traveled to East Germany and to his surprise encountered his work reproduced and selling for roughly \$1. The original price in English was \$6.75. Moreover, the book was readily available, probably in far greater quantity than printed in the English edition. Incidentally, of a first English printing of 2,000 copies, the Russians had purchased about 500. As for copyright, the Russians have always bought up worthwhile works as soon as they appeared and sent them home for translation and copying. The Russians then deposit the royalties in Russian banks for the authors to spend inside their borders.

Being curious as to the effect of the pirate presses on American publishers, I discussed the problem with an old timer in the book trade. He said, "You can't tell how much business you lose by them. . . . No doubt they hurt the publishers, but good." He did offer an alternative in an area of competition which is making considerable headway today in some areas—quality paperback editions where practicable.

To Buy or Not to Buy

What is my particular interest in this situation as a librarian? Simply this—should I remain indifferent to the situation or not? The question has been put squarely to me, as advanced students and professional men with whom I am in contact have requested that I obtain a Formosa catalog for them.

Following are some of the typical reasons for and against supplying the material. Those in favor of obtaining these books point out to me that they are useful reference tools they would not otherwise be able to afford to own. Moreover, they claim that they are useful as desk copies, which would not be as

readily available if the library were required to purchase and control them. For example, Courant's *Methods of Mathematical Physics*, vol. 2, *Partial Differential Equations*, 1961, is \$4.25 against the American list⁸ price of \$17.50 (less 10%), a noticeable variation.

On the other hand, some people to whom I have spoken feel that there is no excuse whatever for a poor quality work. They would rather own a reference tool that takes pride in its workmanship. This group also points out that the important pictorial parts of a reference text must be accurate and distinct to be of value. They observe too that, as professional books are often tax deductible,⁹ the purchase cost is partially absorbed.

An interesting sidelight is that both groups seem to agree on one important point, that students should be able to obtain first-rate textbooks at the most reasonable cost possible. Students should not find it necessary to sell their texts back to publishers' representatives to pay for other successive expensive texts, handbooks, and reference works. The important thing is to recognize a critical fact in this phase of the battle for minds—that books of limited commercial value must be made available and within the cost reach of students and professional people of the country. United States publishers should make low cost texts available to students in cooperation with the Office of Education and other government sponsored programs, backed up with good hard public cash. Paperback text editions would also ease the strain. After all, students should not be denied the same advantages offered by United States publishers to certain foreign students whereby publishers, in cooperation with government agencies, are publishing inexpensive text editions for underdeveloped areas,¹⁰ India for example. The same device employed in this country would minimize the appeal of the Formosa presses and also meet the real needs of our students. Paperback editors, especially those of the Dover Press in the United States, have been widely accepted and provide good value for those who want reference works and classics. Also in 1961, the venerable Oxford and Cambridge Presses began paperback publication in anticipation of an international student market.

Ethical Considerations

I, for one librarian, have assumed a stand on requests for the Formosa catalogs. I refuse on the grounds of professional ethics to supply this information.

My decision for taking a definite position is somewhat similar to the feeling one may evolve from reading Fiske's study of book selection and censorship¹¹ or some of the material involving the controversy of how to best deal with obscene literature today. Taken on the average, libraries too often tend to avoid taking a hard decision to stand up against a trend. For example, the policy of avoiding exposure to criticism in book selection by relying entirely on selection services and "authorized" book review journals, readers requests, and other "Well, see, I didn't do it" devices is evident to some degree in almost every library, academic, public, and special, with which I come in contact.

Many librarians I am sure, due to their training and background, are giving the maximum service possible to their community when they follow this safe procedure, but there is the danger too, that if pressure was to be put on them, the purchase of pirated, low cost books might easily become accepted. I admit, however, that I personally cannot cite one case of a library collection including purchases from the pirate press, but this does not remove the possibility suggested.

I personally know a librarian employed by a large government installation who purchased some of these books for his personal collection but stopped when he ran into the following situation. An order, accompanied by remittance, was held up by the pirate publisher who instructed the purchaser to designate an "agent" to receive and retransmit the books from a location outside the United States. When this person could not do so, the publisher deducted approximately 50 per cent of the funds sent for alleged "handling services" and returned the remainder. This incident occurred about the beginning of 1962.

When we consider the pros and cons offered by well-educated and responsible professional members of our library clientele, I truly deplore the undercurrent attitudes

they often exhibit. Isn't it possible this feeling could be easily transferred to library personnel? Attitudes in general become a discernible trend in our society. This needs no documentation.

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Compiling a Picture-Finding Reference

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TODAY WE TEACH, we learn, and we are entertained by pictures. Television alone has triggered an enormous demand for them; there are new picture magazines on the newsstands each year; picture books have become a specialized field in book publishing; and even the more conservative newspapers are changing their formats to provide more picture space. With all these demands, there are very few reference tools to which the picture researcher can refer in his search for specific pictures.

It is true there are many subject indexes in which illustrative works are duly noted, but what frustration when one finally obtains the article to discover the illustration was not what one had hoped for! There are also many directories of special libraries, businesses, professional organizations, chambers of commerce, museums, societies, and so on, but again, a great deal of time is consumed in an effort to find out 1) if a particular organization has a picture collection, 2) if this collection is available to the public, 3) if the pictures can be used for publication or just for reference purposes, 4) if the material is in color or just black and white, and 5)

is it a photograph, lithograph, woodcut, color transparency, or clipping. *Picture Sources, An Introductory List* (Special Libraries Association, 1959) was a result of these demands for exacting pictorial research.

For sometime the Picture Division of Special Libraries Association had been concerned about the lack of information in the field of pictorial research, so a committee was organized to start work on a directory of picture sources. The Division did not expect this to be a comprehensive work but simply a break-through into a field where little or no reference tools existed. As it turned out, it was the beginning of a helpful reference tool, for a second, revised and enlarged edition of *Picture Sources* has just been published by Special Libraries Association and is now on sale for \$6.75.

The present Directory Committee members represented a publishing house (Helen Faye and Lisa Ferree, Harcourt, Brace & World), an advertising agency (Celestine G. Frankenberg, Young & Rubicam, Inc.), and an oil company (Betty Hale, Socony Mobil Oil Company). This varied representation is indicative of the need for pic-

tures in business as well as in the academic fields. The Committee was purposely kept small in order to work with greater speed and to arrange working schedules more easily. It also had the advantage of being located in New York City, an area convenient for meetings as well as having the greatest concentration of picture sources. The Committee members were also fortunate in being associated with organizations that appreciated the field of picture research and encouraged the work.

The initial task of the Committee was to assemble information about picture collections from numerous sources. This was done by requesting members of the Picture Division to contribute any knowledge they had of picture collections in their areas that were not included in the first edition. Also the editor of the first edition had kept all references to agencies that contacted her to have their collections included in any future editions as well as other sources she came across that were not listed in the first edition. *Picturescope*, the newsletter of the Picture Division, was reviewed from its first issue to its latest to extract articles on picture collections. The picture sources file of the Picture Collection of the New York Public Library was placed at the Committee's disposal. The picture researchers and librarians of *American Heritage*, Field Enterprises, Harcourt, Brace & World, Inc., *Life*, Metropolitan Museum of Art, and *The New York Times* were all solicited to contribute their knowledge of picture sources. Such well-known books as Adams' *Album of American History*, *Bildquellen Handbuch*, Chamberlain's *Guide to Art Reference Books*, Christensen's *Museums Directory of the United States and Canada*, *Encyclopedia of American Association*, Murphey's *How and Where to Look It Up*, Pierson and Davidson's *Arts of the United States*, *The World Almanac*, *World Book Encyclopedia*, and the *Classified Telephone Directory* were all examined for listings of picture sources and credits.

The next step was to compose a questionnaire that would bring out all the pertinent information about a collection needed by professional users of pictures: subject coverage of collection, dates covered by collection,

type of media, i.e., photographs, color transparencies, woodcuts, lithographs, stereographs, clippings, and so forth, availability regarding publication and/or reference, availability for commercial purposes or only for educational ones, and fees charged, if any.

When the completed questionnaire was returned, it was then necessary to edit the information and compile it into a predetermined format, which was basically the same as used in the first edition. The Committee was most careful not to assess or judge a collection in any way other than if it met with the requirements it had agreed upon for inclusion in the directory. The information was then grouped according to subject classifications that vary somewhat from the first edition because the newer classifications were based on suggestions received from users of the first edition.

The Committee felt that one of the most important sections of the book was the subject index, and great efforts were made to make it as comprehensive as possible. Additions were also made, such as a geographic index that gives the user information on collections in a particular area. Addresses were added to the sources index, which it is felt will be very helpful to those who want a quick address reference to a particular collection. Basically the format of this new edition is similar to the first edition because it has proved to be effective and useful.

The first edition of *Picture Sources* was a valuable reference tool for the professional user of pictures, and we hope that the second edition will be even more valuable because it lists 703 entries as compared to the 398 in the first edition. It also includes 33 foreign sources in countries not originally covered. Time was also an important factor in this quickly changing field, and the Committee worked conscientiously and devotedly to complete the entire job from beginning to end in just 18 months.

The Committee has derived a great deal of satisfaction from working on this volume, not only because of the value of this project in our own work and to others in the field but also because of the contacts with people we would not ordinarily have met who have been most expressive in their appreciation.

The ALA-SLA Statistics Coordinating Project and Its Relation to Special Libraries

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SINCE ITS inception about six months ago, the Statistics Coordinating Project staff has been quietly going about its business of planning, reviewing the literature, outlining concepts in the field of librarianship, and compiling lists of definitions of terms. I should like to point out, at the outset, that the purpose of the Statistics Coordinating Project is not the actual collection of statistics but rather the examination of current practices in the collection of statistics for libraries of all types, the analysis of uses to which these data are put (or might profitably be put), and the resultant discovery of gaps in the statistical picture. The principal objective will be the preparation of a Handbook of Concepts, Definitions, and Terminology that, we trust, will provide standards in the area of library statistics throughout the profession.

Naturally, some of our initial recommendations will represent personal points of view or bias of the staff of the Project. To minimize the impact of personal opinion, we plan to conduct a series of four regional conferences in March, at which as widespread a representation as possible of the total field of librarianship will be in attendance. At these meetings it is our intention to explore with the whole group those general concepts of librarianship that should be defined and with homogeneous subgroups those unique measurements needed for specific types of libraries.

Librarians have been keeping records and reporting statistics in one form or another concerning their activities and resources for many years. They have complained about

doing so, but a tradition has been built up that is very difficult to change. A primary consideration, therefore, is to examine these traditional record-keeping methods very carefully, to evaluate them in the light of current needs, to modify those that require updating, and to eliminate those that have outlived their usefulness. Significant new areas of development in librarianship will not be overlooked, however, in this study.

In speaking generally about libraries of all types, I have mentioned traditional collections of statistics. However, with respect to special libraries there is little by way of tradition, especially on a national basis. The collection, summarizing, and reporting of statistics for special libraries is of relatively recent vintage. Therefore, the approach we are taking in the Project is a fundamental one. We are evaluating the basic concepts of special librarianship and attempting to determine those that lend themselves to quantification and measurement.

Our point of departure is a very elemental one, namely, the definition of *library*. Can *library* be defined so that a special library then becomes one of "a group uniquely related in terms of general administration, clientele, and method of financing?" To this end, the traditional definitions of *library* (including that in the *ALA Glossary of Library Terms*) have been reconsidered, and a definition provided that embraces collection, staff services, and clientele as concepts without which no library exists.

Using this definition for *library*, we must now evaluate the possibility of finding a group of libraries with common enough characteristics to be defined as *special libraries*. It has been widely assumed in the past that each special library enjoyed all of the

prerogatives of being *special*, that is, to be "distinguished by some unusual quality," "uncommon," "peculiar," "particular," and "unique" (all from *Webster's Dictionary*). The diversity of subjects and materials handled by this class of libraries has reinforced the assumption that its members are individually unique and consequently the collection of statistics, which presupposes a grouping of items, has been assumed to be impossible of attainment. Maturity and a sobering necessity for finding solutions for problems that were unmistakably common, i.e., access to materials, the utilization of personnel, and the improvement of information services, have encouraged acceptance of the view that measures and standards common to a class could be devised.

A special library is defined as a type of library administered by and in behalf of an organized group which may be a business firm, a professional, scientific, or trade association, or a governmental agency. It is highly doubtful, however, that a clear-cut distinction on the basis of sponsorship can be made. In addition to the three-way multiformity already noted, it is also evident that sponsorship may be profit-making or non-profit with the consequence that characteristics related to general administration and method of financing may be considerably more diversified than common. Just as readily it can be maintained that these conditions do not, per se, determine the size of libraries, the scope of their collections, or the nature of their services.

Special libraries as a class are recognized as stressing the handling of informational materials. The collections are limited in coverage to subject areas of particular interest to the sponsor. Yet the handling of information in special subject areas is by no means exclusive to special libraries, for it is shared by the subject departments of public and academic libraries. On the one hand, then, there are special libraries that provide reference and research services in an individual subject area to an organization having primarily non-library objectives. On the other hand, special libraries can be found whose massive collections and full range of services are offered to the public and whose

problems are comparable to those faced by major public and academic libraries. Between the two extremes are several thousand libraries whose subject areas range from the very limited to the very broad, whose collections may be superficial or may take on research dimensions, and whose services span the range of convention. It will be our objective in this Project to delineate those measurements that are common to all of these libraries.

But why should we concern ourselves with these measurements? What is the necessity for these statistics from the point of view of management? Why should we be interested in special libraries as a class? Among the many reasons that come to mind are these:

1. Special libraries are using a significant number of library personnel, and in assessing needs for libraries a national accounting of the utilization of these personnel is important.
2. They are providing information services, which services are of an advanced nature, and the techniques used may have general applicability for other types of libraries.
3. They provide unique resources.
4. They offer a substantial public service, the full extent of which is as yet not known.

The process of developing the Handbook is being carried forward through the work of specialists, one for each major type of library. Anne McCann has been engaged to prepare the material for the special libraries section of the Handbook and to assist in integrating proposals for the collection of statistics in the special library field with those for other types of libraries. Ruth Fine, Librarian, U.S. Bureau of the Budget, and Chairman of the Statistics Committee of Special Libraries Association, is a member of the Advisory Committee to the Project.

Celebrate SLANLW

April 12-18, 1964

NATIONAL LIBRARY WEEK

ST. LOUIS

1764



1964

Howard Earl Day

Night view of the main building of the St. Louis Public Library where a Convention reception will be held.

AS HOST to the 55th Annual Special Libraries Association Convention, St. Louis is privileged to have special librarians as active participants in the city's bicentennial celebration. No beards have to be grown. No mock trials are planned for offenders of blue laws. But entertainment and enlightenment will be waiting for all visitors to this gracious city, which the late Bernard De Voto described as having perhaps the most mature culture of any city west of New York.

This cluster of stone and steel and over two million persons all started in 1764 when Pierre Laclède, heading a tiny band of fur traders, built a few cabins and drew plans for a village he named "St. Louis" in honor of the patron saint of his king, France's Louis XV. Under French and Spanish rule, the settlement remained largely a trading post until 1804 when it became part of the United States under terms of the Louisiana Purchase.

With the opening of the West, St. Louis flourished, attracting merchants and explorers, gamblers, and freebooters. It was incorporated as a town in 1809 and as a city of about 5,000 persons in 1822. By 1840 the fur trade became less important, but new industries made its population increase tenfold, to 160,000, in the next two decades. From the end of the Civil War to the turn of the century, when its population rose to

575,000, St. Louis boomed with the aid of expanding rail and water traffic.

Today, although its city boundaries are fixed by law to 61 square miles with a 19-mile frontage on the river, St. Louis remains the largest metropolis in the Mississippi Valley. Like many other American cities, it has risen phoenix-like from past fires and disasters only to face new problems of congestion and deterioration. St. Louis has met these problems with sweeping improvements, including a new \$89 million downtown redevelopment program. In the riverfront area (a short walk from most downtown hotels) you will see acres of level land where old buildings have been torn down and new buildings are rising.

If you visit the riverfront, you may glimpse a huge, silver-painted excursion steamer plying the waters or loaded barges reminiscent of a river trade that has prospered since the first Mississippi steamboat appeared in 1811.

Under development here, too, is the National Park Service's \$30 million Jefferson National Expansion Memorial covering some 40 city blocks. The dominant feature of this memorial will be a stainless steel arch, designed by the late Eero Saarinen, and soaring 630 feet high. This spectacular structure, to be completed in late 1964, will be the tallest monument in the United States. It will be known as the Gateway Arch, com-

memorating St. Louis' role in America's westward expansion and establishing its claim to be "The Gateway to the West."

Places of Interest

Meanwhile, many older points of interest await visitors to St. Louis. Just west of the rising arch, two historic buildings have been preserved and are open daily to the public. These are the Old Courthouse (1831), scene of the famous Dred Scott case, and the Old Cathedral (1834), the oldest Roman Catholic Cathedral west of the Mississippi. At the edge of downtown, and closer to the Sheraton-Jefferson, SLA Convention headquarters hotel, is Memorial Plaza around which are grouped City Hall, the main Public Library, Kiel Auditorium, and the municipal and civil courts buildings.

Two blocks west of the Sheraton-Jefferson is the well-preserved home of Robert Campbell, early fur trader. South of the downtown area is the boyhood home of Eugene Field where manuscripts of the "Children's Poet" are on public display.

On the west end is one of the city's most beautiful areas, the 1,372-acre Forest Park, which abounds in cultural attractions. Here, since 1919, the nation's largest outdoor theater, the Municipal Opera, has offered a 12-week summer season of light operas, operettas, and Broadway musicals and is annually attended by over 750,000 persons. In the heart of Forest Park is the 83-acre zoo, acclaimed by top European zoo directors as the best in the world. There are over 2,000 animals of 500 species, at home in spacious moated yards, pools, and planted settings. In summer free shows, each in its own 3,000-seat amphitheater, are given by performing chimpanzees, elephants, and lions and tigers.

Other attractions of Forest Park include the City Art Museum with its fine collection of paintings, sculptures and period pieces, and new auditorium; the handsome new St. Louis Planetarium with its "theater of the sky"; the Jefferson Memorial, home of the Lindbergh trophies; and the Jewel Box, a "fairyland" steel and glass conservatory of magnificent floral displays and outdoor gardens.

In southwest St. Louis is the century-old Missouri Botanical (Shaw's) Garden, 70 acres of outdoor gardens, tree trails, greenhouses, and horticultural displays. Its famed Climatron, fully climate-controlled, is the world's most advanced greenhouse. This unusually lighted geodesic dome is a nighttime showplace of St. Louis. Founder Henry Shaw's country residence and a museum on the grounds are also open to visitors.

On Barrett Station Road, beyond the city limits, is the National Museum of Transport. This unique showcase of transportation history contains over 30 locomotives, assorted streetcars, buses, trucks, and horse-drawn vehicles. The Museum of Science and Natural History also offers interesting exhibits in its large new location in the suburb of Clayton.

There are other attractions even as you enter the city. If you arrive by plane, you will see the Lambert-St. Louis Air Terminal, one of the most modern facilities of its kind. If you drive, you can circle the city or go downtown on limited-access expressways. Or if you arrive by train, you may see across from Union Station the Milles Fountain, which depicts the "Meeting of the Waters" in bronze sculpture by Carl Milles. For less than \$4 you can take a three-and-one-half-hour "grand tour" of the city by Gray Line bus.

St. Louis offers almost unlimited entertainment possibilities. It has elegant supper clubs and quaint bistros. It has one legitimate theater, 136 motion picture theaters, and many auditoriums. (Kiel Auditorium alone seats 20,000 persons.) The finest in musical entertainment is provided by the St. Louis Symphony, the St. Louis Philharmonic, the St. Louis Grand Opera Guild, and the Civic Music League.

St. Louis is the home of professional sports teams in baseball, football, basketball, and ice hockey—great contenders all—and of champions in soccer, tennis, and bowling.

In the past decade St. Louis has enjoyed the greatest residential growth in its history. More than 10,000 dwelling units are being built each year, adding to the many gracious homes, high-rise apartments, and new subdivisions already occupied. Serving these

homes are more than 1,000 modern downtown stores and many large, attractive shopping centers in outlying areas.

As a leader in higher education, St. Louis proudly claims one university (St. Louis University) as the oldest west of the Mississippi and another (Washington University) founded before the Civil War. Both are world-famous for research in fields of medicine, chemistry, and engineering. In addition, there are a score of other public and private colleges in the area. Altogether, the public and parochial school systems operate 110 high and nearly 750 elementary schools.

Industrially, St. Louis is one of the nation's richest areas and the only one producing six basic metals. Its manufacturing is extremely diverse; no one major industry group employs more than 14 per cent of the total manufacturing employment. At the strategic heart of the United States, St. Louis is served by 18 trunk line railroads and 300 common and contract carriers, making it the second largest rail and trucking center.

Libraries in St. Louis

Supporting St. Louis' culture and industry are about 225 libraries—public, academic, and special. Largest of these is the St. Louis Public Library, founded in 1865, which operates 20 community branches, three book-mobiles, and a library for the blind. The main or Central Library is less than a block from the 1964 SLA Convention headquarters hotel, a few easy steps for conventioners who want to take a quick "busman's holiday." The Public Library system has 2.5 million books and pamphlets, 38,000 pieces of micromaterial, and 16,000 phonograph records. It lends over three million books annually for home use to nearly 285,000 registered borrowers.

The St. Louis County Library, with five branches, operates the largest fleet of book-mobiles (86) in the United States. This type of operation is necessary to serve nearly half a million persons in 86 municipalities in areas adjoining St. Louis' city limits. The County Library opened in 1947 but already has 435,000 books and attractive, modern facilities. It, too, circulates over three million items each year.

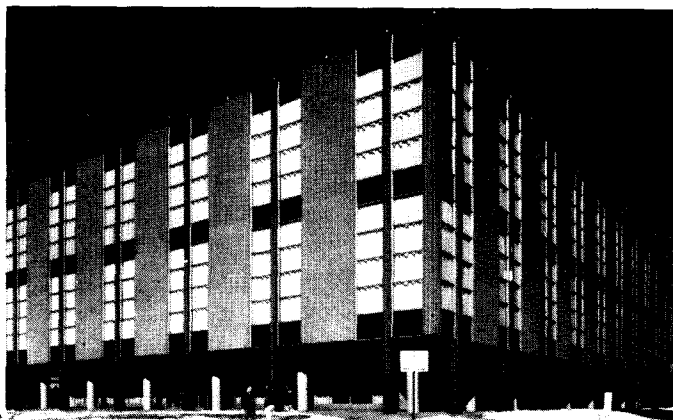


The John M. Olin Library at Washington University combines learning with space.

This city has two outstanding academic libraries: St. Louis University's Pius XII Memorial Library, dedicated in 1959, and Washington University's John M. Olin Library, dedicated in 1962. Each cost around \$4 million and has a capacity for over a million volumes. These new structures, however, are but part of the schools' library systems. St. Louis University, for example, maintains law, medical, dental, and aeronautical libraries besides the Pius XII Library; its combined holdings total nearly 650,000 volumes. One of St. Louis University's special collections is the Knights of Columbus Vatican Film Library of 12 million pages of Vatican documents available in microfilm for the first time in the Western Hemisphere. The Vatican manuscripts date from the fifth to the 19th centuries and represent one of the world's richest collections for the history of European culture.

Washington University maintains 13 school and departmental libraries. Besides the Olin Library, the most recent additions are the Gaylord Music Library, the Steinberg Art and Architecture Library, and the Dental School Library. The collections total over 800,000 volumes. Fields especially well covered are English history, Germanic and

Modern structure of the Pius XII Memorial Library at St. Louis University, the oldest university west of the Mississippi River.



Piaget

Romance languages, literature, medicine, and music.

The academic library is truly many special libraries under one administration. There are, however, over 60 other specialized libraries in the St. Louis area serving commerce, industry, and government. A few may be described briefly.

St. Louis' largest employer (35,000 employees), McDonnell Aircraft Corporation, maintains an engineering library at Lambert-St. Louis Airport. Chief subjects include aeronautics, aerodynamics, electronics, guided missiles, radar, and space technology. Nearby is the Monsanto Chemical Company with its large, modern information center. This center began operations less than three years ago with the merging of several libraries into one collection. It now contains some 50,000 books and reports on a broad range of subjects including business, economics, and all branches of science and engineering.

The Mallinckrodt Chemical Works in north St. Louis has about 5,000 volumes in the field of chemistry. Grove Laboratories, Inc., is served by a technical library of works on pharmaceutical and analytical chemistry, pharmacology, microbiology, and the drug industry.

Long famed for its beer industry, St. Louis has fewer but larger breweries now than in its early history. Two of these are Anheuser-Busch, Inc., and Falstaff Brewing Corporation, both located in the "Dutch" or south side of the city. Each of these has an extensive library of biology, chemistry, engineering, brewing, and malting.

The St. Louis Medical Society, in mid-city, has nearly 50,000 books and several special collections. The city's two major daily newspapers, the St. Louis *Post-Dispatch* and the St. Louis *Globe-Democrat*, maintain special libraries. Two St. Louis utilities, the Laclede Gas and Union Electric Companies, have outstanding collections in natural gas and electrical engineering respectively.

The Missouri Historical Society Library in the Jefferson Memorial Building now contains nearly 100,000 bound books and periodicals and a unique collection of manuscripts relating to St. Louis and Missouri history. The Richardson Memorial Library in the City Art Museum has 15,000 volumes on art and art history. Shaw's Garden has a library of 60,000 books and 100,000 pamphlets, mainly on botany; and the National Museum of Transport has a fine library on transportation.

The city's oldest existing special library is the Law Library Association of St. Louis in the Civil Courts Building. Established in 1839, it is believed to be the nation's oldest law library and now contains about 80,000 books. The St. Louis Mercantile Library Association, founded in 1846, is a subscription library of 190,000 books on general subjects. Its collection of Western Americana is one of the finest in the country.

Among federal libraries in St. Louis are three Veterans Administration Hospital libraries and a United States Court of Appeals law library. In addition, the Army Aviation and Surface Materiel Command has a library on air, rail, marine, and heavy surface equip-

ment. The headquarters of the Aeronautical Chart and Information Center, a separate operating agency of the U. S. Air Force, has five specialized collections of source material for chart production. These include a map library of 2.5 million maps and charts, and a technical library of 40,000 books and scientific reports. Like many other special libraries, these federal libraries are not open for public usage but occasionally lend material by interlibrary loan.

Librarians with other special interests will find the above enumeration of this city's special libraries incomplete. For instance, St. Louis has so many splendid hospitals and medical centers, it would take several more pages merely to list their libraries. Some excellent special libraries are maintained by industries not mentioned and by advertising and insurance companies, banks, churches, and law enforcement agencies.

The 1964 SLA Convention Committee, headed by James V. Jones, plans to distribute a more complete and detailed list of this area's libraries to all registrants in June. We hope you will then "meet us in St. Louis."

SUGGESTED READING

A few publications dealing with St. Louis and its historical background are:

- CHURCHILL, Winston. *The Crisis*. New York: Macmillan, 1949. 522 p.
- LEWIS, Meriwether and CLARK, William. *The Journals of Lewis and Clark*. Ed. by Bernard De Voto. Boston: Houghton Mifflin, 1953. iii, 504 p.
- O'FAOLAIN, Sean. *New Spirit of St. Louis. Holiday*, vol. 27, no. 5, May 1960. 16 p., illus.
- OGLESBY, Richard Edward. *Manuel Lisa and the Opening of the Missouri Fur Trade*. Norman: University of Oklahoma Press, 1963. 246 p., index.
- PUTZEL, Max. *The Man in the Mirror, William Marion Reedy and His Magazine*. Cambridge: Harvard University Press, 1963. 351 p., index.
- SEIFERT, Shirley. *The Key to St. Louis*. Philadelphia and New York: Lippincott Co., 1963. 125 p., index.
- STADLER, Frances Hurd. *St. Louis from Laclede to Land Clearance*. St. Louis: Radio Station KSD and Kriegshauser Mortuaries, 1962. 106 p., illus.

CHARLES GUENTHER, Chief
Technical Library
Aeronautical Chart and Information Center
USAF, St. Louis, Missouri

Coming Events

The ASSOCIATION OF RECORDS EXECUTIVES & ADMINISTRATORS, INC. will hold its seventh annual conference on April 27 and 28 at the New York Hilton Hotel. For further information write to AREA, P.O.B. 4259, Grand Central Station, New York 10017.

An all-day conference on REFERENCE SERVICES FOR FOREIGN AREA STUDIES will be held at the Brooklyn College Library, Tuesday, April 14, 1964. Mrs. Rose Z. Sellers, Associate Librarian at Brooklyn is Conference Chairman, and further information may be obtained from her.

The ninth MIDWEST ACADEMIC LIBRARIANS CONFERENCE will be held at the University of Notre Dame on April 17 and at Valparaiso University on April 18. Further information may be obtained from Victor A. Schaefer, Director of Libraries, at Notre Dame.

The Benjamin Franklin Hotel in Philadelphia will be the 1964 convention headquarters for the NATIONAL MICROFILM ASSOCIATION on April 28-30. For details and reservations, contact Albert W. Dunning, NMA President, at The Plastic Coating Corporation, Holyoke, Massachusetts.

Future SLA Conventions

- 1964: St. Louis, June 7-11, Sheraton-Jefferson and Statler Hotels
- 1965: Philadelphia, June 6-10
Benjamin Franklin Hotel
- 1966: Minneapolis, May 29-June 2
Radisson Hotel
- 1967: New York City, May 28-June 1
Hotel Commodore
- 1968: Los Angeles, June 2-7
Statler-Hilton
- 1969: Montreal, June 1-5
Queen Elizabeth
- 1970: Detroit, June 7-11
Sheraton-Cadillac
- 1971: Seattle
- 1972: Boston
- 1973: Houston
- 1974: Cincinnati

Inside and Out – Everyone Learns about NLW

WE PARTICIPATED in the promotion of National Library Week by advertising our general office library's resources and services.

A colorful window case display of books, magazines, and pamphlets carrying out the current theme stood in our first floor corridor. This brought in reserves for practically everything displayed therein as well as questions of various kinds. It made more employees aware of library services and facilities.

Gay book jackets and an annotated book list of the new titles was compiled and posted on 15 bulletin boards throughout the building along with notices inviting the employees, if they were not already library users, to come in during National Library Week and become acquainted with our services and resources.

ETHEL M. JOHNSON, Librarian
General Mills, Inc.
Minneapolis, Minnesota

THE INFORMATION Center circulated notices to all personnel in the New York Office and to our domestic offices, announcing an exhibit of books by J. Walter Thompson Company authors during National Library Week. We asked anyone who had "written, compiled, illustrated or contributed in any way to a book, fiction or non-fiction" to contact us immediately. In cases where authors were unable to provide copies of their works, the Information Center tracked down and borrowed these books from outside libraries and other sources. Meanwhile, the *J. Walter Thompson Company News* ran a two-page feature on National Library Week and on JWT libraries all over the world. A NLW bookmark was inserted in each copy.

A striking red, white and blue exhibit table was assembled and decorated by the Information Center staff. Each book exhibited was identified by a small card or a NLW bookmark on which the author's name was printed. The whole Information Center area was decorated with NLW posters, streamers, and table cards and, in addition,

a poster with an announcement of the exhibit was put in the reception area on each floor of the company. Finally, a bibliography of all the books exhibited was compiled and distributed.

The results were astounding! Hundreds of people visited the exhibit during National Library Week and some came back two, three and four times to examine all the books thoroughly. As a matter of fact, we had to keep the exhibit up an extra day for this reason. The excitement and interest generated by the National Library Week project has resulted in a continuing increase in use of all the Information Center resources and facilities.

NANCY TERRY MUNGER, Director
Information Center
J. Walter Thompson Company, New York

THE EDITOR of our company magazine, *Cross Sections*, agreed to allocate three pages to a National Library Week article and some additional space for the official poster. NLW was also featured on the cover.

Encouraged by this initial response, I talked to the Public Relations Chief, who made immediate suggestions for more extensive publicity than I had envisioned. He suggested that photographs of the library staff and the library accompany the magazine article and that a panel of four librarians (technical, school, college, and public) appear on WLVA-TV to describe NLW and the resources and services of their libraries. The panel would also visit local high schools for recruitment talks and meet with the mayor to formulate official plans.

The meeting with the mayor was encouraging and was covered by the local press as well as WLVA-TV on both of its evening news programs. The editor of the local paper wrote a glowing (and unsolicited) editorial on NLW eve.

One high school scheduled the panel for the entire junior and senior class assembly—about 200 students. It was a very informal program but evidently quite successful.

Later, we overheard a group of students commenting, "That was the best assembly program we ever had."

VALENTINE L. SCHMIDT, Technical Librarian
Babcock & Wilcox Company
Lynchburg, Virginia

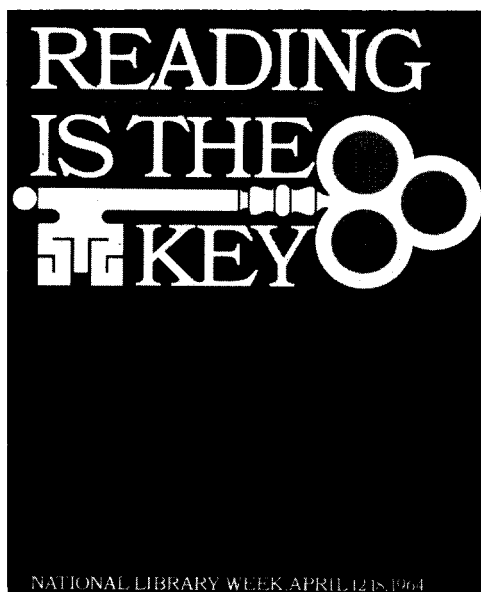
WHILE THE engineers are probably aware of the library's existence, it was thought that the technicians and production line supervisors might not know of our services. It was for these people, as well as the general employees, that we decided to publicize the library during NLW.

Posters were hung near the cafeterias, in several corridors, and on a display table in the employee entrance hall. A "premiere edition" (to our knowledge) of the *SPD Library Guidebook* describing library services and the collection was prepared, and 500 copies were run off. Employees were invited to "help themselves."

The bulletin board outside the library door centered on the theme, "The Library Serves All Your Needs." It mentioned that in addition to electronics publications, the SPD Library also had chemistry, metallurgy, amateur radio, physics, engineering, business, and human relations publications. Inside, another bulletin board drew attention to the importance of indexes for finding wanted information from government contract reports and from periodical literature. New books were on display throughout the week, and visitors were encouraged to sign the reserve list.

Judging from the rapid disappearance of the bookmarks and *Library Guidebooks* from the display table (the table was empty by Wednesday afternoon), at least some of our audience was reached. Many of the people signing our guest book had never been in the library before nor had they known it was there. Circulation boomed with an increase of 20 per cent over the previous week and an increase of over 80 per cent over an earlier week in April! More employees came into the library also, the daily attendance being 65 per cent over the previous week.

MRS. KATHARINE MATCHETT
Technical Librarian, Motorola Inc.
Phoenix, Arizona



SLANLW is Almost Here!
ARE YOU PREPARED?

Don't let it (12-18 April) go by without a whisper. Don't keep it too quiet. National Library Week is tailored for us this year. All kinds of words and ideas will go with the slogan, and the illustration is illustrative. Use the NLW "to do" of newspapers, TV, radio, magazines. Let your clients and potential clients know that you are a part of this important event; in fact, for many of them, you and your library are the most important part.

NLW brings the opportunity to tell your clients what an exciting profession librarianship is. Tell of our common interests and the way we cooperate to make sure that every client gets what he needs as quickly as possible. Let them know that their/your library is a "special library," operated by a member of Special Libraries Association, an international professional organization whose proud and active motto is "Putting Knowledge To Work."

If you haven't a definite plan for your participation to make use of National Library Week, look again at the last three issues of *Special Libraries*. Do something! Taking part is not selfishly for you alone, but helps all libraries. It is the professional thing to do!

This Works For Us . . .

Custom-made Binders

In our library we use a large number of tie binders for assembling material that cannot otherwise stand on the shelf because it is too flimsy, incomplete, or too thick to put in staple-set binders. Much of this material comes prepunched, and the holes do not match those in the ready-made tie binders we buy. Rather than drill new sets of holes, we make "custom-made" tie binders from staple-set binders (and sometimes from old file folders), using the pliers and eyelets that dressmakers use for belts. These are available at the notions counter of any dime store, and the eyelets even come in assorted colors, if you want to be gay about it.

FRANCES RUCKS, Cataloger
Business Library
University of Alabama
University, Alabama

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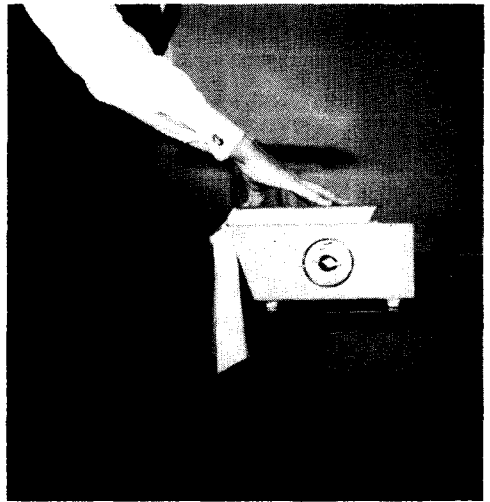
Portable Photocopier

Because the Cargill, Inc. research library is small and Cargill's research interests are wide (business, chemistry, plant breeding, grains and cereals, animal feeds, vegetable oils, paints, construction engineering, international trading . . .), we make many trips to outside libraries for material we need. Sometimes the books or journals we want do not circulate; in most cases, it saves time and money if we do not have to make a second trip to return the material. And in all cases, the college and public libraries are happier if their material is not out when someone wants to use it.

We have licked our problem with a portable, simple, fool-proof, and inexpensive photocopier, which we carry on all our trips to outside libraries. It is, in essence, the *exposure* half of a conventional Kodak Verifax copier. It weighs only seven pounds, and has a simple timing device and an extension cord, which can be plugged into any nearby electrical outlet.

Its operation is extremely simple and virtually perfect (we don't have one failure in

100 tries). It makes good clear copies up to 9 x 14 inches of everything but photographs and picks up small detail (as in chemical formulae, engineering drawings) with excellent fidelity. In practice, it takes only about 15 seconds to make each exposure, after which the exposed master sheet is kept in a black plastic brief envelope until it can be developed. This can be three or four days later without any ill results.



The compact, seven-pound copier plugs in easily anywhere, and its beveled edge permits copying from books with narrow inner margins.

Usually when masters are developed (back in our library) we make three or more copies, sending two to the person who asked for it, keeping one for the library files, and sending others where they may be useful. All in all, it is one of the most useful and time-saving devices we have. Life would be extremely difficult without it. Anyone who would like more information about it can write to me.

GRIEG ASPNES
Research Librarian
Cargill, Inc.
Minneapolis, Minnesota

SPECIAL LIBRARIES

Have You Heard . . .

Training of Information Scientists

An interdisciplinary master's program to train information scientists will be initiated during the fall 1964 term by Lehigh University's Center for the Information Sciences. Courses will include analysis of information, information systems design, general linguistics, syntactic concepts, logico-mathematical theories of retrieval, and environment of information systems. Courses in the University's departments of engineering, mathematics, social relations, economics, psychology, and others will be part of the curriculum, and students will be able to specialize in a systems, behavioral, or logico-mathematical option. Graduate fellowships and assistantships in the program will be available. Part of the program's financial support is from a two-year \$59,880 National Science Foundation grant.

Recent CLR Grants

The Library Technology Project of ALA received a \$66,994 grant from the Council on Library Resources, Inc., for the preparation of a manual on methods of reproducing research materials. The manual, which will take two years to complete, will help in the selection of equipment for specific needs, offer information about the operation of the equipment, and serve as a guide for cost estimating. Methods and processes for reproducing printed and manuscript materials involving microfiche and microfilm will be presented. There will also be a section on current reproduction services in libraries as well as operation case histories. William R. Hawken, author of two LTP reports of a related nature, is editor and principal contributor.

The development of a portable, inexpensive reader-printer for microcopies will be continued by Documentation Incorporated, Bethesda, Maryland, with a \$33,000 grant. Of the reader-printers on the market, none is portable or costs less than about \$600. The proposed reader-printer will be about the size of an attaché case, weigh about 20

pounds, and cost between \$100 and \$200. Doc Inc will manufacture seven working models, five of which will be placed in Washington, D. C., area libraries. The test project is expected to take one year.

A grant of \$70,565 was given to the Library of Congress to continue work on the National Union Catalog of Manuscript Collections, which is being prepared as a card catalog. It is also being published in book form. The first volume, published in 1962, listed more than 7,000 collections, and two new volumes, published by Shoe String Press, Hamden, Connecticut, will be ready sometime this month. Both sell for \$13.50. Once the collections have all been cataloged, it is expected that LC will maintain the Catalog on a continuing basis.

Documents Librarians Directory

To help the American Library Association's Resources and Technical Services Division-Reference Services Division Interdivisional Committee on Public Documents compile a directory of documents librarians or persons responsible for government documents, librarians engaged in these activities are requested to submit their names, titles, and business addresses to Thomas S. Shaw, Chairman, RSTD-RSD Interdivisional Committee on Public Documents, Library School, Louisiana State University, Baton Rouge.

Illinois Libraries Plan

The Library Development Committee of the Illinois Library Association has recently developed a long-range plan to provide state aid for Illinois libraries, which have not kept pace with the growth of the state. The study on which the plan was based indicated that 1) there are one million more people in the state without library service than there were 15 years ago; 2) less than 20 per cent of the public libraries spend \$10,000 annually on books, the minimum amount suggested in national standards; 3) there is the failure of libraries to enter into any large-scale cooperative plan for library service;

and 4) there is an acute space shortage in almost all public libraries. The plan calls for state payments, which would guarantee a minimum of \$1.50 per capita annual library support to communities making a reasonable local tax effort, state financing of locally created cooperative library systems, state financing of four regional resource areas in existing research libraries, and the creation, by the Illinois State Library, of a union catalog and a union list of serials for adult nonfiction titles held by a selected list of public, academic, and special libraries in Illinois.

Library Courses and Workshops

The Graduate School of Library Science at Drexel Institute of Technology will offer an April 6-June 13 course in LAW LIBRARIANSHIP. Classes will meet at the Biddle Law Library at the University of Pennsylvania. The course, which will be taught by Morris L. Cohen, Biddle Law Librarian and Associate Professor of Law, will acquaint students with the Anglo-American legal system and its literature. Tuition for the three-quarter credit course is \$82.50, and applications may be obtained from the Drexel Office of Admissions.

Members in the News

JOLAN M. FERTIG, former Librarian and Head of Technical Information, Westinghouse Research Laboratories, Pittsburgh, retired February 1 after 35 years of service.

DR. WILLIAM N. LOCKE, who has been Director of Libraries and Head of the Department of Modern Languages at Massachusetts Institute of Technology, will devote his entire time to the operation of the libraries and the development of plans and policies to counter pressures of growth.

IRWIN H. PIZER, former Associate Librarian and Research Associate at Washington University School of Medicine, St. Louis, has recently been appointed Librarian at the State University Upstate Medical Center in Syracuse.

DR. PAUL WASSERMAN, Librarian and Professor, Graduate School of Business and Public Administration, Cornell University,

received a \$1,000 grant from the Association of College and Research Libraries to study the application of data processing techniques to library procedures in college and university libraries.

HERBERT S. WHITE, former Manager, Technical Information Center, IBM Data Systems Division, Poughkeepsie, New York, became Director of the NASA Scientific and Technical Information Facility, Documentation Inc., Bethesda, Maryland, on March 2.

Letters to the Editor

FURTHER COMMENTS ON CARLSON ARTICLE

"Having put forth these comments, I anticipate a careful examination of their validity. If they do not accurately reflect the current situation, the facts should be determined and the record set straight."

In this, the next to the last paragraph of his paper, Carlson provides the basis for the critical reaction the special librarian and the information scientist will have. The writer has an obligation to determine the facts before he derives any conclusions; presumably the facts will be used for this purpose. It is a bit of a shock and an appreciable disappointment to find the Director of Technical Information of the world's largest producer of scientific and technical information departing so far from the accepted scientific pattern.

A quick review of some of his conclusions and the basis for them justify the reader's disappointment:

"The technical journal is already dead and is only lying about waiting for a decent burial." Were the circulation statistics of the financial statements of appropriate journals compared for the past several years? Did he relate the number of new journals issued with those which expired? Were the citations of journal articles and the citations to reports analyzed? No, "Responsible observers have declared. . . ." This technique of making a statement and crediting reliable, or usually reliable observers, is a Washington journalistic procedure which, fortunately, has not yet been adopted by serious writers.

"Former methods of controlling vocabulary used in the storage and retrieval of documents are no longer adequate." There are several schools of thought on indexing and the requirements for thesauri and glossaries. There are retrieval systems that search the natural language unhampered by glossaries, and there are carefully controlled indexing vocabulary systems. Even the most conservative of these, the Library of Congress Subject Heading List, is kept current, albeit in a deliberate and belated fashion, by frequent supplements. The document indexing activities have formalized techniques for expanding its indexing terms to accommodate the addition to its vocabulary.

"The technical library's importance in the flow of information among scientists and engineers is declining." This is not in accord with the growth in numbers of special libraries reported by Dr. Burton W. Adkinson in his John Cotton Dana Lecture at Catholic University in 1962—special libraries increased from 765 in 1941 to 1,600 in 1947. According to Dr. Anthony Kruzas, the number of special libraries and information centers in the United States and Canada, predominantly special libraries, exceeded 10,000 in 1962.

". . . Federal libraries have been unwilling to accept technical reports as 'published literature' subject to normal bibliographic control. . . ." First, reports are not published literature. Second, the librarian is not provided with the commercial services for the report literature available for the published literature. Third, the people who are subjecting or have subjected the report literature to bibliographic control are librarians or librarian-influenced people: AEC, ASTIA (DDC), NASA, OTS, and private industry are replete with librarians who have contributed to the solution of this problem.

". . . Librarians have insisted on continuing to use ancient and outmoded concepts of subject classification." Librarians must bear the brunt of the criticism for the innovations in the subject approach to literature. Ranganathan has been pushing faceted classification for years. Taube claims responsibility for uniterms and coordinate indexing. Garfield is selling a citation indexing service. All librarians.

In view of this, it would appear that a delineation of facts prior to the recording of conclusions would have resulted in a different presentation.

G. E. RANDALL
Yorktown Heights, New York

A number of years ago a distinguished librarian defined documentation as "librarianship carried on by amateurs." It has taken many years of solid professional work on the part of organizations like the Technical Information Service of the Atomic Energy Commission, certain groups within IBM, a number of outstanding special libraries and information centers in government and industry, and, if I may be permitted the immodesty, Documentation Incorporated, to rebut this charge and to establish documentation or information center operation as a professional activity and a natural outgrowth of special librarianship. It is therefore regretted that present attitudes within the Department of Defense threaten the desired professional rapprochement between special librarianship and documentation as two aspects of applied information science.

Mr. Carlson contrasts modern indexing with the librarian's use of "ancient and outmoded concepts of subject classification." The failure of many newcomers to the documentation field to realize that American librarianship has long distinguished and

separated subject shelf classification from alphabetical subject catalogs (or dictionary catalogs), is one of the things which justifies the librarian's conclusion that the documentalist is an amateur. With minor exceptions, American librarianship has long discarded the classed catalog as a subject approach to its collections. There is a movement centered in England and supported in this country by the National Science Foundation to reintroduce "ancient and outmoded subject classification" into the work of information centers, but I rely on the good sense of American librarians to reject this retrogression.

Finally, I must agree with Mr. Carlson that all is not completely well with American librarianship. Anyone can determine this for himself who is willing to confer and work with those library schools that are most deeply concerned with the educational requirements for librarianship of the future. There is an enormous ferment within our profession. Let us hope that this ferment will become neither flat nor vinegary in the face of impatient and unwarranted attack.

MORTIMER TAUBE, Chairman of the Board
Documentation Incorporated
Bethesda, Maryland

NATIONAL LIBRARY-SECRETARIES WEEK

In 1963 NLW and NSW occurred simultaneously. If it happens again in 1964, let's campaign for all men to take their secretaries to the library this week. The girls would really go for Papa Dewey if we showed them his simplified spelling in Melvil Dewey's Introduction in "Dewey Decimal Classification."

Our secretaries are not poor spellers. Those I know are conscientious dictionary users, and they are interested in the boss' work when they understand it. For NLW we plan to prepare a bibliography (i.e., book and magazine list) of introductory books and journal articles in the fields of our interest, writings that the secretaries (or wives) can understand and that will also broaden their vocabularies. The books and journals will be on exhibit and available for loan to them.

READING IS THE KEY to a better understanding, a better salary, the boss' heart. (Poetic license #4/12-18/64.)

LOYD R. RATHBUN
SLA Special Representative
National Book Committee

Off the Press . . .

Book Reviews

A LIST OF GEOGRAPHICAL ATLASES IN THE LIBRARY OF CONGRESS, Vol. 6, Titles 7624-10254, with Bibliographical Notes (a continuation of four volumes by Philip Lee Phillips). *Clara Egli LeGear*, comp. Washington, D. C.: Library of Congress, 1963. lxxii, 681 p. \$5.25. (Order from Superintendent of Documents.)

This reviewer wasn't around to comment favorably on volumes one and two in 1909, volume three in 1914 or volume four in 1920, but did review the scope and value of volume five (1958). Volume six of *A List of Geographical Atlases in the Library of Congress*, published during the fall of 1963, sustains the high level of bibliographic description begun in the four early volumes, maintained in the first supplement, and improved in the current volume.

The first four volumes, which appeared under the editorship of Philip Lee Phillips, long-time Chief of the Map Division in the Library of Congress, described 5,324 world, regional, and subject atlases. Volume five, the bibliographic genius of Mrs. Clara Egli LeGear, noted 2,326 world atlases acquired by the Library of Congress between 1920 and 1955. Included in the present volume are 2,647 atlases of Europe, Asia, Africa, Oceania, the polar regions, and the oceans received in LC between 1920 and 1960. Those of the Western Hemisphere and individual countries of North and South America are to be described in a seventh volume now in preparation. Volume eight will provide an integrated author list and index.

In addition to the presently available six volumes and the two planned, Mrs. LeGear was responsible for the two-volume compilation, *United States Atlases* (1950 and 1953). No more complete a listing of atlases exists. In 1962, 24,159 atlases were in the collection of the LC Map Division; 781 were added in 1962-63. No more complete a collection exists.

Arrangement is similar to the other volumes. Following a few atlases for the entire Eastern Hemisphere, there are included a wide variety of special subject atlases, i.e., agriculture, climatology, history, maritime, railroads, etc., for the whole of Europe. Next, general atlases, then those for regional areas, water bodies, and for individual countries and their subdivisions. The same pattern is repeated for Asia, Africa, Australia, Oceania, polar regions, and the oceans.

One of the special accomplishments of volume six is the description of some 800 oriental atlases, mostly Chinese, Japanese, and Korean. Complete contents of the 16-volume, *Monumenta Cartographica Africae et Aegypti* (1,653 reproductions), prepared between 1926 and 1951 by Egyptian Prince Yosuf Kamal, are also noted.

Complete and exact bibliographical citation and bio-bibliographical notes (often extensive) make the work an adventure in bibliography. Complete contents, so helpful in the identification of sheet maps, are given for most atlases published prior to 1820 and for multi-subject and multi-compiler atlases. Contents notes, in any instance, are included liberally to aid the user.

The Author List makes reference to numbers assigned to each title entry. An index includes detailed entries for areas, subjects, map authors, engravers, lithographers, publishers, and atlas titles with distinctive words. Authors of atlases are found only in the Author List, but a publisher, if considered the author, is found both in the Author List and in the index under the entry, Publishers.

This reviewer has had the privilege of watching Mrs. LeGear work at close range as a colleague. She is a meticulous bibliographer, performing the kind of thorough bibliographic description that few libraries can or refuse to afford. Unfortunately, there is too much of the alternative—sloppy or superficial bibliography or relegation to an impersonal and unsympathetic computer. Mrs. LeGear has served as Honorary Consultant in Historical Cartography since December 1961, following her retirement after 47 years in the Library of Congress (46 as Cataloger, Librarian in Charge of Cartographic Acquisitions, Bibliographer, Reference Librarian, Assistant Chief and Head, Reference and Bibliography Section in the Map Division).

The compiler of this *List*, in assuming full responsibility for all shortcomings and inaccuracies that may come to light, will have unlimited leisure and time to give to volumes seven and eight, which are eagerly awaited.

BILL M. WOODS, Executive Director
Special Libraries Association

METHODS OF INFORMATION HANDLING. *Charles P. Bourne*. New York: Wiley, 1963. 241 p. \$12.95. (L.C. 63-20628)

Volume two in the Wiley Information Science Series is a reference intended to provide the designer of information systems with the tools, equipment, and methods needed to meet the problems of information processing. To government and industrial organizations and libraries facing the magnitude of the paper storm in daily decision-making, this non-technical text will be an essential and welcome acquisition. It is easily read and provides good introductory material to the entire field of information.

First, the author recognizes that the problems in information processing are especially pressing in the handling of the world's scientific literature and the organizing of complex commercial and govern-

mental files. The library problems are termed "classic," indicating the non-library emphasis, but those libraries dealing extensively with analyzing literature or with reporting literature will find it useful.

Following somewhat the same organization and approach as other recent texts in this field, the author systematically outlines classification, indexing, coding, and presentation of information. Various handling systems from manual to computer are textually and pictorially illustrated with precision. This includes paper tape, magnetic media, and microfilm systems. The section on manual card systems, however, repeats the Casey volume on data, but this book does serve to update Casey. Where machines are considered, the discussion is concise, and the methods of compressing the information to reduce machine time are given primary attention.

The entire text has been thoroughly documented, providing the reader with many valuable references. However, an index to names of persons and organizations used in the text and footnotes appears in place of a bibliography. Since this text appears to be an expanded and illustrated annotation of the author's original bibliography published in 1958, this cost-cutting device may be justifiable.

In his preface, Mr. Bourne says, "Because of the nature of some of the material in the book, such as the equipment descriptions, the reader should expect that some of this material will be out of date by the time he reads it." Despite the truth of this statement, this title should be part of every special library collection. Its critical approach and clear-sighted presentation provide material for long-term evaluation, as essential as providing the latest information.

H. VOOS and I. HAZNEDARI
Technical Information Section
Picatinny Arsenal, Dover, New Jersey

New Book Distributor

Research Books, Inc., Haddam, Connecticut, has recently started operations as a general supplier of technical and scientific books of all publishers. The firm maintains a carefully controlled book stock to serve special, college, and public libraries. All phases of insurance, chemistry, and space sciences, and nuclear engineering are being handled. All library orders are filled, shipped, and billed from Haddam.

British Journal Looks at Current Librarianship

The December 1963 issue of *The Assistant Librarian*, published in England by the Association of Assistant Librarians, contains the article, "Special Librarianship: a Semi-annual Survey of the Literature." The author, T. D. Wilson, summarizes special library services in many parts of the world. Under national and regional services, he mentions, among others, Canada's National Research Council, the Library of Congress's National

Referral Center for Science and Technology, the National Bureau of Standards research programs, and the proposed Houston technical information center. Many articles published in *Special Libraries* are mentioned including those concerning information handling, indexing, classification, cataloging, and commercial information services.

New York Special Libraries Directory

SLA's New York Chapter has just published the tenth edition of *Special Libraries of Greater New York*, which describes 1,053 special libraries and collections in the New York metropolitan area. The libraries are listed alphabetically under 28 classifications, and an index covers subject, library, special collections, and personnel. Copies may be obtained for \$6 (two or more copies \$5 each) by SLA members and \$12.50 by nonmembers from Beulah Kramer, Metropolitan Life Insurance Company Library, 1 Madison Avenue, New York 10010. Checks should be made payable to SLA, New York Chapter.

Bureau of Census Surplus

The Bureau of the Census is planning to dispose of certain publications and will make them available on a first-come, first-served basis while the supply lasts. Available are volumes one, two and three of the 1946 and 1954 *Census of Manufacturers*, volumes one and two of the 1954 *Census of Mineral Industries*, and the 1955 *Annual Survey of Manufacturers*. Requests should be directed to the Publications Distribution Section, Bureau of the Census, Washington, D. C. 20233.

MLA Congress Proceedings Issue

The January 1964 issue of the *Bulletin of the Medical Library Association* carries the proceedings of the Second International Congress on Medical Librarianship held in Washington, D. C., June

NLW House Organ Article Available

"It's Your Library—and Your Image" is the title of an approximately 650 word article written by William Ruder, President of the public relations firm of Ruder & Finn, Inc., especially for special librarians to submit to their house organs, employee publications, or local newspapers for use during National Library Week. It is open-ended so that individual librarians may add a description of their own collections and services. Copies are available without charge from Association Headquarters.

16-22, 1963. The 360-page issue also gives the officers and committees of the Congress, an alphabetical and geographical listing of the Congress members, and a six-page insert of Congress photographs.

"Sources of Science" Reprints

The Johnson Reprint Corporation has begun a new series of reprints in the sciences called *The Sources of Science*. The series, which will cover ancient times as well as the present, will include collected works of major scientists, comprehensive anthologies of important old texts, and the complete runs of certain journals germane to an understanding of the growth of science. Each volume will be prepared by an authority under the general editorship of Professor Harry Woolf, Johns Hopkins University. The first three titles are *Experiments and Considerations Touching Colour*, *Essays of Natural Experiments*, and *The Mathematical Works of Isaac Newton*. Each volume is being made on quality paper stock, and the format will be as identical to the original as possible.

Biological Abstracts Index Revised

Biological Abstracts' Systematic Index, originally introduced in April 1963 as an indexing aid for taxonomists, now has specific taxonomic information categorized under the phylum, class, or order. In addition, family, genus, or species names can be found in the subject index. Specific changes in the machine-produced 1964 index provide for further breakdowns in microbiology and botany. Subject classifications in *Biological Abstracts* have been changed to correspond with those in the Systematic Index, and the subject headings in *BA* under which the paper appears and the abstract number are noted alongside the taxonomic reference.

Publication of "Choice"

Choice: Books for College Libraries, which reviews trade, university, text, and quality paperbacks, started publication this month. The monthly journal is published by the Association of College and Research Libraries, a Division of the American Library Association. Subscriptions are \$20 a year and \$2 for a single copy, available from the Subscription Department, ALA, 50 East Huron Street, Chicago.

New Serials

CANADIAN LIBRARY HORIZONS is the first permanent publication issued by the Canadian Library Week Council, 63 Sparks Street, Ottawa. This monthly journal analyzes and indexes all Canadian library reports, book and film lists, bulletins, releases, periodical articles, pamphlets, books, and other publications for promoting better communication of library information to the press, other libraries, and interested individuals. Subscriptions, which are available from the publisher, are \$25 a year if the library budget is \$100,000 or more

and \$10 if less than that amount, \$9 for a personal subscription, and \$3 for a single issue.

FEDERAL CONTRACTS REPORT, a weekly information service published by the Bureau of National Affairs, Inc., 1231-24th Street, N.W., Washington, D. C. 20037, covers all significant developments in the field of government contracting. Quarterly subscription price is \$39, available from BNA.

INDEX TO JEWISH PERIODICALS is a quarterly author and subject index to selected American and Anglo-Jewish journals of general and scholarly interest. The first issue was dated June 1, 1963, and there will be an annual cumulation. The yearly subscription rate is \$35 and is available at 16620 Lomond Boulevard, Cleveland 44120.

UITP BIBLIO-INDEX stands for Union Internationale des Transports Publics, and is a quarterly bibliographical card-index of public transport publications. The cards, which are detachable, are printed in the language of the country of the publisher and contain a description of the contents, the title in English, French, or German, and the publisher. Some of the works are available in translation, on loan, or special bibliographies can be compiled upon request. A subscription for four consecutive issues is \$20, available from UITP, 18, av. de la Toison D'Or, Bruxelles 5, Belgium.

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BASSAM, Bertha, et al. Training for Technical Services. *Library Resources and Technical Services*, vol. 8, no. 1, Winter 1964, p. 35-46.

BLOOMQUIST, Harold, co-author. The Impact of the Behavioral Sciences on the Collecting Policy of Medical School Libraries. *Bulletin of the Medical Library Association*, vol. 52, no. 1, January 1964, p. 220-33.

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BRODMAN, Estelle. Education for Medical Librarians Around the World. *Bulletin of the Medical Library Association*, vol. 52, no. 1, January 1964, p. 99-116.

FLEMING, Thomas P., co-author. Moderately and Heavily Used Biomedical Journals. *Bulletin of the Medical Library Association*, vol. 52, no. 1, January 1964, p. 234-41.

FLORES, Raquel, et al. El Instituto de Nutrición de Centro América y Panamá: Servicios de Información Científica en una Región en Vía de Desarrollo. *Bulletin of the Medical Library Association*, vol. 52, no. 1, January 1964, p. 196-201.

FRASER, M. Doreen E. Recent Developments in Canadian Medical Libraries. *Bulletin of the Medical Library Association*, vol. 52, no. 1, January 1964, p. 300-6.

GRECH, Anthony P. and ANDREWS, Joseph L. comps. A Bibliography of Selected Materials on International Financing and Investment. In McDaniels, John F., ed. *International Financing and Investment*. Dobbs Ferry, N. Y.: Oceana Publishers for the World Community Association, Yale University, 1964, p. 561-720.

HOLLEMAN, W. Roy. Special Librarians and the Information Explosion. *Arizona Librarian*, vol. 20, no. 4, Fall 1963, p. 11-13.

HOLMAN, William R. Mishandled, But a Landmark. *Library Journal*, vol. 88, no. 22, December 15, 1963, p. 4698-4700.

JORDAN, Robert T. Lighting in University Libraries. *Unesco Bulletin for Libraries*, vol. 17, no. 6, November-December 1963, p. 326-36.

ORNE, Jerrold. Transliteration of Modern Russian. *Library Resources and Technical Services*, vol. 8, no. 1, Winter 1964, p. 51-3.

PIZER, Irwin H. Source Materials and the Library: The Dispersion of the Beaumont Papers. *Bulletin of the Medical Library Association*, vol. 52, no. 1, January 1964, p. 328-36.

REES, Alan M. Semantic Factors, Role Indicators et alia: Eight Years of Information Retrieval at Western Reserve University. *Aslib Proceedings*, vol. 15, no. 12, p. 350-63.

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SHARP, HAROLD S. No One Man Can Do Everything. *Trained Men*, vol. 43, no. 4, January 1964, p. 10-12.

SHAW, Ralph. Too Much, Too Fast. *Library Journal*, vol. 88, no. 22, December 15, 1963, p. 4688-90.

TAUBE, Mortimer. The Coming of Age of Information Technology. *Bulletin of the Medical Library Association*, vol. 52, no. 1, January 1964, p. 120-7.

WADDELL, Mary S. The CDC-CDCR Documentation Project. *Bulletin of the Medical Library Association*, vol. 52, no. 1, January 1964, p. 137-41.

YAST, Helen. ". . . And Gladly Teach": The American Hospital Association's Experience in Conducting Institutes on Hospital Librarianship. *Bulletin of the Medical Library Association*, vol. 52, no. 1, January 1964, p. 81-9.

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Librarianship

ASH, Lee. *Yale's Selective Book Retirement Program*. Hampden, Conn.: Archon Books, 1963. xii, 94 p. \$4. (L. C. 63-17389)

Summarizes the conclusions drawn from a three-year study, carried out under a grant from the Council on Library Resources, on the problem of overcrowded library stacks, and finds that selective book retirement, while easing the situation, is not an ultimate solution.

CHAPLIN, A. H. and ANDERSON, Dorothy, eds. *International Conference on Cataloging Principles: Report*. London: International Federation of Library Associations, 1963. viii, 293 p. pap. \$9. (Available from American Library Association, Chicago)

The proceedings of the Conference held in Paris in October 1961 with the cooperation of UNESCO and the Council on Library Resources. Included are summaries of the general session discussions, resolutions of the conference with the text of the statement of principles, reports of the sectional group meetings, the complete texts of the 17 working papers, and a list of participants and observers.

WHITTAKER, Kenneth. *Using Libraries*, 2nd ed. New York: Philosophical Library, 1963. 144 p. illus. \$6.

"Previous knowledge of the working of libraries is not needed to understand the contents of this book," writes the author, hoping it will appeal to "the general public, to older schoolchildren, to students and to teachers . . . (and) to entrants to the library profession. . . ." The information contained is elementary and detailed. Index.

Bibliographic Tools

ANDERSON, Frank J. *Submarines, Submariners, Submarining: A Checklist of Submarine Books in the English Language, Principally of the Twentieth Century, Arranged by Author, Title, and Subject*. Hamden, Conn.: Shoe String Press, 1963. xii, 140 p. \$4. (L. C. 63-22083)

Over 400 works, including translations into English, fiction, juveniles, and some pamphlets and government documents.

Recent References Correction

The book, *Recruitment and Training of Staff and Support of Staff Dissemination Activities at the American Library Association Library 21 Exhibit Seattle World's Fair*, by Gordon P. Martin, as listed on page 662 of the December 1963 *Special Libraries*, implied that copies were available from the publisher. Copies may be obtained from the American Library Association, 50 East Huron Street, Chicago.

BLACKBURN, G. F. *Bibliography on Ignition and Spark-Ignition Systems* (National Bureau of Standards Miscellaneous Publication 251). Washington, D. C.: U. S. Department of Commerce, 1963. 26 p. 15¢. (Available from Superintendent of Documents)

Contains about 730 references to books, papers, and reports on the ignition of combustible gas mixtures (by electric arcs and sparks and by hot surfaces, but not by compression) and on ignition apparatus (chiefly ignition systems and components for internal combustion engines). Supersedes NBS Circular 580, same title, issued in 1956.

BOWERS, Fredson, ed. *Studies in Bibliography: Papers of the Bibliographical Society of the University of Virginia*, vol. 17. Charlottesville, Va.: University Press of Virginia, 1964. [iv], 258 p. plates \$10; \$7 to members of the Bibliographical Society of the University of Virginia.

"The Suppressed and Altered Passages in Blake's *Jerusalem*," "A Computer Concordance to Middle English Texts," "Milton and the Harvard Pindar," "Light on Joyce's *Exiles*?" . . . in all 17 essays and "A Selective Check List of Bibliographical Scholarship for 1962" make up this annual volume.

CAMPBELL, Irene R. *The Role of Fluoride in Public Health: The Soundness of Fluoridation of Communal Water Supplies, A Selected Bibliography*. Cincinnati, Ohio: Kettering Laboratory, University of Cincinnati, 1963. vi, 108 p. pap. Apply.

Detailed annotation with abstracts from the literature. Glossary of terms; author and subject indexes.

CLARK, Willie E., et al., eds. *Index to Conferences Abstracted in Nuclear Science Abstracts* (TID-4043). Oak Ridge, Tenn.: U. S. Atomic Energy Commission, 1963. viii, 68 p. pap. Apply.

A permuted title index providing access by date, place, conference number, report number, and significant title word to published conference proceedings abstracted in *Nuclear Science Abstracts*.

DOPKOWSKI, Philip L., ed. *Selected Bibliography on Indexing in Science and Technology: Theory, Application and Techniques*. (American University Bulletin No. 9). Washington, D. C.: Center for Technology and Administration, American University, 1963. xiv, 101 p. pap. spiral binding. \$2.50.

Annotations to 130 books, articles, bibliographies, and journals useful in the indexing of scientific and technological material, with an author index, a permuted title index, and a permuted descriptor index.

DUIGNAN, Peter and GLAZIER, Kenneth M. *A Checklist of Serials for African Studies, Based on the Libraries of the Hoover Institution and Stanford University* (Hoover Institution Bibliographical Series XIII). Stanford, Calif.: Hoover Institution on War, Revolution, and Peace, Stanford University, 1963. vi, 104 p. pap. \$3. (L. C. 63-21090)

Over 1,400 serial titles (about 200 of them newspapers) are listed, and the issues held in the Stanford and Hoover libraries indicated. General arrangement is alphabetical by title; for newspapers by country.

HOUSING AND HOME FINANCE AGENCY. *Bibliography on Housing, Building and Planning for Use of United States A.I.D. Missions*. Washington, D. C.: 1963. ii, 43 p. pap. Apply.

Prepared for the Agency for International Development for use in its overseas programs, this is a selection of recent books and periodicals available in the United States. Brief annotations when titles are not self-explanatory. Arrangement by subject; directory of publishers; author index.

U. S. DEPARTMENT OF COMMERCE, OFFICE OF TECHNICAL SERVICES. *Chinese Mainland Science and Technology* (OTS Selective Bibliography SB-442, Supplement 1). Washington, D. C.: 1963. 40 p. pap. 10¢.

Material from and about Communist China added to the OTS files during the period March 1961 through August 1963, arranged under the headings: agriculture; biological and behavioral sciences; chemistry; earth sciences; engineering; machinery; metallurgy; physics and mathematics; research methods, techniques, and equipment; bibliographies.

U. S. DEPARTMENT OF COMMERCE, OFFICE OF TECHNICAL SERVICES. *Japanese Science and Technology* (OTS Selective Bibliography SB-477, Supplement 1). Washington, D. C.: 1963. 71 p. pap. 10¢.

Material added to the OTS files during the period July 1961 through August 1963, listed under the following headings: biological and behavioral sciences; chemistry; chemical engineering; earth sciences; engineering; food, fish, and agriculture; machinery; materials; metallurgy; physics and mathematics; patents.

VITALE, Philip H. *Basic Tools of Research: An Annotated Guide for Students of English*. Great Neck, N. Y.: Barron's Educational Series, Inc., 1963. iv, 186 p. pap. \$1.95; cloth \$3.95. (L. C. 62-17626)

A selective list of guides, dictionaries, word-books, encyclopedias, literary handbooks, anthologies and histories, biographical dictionaries, indexes, serials, and bibliographies. Author and title indexes.

Dictionaries

GILLHOFF, Gerd A. *Crowell's Spanish-English and English-Spanish Dictionary*. New York: Thomas Y. Crowell Co., 1963. xiii, 1262 p. \$4.95; \$5.95 thumb indexed. (L. C. 62-10998)

Over 80,000 entries with the emphasis on Latin American usage. Commercial, legal, technical, and scientific terms are covered as well as much slang and colloquial speech. Sandwiched between the

two sections is a series of vocabulary-building illustrations.

LAPIDUS, B. A. and SHEVTSOVA, S. V. *Learner's Russian-English Dictionary*. Cambridge, Mass.: M.I.T. Press, 1963. xxii, 688 p. \$5. (L. C. 63-21744)

FOLOMKINA, S. and WEISER, H. *Learner's English-Russian Dictionary*. Cambridge, Mass.: M.I.T. Press, 1963. 744 p. \$5. (L. C. 63-21745)

Two volumes, originally published by the State Publishing House of Foreign and National Dictionaries, Moscow, 1962. Each contains a basic vocabulary of 3,500 words and is designed for use in the first two years of Russian language study. Supplement contains grammatical tables, lists of inflectional and derivational suffixes, a guide to Russian pronunciation, and an essay on the relationship between Russian sounds and letters.

QUEMNER, Thomas A. *Legal Dictionary: French-English, English-French*. Paris: Éditions de Narvarre, 3 rue Saint-Victor, 1963. ca. 600 p. \$15.

Covers the terminology of law, finance, commerce, customs and excise, insurance, stock marketing, and administration, including the terms accepted by international organizations. Particular attention given to the differences between Anglo-American concepts and those prevailing in France, the apparent similarities being often misleading.

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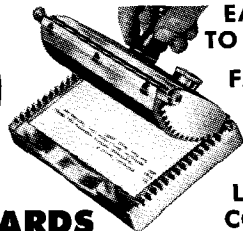
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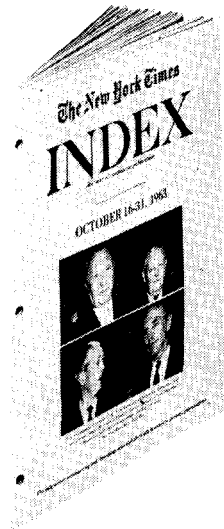
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