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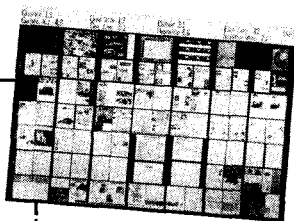
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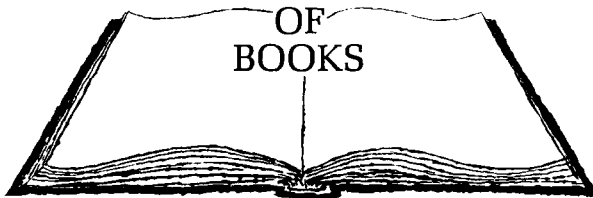
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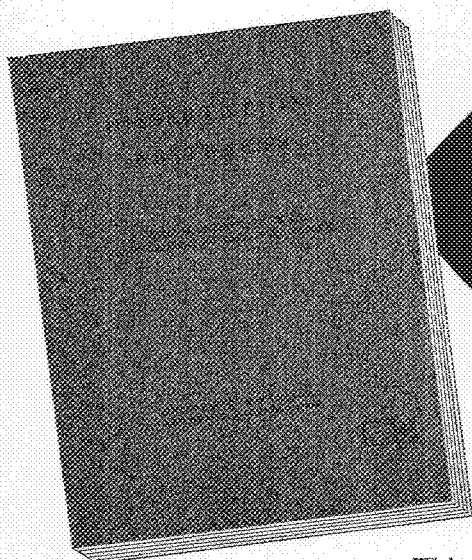
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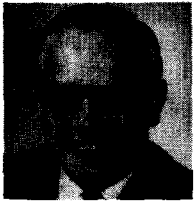


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The Research Librarian in A Challenging Age

WALTER M. CARLSON, Director of Technical Information
Department of Defense, Washington, D. C.



THE PRESSURE wave from the world's exploding technology has rattled the windows of the research library, disturbing its customary tranquility and stimulating the alert librarian to seek new approaches to conceiving and fulfilling his responsibilities. In today's challenging environment, science and technology are changing, and innovations appear almost too fast to be individually recognized and assimilated.

What is being asked of the research librarian? How can the wide-ranging needs of engineers and scientists who are trying to keep afloat in the high tide of technical information be satisfied? The composite answer to these questions may be widely different from the traditional concept of the research librarian's task—and possibly unwelcome. But, viewing the sweep of activity in every phase of research, one must acknowledge the inevitability of change in any associated field. This is the background against which I draw my picture of the research librarian and his duties.

Defense Program of Technical Information

Whether they serve government or private industry, research libraries have much the same function. Thus, a summary of the activities sponsored by the scientific and technical information program of the Department of Defense is entirely relevant to this subject.

To understand the work being done in this program, it is necessary first to establish its

basic objectives and then to identify organizational responsibilities, formulate first principles, and assign priorities. These are the issues that determine long-term trends.

There is really only a single basic objective of the Defense Department's scientific and technical information program—to improve the effectiveness of its programs in research, development, test, and evaluation (RDT&E). In the framework of the research librarian's job, the object is to provide a service that will help Defense scientists, engineers, and managers do a better job. Ultimately, everything we do in our technical-information programs will be measured against this one objective.

Some clear-cut decisions on organization were made during the past year. Fundamentally, Defense technical information programs are made up of decentralized operations for which a certain amount of central policy direction is provided. There is no over-all "czar"; there is no central committee that makes all the decisions. The relationship between a technically trained person and the information he needs to do his job varies too much and is too poorly understood for operating controls to be placed anywhere but at his working level. No one can tell a librarian how to work with the local technical staff; it is hard enough for them to communicate effectively as it is. That is why our libraries operate on a decentralized basis and why they will continue to do so.

First principles are generally a matter of individual credo; thus, an activity's patterns often reflect the personal convictions of its director. For this reason, here are the most important technical aspects of my job as I see them; all are matters of first principle (the order of appearance is not significant):

- People communicate ideas in natural languages.

Based on talks given at the Washington, D. C. Chapter of Special Libraries Association in May 1963 and the Military Librarians' Workshop in Washington, D. C., in October 1963.

- A document is one thing; the information it contains is something entirely different.
- More money should be spent on input than on output.
- Modern information-processing technology demands inverted indexing.
- Users must specify the services to be supplied—or the product or output.

The essential priorities have been set during the past year. Our chief attention has been given to reorganizing the largest of all technical report libraries, the Defense Documentation Center. We have done more than give ASTIA—the Armed Services Technical Information Agency—a new name. Its mission has been newly stated. Its operations have been the subject of a detailed study. Its place in the Defense organization has been reassigned, and it has moved to a new location. A new mechanization program has been undertaken. And much more is yet to be done in our effort to improve the handling of documents in the Department of Defense.

Next in priority is the handling of information. Defense now budgets at least \$10 million a year for specialized information centers. Up to now, their birth, active life, and burial have not been fully documented, but well-defined guides are now being developed.

Programs of research and development in the information sciences are third in line of priority. The Department of Defense spends as much as the National Science Foundation for R&D on identifiable information activities, and we probably spend several times as much for R&D in areas related to the information sciences in some indirect manner.

Defense libraries, journals, symposia, and primary production activities are considered to be operating sufficiently well that no priority attention is required at present.

We have also announced the most far-reaching of our new plans—a comprehensive survey of how technical people in the Department of Defense use information. We don't know the answer now, and we must find it out before we can design useful information systems for the future. We expect to complete the survey about the end of 1964.

The Army recently started work on the comprehensive development of three or four new approaches to handling information, especially data on chemicals. The Air Force sponsored a meeting in Dayton, Ohio, during the first week of October 1963, whose object was to formulate a similarly comprehensive approach to its technical-information problems. Both of these efforts will strongly affect the ability of the Defense Department to serve its scientists and engineers with regard to technical documents and technical information.

There is no doubt that the real pay-off to Defense—and to the taxpayer as well—will come from a fully coordinated program in which technical data and information are handled swiftly, accurately, and completely through the successive phases of RDT&E and on into procurement, production, installation, operation, and maintenance, with the requisite feedback from each phase. It is reasonable to predict that, during the next ten years, Defense will devote more time and money to packaging technical data and information on logistics than will be used for all the rest of its scientific-information-handling activities.

Defense Research Libraries

The system of research libraries in the Department of Defense plays an important role in its over-all technical-information program. The following summary by Mrs. Ruth Hooker is an excellent description of our research libraries:

... The DOD has a decentralized library system in its R&D activities with each library responsible to the agency it serves. While this is true formally, informally the librarians have so inter-related themselves that each library in part relies on others to completely fulfill its mission, and thus there has developed a library system. This interrelationship is nourished through such library meetings as those of the Special Libraries Association, Military Librarians Workshop, or the Councils of Librarians, East and West Coast Naval Laboratories. It is also nourished day by day through information exchange and inter-library loan and through the construction of such tools as union lists of serials, which are lists of journals showing which journals are in which libraries, or as consolidated catalogs of the holdings of a number of libraries. Being able to draw on one another's resources, as well as on resources of non-DOD

libraries, allows the alert librarian to have almost limitless coverage of the world's literature.¹

In counterpoint to this description of the Defense system of research libraries, Harry Cook has offered the following highly pertinent suggestions, which I believe reflect the primary concerns of our Defense librarians:

1. Consideration should be given to the determination of the proper place of research libraries in the parent organizational structure, in order that the most efficient and effective library service is provided.
2. Libraries should be staffed to meet the total requirements which are placed on them both with respect to timely reaction to current needs and the meeting of future requirements.
3. Studies in depth should be made in such areas as funding support, procurement policies, statistics and reports, inter-library cooperation, use of mechanical aids and other related topics of library management, organization and service.
4. Greater cooperation should be established between library users and those who provide the service.
5. Research libraries need greater recognition and better support by management.²

With regard to Mr. Cook's first suggestion, I consider that the Defense research libraries serve a useful function and should remain active in our program. Insofar as I can determine, top management looks upon librarians as hard-working, dedicated, and often overworked professionals. It is becoming apparent to me, however, that the upper management echelons have little information concerning either the cost or the benefits of library services. At the moment, the general acceptance of our libraries as useful activities is based on faith in the centuries-old library tradition.

Some major trends that are emerging in the field of technical information pose certain challenges, especially to librarians. One significant trend is in the decline of the tech-

nical journal as a means of promptly conveying scientific and technical information. Responsible observers have declared that the technical journal is already dead and is only lying about waiting for a decent burial. It seems that the journal's function is being taken over by the technical report literature, and current emphasis on the handling of technical reports is accelerating the trend.

A second development in the technical information field, a trend that is likely to go on indefinitely, is the explosive enrichment of our technical vocabulary by the introduction of new terms and concepts derived from discoveries and breakthroughs in the expanding science and technology of this decade. Former modes of controlling vocabulary used in the storage and retrieval of documents are no longer adequate in the face of this sudden, overwhelming growth in the technical language.

Trend number three stems from the encouraging fact that more and more administrators at high levels are recognizing that the communication of technical information is an integral part of the work itself. No better indication of this can be found than the opening sentence of President Kennedy's foreword to the Weinberg Report:

One of the major opportunities for enhancing the effectiveness of our national scientific and technical effort and the efficiency of Government management of research and development lies in the improvement of our ability to communicate information about current research efforts and the results of past efforts.³

There is a fourth trend that could profoundly influence the technical capabilities of this nation—a fast-growing segment of our top-notch scientists and engineers are finding it profitable to devote ten to 25 per cent of their time to extracting, evaluating, and reporting on results of work in their specialized fields. The technical-information sciences will benefit enormously from this welcome departure from the conventional, outdated view of the laboratory or the drafting room

1. HOOKER, Ruth H., Librarian, Naval Research Laboratory, "Defense Department Libraries: Introduction." Paper presented at the Department of Defense Scientific and Technical Information Meeting, March 15, 1963.

2. COOK, Harry F., Chief, Air Force Libraries Section, "The Department of Defense Research Library Resources." Paper presented at the Department of Defense Scientific and Technical Information Meeting, March 15, 1963.

3. PRESIDENT'S SCIENCE ADVISORY COMMITTEE. *Science, Government, and Information*. Washington, D. C.: Government Printing Office, January 10, 1963.

as the only proper sphere of activity for the dedicated scientist or engineer.

A number of other influential trends could be listed—anyone interested in technical information could name a few more—but one broad trend appears to be of dominant concern. During the past year many librarians have told me that they feel the technical library's importance in the flow of information among scientists and engineers is declining. I believe that a trend in this direction does exist and that it has been stimulated by the way some libraries have responded to basic challenges over the last ten or 20 years.

Perhaps it is time to bring our library system, as an integral part of the RDT&E process, into sharper focus. By a simple, straightforward exercise, we may visualize the function of the research library. Imagine that the library operation is abruptly removed from its status as an item of overhead expense and that the staff is told to provide financial support by charging a fee for each service. (This idea is neither radical nor original; a major technical library that serves thousands of scientists and engineers in the defense and space industries on the West Coast has been operating successfully on this basis for years, and its customer list continues to grow.)

Under these hypothetical conditions, half a dozen new factors would be forcibly brought to the librarian's notice:

1. As libraries now face increasing competition from other information sources, management should be furnished a definite measure of the technical staff's willingness to support a library.
2. There would be maximum incentive for libraries to examine their services in relationship to the actual information needs of the technical staffs.
3. Libraries would develop a keener sense of management responsibility for cost control, and the effectiveness of their technical personnel would improve.
4. On the other hand, libraries would be relieved of the many artificial and arbitrary accounting and personnel procedures that top management imposes to control overhead costs.

5. Libraries could at any time evaluate new techniques or hire personnel with a wider range of technical talent in the light of the direct customer-support factor instead of having to consider such matters only at the appropriate time in the annual budget cycle.

6. Libraries might find themselves competing with each other in addition to other information sources, because the customer, as usual, will seek the best service available for the money.

This approach to analyzing a library's effectiveness is recommended to anyone who is seriously interested in improving its organizational status and management's attitudes with respect to this type of information service.

Conclusions

In summary, here are some of my thoughts on these matters:

Within the broad pattern of scientific and technical information, the research libraries and their associated staffs are fitting effectively into a rather clearly defined role—a role in which they serve a primarily archival function and are mainly concerned with the published literature. Furthermore, in the face of many challenges, librarians have chosen this role for themselves.

To these challenges, which have been building up over many years, the libraries have reacted so passively that, to satisfy the developing information needs, new approaches outside the traditional library concept have been created. Here are some illustrations:

Item: Because federal libraries have been unwilling to accept technical reports as "published literature" subject to normal bibliographic control, the Department of Defense, the Atomic Energy Commission, and the National Aeronautics and Space Administration have set up large document operations similar to libraries but designed to serve their technical information requirements.

Item: Despite the rapid development of interdisciplinary approaches to science and engineering, librarians have insisted on continuing to use ancient and outmoded concepts of subject classification. Consequently, techniques for the storage and retrieval of docu-

ments that are completely outside the scope of today's library operations have been independently developed.

Item: The ingrained cooperation among librarians, originally developed for the laudable purpose of facilitating the joint use of collections, has been misused—probably inadvertently—to unify their resistance to technical people's demands for new kinds of services. Under these conditions, library service in general has gravitated to its lowest common denominator, a familiar phenomenon of noncompetitive situations. And, as a further result, the research library has lost many of the men and women who are most strongly motivated toward change or best equipped to supply the desired new services within the library's operational scope.

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. But what if I am right?

The library profession has a vital stake in ensuring that the research library reacquires and strengthens its basic utility as a tool of the information sciences. In this effort they will be encouraged and supported by every person who has even the slightest need for technical and scientific knowledge—and, today, that need is so comprehensive as to be nearly universal.

EDITOR'S NOTE: Since Mr. Carlson has stated in his conclusion that he anticipates a thoughtful examination of the validity of his remarks, two technical librarians were asked to review his paper and submit their carefully considered reactions to it. Their comments follow, and additional evaluations will be welcome as "Letters to the Editor."

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It is with deference and no intent to sound impertinent that I presume to question the statements Mr. Carlson has made. Since I am a technical librarian who relies heavily on the services of Department of Defense, I think he would like to know my reaction to his article.

The over-all impression I have is one of confusion as to just what kind of library he

is talking about. In his opening statements, the background he draws is not a picture of the research library of industry. We have never been tranquil. We, whose existence is so closely tied to the corporation of which we are a part, have always been subject to the vagaries of profit and loss. I agree with his definition of what our objective is—but it refutes the picture he presented in his first sentence—that of a non-existent tranquility. What we need first then is a definition of what he means by "research library" and "technical library," which he seems to use interchangeably.

Perhaps if the problem of semantics were solved, statements such as this would be clear to me: "More money should be spent on input than output . . . modern information processing demands inverted indexing . . . users must specify the services to be supplied. . . . Defense will devote more time and money to packaging technical data and information on logistics than will be used for all the rest of its scientific-information-handling activities."

I would not term the quotations from Mr. Cook "suggestions." I would describe all of the quotations as being entirely self-evident, and I assure Mr. Cook that all points he mentions have long been recognized and, in most instances, effected.

Perhaps Mr. Carlson's point with which I take the greatest exception is his statement relative to the decline of the technical journal as a means of promptly conveying scientific and technical information—that "responsible observers" have declared it is already dead and that the journal's function is being taken over by the technical report literature. From the standpoint of a technical librarian in industry, this is not true. The majority of technical report literature is ephemeral in nature and of limited accessibility. The journal literature is, in general, the reverse. The journal represents, for the most part, a finished product where the technical report usually is preliminary data. "Burying the technical journal" and relying exclusively on the technical report literature arbitrarily excludes all libraries that do not have access to DDC or other facilities through government contracts. This would automatically eliminate

the vital exchange of ideas and research efforts now presented in the leading technical journals.

Such generalized statements about "a fast growing segment of our topnotch scientists" disturb me. I cannot take exception to such statements because I do not know of whom this "segment" is constituted. And where does this "segment" publish the results of its extracting and evaluating for widest possible dissemination if not in the journal literature?

I want to know what kind of librarians Mr. Carlson has spoken with—those who tell him "they feel the technical library's importance in the flow of information among scientists and engineers is declining." If this be true, it is the fault of these librarians with whom he spoke, and I cannot believe they are our kind of technical librarians.

The question of whether or not to make a technical library "pay for itself" by charging direct is one which has long been with us. The library he mentions on the West Coast is one with which I am familiar. I have investigated the problem and am cognizant of the added corporate expenses involved in the accounting departments to post these accounts and charge them to the requesters. I would recommend that, before any industrial firm decides to make its library charge direct, they investigate carefully and by all means talk to the librarians who have had experience with this as well as the users of such service. The "half a dozen new factors" that Mr. Carlson says would therefore be forcibly brought to the librarian's notice do not need a switch from overhead to direct charge to make these actions obvious. To answer these factors categorically:

1. I know of no competition to my own library from "other information sources." We integrate these sources within our program.
2. Our program is based entirely on the information needs of our customers.
- 3., 4., and 5. The technical librarian will rise or fall depending entirely on how well he understands management's problems. I have long held that we *must* understand their problems. I call it "the view from management's bridge"—and it is an impersonal,

professional approach to an understanding of the corporate structure and to the objectives of the corporation. Our whole existence is based on whether or not we can see this view from their bridge and so gear our programs toward a flexibility that can weather the storms created by the vagaries of profit and loss. If management "makes our jobs difficult," it is our fault. It behooves us to see their view so that they, in turn, are able to see ours.

6. I cannot foresee engineers and scientists employed by one corporation "shopping about" at other corporations seeking the "best service available for the money."

In his summary, Mr. Carlson speaks of how librarians have insisted on continuing to use ancient and outmoded concepts of subject classification. I should like him to know that in 1959 we began developing our own system of subject classification because we could find none that adequately indexed the new sciences. When DDC (then ASTIA) began its own project of new subject coverage, we discontinued our efforts, preferring to use ASTIA's as a standardized approach—an approach that has all the earmarks of excellent coverage in the terminology of the new sciences. In addition, we use DDC corporate entry as our authority, again aiming at standardization.

"The ingrained cooperation among librarians . . ." of which he speaks is completely foreign to me as a technical librarian. And I hold that our kind of library service has gravitated to the highest common denominator instead of the lowest, which he claims.

Mr. Carlson, in closing, says "having put forth these comments, I anticipate a careful examination of their validity." I say their validity must be examined. For only an examination will help clarify, in his mind, the objectives of the technical library that is a part of a privately owned corporate structure. I have long held that we are quite different from libraries attached to academic institutions, or libraries attached to any part of the Department of Defense or other government agencies.

Once Mr. Carlson has these differences clearly in mind, I believe, he will see that

these differences are inherent in the basic objective of the technical library, whose *raison d'être* always was and must continue to be service to our users—to provide them with the complete informational support required to accomplish their mission.

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Much of what Mr. Carlson has to say deserves our acclaim, especially his remarks on the growing awareness of information needs, the importance, second to none, of information to scientists and engineers, the tools needed for this purpose, and, finally, the crucial role of the librarian. It is gratifying to hear that DDC is devoting more attention and increasing sums of money to informational needs.

Unfortunately, these valid points are marred by statements self-contradictory in part, unsupported by evidence, often palpably contrary to well-known facts, some so vague as to defy interpretation. Limitations of space and, especially of time, prohibit more extensive comments on this serious indictment of the defense librarian. This is unfortunate, for the time has come for placing his role in the right focus as a purveyor of information. This task is all the more urgent, as it seems to be the fashion to blame him for the ills of this age of paper explosion, galloping technology, and automation.

In the following some of Mr. Carlson's remarks will be examined.

There is an obvious contradiction in his discussion of decentralization versus centralization or coordination. A more urgent need than the one for coordination of government information services could hardly be conceived, not only within DOD, but also encompassing AEC, NASA, and possibly GPO, OTS, LC, and others. This has been the consistent position of the Humphrey Committee and the great majority of defense librarians. But who is to coordinate if not a coordinator? It makes little difference whether we call him "Czar" or anything else, as long as he does the badly needed job, surely not of telling the librarian how to handle his

clientele, but to do away with confusing overlaps and divergencies of these important information centers that are the main resources of the librarian.

To illustrate the point—while NASA provides contractors with microforms in 5 x 8 size for documents, AEC furnishes Microcards 3 x 5 (hardly used), DDC has no such service; AEC uses subject headings of the conventional type in *NSA*, DDC and NASA employ descriptors in *TAB* and *STAR*; DDC controls indexing vocabulary by thesaurus, AEC by a subject heading list, NASA has no definitive list for its indexing terms. This enumeration could be extended ad infinitum. Everybody knows that these differences, which have come about historically, are rarely warranted because of divergent needs of the scientific community. The result is an unnecessary burden on the librarian, who has to assimilate the systems and interpret them to his clientele. Coordination is still waiting for the all-powerful fiat.

However, the speaker's main target is the librarian. The severe charges against the librarian at the end of the speech come somewhat as a surprise after Mr. Carlson's statement, "Defense libraries . . . are considered to be operating sufficiently well that no priority attention is required at present." However, in the concluding section the speaker seems to be of a quite different opinion.

How valid are these charges?

The technical library's importance in the flow of information is declining. This writer, who recently had the occasion to visit a number of defense contractors' libraries, observed quite the opposite, but statistics speak louder than words. One possible way of measuring the importance of libraries would perhaps be the annual amount of documents sent to defense libraries by DDC or NASA, since the speaker sees library functions almost exclusively in terms of documentation. No doubt he will find the rate of increase over the past years nothing short of phenomenal. It must, however, be realized that the librarian is never better than his tools, his most important aids being indexes. If there are, for instance, no complete indexes to cover ASTIA documents before 1960, it is surely not the librarian's fault if he cannot produce

the desirable results, say in a literature search. If it takes upwards from two months to procure a classified (limited distribution) document via channels, this is frustrating to the requester who has to meet a short deadline for a proposal; but, again, the onus cannot be placed on the librarian. Disappointed scientists and engineers are apt to consider him the root of all evil. He is at hand and he has to bear the brunt. In disgust, they may turn to other sources for information, whatever they may be, surely seldom more productive than the library.

The library has primarily archival functions. No user of a well staffed and well equipped library could fail to note the marked change brought about by the concept of the information center. It is quite apparent that wherever an organization can afford such a library, the furnishing of information has become the main library function.

The library is primarily concerned with "published" literature. There are apparently no statistics yet. I have no hesitation in assuming that in the aerospace industry, for one and the most important segment of defense industry, library personnel handling documents outnumber staff assigned to published literature (books and serials combined). The ratio in the writer's library, which is typical, is better than two to one. This may not be true of chemical libraries, which Mr. Carlson perhaps has in mind. Chemical industries are to a much lesser degree involved in defense work where the furnishing of progress reports is a contractual obligation. Chemists, for this and other reasons, publish their findings predominantly in journals.

Libraries have reacted passively to the challenges of the technical age. This statement must be termed a factually unsupported generalization. In the above mentioned though limited survey of aerospace libraries, the writer has found an astounding degree of office automation and mechanized IR. The media of the special librarian abound with descriptions of new mechanized systems introduced in technical libraries all over the country. Of course, it is generally true that libraries did not dash headlong into automation but this, when viewed objectively, is not

a sign of backwardness but of prudence. To this day IR projects are beset by problems that either have not yet been solved or seem to defy solution. Why then should the librarian propose costly systems to his management when he has doubts about their efficiency, usefulness, and acceptability? (See illuminating article by R. Manning Hermes on *The Use of Information Storage and Retrieval Systems*.¹) Nonetheless many have ventured into the practically uncharted territory and taken the risk. Among those was a military library which as early as 1954 installed an automated retrieval system (Naval Ordnance Test Station, China Lake, California²). Another aspect of the mechanization problem is easily forgotten. It requires high capacity companies and the necessary wherewithal to finance such ventures. We consequently find much more frequently advanced information systems in libraries of top defense contractors.

Because federal libraries have not been willing to accept technical reports as "published literature," DOD, AEC, NASA have set up large document operations similar to libraries. It is difficult to see these centers as libraries or outgrowth of libraries. Their function is more akin to that of publishing houses and commercial indexing enterprises such as Chemical Abstracts or the H. W. Wilson Company. No doubt these centers have also library tasks, but these are obviously secondary to the wholesale reproduction and dissemination of documents and index-abstracts in periodical form, i.e. *TAB*, *STAR*, *NSA*. To say that the rise of these centers was brought about by the failure of the original library's documentation service is nowhere borne out by their history. In the case of AEC's Technical Information Services, we see in fact one of the most efficient documentation centers whose creation and organization is due mainly to the efforts of librarians such as Bernard Fry, Melvin Day, I. A. Warheit, and many others.

As to NASA it was again the organization created and headed by a librarian, Mortimer Taube, Documentation, Inc., which almost at a moment's notice took over the gigantic task of documentation presented by the propulsion of NASA into the space field.

ASTIA (DDC) had been under the overall management of military officers until very recently. It was precisely ASTIA where services to defense needs were in dire need of reorientation. As early as 1959, before the Humphrey Committee was even born, a committee of special librarians sought improvements of service for their clientele who had been waiting for reports for weeks and even months.³

Libraries have been clinging to outmoded subject classification. It is not entirely clear which subject classifications the speaker considers outmoded, but presumably it is the subject heading system. If this is so, he must be reminded that our foremost and best organized documentation center, the Technical Information Service of AEC, still uses subject headings in *NSA* and, apparently, is in no hurry to discard them. This fact, of course, does not speak for or against subject headings. It only goes to show that the virtues of this system versus the newer descriptor (Uniterm) system are still open to debate. It is not the purpose of these comments to hold forth on indexing systems. Suffice it to say that it took two years for the Cranfield Project⁴ to compare four indexing systems, including subject headings and Uniterms, and results are far from fully conclusive. It is, however, safe to say that descriptor indexing is on the rise and gradually replacing subject headings. If this transition seems slow to Mr. Carlson, it should be pointed out that a descriptor system without vocabulary control is not acceptable to the majority of documentalists. Progress, therefore, had to wait for the development of the thesaurus. The second edition of ASTIA's thesaurus (the first was quite inadequate) was published a little more than a year ago. Shortly before that the American Institute of Chemical Engineers had issued its thesaurus.

Ingrained cooperation among librarians . . . has been misused . . . to unify their resistance . . . to demands for new kinds of services. Among the many sins with which the librarian has been charged, conspiracy of holding down services to the lowest denominator is unique indeed. Again, the speaker's attention must be drawn to our literature, published and unpublished, the proceedings

of our meetings, and our special projects, for instance the fine work done by Redman and Godfrey on the *Dictionary of Report Series Codes*, to name one of many. It is of course true that innovations almost always have more opponents than protagonists. There is no reason why the librarian should be different. Automation, not familiar to him by background or schooling, must appear uncanny or even threatening at first. This reaction is typical not only for the librarian but for all professionals who are not knowledgeable in computer applications. Yet it is nothing short of astounding how swiftly he has taken to ideas of mechanization in the library once the first fright was overcome. It would be a great error indeed not to see the strength the librarian derives from his close cooperation with his colleagues; for only thus is he able to supply his clientele with publications that his collection lacks. Only in this manner can he keep informed.

The redeeming remark of the speech is its paragraph before the last. Here, at least, Mr. Carlson voices doubts about the validity of his assertions. Why then this scathing criticism before the facts are in?

This writer holds no brief for the high quality of all librarians. Surely we have our misfits as much as any other profession. Yet to single out the librarian as especially opposed to progress and given to laggardness will hardly serve the purpose that we all have in mind—improving the defense information system.

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National Referral Center's First Year

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ONE YEAR AGO in these pages, the then newly established National Referral Center for Science and Technology presented the first public blueprint of its projected activities. The account merely sketched, in broad strokes, what the Center was supposed to do and how it proposed to set about its tasks. What its precise work requirements and capabilities are and should be can now be discussed on the strength of at least initial experience by experiment.

This, then, is an anniversary report with a dual purpose: to fill in some of the gaps in that earlier blueprint as well as to recount the Center's early progress in transforming a blueprint into actuality. To provide a framework for such a report, it is necessary to go back to the basic purpose and the major responsibilities of the Center as originally stated.

The National Referral Center was designed as "a clearinghouse to provide comprehensive, coordinated access to the nation's resources of scientific and technical information," and it was given four major areas of responsibility: 1) the identification of all significant information resources in the fields of science and technology; 2) the acquisition, cataloging, and correlation of substantive and procedural data defining the nature, scope, and capabilities of these resources; 3) the provision of advice and guidance about these resources to any organization or individual requiring access to them by responding to requests for referral assistance and by publishing directories and guides in selected subject fields; and 4) the exploration, through actual operating experience, of the roles and relationships that exist or should exist among the many elements of the scientific and technical information complex.

In each of these areas, the advances the Center has made have taken two forms: measurable, if not always major, progress in

accomplishing the actual work involved, and major, if not always measurable, progress in discerning and understanding the broad implications of that work.

Identification of Resources

Upwards of 7,000 potential information resources have been identified, and this number is growing steadily at a rate of more than 100 each week. Some 3,500 resources have been approached by correspondence and some 2,500 individual responses have thus far been received and are being analyzed and processed. Few of these have been dropped as "not significant." This low screen-out rate and the continuing growth of the file, support the early assumption that "tens of thousands" of resources may exist that in some way serve to meet special demands within various areas of science and technology.

This brings us to the less measurable but important progress the Center has made in conveying to the organizations and institutions it has solicited just what is meant by an "information resource." A year ago, it was said that the Center would be concerned with such resources as libraries, information centers, publications, specialized bibliographic and data services, and the like. As a result, the early months of contact with potential information resources indicated frequent misunderstanding of the Center's mission. Reports from professional societies, for example, covered only publications issued and provided no data on availability of information services. Replies from universities often cited library collections, without mention of other units—research groups, experiment stations, institutes, and the like—which were known to exist and which, through subsequent inquiries, proved to be valuable information resources by virtue of the specialized knowledge they possessed or the

unique collections of nonprinted material they maintained.

Now, the Center's working definition of an information resource—strictly for in-house application—reads: "Any organization, facility, or individual willing and able to give authoritative responses to scientific or technical inquiries out of an existing store of knowledge or expertise." The definition is, of course, still general, but it provides a far more workable base of operations than did the definitions of a year ago. By omitting the word "publication" the Center has been better able to make clear that its function is not that of a reference service and that it does not meet requests for assistance by citing a specific publication or by preparing a listing of bibliographic sources.

The exceptions that govern every rule apply also in this case, however. Indexing and abstracting journals are included among the Center's resources. Such journals represent, in effect, information services in published form and are therefore regarded by the Center as "referral points." Other regular publications are of interest to the Center only to the extent of their titles, which may be quoted in connection with referral to the issuing agency, in case the requester is interested in becoming a subscriber or in applying for a place on a free mailing list.

Acquisition, Cataloging, and Correlation

In the Center's second area of responsibility, major progress has also been made in cataloging and correlating the data obtained on individual information resources and in devising a system of storage and retrieval. A basic record for each resource is established in a standardized format to allow the coherent recording of the numerous and tremendously varied elements of the descriptive and subject cataloging necessary to satisfy equally varied retrieval demands. These elements are entered in a peek-a-boo card system under a carefully controlled vocabulary developed on the basis of the Center's analysis of the "returns" it has received. Although the Center's own indexing vocabulary is thus limited, the basic record in each case reflects—and even permits retrieval by

—the specialized terminology that may have been used by a contributor.

In this task, the Center constantly encounters one overriding problem—that of defining, in generally accepted terms, what an information resource really does. Is "provides reference service" synonymous with "performs literature searches," and if not, why not? Is "answers technical questions" equivalent to "consulting service," and if not, what is the difference in degree? In its efforts to achieve both the subject and the functional precision on which the accuracy of its referral guidance depends, the Center is developing a listing of the many discrete, and possibly definable, elements that make up the three essential areas of any information activity: intake, process, and output. As this listing grows and is refined through the accumulation of thousands of like and unlike variants, it may, as a valuable by-product, provide a stepping stone toward a critically needed common operational language for scientific and technical information efforts.

Guidance and Publishing Services

It is in the third area of responsibility—advice and guidance regarding the resources it has cataloged—that the National Referral Center has given the most tangible external evidence of its work. Since the inception of its referral service in March, 1963, it has received and answered more than 1,000 requests for identification of the information resources applicable to specific needs. The total is not high—a publicity campaign that might have resulted in a mass influx of requests at a time when the Center still had to concentrate its major effort on the input into its system was not desirable—but the varied origins of these requests and the tremendous variety of subjects they cover is encouraging evidence of the need for the very sort of central switching mechanism the Center represents.

Roughly 50 per cent of the requests received have come from industry and commerce, 14 per cent from academic research and non-profit organizations, 18 per cent from government activities, and the remainder from individuals unidentified beyond

name. These percentages were noted very early in the Center's active life, and the analysis of subsequent increments has not altered them in any significant degree. A similar condition exists with respect to broad subject areas: 16 per cent of the inquiries have pertained to the physical sciences, 18 per cent to the biological sciences, 28 per cent to the social sciences, and 38 per cent to engineering and technology. Thus far, the Center's answers to these inquiries have been, in many cases, far more general than the Center considers desirable, but this condition will prevail until the register on which the Center draws and the retrieval system it uses have grown in comprehensiveness and effectiveness. Also, the Center has often cited a larger number of "referral points" than the questioner may have needed or wanted. It has frequently done so because the requester did not identify his need specifically enough or did not indicate the information resources he had already contacted. Nevertheless, as will be noted in greater detail later, initial customer response has been so satisfactory as to induce high optimism for the future.

In addition to answering requests, the Referral Center has begun the preparation of its first directory, which is scheduled for publication in 1964. As presently envisioned, this directory will take the form of a three-volume listing of major scientific information activities. Two volumes, one covering the physical sciences and the other the biological sciences, will be prepared by the National Referral Center. The third volume will be the product of a survey of information resources in the social sciences that is being conducted by the Bureau of Applied Social Research at Columbia University. These efforts are being closely coordinated, and once the Bureau has completed its undertaking, the results of its survey will be incorporated in the register of the National Referral Center for continuing use.

Other directories and guides of a more detailed nature are part of the Center's future publications program. Listings of information resources in highly specialized subject fields and listings by types of service or by geographic area are a possibility, depending on what the Center continues to learn about

information needs from the requests it receives. The form these publications will take is, in other words, closely tied in with the Center's fourth area of responsibility: the exploration of the relationships that exist within the scientific and technical information complex. In this realm, the Center has some patterns of information needs emerging from the statistics on requests cited above. These, however, cannot yet be weighed against the groupings of information resources now in the Center's system, because the input has been dictated by internal work priorities which, in this early stage, were established for the purpose of rapid accumulation rather than for the purpose of obtaining representative population samples. A more evaluative approach is now being taken, which should eventually enable the Center to make some meaningful comparisons between the information resources available, for example, in government, in the academic world, and in industry.

Relationships in Information Complex

With a view toward this fourth, analytical task, the Center is also cataloging its inquiries in the same terms as it catalogs information resources. Essential to this process is a comprehensive "feedback" program initiated in July 1963. The program consists in asking every requester—after an appropriate interval—how he fared in his search for information. The chief question, of course, is whether he obtained the data or material he sought. The inquirer is also asked how many of the resources cited by the Center were previously unknown to him and which resources were the most useful. The final question concerns the requester's evaluation of the services provided by the Center. On this last question, 77 per cent of those responding have indicated full satisfaction with the Center's efforts (a figure commensurate with the Center's high hopes but much higher than actually anticipated); 16 per cent have ranged from qualified approval to qualified disapproval; and 7 per cent have indicated outright dissatisfaction with the assistance received. It should be noted that in the last two categories, dissatisfaction often re-

sulted from a misunderstanding of the Center's function. That the distinction between "reference" and "referral" is not as obvious as it should be is, incidentally, also revealed in hundreds of letters of the "what-do-you-really-do" variety that the Center has received.

A few more statistics may be of special interest. Among the referral requests thus far received, 20 per cent have come from librarians and information activities. Of these—in contrast to the over-all request percentages given earlier—well over two-thirds represent private industry, with government activities ranking second and academic institutions third. The nature of some of these inquiries may also be noted for purposes of clarifying the Center's relationship with other divisions within the Library of Congress. Among these inquiries, a substantial portion pertains to the problems of locating a particular book or specific articles in Soviet and other foreign journals or obtaining photocopies of identified reports and other published materials. In these cases, the appropriate "referral

point" is the Science and Technology Division or the Photoduplication Service of the Library of Congress, to which the Center forwards the inquiry directly. Questions pertaining to addresses of particular institutions have also come in. Such non-scientific or non-technical requests are forwarded to the Library's General Reference and Bibliography Division. Only in these cases—for the obvious reason of immediate proximity—does the Center forward the request itself. In all others, the Center cites the appropriate resources, leaving it up to the requester himself to contact them directly.

That such a large number of inquiries have come from librarians is a welcome fact to the Center. That many of these include "repeat" customers is even more encouraging, and the Center hopes that increasingly close cooperation can be developed both through spontaneous "feedback" from libraries to which the Center has made referrals and through voluntary reporting by special libraries of their capabilities in serving today's science and technology.

A Management Concept of the Modern Special Library

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George Garrett

IT IS IMPORTANT to discuss subjects of vital interest to management and special librarians in the hope of uncovering new information, changing old concepts, or developing new perspectives to guide and improve our efforts. If it is possible to see one's role and relationships in a new light and to change ways of operating or thinking about a service, then this time will be well spent.

Based on a talk presented to the SLA Southern California Chapter, May 24, 1963.

Both positive and negative, favorable and unfavorable management attitudes, concepts, and philosophies should be expressed. Here may be an important key in the development of better understanding among special librarians, their management supervisors, and the host of "customers" who utilize the services of the library.

It is of utmost importance that the true overall function of the organization guide the purposes, goals, and aims of the library. Special interest groups often tend to place their own programs ahead of the interests of the organization as a whole. It is incumbent upon the special librarian to administer the library, not as an end product in itself,

but in support of the total organizational program and goal. One must constantly test and evaluate systems and procedures to check for consistency with the primary goals and purposes of the firm, lest departmental or organizational conveniences become overriding. Imposing unreasonable or unnecessary restrictions on circulation of library materials, or on access to, or use of, the library illustrates a distorted approach to departmental administration. Awakening patients at 6 a.m. to prepare for breakfast, which will not be served until 7:30 or 8 a.m., illustrates subordinating the objective of good patient care to staff convenience.

The special librarian should consider himself an integral part of the active management team and support the essential part played by the library and the librarian in the planning and decision-making activities of the organization. One should not take refuge in the concept of the library as a passive staff or service department, for this would simply invite a shirking of responsibility and shrinking of opportunity. Regardless of the position of the library in the company organization chart, the special librarian is in a position to exert a natural leadership role. He will be vested with authority granted by the users of the service, providing the service is of high quality and influential in guiding the direction of the company program. The librarian must be prepared to enjoy the fruits or suffer the consequences of performing this leadership role.

If management unfortunately places the library relatively low in the formal organization, the librarian might overcome the handicap through sheer ability and high quality of service. If placed gratifyingly high in the organization, the librarian should not miss this opportunity to do as effective a job as is humanly possible. The position in the formal organization can be a facilitator or handicapper but need not be the final determiner of the librarian's extent of influence. The place of the library in the informal organization will be determined by the quality of its program and services.

The librarian should utilize the specialized skills and abilities of other staff members of the organization to improve his own product

and service. He should take advantage of the advice and guidance offered by the various experts and specialists in systems, methods, procedures, work simplification, public relations, and other technical services.

To attract the consumers of the library's services and products, it is vital that these services appear highly important to the user and that the utilization of the library services and products provide substantial benefits for them. Truly, the special librarian is in a most favored position of influence in the organization, enjoying generally free and friendly contact with all levels of the staff. He should enjoy inside information about the organization's projects and plans. Accordingly, the opportunity of providing important service of significant benefit and advantage to the library user should be a completely attainable reality.

Another opportunity to sell one's services to members of the staff and to be influential in the operation of the organization is to accept a variety of possible assignments in an organization. Examples would include working on various management committees, developing educational exhibits around the library, and engaging in a variety of public relations jobs, including contributions to house organs and professional journals. The librarian should be a good "merchandise" of the services of his department, utilizing all of the honest and ethical advertising devices and "specials" of the week. The nature and intensity of the utilization of the library will largely reflect the industry, ingenuity, and imagination of the special librarian.

Among the essential characteristics of a special librarian is the moral and ethical commitment to the job and to the profession. The special librarian must be concerned with the general welfare of society and all mankind and must recognize that his position has potentialities for affecting the destinies of people. There must be within the special librarian the ability to place the primacy of public interest ahead of obligations to himself, his firm, and his profession. Establishing priorities for service from among conflicting requests should not be primarily a matter of *who* but of *what*. Through a thorough knowledge of one's company, by learn-

ing of its needs and of those of its staff, the special librarian is in a position to accept the responsibility attached to this setting of priorities. There is required a sound moral integrity, along with the ability to cope with all types and manner of people and situations.

Relationships with one's superior and with the administration in general should be one of the closest kind of partnership, but with each party recognizing his own clear-cut set of responsibilities. It is certainly well to identify closely with one's superior, but at the same time there is a need to acknowledge that a little bit of conflict can be a good thing. The special librarian should always be thinking and planning ahead, testing limits and bounds, always seeking to break out of current patterns and restrictions. Tactful probing should permit exploitation of opportunities for gains for the department and for himself. The special librarian should alert the administration as to what to expect reasonably from advanced library thinking. In total, he must be prepared to accept and fulfill the roles of specialist, teacher, department head, and administrator. An executive will respond to a competent professional department head, who is confident in manner, convincing in his relationships, and demonstrates his competence by an ability to develop and execute tangible and realistic plans.

In return, a special librarian may expect to receive from his superior full communication about contemplated changes in the organization that will have an impact upon the library and the kinds of services that will be required. He should provide the opportunity for the special librarian to use all of his training, experience, and know-how. Hopefully, he will be receptive to imaginative ideas and thus exert, himself, the leadership required in developing a climate for service and progress. He should encourage the special librarian to develop into a leader, both within the organization and within his profession. Support for the budget, space and other requirements of the library program to the limits of the firm's ability is a realistic and natural expectation by a special librarian of his administrator.

The professional nature of the special librarian's position has, over the past several

years, been amply illustrated. The special librarian's status must be earned through a high quality of performance and by the obvious importance of his contribution to the field of special librarianship, to his firm or institution, and to society in general. Recognition of a professional performance will come as a byproduct of superior performance. The prevalent stereotype of the librarian must be modernized by the strength of performance of the competent, well-trained, enlightened, and personable special librarian.

A responsibility of every company or organization with a social conscience is to support the training of future professional librarians and to permit the professional staff to engage in research in problems and areas where further information is needed to promote the development and expansion of the field of special librarianship. Opportunities should be afforded students in library science to gain experience through employment opportunities prior to, or in connection with, the academic work. The professional librarian should be encouraged to fulfill his obligations as a preceptor and as a researcher.

The challenges facing our civilization place special responsibilities upon those who are in a position to contribute to man's knowledge and to guide him in his thinking and planning for a better world. These responsibilities should be accepted by all as an opportunity for fulfilling our obligation to contribute to society through service and achievement.

Information Sought About Historical Archives

The Society of American Archivists' Committee on Business Archives is compiling a directory of firms that have historical archives. Industrial organizations, banks, trade associations, railroads, insurance companies, merchandising establishments, and other institutions will be included. Will persons responsible for the preservation of such archives please contact Mrs. Helen L. Davidson, Archivist, Eli Lilly and Company, Indianapolis 6, Indiana.

A Workshop on Business Archives will be held in October 1964 in conjunction with the annual meeting of the Society in Austin, Texas.

The Responsibilities of the Newspaper Library to Future Historians

ROSCOE C. EADS, Librarian

Cincinnati "Enquirer," Cincinnati, Ohio

THE NEWSPAPER librarian is one of the oldest professionals in the special library field. Why is it that he still is unrecognized as a professional in his own house? Is it our own fault? I believe it is. I don't think we have the respect for our own profession that demands this recognition. We do not ourselves believe that the material we handle is worthy of the attention it, on careful analysis, demands. Many of us are not satisfied to be just librarians—we want to be writers, reporters, or editors. The stigma of the "morgue" is still with us.

This has always galled me, and it has been a constant goad prodding me to a determination to make an entirely different approach in an attempt to prove that, in following the line of least resistance, we have been travelling the wrong road.

In 1931 when I first entered the newspaper field, I was employed as librarian on the old *Call-Bulletin* of San Francisco. This was a period during which there was a great amount of rewriting of California history. Lola Montez, Bret Harte, Mark Twain, the gold strikes, the transcontinental railroad, the history, romance, and politics of the Old West were constantly being researched, and the facilities for such research were not by any stretch of the imagination well kept nor were easily read folios that could be thrust into the hands of researchers.

This inadequacy and the fact that there was such an avid demand for this type of material led me very early in my tour as a librarian to the conclusion that what was being done in the newspaper library field was not nearly enough and that it was not of a nature to warrant the admiration, esteem, or respect of those to whom it was most essen-

tial, the editorial people. As a matter of fact, it was just the opposite. The "library" was continually the victim of malignment, and whenever any raises were being passed around, the library was the last to enjoy the fruits. This struck me as a challenge, and for 27 years I have been trying to prove a theory born during my stay with the *Call-Bulletin*.

You can't tell me with any degree of assurance that clips stuck loosely in envelopes and allowed to build up slowly into a mass of more or less unreadable material, no matter how well classified or broken down, is in agreement to any degree with library science.

Did you ever see a librarian mutilate a book? Not on your life; but to all practical purposes that is just what librarians do when they treat clips as they generally do. A librarian who loves his work gives the same loving care to an old book as he would give to a new book, especially if that book is a rare edition. Can't we realize that much of the material we handle each day (if put up properly) will one day be as valuable as a rare edition?

To handle clips in the manner they are generally handled may be good enough for some, but it is not good enough for me. As a matter of fact, what we are doing at the *Enquirer* is not good enough for me either; for we should go much further than we are. But what we are doing I believe provides ample proof that we have made a definite step in the right direction.

Also we are following the recommendations of one of the greats in library science, if it can be called a science. During the 1870's Professor Melvil Dewey, the scholar responsible for the decimal classification system for filing books and pamphlets, recommended that news clips should be pasted down and filed in scrapbooks. There have been many variations in attempting to make this method practicable, but up to the present

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moment I know of no successful means of using scrapbooks except our own at the *Enquirer*.

As reinforcement to the theory that not nearly enough had been done in the newspaper library field to justify true merit, Mr. J. R. Wiggins, Executive Editor of the *Washington Post* and Past-President of the American Society of Newspaper Editors, said: "There is another point on which I wish the press would move in the 60's, but I have very little hope that it will move. I refer now to the improvement of our facilities for research and reference.

"News and editorial departments of newspapers have taken singularly little advantage of the revolutions in the methods of acquiring, classifying, and coordinating information. Business offices have shown infinitely greater enterprise than we have. Our libraries, for the most part, operate just the way they did 50 years ago. Oh, to be sure, we have microfilm and film clips and the Thermo-fax and other copying devices, but these are essentially just patches upon an antiquated and outworn system for filing and codifying information.

"It is almost astonishing that a business that has prided itself upon the traditional speed and accuracy with which it operates should put up with devices and methods as outworn as the quill pen when it comes to sorting information to which it has almost daily resort.

"I am afraid we labor under several disabilities here. Libraries, unfortunately, do not generally cost enough to offer a spectacular opportunity for the reduction of expense. So there is not the inducement of economy to introduce new and revolutionary methods. The real costs of the library, of course, are not incurred in the library at all, but in the hours spent by personnel at infinitely higher salaries than those of librarians in searching for material which ought to be provided in an instant instead of after a laborious search.

"But because revolutionary methods in the library cannot directly make money or directly save a great deal of money, we are probably going to have to be very patient in awaiting the revolution we would like to see in this area."

Mr. Wiggins' voice is no voice crying in the wilderness. It is, or should be, obvious that there is a steady and ever-growing demand on the part of editorial personnel for end results in relation to the library's productivity. If we are to interpret these demands correctly, we must translate them into action. We know what our accomplishments are expected to be. Quantity, plus clarity of classification, plus readability, plus rapid research potential, plus returnability, plus longevity—these are musts in the lexicon of the newspaper librarian. The shortest and most effective solution to this equation is his constant task.

While the news industry was one of the first industries to appreciate the need of the "special library," it is one of the last to recognize its full potential. Too few of its editorial executives have come under the influence of the axiom pertaining to special fields of endeavor within an industry and the need for recognized values in these special fields on a professional basis. (This axiom is contained in *The Practice of Management*, by Peter Drucker, New York: Harper, 1954.)

Of course, I know that much of the material handled each day by the news librarian is worthless within a comparatively short time after being set apart as reference material. This does not in the least alter the fact that much of that which we do handle is valuable, either from a biographical, geographical, or historical point of view. Hence it is well that all material be handled with the same degree of meticulous care.

The job of the newspaper librarian certainly requires as much discrimination, a greater degree of classification ability perhaps, as keen a perspective for evaluation, as much energy, initiative and determination, and as great a knowledge of the needs of his particular industry as any other librarian's job demands.

Today's news is tomorrow's history. It is the duty and responsibility of the news librarian to store the material he handles so that it will have a permanent value. This can be done in no other way than to give such material a permanent fix, thus giving it the character of a book both in readability, chronology, and continuity.

We then must find an answer to this question: Is there a practical method of achieving the above named prerequisites for a well-ordered newspaper library? The method should also include: 1) easy access for purposes of information retrieval, 2) readability, 3) permanent chronology and continuity, 4) returnability to the files without loss or the necessity for rearrangement, and 5) facility for storage.

Newspaper libraries are growing up. They have begun—I might add a little late in the game—to recognize themselves as being professionals in the fields of librarianship. They have also begun to ponder the fact of their

historical significance; and I believe they do have a definite responsibility in this direction, in that they are important to the growth and culture of their different areas of coverage. Any future interpretation of today's happenings by future historians, whether it be from an international, national, state, or local level, must be made from the media available, principally the on-the-spot report of the newspapers.

This is a huge responsibility, for it is up to news librarians to a great extent to force the recognition that this is so. This calls for much zeal and determination on our part, and we must recognize and act upon this fact.

The Application of Microphotography to Newspaper Clippings

DAVID A. RHYDWEN, Chief Librarian

"The Globe and Mail," Toronto, Ontario

THAT THERE may be some newspaper librarians who still doubt the wisdom or even the usefulness of applying microphotography to newspaper clippings is perhaps indicative of why some newspaper libraries linger in the status of unimportance. No doubt some are waiting for the promised land portrayed for the American Society of Newspaper Editors and outlined in *Editor and Publisher* in April 27, 1963. Automation is going to come to the newspaper library and in a form not unlike that indicated by John Diebold in his speech. And this, in my opinion, is what we should be seriously thinking about now.

Of those who stand and wait for machine storage of information, may I ask *what* information of the past they will have to offer if the clippings have been weeded to make room for more?

Newspaper libraries that do not have unlimited space and facilities for newspaper clippings, and I think most are in that category, have a simple choice. Shall the infor-

mation, which cost a good bit to assemble in the first place, be disposed of by weeding or placed in storage elsewhere, which is akin to disposing of it without throwing it out? Or shall the information be preserved in a convenient readily usable form at low cost by microfilming?

The Globe and Mail decided ten years ago that it was both sensible and economical and certainly most advantageous to microfilm clippings, and since that time it has filmed 350,000 newspaper columns of clippings.

What does this mean to the library? Unlike those who prefer to weed clippings, we still have, with some exceptions, all the material we initially decided was worth classifying and preserving; and we have it in a form that is convenient, much more permanent, and yet occupies very much less space.

Microfilm requires the equivalent of one cabinet to hold both the negative and the positive. In clipping form the same material would require 15 cabinets to accommodate it. The cabinets in which the positive microfilm is filed are exactly the same cabinets in which original clippings were filed. As a matter of fact, the folders containing the jackets of

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film are interfiled with folders holding clippings.

Systems in Common Use

Two systems of microfilming clippings are in common use—16mm and 35mm. One company that has widely promoted the use of 16mm requires only that the material be arranged in chronological order and shipped to it. The company microfilms it and returns the positive film in acetate jackets, labeled, and ready to be filed. With the 35mm system the material is prepared in the newspaper library, shipped to the microfilm company, and the film is returned to the library to preserve in whatever form it may choose.

This is the method *The Globe and Mail* library follows in using 35mm microfilm. Clippings are arranged chronologically and then mounted on numbered sheets of heavy black paper, which will accommodate a maximum of 150 column inches of clippings. These are photographed at a reduction of 12.5 to 1. Both the positive and the negative are returned. The positive is then cut into five frame lengths and two lengths of film are inserted in a transparent acetate jacket. The jackets measure 3.75 x 8.5 inches and have two sleeves for film and an index slot along the top. At this reduction each jacket holds a maximum of 10 frames with a total content of over 70 columns of newspaper clippings. The number of frames that may be inserted in one jacket will vary with the size of the frame and the size of the jacket. Using the same size jacket as mentioned previously, if the reduction is 18:1 a maximum of 18 frames may be inserted in each jacket, providing 162 columns of clippings. Different sized jackets may also be used. They can be ordered in almost any length, with one, two, three, or more sleeves and with or without an index slot. In other words, they can be tailored to the size of the file folders and cabinets now in use. Cost of the film plus jacket in the system we use is 44 cents.

The film is projected in a Filmsort Surveyor Reader with a screen 24 x 36 inches and with a variable magnification of up to 23 times, at which projection it still shows a complete frame. Thus we obtain an image

about 80 per cent larger than the original newsprint, and may examine the equivalent of 7 newspaper columns of clippings without adjusting the film. In addition the library has a portable Filmsort Inspector with a small screen, 11 x 14 inches. This may be used in another office in an emergency.

The New York *Times* stores its microfilm in the library in glassine jackets, which hold one frame of positive film and one frame of negative film. Using a reader-printer, it is possible to obtain a print-out of the material by a simple change from positive to negative frame and the press of a button. The *Times* makes even greater use of its microfilm by having extra positives of some subjects sent to their bureaus. In the bureaus an MPE projector is used to read the microfilm.

As mentioned previously, the most popular application of 16mm microfilm to clippings is somewhat of a package deal. Clippings are sent to the microfilm company, and the film is returned already mounted in jackets ready to be filed. But 16mm has some drawbacks. First it is probably filmed at a reduction of 17 or 18 times. Material more than five columns wide cannot be microfilmed. Thus if clippings contain charts, maps, or advertisements that run more than five columns in width, there will be a number of omissions in the film. The system also features a small reader with an 11 x 14 inch screen, which permits viewing only four columns in width at one time. Since the film will accommodate up to five columns in width and since there are four sleeves in each jacket, it would require 100 adjustments of the film to view a complete jacket of microfilm. Each jacket will hold about 70-80 newspaper columns of clippings. Costs in this method run about the same as the cost of the 35mm system.

Some Cost Figures

This has been the experience at *The Globe and Mail* where 350,000 newspaper columns of clippings have been microfilmed. The negative and positive microfilm, the jackets for the film, and the labels have cost \$2,200. A special tape for mounting them has cost \$800. This tape is comparatively expensive but has the two advantages of having low

reflective qualities and is easily removable from the boards after the clippings have been microfilmed. The boards on which the clips are taped cost less than \$100, and they are used over and over again. The readers cost \$2,500. Thus expenditures on equipment and processing have been \$5,600, and, \$2,500 is a non-recurring expense. Against this weigh the value of the cabinets that would have been necessary to accommodate the clippings, plus the value of the space those cabinets would occupy. The cabinets would have cost \$2,800. Over the years since microfilming started, we calculate well over \$10,000 in the value of floor space has been saved. It is apparent that the net saving is substantial.

One may ask why the value of the labour of preparing the material has not been added. In comparing the alternatives—weeding or microfilming—it must be remembered that when material is weeded, it should be done by someone with the same qualifications as were required to decide to keep the material in the first place—and this is not generally a library clerk. For preparation of the material for microfilming we use library clerks. The only clippings eliminated are obvious duplicates or clippings in folders from which only *The Globe and Mail* clippings are retained. No slow tedious periods are spent reading each story and trying to decide if it is worth keeping or if we should gamble and throw it out. The amount of space required for a clip on film is so minute and the time required to film it so insignificant, that it is senseless to even think of weeding the clips.

When clippings are weeded, aside from the high cost of the person required to do it in comparison with the labor costs for microfilming, the space recovered, even in a drastic weeding program, will likely be less than 50 per cent. So the choice is whether to weed and recover 50 per cent of the space and lose 50 per cent of the material or to microfilm at much less cost, recover 90 per cent of the space, and retain all the information originally filed and in a far more permanent form.

Reproducing material on the film can be both fast and economical. The *Louisville Courier-Journal* has adapted a standard film reader to a Xerox unit, which will give a copy on anything from ordinary newsprint to a handkerchief. Cost of rental for a Xerox unit is rather high unless a tremendous volume of prints is made, and the process is relatively slow. The *New York Times* uses a 3M Reader-Printer with a variable magnification, which permits considerable enlargement and at the same time allows screening so that only the part required is reproduced. Photocopy Corporation also has a reader-printer with similar features.

It is my firm conclusion that, considering the thousands of dollars spent in acquiring and preserving clippings in the first place, librarians should not begrudge spending a few thousand for a method of replacing them with a system that is more permanent, that is convenient, and that pays for itself in a very short time. To do so, would be extremely penny wise and pound foolish.

Newspaper Library Budgeting

MARIAN ORGAIN, Librarian

Houston "Chronicle," Houston, Texas

ONCE UPON A TIME a clever newspaper librarian made a perfect budget, which on the one hand was a performance scheme for the next year's work for himself and his staff and on the other hand could serve as a

major planning device for management. It fitted into a ten-year company building expansion plan and also adequately cared for the library's immediate needs. By tactfully showing reasons for increases in needed funds in some areas and by intelligent economies in other places, the librarian showed how to obtain maximum service plus merit raises for deserving staff members. At the

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same time he held the over-all expenditures to a figure enough below his previous year's budget that a substantial overage accrued to the library account. The budget was neatly and carefully typed with excellent illustrative tables and was presented several days before it was due. The editor and publisher of the newspaper were so delighted that they gave the librarian a five dollar bonus, a beautiful computer operator for his bride, and a lifetime membership in SLA.

This is a fairy story, but so is the one about the librarian who received everything his library needed in the way of salaries and equipment without any effort on his own part. Somewhere in between the two tales lies the area in which most of us function.

Budgeting, whether of one's own funds or those of his library, is not usually a favorite indoor pastime. Spending money is fun, but planning expenditures and being committed to a plan to purchase this and not that seems to some people to imply frustration, unhappiness, and some kind of threat. And many librarians seem to have the sneaking feeling that if they try to plan their library expenditures in advance they will not be able to buy anything, but if they requisition from time to time and are generally careful about asking for anything big when the editor has a hangover, they and the library will fare better than with a formal plan.

Why budget at all is a legitimate question, of course. Some newspaper libraries do not have a formal budget. For instance, Rose Vormelker told me that when she went to the Cleveland *Plain Dealer* no one had ever thought about a budget for the library, but she was told her requests would be honored so long as the money held out! However, there is a trend for newspapers to become more formal in all phases of operation and to require more usual fiscal procedures than had been customary in some areas. As supplies and books increase in cost and as salaries spiral upward, the old easy-come-easy-go ways seem to be passing. My own feeling is that even if one is not consulted or asked for his opinion about fund allotments, he should still submit a written budget, perhaps in combination with an annual report on the status of the library and its functions.

Percentage Breakdowns

There are no standard figures available on the amount of money it takes to operate any kind of special library, much less a newspaper library, and, of course, there never will be the kind of accrediting figures that are available for college libraries. Who would ever have the authority to tell an editor that he had to spend x number of dollars on his library? Some ideas of the rough proportions of expenditures in other kinds of libraries may have some meaning, however. Joseph C. Wheeler and Herbert Goldhor in *Practical Administration of Public Libraries* (New York: Harper & Row, 1962) discuss at some length public library budgets and use the figures reported to the U.S. Office of Education to show the breakdown in amounts spent on salaries, reader materials, and building and supplies. In the smallest libraries considered—those serving populations under one thousand—50 per cent of the total budgets went for salaries. As the population served rises, the percentage spent on salaries increased to 60 per cent of the total budget. The ALA standards set the proportions for the library serving 50,000 people at 68.8 per cent for salaries, 18 per cent for reader materials, and 13.2 per cent for other items like buildings and supplies.

The point of these figures is that as a library grows, the proportion of the budget spent on salaries has to increase too. Although management appears to be very reluctant to reveal actual figures for money spent, no one objects to percentage breakdowns. Mr. Steven, editor of the *Chronicle*, has assured me that in all United States newspapers today at least 60 per cent of the operating expenses are for salaries. This figure, close to the general library figure, means that probably half of the total 60 per cent is spent on newsgathering. Into that 30 per cent of the whole will fit library salaries. Obviously a fair amount of the money spent on newsgathering needs to be spent on retention and preservation. This is not startling, but it does serve as a rough guide in suggesting that five per cent of the total editorial or newsgathering budget be for the library and that better than 60 per cent of that to be for library

salaries. This amount of money in today's world merits planning.

Importance of Planning Ahead

Assuming that some sort of planning is indicated for what will of necessity be a substantial amount of money, what does an editor or administrator want from his departmental budgets? According to Mr. Steven, he wants precisely the same thing the librarian should want himself—the chance to make critical decisions creatively, the chance for mobility and variety. If an editor has a departmental budget to assess some months before an event takes place, he can avoid being committed without any choice to a slavish following of the past pattern. If he, for instance, sees on the projected budget that he can either buy six new filing cabinets before July or permit microfilming of old clips, he can make a real decision. Otherwise the choice may be a forced one, depending strictly on the time involved in preparing clippings for filming.

Performance or program budgeting has been cropping up in professional literature for the past several years. To quote Wheeler and Goldhor again, "Performance budgeting reflects the idea that a budget is not a hastily thought-up series of items guessed at around a table or juggled to appear fairly logical in their increase over previous allotments, but a carefully arranged presentation of present and needed activities, services, materials, and maintenance." In other words, a budget is a plan for work with financial estimates, not a simple request for funds. Justification by means of an accompanying report, line-by-line explanation, or whatever form the company desires, becomes a necessity.

Obviously a librarian must have some continuing plan in mind. What should his library be in ten years in terms of staff, services, floor space? What large amount of equipment would it be better to buy next year and not this year? Naturally such plans must be flexible enough to be altered as situations change, but some developing over-all goals must be held in mind. All sorts of details of book shelving, file cases, remodeling, staff additions need to be planned in advance—even if this master plan is the librarian's own

little pipe dream. One can be ready, even in a bad situation, for the change in management attitudes that can make creative budgeting really effective.

Preparing a Budget

How does one go about budgeting? The usual suggestion is, if there has been no previous budget, to keep careful books on expenditures for a year. Whether or not a library approves bills for payment, a librarian can gather facts on expenditures originating in the library, can obtain payroll information, and can find out about such materials as supplies requisitioned from a central stockroom, space charges if any, and so on. While gathering this information may take some ferretting, somewhere there is a bookkeeping department that actually records amounts charged to various departments. If the library does not have a separate number, and many do not, it will be well for the librarian to discover how charges are actually entered. Personally I have a ledger set up by budget categories with places for entering money spent on books, subscriptions, supplies, microfilm, and so on. However, in figuring my budget, I have to concede to our accounting department and note that services like *Deadline Data*, *Readers' Guide*, and the *New York Times Index* are charged to subscriptions upstairs and that books are charged to office supplies!

If there is some general form of budget used by other departments, obviously a librarian should follow it. If, however, there is none, it seems important to keep one's figures broken into some semblance of the same categories that the editor uses.

My own procedure is to keep books all year on the amounts spent in different categories and in October, because our fiscal year runs from January to December, to start preparation of the next year's budget. Our editor wants, before he begins the general budget, departmental reports that will show the known needs of the departments. Last year 80.5 per cent of my library budget was spent on salaries, 11.5 per cent on supplies, microfilm, and equipment, and the other eight per cent on reader supplies like subscriptions, services, books. I do not think



News and Notes

January 1964, No. 1

Published quarterly by Special Libraries Association, 31 East 10th St., New York 10003

Special Librarianship—Information at Work is the title of the new recruitment brochure just issued by the Association. Replacing the long-time favorite, *Putting Knowledge to Work*, the new booklet was prepared by the 1961-63 Recruitment Committee under the chairmanship of Herbert S. White. See page 33 in this issue of *Special Libraries* for a picture of the cover and a fuller description of the contents.

A third SLA National Library Week Publicity Award will be given this year for the most effective 1964 National or Canadian Library Week program carried out by a North American special library represented in the membership of the Association. Prize money of \$100 is generously being donated by the Diamond Alkali Company of Cleveland, Ohio, whose Research Center is located at Painesville, Ohio. The first prize of \$75 and the second prize of \$25 will be presented to the Chapters of which the librarians scoring highest in the competition are members, while the two winning libraries will receive certificates for framing. All special libraries should be able to utilize the 1964 NLW theme, "Reading Is the Key," to promote their collections and services, so plan to enter the contest.

NATIONAL LIBRARY WEEK PUBLICITY AWARD RULES

The basic entry should consist of no more than a two-page, double spaced, typewritten description of the project, its objectives, coverage, procedures used, audience(s) reached, and results achieved. Additional documentary material, such as glossy photographs, newspaper clippings, or special items prepared for distribution, may also be included. Six copies of the written report, each with the name and address of the library and librarian, should be sent to the Association's Public Relations Director by May 8, 1963. Only one copy of the supplementary material need be submitted, and clippings, photographs, book marks, and other publicity pieces should be mounted on 8½ x 11 white or colored paper.

The award winners will be announced at the Convention Banquet. Material submitted will be displayed at the Association's public relations booth at the Convention, and all entries will become the property of Special Libraries Association. Any questions should be directed to the Association's Public Relations Director, Mary L. Allison.

Beginning with the January 1964 issue, "Scientific Meetings" will have a new third section that will provide a subject approach to the national, international, and regional meetings, symposia, conventions, and colloquia that are described in the first alphabetical section of the journal. (The second section is a chronological listing of forthcoming meetings.) Utilizing the key word technique, the index will be arranged according to the subject words in the names of the scientific, technical, engineering, medical, health, management, or university organizations sponsoring each meeting. Cross references are included. *Scientific Meetings* is published in January, May, and September by the Association, with the May and September issues serving as supplements to the basic January issue. Subscriptions in the United States are \$7 annually and \$8 outside the country.

Bill M. Woods, Executive Director, was elected to a two-year term as Director of the National Association of Exhibit Managers at its recent semi-annual meeting held at the Hotel Fontainebleau in Miami Beach, December 5-6, 1963. The National Association of Exhibit Managers is composed of approximately 200 individuals who represent other

associations and are responsible for organizing trade and professional exhibits of many types in the United States and Canada. Mr. Woods directs the exhibit program for library suppliers, equipment manufacturers, publishers, and information services at the annual SLA conventions. Mr. Woods has also been appointed New York Group Chairman of NAEM and in this capacity will plan meetings during the year for members in the New York metropolitan area.

The Aerospace Section of the Science-Technology Division, organized at the 1963 SLA Convention is now in full operation. Membership is open to all Sci-Tech Division librarians active in the missile and space field. The avowed aim of the Section is to bring the capabilities and resources of SLA and, in particular, the Section to the attention of the industrial, governmental, and university communities engaged in space research. Projects presently under consideration by the Plans Committee include membership list, aerospace serials list, directory of aerospace libraries, descriptor list (thesaurus) for the aerospace industries, specialized information centers, code name file, union list of bibliographies, and a list of information sources in the aerospace field. Recently elected officers are: Chairman, RONALD J. BOOSER, General Electric, Daytona Beach, Florida; Vice-Chairman, MALCOLM FERGUSON, Itek Corporation, Lexington, Massachusetts; Secretary, EDYTHE MOORE, Aerospace Corporation, Los Angeles, California, and Treasurer, HELEN WALDRON, RAND Corporation, Santa Monica, California.

The American Reference Center for the forthcoming World's Fair in New York City, which is being jointly sponsored by ALA, SLA, and ADI, is still seeking company support for its staff. Organizations may contribute all or part of the \$1,000 scholarships that will be given to cover the travel, training, and partial living expenses of librarians who will serve for six-week periods. If this type of support is not compatible with corporate donation policies, a firm may find it easier to subsidize one of its own librarians if he is selected for a tour of duty, realizing that the training and experience he will receive in information retrieval techniques and reference work will prove valuable to him later in his own special library work. Further information is available from Elizabeth Ferguson (Librarian, Institute of Life Insurance, 488 Madison Avenue, New York 10022), SLA's Representative to the ALA-SLA-ADI Joint Committee, or from Gordon P. Martin, Director of the American Reference Center, Univac-Sperry Rand Building, Avenue of the Americas, New York 10019.

The Southern California Chapter has compiled and published the first edition of a *Directory of Special Libraries of Southern California*. Prepared by a Committee chaired by Cecily Surace, Librarian, Gianniti Controls Corporation, Duarte, California, the *Directory* describes 269 special libraries. Entries include the address, telephone number, name of head librarian, size of staff, size of book, periodical, technical report, and audio tape collections, special services such as translating and photocopying, interlibrary loan policies, conditions of use, library-prepared publications, and outstanding subject areas. There is also a detailed subject index. The 44-page *Directory* is available for \$2, and copies may be ordered from Mr. Thorkel Jensen, 1750 Cray Avenue, Pasadena, California. Checks should be made payable to Southern California Chapter, Special Libraries Association.

The Sheraton-Cadillac Hotel has been selected as Convention Headquarters for the 1970 annual meeting to be held June 7-11, 1970 in Detroit.

The name of the Bulletin Editor of the Social Science Division Bulletin was given incorrectly in the chart about Division Bulletins in the November 1963 *News and Notes*. The correct editor is ELEANOR TAFEL, 919 South St. Bernard Street, Philadelphia.

The Mid-Winter Meeting of the Board of Directors and the Advisory Council will be held at the Sheraton-Belvedere Hotel, Baltimore, Maryland, February 13-15, 1964.

SLA Nonserial Publications

Cumulative Statement on Publications in Print as of September 30, 1963

Date	Title of Publication	Cost	Number Printed	Sust., Inst. & Review Copies Given	Copies Sold	Total Receipts to Date
1949	<i>Aviation Subject Headings</i>	\$ 601.27	1000	257	452	\$ 793.49
1949	<i>Creation and Development of an Insurance Library</i>	538.84	1000	256	629	1,185.20
1949	<i>Subject Headings for Aeronautical Engineering Libraries</i>	1,433.43	1000	233	585	2,243.87
1950	<i>Contributions Toward a Special Library Glossary</i>	471.67	1000	416	524	620.69
1953	<i>Source List of Selected Labor Statistics</i>	1,073.20	1000	40	763	1,223.06
1953	<i>Correlation Index Document Series and PB Reports</i>	4,271.88	1000	22	827	6,912.50
1953	<i>Directory of Special Libraries</i>	7,858.08	2090	32	1916	13,459.89
1954	<i>Map Collections in the U.S. and Canada</i>	1,153.72	1000	35	825	2,178.24
1954	<i>Subject Headings for Financial Libraries</i>	1,442.41	1000	30	530	2,200.55
1956	<i>Handbook of Scientific and Technical Awards in the U.S. and Canada, 1900-1952</i>	8,755.34	2000	53	1078	8,393.30
1957	<i>National Insurance Organizations in the U.S. and Canada</i>	1,271.53 ¹	1009	48	532	1,508.50
1959	<i>Translators and Translations: Services and Sources</i>	5,183.81 ²	3010	178	2535	6,326.85
1959	<i>Picture Sources: An Introductory List</i>	6,918.65 ³	3044	153	2808	9,810.10
1960	<i>Sources of Commodity Prices</i>	4,858.87 ⁴	1500	208	1064	5,310.00
1960	<i>SLA Personnel Survey</i>	1,575.62	1830	1396	399	394.50
1960	<i>A Checklist for the Organization, Operation and Evaluation of a Company Library</i>	4,640.78	3952	264	2966	5,860.80
1961	<i>Guide to Metallurgical Information (SLA Bibliography no. 3)</i>	3,888.14 ⁵	2019	186	1299	5,192.00
1961	<i>U.S. Sources of Petroleum and Natural Gas Statistics</i>	3,326.84 ⁶	1279	109	634	3,798.00
1962	<i>Guide to Special Issues and Indexes of Periodicals</i>	6,768.97 ⁷	2052	206	1679	9,646.75
1962	<i>Guide to Russian Reference and Language Aids (SLA Bibliography no. 4)</i>	3,330.00	1242	182	872	3,697.50
1962	<i>Dictionary of Report Series Codes</i>	10,422.02 ⁸	1528	152	1172	14,930.22
1962	<i>SLA Directory of Members as of October 15, 1962</i>	4,143.16	1386	121	768	2,681.00
1963	<i>Directory of Business and Financial Services, 6th ed.</i>	7,238.02	3100	158	954	6,188.95
1963	<i>Special Libraries: How to Plan and Equip Them</i>	3,714.29	3052	138	36	199.80
1963	<i>Literature of Executive Management: Selected Books and Reference Sources for the International Businessman</i>	2,805.32	5063	1805	9	38.25

¹ \$182.83, royalties paid to the Insurance Division.

² \$832.93, royalties paid to the Georgia Chapter.

³ \$1,946.76, royalties paid to the Picture Division.

⁴ \$266.15, royalties paid to the Business & Finance Division.

⁵ \$576.17, royalties paid to the Metals Division.

⁶ \$201.93, royalties paid to the Petroleum Section, Sci-Tech Division.

⁷ \$1,233.33, royalties paid to the Advertising Group, New York Chapter.

⁸ \$1,932.08, royalties paid to the Rio Grande Chapter.

Report of the Treasurer

I respectfully submit the financial statements of the Special Libraries Association for the year ended September 30, 1963, including the statement of assets and fund balance and the summary of changes in special fund balances. The report of Price Waterhouse & Co., who examined the financial statements, is included herewith.

RALPH H. PHELPS, *Treasurer*

BOARD OF DIRECTORS SPECIAL LIBRARIES ASSOCIATION

In our opinion, the accompanying statements present fairly the assets of Special Libraries Association at September 30, 1963 resulting from the cash transactions, and the income collected, expenses disbursed and changes in fund balances for the year, and are presented on a basis consistent with that of the preceding year. Our examination of these statements was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The accounts of the Association are maintained on the basis of cash receipts and disbursements, and accordingly include approximately \$39,400 collected at September 30, 1963 for dues and periodical subscriptions applicable to subsequent periods; the corresponding amount at September 30, 1962 was approximately \$32,900. The accounts at September 30, 1963 do not reflect expenses incurred but not paid of approximately \$7,200, comprising principally amounts payable to the John Crerar Library; the corresponding amount at September 30, 1962 was approximately \$7,600.

PRICE WATERHOUSE & CO.

60 Broad Street, New York, N. Y. 10004
November 27, 1963

EXHIBIT I

SPECIAL LIBRARIES ASSOCIATION

STATEMENT OF ASSETS RESULTING FROM CASH TRANSACTIONS SEPTEMBER 30, 1963

Assets

General Fund:	
Cash, including savings accounts of \$32,983.40	\$ 90,246.20
General reserve fund:	
Cash in savings accounts	20,215.95
Marketable securities, at cost (approximate market value \$31,200)	32,088.07
	<u>52,304.02</u>
Life membership fund:	
Cash in savings account	3,676.15
Publications fund:	
Cash, including savings accounts of \$16,296.16	17,714.85
Scholarship and student loan fund:	
Cash in savings accounts	16,266.63
Loans receivable	3,135.00
	<u>19,401.63</u>
Translations Center fund:	
Cash in checking account	7,423.01
Equipment reserve fund:	
Cash in savings account	3,462.04
Translators and Translations, 2nd edition fund:	
Cash in checking account	5,823.64
Foreign Publications Agency fund:	
Cash in checking account	150.00
	<u><u>\$200,201.54</u></u>

Fund Balances	EXHIBIT I (continued)
General fund (Exhibit II)	\$ 90,246.20
Translations Center fund (Exhibit III)	7,423.01
Special funds (Exhibit IV):	
General reserve fund	52,304.02
Life membership fund	3,676.15
Publications fund	17,714.85
Scholarship and student loan fund	19,401.63
Equipment reserve fund	3,462.04
Translators and Translations, 2nd edition fund	5,823.64
Foreign Publications Agency fund	150.00
	\$200,201.54

SPECIAL LIBRARIES ASSOCIATION

EXHIBIT II

STATEMENT OF INCOME COLLECTED, EXPENSES DISBURSED AND CHANGES IN GENERAL FUND BALANCE FOR THE YEAR ENDED SEPTEMBER 30, 1963

	Actual	Budget
Income collected:—		
Dues	\$ 96,821.82	\$ 94,510.00
Periodicals:		
Scientific Meetings	7,186.72	4,550.00
Special Libraries	42,166.54	33,425.00
Technical Book Review Index	18,416.88	16,800.00
Service on Unlisted Drugs	1,282.65	1,125.00
Net receipts from convention (after payments of expenses, excluding Headquarters' expenses, totaling \$21,925.12)	15,415.90	12,000.00
Interest on funds in savings bank accounts	1,283.51	1,200.00
Addressing service	5,164.25	3,500.00
Miscellaneous	581.92	400.00
Total income	188,320.19	167,510.00
Expenses disbursed:—		
Allocation of funds to subunits:		
Chapters	11,185.85	11,250.00
Divisions	4,883.42	4,825.00
Committees	3,861.23	8,220.00
	19,930.50	24,295.00
General operations:		
Salaries	59,984.44	61,140.00
Rent	4,800.00	4,800.00
Auditing	1,244.74	1,125.00
Legal counsel	1,028.55	1,000.00
Porter service	1,403.00	1,380.00
Supplies	5,095.25	4,600.00
Payroll taxes	5,253.86	4,675.00
Postage	7,310.24	4,000.00
Telephone	2,027.52	1,700.00
Equipment purchases	1,379.41	1,200.00
Equipment maintenance	799.32	950.00
Insurance	239.86	275.00
Building maintenance	421.25	400.00
Library materials	235.75	300.00
Miscellaneous	268.19	200.00
	91,491.38	87,745.00
Periodicals:		
News and Notes	1,104.41	1,110.00
Scientific Meetings	7,587.35	5,390.00
Special Libraries	34,233.27	35,250.00
Technical Book Review Index	13,140.04	12,825.00
Service on Unlisted Drugs	1,282.65	1,125.00
Board of Directors Meetings	500.78	625.00
Memberships in other organizations	314.00	825.00
President's travel	1,691.22	2,000.00
Headquarters' staff expenses	2,048.54	1,200.00
Carried forward	173,324.14	172,390.00

EXHIBIT II (continued)

	Actual	Budget
Expenses disbursed (brought forward)	\$173,324.14	\$172,390.00
President's fund	116.43	200.00
Headquarters' convention expenses	8,449.23	5,000.00
International Management Congress	1,928.07	2,500.00
Public relations	2,720.14	2,180.00
Publication services to sustaining members	1,390.48	800.00
Retirement program*	1,000.00	1,000.00
Reduction for expenses disbursed for account of—		
Translations Center fund	(2,941.83)	(3,320.00)
Publications fund	(2,060.86)	(750.00)
Total expenses disbursed	<u>183,925.80</u>	<u>180,000.00</u>
Excess of income collected over expenses disbursed	4,394.39	<u>(\$ 12,490.00)</u>
Fund balance, September 30, 1962	79,749.22	
	<u>84,143.61</u>	
<i>Add:</i>		
Transfer from General Reserve fund (Exhibit IV)	7,375.59	
Transfer from Life Membership fund (Exhibit IV)	127.00	
<i>Less:</i>		
Transfer to Foreign Publications Agency Fund (Exhibit IV) ...	(150.00)	
Transfer to equipment reserve fund (Exhibit IV)	(750.00)	
Transfer to life membership fund (Exhibit IV)	(500.00)	
	<u>6,102.59</u>	
Fund Balance, September 30, 1963	<u>\$ 90,246.20</u>	

* Represents binder on adoption of pension plan effective October 1, 1963. Current costs of the plan will be paid through joint contributions by the employer and the employees; past service costs, estimated at \$37,000, are to be paid by the employer over the years remaining to the employees' normal retirement dates.

EXHIBIT III

SPECIAL LIBRARIES ASSOCIATION

STATEMENT OF INCOME COLLECTED, EXPENSES DISBURSED AND CHANGES IN TRANSLATIONS CENTER FUND BALANCE FOR THE YEAR ENDED SEPTEMBER 30, 1963

	Actual	Budget
Income collected:		
National Science Foundation Grant	\$ 45,678.00	\$ 45,678.00
Offices of Technical Services	20,000.00	24,000.00
Interest on savings account	15.26	—
Other	346.10	—
Total income	<u>66,039.36</u>	<u>69,678.00</u>
Expenses disbursed:		
Salaries, including FICA and insurance	34,041.51	37,400.00
Supplies, postage and telephone	1,480.21	2,500.00
Equipment	928.26	750.00
Moving	750.00	750.00
Reference collection	22.50	200.00
Rent and administrative services	9,507.31	11,060.00
Photocopying	7,797.68	8,000.00
Reprinting	13.31	200.00
Travel and promotion	3,856.73	4,500.00
Contingency	439.20	1,000.00
Disbursed for account of the fund by SLA General fund	2,941.83	3,318.00
Total expenses disbursed	<u>61,778.54</u>	<u>69,678.00</u>
Excess of income collected over expenses disbursed	4,260.82	—
Fund balance, September 30, 1962	9,162.19	
Transfer to Translators and Translations, 2nd edition fund (Exhibit IV)	<u>(6,000.00)</u>	
Fund Balance, September 30, 1963 (Exhibit I)	<u>\$ 7,423.01</u>	

EXHIBIT IV

SPECIAL LIBRARIES ASSOCIATION

SUMMARY OF CHANGES IN SPECIAL FUND BALANCES FOR THE YEAR ENDED SEPTEMBER 30, 1963

General Reserve Fund

Interest and dividends received on marketable securities and savings bank accounts ..	\$ 2,304.02
Transfer to general fund (Exhibit II)	(7,375.59)
Balance, September 30, 1962	57,375.59
	<hr/>
Balance, September 30, 1963 (Exhibit I)*	\$ 52,304.02
	<hr/>

Life Membership Fund

Interest on savings bank account	\$ 148.14
Dues of new members transferred from general fund	500.00
Transfer to general fund, interest on savings bank account for prior period (Exhibit II)	(127.00)
Payment of John Cotton Dana lectures	(200.00)
Balance, September 30, 1962	3,355.01
	<hr/>
Balance, September 30, 1963 (Exhibit I)	\$ 3,676.15
	<hr/>

Publications Fund

Proceeds from sales of publications and advertising	\$ 38,527.40
Interest on savings bank accounts	813.59
	<hr/>
Production and selling expenses	(43,113.03)
	<hr/>
Excess of expenses over income	(3,772.04)
Balance, September 30, 1962	25,486.89
Transfer to Translators and Translations, 2nd edition fund (Exhibit IV)	(4,000.00)
	<hr/>
Balance, September 30, 1963 (Exhibit I)	\$ 17,714.85
	<hr/>

Scholarship and Student Loan Fund

Gifts	\$ 7,224.87
Interest on savings bank accounts and student loans	670.90
	<hr/>
	7,895.77
Scholarship grants	(5,250.00)
Balance, September 30, 1962	16,755.86
	<hr/>
Balance, September 30, 1963 (Exhibit I)	\$ 19,401.63
	<hr/>

Equipment Reserve Fund

Transfer from general fund (Exhibit II)	\$ 750.00
Interest on savings bank account	136.29
Balance, September 30, 1962	2,575.75
	<hr/>
Balance, September 30, 1963 (Exhibit I)	\$ 3,462.04
	<hr/>

Translators and Translations, 2nd Edition Fund

Transfer from publications fund (Exhibit IV)	\$ 4,000.00
Transfer from Translations Center fund (Exhibit III)	6,000.00
	<hr/>
	10,000.00
Editorial expenses	(4,176.36)
	<hr/>
Balance, September 30, 1963 (Exhibit I)	\$ 5,823.64
	<hr/>

Foreign Publications Agency Fund

Transfer from general fund (Exhibit II) and fund balance at September 30, 1963 (Exhibit I)	\$ 150.00
	<hr/>

* At September 30, 1963 the balance of the General Reserve fund was \$2,304.02 in excess of the \$50,000 limit placed on this fund by the membership.

SLA Sustaining Members

The following organizations are supporting the activities and objectives of the Special Libraries Association by becoming Sustaining Members for 1964. This list includes all applications processed through December 19, 1963.

ABBOTT LABORATORIES LIBRARY, North Chicago, Illinois
AETNA STEEL PRODUCTS CORPORATION, New York, New York
AMERICAN CAN COMPANY, Barrington, Illinois
AMERICAN IRON AND STEEL INSTITUTE, New York, New York
AMPEX CORPORATION, Redwood City, California
ARGONNE NATIONAL LABORATORY, Argonne, Illinois
BELL & HOWELL RESEARCH CENTER, Pasadena, California
BELL TELEPHONE LABORATORIES, New York, New York
BETHLEHEM STEEL COMPANY, Bethlehem, Pennsylvania
BOEING COMPANY, Seattle, Washington
BRIDGEPORT PUBLIC LIBRARY, Bridgeport, Connecticut
CARRIER CORPORATION, Syracuse, New York
CHIVERS BOOKBINDING COMPANY, Staten Island, New York
CORNING GLASS WORKS, Corning, New York
DALLAS PUBLIC LIBRARY, Dallas, Texas
E. I. DU PONT DE NEMOURS & COMPANY, Lavoisier Library, Wilmington, Delaware
E. I. DU PONT DE NEMOURS & COMPANY, Technical Library, Wilmington, Delaware
ESSO RESEARCH & ENGINEERING COMPANY, Linden, New Jersey
GENERAL ELECTRIC COMPANY OF SCHENECTADY, Schenectady, New York
GENERAL MOTORS CORPORATION, Detroit, Michigan
GLICK BOOKBINDING CORPORATION, Long Island City, New York
HARVARD GRADUATE SCHOOL OF BUSINESS ADMINISTRATION, Boston, Massachusetts
WALTER J. JOHNSON, INC., New York, New York
LIBRARY AFL 5643-63-98, APO 238, New York, New York
LOCKHEED MISSILES & SPACE DIVISION, Palo Alto, California
LYBRAND, ROSS BROTHERS & MONTGOMERY, New York, New York
MARATHON OIL COMPANY, Littleton, Colorado
MELLON NATIONAL BANK AND TRUST COMPANY, Pittsburgh, Pennsylvania
MINNEAPOLIS-HONEYWELL REGULATOR COMPANY, Minneapolis, Minnesota
NATIONAL ASSOCIATION OF ENGINE AND BOAT MANUFACTURERS, New York, New York
NATIONAL BANK OF DETROIT, Detroit, Michigan
NATIONAL CASH REGISTER COMPANY, Dayton, Ohio
NATIONAL PUBLICATIONS COMPANY, Los Angeles, California
NEW YORK LIFE INSURANCE COMPANY, New York, New York
NEW YORK TIMES, New York, New York
PENNSYLVANIA STATE UNIVERSITY, University Park, Pennsylvania
PITTSBURGH PLATE GLASS COMPANY, Research Library, Barberton, Ohio
PURE OIL COMPANY, Palatine, Illinois
RAND CORPORATION, Santa Monica, California
ROCKEFELLER OFFICE LIBRARY, New York, New York
ROHM & HAAS COMPANY, Philadelphia, Pennsylvania
ROYAL BANK OF CANADA, Montreal, Canada
ST. JOHN'S UNIVERSITY LIBRARY, Jamaica, New York
SHAWINIGAN CHEMICALS LTD., Montreal, Canada
SHELL DEVELOPMENT CORPORATION, Emeryville, California
SQUIBB INSTITUTE FOR MEDICAL RESEARCH, New Brunswick, New Jersey
STANDARD OIL COMPANY OF CALIFORNIA LIBRARY, San Francisco, California
STAUFFER CHEMICAL COMPANY, Mountain View, California
STECHERT-HAFNER, INC., New York, New York
SYSTEMS DEVELOPMENT CORPORATION, Santa Monica, California
J. WALTER THOMPSON COMPANY, New York, New York
TIME INCORPORATED, New York, New York
UNION ELECTRIC COMPANY, St. Louis, Missouri
UNITED COMMUNITY FUNDS & COUNCILS OF AMERICA, INC., New York, New York
UNITED STATES STEEL CORPORATION, New York, New York
UNIVERSITY OF TEXAS, Houston, Texas
UPJOHN COMPANY, Kalamazoo, Michigan
WORCESTER FREE PUBLIC LIBRARY, Worcester, Massachusetts

that our salaries are so high a proportion of the whole because we overpay! Last year we really did not, I think, spend an adequate amount on things other than salaries, but we were recovering from a two-year period of complete physical reorganization. At any rate, in budgeting I take the actual figures of the present year, compare them with the approved budget for the year, justify any large discrepancies on the plan and the actuality, and project the future needs and expenses. Major items that can be charged to capital improvements may not affect the library budget at all but will need to be accounted for.

The main advantage of having a separate budget for the library is that with a fund allotment of its own, the library is not as likely as the one without to find itself subordinated to the expenses of the general news department. If there is not enough money to render a given service and no funds are approved for this service in the budget, the library cannot be expected to perform this function. What gives librarians ulcers is being held responsible for things they literally do not have the money to do.

All of this implies, of course, an aggressive attitude toward librarianship. It seems to me almost a moral duty to present a budget to management and to be prepared to defend it. At the same time, it is well to remember that the library is only one department of the newspaper. You cannot win all the battles, and being a graceful loser is as much a part of the game as being a spirited participant. If funds are cut, particularly in times of real financial crisis, be good-natured about the cut. Obviously some cut in service may also be necessary, but professional ethics would indicate a continuing attempt to give as good service as possible.

Budgeting, then, seems to me worthwhile, even to the point of adding to an already burdened work schedule the business of keeping up with what is spent and on what. Creative decisions and a cooperative attitude toward both management and patrons served imply trying to give maximum service at minimum cost. As in a personal budget, if one can hold down the nonessential expenditures, he will have more for the important things.

take its derivative continuous. We must the ϕ 's. We do this as follows. We set up the value of the energy of our augmented consisting of the function (4) within the and the plane wave outside the sphere. tion value is

$$E = \int \psi^* \nabla^2 \psi \, d\tau + \int \psi^* V \psi \, d\tau$$

the kinetic energy of a plane wave is $\frac{1}{2} \hbar^2 k^2$ and V is the potential energy of the spheres. We may carry out integrations Ω , in which case the energy is $E = \frac{1}{2} \hbar^2 k^2 + V_0 \int \psi^* \psi \, d\tau$. We may also carry out the integration over the volume of the spheres. We may also carry out the integration over the volume of the spheres.

SPECIAL LIBRARIANSHIP

INFORMATION AT WORK

New SLA Recruitment Booklet

This 16-page, illustrated brochure describes the special library profession for college students and young adults. The text was prepared by Marian S. Veath and Herbert S. White, Chairman, 1961-63 SLA Recruitment Committee. Its basic premise that the special librarian is a vital link in the increasingly important information-communication process is illustrated in eight vignettes, each of which depicts how a qualified man or woman can combine a subject background with library training for a career of service and intellectual challenge. Personal qualities needed for success are defined, the differences from other types of work are enumerated, and the ever-broadening opportunities of the future are outlined. There is also information on educational requirements, scholarships, employment services, salaries, and a list of currently accredited library schools in the United States and Canada. Up to 50 copies may be requested without charge from Association Headquarters; 51-250 copies are 10¢ each; more than 250 are 5¢ each.

INVITATION

to the 1964

SLA Convention



Todd Studios, Inc.
FRANCIS O'LEARY
Greater St. Louis
Chapter President

THE DATES—June 7-11, 1964; the place—Sheraton-Jefferson Hotel in Saint Louis; the host—Greater Saint Louis Chapter; the event—the 1964 Special Libraries Association Convention.

It is a pleasure, indeed, to have the honor of extending the official invitation to all SLA members to "meet us in Saint Louis" where we will consider the "Special Librarian as a Creative Catalyst." This theme will be developed by our Keynoter, Donald Swanson, Dean of the Graduate Library School, University of Chicago, at the opening General Session, Monday morning, June 8.

Something different will be provided by a General Session jointly sponsored by the Divisions on Tuesday morning. Based upon the topic, "Operational Creativity of the Special Librarian as a Manager," this period will be opened by a general meeting for orientation followed by workshop sessions in separate rooms with the members dividing into small groups



Piaget
JAMES V. JONES
Convention Chairman



DR. ANDREW J.
EATON
Exhibits

Members of the Convention Executive Committee who are not pictured are: MRS. MABEL L. SARBER, Local

SPECIAL LIBRARIES



EFREN W. GONZALEZ
Program Chairman



MARGARET E. MADDEN
Registration



WILLIAM A. WILKINSON
Treasurer

based upon size of library staff. The resultant cross-fertilization of ideas should provide a stimulus to all.

The Divisions and Sections have been busily planning their programs for months. New ideas and new formats are being introduced, while traditional events such as the Book and Author Luncheon have not been forgotten. Tours are being planned for such places as the McDonnell Aircraft Corporation, home of the Mercury and Gemini capsules; the Monsanto Chemical Company; the Shell Oil Company refinery; Grant's Farm and many other exciting and interesting places.

The reception officially opening the exhibits will be scheduled on Sunday evening, June 7. However, those who arrive for Sunday afternoon registration will find open house at The Pius XII Memorial Library of Saint Louis University between 1:00 and 4:00 p.m. The Annual Banquet is scheduled for Tuesday evening, followed by a reception at the nearby Saint Louis Public Library. Wednesday evening is set aside for a Mississippi adventure on the steamer "Admiral." And for those who will stay over until Thursday evening, there will be a night at the renowned Saint Louis Municipal Opera.

Saint Louis is an exciting city. Signs of revitalization are in evidence everywhere. The riverfront is once more becoming the focal point of the metropolitan area, and its magnificent Gateway Arch designed by Saarinen should be beckoning you all to the "Gateway of the West."

James V. Jones

1964 Convention Chairman



MRS. ELIZABETH W. OWENS
Hospitality



Le Grand Studio
LOUIS M. NOURSE
Co-Chairman, ALA
Convention



CONSTANCE A. PFAFF
Information

Arrangements; CONSTANCE FORD, Meals and Banquet; NOEL C. HOLOBECK, Printing; CHARLES J. GUENTHER, Publicity; and ROSALIND M. DEAN, Transportation and Tours.

Planning the New Library: Archer Daniels Midland Company Research Library

JAMES W. HORNER, JR., Group Leader, Technical Information
Research Department, Archer Daniels Midland Company, Minneapolis, Minnesota

ARCHER DANIELS Midland Company had its beginning in 1902 as Daniels Linseed Company, producers of linseed oil for the paint and varnish industry. In the intervening years this product line has expanded in logical steps to encompass such a variety of raw materials and end uses that the letterhead, unable to define our interests in anything but general terms, describes the firm as "processors of agricultural and chemical products." Products include such diverse materials as synthetic resins for automobile finishes, waxes from whale oil for cosmetics, fatty amines for ore flotation, sorghum starches for paper sizing, and soybean proteins for foods.

In 1945 the growing research staff moved into a former grade school building leased from the Minneapolis school board. Over the next 15 years continued growth filled this building to capacity. The library was housed in one large former classroom, an adjacent office, and two closets, and some shelves were installed on one of the stairway landings.

In early 1960 management called for a study of the desirability of constructing a new laboratory. The end result of this study was the occupancy, in the fall of 1962, of the new 90,000 square foot Thomas L. Daniels Research Center on a 23-acre site on a bluff overlooking the Minnesota river in the suburb of Bloomington, Minnesota.

To initiate the study, each section of the laboratory was asked to prepare an estimate of space needs. Our first step was to prepare a list of the various functional areas we desired in the new library and to estimate the space requirements for at least a ten-year period. A consideration of the difficulties and inconveniences we were experiencing in carrying out our work in the overcrowded location gave us an initial list of the functional areas for which we should provide. For ex-

ample, the necessity of using study tables in the reading area of the old library for the assembly of journals for binding clearly indicated the need for a workroom with adequate work table space. We also scanned Lucile Jackson's *Technical Libraries: Their Organization and Management*, Margaret Hilligan's *Libraries for Research and Industry: Planning and Equipment*, Eva Lou Fisher's *A Checklist for the Organization, Operation and Evaluation of a Company Library*, and papers in *Special Libraries'* "Planning the New Library" series for any functions and services we should provide but might have overlooked.

Space estimates were arrived at largely by considering the present space allocated to a certain function and then judging the amount of additional space necessary to house that function efficiently. A useful visual technique in making such judgments was to find an existing room in the building, which appeared to be of the right size for a certain use, and then measure that room. The minimum amount of shelf space to allow for expansion of the collection was set at about double the old shelf space, which was filled almost to capacity. We examined the titles referred to above to detect any gross deviations between their space estimates and ours for specific uses. Our initial space estimate and request was for 2,730 square feet, about three times the space we occupied in the old building.

In April 1960, management announced the decision to construct the new laboratory. Ellerbe and Company of St. Paul, Minnesota, was chosen as the architect. A planning committee of five persons, each representing a specific section of the laboratory, was appointed. This committee's job was to decide upon the facilities and arrangements that were required in the new building and to

interpret these requirements to the architect. While the technical information group, which operates the research library, was not directly represented on this committee, one of the committee members (fortunately library-oriented) was specifically designated to represent us and did so very well.

As a further expression of our needs and desires to the architect, in addition to the space requirements, we prepared a suggested floor plan to show our ideas of the relationships of various areas to each other. In developing this plan we had the benefit of a suggested arrangement prepared for us by a consultant from Remington Rand's Library Bureau. In experimenting with various arrangements, we used cardboard pieces cut to scale to represent desks, shelves, and other pieces of equipment. This provided a further check on the adequacy of the space estimates. Also, at this stage in our planning, we visited several new industrial libraries in the Twin Cities. These visits provided suggestions on arrangement and gave us an opportunity to see some of the newest types of equipment.

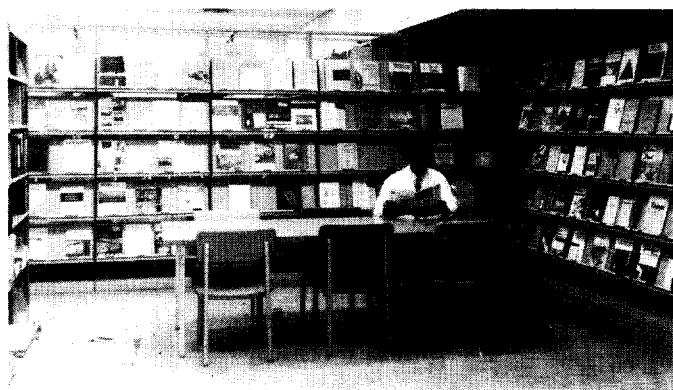
The floor plan selected for the three-story building consisted of two parallel wings arranged in a shape best described as an elongated Z, the crossbar connecting the two wings being very short and at right angles to the wings. The library was placed on the top floor in a central location at the crossbar of the Z. Space was assigned to all areas in the building in 24 x 34 foot units or modules. The library was assigned four modules. Because of the central location, some of this space had to be used for elevator, ventilation,

and plumbing shafts. However, we were highly pleased that the usable area was 2,850 square feet, slightly more than our original request.

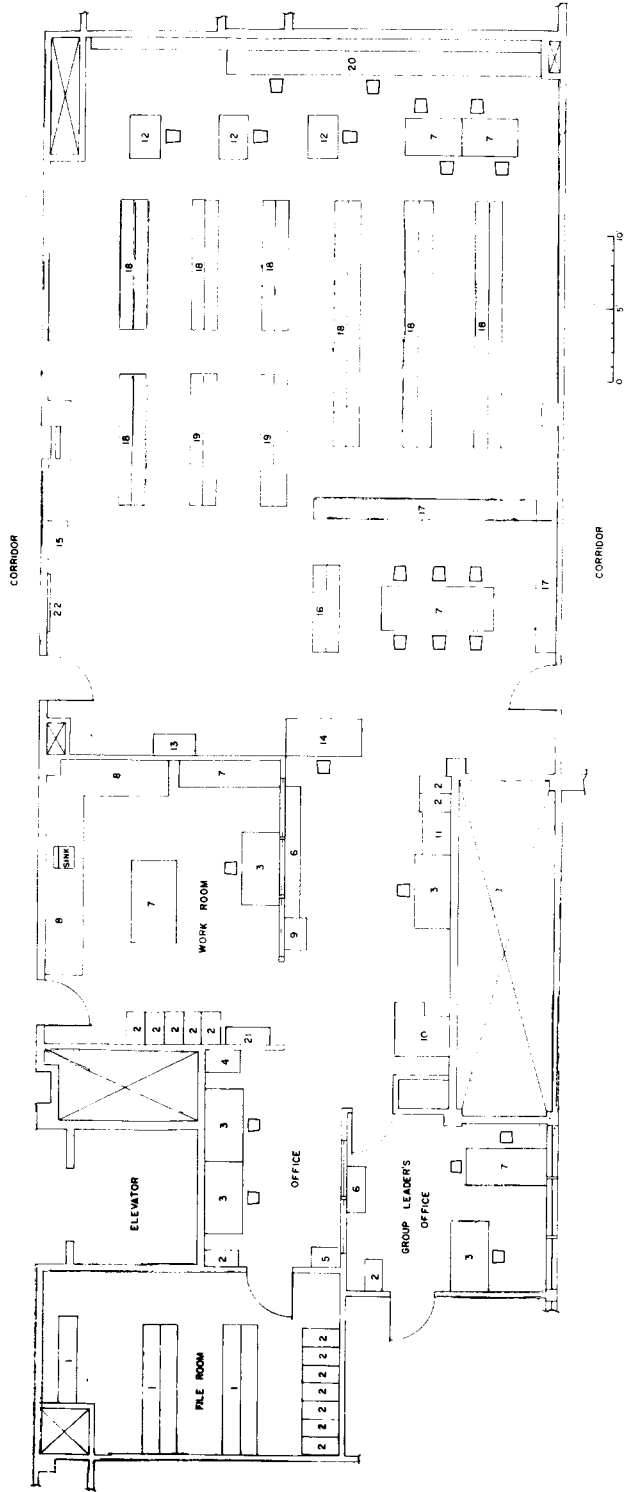
In describing the layout and equipment it is convenient to refer to the library as being divided into a "use" section (also called the "main room") and a "service" section. There are two entrances to the use section, one from each wing of the building. (This arrangement could contribute to making the library a thoroughfare for persons going from one wing to the other; however, this has not been a problem because a nearby corridor takes most of this traffic.) In the area adjacent to the entrances are the card catalog, current periodical shelves, reference shelves, and a reading table. The librarian is also in this area, thus making her available to help those who need it. However, we encourage our patrons to become familiar enough with the library to use it on a self-service basis, and most of them do so.

Most of the remainder of the use section is occupied by bookstacks for back issues of periodicals (arranged alphabetically) and for the book collection (arranged by Dewey number). At the far end of the use section is a study area equipped with several individual and group tables. Also at that end of the room is the "abstracts bar," a 21-foot section of wall shelving with a 20-inch table attached. Beilstein's *Handbuch, Chemical Abstracts*, and other abstract and index journals are kept on these and adjacent shelves.

In the service section of the library area are the workroom, offices, and a file room. Our trade literature, patents, internal re-



Current periodical area with adjacent reference and recent acquisition shelves at left.



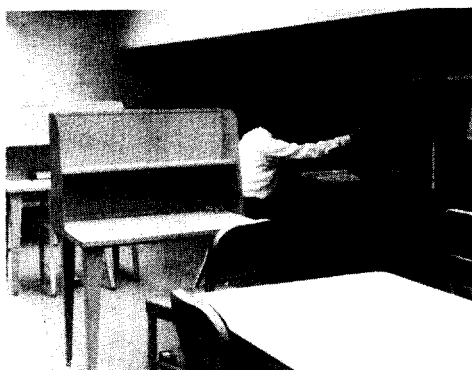
Floor plan of the Archer Daniels Midland Company Research Library.

search reports, government reports, etc., are housed in this section, as are the Xerox copier and the microfilm reader-printer. An entrance to the workroom from the corridor permits mail delivery without going through the main room. The Xerox copier was to have been located in another part of the building, but when that space was preempted for another use, we were glad to provide space for it.

An aesthetic disadvantage of our location is the absence of any exterior windows except in the group leader's office. To partially offset this, one interior wall in the office and one in the workroom have windows.

Most of the furniture and equipment in the new library is new. The bookstacks in the old library had been of wood. Although we preferred metal for the new location, for reasons of economy we first considered retaining these bookstacks and getting enough new wooden units to fill the additional space. However, we found that it was less expensive to obtain new metal bookstacks throughout. We did retain the wooden abstracts bar because it suited our purposes better than any standard metal units and because, in its location at the far end of the main room, it did not cause any appearance of disharmony with the metal equipment.

The shelving, tables, chairs, and librarian's desk in the use section were supplied by Remington Rand, as was the shelving in the file room. All are of metal. Most of the shelving is of the standard bookstack type with 10-inch and 8-inch shelves. The shelving in the current periodical area is fitted



The abstract bar and individual and group study tables are situated in a quiet corner of the library. The "bar" is composed of shelving with a table attached.

with periodical display and storage units. The sloping display shelves in these units swing up to permit storage of back issues on a shelf behind the display shelf. Shelving in the file room is of the divider type for open-shelf filing.

The offices and workroom in the service section are furnished in the same way as offices and laboratories throughout the rest of the building. All items are of metal. Desks and tables were supplied by All-Steel Equipment, Inc. Chairs were from the Harter Corporation. The wall bench, in the workroom, obtained from E. H. Sheldon Equipment Company, contains a sink and has cupboard space underneath for storage of supplies. It is identical with the work benches in the laboratories except that it has a linoleum rather than a chemical-resistant top.

The color scheme, planned by the archi-



Study area and abstract bar can be seen through the rows of stacks.

tect, gives no different treatment to the library but employs the same colors used in other parts of the building. The cement block walls in the main room are beige. All metal shelving is finished in fawn beige. The ends of the bookstacks that are visible from the main entrances to the library are equipped with birch panels. The librarian's desk and tables in the main room are fawn beige and have Textolite tops in tan mello-tone. An exception is the reading table in the current periodical area, which is Remington Rand's Designer style with aluminum legs and birch top. The chairs in this area are also Designer style with aluminum frames and gold or persimmon Naugahyde upholstery. Chairs in the study area are also upholstered in these colors.

In the service section some walls are beige, others iceberg green. The desks and tables are grey and have Textolite tops, and the chairs are also grey and upholstered with a dark green fabric or plastic. The wall bench in the work room is beige with a linoleum top.

Floors are grey marbled asphalt tile throughout the library. Ceilings are of off-white acoustic tile with fluorescent lighting fixtures recessed into the ceiling behind translucent glass panels.

Moving to the new library presented no problem (except for some harmless physical exertion) because there was no need to maintain uninterrupted service. All laboratory personnel were engaged in moving and getting resettled at the same time. Books and journals were removed in order from the shelves and placed in large wooden boxes provided by the movers. In the new location they were spaced on the shelves according to a previously prepared diagram to make use of all of the additional shelf footage.

After almost a year of operation in the new library we are well satisfied with our situation. A somewhat larger space allotment for the study area to give wider aisles around the study tables would have been desirable. However, this has not been serious enough to cause us to move any of these tables to space that is available in other parts of the library.

The Xerox copier, although somewhat noisy in operation, has been a great convenience. The traffic to the copier by secretaries from various parts of the building has been rather distracting to the library staff, but this problem has recently been largely eliminated by the assignment of one person, under our supervision, to do all of the copying for the entire building.

VITAL STATISTICS FOR THE ARCHER DANIELS MIDLAND COMPANY RESEARCH LIBRARY

Total square foot area	2,850
Staff	
Professional	3
Nonprofessional	2
Employees served at location	150
Services extended to other areas	Main office (downtown Minneapolis)
Average number of users per day (including telephone)	30
Volumes (books and bound and unbound periodicals as of October 1963)	4,250
Current periodical subscriptions	260
Technical reports, documents or patents	29,000
Vertical file drawers	60
Date of completion	October 1962
Planned by group leader, librarian, and architect	
Special facilities or equipment: Xerox 914 copier, Filmac 100 microfilm reader-printer, and internal research report index on punched cards (to be converted to IBM 1401 computer).	

This Works For Us . . .

In-Library Binding of Loose Material

The binding of photostats and similar loose material has for a long time presented a problem to the librarian. The method suggested here has been in use at The Corning Museum of Glass for two years and has proved particularly satisfactory because of its simplicity, neatness, solidity, and relatively low cost. Another advantage is that it permits binding photostats or other materials that have very narrow margins. Only one piece of equipment is required—a punching machine manufactured by the General Binding Corporation of Northbrook, Illinois. The model used is PB-12 Combo, No. 6393, retailing at \$225.

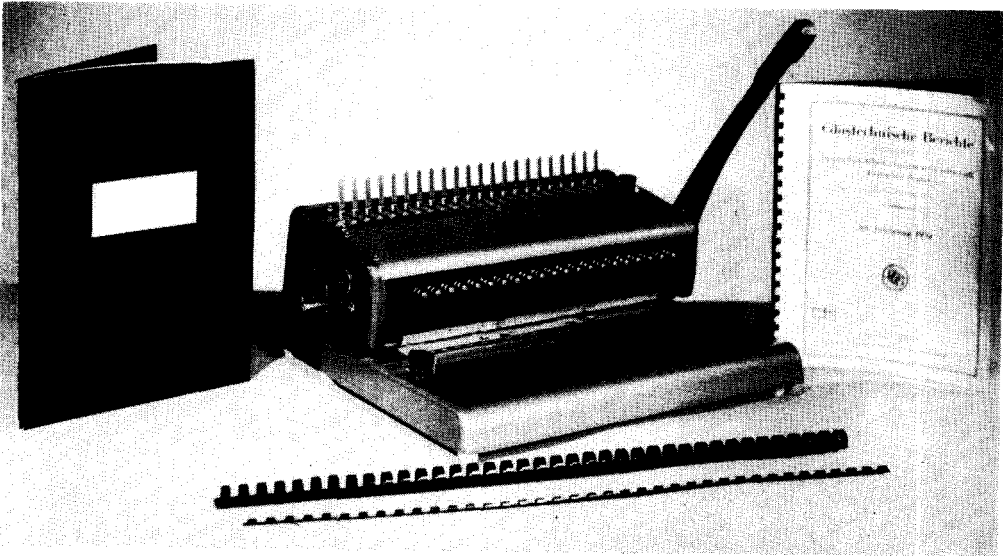
The first step consists of trimming all pages to the same size and leaving, if available, a slightly wider margin to the left side of the page where it will be punched. The margin can be as narrow as $\frac{3}{16}$ inch between text and the edge of the paper. The sheets are punched with the machine, which makes slits $\frac{3}{16}$ inch in width and $\frac{1}{4}$ inch in length, spaced $\frac{1}{4}$ inch apart. The sheets are held together by spiral bindings, which can be obtained in diameters of $\frac{3}{16}$, $\frac{1}{4}$, $\frac{7}{16}$, and $\frac{1}{2}$ inches.

To protect the back and the front of the photostat, a 25 point black pressboard is used, which does not warp or fray and is easily punched. This can be purchased from the Alling and Cory Corporation of Rochester, New York. If a photostat includes the title page of the publication, the pressboard is replaced by a clear plastic cover obtainable from General Binding Corporation. Board and cover are cut approximately $\frac{1}{8}$ inch larger than the photostats.

Call numbers can be painted on the cover as well as on the solid back of the plastic rings, and if there is any need to add to or delete from the bound material, the plastic spine can be easily opened.

While it is difficult to estimate the time involved in each individual binding, inasmuch as some photostats are very easy to trim while others, which may have been printed at an angle, require more attention, the library page working for the Museum has averaged six to ten per hour. The approximate cost of materials for a 9 x 12 $\frac{1}{16}$ inch photostat is 45 cents.

PAUL N. PERROT, Director
Corning Museum of Glass



The binder, punch, and spine used for the bound reprint at right.

One, Two... Monsanto and Army Publicity Programs Lead 1963 NLW Efforts

Just take a look at the two 1963 SLA National Library Week Publicity Award winners of the \$75 and \$25 prizes donated by Procter and Gamble Company. They're big guys, you say—Monsanto Chemical Company and the Army Library. How can you compete with them? Don't try. Look to your own library's needs and services, and get to work. If you are stuck for an idea, follow this *Special Libraries* series of successful National Library Week Publicity Programs and look at the series in previous volumes.

MONSANTO CHEMICAL COMPANY

A DISPLAY OF "Books by Monsanto Authors" was viewed by some 5,000 employees and visitors at the entrance of the new cafeteria at the headquarters of Monsanto's General Offices in St. Louis. The Information Center's publications, along with charts showing 1) total number of special librarians of the Special Libraries Association and the different kinds of special libraries; 2) a map indicating the geographical location of the 32 Chapters; and 3) companies in the Greater St. Louis area which maintain a special library, were on display in the new Research Center lobby. Well over 3,000 employees and visitors viewed this display.

A copy of the 550-word article, "Nourishment of Free Minds—Good Books, Good Libraries," was on display on the 50 Monsanto bulletin boards. A copy also was mailed to each of the 50 companies of the Industrial Press Association of Greater St. Louis.

NLW table tents were displayed at each table in the new, spacious cafeteria along with ten mobiles. The cafeteria serves around 5,000 employees. Over 5,000 NLW bookmarks were distributed to Information Center users with their requests and also at the orientation sessions.

Orientation sessions (slide presentations) of General Offices personnel were held during NLW—four 30-minute sessions per day for five days. Total attendance was 1,000. Good public relations and communication between librarian and user resulted and generated requests for library publications and services from almost everyone attending.

I accepted the chance to serve on the state planning committee for National Library Week. Special emphasis at our state level was given to Missouri's fine specialized libraries. Some real meaning to this observation was used as an opportunity to solve one of our common problems—the lack of information available to the public, other libraries, news media, industry, business and commerce, on the holdings of specialized libraries and how they may be utilized. All the specialized libraries of the state were contacted, and they received, enthusiastically, the idea of publishing a small catalog describing the major and minor specialized collections of Missouri. The catalog was released during National Library Week to every special, public, school, college and university library, industry, business, commerce, and news media. Monsanto generously supported this with financial aid as well as much of my time in expediting the steering sessions for the publication.



First place Monsanto tied in its own library's work with the work of special libraries in the Greater St. Louis Chapter area and other special libraries throughout the United States in one of its NLW exhibits.

Dr. Philip C. Brooks, Director, Harry S. Truman Library, Independence; Dr. Richard S. Brownlee, Director, State Historical Society of Missouri, Columbia; Mrs. Raymond A. Young, Immediate Past-president of the American Library Trustee Association, Columbia; and I appeared as panelists on a 30-minute TV program, "Missouri Forum," on Easter Sunday, April 14, to discuss the meaning of National Library Week and the wealth of reference material available to Missourians in special libraries across the state. Tapes from the above program were used during National Library Week on all radio stations throughout the state. A surprising number of people were before their sets that afternoon, and we have heard from a number of them. Some were strangers requesting a copy of the catalog, saying they had heard about it on the program. Multiply this by 17 counties, and then the almost 40 radio tapes that followed, and you should have an idea how effectively this blanketed Missouri.

One spot announcement was produced by Monsanto at my request and mailed to all

five TV stations in St. Louis after contacting each one for assurance of use. The 20-second spot used a slide, the NLW poster legend with "Mid-America's Special Librarians Salute NLW," and the audio described the poster, "Read—The Fifth Freedom—Enjoy It! See your local library for free book lists today."

Through the assistance of Monsanto's Printing Department three 26 x 26 charts were displayed in corner windows in downtown St. Louis. The charts were the same ones used in our Information Center's exhibit described above. The poster, "Mid America's Special Librarians Salute NLW," was also on display at each corner window.

MARGARET E. MADDEN, Chief Librarian
Information Center
Monsanto Chemical Company
St. Louis, Missouri

THE ARMY LIBRARY

THE ARMY LIBRARY, located in the Pentagon, Washington, D. C., is responsible for supporting the headquarters of the Department of the Army and the Department

Big guns at the Army Library's opening NLW ceremony: Beryl L. Reubens, NLW Director; Alfred B. Fitt, Deputy Assistant Secretary of the Army; Major General J. C. Lambert, The Adjutant General, Department of the Army; Dr. L. Quincy Mumford, Librarian of Congress; and Fred B. Shipman, Librarian, Department of State.



of Defense. It also supports about 280 law libraries throughout the world.

The military services are increasingly aware of the importance of libraries in national defense. This awareness culminated in a National Library Week exhibit on the Pentagon Concourse, 22-26 April 1963, where an area of 30 x 60 feet was devoted to portraying how the Army Library and other Army agencies support the various military activities and missions. The theme of the exhibit was geared to the "soldier's" use of the fifth freedom, in posts, camps, and stations in the United States and overseas.

The various portions of the exhibit were functional in nature and demonstrated the close relationship between concepts and tactics and books, weapons and books, and research and development and books. The central portion consisted of a browsing area containing 1,000 current books and, at the entrance, was an information booth manned by librarians. Flanking this area on one side was: *a*) an exhibit depicting the operations of the 480 Army Special Services Libraries located throughout the world; *b*) books produced by the Army's Office of Military History since World War II; *c*) books and maps prepared by the Army Map Service in the American history of military mapping; *d*) a language and recording tape laboratory, which offered to the public 60 foreign languages such as Swahili and Vietnamese; *e*) exhibits depicting the Army Library's legal, periodical, and special collections as well as bibliographic and

research services. The other flank of the exhibit was devoted to the presentations of the Special Warfare mission of the United States Army in its academic aspects as employed by the Army Special Warfare School and Library, Fort Bragg, North Carolina. The various exhibits were enhanced by scheduled color movies and slides and by handouts.

It is estimated that the exhibit was attended by over 20,000 military and civilian personnel, including foreign visitors. To honor the exhibit and National Library Week, the exhibit was officially opened by Maj. Gen. J. C. Lambert, the Army's Adjutant General, and Honorable Alfred B. Fitt, Deputy Assistant Secretary of the Army, who emphasized in their speeches the contribution of the fifth freedom to the strength and security of the country.

The exhibit was publicized for two weeks prior to the opening date through information facilities available to the Army Library in the Pentagon in the form of handouts, mailings, press releases, and spot news broadcasts.

PAUL J. BURNETT, Director
Army Library, Washington 25, D. C.

NLW PROMOTION AIDS

Promotion aids for National Library Week 1964 may be purchased from NLW, P.O. Box 3880, Grand Central Station, New York 10017. For the rules concerning the third SLA NLW Publicity Awards, see page S-1, "News & Notes," in this issue.

Key Words in—and out of—Context

B. B. LANE, Hanford Atomic Products Operation
General Electric Company, Richland, Washington

THE SUCCESS OF Key Word in Context (KWIC) indexing in *Chemical Titles* prompts an examination of a number of other periodical indexes to determine how suitable this method of indexing might be for areas of knowledge other than chemistry.

Ten periodical indexes were examined: some of them technical, such as the *Engineering Index*; some non-technical, such as *The Education Index*; and one general index, the *Readers' Guide to Periodical Literature*. The results gave a statistical verification of what might have been suspected—that in science and engineering the titles of articles usually describe or at least imply the contents of the articles. In non-technical fields titles reveal the contents less frequently; and in a general index such as *Readers' Guide* titles are indicative less than half the time.

The ten periodical indexes were sampled by selecting the first entry under the first main heading on each of pages 51-100 in a recent number of the index. In this first entry was a personal or place name, it was bypassed and the one below chosen. Foreign titles were also bypassed.

Titles were counted as "acceptable" or "not acceptable" for KWIC according to whether any word in the title was identical to or similar to the subject heading under which it had been placed. If it was not acceptable, a search was made to determine whether it was also entered under some other subject heading that did correspond to some word in the title.

Counts of "acceptable" versus "not acceptable" were made for 50 titles in each index. In the following tabulation the counts are shown in parentheses. The indexes are arranged in order of decreasing counts of "acceptable." A sampling of "not acceptable" titles are given for each index along with the subject heading used for each.

Applied Science and Technology Index (43, 7)

Improved Design for an Auto-focus Range Finder: CAMERAS

High Strength Alloy Obtained by Adding Fibers to Metals: CERAMIC MATERIALS

Engineering Index (41, 9)

General Aviation during Soaring Sixties: AIRCRAFT, PERSONAL

Eyeball in Milk Bottle: AIRCRAFT MANUFACTURE, INSPECTION

Bulletin of the Public Affairs Information Service (39, 11)

Six Visiting Marxists Meet U.S. Business: ECONOMISTS

Britain Joins the Common Market: EUROPEAN ECONOMIC COMMUNITY

Index to Legal Periodicals (35, 15)

Civil Aspects of the Net Worth Method: FRAUD

Conduct of a Renegotiation Case: GOVERNMENT CONTRACTS

Bibliography of Agriculture (30, 20)

Use of Triflupromazine: DOGS AND CATS, VETERINARY MEDICINE

A Crown Diameter Finder: FOREST MEASUREMENT

Business Periodicals Index (29, 21)

Cheaper Still: COBALT

Mister Magoo Has a Physical: CANCER

Education Index (28, 22)

Factors That Aid and Hinder Creativity: FLUENCY

Don't Let the Building Keep Them Away: HANDICAPPED

International Index to Periodicals (25, 25)

Fossil Ice-wedge at Poltalloch: FROST ACTION
Utang na Laob: A System of Contractual Obligation Among the Tagalogs: GIFTS

Readers' Guide to Periodical Literature (21, 29)

Short on Hair but Very Rare: CHINESE CRESTED DOGS

Good Day in Bad Marsh: DUCK SHOOTING

The *Art Index* was included as the tenth index in this study until it became apparent that so many pages were composed entirely or almost entirely of personal or place names or of foreign language entries that a count of 50 entries would hardly have represented the material fairly.

A paper by Herner* quotes an analysis by Swanson of 2,000 entries in an issue of *In-*

dex Medicus in which it was found that most of the subject headings corresponded to words in the titles or to their synonyms. The 50 titles per index used in this study constitute a much less intensive sampling, but they are a large enough sample to show that there is serious doubt as to the universal applicability of KWIC indexing. Accompanied by some judicious editing, KWIC could be used for the technical articles appearing in technical indexes. It would be less satisfactory for articles in the humanities, in business, and in law. And in the *Readers' Guide* KWIC would fail 58 per cent of the time.

* HERNER, Saul. Methods of Organizing Information for Storage and Searching. *American Documentation*, vol. 13, January 1962, p. 3-14.

Library Technology Project Report

GLADYS T. PIEZ, Senior Editorial Assistant

Library Technology Project, American Library Association, Chicago, Illinois

Book Labeling

The Library Technology Project is continuing its effort to solve the problems of book marking as they exist in different library situations. One line of attack has been the development of a book labeling system for LTP by Battelle Memorial Institute (reported on in the May-June 1963 issue of *Special Libraries*, page 302, and demonstrated at the Denver SLA Convention), and there have been still further refinements in this system. As now designed, the attachment can be used on any standard typewriter manufactured within the last ten years, with the possible exception of the IBM Selectric and the Olympia. An interchangeable platen will be all that is necessary. Manufacturing negotiations have reached the point where marketing by late spring is a good possibility.

Another approach to the problem of book labeling for libraries that will continue to use hand methods has been a project to identify one or more good adhesives, which will adhere small paper or cloth labels to the wide variety of binding materials used in bookbinding. The testing program was conducted by Foster D. Snell, Inc., and supported by a grant from the Council on Li-

brary Resources, Inc. The program was successful in identifying several commercial adhesives, which performed very well. Bro-Dart Industries plans to stock one of these—Arabol E1773B. Gaylord Bros., Inc., intends to add either Arabol E1773B or Arabol E2135B to its line of library adhesives.

The results of the testing program, including a discussion of the use of polyvinyl acetate adhesives in labeling operations, were reported in the December *ALA Bulletin*. Reprints of the report are available from LTP on request.

Manual on Reprography

William R. Hawken has undertaken a new project for the Library Technology Project—the preparation of a manual on reprography. For those who are unfamiliar with the word, "reprography" is a collective term comprising the various processes of the facsimile reproduction of all types of documents, including the production of photocopies and microcopies.

Mr. Hawken, LTP's consultant on reproduction processes, represented ALA at the 1st International Congress on Reprography held in Cologne, Germany, last October. He

is the author of two of LTP's major reports, *Photocopying from Bound Volumes* and *Enlarged Prints from Library Microforms*.

The project, which will take two years to complete, is financed by a grant of \$66,994 from the Council on Library Resources, Inc. Its objective, as stated by Mr. Hawken, is to create a true manual on methods of reproducing research materials, which will fully meet the present and continuing needs of librarians, archivists, scholars, research workers, and other documentalists in related callings, and to cast it in a form that will provide for rapid and efficient updating of the information.

Processes, methods, equipment, and applications in photocopying, microfiche, and microfilm will be included as well as evaluations of equipment for producing microforms such as cameras and processing equipment. The state-of-the-art report on microfiche, a project on which Mr. Hawken has been working for some months, will be made part of the new manual, as will his continuing evaluations of book copying equipment and microfilm reader-printers.

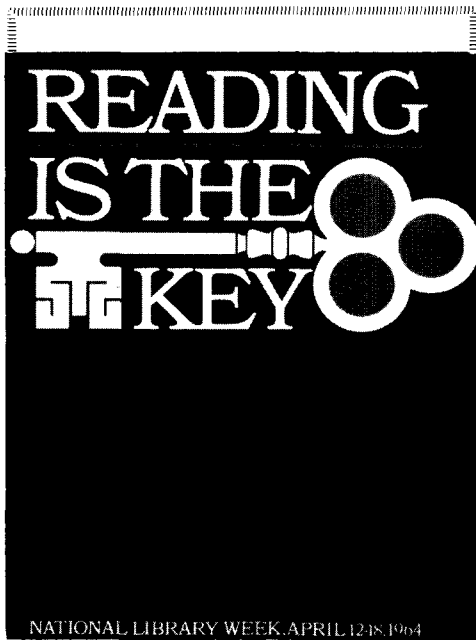
New Charging System Evaluated

George Fry and Associates has recently completed an evaluation of the new Regiscope-Rapidex System of circulation control for LTP. The new system is of the non-borrower participation transaction type, which uses a standard Regiscope library charger together with an automatic printing unit. The Fry report states that this system is the simplest and one of the most economical of all photographic charging systems. LTP will send a copy of the report on request.

Evaluation of Photocopiers

A second supplement to the LTP publication *Photocopying from Bound Volumes*, by William R. Hawken, is now available from the ALA Publishing Department (50 E. Huron St., Chicago) for \$2.00. Supplement No. 2 evaluates the new model of the Copease Duplex Book Copier, the SCM Corporation "Wedgelite," and the new Apeco Panel-Lite. All three models are book copiers that have been evaluated as part of LTP's continuing program to keep the basic book up to date.

JANUARY 1964



SLANLW

You won't find that one in the Dictionary of Acronyms. It is to remind you that in 1964 (April 12-18) we can make National Library Week a Special Libraries Association National Library Week. **READING IS THE KEY.** It's a master key to many doors of the far and immediate past. In another sense, it is one key our scientists are using to decode some of the secrets of right now.

Send in your general ideas of how to activate SLANLW. (Keep the details to yourself and compete for the prize to the Chapter whose efforts are deemed most effective.)

What are **KEY** books in your library? Are they classical treatises, mathematical tables, Journal abstracts, the *New York Times Index*, or are they fundamental handbooks, trouble-shooting guides, the Rosetta stone or the *World Almanac*? Do your clients know under what mat the keys are kept? This might be an ideal time to present some specialized lists.

LOYD R. RATHBUN
SLA Special Representative
National Book Committee

CURRENT CONCENTRATES

Of The Library World

Who Killed Bibliography?

THE SYMPTOMS of bibliographical decadence are easy to identify: inaccuracy, indifference to detail, inconsistency, butchery of foreign languages, imperfect concepts of publishing traditions, use of hearsay and secondary evidence. Egregious examples may be found in some of the historical bibliographies of American regions that have been published in the last two decades. Some publishers, both commercial and academic, have consistently aided and abetted bibliographical vice; but it is encouraging to report that some of the worst offenders among university presses seem to be on the road to repentance and reform by 1962. Some departments in graduate schools, ranging from Harvard downwards, have failed to offer proper training in the use of the technical literature of their fields and have refused to give proper knuckle-rapping to bibliographically wayward students.

The *bibliological sentimentalists*, the neo-Dibbins and the pseudo—de Burys who propagate the “love of books” are at the head of this blacklist. No less strenuous, more idly hedonistic, or less productive life is conceivable than the passive absorption of “good books.” Our universities, unhappily, are overburdened with their intellectual free-loaders, and they have often found especially cordial hosts in education colleges, English departments, and library schools.

The *linguistic illiterates*, who generally treat their mother tongue the more cruelly for not knowing other languages, have wrought inestimable damage on scholarship. By insisting on standards of linguistic achievement for themselves even if not for others, librarians can do much to reform their colleagues in the pure disciplines.

The *folklore of gadgetry* is as savage an enemy of bibliography as are the linguistic

xenophobes and the sentimentalists. There is a curious superstition about certain eminently useful and often promising contrivances such as computers, tapes, and microforms, and these notions thrive most luxuriously in the minds of those who know least about them. . . . It is true that certain bibliographies of an uncritical or random type can be built up by coding certain ideas and subjecting them to mechanical searching. . . . We must look forward to and promote aggressively the mechanization of librarianship, but with the primary objective of freeing superior minds with superior training for tasks that no machine can perform. And it must be clearly recognized that performance of higher bibliographical tasks can only be achieved with original manuscripts and printed books, things that will give us an inner sense of conviction. The tape and the microform, the computer and mechanical literature searcher are the essential handmaidens to bibliographical research; but we must enforce strict scholarly snobbery in dealing with them and keep them relegated to the servant class.

A most insidious enemy to sound bibliographical scholarship is an *alleged tradition of democracy* in the world of education. To insist that a librarian be able to describe briefly and accurately a neo-Latin printed book is to remove him from the needs of the common people. . . .

These attitudes have been adopted, consciously or unconsciously, by too many educationists, library schools, publishers, graduate schools, and professional schools. The contamination is not quite universal, but the fall-out from the anti-intellectual bombs is reaching alarming proportions.

Extracted from “Who Killed Bibliography?” by Lawrence I. Thompson in *The Rub-Off*, vol. 13, no. 3, 1962, published by the Art Guild Bindery Inc.

Some Comments on the ADI Meeting

THE VERY nature of a meeting as well planned as the recent American Documentation Institute Meeting in Chicago makes it difficult to summarize. The overlapping of many meetings meant that there was little or no time that some meeting of interest was not in session. The drawback is that there were times when being two places at once had a distinct advantage. Although a number of Argonne librarians attended and commented on various sessions, some sessions, both interesting and worthwhile, were missed. My apologies for this in advance.

The opening address by Dr. Burton W. Adkinson stressed that ADI must find and define the role it is to play since it can not be all things to all people. The point was well taken, and yet the very diversity of the meeting and the topics covered helped make it of value to people with varying interests. For the librarian interested in the use of electronic data processing, there were a number of good sessions, some of which were repeated to reduce the number of conflicts. Monday afternoon was devoted to an educational session with workshops on three systems and a panel discussion on ways to improve the teaching of documentation.

The workshops included overlapping discussions by C. D. Gull of the GE-Cincinnati document retrieval system, the ASM system by M. R. Hyslop, and the FASEB meeting scheduling indexing system by C. K. Schultz. Many looked forward to the session on the Cincinnati system and the combination talk and discussion resulted in a worthwhile session, even though seating was at a premium, and the noise wasn't.

The evening included two successive groups of discussion seminars including a few topics of very pertinent interest to librarians. The session on citation indices brought out not only many of the problems of compiling this type of index, but also many of the uses for this type of index. Cooperation between libraries and the LC National Referral Center was another seminar topic.

The point remembered by many from the session on the teaching of documentation was the emphasis by Dean Don Swanson of the University of Chicago Graduate Library School on the importance of a mathematical background for those interested in documentation. From the point of view of teaching theory to library school students, mathematics is undoubtedly important. However, many of the other sessions of the meeting demonstrated that the librarian with a responsibility to operate a library and provide daily service can design and make use of data processing systems without a mathematical background. Thus, the librarian without mathematics may not be able to analyze complex systems or engage in some types of research, but should not be frightened away from use of data processing techniques.

Tuesday produced sessions on the generation, recording, distribution, transformation, translation, analysis, indexing, and processing of information. These areas have at times been of limited interest to the average librarian; however, one of the valuable aspects of the meeting came from having more exposure to the broad problems of generating, processing, and retrieving information. It is unfortunate that more special librarians were not exposed to many of the Tuesday sessions and that those who would benefit most from such exposure were the ones who did not come. As with most of the meetings, the discussion centered around papers that were not presented but printed in a book of preprints. From reading the papers, it becomes even more apparent that the librarian can not be divorced from the problems of information handling, but to the contrary must become more aware and a part of the overall information field.

The Wednesday sessions centered around storage and retrieval and utilization of information. Much of the discussion and the papers were directly applicable to the operation of a library. Some of the papers were not on information retrieval, itself, but on the mechanization of library procedures, many of

which are applicable to the small library in an organization that has obtained data processing equipment primarily for other purposes. A series of "exchange" sessions gave all participants an opportunity to express their views on topics such as: automation of card catalogs, circulation system automation, computer uses in libraries, selective dissemination of information systems, and tape-typewriter systems.

On Thursday the annual business meeting was held. It was reported by R. M. Hayes, ADI President, that even with a membership of over 1,500, the organization is not yet self-sustaining. Dues will be increased to \$20 and an NSF grant requested to balance the budget. It was also announced that SLA and ADI will form a Joint Operating Group. In the evening the authors of various papers held author forums to discuss individual papers and related topics. Exhibitors not only had many interesting exhibits, but they too

had an opportunity to display and explain equipment and over-all systems.

Special mention must be made of the excellent book of preprints of the papers entitled *Automation and Scientific Communication*. It is published in two parts (\$10 to nonmembers) with author and KWIC indices to the papers and an author index to papers cited. The main item lacking is a special bonus to encourage all attendees to read the papers prior to the discussions. A "Proceedings" has also been announced as part three of the publications covering the meeting.

If this meeting is any indication, I believe that the work encouraged by ADI and this meeting will be even more important to the librarian in future years.

JAMES C. ANDREWS, Director
Library Services Department
Argonne National Laboratory
Argonne, Illinois



William S. Budington, SLA President-Elect, right, basked for two days in the warmth of southern hospitality, Alabama Chapter style. Thursday evening, November 14, he was the guest of honor at a reception given at the home of Mr. and Mrs. Severance, and on Friday he was guest speaker at the Alabama Chapter's luncheon meeting held at the Air University Library, Maxwell Air Force Base, Montgomery. Chapter officers standing with Mr. Budington are: John K. Cameron, President-Elect; Mrs. Frances R. Dickey, Secretary-Treasurer; and Mrs. Ann W. Lagel, President.

Have You Heard . . .

PAIS Half Century Noted

In December 1963 the *Public Affairs Information Service Bulletin* started its 50th year of publication. This nonprofit index, issued as a cooperative venture by librarians, was first proposed at the 1910 SLA Mackinac meeting. Three years later, at the Association's Katerskill meeting, a decision was made to publish a mimeographed bulletin, and the first issue appeared, dated October 15, 1914. The H. W. Wilson Company undertook the initial financial arrangements and the printing, and it has continued as the *Bulletin's* printer ever since. In 1918, PAIS left the Wilson Company offices and moved to the Economics Division of the New York Public Library to be near the vast collection of books, periodicals, pamphlets, and publications of associations and organizations and of international, national, and local governments. In 1954, the Regents of the University of the State of New York granted a charter to PAIS as an educational corporation. The *Bulletin's* emphasis has always been on factual and statistical material published in the English language, regardless of the place of publication. When the printed *Bulletin* first appeared, members paid \$100 for the full service; the price now for weeklies, cumulations, and the annual is the same. John A. Lapp, Director of the Bureau of Legislative Information, Indianapolis, was considered the driving force in the early years and served as Chairman until succeeded by Charles C. Williamson, Chief of the New York Public Library's Economic Division. From 1921 until 1960, Rollin A. Sawyer held the position of Chairman, which is now filled by John Fall. Robert S. Wilson has been editor since 1953. Charles F. Gosnell is Secretary, and trustees are Janet Bogardus, Donald T. Clark, Marian C. Manley, and Eileen Thornton.

Censure by British Library Association

The Council of The Library Association, London, recently passed a resolution concerning an action passed by the South African

Library Association. The resolution in full reads: "That the Council deplores the action of the South African Library Association in setting up a separate organization for non-European members of the profession and strongly urges the Association to reconsider its decision."

Rare and Recent Recordings to be Heard

Musical and nonmusical recordings, phonotape, phono-wire, cylinders, and discs, which are now part of the New York Public Library's collection of 90,000 recordings in dead storage, will be available to the public for the first time thanks to a \$150,000 grant from the Rodgers and Hammerstein Foundation. The collection will be housed in the Performing Arts Library and Museum under construction at Lincoln Center and will be known as the Rodgers and Hammerstein Record Archives. A large part of the collection, which has been assembled under the guidance of Philip L. Miller, Chief of the Music Division, will be cataloged for the first time, and listening equipment will be provided.

Library Courses and Workshops

A four-week non-credit workshop on COMPUTER PROGRAMS FOR LIBRARY OPERATIONS is being conducted from June 1-26 on the Urbana campus of the University of Illinois. The workshop, which is sponsored by the Division of University Extension and the Graduate School of Library Science, is geared toward the professional librarian at a decision-making level, who wishes to acquire a knowledge of the concepts of computer operation and programming. Tuition is \$100, and registration must be completed by May 1, 1964.

AUTOMATION OF LIBRARY PROCESSES AND PROCEDURES is the name of a new type of course offered by Western Reserve University School of Library Science during the spring term. The course will survey and evaluate the possibilities of data processing equipment for traditional library procedures.

Documentation Symposium

A review of the state-of-the-art of the application of statistical association methods to mechanized documentation systems is the task of a March 17-19 symposium sponsored by the Research Information Center and Advisory Service on Information processing, NBS, and ADI. For information write National Bureau of Standards, Washington, D. C. 20234.

Members in the News

EILEEN D. COOKE, former Public Relations Specialist at the Minneapolis Public Library, has recently become Assistant Director of the American Library Association's Washington office.

ETHEL M. FAIR, former Director, Library School, Douglass College, New Brunswick, New Jersey, was appointed interim Executive Secretary of the Library Education Division and Secretary of the ALA Committee on Accreditation. She will serve until the spring or summer of 1964.

ALDERSON FRY, Librarian at the West Virginia University Medical Center, is on a Rockefeller Foundation financed two-month tour of the Far East where he is helping to plan and acting as a consultant for medical center libraries in five countries.

MRS. ALICE P. HOOK, former Librarian at the Historical and Philosophical Society of Ohio, Cincinnati, became Librarian of the Cincinnati Art Museum on January 1, 1964.

RICHARD J. SHEPHERD, former Director of the Information Center at the Public Relations Society of America, has recently been appointed Librarian at the State University College, New Paltz, New York.

George C. Marshall Foundation

A library-museum memorial to the late General of the Army George C. Marshall is currently being built by the George C. Marshall Research Foundation, a private institution, at Lexington, Virginia, on land donated by the state. The library will house the private and official papers of General Marshall as well as books, documents, and other material related to the World War II period. The museum

will contain many of the items connected with General Marshall throughout his career and an electric map showing the position of Allied troops during World War II. Dr. Forrest C. Pogue, author of *George C. Marshall: Education of a General*, the first of a three-part biography being published under the auspices of the Foundation, will direct the staff of the Research Center. Dedication of the library will be held May 23, 1964.

Grant for Information Specialist Training

The University of Illinois has received a \$46,460 grant from the National Science Foundation to initiate a program for the training of science information specialists. The program, which is a project of the Graduate School of Library Science and the College of Liberal Arts and Sciences, will consist of courses in science and librarianship, communications skills and the use of computers, and experience in working with a scientist and his information problems. Juniors, seniors, and graduate students, who will work for one year toward a master's degree, are eligible. Initially, the program will involve only biology and chemistry and lead to a M.A. Seniors and graduate students will work with a scientist, prepare abstracts, bibliographies and reviews, and become acquainted with his information problems by gathering information and preparing special materials and reports.

New Filing System

An engineered filing system, the Conserv-a-file V, has been developed by the Supreme Steel Equipment Corp., Brooklyn 32, New York, for installations of 15 or more file drawers. It consists of a series of modules, each equipped with interior file cradles, which, when rolled out, expose records from top and front, as there are no metal drawer fronts. The exterior file cradles are suspended on rails attached to the module frame, and these can be rolled along laterally for accessibility. The exterior cradles can also be easily rolled aside to gain access to the inner files. Both cradles provide two rows of files in a depth equal to a single file drawer, thus eliminating conventional aisle space. The new system requires no conversion of folders

and will also accommodate card trays. The Conserv-a-file V is available in legal and letter sizes in five, six, seven, and eight tier heights, measuring 64, 76, 88, and 100 inches respectively, to any length. Prices are available from the manufacturer.

New Army Library

A specialized technical reference library was recently dedicated by the U.S. Army Engineer Research and Development Laboratories at Fort Belvoir, Virginia. Located in a newly constructed technical engineering building, the library is part of a laboratory-wide scientific and technical information system, and is the focal point for gaining access to information items available in Washington, D. C. and various libraries in the United States.

French Library Association

The Association Francaise des Documentalistes et des Bibliothecaires was founded in March 1963 for the promotion and development of the profession. It will set up committees for studying new techniques and make available information on the financial position, recruitment, and training of documentalists. Headquarters of the Association are at 21, rue du Dr. Blanche, Paris.

History of Science Exhibits

A special exhibits program on the history of science has been inaugurated at the Biomedical Library, University of California, Los Angeles. Two exhibits have been completed to date: Terrestrial Magnetism and Consider the Sun. The terrestrial magnetism exhibit presents pictorially the works and ideas of the generations of scientists who have made major contributions to the science. The sun exhibit illustrates highlights in the history of solar research from antiquity to the present, as generations of scientists studied the solar system, measured the dimensions of the sun and its distance from earth, and studied its physical condition and its affect on terrestrial life. The research for the exhibit was done by Marian Patterson Holleman, on the staff of the Biomedical Library, working under the direction of Dr. John Burke of the Department of History. A descriptive brochure, including a selective bibliography, ac-

companies each exhibit and is obtainable upon request. The exhibits are being shown in various locations on the UCLA campus and then will be available on loan. For further details write: Louise Darling, Librarian, Biomedical Library, University of California Center for Health Sciences, Los Angeles 24, California.

ALA Recruitment Brochure

"Future Unlimited," a booklet prepared by the American Library Association's Office for Recruitment, describes the necessary qualification for a librarian. The ten-page 8½ x 3¾ inch booklet explains admission requirements, undergraduate preparation, a general idea of library courses, scholarships and grants, placement services, undergraduate programs in library science, and the importance of attending an accredited library school rather than correspondence and nonaccredited schools. Included with the booklet is a list of the ALA accredited schools and some of their characteristics. The booklet is available from ALA, 50 East Huron Street, Chicago 11.

Round-Corner Punched Cards

For the first time since their inception 73 years ago, IBM has rounded off its square-corner punched cards, although the old type will still be available at the same cost. The advantages in the card style change are that it enhances high-speed processing, resists becoming dog-eared, and is easier to handle. In data processing operations, the new cards can be sorted, stacked, filed, and juggled with greater ease as well as making applications requiring constant rerunning of cards through processing equipment smoother.

Doc Inc Microfilm Services

The Microdocumentation Division of Documentation Incorporated, Bethesda, Maryland, will expand its existing services and also offer engineering services for manual and automated microfilm storage and retrieval systems. The services include: 1) systems design of microfilm storage and retrieval systems, incorporating, if needed, the latest techniques in indexing, abstracting, filing, and equipment conversion; 2) microphotography, both planetary and rotary, on 16, 35,

and 8mm film; 3) processing of microfilm of all sizes and types at high speeds; 4) duplication from silver to diazo of 16 and 35mm roll film, sheets, aperture cards, and similar material; 5) encartridging of roll film in universal Docufilm cartridges; 6) unitized flat film production converting roll films to microfiche in all standard sizes and formats; and 7) Docuform production, a flat film format in all standard sizes with random-filing tab and base-notched to prevent misfiling.

MLA's Nursing School Group

The Board of Directors of the Medical Library Association has approved the formation of a Nursing Schools Group, which will have its first program at the MLA Convention in San Francisco, June 1-6, 1964. The officers of the Group are: Chairman, William Kona, Librarian, Cook County School of Nursing, Chicago, and Secretary, Mrs. Hedwig Van Dyke, Librarian, Roseland Community Hospital School of Nursing, Chicago.

Grant for Information Sciences Curricula

The National Science Foundation has granted \$59,880 to Lehigh University for the development of graduate course syllabi in the information sciences. The program, under the two-year grant, will be conducted by Lehigh's Center for the Information Sciences, which was established in 1962 to develop and conduct interdisciplinary and interdepartmental research and instruction programs related to the properties and behavior of information and the means of processing information for optimum accessibility and usability.

U.S. Law Books Abroad

A "care package" program for law books was launched recently under the U.S. Information Agency's "Law Books USA" plan, which is cosponsored by the American Bar Association's World Peace Through Law Committee. For \$8 a donor can have a packet of seven law books sent to recipients selected by the USIA or the Committee. One of the books, *Equal Justice under Law*, is by SLA member Carroll C. Moreland, presently with the Asia Foundation in East Pakistan. Oceana Publications, Inc. in Dobbs Ferry, New York, handles the book orders.

Letters to the Editor

MEREDITH PRESS DISTRIBUTION

Meredith Press, division of Meredith Publishing Company, 1716 Locust Street, Des Moines, Iowa 50303, is publisher and distributor of Better Homes & Gardens Idea Books; Appleton-Century; Duell, Sloan and Pearce; and Channel Press books, effective January 1, 1964. Only those Appleton-Century-Crofts trade editions listed in the Meredith Press catalog are distributed by Meredith Press.

Appleton-Century-Crofts, division of Meredith Publishing Company, is a separate operation, publishing and distributing text books, reference, and medical titles. As of December 16, 1963, their address is 440 Park Avenue South, New York, New York 10016. The former Appleton-Century-Crofts trade book department is now the Appleton-Century imprint of Meredith Press.

JAMES W. DELLINGER

Advertising and Promotion
Meredith Press, Des Moines, Iowa

THE LIBRARIAN AS CASANOVA

In view of the current concern on the part of librarians with the public image of the librarian, and I certainly agree that this concern is right and proper, it occurs to me that the profession is missing a big bet in not capitalizing on a historical fact which, if it were generally known, would inevitably result in a great enhancement of librarianship in the public eye.

What's the stereotype of the librarian in cartoons, books, movies, and other media, which mold public opinion? It's a bespectacled, shrinking, introverted male or female, minus anything that even remotely suggests the romantic. Ha! But how many people know that the very personification of romance, that legendary figure known as Casanova—the Casanova of the famous *Memoires*—was a librarian? Surely this one fact, if it were brought to the attention of the public, would do wonders for the profession! It could change the entire recruitment picture, so that instead of wanting to be astronauts or movie stars, young people would crowd the library schools to the bursting point.

Of course, Casanova became a librarian to Count Waldstein when he (Casanova, that is) was already 60 years old. If the public knew *that*, it might draw entirely the wrong conclusions. It might, for one thing, get the idea that he turned to library work when more interesting activities no longer had a strong appeal for him. However, the public need not be told everything! Casanova *was* a librarian, and that's enough.

With another National Library Week almost upon us, perhaps the promoters of that festive occasion could design their posters, bookmarks, and other gimmicks around the Casanova theme. The PR boys should be able to do wonders with that one!

SAMUEL SASS, Librarian

The William Stanley Library
General Electric Company, Pittsfield, Mass.

SPECIAL LIBRARIES

Off the Press . . .

Book Reviews

REPORT OF A TEST ON THE INDEX OF METALLURGICAL LITERATURE OF WESTERN RESERVE UNIVERSITY. *J. Aitchison and C. W. Cleverdon*. Cranfield, England: Aslib, Cranfield Research Project, College of Aeronautics, October 1963. xii, 270 p. Apply.

What are the factors that determine whether one indexing system is better than another? Prior to the establishment of the Aslib Cranfield Research Project, under the direction of Cyril Cleverdon, the judgment was usually based on intuitive reasoning and subjective evaluation. It had been widely assumed that the basic characteristics of an indexing system had a cause and effect relationship to the effectiveness of the system, that the finer the subject tag was defined, the more relevant would be the material retrieved. Subject-trained specialists were considered the only qualified indexers in the technical areas. But since 1957, the Project has given the library profession a body of experimentally derived data which contribute to an objective evaluation of indexing and have refuted many commonly held opinions.

In the basic study, *Report on the Testing and Analysis of an Investigation into the Comparative Efficiency of Indexing Systems*, the Project staff could find no irrefutable reason for judging one of four basic indexing systems (Universal Decimal Classification, Alphabetical Subject Headings, the Faceted Classification System, or Uniterms) as being better than any other. If the quality of the indexing language and the indexing effort was comparable and the search systems were similar, the recall ability of the various systems was comparable.

This basic work provided the knowledge and facilities to evaluate the application of individual indexing systems, and the National Science Foundation invited the Cranfield group to test the Western Reserve University indexing of the metallurgical literature. The initial report on the study was made at the April 1962, Cleveland conference, "Information Retrieval in Action." The present publication presents a detailed and extensively documented report on the study.

The technique for testing included the selection of a portion of the WRU file (about 1,000 documents) and the indexing of it by the Faceted Classification System devised for use at the English Electric Company. Something over 100 questions, each based on a single item in the collection (the source document), were solicited from metallurgists. The collection of documents was searched at both Cranfield and WRU to find the documents that answered the questions.

The ability of both systems to locate pertinent documents was comparable, but the number of

concepts recorded for each item in the collection (an indication of the "exhaustivity" of the indexing) averaged 30 for the WRU system and seven for Cranfield. It should be noted, however, that these seven concepts were recorded on an average of 12½ cards in the catalog. This resulted in many more documents being recalled for each of the WRU searches than for the Cranfield searches. In addition to the 100 source documents on which the questions were based, a careful review of the collection disclosed there were an additional 40 which provided equally satisfactory information. Both the Cranfield and the WRU searches recalled many more documents than the relevant ones in the collection. The percentage of relevant documents to the total number recalled is the relevance ratio. The test indicated the relevance ratio of the Cranfield searches was about twice that of the WRU searches.

The Cranfield group attributes this to two factors. First, Cranfield used better searching programs. A review of the documents WRU failed to recall indicated that had the Cranfield search programs been used with the WRU indexing, 73 per cent of the WRU failures would have been recalled. The second factor was the exhaustivity of the WRU indexing, which recalled many less relevant or non-relevant documents.

One of the conclusions reached by the Cranfield group is that there is an inverse relationship between the recalled ratio and the relevancy ratio. While the studies undertaken to date may justify this conclusion, the reviewer is reluctant to accept it without question. It is possible, for example, to hypothesize an information collection, such as a patent disclosure file, where there would be a uniqueness to each item in the collection that might permit both a high recall ratio and a high relevancy ratio to be achieved.

A second conclusion was that as the number of entries increased the recall effectiveness leveled off. The recall difference for 12½ terms as compared to eight terms was only 2.4 per cent.

The assumption that devices such as role indicators improved the relevancy ratio was not justified by the findings of the study.

Unlike the earlier Report in which only the procedures and the data obtained were recorded, the authors devote a chapter to discussing the results of the tests. They recognize that many of the readers may not agree with them. So that each reader of the Report may come to his own conclusions, very complete appendices are included in which the source data on which the Cranfield conclusions are based can be found.

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THREE LIBRARY CAREER BOOKS:

WHAT DOES A LIBRARIAN DO? *Edith Busby*. New York: Dodd, Mead and Co., April 1963. \$3.50 (L.C. 63-11385)

The pulse of a child beats quickly, and his mind leaps from one peak to another. Fast though he may go, he does take time to meditate. These tempos are maintained in this book, *What Does a Librarian Do?* which makes appealing and informative reading for a child eight years old and up.

A discussion on what is a book and what is a library as well as a few historical statements acquaint the reader with the librarian's tools and facilities.

How to use a library is administered in doses at appropriate spots; each suggested duty is enforced with an example in a real library. Here the pace increases. The excitement of finding sources of information and discovering the information is impelling.

Comments on libraries on wheels, in foreign countries, rehabilitation centers, in industry, are dropped along the way. Taking the library to the people and providing them with services, recreation, and instruction is likened to giving them a gift, and the giver rewarded for his part in this activity. The last part of the book is devoted to the rare opportunity a librarian has to give help to those seeking library materials.

Eighty-five clear, pleasant, well-chosen photographs are appropriately dispersed throughout the book. They show people reading and doing library activities, alone, and in groups. They compel the reader to enter into the book and make it easy for him to project himself into the scenes with an almost "you are there" feeling.

This is an enjoyable and informative career book. It ought to stimulate and instruct children wanting to know about librarianship.

A DEFINITIVE STUDY OF YOUR FUTURE AS A LIBRARIAN. *Joan Dorn Clark*. New York: Richards Rosen Press, Inc., 1963. \$2.95 (L.C. 63-13412)

A how-to-do-it book is popular because it presents step by step procedures for accomplishing some task. *Your Future as a Librarian* is a how-to-do-it—a how-to-enter the library profession.

First, the stereotype, old maidish, behind the "silence desk" librarian is replaced by a changing image. This portrait allows the reader to view this role to see if he would fit into it. If it is appealing to him, he can read further to find out details on education and training. Procedures for obtaining a position in a library are outlined and sample resumes, contacts, and interviews are given.

Detailed discussions on the various work situations take up more than half of the book. Just as the traditional librarian image has changed, so has her work area. It has given way to multi-locations, such as industry schools, government, faraway places, and space unlimited.

Salaries, advancements, and opportunities are explained, and a list of library science schools

is given. The final chapter on one page poses questions in the form of a self-evaluation test. It says, "If you answer yes to most of these questions, then librarianship could be the field for you."

Throughout the book, appropriate poems and quotes are printed. To summarize the value of this book, the following by Thoreau is applicable:

A truly good book teaches me better than to read it.

I must soon lay it down and commence living on its hint . . .

What I began by reading I must finish by acting.

LIBRARY CAREERS. *Richard H. and Irene Logsdon*. New York: Henry Z. Walck, Inc., 1963. \$3.50 (L.C. 63-11114)

Certainly the questioning minds of teenagers were very evident to the authors of this book. What, who, how, where are query words that young people pose for they really want to know all the phases of an occupation before they spend time preparing for it.

What is the librarianship profession is clearly defined and illustrated. The professional status of the librarian is emphasized to the right degree of dignity.

Who are librarians, statistics on number in the profession, and estimated salaries come next. Frank statements of facts are made and a few disadvantages are pointed out. However, the very rewarding satisfaction of being in an intellectually stimulating atmosphere in most cases overrides the adversities mentioned.

How to be a librarian is concisely discussed, including formal educational requirements and personal attitudes and talents, which contribute to making a success in this occupation. Not all who work in a library are librarians. Various other positions are outlined as well as background and general traits necessary to fulfill these positions. A few historical notes on where and how librarians were started are inserted.

Where libraries are located is given in four chapters, each one devoted to a particular type: public, educational, government, and special. The work scene is attractively set for each type.

A spirit of comradeship is shown in the chapter on professional associations. At the close, the emphatic and persistent question of the teenagers, "Should I be a librarian," is posed. This is to be decided by the individual, but a few statements are given, which will help him evaluate his situation and make his selection.

The reader is treated as an intelligent person, earnestly interested in learning about a career. Though primarily written for the teenage group, other persons can learn about the various library positions and enter into any phase of library work if qualified or trained for such positions.

MARIAN VEATH
General Electric Company Library
Louisville, Kentucky
SPECIAL LIBRARIES

Index to Scientific Literature

WADEX, short for Word and Author inDEX, is a computer-produced guide to the contents of the 1962 issues of *Applied Mechanics Reviews*, the international review journal of the American Society of Mechanical Engineers. The 600-page index was prepared by an IBM 1401 computer at the University of Texas. Authors' names and descriptors are combined in one alphabetically arranged list of titles, allowing room for the full title. WADEX is being distributed by ASME, 345 East 47th Street, New York City, for \$7.50.

Index to "The Engineer"

A name and subject index covering the first 208 volumes of *The Engineer*, from 1856 to 1959, has recently been published by Morgan Brothers, 28 Essex Street, Strand, London, W.C. 2. A set of user service cards are included in each *Index* for those who wish photostat copies of specific pages. The charge will be 3/6d per page. The *Index* costs £8 or \$23 for those in the United States and Canada.

Microfiche Package Plan

Effective until March 15, 1964, the Micro Photo Division of Bell & Howell Company is offering a package plan whereby libraries can acquire at least \$750 worth of periodicals on microfiche and a \$300 microfiche reader, model MF2, both for \$750. The lists of available titles can be obtained from Micro Photo at 1700 Shaw Avenue, Cleveland 12, Ohio. Titles on microfiche may also be ordered in any amount without participation in the special plan.

Calendar of Annual Events Available

Chases' Calendar of Annual Events for 1964 is now available from the Apple Tree Press, 2322 Mallery Street, Flint 4, Michigan. The 56-page soft-cover calendar is punched for hanging, and in addition to having the usual engagement calendar it lists special days, weeks, and months proclaimed, celebrated, or named for 1964, such as the Ice Worm Festival in Juneau, Alaska, and National Dish Cloth Week. Copies are \$1.50 each.

Astronautical Publications Distributor

Western Periodicals Company has purchased the entire stock of The American Astronautical Society publications from Plenum Press and is now sole distributor of all the Society's publications. Acquisitions include volumes 1-8, 10, 12, 13, 14, and 16, Part I of *Advances in the Astronautical Sciences*. Volumes 11 and 15 are on the press, and volumes 9 and 16 Part II will be published in January 1964. Also available are the First Zero Gravity Symposium, July 1960, *Weightlessness, Physical Phenomena and Biological Effect* by Dr. E. T. Benedikt and *Lunar Exploration and Spacecraft Systems*, December 1960, by Ross Fleissig.

New Serials

DISARMAMENT AND ARMS CONTROL is an international quarterly, published by Pergamon Press, to facilitate the exchange of ideas on disarmament and arms control. Abstracts and articles are in English, Russian, French, and German. Book reviews and a survey of current literature are also included. Annual subscription rate for libraries is \$30; \$6 for personal use of an individual.

HIGH TEMPERATURE (*Теплофизика высokikh температур*), the newest journal from the Soviet Academy of Sciences, is available in a cover-to-cover translation by Consultants Bureau. Articles containing information about experimental methods and results of Soviet research in high-temperature physics will be published. The six issues a year are \$50, and the three issues published in 1963 are \$25. Combined 1963 and 1964 subscriptions are \$70. Translation of the first issue, which appeared in the USSR in September, is being mailed in January. The journal is being distributed by the American Institute of Physics, 335 East 45th Street, New York 10017.

MINERVA, a quarterly now in its second year, is devoted to articles, reports, documents, and studies in science, culture, education, and government. Subscriptions are available from the editor at Ilford House, 133-5 Oxford Street London, W.1, for £1, or from Eastern News Distributors, Inc., 255 Seventh Avenue, New York 10001, for \$3.50.

SERVICE, *USDA's Report to Consumers*, is a monthly consumer newsletter launched with the November 1963 issue. The publication, which is available from the Office of Information, U.S. Department of Agriculture, Washington, D. C. 20250, contains information concerning available booklets, new products, insects and disease, nutrition and food, home equipment, housing, family finances, and rural development. Distribution is free on a limited circulation basis.

Department of Labor Services

The Office of Manpower, Automation and Training (OMAT) of the U. S. Department of Labor is providing a new communications service on technical and research information. "Technical Manpower Publications and Services" lists OMAT publications and available exhibits and speakers. The International Vocational Training Information and Research Centre is publishing *CIRF Abstracts* on the methods, scope, and organization of training. Published in English and French, *Abstracts* costs \$8 a year, and subscribers will receive from 60-80 abstracts every two months. Twice a year bibliographies and lists of periodicals in the training field will be issued. A binder and register is included with the subscription. Orders may be placed with CIRF, in care of International Labor Office, 917 15th Street, N.W., Washington 5, D. C.

Sci-Tech Dictionary Catalog

Associated Technical Services, Inc., has just published the 1963 *Science, Technology and General Dictionary Catalog*, number two, which contains references to hundreds of currently available technical dictionaries in 35 languages. The catalog is available from the publisher, Dictionary and Book Division, 855 Bloomfield Avenue, Glen Ridge, New Jersey, for 35 cents.

Science Citation Index

The Institute for Scientific Research has just released the first five volumes of *Science Citation Index*, which was computer-compiled and used more than five miles of computer tape for the 2.25 million lines of copy. The *Index* lists the author and his work, and with it, groups together all the authors and papers from every field that referred to his work since its publication. Each of the author's works is arranged chronologically. The *Index* includes 102,000 articles published in 1961 with 1.4 million citations. The volumes sell for \$700 complete, and there is a pre-publication offer of \$500 for purchases before December 15, 1963. For further information write to the publisher, 33 South 17th Street, Philadelphia 3, Pennsylvania.

SLA Authors

ANDREWS, James C. The Argonne National Laboratory and Its Library. *Illinois Libraries*, vol. 45, no. 9, November 1963, p. 501-2.

BABB, Janice B. Library of the National Association of Real Estate Boards. *Illinois Libraries*, vol. 45, no. 9, November 1963, p. 518-21.

BALL, Katharine L. Arthur Hugh Chaplin. *Library Resources and Technical Services*, vol. 7, no. 4, Fall 1963, p. 309-11.

BOHON, Joyce. Research Library of the Quaker Oats Company. *Illinois Libraries*, vol. 45, no. 9, November 1963, p. 524-5.

BRYAN, James E. The American Library Association and Civil Rights. *ALA Bulletin*, vol. 57, no. 8, September 1963, p. 747-50.

CHICOREL, Marietta. West German and U.S. Book Costs as Comparative Factors in Book Budgets, p. 328-33; and A Question of Completeness, p. 334. *Library Resources and Technical Services*, vol. 7, no. 4, Fall 1963.

COLE, Genevieve. The Hospital Library. *Bulletin of the Medical Library Association*, vol. 51, no. 4, October 1963, p. 480-2.

CONNOR, John M. The Medical Society Library. *Bulletin of the Medical Library Association*, vol. 51, no. 4, October 1963, p. 467-71.

CRAWFORD, Susan. The Archive-Library Department of the American Medical Association. *Bulletin of the Medical Library Association*, vol. 51, no. 4, October 1963, p. 507-11.

DANIELLS, Lorna M. *Selected Reference Sources: A Guide for Harvard Business School Students*. Boston: Graduate School of Business Administra-

tion, Harvard University, 1963. 46 p. pap. \$1.

DAY, Melvin S. The Scientific and Technical Information Program of the National Aeronautics and Space Administration. *Journal of Chemical Documentation*, vol. 3, no. 4, October 1963, p. 226-8.

DUNKIN, Paul S. Happiness is a Long Footnote. *Library Resources and Technical Services*, vol. 7, no. 4, Fall 1963, p. 403-5.

EMERSON, Ruth. Illinois Chapter, SLA. *Illinois Libraries*, vol. 45, no. 9, November 1963, p. 485-6.

FASANA, Paul J. Automating Cataloging Functions in Conventional Libraries. *Library Resources and Technical Services*, vol. 7, no. 4, Fall 1963, p. 350-65.

FELTER, Jacqueline W., ed. Cumulative Index Volumes 41-50, 1953-1962. *Bulletin of the Medical Library Association*, Part II, vol. 41, no. 4, November 1963, 86 p.

FLEMING, Thomas P. The University Health Science Library. *Bulletin of the Medical Library Association*, vol. 51, no. 4, October 1963, p. 472-5.

FOULKE, Jean E. The Young Student and the Scientific Library. *Bulletin of the Medical Library Association*, vol. 51, no. 4, October 1963, p. 489-98.

GRAHAM, Elizabeth C. Library of Advertising Publications Incorporated. *Illinois Libraries*, vol. 45, no. 9, November 1963, p. 499-500.

GRECH, Anthony P. and ANDREWS, Joseph L., comps. of ten bibliographies on international business transactions. In SURREY, Walter S. and SHAW, Crawford, eds. *A Lawyer's Guide to International Business Transactions*. Philadelphia, Pa.: Joint Committee on Continuing Legal Education of the American Law Institute and the American Bar Association, 1963. 1071 p. \$35.

HARVEY, John F. The New Frontier for Library Educators. *Journal of Education for Librarianship*, vol. 3, no. 4, Spring 1963, p. 243-50.

HENKLE, Herman H. The John Crerar Library. *Illinois Libraries*, vol. 45, no. 9, November 1963, p. 509-12.

HURN, Doris P. Library of Scott, Foresman and Company. *Illinois Libraries*, vol. 45, no. 9, November 1963, p. 533-4.

KRUSE, Paul. Piracy and the *Britannica*: Unauthorized Reprintings of the Ninth Edition. *The Library Quarterly*, vol. 33, no. 4, October 1963, p. 313-28.

MCDONOUGH, Roger H. Depository Library—Privilege or Responsibility. *Library Resources and Technical Services*, vol. 7, no. 4, Fall 1963, p. 371-6.

MOORE, Edythe, et al. Literature Research for a Space Materials Research Program. *Journal of Chemical Documentation*, vol. 3, no. 4, October 1963, p. 232-4.

NIELANDER, Ruth and THOMPSON, Helen. Recruitment, Each One Reach One. *Illinois Libraries*,

vol. 45, no. 9, November 1963, p. 487-8.

OWEN, Katherine Crawford, co-author. A Cooperative Project in New Drug Reporting. *Journal of Chemical Documentation*, vol. 3, no. 4, October 1963, p. 201-5.

PIEZ, Gladys T. Casters for Book Trucks—What Type Is Best for Carpeted Floors? *ALA Bulletin*, vol. 57, no. 8, September 1963, p. 787-9.

PUTZEY, Lloyd J. The Illinois Agricultural Association Library. *Illinois Libraries*, vol. 45, no. 9, November 1963, p. 516-17.

RIGALI, Camille. Daprato Library of Ecclesiastical Art. *Illinois Libraries*, vol. 45, no. 9, November 1963, p. 513-15.

SAUNDERS, Kay. Preface. *Illinois Libraries*, vol. 45, no. 9, November 1963, p. 483.

SESSIONS, Vivian S. The City Planning and Housing Library: An Experiment in Organization of Materials. *Municipal Reference Library Notes*, vol. 37, no. 9, November 1963, p. 269-83. (Free reprints available in limited supply.)

SHEENHAN, Kathryn M. Central Library of the Pure Oil Company. *Illinois Libraries*, vol. 45, no. 9, November 1963, p. 522-3.

SHOEMAKER, Richard H. A Checklist of American Imprints, 1820-1825. *Library Resources and Technical Services*, vol. 7, no. 4, Fall 1963, p. 401-2.

STIMMONS, Joseph M. The Library of the Chicago Sun-Times Daily News. *Illinois Libraries*, vol. 45, no. 9, November 1963, p. 503-8.

SOUTHERN, Walter A. Information Services at Abbott Laboratories. *Illinois Libraries*, vol. 45, no. 9, November 1963, p. 493-8.

Contract for Scientific Bibliography

An annotated bibliography on Soviet work in the field of mathematical biology is being prepared by the Medical Research Foundation of Oregon, Portland, with a one-year contract from the Extramural Program of the National Library of Medicine. The bibliography, which is being prepared under the direction of Dr. Walter R. Stahl, Associate Professor, Department of Mathematics, Oregon State University, will indicate Soviet progress on the uses of the physical sciences in biological and medical research. For further information, write to the Science Translation Program, NLM, Bethesda 14, Maryland.

Atomic Energy Reports on Microfiche

Microcard Editions, Inc., Washington, D. C., has made available unclassified reports of the United States Atomic Energy Commission issued after July 1963 on microfiche as well as Microcards. The microfiche have white print with black background and adhere to the standard format adopted in 1963 by the AEC and the National Aeronautics and Space Administration. Abstracts and indexing by author, corporate author, and subject of all reports available from Microcard Editions, Inc. are listed in *Nuclear Science Abstracts*.

RECENT REFERENCES

Librarianship

COUNCIL OF HIGHER EDUCATIONAL INSTITUTIONS IN NEW YORK CITY. *A Study of Seven Academic Libraries in Brooklyn and Their Cooperative Potential*. New York: 1963. iii, 75 p. pap. mimeo. Apply. (L. C. 63-21762)

The resources, facilities, and use of the libraries of the Brooklyn College of Pharmacy, Brooklyn Law School, Long Island University, Polytechnic Institute of Brooklyn, Pratt Institute, St. Francis College, and St. Joseph's College for Women were assessed through interviews and questionnaires to students and faculty. Recommendations are offered for their eventual cooperation.

Library Technology Project: 4th Annual Report. Chicago: 1963. 32 p. pap. illus. Apply.

A report on LTP activities and finances for the period July 1, 1962 to June 30, 1963, and its prospects for the future.

MELINAT, Carl H., ed. *Educational Media in Libraries*. (Frontiers of Librarianship No. 6). Syracuse, N. Y.: School of Library Science, Syracuse University, 1963. 39 p. pap. \$1.50. (L. C. 63-22058)

Three papers—"The Changing Role of the Librarian and His Relationship to Educational Media," by Carolyn I. Whitenack, "The Library, Technology and the Role of a State Education Department," by Lee E. Campion, and "National and International Trends in the Use of Educational Media," by Luther H. Evans—presented at the sixth annual Summer Symposium of the Syracuse University School of Library Science.

MESSMAN, Howard A. *Building Materials in Library Construction* (University of Illinois Graduate School of Library Science Occasional Papers, No. 67). Urbana: 1963. 23 p. pap. mimeo. Apply.

A discussion of building materials in terms of their functional application in library structures. Appendix lists recent applications of exterior and interior facing materials in specific structures. Bibliography.

PIPICS, Zoltán, ed. *Dictionarium Bibliobecarii Practicum*. Budapest: 1963. 317 p. \$8. (Distr. by Kultura, P.O.B. 149, Budapest 62)

An aid to cataloging books in languages unknown to the librarian. The most important bibliographic terms are given in 20 languages—Bulgarian, Croatian, Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Latin, Polish, Rumanian, Russian, Serbian, Slovak, Spanish, and Swedish—under an index number system enabling the user to locate equivalents in his own language.

UNIVERSITY OF DETROIT LIBRARIES. *Library Guide for Faculty*, 2nd ed. Detroit: 1963. viii, 34 p. pap. 50¢.

A handbook intended to acquaint university faculty with the organization, services, and facilities.

ties of libraries—the University of Detroit Library in particular.

Bibliographic Tools

HAYDOCK, Eleanor. *A Guide to the Literature of Electronics* (Western Canadian Contributions to Librarianship, no. 1). Vancouver: School of Librarianship, University of British Columbia, 1963. 12 p. pap. Free.

Prepared primarily for the use of students at the University of British Columbia, the choice of books and journals listed has been determined by their availability in the university's library. Stresses periodical literature but includes standard handbooks and reference works; no textbooks.

How-to-do-it Books: A Selected Guide, 3rd ed., rev. New York: R. R. Bowker Co., 1963. xxii, 265 p. \$7.50. (L.C. 63-15626)

Brings up to date the guide originally compiled by Robert E. Kingery, with many new subjects added. More than 4,000 entries are arranged alphabetically under 775 subject headings. A new section, Sources of Supply, lists firms that issue catalogs of materials used by hobbyists. Directory of publishers; authors' index.

INTERAGENCY COMMITTEE ON OCEANOGRAPHY OF THE FEDERAL COUNCIL FOR SCIENCE AND TECHNOLOGY. *Bibliography of Oceanographic Publications* (ICO Pamphlet No. 9). Washington, D. C.: 1963. iv, 23 p. pap. mimeo. (Single copies available free from ICO, Building T-3, Room 1714, 17th and Constitution Avenue, Washington 25, D. C.)

A reading list of 500 selected titles (English only), including technical treatises, college textbooks, dictionaries, directories, bibliographies, periodicals, maps, films, histories, biographies, and non-technical books and articles, with reading level and contents indicated.

JONES, H. G. and AVANT, Julius H., eds. *Union List of North Carolina Newspapers, 1751-1900*. Raleigh, N. C.: State Department of Archives and History, 1963. xiii, 152 p. pap. mimeo. \$3.

Contains information on every known title of a North Carolina newspaper published prior to 1901, indexed by place of publication, and giving the paper's title, frequency of publication, and inclusive dates. Lists, when possible, archives with copies on file and, when the paper is available on microfilm, the holder of the master negative.

KENWORTHY, Leonard S. *Free and Inexpensive Materials on World Affairs*. New York: Teachers College, Columbia University, 1963. x, 83 p. pap. \$1. (L.C. 63-22137)

The fifth in a series of World Study Guides, this booklet lists available study material obtainable for 65¢ or less, for the convenience of librarians, teachers, and study group leaders.

KUPER, B. *A Bibliography of Native Law in South Africa, 1941-1961*. Johannesburg: University of the Witwatersrand, 1962. iv, 20 p. pap. mimeo. Apply.

Native law is that aspect of African tribal law that is recognized and applied in the courts. This listing covers general works on the subject as well as reports by South African and Southern Rhodesian government commissions. Author index.

LANOUE, George R., ed. *A Bibliography of Doctoral Dissertations on Politics and Religion*. New York: National Council of the Churches of Christ, 475 Riverside Drive, 1963. vi, 49 p. pap. \$1. (L.C. 63-21606)

Lists 649 dissertations undertaken in American and Canadian universities between 1940 and 1962, both general works on philosophy and theory and historical studies on America and other parts of the world. No index; arrangement is by subject and geographical area.

LINE, Maurice B. *A Bibliography of Russian Literature in English Translation to 1900* (Library Association Bibliographies, No. 4). London: The Library Association, Chaucer House, Malet Place, W. C. 1, 1963. 74 p. pap. \$3.60; \$2.70 to members of the Association.

Translations from Russian into English which appeared in book form up to and including 1900. Periodicals are excluded. Translations of non-literary works are also excluded unless, as in the case of Tolstoi, the author was a literary figure. Includes a chronological listing and index of translators.

MANCHESTER PUBLIC LIBRARIES. *Current Abstracts and Indexes in the Technical and Commercial Libraries*. Manchester, England: Central Library, St. Peter's Square, 1963. 42 p. pap. 10/6d.

Lists the 287 periodicals (out of the 3,000 taken by the two Manchester libraries) that regularly publish abstracts or indexes, with details of their frequency and coverage. Subject index.

MOLLEMA, A. M. P. and MOREL, P. M. *Bibliographia Neerlandica*. The Hague, Netherlands: Martinus Nijhoff, 9 Lange Voorhout, 1962. xxxv, 598 p. slip case. \$13.40 (\$13.80 postpaid).

In two parts: Part I lists publications on the Netherlands in foreign languages from 1940 through 1957, both by subject and by language; Part II lists translations of Dutch literature from 1900 through 1957, arranged according to language, with each language section divided by subject. Text in English, French, German, and Spanish.

NATIONAL LIBRARY OF MEDICINE. *Basic Reference Aids for Small Medical Libraries*. Bethesda, Md.: U. S. Department of Health, Education, and Welfare, Public Health Service, 1962; reissued June 1963. ii, 15 p. pap. Apply.

Annotations describe the basic titles for a medical reference collection. Arrangement is by type of reference tool.

NEELAMEGHAN, A. *Development of Medical Societies and Medical Periodicals in India, 1780 to 1920* (IASLIC Special Publication No. 3). Calcutta: Indian Association of Special Libraries and

Information Centres, c/o G. S. I. Library, 29 Chowringhee Road, Calcutta 16, India, 1963. viii, 120 p. \$4 (Distr. by Oxford Book & Stationery Co., 17 Park Street, Calcutta 16).

A survey of the rise of medical societies and medical journalism in India, including both classified and alphabetical lists of societies and periodicals for the stated period. Index.

NUCLEAR DATA PROJECT. *Nuclear Theory Reference Book for 1957 and 1958*; *Nuclear Theory Reference Book for 1959 and 1960*. Washington, D. C.: National Academy of Sciences—National Research Council, 1963. vi, 136; vi, 152 p. pap. \$1 each. (Available from Superintendent of Documents.)

The first two compilations of a series of guides to theoretical papers, in many languages, in the field of low-energy nuclear physics. Each volume is a bibliography of about 1,000 papers arranged by topic. Author indexes.

OASIS OIL CO. OF LIBYA. *Periodicals in Libya*, compiled by Philip Ward, Librarian, Legal Dept. Tripoli, Libya: Oasis Oil Co. of Libya, P. O. Box 395, 1963. iii, 38 p. mimeo. unbound. Apply.

Lists the periodical publications held in three Libyan libraries (the Faculty of Science of the University of Libya at Sidi Al-Misri, the Radio and Telecommunications Institute at Bab ben Gashir, and the Oasis Oil Company in Tripoli) with the aim of facilitating cooperation between them and avoiding duplication.

OLSON, Shirley P. M. *Community Recreation* (PACAF Basic Bibliographies for Base Libraries). San Francisco: 1963. viii, 93 p. pap. spiral binding. Apply. (Available from Commander-in-Chief, Pacific Air Forces, ATTN: PFPPS-P, Command Librarian, APO 953, San Francisco, California.)

Supersedes PACAF Bibliography, *Community Recreation*, dated 15 May 1961. Annotations compiled to assist Air Force librarians and administrative personnel in community recreation. Author-title index.

Paperbound Books in Print, vol. 8, no. 5, October 1963. New York: R. R. Bowker Co., 1963. 470 p. pap. \$5; yearly subscription, \$16.

This cumulative issue lists 23,600 active paperbacks indexed by subject, author, and title, published through September 1963, and previews of over 540 titles for October. Subject index is divided into 26 major headings suggested by the publishers as a basic classification system for paperbound books. Next cumulative issue due in February 1964.

PRAKKEN, Sarah L., ed. *Books in Print*, 16th ed. New York: R. R. Bowker Co., 1963. xxvi, 2454 p. \$18.

Author-title-series index to the *Publishers' Trade List Annual*. Lists approximately 163,000 titles available from 1,400 American publishers, first alphabetically by author and editor, then alphabetically by title and series.

———. *Subject Guide to Books in Print*, 7th ed. New York: R. R. Bowker Co., 1963. xxvi, 1966 p. \$17.50.

Annual index to the *Publishers' Trade List Annual*. Follows the subject headings assigned by the Library of Congress, with some 126,000 books appearing under 25,000 headings with 35,000 cross-references. Fiction, poetry, and drama are in most cases omitted.

REYNOLDINE, Sister Mary, ed. *Catholic Booklist*, 1963. Haverford, Penn.: Catholic Library Association, 1963. 68 p. pap. Apply.

Includes only recommended books by Catholic authors or of special Catholic interest, in several categories ranging from bibliography and reference to juveniles. Index of authors and titles.

SPECTOR, Herman K. *Juvenile Delinquency: A Bibliography*. San Quentin, California: California State Prison, 1963. xii, 109 p. pap. mimeo. Apply.

Lists over 600 recent books, pamphlets, magazine articles, proceedings, and reports, with notes and annotations. Subject index.

U. S. NAVAL SCHOOL. *Bibliography: Behavioral Research and Associated Studies*. Port Hueneme, Calif.: U. S. Naval School, Civil Engineer Corps Officers, Academic Department, Technical Library Division, Construction Battalion Center, 1963. iv, 31 p. pap. mimeo. Apply.

Not a comprehensive bibliography, but one embracing much of the research work in behavior and motivation undertaken in recent years under the auspices of the Department of Defense.

ULVING, Tor. *Periodica philologica abbreviata*. Uppsala: Almqvist & Wiksell, 1963. 137 p. 15 Swedish kronas.

Subtitled "A List of Initial Abbreviations of Periodicals in Philology and Related Subjects," this book contains the abbreviated references to international journals and other periodicals in the fields of philology and linguistics. Does not offer a standard for abbreviations, but records the actual inconsistent usage. Preface in English.

YUAN, Tung-li. *Bibliography of Chinese Mathematics, 1918-1960*. Washington, D. C.: 1963. x, 154 p. pap. mimeo. \$3.75. (L.C. 63-13672) (Available from the author: 1723 Webster St., N.W., Washington 11, D. C.)

Monographs and papers by Chinese mathematicians published in Western languages during the period 1918-1960.

Directories

MUSIKER, R. *Directory of Libraries in the Southern Transvaal*. Potchefstroom: South African Library Association, 1963. 41 p. pap. mimeo. Apply. (Available from the author, Rhodes University Library, P. O. Box 184, Grahamstown, South Africa.)

A revised edition of the *Directory of Special Libraries in the Southern Transvaal* published in 1960, and now including for the first time public and university libraries. Lists alphabetically 100

libraries, mostly in or around Johannesburg, with their scope, lending policy, and size of collections. Subject index.

NATIONAL ACADEMY OF SCIENCES—NATIONAL RESEARCH COUNCIL. *The Eastern European Academies of Sciences: A Directory* (Publication 1090). Washington, D. C.: 1963. vi, 148 p. pap. \$2. (L. C. 63-60058)

Gives the history, organization, responsibilities, and chief periodicals of the academies of sciences in Bulgaria, Czechoslovakia, Hungary, Poland, Rumania, and Yugoslavia, along with biographical sketches of leading officials of each academy and notes on famous scientists of each country.

PETERSON, Eldridge, ed. *Who's Who in Advertising*. New York: Who's Who in Advertising, Inc. (affiliate of Haire Publishing Company), 111 Fourth Avenue, 1963. 1275 p. \$50; special library price, \$39.50. (L.C. 63-18786)

More than 10,000 biographies of people in advertising, giving present and past business affiliations and functions, advertising specialty, professional, civic, social, and fraternal organizations and memberships, awards, educational background, hobbies and personal interests, personal data, and home and business addresses. Based on information provided by biographees. Includes Advertising Hall of Fame and a cross-index by companies and personnel. Biennial publication planned.

ROAN, Tattie W., ed. *Directory of Scientific Resources in Georgia, 1962-1963* (Project E-233-034). Atlanta: Industrial Development Division, Engineering Experiment Station, Georgia Institute of Technology, 1963. viii, 141 p. pap. spiral binding \$2.50.

Lists industrial research laboratories, consulting engineers, government laboratories, and colleges and universities carrying out investigations in all scientific fields except medicine. Each entry includes information on size of staff, fields of interest, kinds of activity, equipment, and availability of services. The first of a series of directories planned for each of six southeastern states and for the area as a whole. Subject and geographical indexes.

Who Was Who in America, Historical Volume, 1607-1896. Chicago: A. N. Marquis Co., 1963. 672 p. Apply. (L.C. 43-3789)

13,300 biographical sketches of individuals, both of the United States and other countries, "who have made contribution to, or whose activity was in some manner related to the history of the United States, from the founding of Jamestown Colony to the year of continuation by volume I of *Who Was Who* (1896)."

Who's Who of American Women, 3rd ed. Chicago: A. N. Marquis Co., 1963. 1160 p. Apply. (L.C. 58-13264)

Biographical listings of more than 20,000 outstanding American women, with 7,500 entries new to this edition.

Yearbook of International Organizations (Annuaire des Organisations Internationales), 9th ed., 1962-63. Brussels, Belgium: Union of International Associations, Palais d'Egmont, 1962. 1562 p. \$16.

1,722 entries (354 additional ones since the 1960-61 edition) covering the United Nations, the European Community, other inter-governmental organizations, international non-governmental organizations, and national organizations in consultative status with the U.N. Indexed geographically, by initials, and by English and French keywords.

Miscellaneous

CORNING, Mary E. *Country Reports on the Organization of Scientific Research: United States* (OECD Scientific Research). Paris: Organisation for Economic Cooperation and Development, 2 rue André-Pascal, 1963. 96 p. pap. Apply.

One of a series of reports on scientific research in each of the member countries of the OECD. The material in each report is divided under uniform headings to provide a means of comparison; this one, on the United States, describes the role of government, industry, universities, private institutes, foundations, and learned societies in sponsoring scientific research. Numerous charts and tables; bibliography.

LORD, Francis A. *Civil War Collector's Encyclopedia: Arms, Uniforms, and Equipment of the Union and Confederacy*. Harrisburg, Pa.: Stackpole Co., 1963. [xiv], 360 p. illus. \$17.50. (L. C. 63-14636)

Everything, or almost everything, that was carried or used by soldiers on both sides in the Civil War, from guns to musical instruments and shaving cups. Major topics are arranged in alphabetical order, with subtopics and cross references. Illustrated with photographs, prints, and drawings, many of the period. Appendix lists Federal and Confederate contractors, patenteers, and dealers in arms and equipment. Bibliography and index.

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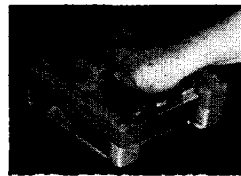
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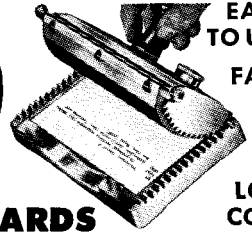
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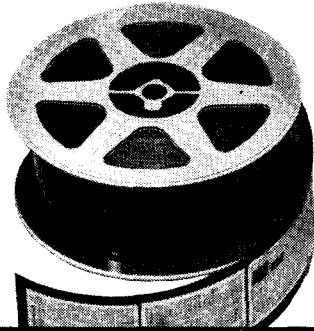
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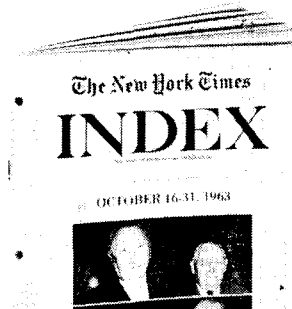
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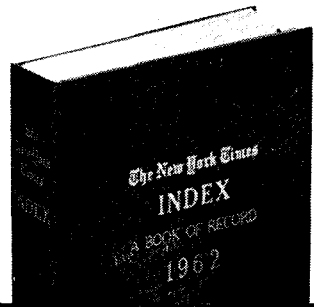


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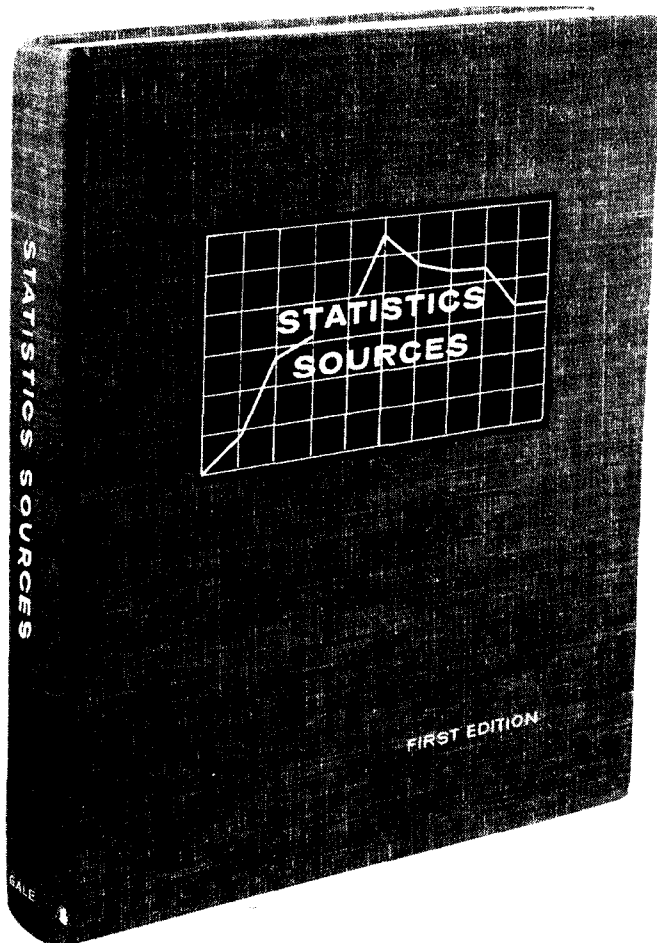


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