The Municipal Reference Library of Toledo.

By WENDELL F. JOHNSON.

Mr. Johnson is Secretary of the Commission of Publicity and Efficiency of the City of Toledo, O. He has been doing some very constructive work for his city through the organization of a Municipal Reference Library and as Editor of the Toledo City Journal.

Toledo's Municipal Reference Library is an institution of such modest proportions that it would be sheer presumption to describe the operation of this particular library as one having any great interest to readers of SPECIAL LIBRARIES. As a member of a particular class of specialized libraries, however, it can serve as an illustration of the kind of service rendered and the manner of its rendering, common to all municipal reference libraries.

A Two-Fold Purpose

The purpose of Toledo's Municipal Reference Library, established only about a year ago by the Commission of Publicity and Efficiency, may be said to have been twofold. Its primary purpose was to make available for the use of city officials and employees, all possible information on subjects related to the various activities of the city government. On that account it was located in the city hall itself, within convenient reach of most of the city offices. A somewhat subordinate purpose was to give ready access to this material to citizens, civic organizations and students. It may be said that in Toledo this second purpose back of the establishment of a library of reference material on municipal subjects has probably been given greater emphasis than in most other cities. This is explained by the fact that the Commission of Publicity and Efficiency has the job of making citizenship efficient, as well as city administration. Upon them was placed the duty of interesting and instructing the people of the city in public affairs. Thus they are endeavoring to do through the Toledo City Journal which they publish, besides giving out newspaper stories, addressing civic organizations and preparing exhibits. In connection with this publicity work the material gathered for the reference library is very useful.

Collecting the Material

Our first job was of course to collect material for the library. We were fortunate in having secured as a nucleus for our shelves a small but carefully selected quantity of pamphlet material gathered by Prof. W. M. Leiserson for a Public Service Bureau at Toledo's Municipal University. This material was already classified and filed in perpendicular filing boxes, and we merely adopted the system already started, and began adding to it.

The first important addition to our collection came with an arrangement entered into with the Public Library by which they furnished us bound volumes on municipal subjects. These were turned over to us for circulation from our library, individual volumes being withdrawn only when calls for them came to the public library, and then only when they were not in use. In short, our municipal reference library was made a special branch of the public library, except that the public library has furnished no staff for its operation. When the City Hall library grows large enough to warrant it, however, we are confident of having a trained librarian with assistants, provided by the public library.

The work of making constant additions to our collection of pamphlet material, type-written reports, clippings from periodicals, etc., is doubtless very similar to that of collecting material for any other special library. We keep in touch with departmental reports from other cities, special studies made by universities and municipal research bodies, and articles in the principal magazines on municipal government. Public Affairs Information Service provides a particularly helpful index, but the Reader's Guide is also very useful. In our own case we get a great deal of assistance from the publications of other municipal reference libraries, chief among which is the "Notes" published by the New York Public Library.

This material, having been collected, must of course be classified by subject. As yet we have not acquired a sufficient mass
of material to require installation of an index. It is filed alphabetically by subject. One of our next big jobs will have to be the installation of a complete index.

**Getting the Material Used**

Up to the present time our chief thought has been directed toward getting the material used. During the first year of its operation, the library has been used more by private citizens and civic organizations than by city officials. This has been due to the fact that students of city government at Toledo University, St. John's College, and the two high schools have come in considerable numbers for information required in their classes, and to the further fact that unusual public interest in city affairs has been aroused during the last year by a spirited controversy over the street railway question and by the enfranchisement of the women.

For city officials the library performs special services in the form of preparing reports on particular subjects of current interest. Requests for such services have come chiefly from the City Council, but to a limited extent from department heads. In addition to this, the library attempts to call the attention of city officials to material on subjects related to their work. Lacking an assistant who can give full time to the library, this work has been extremely meager.

But while Toledo's municipal reference library is still small, it has, in our opinion, tremendous opportunity for development, and a broad field of useful work ahead of it. In Toledo as in every other city the tendency is toward professionalizing municipal services, and away from the old system of handing out public office as rewards for party loyalty. This tendency will make increasingly important the function of the municipal reference library. For the man who seeks to make of public work a profession will be the more eager to use the facilities such a library can provide.

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**Research Work in Special Libraries**

**By ANNA LEE PACE.**

Miss Pace is writing as the librarian of a large Cleveland concern. The writer's equipment percentage table is interesting, and readers' attention is called to Miss Pace's offer of the copy of a classification scheme.

In stating the qualifications required in the applicant, employers, among them the United States government, often make out a tabulated outline so that their requirements may be more quickly grasped. In the work of a research librarian the following percentages seem to me to indicate a proper equipment:

- **Education** ................. 40%  
- **Bent** ..................... 20%  
- **Experience** ............... 40%

**Education,** I should say to the extent of an A. B. degree, must take care of some of the information acquired as well as encouraging the idea and illuminating the methods of research. The course in logic is helpful in classifying material. The writing of briefs and forensics teaches one the accumulating and tracing of references, the orderly arrangement of information acquired in search and the making of bibliographies. Courses in science requiring papers give much the same preparation. Languages, of course, are helpful and in any extensive work, necessary. The whole college education is a preparation, but it cannot give the results arising from the second and third qualifications. The 40% of bent must start from the inside out. The bent or inclination is responsible for the enthusiasm and enthusiasm is needed to drive on the work. No suggestion coming from without can give half the impulse and momentum which springs from the natural love of research.

If education gives some of the knowledge, and inclination the enthusiasm, then experience gives more knowledge, and that which is more precious than knowledge—wisdom. Experience in each position brings all the guns of education to attack in that sector. Special libraries are indeed specialized as may be seen in the Cleveland Club of Special Librarians. The line in which your individual company or institution is interested becomes the river into which all tributaries flow. The minute ramifications of the subject become important divisions in your mind. Experience in this work, we might almost say, is non-negotiable, i. e., it cannot be used as a foundation, in another position.

About two years before coming to Cleveland, research in the fixation of atmospheric nitrogen was the most important dogma in my intellectual faith. I was given books to read on the subject and special instructive talks by the chemical engineers in the division, patents on the subject to be translated. I was interested in it. It is hard to think of this experience as transferable to the field of manufactured steel—still, it was more closely connected, I think, than any two special libraries in our Cleveland Club.

When you thoroughly understand rubber
and its products, a change to a Children's Welfare bureau would require an installation of an entirely new set of mental Lakes and Pennates, but engineering lines have the same modes of thinking and a great deal of the same vocabulary. It is on account of the diversity of subjects in which librarians are interested that the librarian has a function for librarians doing research. Whereas the librarian, who meets the public and manages affairs of cards, etc., may get new quicks in filing methods, and clues to plans for circulation, etc., the librarian who devotes her time to research gains the rather negative benefit of finding out that, besides her own, there are other interesting clues to discovering that other fields overlap or dovetail with her own. She may be able to negotiate an exchange of bibliographies, also may find that a translation she has made, can double its usefulness by being shared.

Aside from material, methods of organization differ widely in libraries, but it might be well to mention the duties of research librarians in specific cases. The current magazines are read and interesting articles marked and abstracted for a file which is, in the instance of which I speak, identical with that a club of special librarians is interested in. Subjects of interest to the company are brought to the attention of the research librarian and she makes a slight, an extensive, or an exhaustive search of the subject as occasion demands. The information may be presented in the form of enlightening abstracts or short comments, or the article itself photosensitized—this latest, in case it is full of interesting detail or photographic illustrations, curves, etc.

I have been in the habit of beginning bibliographies with cards, as they are really the most convenient device for work. When the reference has been looked up, a check appears after the title and a comment or short outline on the back. I use the cards until the material from very fertile references becomes too unwieldy and then the subject is worked into an annotated forensic, with photocasts attached. Those bibliographies which do not grow beyond the cards are kept in an alphabetical index while those which graduate from the card file enter the pamphlet file.

The pamphlet file, as well as all material which is classified in the library, falls under a special classification, which was built in this library. I say "built" advisedly. The opinion in the Department was strongly in favor of the Dewey Decimal System, if a satisfactory expansion could be found. I made a trip to New York to see what other special libraries were using. I found that the Engineering Societies' Library's Classification was in a formative period, the Western Electric's would not, of course, be very useful. The National Automobile Chamber of Commerce does not use Dewey or any extension of Dewey, but their work being the invaluable dictum in the automotive world I decided to graft it on to our classification tree.

When I returned I arranged around my desk the Brussels Extension, the Illinois Extension, just plain Dewey, and the National Automobile Chamber of Commerce. With many suggestions from the Patent Department, whose material comes under the same classification, it took shape, and after a few transfers, cuts and additions, became the classification that it is now. I will be glad to let anyone look at it. I do not exhibit it as a masterpiece, but I show it as the result of honest work, neither more nor less. The work of making a classification may not, in every case, fall to the lot of the special librarian, but if there is one to be made I think that the research librarian, knowing the work, is especially fitted for the task.

All inventions, whether made by members of our company or presented to the company by independent inventors, go through the Research Department. Then, too, difficulties against which the plants are working, are turned over to our engineers to solve. Every fresh arrival usually means a separate study for the research librarian, it may be concerning wheels, their early forms and developments, on cooling beds for open hearth furnaces, on axles or the use of coal dust. Each subject rises, becomes intensely interesting and then wanes, and sometimes there are a good many that are interesting at the same time. Then is needed a fast worker and one who knows what to choose and how to divide the time.

It is interesting work and I think as industries grow and competition becomes closer, a research department will become a necessary adjunct to an industry and the librarian a very important worker in the research department.
The Library of the Philadelphia Electric Company

By E. MAE TAYLOR, Librarian.

Miss Taylor contributes a variation of the generally accepted function of the business library, viz., that it enables the user to benefit from past experience. Miss Taylor inspiringly declares that it will help him penetrate some distance into the future, to see the trend of things, thus supplying the far-seeing business man with something to grasp, to hold and to use.

The idea of organizing information for the men who are doing things has been widely applied within very recent years to varied lines of industry and business. This new development of specialized means for collecting and classifying useful information has been the inevitable result of industrial and commercial growth.

The modern business man must be progressive and to keep up with his business he must be informed as to the very latest facts affecting his business. He must also have information which will help him penetrate some distance into the future, to see the trend of things, and far-seeing business men have been keen to employ methods which would help them to grasp, to hold and to use the things which their business must employ to be successful.

For this purpose the Library of the Philadelphia Electric Company was organized in 1909. At that time the library consisted of 175 volumes donated by the Philadelphia Society of Electric Metermen. At the present time the Library consists of 3,000 volumes on the following subjects: Engineering (electrical and mechanical), physics, chemistry, mathematics, accounting, commercial and business methods, biography, encyclopedia, Association Proceedings, bulletins of various engineering societies, Public Service Commissions' reports, Government Publications of the Bureau of Standards, Bureau of Mines, Bureau of the Census and Bureau of Statistics.

In addition to these books we have a file of 1,500 pamphlets, 1,700 trade catalogs, 5,000 photographs and 4,000 cards on which clippings have been pasted.

About 40 periodicals are subscribed to including all the most important technical and business publications. As a guide and aid in research work all periodicals are reviewed and articles of value to us are abstracted and indexed on 3 x 5 cards. Each card contains the title, author, a brief abstract of the article with the name, date and page number of the periodical. When the periodicals are being reviewed certain articles are selected for a Current Reference List, which is issued every week. This list is sent to the head of each department, who either passes it around his department or posts it on the bulletin board. Any article mentioned on the list may be borrowed for three days.

Our reference file and this index are important factors in our library service.

Many of our men wish to have certain periodicals sent to them regularly. A list of these names is kept in our file and as soon as a periodical is received it is checked and started on its way. A slip of paper is pasted on bearing the date the periodical is issued and the date it is to be returned.

Often several men in the same department wish to see the periodical, in that case, the names are written on the slip with the request to "please pass to the next person on the list"—allowing three days for each person.

We also have a personal file. This file keeps us in touch with the man wishing up-to-date information on their particular line of work. In reviewing the periodicals these men are kept in mind and they are given preference in having the periodicals sent to them. At the end of the year all periodicals are bound. They are then considered reference books and cannot be taken from the Library.

In cataloging the Library both the "Dewey Decimal System of Classification" and the "Extension of the Dewey System of Classification as Applied to the Engineering Industries" were used. The latter is issued by the University of Illinois.

All books with the exception of bound volumes of periodicals, reports and Association Proceedings may be borrowed from the Library for two weeks. In charging the books we use two cards, a white and a pink card containing the name of the borrower, the date the book is due and the date returned. These cards are made out in duplicate, the white one is retained in our file, the pink one remains in the book as a reminder when the book is due.

Many of the men in the Stations because of their hours and the distance cannot come to the Library and for these use books are sent to the Stations in charge of a person who agrees to act as the Library representative and who is given authority to exchange the books among the men. The results from this method have been most gratifying as it has stimulated greater interest in the Library. Library catalogs and application blanks have also been distributed at the Stations and books selected from the catalog may be obtained by either filling out the application blank or by tele-
phoning. Books are delivered through the Company messengers.

Pamphlets, clippings and catalogs are classified and filed in vertical filing cabinets. The clippings are mounted on 9 x 11 manila cards and the card index contains cards for both pamphlets and clippings. The trade catalog index is arranged according to subject and manufacturer. Photographs are mounted on linen with a brief description of the subject of the photographs, negative number and date typewritten on the back. If a lantern slide has been made, this is stamped in red ink. The photographs are placed in loose leaf albums, according to subject, each album containing 100 photographs.

The librarian endeavors to keep in touch with conventions and meetings of various associations. In this way many valuable papers and reports are procured.

Information outside of our sphere is obtained by telephoning or writing other libraries or using any source which we know can serve us.

It is the aim of our Library to give efficient and helpful service and to bring our employees to a realization that—"Books are indeed like friends, but the volumes in a technical library are more, they are not only friends, but counsellors and advisers, helpers upon whose aid and wisdom a man can rely."

**Books About Business Research**

The business librarian in search of ways and means to increase the value of his library to the business executive will obtain both inspiration and benefit from a perusal of "Business Research and Statistics" by J. George Frederick, President of the Business Bureau. (New York: Appleton 1920.) In his endeavors "to demonstrate in business terms the concrete profit and economy possibilities of business research and statistics" Mr. Frederick indirectly indicates a hundred different ways in which the "live" business librarian can render increasingly effective service to his firm. The book discusses types and kinds of facts, data sources, research departments and the like. Special attention is given to methods of statistical study, the analysis of trade markets, graphic charts and their use, and special investigations, surveys and reports. Of particular interest to the special librarian are the chapters dealing with the executive application of facts to business, convincing presentation of facts, and the discussions of the scope and character of research work in business. The author's name reflects the need for a close co-operation between business libraries and research departments. This feeling is well reflected in the following quotation; "Policies and plans must be built upon a foundation of facts before they can be regarded as sound or businesslike; therefore the business of fact-getting, fact-weighing and fact-comparison is of quite primary importance in business, and must become in increasingly more so as the men who operate business increase their respect for facts and seek them as underpinning for more and more of their business judgments."

The first of the group of books on business research to have been issued was Duncan's Commercial Research (New York: Macmillan, 1919). It has a very practical value to the business librarian, not so much because of discussion of detail, but, rather, because of the many relationships of the work of the business librarian which are disclosed. The book lends itself admirably for class-room purposes.

Mees on The Organization of Industrial Scientific Research (New York: McGraw-Hill Book Co., 1920), concerns himself more particularly with the organization of the research laboratory itself, its equipment, maintenance, staff, etc. The library is very seriously regarded by Dr. Mees, references occurring on pages 2, 52, 75, 108, 110, 114, 119-121, 133, 138, 140, 147-148, 151. The volume is equipped with a bibliography and a list of research laboratories. Dr. Mees is director of the research laboratory of the Eastman Kodak Co. and since the above book was written Dr. Mees has been awarded the John Scott Medal by the Directors of City Trusts of the City of Philadelphia. The award was in part for the researches on the structure of photographic images undertaken in the laboratory which Dr. Mees is director.

The Outlook for Research and Invention, by Nevil M. Hopkins (New York: Van Nostrand, 1919), is the work of a practical, experienced worker. The volume is embellished with portraits of men who have arrived in this field, Charles B. Munroe, Thomson, Backlund, Whitney, Edison and Tesla. The book is interesting and the author's interest in the intellectual productivity of various classes suggests the earlier studies of another American, Lester Ward. In connection with a tabulation upon which he is at work, Dr. Hopkins states (p. 20) that he expects to be able to prove that genius among the American laborers will show a considerably higher percentage, and that intellectual attainment, as evidenced in invention and discovery, will be more conspicuous than in either England or France. This may
be due the author believes to a considerable extent to our many moderate-priced and excellent semi-technical magazines, as well as the elaborately illustrated instruction sheets sold by the correspondence schools. For the librarian a most suggestive remark, this.

One of our own number, Dr. Clarence J. West, a valuable member of the S. L. A., has compiled the most complete bibliography on the subject of industrial and scientific research, which has been printed as a Bulletin of the National Research Council.

Work of the Committee of Bibliography
Technical Association of the Pulp and Paper Industry

CLARENCE JAY WEST, Chairman.

Director Information Department, Arthur D. Little, Inc.

The Technical Association of the Pulp and Paper Industry is probably unique in that, among its Standing Committees, it has a Committee on Bibliography. This was the result of plans made by the Committee on Publications, who stated in their report for 1916 that:

"It is also planned to prepare a bibliography of the publications on pulp and paper."

Shortly after, this Committee was divided into a Committee on Abstracts and a Committee on Bibliography. Mr. Henry E. Surface, of the Forestry Division, Department of Agriculture, was appointed chairman of the latter, which position he held until his unfortunate death in the summer of 1920. Mr. Surface was peculiarly fitted for this work, because he was prominently connected with the work on papermaking conducted by the Bureau of Plant Industry and the Forestry Bureau, and also because he had done considerable bibliographic work for the government.

The work of the Committee is entirely dependent upon the co-operation of the members of the Association and of librarians and bibliographers who realize the value of such work. Mr. Surface associated with him Dr. David Hunter, of Chillicothe, Ohio, who is an expert on hand-made papers, and later Mr. Robert Sindall, the well-known English paper expert. The success of the work is evidenced by the appended list of contributions. The several bibliographies so far published will be found to aggregate about 185 solid pages (8 x 12, double column), divided according to years as follows: 1910, 6; 1911, 13; 1912, 6; 1913, 47; 1920, 110. These have appeared in Paper (Contributions 1-15) and the Paper Trade Journal (16-23). It was, and still is, the hope of the Committee to finally compile a general bibliography of the Pulp and Paper Industry, which will be conveniently arranged for the use not only of the Technical Association, but also of the general technical public.

It will be noted that the Appendix list of contribution shows that the Committee's publications have developed three phases: First, "book" literature; second, research contributions by various paper research institutions and organizations; and third, reading lists or references ("book" and "analytic") on special subjects within the pulp and paper field. Despite the number of contributions, there is comparatively little duplication; among the "book" titles such as there is has been purposely made to correct errors or augment descriptive data in earlier published lists. In spite of the work already published, the field of "books" alone has not been adequately covered by the Committee's contributions because library studies continue to develop new titles, even without exhaustive research.

The Committee desires to express its appreciation for the co-operation which has been given to date, and earnestly request all those interested in this line of endeavor to assist the work of the Committee until such time that the Technical Association can properly finance the work.

Appendix

No. 1—United States government publications pertaining to pulp and paper. Henry E. Surface.

Paper 19, No. 4, 55-80 (Oct. 4, 1920).

This is a second edition, revised and enlarged, of "A list of United States public documents pertaining to pulp and paper," by Henry E. Surface, Journal of Industrial and Engineering Chemistry 5, No. 7, 614-616 (July, 1913).

No. 2—Handmade paper and its watermarks: A bibliography. David Hunter.


No. 3—American and foreign paper trade periodicals: A list of subscribers maintaining permanent files. Frederick C. Clark.

Paper 21, No. 4, 90, 92, 94, 96, 98, 100 (Oct. 3, 1917).


Paper 21, No. 22, 156, 158, 154 (Feb. 13, 1918).

No. 5—Government paper bibliography.
United States government publications pertaining to pulp and paper—Supplement No. 1. Helen E. Stockbridge.

Paper 22, No. 11, 33, 40 (May 22, 1918). This is supplementary to the Association Committee's contribution—No. 1, by Henry E. Surface.

No. 6.—Bibliography of paper deterioration. H. M. Lydenburg.

Paper 22, No. 19, 12-13 (July 17, 1918).

No. 7.—Literature of the paper industry. A bibliography adapted from Akesson-Ever-Ting Frügtiger. M. Hubbard.

Paper 21, No. 23, 54, 56, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80 (Feb. 12, 1919).

No. 8.—Forest products statistics. Adapted from a compilation by U. S. Central Bureau of Planning and Statistics. Appendix: Bibliographies of official publications, by M. Hubbard.

Paper 22, No. 26, 11-14 (Mar. 5, 1919); 24, No. 1, 16-17, 28 (Mar. 12, 1919).

No. 9.—Paper research literature. (1) A list of contributions by members of the U. S. Forest Service, Forest Products Laboratory: 1910-1918. With appendix of contributions by other members of the service; 1877-1918. Compiled by Etta L. Matthews. Appendix, by Helen E. Stockbridge.


No. 10.—Paper research literature. (II) A list of contributions by members of the Forest Products Laboratories of Canada: 1913-1918 With appendix of contributions by other members of the Canadian Forestry branch. Compiled by Eva M. Smith.

Paper 24, No. 9, 15-18 (May 7, 1919).


Paper 24, No. 13, 15-16 (June 4, 1919).

No. 12.—Paper research literature. (IV) A list of contributions by members of the laboratory of Arthur D. Little, Inc., Boston, Mass., 1889-1918.

Paper 24, No. 17, 24-25 (July 2, 1919).

No. 13.—A British patent office library acquisitions. A select bibliography of cellulose, paper and allied subjects. M. Hubbard.

Paper 25, No. 4, 32, 34, 36, 38, 40, 41, 44, 46, 48, 50, 52 (Oct. 1, 1918); 25, No. 9, 13-19 (Nov. 8, 1918); No. 10, 23 (Nov. 12, 1919).

(A list of the succeeding numbers was printed in the December, 1920, number of this periodical.—Ed.)

List of References on Power Transmission as Related to Belting

Compiled under the direction of H. H. B. MEYER,
Chief Bibliographer, Library of Congress.

October 14, 1920.


5 Bule, Manfred P. Modern shafting and gearing and the economical transmission of power; a handbook for power users. London, New York, W. Rider & Son, 1899. 102 p. (Rider’s technical series, No. 1.)


13 ———. The treatment of belts and ropes for service and profit, from engine drive to dividends. Buffalo, N. Y., Cling-Surface Co., 1907. 87 p.
16 Cromwell, John H. A treatise on belts and pulleys. Embracing full explanations of fundamental principles; proper disposition of pulleys; rules, formulas, and tables for determining widths of leather and vulcanized-rubber belts and belts running over covered pulleys; strength and proportions of pulleys, drums, etc., together with the principles of and necessary rules for rope-gearing and transmission of power by means of metallic cables. New York, J. Wiley & Sons, 1885. 271 p.
31 Hunt, Charles W. Manila rope for transmission and hoisting. A brief treatise for engineers, on ropes used for the transmission of power, and for hoisting falls—together with formulas, tables and other particulars useful in the engineering. New York, The C. W. Hunt Co., 1895. 30 p.
41 McGuen, G. W. Care and repair of
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... belts. Scientific American, June 1, 1918, v. 118: 620.


49 Nicholson, John T., and R. J. Durley. The transmission and distribution of power. Montreal, 1898. 68 p. (McGill University. Papers from the Dept. of Physics, No. 6.)


67 Trautendorf, R. Choosing the right belting. Factory, June, 1918, v. 20: 1081-1083.


74 Zimmer, George F. The mechanical handling and storing of material; being a treatise on the handling and storing of material such as grain, coal, ore, timber, etc., by automatic or semi-automatic machinery, together with the various accessories used in the manipulation of such plant. London, C. Lockwood & Son, 1916. 792 p. Chapter 7 discusses belting.
Periodical Union Lists

In a letter recently received from Mr. Julian F. Smith, Librarian of the National Aniline and Chemical Company, 351 Abbott road, Buffalo, New York, it is suggested that there be published in "Special Libraries" a bibliography of union lists so that special librarians may know which cities possess complete files of the various technical and other periodicals. Mr. Smith has sent in a very interesting list of references to serve as a starting point for a more complete compilation. Will readers of "Special Libraries" who are interested in this problem co-operate to the extent of sending such additional lists or references as they may possess so that the whole may be organized in shape for publication in a future issue?

I.—Union Lists

4. List of serials in public libraries of Chicago and Evanston, $1.00. Chicago Library Club (Public Library).
7. Union list of serials in the libraries of Rochester (1917). Public Library, Rochester, N. Y.
8. Joint catalogue of periodicals in the libraries of Toronto (1913), $0.55. Library, Univ. of Toronto, Ontario.

II.—Library Lists

Lists of periodicals received have been issued by:

2. Leland Stanford, Jr., University (California) Library.
5. University of Colorado Library.
8. Washington University Library, St. Louis.
10. Iowa State University Library, Iowa City.
12. Wisconsin Historical Library, Madison.
17. Boston Public Library.
18. Lloyd Library, Cincinnati.

Why the Business Library Pays

BY MARY BERTWICK DAY.

Librarian, National Safety Council, Chicago, and President, Chicago Library Club.

A Few Concrete Examples Which Prove the Dollars and Cents Value of a Business Library in an Organization.

What is the future of the business library? At a time when every concern in the country is taking stock of its goods and endeavoring to eliminate all unnecessary extravagances, it is well to consider the business library and try to discover if it is a money-saving investment, a time-saving agency to the man higher up and a dynamic factor in the organization, or is it an expensive department which is not earning its way, is not delivering the goods, a continual outgo, with no tangible results. If the latter is
the case, I should say the business library has no place in the organization. It should be wrapped as any other similar department in the concern.

Here and there, in business there have been such libraries which have fallen by the wayside, largely due to poor management, short-sighted vision and an entirely erroneous conception of what the real service of the business library should be. But all over the country, there are business libraries, which are carrying their way, that are active agencies in the concerns for the dissemination of data to the busy executive, that are helping, at every turn, the business to succeed, and that are indispensable to the work of the organization. Such libraries will last.

Last month, some fifty “financial librarians” of New York City held a meeting to discuss their problems in that city. They were not all the financial librarians of that city, but they represented the head librarians from the largest concerns on Wall Street. The analysts have found that a business library pays.

One of the head men in one of our large eastern industrial organizations recently told the writer that ten years ago they were spending $10,000 a year in the salaries of engineers to do research work in the libraries—men untrained in bibliographical tools. By putting in a librarian—a college graduate with additional professional library training, they were able to save considerable money, a real service bureau, for the dissemination of literature of value to the business, was inaugurated, and the engineers were thereby given more time and energy to devote to the work for which they were professionally trained and employed.

Edward Hungerford, in a recent magazine article, has told the story of how the head of a public library in a large steel-making community met the head chemist of a large steel company one day. The chemist confided the details of an important experiment which he had just completed. “I must have cost the firm something to put through that experiment,” ventured the librarian.

“A pretty penny,” was the prompt reply. “For exact figures, something in excess of $10,000.”

The librarian laughed. “The entire experiment was made four years ago with prac-tically the same result,” said he. “The whole thing, down to the fine details, is on the shelves of our library.”

It is a mistake to think that the business library needs an expensive equipment. One of the most efficient business libraries in one of our large cities contains only a row of books between book ends, on the librarian’s desk, and a few vertical filing cabinets for pamphlets, clippings, reports, photographs, and catalog cards. The librarian utilized, through her professional knowledge of research methods, some forty other libraries of the city, the city, state and government departments throughout the country, and many other agencies. By telephones, tele- graph and by correspondence, she was able to bring to the desk of the busy executive the right data at the right time.

To be sure the tangible results of actual money brought to the concern through the channel of the business library are not so well defined as the black and white statistics revealed by the sales department, or some of the other departments, but parallels more nearly the work of the advertising or publicity department. A librarian, once in her annual report, given before the executives of the concern, entitled her report, “How many barrels of cement did the library sell last year?” He was able to give many concrete illustrations of how the librarian had sold the “concrete idea”—to the man whose bungalow had burnt down, and who had been given, from the library, literature and blue-prints on concrete bungalows, and who was led to build his home out of this fireproof material; how the president of a library board had desired literature on stucco libraries and who ultimately induced his library board to build with this material, and many other illustrations were cited from the year’s work in the library.

Business libraries are not in the experimental stage. Many have weathered financial crises and have come out stronger and better. These libraries, as any other properly managed business, will remain and become a still greater force in a world teeming with new problems of vital interest to the executive. Such libraries are not luxuries, but practical labor-saving forces. They will last.

(Reprinted from 100% for February, 1921.)

Applied Economics and the Oil Trade

When the trapper, questing a waning prey in the woods of the Northland, is compelled to hunt in unknown place, he avail himself of all the knowledge his rigorous life has given him that he may keep his bearings and return with a supply of pelt for the comfort of distant people. So it must be the juncture of the American petroleum industry. The converging angle between the rapidly rising curve of consumption and the lagging curve of production, the dependence of the United States on petroleum and the vital interest of all in the adequacy of supply are ample justification for an economic study of the history of the oil industry and of the conclusions that may be drawn.
Driller Gives Way to Geologist.
In the early stage of petroleum production the technical phases of drilling were considered paramount. Later the driller was compelled to relinquish first place to the geologist who, after studying the geologic age, the stratigraphy and structure of a prospective area, located the well site. The units of the petroleum industry have now become so broad in their activities, intricate in operation, and formidable in competition, the demand for petroleum products so great and the supply so limited, that the most progressive companies have begun to study the location and magnitude and control of the world's reserves, the volume of production, transporting, refining and marketing facilities and costs, the nature and distribution of the consumptive demand, the quantity consumed, stocks, imports and exports, prices, and other economic factors. Professional economists and conservationists already have considered some of these subjects in a cursory manner and the United States Geological Survey and Bureau of Mines have studied many of them quite thoroughly, but the petroleum operators are the first of the great basic mineral industries to undertake an investigation of this kind. It is believed that this step marks the beginning of a new era in the history of the American petroleum industry.

Maryland Study Is Exhaustive.
Although several oil companies in the United States have studied specific phases of the industry probably the most exhaustive examination was recently completed by the Maryland companies. Some of the results will be presented in papers to follow. Brief reference is made to the history and scope of the study to aid in understanding its nature and value.

In October, 1919, Mr. E. W. Marland, president of the Marland group of oil companies, hurriedly headed to extend their activities and to direct their energies into new fields, authorized a comprehensive investigation of world petroleum conditions. A committee was appointed consisting of members of the various departments and others from outside the organization whose training and experience fitted them. Most of the information was collected in Washington and elsewhere by the author of this introduction. The complete task required the service approximately of twenty-five specialists for a period of six months and cost approximately $50,000. A large number of men were sent into the field to collect information from primary sources; substantially all available petroleum literature in the United States was collected and analyzed. The features were placed on maps and charts, of which there were about five hundred.

How Work Was Classified.
For the purpose of classifying and studying the data the operations of the industry were divided as follows:

1. Crude Supply
2. Transportation
3. Refining
4. Marketing

Permanent Economic Department Formed.
At the conclusion of the investigation Mr. Marland, realizing the importance of keeping the information up-to-date and of making further current detailed studies of specific problems, authorized the organization of a permanent department of economics. The author of this article was placed in charge.

The library of the department, which is the basis for much of its work, consists approximately of 5,000 pieces, 500 of which are books and pamphlets, 1,000 manuscripts, 2,000 serials, 600 clippings, and 500 maps, charts, and photographs. The literature embraces practically all important, geologic, technical, statistical, economic and other works relating to petroleum and allied substances issued by the United States Geological Survey, Bureau of Mines, Bureau of Foreign and Domestic Commerce, Bureau of Standards, Patent Office, Interstate Commerce Commission, Shipping Board, Bureau of the Census, by state organizations, by private individuals and scientific associations, and by trade journal and map publishing companies. The librarian in charge analyzes the material as it is received and takes steps to obtain copies of current reports as issued. The assembled data are placed in the following general classes:

A. Geology
B. Technology
C. Economics
D. Law
E. Bibliography
F. General Works

They are then card catalogued and elaborately indexed both geographically and logically. A large volume of important information on all problems relating to the petroleum and allied industries is in this library. As classified and indexed it is probably one of the most complete, compact and accessible libraries of petroleum literature.

Scope of the Research.
The research planned by the department will embrace further analysis of the world petroleum industry and related subjects, comprising the crude supply, transportation, refining, marketing, natural gas and natural-gas industries and all their branches. It will involve the preparation and study of maps, charts and short reports intended to aid in solving the problems that confront an expanding American oil company. It is the purpose of the department to cooperate to the fullest extent with other members of the company that the results of their work may be co-ordinated, that needs may be met and that they may receive maximum benefit from the information collected and analyzed. Close
January, 1921

SPECIAL LIBRARIES

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Refining.

Refinery facilities, refinery practice, cost of construction and operation, power and efficiency tests, runs and re-runs, losses, stocks.

Marketing.

Production of refined products, stocks of refined products, marketing methods, marketing facilities (exclusive of those listed under transportation), marketing costs, consumption of refined products, automobiles, trucks, tractors, aircraft, and other internal combustion engines, improved roads, general economic and financial conditions, imports and exports of refined products, prices of refined products, substitutes.

It is unnecessary to point the value of such an organization to an oil company. The Maryland economic department is not the only one of its kind. The Pure Oil Company maintains a permanent statistical organization. Joseph E. Pogue, formerly a governmental economist, was recently appointed by the Sinclair Consolidated Oil Corporation to undertake similar work for that company. It is understood that like organizations are being formed by the American Petroleum Institute, Gulf Refining Company and other large corporations and oil trade associations. — (Reprinted from Petroleum Magazine for February, 1921.)

Capt. Anderson Makes Annual Report

Captain John Anderson, who for a number of years has been sending out magazines to the logging camps, recently prepared a statement showing the number of citizens which have contributed and the manner in which this sum has been expended.

He has also accompanied this statement, which he has sent to contributors, with a pamphlet explaining the Anderson System, and some of the things it has accomplished during the past year. He calls attention to the fact that during 1920 117 lectures on Americanism, patriotism, exposition of the constitution and good citizenship, were delivered by representatives of the Anderson System, and that millions of pieces of good literature were sent to the logging camps. In fact, he estimates that about fourteen tons of books and magazines were shipped to 143 different companies, operating about 250 camps.

While the Anderson System to some people, means merely an organization which distributes literature, as a matter of fact it does much more than that. In providing speakers to talk to men in the camps about lines which are intended to make them better citizens.

Captain Anderson has also sent out with his report extracts from a large number of letters from Washington and Oregon lumber companies, expressing appreciation for the work which he has done during the past year.

The financial statement sent out by Captain Anderson follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>426 citizens subscribed</td>
<td>$7,247.50</td>
</tr>
<tr>
<td>Old waste paper</td>
<td>1,064.25</td>
</tr>
<tr>
<td>Deficit</td>
<td>360.02</td>
</tr>
<tr>
<td>Total</td>
<td>$8,670.77</td>
</tr>
<tr>
<td>Salaries to helpers and assistants</td>
<td>$2,260.38</td>
</tr>
<tr>
<td>Store rent—Seattle, Tacoma and Portland</td>
<td>504.00</td>
</tr>
<tr>
<td>Auto repair—Seattle, Tacoma, Portland</td>
<td>587.00</td>
</tr>
<tr>
<td>Painting and lettering the Blue Boxes</td>
<td>302.25</td>
</tr>
<tr>
<td>Auto repair, tires, oil, gas, storage</td>
<td>533.59</td>
</tr>
<tr>
<td>Printing</td>
<td>$322.75</td>
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<tr>
<td>Lumber</td>
<td>29.05</td>
</tr>
<tr>
<td>Stationary</td>
<td>370.81</td>
</tr>
<tr>
<td>Freight</td>
<td>61.31</td>
</tr>
<tr>
<td>Magazines</td>
<td>175.00</td>
</tr>
<tr>
<td>Bought</td>
<td>242.31</td>
</tr>
<tr>
<td>Railway and street car fares</td>
<td>125.55</td>
</tr>
<tr>
<td>Telegrams</td>
<td>6.50</td>
</tr>
<tr>
<td>290 days on road, hotels and meals</td>
<td>1,450.00</td>
</tr>
<tr>
<td>House rent</td>
<td>810.00</td>
</tr>
<tr>
<td>For the support of my family</td>
<td>1,200.00</td>
</tr>
<tr>
<td>Personal accounts</td>
<td>312.00</td>
</tr>
<tr>
<td>Total</td>
<td>$8,700.77</td>
</tr>
</tbody>
</table>

(Reprinted from West Coast Lumberman, February 8, 1921.)
The Specialized Library of Yesterday, Today and Tomorrow

By G. W. LEE, Librarian, Stone and Webster, Boston, Mass.

A sequel to what was printed on Page 54, Vol. 5, April, 1914.

Prophesied in 1914 for "Tomorrow"

1. The business and departmental library, inter-association, inter-dependence and convention going, all matters of course.
2. No pride in achievement; wanting the best; self-effacement; team work.
3. Efficiency arrived, conventions for progress and application of principles following upon the heels of resolves.
4. Interchange of literature by gift or auction a matter of course.
5. The clearing house idea amongst all libraries, whereby they trust to one another's specializations, where they are cared for to better advantage than as side lines of one's own specialty.
6. Reducing experience to print, so that newcomers can begin almost where others are leaving off.
7. A handbook for the special library worker, compiled for the essentials of his field; revealing the tricks of the trade.
8. Anything like an exclusive stock-in-trade only under protest and with apology.
9. Reservoir libraries for little used material (back numbers of out of the way periodicals, serials, etc.), so as to keep the workaday libraries full of live matter.
10. Special librarianship distinctly a profession; and as a corollary thereto, the calling of every business man distinctly a profession.
11. Catalog of men as well as books; sources of information the keynote.
12. The Information Bureau not an independent organization, but par excellence an important aspect of every library; the public library as a local head, the state library as a district head, the Library of Congress as a national head; with an international organization tying all countries together.

Fulfillments of Today
1. This fellowship now making healthy growth, with the spirit of standardization vs. rule-of-thumb becoming the order-of-the-day.
2. Too much pride in achievement and not enough confession of weakness; team work still spasmodic.
3. Efficiency arriving in the conduct of libraries, but conventions not managed with any more appreciable science than heretofore.
4. Still an unsolved problem; the writer, at work on this, a committee of one of the Boston Special Libraries Association.
5. Correspondence between special librarians indicates a growing reliance upon one another's specialties or facilities, but this done informally and not through an apportionment of specialties, published for co-operative, if not general use.
6. Reducing experience to print is but casually done; it needs to be made a science.
7. I understand that the handbook, which has been the dream of years, is rapidly taking definite shape through committee work.
8. Librarians likely to protest; but the powers-that-be not yet educated to the idea.
9. The reservoir library problem, the subject of a presidential address by Dr. C. H. Gould at the Bretton Woods convention in 1899, and hardly touched since.
10. Special librarianship a growing profession. It should be discussed at Swampscott.
11. Community sources of information receiving more and more attention in both general and special libraries.
12. Information Bureaus as library adjuncts are getting to be the order of the day. Anything like a systematic lineup between public libraries, state libraries, and the Library of Congress has yet to be realized; but the "Enlarged Program" campaign has filled us with the spirit of "together," and such library lineup seems almost a corollary.
January, 1921

SPECIAL LIBRARIES

Special Libraries
ADELAIDE R. HASSE, Editor
Council of National Defense
Washington, D. C.

ASSOCIATE EDITORS
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Checks for dues and subscriptions should be made out to the Association and mailed to Miss Margaret C. Wells, Asst. Sec'y-Treasurer, care American International Corporation, 120 Broadway, New York City.

EDITORIALS

WHAT BUSINESS MEN ARE READING

That husky contemporary system is making a survey of the business man's reading. Beginning with the February issue it proposes to publish monthly thereafter a symposium which is to tell what reading related to business interested a group of leading men most during the previous thirty days. In order that its readers may secure the greatest value from the literature which is attracting the attention of these men, digests of books or articles mentioned by them, will be published as part of the symposium. The following books were selected by the business men for specific mention, viz., Whiting Williams' What's on the Worker's Mind; Sargent's Business Statisties; Cartwright Mutual Interests of Capital and Labor; Wells, Outline of History; Macauley, The Labour Party and Its Policy; Durstine, Making Advertisements; King, The Price Level, Deland. Imagination in Business; Muster, Interview on Unemployment, and last, if you please, a public document, Bulletin 223 of the University of California on Co-operation in Agriculture. The men who will supervise this monthly symposium by calling to the attention of the editors the books and articles which interest them most, are Bernard M. Baruch, C. R. Frederickson, President, the American Art Works; Dr. Wesley C. Mitchell; E. F. Gay, President, New York Evening Post; Frank A. Vanderlip, Banker; George M. Verly, President, American Rolling Mill Company; Gustav Landolphi, Civil Engineer; H. S. Denison,
President, the Dennison Manufacturing Company; Homer M. Ferguson, President, Newport News Shipbuilding and Dry Dock Company; James B. Fargan, Chairman of the Board, First National Bank of Chicago; John J. Raskob, Vice-President, E. L. du Pont de Nemours and Company; L. C. Walker, President, Shaw-Walker Company; Robert Dollar, President, Robert Dollar Company; S. M. Felton, President, Chicago Great Western Railroad Company; W. H. Cottingham, President, Sherwin-Williams Company; W. R. Basset, President, Miller, Franklin, Basset and Company; Winslow Russell, Vice-President, Phoenix Mutual Life Insurance Company.

This undertaking, this innovation, is of enormous and peculiar significance to librarians, and particularly to special and business librarians. It is the first time that we have had collective acknowledgement from such high sources of the actual fact that the big man himself is a consumer of what books represent. To watch the forces which make for the production of books is not the same as reading books. The men whose names are listed above themselves represent tremendous forces, therefore it will be of very great moment to us to consider carefully this projected symposium.

**FRONT AND REAR AXLES**

Not exactly an arresting subject—unless something goes wrong. Without exaggeration axles are the most important unit in any motor carrier. Safe and successful operation depends on them. They absorb the tremendous impact of road shock, the wrench and twist of the uneven crossing, the enormous thrust load of a sudden skid. They transmit power to the rear wheels. Housings make them dirt-proof and oil-tight and produce trouble-free operation.

In our work enthusiasm is the axle. It will do all those things to promote the successful operation of our job which the front and rear axles do for the motor carrier. Enthusiasm is about the most healthy possession a human worker can have—it is good for young and old alike. Also it is contagious. With enthusiasm for our job we can always hope to set down the trite, the commonplace and the deadly dull.

The stock committed to our care for distribution is so fundamentally vital, that there will be no holding down of business when it fully realizes what we are preparing to make of our job.

Did any of our readers happen to read the story by Samuel Vauclain, the President of the Baldwin Locomotive Works, in a recent number of *System*? It is full of the real enthusiasm of the business man for his job.

Only that sort of enthusiasm for his job would have inspired Vauclain to go messing around in a scrap heap for essential material declared to be unavailable.

When we, with a normal, unafraid, unself-conscious enthusiasm for our job, contact up with the industrialist's enthusiasm for his job, then, in the classic phrase of a well-known member of the New York Special Libraries' Association, "Oh, Boy! Howdy!"

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**Special Library Field Activities**

Miss Margaret Reynolds, the librarian of the First Wisconsin National Bank, Milwaukee, Wis., has a review, of "Books and Booklets for Busy Bankers" in the January Banker-Manufacturer of Milwaukee. Miss Reynolds has also compiled a most comprehensive list of "Wisconsin Happenings in 1920," published in the 1921 Hicks Almanac, distributed by the First Wisconsin National Bank.

University Bureaus of Business Research is the title of an article by the Second Vice-President of Special Libraries Association, Prof. Ralph L. Power. It is printed in the November, 1920, issue of Educational Foundations. Prof. Power also has an article on the "Development of Business Education" in the October, 1920, Diary of the Alpha Kappa Psi Fraternity, and another on "Commercial Museums in American Colleges" in Museum Work, December, 1920.

Miss Lehmann, the Secretary-Treasurer of Special Libraries Association, prepares a semi-monthly Library Bulletin for the staff of her firm, the Ronald Press.

The vast aggregation of files in Washington, D. C., is not the only reason why there is such a successful Filing Association in the District of Columbia. Although not yet quite a year old the Association holds regular, well-attended and lively meetings. It issues an attractive monthly periodical called The Finder and maintains a study-club which meets weekly. There are huskiers in this Association, men and women keenly alive to the requirements and possibilities of their business.

Mr. Winthrop Holt Chenery has been appointed to the post of Custodian of Special Libraries in the Boston Public Library. This position has been vacant since the resignation of Mr. Frank A. Bourne. Mr. Chenery assumed his duties on January 8.

The Library Committee of the Chemists'
January, 1921  S P E C I A L  L I B R A R I E S  233

Club of New York City announces that the services of Dr. M. A. Graham have been secured to carry on a special information service. Dr. Graham will give her entire time to the compilation of special reports and bibliographies and will also personally assist employees of subscribers in searching for it.

The Federal Reserve Bank of Kansas City, Mo., has started a library department. Miss Mary P. Billingsley (Illinois) is in charge. The Kansas City Street Railways Company, Street & Co., and the Dikey Clay Mfg. Co. maintain library departments.

The business division of the reference department in the Kansas City Public Library, established one year ago, is now in charge of Miss Mary Eastman (formerly of the New Jersey Zinc Co., Palmerton, Pa. It is very largely used, rendering a very broad technical business service.

Miss Alvin B. Dodd has resigned his position as Director of the Retail Research Bureau to become Manager of the Domestic Distribution Division of the U. S. Chamber of Commerce. His successor at the Retail Research Bureau is Mr. Paul Nystrom, whom special librarians remember as the outstanding speaker of the Louisville Conference.

The tireless librarian of the Bureau of Railway Economics, Mr. Richard H. Johnston, has put out one of his permanently valuable "Lists of References," as he modestly calls his contributions. This time the List is on the Cummins Railroad Bill and the Transportation Act of 1920. There are 65 folios of annotated entries. The list is another proof of what his colleagues acknowledge, that Mr. Johnston is the champion collector and compiler. All our hate off to you, Mr. Johnston! Miss Caroline B. Sherman, Scientific Assistant, U. S. Bureau of Markets, has written a most readable "History of the Bureau of Markets," 11 folios, published by the Bureau. Miss Sherman was formerly librarian of the Bureau.

Mrs. Sadie Allison Maxwell, a graduate of the University of Alabama and the Atlanta Library School, 1916, has been appointed Senior Assistant in the library of the College of Business Administration of Boston University.

Snow Hill, Md., has secured a library through the courtesy of Mr. Purnell, President of the Deposit and Savings Bank of Snow Hill.

Mr. Kenneth C. Walker, the well-known librarian of the New Jersey Zinc Co., becomes librarian of the Pittsburgh Experiment Station of the U. S. Bureau of Mines on March 1. Mr. Walker has made a gentleman's agreement that nor time, nor place will dim his interest in all that concerns the S. L. A. We wish you good luck, Mr. Walker, and let SPECIAL LIBRARIES hear from you soon and often.

The Advertising Club of Richmond, Va., is about to establish a business library. There are to be 250 charter members of this library organization, most of whom will also be members of the Advertising Club. Membership fees are $2.50. The object of this organization is to secure the 500 business books listed by Miss Ethel Cleland, Librarian of the Business Branch of the Indianapolis Public Library, as a basis, and to add books, pamphlets and clippings.

Miss Elizabeth Schmitter of the New Jersey Zinc Co. has gone from the New York Library of that company to its Palmetto Library, to fill the gap made by Miss Elizabeth Hapgood, who has joined the Reference Department of the New York Public Library.

On January 13, 1921, the Canadian Association of Record Keepers came into existence. Mr. D. J. Little, of the James Davies Co., of Toronto, is President and Mr. A. M. Irwin, of the Canadian Manufacturers' Association, is Secretary-Treasurer. The object of the Association is "the study of the science of filing and indexing, the development of efficient methods and the solution of the problems which may arise in this connection."

Miss Rachel A. Egg, of the Reference Department of the Evansville, Ind., Public Library, read a paper on "Building Business with Men" at the joint conference of the 12th annual meeting of the Indiana Library Trustees Association and the 20th annual meeting of the Indiana Library Association last November. A synopsis of Miss Egg's paper is printed in the January Library Occurrent. One of the excellent aids which Miss Egg proposed for reaching the business man is a subject mailing list of the community's businesses and occupations.

The Ingersoll-Rand Co., of New York City, makers of rock drills, air compressors, vacuum pumps, oil engines, pneumatic tools, condensers, steam engines, air lift pumps, water pumps, gasoline extracting compressors, turbo-blowers, etc., is installing a special library to supply information to its various departments on past and recent developments in the fields pertaining to their line of work. H. G. Terwilliger is Librarian.

To assist American business men who are visiting Great Britain, or British members interested in the U. S. market, to keep in the closest possible touch with the industries and trades in which they are interested, the American Chamber of Commerce in London maintains at its offices what is undoubtedly the most complete reference library of British and American trade papers to be found in London. 3,279 trade papers and bulletins were received during the year—an average of over 17 per working day. More than 25 trades are covered
and additions are constantly being made.—
(Anglo-American Trade, January, 1921.)

An Alloys Information Service has been
launched by the National Research Council.
The service will consist primarily of regu-
lar summaries of technical literature. Con-
currently a reference service will produce
exhaustive lists of abstracts of previously
published information. A complete record
of data will be assembled in card encyclo-
dedia form, and available for reference upon
occasion. This encyclopedia will also be
the depository of much unpublished mate-
rial from the subscribers' own laboratories
and libraries. In this work emphasis shall
be placed upon the physical and chemical
properties of pure metal and alloys, the
methods of measurement and analysis, alloy-
forming methods, and service tests.

Such an organization should have much
more than the subscription value to com-
panies intelligently attempting to increase
the quality and uses of alloys, to research
associations, technical libraries and col-
lcges. It will attempt to co-operate with
existing agencies performing such a service
in a more limited way, such as the British
Institute of Metals.—(Chem. and Metallur-
geticai Engineering, December 29, 1920, p. 1271.)

Miss Edith Phail, Librarian of the Scovill
Mfg. Co., Waterbury, Conn., contributes an
annotated booklet to the Bulletin published
monthly in the interest of the employes by
the Scovill Foremen's Association.

The library facilities of the public high
schools of Hawaii are described in U. S.
Education Bureau Bulletin 1920, No. 16, p.
250-251.

The Swedish Chamber of Commerce of
the U. S. A. Produce Exchange Building,
New York City, maintains an extensive
trade data file as well as a special reference
library relating more particularly to Swedish
American trade. Both are open to members.
The Chamber has issued an attractive book-
let explaining how it expedites foreign
trade, which will be sent on request, as well
as sample copies of the Swedish-American
Trade Journal and the latest annual report
of the Chamber.

In the hearings before the Select Com-
mittee on Reconstruction and Production,
U. S. Senate, held in the summer of 1920,
but just printed, there is this reference to
one of the most highly developed American
special libraries, viz., that of the Bureau
of Railway Economics in Washington. Mr.
Daniel Willard, President of the Baltimore
and Ohio R. R., is testifying and he says,
p. 138, vol. 1: "That bureau is supported
by all of the railroads. It has established
a library of many thousand pieces. It aims
to keep in its library all up-to-date infor-
mation concerning transportation matters in
this country and abroad, and the roads have
made use of it to compile information that
would be of interest to all of the railroads."

The Data File
Formerly "Timely Bibliographical Topics"

"Manual of Sugar Companies" is a valu-
able statistical booklet on about thirty sugar
companies, their capitalization, production
and earning power, dividends, working capi-
tal, directors, etc. It is published by Farr
& Co., 133 Front street, New York City.

Official Oil Manual—A Glossary of Oil
Terms, is a 32 page booklet issued by A. L.
Jolly & Co., Inc., 176 Broadway, New York
City.

Use of Oils in Textiles, by Augustus H.
Gill, presents in compact form a mass of
material concerning lubricants used in tex-
tile industry. Published in Boston "Tex-
tiles," 1920, 54 pages.

The Consolidated Belling Co., Philadel-
phia, Pa., has issued a 24 p. 8vo. catalog giv-
ing the usual specifications, and some prac-
tical formulas. The company announces
that it can renovate worn out belts at small
cost.

Carl H. Pfirozheimer & Co., 25 Broad
street, New York City, have issued the third
edition of Independent Oil Stocks, 160
pages.

Reciprocating Engines and Turbines, 134
pages, will be sent free upon request to the
Travelers' Indemnity Co., Hartford, Conn.
The first part of the booklet discusses ac-
cident causes, safeguards and safe practice
in general. The second part is devoted to
theoretical principles.

On January 26, the U. S. Employment
Service released its first issue of the Indus-
trial Employment Survey Bulletin. The
Bulletin comprises tabulated data concern-
ing the estimated volume of unemployment
in 182 principal industrial cities, and a com-
parison of industrial employment between
January, 1920, and January, 1921, in 30
states. The tabulation is accompanied by a
commentary on conditions obtaining in
each district.

An Aeronautical Trade Information Bureau
has been started for the benefit of readers
by Aeronautics, the oldest journal devoted
to the industry. Address Aeronautics, 8 and
8 Bourvole street, London, E. C. A.

The British Ministry of Labor (Employ-
ment Department) have just issued to ac-
countants leaflets explaining a scheme
which it is proposed to put into force dur-
ing the present emergency in order to facil-
tate payment of Unemployment Benefit and
Emergency Donations. These leaflets explain the conditions under which such payments may be made, and it is intimated that arrangements may be made with employers for the payment of benefit or donation to their employees direct on behalf of the Ministry of Labor. The circulars intimate that the Ministry of Labor conferred with the presidents of the various societies of accountants.

The earning power of chain stores is discussed in a circular issued by George H. Burr and Co., Equitable Building, New York City.

West and Co., 147 Chestnut street, Philadelphia, have issued a comprehensive pamphlet describing the history and properties of the Pennsylvania R. R. Co.

The Off Digest is a new monthly publication devoted to news and views of leading experts and publications in oil production. It is published by L. Jolly & Co., Inc., 170 Broadway, New York City.

Hayden, Stone & Co., 25 Broad street, New York City, have published a full statistical study of four porphyry copper companies—the Utah, Nevada, Chino and Ray—since their organization.

Mr. J. A. Beeler, Consulting Engineer and Traffic Expert, 52 Vanderbilt avenue, New York City, on the 25th of January, gave to Mayor Van Noort of Paterson, N. J., a two volume report on the traffic problems of the Public Service Corporation in that city and offered recommendations to that corporation. This report was reviewed in the "Paterson Morning Call" of January 26, 1921.

The 1920 soft coal shortage. Underlying reasons for it and how it was overcome. Lecturer of George Otis Smith, Director of the U. S. Geological Survey, 15 p. 80. Published by the National Coal Association, Washington, D. C., January, 1921.

The Open Shop Campaign is the title of a comprehensive resume of this subject which makes up the entire January number of the Social Service Bulletin published monthly by the Methodist Federation for Social Service, 150 Fifth avenue, New York City. Price, 50 cents a year.

Le Comite-Central des Houillieres de France (Paris), which has heretofore published three serials, viz., Bulletins, Circulaires and Notes Techniques, in January, 1921, combined these serials into one under the title La Revue de l'Industrie Minérale.

Editor and Publisher has just issued its International Year Book Number 1920-21. This is the first presentation of this Year Book. It is full of meat. The first number goes as part of the regular subscription, viz., $3 per year. The outstanding feature is the complete directory of the executive heads (publisher, editor, managing editor, general manager, business manager, advertising manager and circulation manager) of all the daily papers of the U. S. and Canada, a list of the business paper executives of the U. S., a listing of the newspapers of England, Ireland, Scotland and Wales with circulations and advertising rates, a record of advertising lineage of the newspapers in 23 American cities for the years 1914 to 1920 inclusive; a list of the daily newspapers of France and Belgium; American, British and French journalistic associations, list of advertising agencies of France, Great Britain and the U. S.; 1920 U. S. and Canadian daily newspaper suspensions; changes in selling prices of daily newspapers of the U. S. and Canada; directory of special representatives of U. S. daily papers; 1920 legislation affecting newspapers and advertising; court rulings, 1920, affecting newspapers and advertising; list of schools of journalism, and a review of the outstanding books on journalism and advertising of 1920. L. S. Starrett & Co., great tool makers of Athol, Mass., have issued volume two of the Starrett Data Book for Machinists. It will be forwarded upon receipt of 75 cents. It contains tables of decimal equivalents, machine screw dimensions, tapers and angles, wire gage standards, etc.

The Chronology of Iron and Steel, compiled by Stephen L. Goodale, and published by the Pittsburgh Iron and Steel Foundries Co., 1920, covers nearly 300 pages. It is a valuable reference book, a record of facts presented after the fashion of annals.


The Talc Industry in 1920, by R. B. Ladoo, was issued by the U. S. Bureau of Mines in January, 1931, in 5 folios. It contains tables of consumption in the U. S. and production in the U. S. and elsewhere.

A compilation of arguments advertised in newspapers by the American Committee of Justice in opposition to the Alien Land Law, 18 pages. Address American Committee of Justice, 1904 Adeline street, Oakland, Calif.

A Chinese Wool and Leather Industries Commission was recently appointed by the President. The new body will devote its attention to the introduction and encouragement of scientific animal husbandry, certainly a virgin field in China. While the lines along which the Commission proposes to work are not yet known, it is understood that an important feature of its work will be to devise means for lending financial assistance to those desiring to engage in stock raising or animal industries.

The Commission will also study, select and purchase high grade animals of both domestic and foreign origin, and dispose of the same to enterprisers in this field at cost. It will establish and conduct experiment stations which will study the best
methods of producing and manufacturing the various products of animal husbandry. In this connection the Commission will investigate what has been done abroad, particularly in the equipment of factories and methods of gathering, classifying, applying and disseminating information on the wool and leather industries of the world. Ultimately it is proposed to introduce export wool and leather inspection.

The Mining Bureau of the Japanese Government has now practically completed the draft of a new mining law on the basis of the resolutions passed by the recent International Labor Conference at Washington. The principal points dealt with in the new law are means of making effective the 8-hour day for all classes of workers, the prohibition of the employment of women and children in pits and the prohibition of night work for women and children. Little mention is made of the subject of mine accidents, the importance of which is attested by several great mine disasters reported in recent months. Mine owners do not regard the proposed law with favor. It is claimed that pit workers are already on an 8-hour basis, working in three shifts. Other mine employers work from 10 to 12 hours a day in two shifts, and the proposed law would necessitate another change. At the same time that piece-workers would have their compensation reduced by reduced working time. Other objections include the loss of work by women resulting from the clause against their employment in pits, the increased expenses for men to replace women and reduced production because of the prohibition of night work.

Working Back to Normal is the title of an address made by the Hon. W. P. G. Huddles, Governor of the Federal Reserve Board at the annual dinner of Group 8 of the New York Bankers’ Association on January 17. The address has been attractively printed by the Federal Reserve Bank of Philadelphia.

The Superior Sand and Gravel Co., 225-31 Mine Bank Building, Detroit, Mich., is distributing the Builders’ Blue Book. This Blue Book is a reference book for the use of architects, contractors, building and other buyers of building materials.