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Special Libraries in the Enlarged Program

BY J. H. FRIEDEL

*Member of the Committee on Enlarged Program, Representing the
Special Libraries Association*

The question of our relations with the American Library Association is the important matter before us at the moment. The question itself is so vital that in a manner it affects the future of the Special Libraries Association and in a degree touches its very existence. More important still, it affects vitally the welfare of the country's industrial and technical libraries, whether connected with private manufacturing establishments, with government-owned plants or with public institutions, such as public libraries.

The American Library Association has in its Enlarged Program given consideration to business libraries and proposes to set aside certain funds to be raised for their further extension and development.

Upon the repeated protest of the Special Libraries Association that the A. L. A. was not the agency to do this work because it knew nothing of the work and problems of the business libraries, and upon our further protest that we would not be compromised in any plan in which we had not been consulted and offered an opportunity of fair and open hearing, the Committee on Enlarged Program recommended "That the Executive Board of the A. L. A. ask the four affiliated associations each to name a representative to serve on the Committee on Enlarged Program." This recommendation the Executive Board of the A. L. A. endorsed.

Thus out of the protest of the Special Libraries Association, not only we but the other three affiliated associations have gained. Well might we pride ourselves on

this as a victory; but we are not particularly proud of this victory. Refusal of the Committee to give us membership where our interest was so vitally concerned was a denial of justice which we are naturally pleased to see remedied. It was not a pleasant situation while it lasted, but we may congratulate ourselves that being in the right we did not compromise nor waver. Back-bone won for us, and we may hold our heads high because we alone stood as we did and where we did. On the other hand, we may congratulate the Committee on Enlarged Program that finding itself in the wrong, it did not hesitate to reverse its position and recommend the addition of a representative of our own and the other associations to its membership. Such a reversal is never a pleasant situation, but it, too, indicates character. Let us not overlook that.

On December 12, 1919, at its meeting in Boston, Mass., the Executive Board of the Special Libraries Association foreseeing that the A. L. A. must shortly see matters in the same light as itself, voted that in the event of the Special Libraries Association being asked to send an official representative to the Committee on Enlarged Program that Mr. J. H. Friedel, editor-in-chief of *Special Libraries*, editor of the Department of Business Information of 100%—*The Efficiency Magazine*, librarian of the National Industrial Conference Board and a member of the Executive Board of the Special Libraries Association, be its designee.

The mid-winter meeting of the A. L. A. was held in Chicago, but owing to the short

notice given, my attendance at this meeting was impossible. However, I was present at the meeting of the Committee on Enlarged Program in Brooklyn, N. Y., on Jan. 17, 1920.

As a result of the Chicago meeting the Enlarged Program has undergone considerable revision. Below is a reprint of the summary of the program as it is at present. I wish particularly to direct the attention of members of the Special Libraries Association to that part of the program under the head of C-5. Also in reading this, it should be remembered that the program is still tentative and that further changes may be made as a result of further study and recommendation.

SUMMARY

Proposed Activities of the A. L. A.

PART I.

It is proposed that the American Library Association, working through existing library agencies as far as possible, extend its present scope to include the activities indicated below.

A. THE DEVELOPMENT AND ADVANCEMENT OF THE LIBRARY PROFESSION.

1. To offset present influences tending to deplete the profession, the Association should become active in *recruiting for librarianship*, reaching college, university, normal school and high school students and the general public through addresses, through the preparation and publication of articles, through interviews with college and university officials, teachers and vocational advisers. The Association should also utilize every possible agency for arousing interest in and respect for the profession of librarianship.
2. An *Employment Bureau* should be established by the A. L. A. for the benefit of all those who wish to avail themselves of its assistance; a bureau which in filling positions, would consider the needs of the public, the profession and the individual, aiding library trustees and librarians to secure competent assistants and helping library workers in general to find the position in which they can render a maximum of service.

3. *National certification* of librarians should be provided for through the organization of a National Certification or Examining Board which would grant certificates in various grades to experienced librarians after examination and without examination to those holding diplomas from accredited library schools.

4. The American Library Association should endeavor to increase the *salaries* and improve the working conditions of librarians by bringing facts, statistics, resolutions and arguments directly and repeatedly to the attention of those responsible for the support of libraries.

B. PUBLISHING ACTIVITIES AND THE PROMOTION OF THE INTELLIGENT USE OF PRINT.

1. It is proposed that the *publishing activities* of the Association be placed in the hands of one competent person, under supervision, who would give full time to the future development and extension of the publishing activities.
2. The American Library Association should undertake the publication of scholarly, non-commercial *bibliographies, union lists and indexes*, including an International Index of Humanistic Literature which would make available material in about five hundred current periodicals and society publications not now indexed.
3. The Association should act as a clearing house from which the public may obtain names of institutions and individuals (i. e. *sponsors for knowledge*), ready to furnish specialized information.
4. The publication of *books for the blind* in the new Braille type, already begun for the benefit of ex-service men by Library War Service, should be continued by the A. L. A., in cooperation with other organizations, for the benefit of libraries serving the blind in the United States.
5. To promote the *education of adults*, the Association should cooperate in the preparation of reading and study courses which may be pursued by any person who has access to a library; should compile a statement of the agencies for adult

education active in this country and endeavor to cooperate with them in suggesting to readers and students greater use of books and libraries.

C. DEVELOPMENT AND IMPROVEMENT OF LIBRARIES AND LIBRARY SERVICE.

1. A comprehensive *survey* should be made to find out where general and special libraries stand so that future development may be wisely directed.
2. *Library Extension*—When requested practical aid should be given in promoting the further development of libraries, in obtaining desirable legislation providing especially for more adequate support of libraries; for establishing library commissions in states without them; for establishing county libraries to meet the need of the rural population.
3. *Advice* through field workers and from headquarters should be given upon request on all phases of library development and practice, including the establishing and reorganizing of libraries and the erection of library buildings.
4. The Association, in cooperation with other educational organizations, should work for more adequate provision for *university, college, normal school and public school libraries*.
5. In cooperation with the Special Libraries Association, practical aid should be given to business concerns in the organization of *special libraries*. Further development of *technical and business departments* in public libraries should also be fostered.
6. Advice should be given to *penal, correctional and charitable institutions* wishing to establish libraries, where existing library agencies cannot do this.
7. *Education in citizenship* and American ideals should be further encouraged in libraries through cooperation with schools and other organizations, through exhibits, through the foreign language press and in all other possible ways.
8. The Association should do all within its power to encourage and assist our Canadian fellow-members in the furtherance of the project to establish a

National Library for the Dominion of Canada.

9. *European Headquarters* at Paris should be maintained to encourage interchange of information about libraries between European countries and America. This will also serve as a public library for American residents and others in Paris.
10. Special attention should be given to the development of *juvenile departments* in libraries and the promotion of good reading among children.
11. A *Department of Information and Education* should be responsible for the promulgation of the library idea through magazines, newspapers, leaflets, exhibits and in other legitimate ways

D. DIRECT LIBRARY SERVICE.

Note.—The service indicated in paragraph number 9 in C and in all paragraphs in D, is now being rendered as Library War Service (with money received from the United War Work funds, the use of which is limited to these specific purposes), and will be continued as such for perhaps one year. As soon as possible, this work should be released to local libraries, library commissions, the government, or other appropriate agencies. But the A. L. A. may have to continue some features beyond 1920 in order to put them on an adequate, permanent basis, and so they are included as a part of the Enlarged program.

1. The *United States Shipping Board and other merchant marine vessels* will be provided with collections of books and with a service that will make specific books available when and where they are needed.
2. *Ex-service men* who want books for study will be supplied with them through local library agencies, or, when necessary, by direct loans.
3. Books in Braille grade 1½ are being printed for the use of *blind ex-service men*.
4. *Public Health Service Hospitals* and private hospitals in which there are ex-service men and men from the merchant marine, etc., will be supplied with books

when local libraries are unable to meet the need.

5. *Coast Guard Stations, Lighthouses and Lightships* will receive collections of books unless they are within easy reach of local libraries.
6. A few *federal industrial plants* and other (former) war work industries will continue for a time to receive limited service, and advice will be given in the organization of libraries in those industries on a permanent basis.

It is proposed that a continuous effort be made to have each phase of the work listed in Part 1 taken over and maintained by the government or other appropriate agency.

PART II.

It is proposed that the American Library Association appeal for funds to make possible the carrying out of the activities listed in Part I.

The problem before us now is, what attitude shall we take? In order that the members of the Association may know definitely my own opinion and recommendation, I submit a copy of my first report to the Executive Board of the S. L. A.

120 Peterborough St.,
The Fenway,

Boston, Mass., Jan. 20, 1920.

To Members of the Executive Board:

Herewith I give you my first report as representative of the Special Libraries Association on the Enlarged Program Committee.

I attended the meeting of the Committees on Enlarged Program in Brooklyn, New York, on Saturday, January 17th. There were present, besides the members of the Committee as originally constituted—Mr. Hill, Mr. Milam, Mr. Brown, and Miss Webster—the representatives of the four affiliated associations, Mr. Hicks of the Columbia University Law Library for the American Association of Law Libraries, Mr. Godard of the Connecticut State Library for the National Association of State Libraries, Miss Kingsland of the New Hampshire Library Commission for the League of Li-

brary Commissions, and the undersigned as your representative.

A program for the meeting had previously been prepared and the meeting proceeded in accordance with this. Letters from several persons endorsing the Enlarged Program plan were read. The plan for the two million dollar drive was discussed. This plan is now being formulated and I shall advise you regarding its details when all has been definitely determined. The division of the country into ten districts each in charge of a regional director was outlined; five of these directorships have already been filled, the others are still open. The regional directors are to be responsible for making the drive a success in their districts. Mr. Hill asked that I suggest any persons for regional directors since he wished to have special librarians to take an active part in the drive. Inasmuch as it did not seem to me that we commit ourselves before knowing where the Committee stood on the question of special libraries, I suggested that I had no names to offer at the time but that later I might do so.

Several parts of the program, particularly those dealing with the establishment of a European headquarters, aid for rural libraries, the work of the Committee on Certification, were considered. In the afternoon the plan of financial campaign was outlined, both by Mr. Hill and by those who will have it in charge, notably the Publicity Director and the Director of the Organization.

The program of the A. L. A. is pretty well developed and while still in the tentative stage, is taking final form. It has been modified considerably and at present is in much more satisfactory form as regards special libraries than it was before. The plan now is to raise and set aside \$150,000 to be spent in cooperation with the Special Libraries Association in furthering the establishment of special libraries. I wish to call your attention to Section C, paragraph 5 of the Summary of Proposed Activities of the A. L. A. which I enclose.

The practical question is: Do we want to endorse the program in its present form and go out with the A. L. A. in its drive for funds, helping in every way, and calling upon our members to help?

My own feeling is that we should if we

can secure from the A. L. A. a guarantee that it will give us real cooperation. To this end I am ready to suggest that we endorse officially the program provided that the *Enlarged Program Committee* will agree that to carry out the section above mentioned that a Committee under this head be set up as soon as the drive is over, the membership to be appointed three or five by the American Library Association in any manner that it may determine, and three or five to be named by the Special Libraries Association in any manner that it may determine, the six or ten members to choose one additional member who shall be both a member of the A. L. A. and of the S. L. A. This Committee shall then be charged with making plans for the management of the fund raised to aid special libraries.

Upon my suggestion to the Committee on Saturday that we were not entirely satisfied and that before the Committee went out with its program before the public that we would like an opportunity to make a number of constructive suggestions, it was decided that a substantial part of the next meeting be set aside for me to present any plans or constructive criticisms.

I therefore would like to have you send to me, not later than Wednesday the 28th a statement of any suggestions that you would like to see embodied or of any changes that you would like to see made. The Committee will meet again in Brooklyn on the 31st and I want to go there and make the best showing for us possible.

I think we have an unusual opportunity to get across in cooperation with the A. L. A.—if we can get in in the right form—what is closest to our hearts, namely the welfare of the country's business and other special libraries. Therefore in considering any proposal, I hope that it will not only be constructive and broad, but that it is something that we can well afford to approve.

Here frankly is an opportunity to do something, and I hope that the members of the Executive Board will take advantage of this. Therefore, let me know what you think of the program as at present, whether you endorse it or not, whether you approve the proposal offered by me in paragraph 7, and anything else that you think I should know. It is only by having your advice and

support that I can most truly represent your wishes and those of the association.

The Committee on Enlarged Program is, I believe, desirous of doing the square thing by us, and if they do, they should receive our full support. On the other hand, if we cannot secure any guarantee such as I have suggested or something similar, it seems to me that we should make it clear that the program is not acceptable.

Please do not fail to let me hear from you before the 28th

Very truly yours,

J. H. FRIEDEL.

I hope that special libraries everywhere will make it their business to advise me, as their official representative, of their opinions of the *Enlarged Program*, of their recommendations for its extension or diminution. Whatever action we take, it should be constructive, definite and backed by the same quality of decision and the same energy as we have shown in our work during the last ten years and that has made the Special Libraries Association what it is today—the recognized expert on special libraries. It should furthermore be in accord with the statement of principle so well expressed by our President, Miss Maud A. Carabin, in a letter defining our attitude toward the A. L. A. and toward other associations:

- (1) *The SPECIAL LIBRARIES ASSOCIATION as constituted today stands ready and does cooperate whenever requested in good faith by the American Association of Law Libraries, American Library Association, League of Library Commissions and National Association of State Libraries;*
- (2) *That its attitude is one of dignified respect for the professional strivings of these organizations;*
- (3) *That its deliberations are of such a character as to expect a like respect for its professional aspirations;*
- (4) *That it expects in all cases involving cooperation, between any or all of these organizations that such matters be introduced through the duly constituted channels;*
- (5) *That it has no desire to dominate the proceedings nor policies of these organizations;*

(6) *And that a decent respect for the library profession demands that these bodies in their separate indentities exist together in harmony and good fellowship.*

In making any decision, it may not be amiss to suggest some of the questions to be considered:

Shall we give up our own program for the future of business, technical and other special libraries, in order to support a single program—that of the A. L. A.?

Shall we give up our own projected drive for funds in order not to interfere with the success of the A. L. A. fund?

Assuming that we can secure real cooperation, shall we endorse section C, paragraph 5 of the A. L. A. program?

In case we cannot secure any real cooperation on a basis of fairness and equality, shall the S. L. A. representative withdraw from the Committee on Enlarged Program? In that case should we actively and publicly oppose the A. L. A. program?

Are you in favor of having a committee of six or ten set up, this number to be chosen equally from both A. L. A. and S. L. A.,

the six or ten to choose an odd member who shall be both a member of the A. L. A. and the S. L. A., this committee subject to the supervision and direction of the Director of Enlarged Program to manage the fund set aside for special libraries?

Do you believe that a special fund should be set aside for business and industrial libraries? Will you help to see that your firm, association or institution contributes?

Do you approve generally of the A. L. A. program as outlined above? If not, in what particulars do you differ?

What matters would you like to see added to the program?

These are some matters upon which an opinion from special librarians will be helpful. Will not, therefore, every special librarian who reads this take it upon himself to write to me immediately giving me his frank opinion? All such replies to be most useful should be in my hands not later than the end of the month. The Committee on Enlarged Program meets again on January 31st.

It is to your interest to write now, addressing your letter to the writer at 120 Peterborough St., The Fenway, Boston 17, Mass.

The Wrenn Library at the University of Texas

BY LENA MEGEE

Supervisor of Loans, The University of Texas Library

One of the valuable special libraries in this country is the Wrenn Library at the University of Texas. This library, containing between five and six thousand volumes, was the gift to the University of Major George W. Littlefield, and was purchased by him from the heirs of the late Mr. John Henry Wrenn of Chicago, who spent his lifetime collecting it. The collection consists largely of works in English and American literature, from the sixteenth century to the present time, including many first editions, authors' corrected proofs, original manuscripts, presentation copies of certain books, and other interesting and valuable books.

The Wrenn Library, housed in the modern

fire-proof Library building at the University of Texas, has an appropriately beautiful and impressive setting, designed and installed by Talmadge and Watson of Chicago. The woodwork in the room is all hand-carved American walnut, showing many different designs, the most beautiful of which, perhaps, is the door, above which is a design of blue-bonnets, the Texas state flower; in the center is the seal of the University. The lighting is perfect, there being a magnificent chandelier in the center, and at each end two clusters on high bronze pedestals, surmounted by artistic, opaque bowls of alabaster marble. The soft green of the velvet hangings and the colors in the ceiling decorations and in the upholstery harmonize

exquisitely The windows, made in Boston especially for this room, add much interest with their stained glass symbolic figures, such as Epic Poetry, Tragedy, Comedy, etc. The ceiling alone is an absorbing study, as it shows the seals of various American and foreign universities, a pictured history of costume of all the ages, the last shown being the very modern aviator and doughboy, and innumerable printers' devices.

But the beauty of the room does not outdo that of the books themselves in their rich bindings, such bindings as most of us are not by any means accustomed to seeing The books, frequently three or four centuries old, have been given this new dress by the collector in recent years, and they are masterpieces in the art of bookbinding Most of the binding was done in London by Riviere, and only the most exquisite leather, of many different soft colors, and decorated with the most elaborate but delicate gold tracing, was used. In some cases where the original bindings are being preserved, the book is enclosed in a fire-proof box, exactly resembling a book, often containing an inside casing covered with silk. The book shelves are of glass, which aside from being practical, add distinctly to the appearance of the rows of books.

But leaving the setting and the bindings, let us examine a few of the books themselves. Among some of the oldest ones are the first editions of Spenser's *Faerie Queene* in two volumes, printed in 1590, and Ben Jonson's *Workes*, 1616, and the third complete edition of Chaucer's works, printed as early as 1550 Here the student of Old English can revel to his heart's content. A book in Greek and Latin with the date 1617 is from Ben Jonson's library and bears his own autograph on its title-page, as well as his motto in Latin, also in his handwriting.

The collector did not fail to get many first editions of the various works of Milton, Dryden, Pope, Defoe, Swift, and others of our favorites The excessively rare first editions of *Robinson Crusoe* in three volumes, printed in 1719, and of *Gulliver's Travels*, 1726, in two volumes, are there. You can also see the original edition of Dickens' *Christmas Carol* with its little funny colored pictures

of Marley's ghost, and other familiar characters. Perhaps one of the most interesting books is one containing a story called *Julia* written in 1836 in the original microscopic handwriting of Charlotte Brontë, a story which has never been printed. There is also a collection of her letters in the original manuscript.

Coming to more recent times, we find such treasures as autograph copies of some of Stevenson's books, and some beautifully illustrated copies of his *Child's Garden of Verse*, a manuscript letter of Kipling's, to his "dear Alick," some of his rarest privately printed poems, and the proof of *Primum Tenius*, corrected in his handwriting and signed "Rudyard Kipling." Wordsworth's poems with the author's inscription "Mrs. Austin with the kind regards of Wm. Wordsworth, London, May 28th, 1836;" and the very rare first edition of Charles Lamb's first published poetry with the title *Blank Verse* of Charles Lloyd and Charles Lamb, printed in 1798. There is also a copy of Browning's *Bells and Pomegranates* bearing the author's autograph inscription, which he sent out to New Zealand to his friend, Alfred Domett. A five-volume proof copy of Walter Savage Landor's *Imaginary Conversations*, corrected fully in his own handwriting, came from Swinburne's Library, and a paper-covered copy of the first edition of the Fitzgerald translation of the *Rubaiyat* of Omar Khayyam with Swinburne's autograph on the title-page is the identical copy that Swinburne purchased for a penny when it first came out, but for which Mr Wrenn was obliged to pay thirty-five pounds. There are also numerous very rare, privately printed, works of Swinburne's of Tennyson's and others. The Tennyson collection is said to be the best in America.

The book of perhaps the most intimate personal association is a little collection of poetry by Shelley, called *The Original Poetry of Victor and Cazire*, printed in 1810, which is the identical copy that the poet gave to his cousin and fiancée, Harriet Grove, in whose family it remained until purchased by Mr. Thomas J. Wise, who sold it to Mr. Wrenn. It may be interesting to know that Mr. Wrenn paid four hundred and fifty pounds for this book. Aside from the

personal interest of the book, it is very rare, being one of only three copies known to exist, one being in the British Museum, and the other in Mr. Wise's library.

The manuscripts form an important part of the library. The rarest of the manuscripts are two in the handwriting of Izaak Walton, written in 1660, the only known examples of his script in America, one of them bearing his autograph, which is one of the rarest of English literary autographs. It is next to impossible to read the Angler's writing, so different is it from that of later times, and also on account of the difference in the spelling of the words. The manuscripts are, however, wonderfully well preserved. Another exceedingly interesting manuscript is that of *Lachrymae Musarum*, written by William Watson in commemoration of the death of Lord Tennyson, the writing of which, under the stress of his great grief, is said to have caused the mental unbalancing of the author. A letter from Edgar Allan Poe, exhibited in a case attracts one's attention primarily because it gives the date of the poet's birth as four years later than it really was. There are a great many other original letters, including some from Robert Browning, Percy Bysshe Shelley, Charlotte Bronte, Longfellow and Whittier; and other manuscripts, some of entire stories and books, of Swinburne, William Morris, the three Rossettis, Elizabeth Barrett Browning, Shelley and Robert Louis Stevenson.

The library is very rich in first editions of plays, some of great rarity, especially of the Elizabethan period. The most important of these are three of the folio editions of Shakespeare's plays, the earliest being the second impression, printed in 1632. This copy was formerly the property, and bears the autograph of Viscount Rochford, who was the son of Henry Carey, the brother-in-law of the ill-fated Anne Boleyn. Of about the same date as the Shakespeare is a folio edition of the plays of Beaumont and Fletcher.

The American literature corner is exceedingly interesting, containing first editions of most of the works of the foremost American authors. A two-volume copy of the *Tales of the Grotesque and Arabesque* by

Edgar Allan Poe has this inscription: "As far as I can learn this is the only complete copy of the *'Tales of the grotesque and arabesque'* in existence. It was found in the trunk Poe had with him on his last journey. was sent to Mrs. Clemm, who gave it to 'Annie,' who presented it to me. John H. Ingram." There is an exceedingly rare pamphlet by Whittier, entitled *The Narrative of James Williams, an American Slave*, and a book by William Penn, called *William and Deborah* (1705), which is probably the only copy in existence, and which bears marginal notes in the author's handwriting.

Valuable for Art's sake are many modern de luxe volumes and limited editions, such as a large *Rip Van Winkle* with a white vellum binding lettered and decorated in gold, illustrated by fifty full-page drawings in color by Arthur Rackham. A beautiful copy of the *Scarlet Letter*, issued by the Grolier Club, has full-page illustrations in color from water-color pictures by a French artist; and Eugene Field's *Love-songs of Childhood*, printed on Japan vellum in fac-simile of the author's dainty handwriting and illustrated by photographs of the children to whom the poems were dedicated represents the last work of the great lover of children. Three shelves are filled with the books, mostly in white vellum covers, tied with delicate colored ribbons, designed and printed by William Morris at the Kelmscott Press. The masterpiece of the Kelmscott books is a very large complete edition of the works of Chaucer, with eighty-seven woodcuts from designs by Sir Edward Burne-Jones, and bearing this inscription "William Morris Kelmscott House, Hammersmith, July 1896." Besides the above-mentioned art books, there are Whistler's etchings in three portfolios, books about other artists, and other books issued by various art clubs.

Two of the most unusual books in the library are a Hebrew Bible printed in Amsterdam in 1700, with a filigree silver binding and clasps; and a fifteenth century illuminated manuscript of Flemish execution of the *Hours of the Blessed Virgin*. In the latter, exquisite colors and an abundance of gold were used in the marginal decorations, in the pictures and in the initial letters. The

whole is on vellum, and represents many tedious days, months, and years of hand-work.

The above-mentioned are only a few of the many interesting books to be seen in the Wrenn Library. The catalogue which is

now being printed in London under the supervision of Mr. Harold B. Wrenn will be a treasure-house of interesting information. Copies of this catalogue will soon be in the possession of many of the leading universities of America.

The Official Library at Railway Administration Headquarters, South Africa

BY GILBERT E. CHITTENDEN

In the big organization of railways in South Africa, a very interesting and informative department has grown up during the past two or three years. It seldom comes into the limelight, though it is brimful of recorded wisdom and experience. Officially it is known as the "Headquarters Technical Library," but that, one thinks, is rather a misnomer and a title due to association with the mixed library of facts and fiction formerly housed in the basement of the Headquarter Offices. A few years ago, the combined library, to which we have just referred, came under the investigating eyes of departmental reformers and apparently their activities gave rise to a sort of Bolshevism among the books. On the one side the grim masses of facts and figures, stood out against the more picturesque array of prose-fiction and poetry, and the bookish relationships finally attained to such a state of mutual intolerance that a schism followed inevitably. The "Great Powers" on the first floor intervened. By the terms of their abatement, the volumes of facts and figures retained possession of the territory of Headquarter's basement, while poetry and fiction, with that indomitable spirit characteristic of their kind, crossed the borderland of an adjoining street to found a new colony of romantic literature in the neighboring regions of the Railway Institute.

At the time, the rank and file of local railwaymen deplored the change and secretly bemoaned the exodus of the entertaining novels and readable poetry. In the banishment of fiction from the office realm, many

a lesser clerk and painstaking typiste, aye, and if the whole truth be told, many a "brass-hat" too, foresaw the permanent passing of occasional and permissible browsings in literature among the cool cloisters of the basement. Those brief moments of grace, snatched from the eternal round, made many a tiring day of work seem a little less irksome, and when the change was consummated, it seemed as if all the romance of the library were dead, succeeded by a cold environment of tome upon tome of calculators and economists. But in reality it was scarcely as bad as it appeared to be, and out of the imagined tragedy of change much good came forth. The romantic library, on the other side of road, freed from the shackles of official restraint, greatly extended itself, and to-day it more than appeases the literary yearnings of the reading staff. In the basement, on the other hand, the iron era of facts and figures has entered upon a golden age of interest and enlightenment. It may be, the bureau of uninspiring fact is not quite so popular with the proletariat of the permanent way as the library of fiction, but as a working department of wide reference and ready information, it is coming more and more into play as a useful and necessary factor in what is, probably, the largest State-owned railway in the world.

We hinted before that the technical library at Headquarters is, strictly speaking, not a library. It is handicapped by its title. It might be more aptly labelled by a happy phrase of the late Sir Frederick Donaldson, namely, "A Clearing House of Knowledge," in which experience, practice and precept are stacked in a common pool of record from which anyone may draw. It is a department

From South Africa Railways and Harbours Magazine August, 1919.

where information (pertinent to many subjects, institutions and activities other than the railways and harbors of this country) is codified for universal use. The essential work, therefore, goes beyond that of a library. The real function of a department of this kind are described by the word "documentation," which we quote from "The Engineer" (1st March, 1918). Though a borrowed word from the French, it sums up, pretty well, the process partly in practice at the Headquarter's Library, with its subsidiary branch of Capetown. The librarian, or, to be consistent, the documentor, as he might be designated, must not only keep in touch with the information on his shelves and files, but conduct, as well, a constant research in journals, books, reports and pamphlets, garnered from all parts of the world. In this manner the stores of references are continually amplified and brought up to date.

While on this track of the functions of commercial libraries or documentary offices, one learns that it is a subject that has been under treatment in many other countries. For the purpose of comparison, here are a few relevant and invigorating remarks culled at random from a past number of "The Tramway and Railway World":

"Within the past few years the practice has been considerably developed among important manufacturing and trading companies of forming substantial libraries for the use of their staffs. There can be no doubt of their utility, even when they are of modest dimensions. These special libraries are composed of periodicals, pamphlets, books and reports dealing with the industry or industries in which the company is engaged, and with allied industries. The object is to secure and to have at call a storehouse of information of every kind which has a bearing on the business. There is not very much use of possessing such a storehouse, however, unless there is also a keeper with a key for unlocking it, and with such a knowledge of the contents that he can direct the inquirer to the particular items he requires without loss of time, and, so to speak, spread the table ready for him in the shape of all the books and articles bearing on the point, in regard to which information is desired. . . . The employees of a

company should feel confident that once the librarian knows their needs he will continue to find matter on the subject until directed to stop, that if new ideas on old subject come to hand they will be advised of them, and that the librarian should be, in fact, an assistant both to the staff and the executive. . . . He must know instinctively what subjects are bound to come up for discussion at some future time and accumulate material to aid the executive in the proper study of the question with the least amount of time. The material should not consist of stacks of books or pamphlets dumped upon his desk to such an extent that the executive groans at the sight of the job before him, but of specially marked pages or paragraphs in books, reviews, etc., bearing directly on the subject. The librarian should also demonstrate his ability to advise how various questions have been viewed by different minds, and report why certain schemes were a success or failure. . . . the work of this specialized librarian are placed so high . . . that one is inclined to think that an Admirable Crichton would be required if the post were to be properly filled." It is refreshing to find that these axioms of working are largely in vogue in the Technical Library at Headquarters.

The value of this department of "documentation" in the administrative and executive branches of railway work is incalculable. The fact that the catalogue comprises close upon ten thousand entries, indicates in a certain measure the scope of the library, and, at the same time, ironically suggests what a versatile and inexhaustible profession that of an all-round railway officer can be made. The interests of the library, however, are not confined to railway matters or to literature exclusively useful to the Management. There is a wide range of information equally valuable to commercial and industrial concerns seeking details and statistics of trade and developments in other countries. In the necessarily limited proportions of a sketch of this kind it is hardly possible to examine the full scope of the library in a manner that would do justice to the subject. We can only refer to the general classification of material on hand.

Thus, under the heading "Government," one finds complete records of "Hansard," or,

in the absence of that redoubtable work, well preserved files of Press reports of what the legislature achieves in the "windy" periods of the Parliamentary monsoon. Further there are Statistics, Ordinances, Proclamations (both pre- and post-Union), Blue-Books, Reports of Select Committees and Special Commissions, Census and Customs Returns, miscellaneous trade statistics and Government publications.

The library is notable for an extensive collection of works on railway organization, practice and control, and a fine assortment of literature treating of railway history, law, staff administration, finance, accounting, rates and tariffs, surveys, construction, trains and rolling stock operations and harbors and shipping. Almost every phase of railways and their workings are covered by the wide range of reference books.

The most versatile section is that classified under the heading "General," which includes publications by commercial and municipal bodies in South Africa and other countries, year books and business manuals, encyclopaediae, guide books (a particularly instructive collection), geographical, legal and historical works, volumes on political economy, science, manufacture, engineering, agriculture, forestry, insurance, medical subjects, banking, as well as civil service lists and biographies.

From a topical point of view, perhaps the most interesting section is the one given over to periodicals which embrace the best known publications, from all parts of the world, dealing with labor, financial and administrative subjects, railways, shipping, architecture, engineering, trade, commerce, and many other topics and professions. The wide selection of current literature enables the staff to keep *au fait* with the latest thought and progress in railway affairs, trade and shipping. Many Government publications from the United Kingdom find their way into the library, as for example, Board of Trade journals and reports from the Ministries of Labor and Reconstruction. The library is, so to say, affiliated to a number of similar institutions in other quarters of the globe, and a brisk interchange of publications and trade reports is kept up. A valuable association of the kind exists with the Bureau of Railway Economics in

Washington, an institution which appears to be the centralizing point of close upon a hundred railway libraries in various parts of America.

Lastly, there is the branch of the library which is concerned with technical press-cuttings—a varied and useful source of information—coupled with the filing of the more valuable periodicals, many of which date back in complete numbers for many years. A little sub-section is reserved for the preservation of historical railway documents, a few of them going back to the origin of the iron road in South Africa. It is a side of great interest and might very well form the nucleus of railway archives in this country which, if anything, have been neglected hitherto.

But what appeals to one as being the greatest interest of the Library at Headquarters is not so much the existing institution as the possibilities which it suggests. In its present state it is principally a department with a railway use, but there seems to be no reason why it should not be fostered and developed into a Central Bureau of Information from which anyone in search of facts and figures, not readily available to the public, may obtain them without delay, and, above all, with some measure of official guarantee as to their correctness. So far as one is aware, no such centralized bureau, to facilitate public inquiry, is in existence in South Africa. The Railway Administration and a few of the more progressive municipal bodies have publicity agencies, but their activities and uses hardly come within the scope of a department of "documentation" such as we refer to. Of all the Union Government Departments, that of the railways and harbors is, perhaps, the most favorably situated to inaugurate and conduct for, if necessary, to collaborate with other departments for the purpose) an organization of the kind. It may not be generally known that the Railway Administration of this country is in touch with many of the largest systems in all parts of the world. There is a widespread reciprocity in the matter of reports of working, and frequent correspondence, which keeps the local authorities regularly posted in oversea developments, not only in railway and harbor matters, but in trades

and industries dependent upon and allied to them.

In South Africa, the responsible officials of the department, stationed wherever the permanent-way extends, must perforce keep their fingers on the pulse of affairs around them. The result of this organization is to produce a remarkable system of trade intelligence. Its efficiency, of course, varies with the individual aptitude or observance of the staff, but, taken as a whole, it works out very satisfactorily, and the railways remain a most reliable index to the true state of commercial affairs in the country.

With those advantages, and many others, particularly the extraordinary transport monopoly enjoyed by the railways of this country, the Administration is in a sound and happy position to control a central Bureau of Information and Research which would meet a pressing need in South Africa. How far the existing bureau at Headquarters would fulfil that requirement it is difficult to say, but even with its present resources it is not used as much as it might be.

The Library on the Floor of the House

In the Washington (D. C.) *Evening Star* of Sept. 6, 1919, there appeared an article entitled "Librarian on duty 24 years," which we take pleasure in reprinting. It gives an insight into a special library of which few hear, but which is always on the job.

"There's a library de luxe in Washington, right under the dome of the Capitol, that few persons even know exists, and yet it plays a very important part in all federal legislation. Those who know about it call it 'the library on the floor of the House,' but it is more familiarly referred to as 'The Hole in the Wall.' This is because its only window is a small, round porthole overlooking the door of the House leader's private office.

"This library occupies a cubbyhole 12 by 16 feet, into which are crowded 3,000 volumes stacked double on the shelves so as to make the space do maximum duty. It is a bureau of legislative information. It contains every speech ever delivered in Congress, and printed, besides all the House journals, all the Supreme Court reports, all the laws that have ever been enacted by Congress with a

miscellaneous collection of law books constantly in use, besides other books of general reference, dictionaries, encyclopedias, atlases and maps—everything of this sort that is likely to be called for any time for use on the floor at a moment's notice.

"This library is what the members use in debate, while the other libraries are used for research. It was established in 1858, but the present librarian holds all records. He is George W. Sabine, who lives in the Royalton, 918 M street northwest. He is the oldest employe on the roll of the clerk of the House. On December 14 he will have been in continuous service on this one job for twenty-four years. He is especially valuable, in the opinion of the members, because he has made himself so familiar with the contents of this boiled-down library of congressional information that he can hand out what they want at a moment's notice. He not only knows where the books are, but what they contain and how to find it, in a hurry.

"Now, here's a secret of twenty-four years' standing as to how George made a big hit on the first day he was on the job. His predecessor had a sort of condensed catalogue of the books and references most likely to be called for in a hurry, which he wanted to sell to George for \$100—and George was broke. It was kept alphabetically, and in glancing at it George decided to make a mental photograph of as many items as he could. One of those was "Boman Act, Vol. 22, Page 485," and another supplementary to this was "Tucker Act, Vol. 24, Page 505." During his first day on the job, while listening to the debate on the floor, he suddenly heard reference to the Boman Act. Before his mind's eye suddenly flashed the mental photograph he had made of the entry, "Boman Act, Vol. 22, Page 485," and he decided to see if his memory was correct. Just as he turned to the page he rushed a page, asking for that very reference, and he shoved the book at him like a flash.

"The next morning Sabine was scarcely 'on the job' before he walked a dignified little man. He said he came to see what sort of a wondershop that library was. He introduced himself as Judge Gibson of Tennessee, and said the day before he heard reference in the debate to the Boman Act. It was a

new one on him, and so he sent a boy to get it so she could see what it was about. "I saw the page go through this door, and I'll swear while I was still looking at the back of his head out he came again with the proper book and the place all found," said Judge Gibson in amazement, "and I wanted to see what sort of a force or machinery you had in here to give such service."

"Librarian Sabine admits now that incident had more than anything else to do with his having filled the place so well for a quarter of a century. It showed him what he could do by concentrating his mind on his work"

Public Libraries in the Czechoslovak Republic

According to the Czechoslovak Board, The National Assembly of the public has passed a law making it the duty of every city, village and town to establish a public library. Here is what the *Review* published by the Board states of the action taken:

"Every library will have a circulating division, a reference division, and a reading room with periodicals. Every village, where there is a public school, must have the library in use within one year from the date of the law; smaller villages have two years' time. Maintenance of the library is a charge upon the municipal or village budget. The council will elect a library board consisting of four to eight members, and this board will select the librarian. In villages the schoolmaster will ordinarily act as librarian; in cities with population of 10,000 or more a professional librarian must be employed. The ministry of education and culture will have supervision over the carrying out of this law.

"Available statistics show that in 1910 there were in Bohemia alone 4,451 public libraries; of that number 3,885 were Czech and the rest German. Slightly over a half of smaller villages did not have a public library. In addition to the public libraries there were in operation also 2,139 society and lodge libraries. All these libraries loaned out for home use 2,678,000 books in 1910; that is just about one book to every three Bohemians"

Newark's Plan for Business Library Service

In a pamphlet recently issued entitled "Newark's Industries and Newark's Library" John Cotton Dana, Librarian of the Newark Public Library outlines a plan of "payment by Newark industries of the cost of all service rendered by the library over and above such service as it may, as a public, tax-supported institution, be reasonably expected to render to all inquirers." We regret that it is impossible for us to reprint in full this plan of Mr. Dana's. His eminence in library work is unquestioned. He has been a pioneer in many fields of library endeavor. In this plan Mr. Dana again points a new way. He says:

"This pamphlet was presented, in the form of a letter, to the trustees of the Newark Library a few weeks ago. After due deliberation they authorized its publication in pamphlet form and its distribution to manufacturers and other men of affairs in Newark. At the same time they authorized the Library to make a charge of one dollar per hour for all research work over and above that which it may properly give without charge to any resident or tax-payer of the city

"It is not possible for the Library to spend \$15,000 on the acquisition of books and journals and on the employment of experts in the literature of business, manufacturing, chemistry and design, as suggested in this pamphlet. Nevertheless, the plan herein set forth, to make the Newark Library more useful than ever before to Newark's Industries will be pursued as far as possible.

"Men engaged in business are often in great need of information on some aspect of their work. This needed information may have to do with a chemical formula, the transport facilities or from a certain port in Asia, the history and standing of a corporation, the farming conditions of some part of a western state, the results of experiments made in Norway on a new quality of steel; or any one of a thousand other things. The Newark Library is pretty well equipped to furnish the kinds of information thus suggested. It has in hand the resources set forth briefly in this pamphlet, and it has ready access to many libraries and bureaus

of research in New York and other cities. What is, perhaps, even more important than possession of much that is in print on all American businesses and industries and ready access to still greater stores of it in other cities, is the fact that it has a staff of workers skilled in the art of finding that which may be called for and of wisely abstracting and presenting the same.

"The charge that can now be made for special work of all kinds, from mere copying at the current rate per folio, to the most difficult research, removes one of the obstacles to the Library's usefulness to Newark's industries. The business man likes to pay for what he gets. It has been difficult to make him see that "the Newark Public Library is his." in every sense of the phrase. We believe that our experience with him has been a good guide when it has told us that if we could charge him a fair price for the service the library can give, he would feel much more free to ask for that service.

"This charge for service is not to be made for anyone's profit save Newark's. All money received therefor will be deposited with the city treasurer and be set forth in detail in the library's annual financial statement. The city will no doubt return these receipts to the library for the purchase of more books and journals and the employment of expert workers as needed.

"Nor will this charge for service make the library any less free to all citizens. It will continue to be a free bureau of information as heretofore; giving to every inquirer all the attention that he can properly ask. The special and extended service for which the charge will be made will add to the library's income, and, as just indicated, will make its resources fuller and its employees better equipped than ever to give the free service for which it was primarily established.

"This is all a new thing in public library work. But Newark seems to be kindly to the new in its educational institutions. Certain quite popular features of the public schools, like all-year sessions, and evening schools found their beginnings here and have been widely copied. The business branch of a library is a purely Newark invention and finds daily a wider use and greater approval

"Now comes the plan of permitting the men of affairs to say to the library, 'Give me this information, regardless of cost up to a certain sum, and send me the bill for so much of your labor as goes beyond what you can give any inquirer for nothing.'

"We are quite sure that, as soon as Newark's industries learn that they can thus call on their library for special work, they will send in their inquiries."

As we go to press, we are in receipt of the following letter from the Director of Enlarged Program appealing for material that can be used in the publicity campaign for the Library Extension Fund.

American Library Association
Committee on Enlarged Program

Jan 22, 1920

To Librarians of Special Libraries.

In December several librarians came to New York to call on the editors of magazines and interest them in the promotion of libraries. Out of nearly one hundred editors who have been seen, less than half a dozen failed to be interested.

The result is that we now have calls from editors and writers for great quantities of library material. Much has been received in response to our previous requests but much more is needed.

There is naturally a very great interest in stories about the use of books by business men and men in industry, and it is for material of this sort that we are appealing particularly to the Special Librarians.

We need figures and facts, stories, pictures, anecdotes, bulletins, statements about the special aid you give to special groups and especially the story about some individual man or woman who has been helped by your library. To you these facts may seem trite and unimportant; to the magazine editor they are new and suggestive.

With hearty appreciation for the stories and pictures already sent and an urgent plea for more, I am,

Sincerely yours,

CARL H. MILAM

Temporary address: 31 West 15th St.,

New York City.

Special Libraries

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Aces for Librarianship

The editor has received within the last few days a copy of *Aces for Industry* by Rutus Steele (Houghton, Mifflin Co., Boston). It is a fiction story based on fact describing the development of an apprenticeship system in one of the country's largest electrical manufacturing establishments and is written in a manner that is certain to appeal to the growing boy considering the choice of a vocation and to the employer interested in training and developing men for this work. Written in a vivid, racy style that not only fascinates but that carries the reader along through the narrative until he is convinced of the truth that what we need in industry today is not merely men submerged in their daily toil, but workers with the spirit of the aviation ace to whom obstacles are but incentives and allurements, who do not hesitate at a new method simply because it is new and to whom accomplishment is its own reward, the book is well worth a place in every industrial library.

The thought suggested by this book is: why not *Aces for Librarianship*? Years ago, when librarianship was still groping toward the scientific method, we used to hear it said quite often that "the librarian is born not made." Today we have come around to believe that every man must be trained for his job, that all that men may be born with is an aptitude for hard work. But if we are to train, why shall we not

train for the highest instead of for the lowest rungs? The movement toward standardization and certification is but an evidence of the fact that there are too many marginal librarians—too many persons floating about who are not up to par. It means that we are not training for librarianship as we should. But standardization and certification are salves; in themselves they present no cure for the sore. What we need is to standardize and certify the schools, more than the individuals they turn out. When the schools have been brought up to par, we will be assured that the persons that they turn out are up to par. It means more. We have got to insist that every library and every agency that pretends to train for librarianship conforms to an approved standard.

The idea of mediocre training so that the library will thereby be able to pay only a mediocre salary is indefensible. Inadequate training, poor librarians and assistants, poor salaries—there we have a vicious circle which it is in our power to break. Standardization and certification as applied to the individual present no cure. But better training, resulting in better fitted persons who will command better salaries is the way to meet the salary problem and the training problem. What we need as much as more programs is more brains in librarianship. Standardization and certification may result in *decimation*, but they are a poor patent medicine. If we have made a failure of training and recruiting, shall we retaliate against the individual simply because he has conformed to what we have demanded; is not the fault in ourselves for training him poorly? Certification may provide a very pretty means to keep the individual in a straight-jacket; it may provide a very plausible method for continuing to keep salaries as low as they are. It may help to build up a fine hierarchy presided over by a National Certification Board.

It is a pretty piece of work urged on plausible but very questionable grounds, but it is also a nasty bit of work. Librarians should awaken to the danger of certification and standardization, lest they find themselves inveigled unwarily into a scheme that is meant to bind them hip and thigh and that is sure to prove an incentive to unionization and to civil service.

We want better trained and better equipped men and women in the work. The way to secure them is to train them properly. In other words the way out would be through standardizing courses and by making it impossible for every Tom, Dick and Harry irrespective of his fitness or ability to embark on any scheme for training.

If we have poor fruit, we look after the tree. If a boat does not move, we look at the engine and boilers. If a building is shaky we look at the foundation. And that is what we must do in library work.

We want Aces for Librarianship. To get them we must train them, not bind them. We must see that they are fit for the work and then give them every opportunity for personal development.

Certification and standardization sound well in theory, but as a practical measure they do not work well and bring in their train an inevitable wave of unrest. Let us, therefore, look before we leap.

The Enlarged Program provides for national certification. The program itself is tentative. It is still within our power to have that section removed from the proposed activities of the American Library Association. Let us not be carried away by fine sounding phrases, but rather show some backbone and oppose this dangerous movement to put librarians into a straight-jacket.

J. H. FRIEDEL

A National Library Center

The rumor that the American Library Association would move its headquarters to New York has aroused widespread interest and comment. In the controversy itself we are not particularly interested. But the fact does remain that at present two serious hindrances to the most effective influence of librarianship exist. One is the lack of a truly representative association of librarians. In the A. L. A. we have what its founders hoped would be a real association of American librarians. But the domination of the A. L. A. by the public library interest and the failure of the A. L. A. to give the existing associations and sections a voice in the affairs and councils which directly concern them not only weakens its influence but threatens its existence. No association can hope to exist in America and have a wide-

spread appeal that does not act in accord with the principles on which American institutions rest. The right to representatives of their own choosing is inherent in democratic government, yet we have seen the A. L. A. refuse us representation on the War Library Service, although it proudly claimed that that was a special library service; have seen the A. L. A. for many months refuse us a representative of our own choosing on the Committee on Enlarged Program, although the hope for success of that Program rests largely on its ability to make capital of what the special libraries have been doing for years. By its action it frankly says to us: "We will let you dig the ground, plant the seed and raise the fruit, but we will eat it." That is the doctrine of democracy in library work as we face it. Let us hope that it will be a passing phase. And the sooner the A. L. A. learns that to be representative it must represent, that to be the national association it must give every special interest and group the right of a hearing and of representation in matters which directly affect their welfare, the sooner will it win that support which is now withheld, and withheld justly.

A second serious hindrance which must be faced after the first has been met is the lack of a truly national library headquarters. At present each separate association tries to exert what influence it can from its respective headquarters. How much better it would be were all the associations located at one particular address, where each could render the other the effective cooperation which we all always talk about and which for various reasons we do not always render. The establishment of a national library center seems the obvious next step. Only recently the National Education Association determined to purchase a site for a national headquarters at Washington, D. C. We do not suggest Washington as the best location for a national library headquarters. But Washington has its attractions and advantages which cannot be overlooked and which must weigh heavily in making any decision. Let us then first make the A. L. A. the national library association representative and serving all librarians, not any one group, and then let us aim at the establishment of a national library center.

J. H. F

The Guaranty Club Library

The report of the librarian shows that the total number of readers of books taken from the Guaranty Club Library up to September 1 of this year was 1257, an increase of 435 over the preceding year. The circulation from September, 1918, to September, 1919, was 2,300 books, an increase of about 200 books over the circulation of 1917-1918.

The Guaranty Club Library, located in the Men's Club Room, is one of the most valuable features of the service which the company provides for its employees. From small beginnings it has been built up gradually until now there are about 900 books. These have been carefully classified and any employee desiring to follow a course of reading will be assisted in his selections by the librarian. While the greater number of the books are upon the subjects of money and banking and commerce and trade, there are many books of general interest, including history, fiction, drama, biography, government, languages, travel, and general reference. There are also a number of excellent books on business and banking law, taxation, the Federal Reserve Act, and the Income Tax Laws.

The advantage of a library which can be used in connection with the work of the various departments of the bank has been discussed very often of late in relation to the needed better training of bank employees. In looking over the broad field now opening to American enterprise and considering the opportunities which are presented not only to the bank as a whole, but to the individual whose grasp of his particular specialty makes institutional success possible, it has become apparent that while there are any number of men and women capable of handling efficiently the routine work that comes to their departments, there are few who are fitted for executive positions. They fall short in the first place because of a lack of that keen interest in the work which alone can develop a sense of its larger aspects, particularly of the relations of the detailed task to other divisional or departmental tasks

* Reprinted for the *Guaranty News* by courtesy of the editor

and the relation of these in turn to the general institutional work and policies. Again they fall short because they do not seek to avoid by general reading the narrowing influence of close and continued application to a particular subject. Permitted to go on for years, this influence becomes irresistible, and the victim of it becomes warped and constricted mentally in exactly the same way that certain craftsmen become crippled physically.

The dangers here suggested have become so frequently manifest, especially in large enterprises where the work is mental rather than physical, that it has become an important part of the study of our leading librarians to determine what books are best fitted to help business people in avoiding them. There has been, accordingly, a great increase in the number of good books on business subjects, especially on banking and finance, and the man or woman who studies them systematically obtains not only that mastery of his job which comes when knowledge of theory and fundamental laws supplements native ability and practical experience, but also a mental discipline such as many men and women spend large sums and years to attain in colleges and special schools. There are within the Guaranty Trust Company, to say nothing of institutions such as the American Institute of Banking, with which it has affiliations, those who are capable of and willing to advise with any employee who wants to undertake such a course in self-improvement. Not only that, but upon every possible occasion they have encouraged it.

There has been a great deal of discussion during the war years of the system of education, especially the higher education, in this country. It has concerned itself chiefly with the question of whether or not that education prepares men and women for participation in affairs, and especially business affairs. Without belittling in any way the value of classical and scientific studies as a discipline of the mind the question has been raised as to whether or not just as valuable a discipline may not be obtained from a well directed study of econom-

ics, finance, and banking. If mental discipline is the object in view, it isn't so much a question of what you study as it is of how you study and there are not a few very broad minded men, accordingly, who are contending in our day that it would be a good thing for men and women to get their discipline out of studies which are in line with the work which these men and women are to do for a living.

This controversy touches very closely such an institution as the Guaranty Trust Company. It is very vitally concerned in the possession by its employees of the results of mental discipline, from whatever source derived. It is in daily need of men and women who can go to the heart of a problem at once, who can see all its phases and who can then think out a solution of it. The ability to do that is in nine cases out of ten the result of persistent study of ones job. It is in daily need of men and women who have an understanding of the social and economic movements of this transitional period, who are able to get

the varied points of view of those with whom this institution comes in contact, whose vision goes beyond national boundaries and into the vast complex of international affairs. These qualifications are within range of those whose interests more than cover the immediate task upon which they are employed; those who have broadened their outlook by availing themselves of every opportunity to learn something more than their present duty requires.

The Club Library offers this opportunity. It does not contain all the books written upon the various phases of our work here, but it contains enough of them to see the student well on the way to a good understanding of any subject he cares to take up. Circulars of the latest business books published are received every month and an effort is made to keep the library up to date. Suggestions are also gladly received concerning books to be added to the library. A book service division is maintained, whereby books may be purchased at

(Continued on page 28)



THE GUARANTY CLUB LIBRARY

A Reading List on Industrial Research

CLARENCE J. WEST AND EDWARD D. GREENMAN

with an Introduction by

DR. ARTHUR D. LITTLE

Within a professional experience of more than thirty years nothing has been so striking as the sudden recognition of the fundamental importance of research by governments, leaders of industry, and the man in the street during the progress of the war. The war itself has been characterized as a chemist's war, and chemistry has permeated every aspect of it. The chemists in all the belligerent countries have been organized into the equivalent of what we have termed the Chemical Warfare Service and for the time, to which we may now happily refer in the past tense, the entire chemical brain and energy of each combatant nation was engaged in the solution of the problems of offense and defense. The abnormal stimulation of special industries sent old methods to the scrap heap and defied the rule of thumb. A single producer found it necessary to employ more than a thousand chemists. For the first time the findings of the laboratory began to take on in Everyman's mind the reasonableness and authority of the Common Law. The whole world became awakened and aroused to the vital necessity of applying the scientific method not only to the activities of war, but in governmental and business affairs as well, if prosperity and even national security are to be assured to any peoples. Thus it has become the duty and the privilege of those of us who are familiar with this method and its application to preach the Gospel of Research.

The greatest problem before the world today is the problem of increased production—production on a scale so great as shall enable us to satisfy immediate crying needs, permit us to carry without staggering our heavy burden of taxation, and then to restore within a reasonable period the colossal capital losses resulting from the war. Where is the solution of this problem to be found? It must come first through the education of labor, which must be made to apprehend clearly that its greatest opportunity and

good lies in holding what it has secured in nominal wages, while restoring the purchasing power of the dollar it receives through the increase of productive efforts. Secondly, it demands the complete utilization by the agencies of production of that vast body of organized knowledge which we call science, and finally, it requires the suppression of the preposterous wastes which have so long characterized our industrial, municipal, and national activities.

Research is an instrument of unlimited potentialities in each sector of this campaign. It cannot of itself educate labor, but it is the basis of most increases in the productivity of labor; it is the life blood of science, the inveterate enemy of waste.

By way of suggestion let me point out a few of the more obvious fields of application for the research method.

There is first the control of quality of raw materials as in case of steel, alloys, bearing metals, lubricants, coal, paints, paper, cement, and practically everything else you buy.

Second, perhaps, is the problem of finding suitable substitutes for such supplies as are unobtainable or unduly high in price. For example, there is the use of selenium in place of gold in the production of ruby glass, the substitution of tungsten points for platinum in spark plugs, of silica ware for platinum dishes for the concentration of sulphuric acid, of casein for glue, of chlorate of soda for chlorate of potash in dyeing, of zein, derived from corn, for the prohibited shellac for varnishing confectionery, of specification oils for oils whose value is largely in brand names, and of the specific indicated chemicals in place of high priced boiler compounds.

Of even greater importance is the scientific control of processes of production, control of formulae, temperatures, pressures, time and spacing, fineness of material, moisture content, and all the other factors which

influence the quality and amount of your daily output. Correlative with such control are the studies having for their object the standardization of your product and the elimination of seconds and rejections.

Wastes can be minimized and often turned to profit by well-directed research. The waste liquor of the sulphite mills is now a source of alcohol and of adhesives. Barker waste is an excellent raw material for certain low grade papers. The Cottrell process of electrical precipitation effects the recovery of values of smelter fumes, cement dust, and many other chimney products. In some industries, as lumbering, the potential values in the wastes are greater than the realized values in the product.

The wholly abnormal conditions under which business everywhere is now conducted lend particular interest to another function of industrial research, namely, that of finding new outlets for present products and new products for existing plants. To take an extreme case, no one, for example, realizes better than the du Ponts that the vast new plants which they constructed for the manufacture of explosives to meet the requirements of the Allies have found their occupation gone. The sagacious officers of this corporation long ago turned their attention to utilization of their plant and special products in the constructive arts of peace. They have begun the manufacture of artificial leather, lacquers, celluloid, picric acid for use in dyeing, heavy chemicals, and many individual dyes and intermediates.

In a less acute sense, but no less surely, similar problems confront manufacturers everywhere. And their solution in anything but a hit-or-miss and half-way fashion involves intensive industrial research.

We have only to consult our own experience to recall instances in which the output of a plant has been multiplied by three without changing its equipment; where the savings due to research have repaid weekly through a term of years the entire cost of the investigation, where research has disclosed potential values in waste material greater than the gross received from the normal product; where industries, presumably fixed and stable, have been revolutionized by the logic of the laboratory

In its broader aspects the application of in-

dustrial research to the solution of the economic, industrial, and social problems which confront us holds out a prospect calculated to fire the dullest imagination. It postulates the wise development of natural resources; a far more efficient agriculture; the rational evolution and coordination of means of transportation which shall tie together rivers, railways, good roads and motor trucks, landing fields and aeroplanes; the release of industry from the rule of thumb; and such increases in production as shall quickly replace all capital losses and satisfy the reasonable demands of all efficient workers. Science, which assumes these promissory obligations, is nothing more than organized common sense, and research involves only the application of this common sense and the organized knowledge behind it to the solution of specific problems. Science is no longer remote and esoteric: it is truly republican and pragmatic. It is here to serve and it calls upon every man for the opportunity.

Finally, it cannot be too strongly emphasized that the progress and development of industry as a whole are conditioned on the amount and quality of research available to industry. This applies not only to the general industrial development and prosperity of the country, but to every industry in the country. The rapidly growing recognition of the fundamental importance and the earning power of research is evidenced in the accompanying bibliography which has been prepared in the hope that it may facilitate the consideration of the advantages to be derived from its application to specific problems.

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ABBREVIATIONS USED.

- Am. Gas Engine J. American Gas Engineering Journal.
- Am. Gas Light J. American Gas Light Journal.
- Am. Mach. American Machinist.
- Ann. Am. Acad. Political Social Sci. American Academy of Political and Social Science. Annals.
- Am. Soc. Testing Materials. Proc. American Society for Testing Materials. Proceedings.
- Bull. Am. Inst. Min. Eng. Bulletin of the American Institute of Mining Engineers.
- Can. Chem. J. Canadian Chemical Journal.
- Can. Lumberman. Canadian Lumberman.
- Can. Mag. Canadian Magazine.
- Can. Min. J. Canadian Mining Journal, The

- Chem. Met. Eng. Chemical and Metallurgical Engineering.
 Chem. News. Chemical News.
 Chem. Trade J. Chemical Trade Journal and Chemical Engineer.
 Contract Rec. Contract Record and Engineering Review.
 DuPont Mag. Du Pont Magazine.
 Elec. R. and W. Elecn. Electric Review and Western Electrician.
 Elec. Rev. Electrical Review.
 Elec. W. Electrical World.
 Elecn. Electrician, The
 Eng. Mag. Engineering Magazine, The
 Eng. N. Engineering News-Record.
 Eng. Rec. Engineering Record.
 Eng. and Contr. Engineering and Contracting.
 Gas J. Gas Journal.
 Gen. Elec. R. General Electric Review.
 Harper W. Harper's Weekly
 Heat. and Ven. Heating and Ventilating Magazine
 Illum. Eng. Illuminating Engineer
 Ind. Management. Industrial Management.
 Inst. E. E. J. Journal of the Institution of Electrical Engineers.
 Int. Marine Eng. International Marine Engineering.
 Iron Trade Rev. Iron Trade Review, The
 Iron and Steel Inst. Iron and Steel Institute.
 J. Am. Ceram. Soc. Journal of the American Ceramic Society.
 J. Franklin Inst. Journal of the Franklin Institute.
 J. Ind. Eng. Chem. Journal of Industrial and Engineering Chemistry.
 J. Royal Soc. Arts. Journal of the Royal Society of Arts.
 J. Soc. Chem. Ind. Journal of the Society of Chemical Industry.
 J. Soc. Dyers and Colourists. Journal of the Society of Dyers and Colourists.
 J. Textile Inst. Journal of the Textile Institute.
 Mach. Machinery.
 Man. Rec. Manufacturing Record.
 Mech. Eng. Mechanical Engineering.
 Met. Chem. Eng. Metallurgical and Chemical Engineering.
 Metal Ind. Metal Industry.
 Min. Eng. Rec. Mining and Engineering Record.
 Nat. Conf. City Govt. National Conference on City Governments.
 Oil, Paint and Drug Rep. Oil, Paint and Drug Reporter
 Proc. Am. Inst. E. E. Proceedings of the American Institute of Electrical Engineers.
 Pulp Paper Mag. Can. Pulp and Paper Magazine of Canada.
 Quart. Rev. Quarterly Review.
 R. of Rs. Review of Reviews.
 Rev. Sci. Revue scientifique.
 Ry. Age. Railway Age.
 Ry. Mech Eng. Railway Mechanical Engineer.
 Ry. R. Railway Review.
 Sat Evening Post. Saturday Evening Post.
 Sci. Am. Scientific American.
 Sci. Am. S. Scientific American Supplement.
 Sci Monthly. Scientific Monthly.
 Sibley J. Sibley Journal of Engineering.
 Tech. World. Technical World Magazine.
 Textile Mfg. J. Textile Manufacturer's Journal.
 Trans. Am. Electrochem. Soc. Transactions of the American Electrochemical Society.
 Trans. Eng. Ceram. Soc. Transactions of the Ceramic Society, England.
 Trans. Roy. Can. Inst. Transactions of the Royal Canadian Institute.
 W. Soc. E. J. Western Society of Engineers. Journal.
 Z. angew. Chem. Zeitschrift für angewandte Chemie.

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