

lished by the National Geographic Society, may well be the cause of these advances, but the glaciers of this part of Alaska have not been studied in sufficient detail since the Tarr-Martin expedition for any definite conclusions to be drawn at the present time. It may be of interest to note that the Nunatak Glacier whose ice-front was surveyed by Tarr and Martin in 1909 has receded nearly *five miles* since that time, as shown by our aerial photographs of 1933. I hope that during the next two years we shall be able to execute a more accurate aerial survey of the glaciers at Yakutat to determine their relative motion to the old figures of 1909. The Hidden Glacier has receded at least two miles since that time, while the Turner, Haenke and Hubbard glaciers seem to show little change. Perhaps the most curious discovery of our 1933 expedition was one which we made at Crillon Lake in the Fairweather Range, where two glaciers terminate only a mile or so from each other. The first I have mentioned above as advancing rapidly into the forest outside of its old channel. The second has *retreated* at least one hundred yards in the last three years.

Alaska is a marvelous field for the study of glacial ice in motion, and it is surprising that so few parties have been able to make computations there in recent years.

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GERMAN PERIODICALS AND AMERICAN LIBRARIES

SCIENTISTS and librarians have been disturbed for the last several years by the steadily increasing prices charged for scientific books and periodicals, particularly German publications in the biological and medical fields. The production costs and the prices of scientific periodicals have been increasing; library budgets as well as the income of professional classes who are subscribers to scientific periodicals have been decreasing. The attempt of German publishers to compensate for a decrease in the list of subscribers by an increase in subscription prices showed signs of failure even before the present depression started. The difficulties confronting both publishers and librarians were disclosed at various conferences of German publishers in Europe and at a joint conference held in Chicago in October between representatives of the German Börsenverein der Deutschen Buchhändler and librarians of many countries. A summary of the events leading to the present tentative understanding between librarians and German publishers may interest all who are concerned with the availability of reports of scientific research.

Complaints of the increasingly high prices charged for German scientific periodicals were published as

early as 1928 in *Svenska Dagbladet* and the English periodical, *Nature*, later during 1931-1933 in *SCIENCE*, the *Journal of Higher Education* and other scientific periodicals of various countries, as well as in nearly all library journals. Protests were also made by scientific and medical associations both in this country and abroad. The basic complaint was the high price, which in the case of some periodicals was in excess of \$200 a year. A further difficulty was due to the fact that many German publishers issued their periodicals irregularly (*Zwanglose Hefte*), charging for each number separately. Libraries found it impossible to ascertain the annual subscription price of any given periodical and to prepare a library budget at all accurate. The Börsenverein recognized the justice of these complaints as far back as 1931. Dr. Friedrich Oldenbourg,¹ the president of the Börsenverein, showed that the foreign market for German scientific publications, which was lost during the war, had been won back rapidly, but might be lost again. Dr. Oldenbourg was in almost exact agreement with the foreign critics. He earnestly advised a restriction in the extent of German scientific articles. However, the high prices showed no decrease and the complaints of scientific and library organizations continued with even greater vigor until by the summer of 1933 it became apparent that the American market for German scientific periodicals was in immediate danger of being almost completely lost.²

A meeting of representatives of German authors, publishers and librarians was held at Münster, on August 3, 1933. At the conclusion of the conference announcement was made that all members of the Börsenverein would be expected in the future to state subscription prices in advance; that a reduction of at least 20 per cent. in the content and price of the inflated (*aufgeblähte*) periodicals would be expected. This agreement met warm appreciation. However, some of the German publishers apparently believed that their high-priced periodicals were not inflated. A list of periodical prices issued in September indicated that the expectation of a 20 per cent. reduction would not be realized.

Immediate protests were made to the Börsenverein. Possibly as a result the Börsenverein decided to send two representatives to the international conference of the American Library Association in Chicago. The

¹ *Börsenblatt*, 98: 325-31, April 9, 1931.

² It should be noted that German authors, scientists and librarians almost universally recognized the justice of the complaints. *Cp.* article by Professor Dr. Hubert Naendrup, Rektor der Westf. Wilhelms-Universität, in *Mitteilungen des Verbandes der Deutschen Hochschulen*, 13: 114-35, October, 1933, and articles by Dr. Georg Leyh, of the University of Tübingen, in *Zentralblatt für Bibliothekswesen*, 50: 377-88, May, 1933, and 51: 81-97, January, 1934.

representatives selected were Dr. H. Degener, founder and director of the Verlag Chemie, and Dr. Ferdinand Springer, head of the firm of Julius Springer. An agreement was reached by which the house of Springer, which publishes the majority of the expensive German scientific periodicals, announced an average reduction of not less than 30 per cent. in the prices of periodicals costing over \$40 per year. The German representatives stated that these reductions should be considered as only a beginning and that attempts would be made to restrict further the extent and price of German periodicals. The Münster agreement was considered "a point of departure and not the final stage in the deflation of German periodicals. An attempt will be made to encourage as far as is still necessary careful editorial selection of papers and illustrations. All Festschriften and Ergänzungsbände will be eliminated."

On the other hand, librarians present tacitly agreed that the German publishers should be given an opportunity to reorganize their editorial policies by eliminating the less valuable articles, condensing the length, omitting long historical introductions and especially avoiding duplication of material. Through these means it is hoped that the quality of German scientific publications, already highly esteemed, will be greatly improved.

Upon the return to Germany of the representatives of the Börsenverein a second conference of publishers and scientists was held at Frankfurt am Main on November 11. The principles of the Springer agreement were extended to other German scientific publishers. The following is a translation in part of the Frankfurt agreement.

The directors of the Gesellschaft Deutscher Naturforscher und Aerzte and the representatives of the scientific publishers agreed that the concessions desired and granted at the proceedings in Chicago are actually practicable and will contribute to bring real abuses to an end; they are calculated to prevent further harm to the dissemination of German scientific literature.

The Münster agreement on the 3rd of August, 1933, can serve as a foundation, but a further decrease of annual extent and price must follow. It is expected that the German scientific publishers will reduce all periodicals which cost annually more than 40 gold dollars at least 30 per cent. on the average in size and price. The greatest possible reduction is to be carried out for all periodicals which cost more than RM 60 annually. . . .

Those who participated in the Frankfurt conference were agreed that the obligations assumed must be and could be fulfilled if editors and publishers hand in hand would provide, for the acceptance of scientific work for the periodicals, the observance of those proper standards which have been repeatedly formulated since 1927 but all too frequently not carried out. Especially are ver-

bose articles and reports without positive scientific results to be avoided. Beginners' articles, among which are included numerous medical dissertations, are not to be accepted. No objection shall be raised to the acceptance of especially valuable dissertations which are an actual contribution to science and do not differ in their form from a normal periodical article. The acceptance of monographs, Festschriften, and voluminous Habilitationsschriften for periodical publications is inadvisable. Only indispensable illustrations in a form avoiding every extravagance shall be permitted. So far as an honorarium is still paid for works in scientific periodicals, its maximum amount shall be suitably limited. The delivery to the author of reprints in excessive quantities, which in many cases has led to a decrease in the number of customers, must cease; in other countries reprints are distributed to a much smaller extent, or not at all. . . .

The advance announcement of the prices of periodicals will solve one of the greatest difficulties of American libraries in placing subscriptions to German periodicals, if and when exchange rates become fixed. The reduction in size and price, reversing the policy of the last ten years, was a decided step in the right direction.

During the discussions in Chicago several differences in methods of scientific publishing in Germany and in the United States were noted. In Germany a trade discount of 25 per cent. of the subscription price is given to dealers. No such discount is given by publishers of American, British or French scientific periodicals. Authors of articles in most German periodicals receive liberal honoraria; the cost of photographs and engravings is paid by the publishers. In most other countries contributors to scientific journals not only receive no honoraria, but they may also be required to assume the cost of photographs and plates. American and British scientific periodicals are often subsidized by societies or by foundations. The total production costs of German scientific periodicals as well as some of the expense for the preparation of the manuscripts is ordinarily borne by the publishers. Dr. Springer stated that his firm pays annually to the Deutsche Chemische Gesellschaft for the manuscript of Beilstein's Handbuch, which is prepared by a great staff of chemists, RM 200,000 for each of the two yearly volumes—a cost of \$80,000 per volume at the present rates of exchange.

Indexing and abstracting journals were excepted from the agreement. Bibliographical compilations are expensive. It is only through subsidies and support of learned societies that *Chemical Abstracts* and *Biological Abstracts* can be supplied at comparatively low prices. What happens when subsidies are not available is shown by the price of an American publication, the *Agricultural Index*, which has cost some libraries in excess of \$200 per year.

Even with subsidies from learned societies the continuation of some American scientific publications seems dubious under present economic conditions. The American Statistical Association is now taking a vote on the continuance of the *Annals of Mathematical Statistics*, stating that its annual subscription rate must be raised to \$12.00 on the basis of the present number of subscribers. At the proposed rate the *Annals* will cost next year about 3½ cents a page—not far from the cost per page of many German scientific periodicals.

The librarians present at the A. L. A. conference accepted the concessions made by the German publishers as the inauguration of a new policy which will make possible in the future even further reductions than those now definitely promised. The condensation of important articles and the elimination of less important will be a relief both to scientists and to libraries; on the other hand, it is difficult to see how the basic cost per page can be decreased without subsidies or an increase in number of subscriptions. The depreciation of the American dollar in terms of foreign currency has introduced a new factor which promises difficulties for librarians, for scientists and for German publishers. The income of libraries is decreasing. Even with the reductions made by the German publishers the cost of importations will not be decreased, as the present rates of exchange have practically nullified the reductions, in so far as American libraries are concerned. Under present conditions of exchange the possibility of an increase in the number of American subscriptions to any foreign periodical is doubtful.

There is one point that did not appear in the Chicago discussions but which is worthy of note. For research a knowledge of the literature previously published on the subject under investigation is considered a necessity. The cost of the literature is an insignificant item compared to the total cost of research, but is a desirable and justifiable expenditure, if expensive duplication is to be avoided. A small proportion of funds devoted to research may well be set aside for the purchase of the literature.

The statement of the German representatives, confirmed later by other German publishers, that subscriptions from Japan to German scientific periodicals exceed those from the United States, throws an interesting sidelight on the relation between research and use of the literature. In view of this fact, it is easy to understand why Japanese scientific periodicals are rapidly increasing in reputation and recognition.

Productive research depends upon cumulative knowledge. "Progress in any field of investigation, however, depends upon the extent to which each new

investigation builds upon the past and the extent to which it contributes new information and discovers new relationships. Failure so to build upon the past frequently means aimless wandering about in fields previously explored in the same desultory fashion."³ Under present conditions, with diminishing library budgets and consequently decreasing subscription lists there is a grave danger that the results of research will not become known at all widely and that many valuable and badly needed scientific journals will pass out of existence.⁴ German publishers in the curtailment of articles and the omission of the less important material have taken very decided steps in the right direction. They deserve our support and encouragement in their energetic attempts to remedy a most serious situation.

It is to be hoped that with the waning of the worldwide depression increased funds for libraries and increased subsidies to publishers—outlays which represent at the most only a small fraction of the cost of research—will be forthcoming to ensure the availability of the results of scientific investigations to all interested.

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Chairman, A. L. A. Subcommittee
on German Periodicals

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THE UNITED STATES BOTANIC GARDEN

IN SCIENCE of March 2, page 206, Professor Varrelman calls attention to the impending retirement of Director Hess, of the U. S. Botanic Garden. It should be noted that a bill has been introduced into the Senate (Senate Bill 1839) providing for the transfer of the Botanic Garden to the U. S. Department of Agriculture. The main arguments for this transfer may be summarized as follows:

The present government of the Botanic Garden is an
³ E. W. Allen, Editorial *Experiment Station Record*, 55: 303, September, 1926.

⁴ The fear that curtailment of library budgets will indirectly prevent the publication of many valuable scientific articles and books is becoming wide-spread. Cp. "Practical Methods for Reducing the Cost of Instruction," by J. D. Russell, in *Journal of Higher Education*, 5: 24-29, January, 1934. "An item of instructional expenditure that has been eagerly pounced upon as offering the opportunity for curtailment in the present emergency is the library budget. It is extremely unfortunate that the necessity of reducing these appropriations has been felt just at the time when instructional methods are being developed which are likely to increase the use of the library. . . . Slashes in library book budgets tend in the long run to be reflected in the incomes of college and university faculty members over the country. A restriction on the purchases of such books not only means a reduction in the royalty income of the ablest and most productive scholars, but greatly increases the difficulty of obtaining publication for scholarly materials of intrinsic worth. Any long-continued policy of restricting the purchases of books for college and university libraries will probably be disastrous for that type of scholarship which depends on publication for its financing."