standing that the articles prepared by them will be submitted for revision to insure accuracy, and carbon copies of the articles as sent to press will be filed with the association. In the second place, writers desiring material for an article on any scientific subject on application to the association will be referred to a recognized authority on that subject who is willing to provide the information wanted, subject to final revision of the completed story. In the third place, any article written by a popular writer may be sent in for examination in regard to its accuracy.

Thus the press service provides a contact heretofore lacking between the research workers and the press. All material sent in will be brought to the attention of the press representatives for their consideration in much the same manner as at the annual meetings. Whether the material is used or not is a matter for the press representatives to decide.

The object of the press service is to provide a channel through which the results of research work may be made public, and at the same time a source of original material for writers. No stories or articles of any kind will be sent out by the press service for publication directly. Writing for the public press is a highly specialized occupation requiring long and arduous training and extensive and varied experience. The press service aims to meet the growing demand for accurate and readable information on scientific subjects, and not through competition to discourage those endeavoring to meet that demand.

It is understood that SCIENCE, the official organ of the association, reserves the right to publish any item or article sent in to the press service; but this does not interfere in any way with the publication of the same item or article, rewritten, in a newspaper or magazine.

The press service of the association represents a line of activity not previously attempted by any scientific body. Through its successful operation the association as a whole as well as the individual members, and, on the other hand, the vast reading public of America, will greatly benefit.

AUSTIN H. CLARK

BOOK REVIEWS IN SCIENCE

THE reviewing of scientific books is the most difficult situation that the editor of SCIENCE must meet. There are now published in English and in other languages so many books that only a small proportion of them can be reviewed in any one journal. An editor can not be competent in diverse subjects. If specialists in each are asked to take charge, as was formerly done, there is difficulty in obtaining from them impartiality, promptness and coordination. They are naturally more interested in their subject than in the journal.

When the field covered is so large, the limited space is a serious difficulty. Comparisons, perhaps odious to our pride, are sometimes made between the reviews in SCIENCE and in *Nature*. It should be remembered that the subscription price of *Nature* is £2/12s. (foreign £2/17s.), whereas SCIENCE is supplied for $3.00. It might conceivably be better to make the membership dues of the American Association for the Advancement of Science $20.00 or $25.00 and spend on SCIENCE $18.00, which would be about the equivalent of £2/12s. in England. Then ample space could be provided and review editors could be found who would give adequate attention to the work.

A large membership of the association and a corresponding number of readers of SCIENCE may, however, be preferable to a larger and more expensively produced journal. The British Association for the Advancement of Science has just now asked the American Association to join with it in protesting against the high cost of German scientific journals. It may be that later the advertising in SCIENCE as the circulation increases (it is now over 14,000) will make improvement and enlargement possible without additional cost to the association. Members can forward this desirable end by increasing the membership of the association among scientific men and by making use of the advertisements when that can be done to advantage. For example, a firm expressed satisfaction when a scientific man informed it that he had ordered for his institution apparatus costing $4,000 owing to an advertisement in SCIENCE.

The financial problem is not the only one in connection with the reviewing of books. SCIENCE aims to be objective and impartial. Articles are accepted on the guarantee of the standing of the scientific man and the supposed value and suitability of the contribution, the editor obtaining expert advice when there appears to be any question. As a matter of fact very few contributions are sent to SCIENCE that do not deserve publication; it is nearly always a question only of limitations of space. Editorial opinions are not expressed as such. In the notes even comparatively innocuous words such as "interesting" and "important" are avoided; they are cut out hundreds of times from contributed news notes. If, as in the present instance, it seems desirable to express opinions the communication is signed and is printed in the department open to any scientific man.

In the case of reviews the situation is different, for the editor must select the books to be reviewed and find the reviewers. Authors and publishers not only urge reviews of their books, but often suggest re-

viewers and sometimes send in reviews. Reviews are sent in from friends of authors and occasionally from those unfriendly to them. The editor must assume a responsibility that does not hold for other departments.[1]

It is in most cases possible to obtain either a laudatory or a critical review of any book. For many years there were in England two leading literary publications, *The Academy* and *The Athenaeum*. In the former the reviews were signed and usually favorable; in the latter they were unsigned and likely to be critical. There were published last year extended reviews of the same book in SCIENCE and in *Nature*, both by distinguished experts in the field. The signed review in SCIENCE gave an adequate account of the contents of the book, discussion of its subject-matter, due praise and several critical suggestions; the unsigned review in *Nature* was throughout extremely condemnatory. The present writer happens to know that the review in *Nature* was written by one who had long been engaged in scientific and personal controversy with the author of the book. Of course the situation in reference to this book in the two journals might just as well have been reversed, except that all reviews in SCIENCE are signed. Reviewers hesitate to criticize; indeed they generally decline to write a review if in their opinion it should be unfavorable.

[1] A paragraph is omitted here in view of the following letter written under date of February 4, 1929, from the president of the Yale University Press:

"When I called upon you in New York recently I expressed our regret that some years ago a sales manager of the Yale University Press, who is no longer with us, should have cancelled advertising in SCIENCE following its publication of a review of a book of ours to which we took exception. In coming to see you as I did I desired also to make evident to you my regret that I should not have taken steps, as soon as I learned of the review, which might either have prevented such action on our part in the first instance or else have resulted in its prompt reversal when you wrote to inform me of it.

"You have told me that you now intend to publish in SCIENCE a reference to the matter and comment concerning it. I have no wish to request you not to do so, and no desire to escape criticism which may be directed against me because of my own shortcomings in the affair for which I have apologized. It is, however, my hope that no criticism will be directed against those who are now responsible for the conduct of the editorial and of the sales departments of the press. I shall hope, too, that you will realize that action such as that mentioned is not in accord with the policy of the Yale University Press, or in harmony with its traditions.

"Should you wish to publish this letter of mine in SCIENCE you are at liberty to do so."

Articles printed in SCIENCE are usually prepared for other purposes, as for an address on some special occasion, or because an author wishes to announce the results of his work. The time of scientific men valuable for research is not often spent in writing articles expressly for SCIENCE. The editor can examine articles submitted and obtain opinions on them, accepting those that seem most suitable and asking for abridgment or rewriting when that seems to be desirable. If he asks to be allowed to examine an address or the like that is already written he can make conditions in regard to its suitability. The situation is different with reviews. They must be solicited; they must be expressly and should be promptly written. The most competent authorities very properly regard their time as of greater value for other purposes; when a review is printed this is also sometimes the opinion of the readers. The editor can not well reject a review for which he has asked, least of all when this might imply censorship of the opinions expressed. It is difficult to obtain a substitute when a reviewer delays or finally fails to prepare the manuscript.

It is an open question whether in a journal addressed to all scientific men and intended to advance their research, their influence and their interests, it is better to devote ten pages to an address reviewing progress in a given science, to five special articles containing the results of research, to news notes, to discussion of topics of current interest, or to reviews. Opinions differ greatly. Scientific men have argued that at least half the space of SCIENCE should be devoted to reviews; one has remarked that a review is of interest only to three people—the author of the book, its publisher and the writer of the review. If it is decided that it is desirable to devote a certain number of pages to reviews of books, the questions remain whether there shall be a few extended reviews or numerous shorter notes, whether treatises containing the results of specialized research or books of more general character shall be selected, whether American books and books in English shall be favored, whether preference shall be given to easily accessible books or to those which might otherwise escape attention, whether the reviews shall be only informative about the book, discuss the field covered by the book or be critical; whether they shall be written by leading specialists or by those who may have greater literary facility.

In spite of limitations of space and editorial difficulties, there should probably be book reviews in SCIENCE. When prices were doubled (the cost of paper increased fourfold) during and after the war, it was necessary to reduce the size of the journal.

Now the cost of paper at least has decreased, SCIENCE is printed efficiently and economically in its own press, and the advertising has increased. These circumstances make it possible to print about as much material as formerly, though the increasing number of scientific men makes more exacting demands on space. There are now perhaps eight times as many men engaged in research in the United States as there were in 1894, when the present editor of SCIENCE took charge of the work.

Probably the methods adopted by SCIENCE, but for the reasons given somewhat slighted in recent years, are desirable. These include finding advisers in each subject who will consent to assist in planning and obtaining reviews. There should then be arrangements to print once or twice a year a review article in each subject, covering its advances with brief reference to text-books and general treatments; similar articles on fields of research with reference to specialized treatises and monographs; each week two or three somewhat extended reviews of books selected for their importance and general interest. Books must be chosen with some reference to the feasibility of obtaining a reviewer who is not only competent in the subject but who can write in a way that will make the review of interest to a considerable percentage of the readers of SCIENCE.

This program is admittedly difficult. The present note is written in order to ask the advice and cooperation of scientific men who may be willing to do what their time permits to make the journal of their national association as influential and as useful as may be.

J. MCKEEN CATTELL

SPECIAL CORRESPONDENCE

THE PRINCETON-BUFFALO EXPEDITION TO THE WEST INDIES

DURING the latter half of July an oceanographic and stratigraphical survey was made of the Bahama region, embracing a traverse of the Gulf Stream from Miami to Bimini; the Great Bahama Bank; the West Coast of Andros Island; the South Bight; the East Coast of Andros and the Tongue of the Ocean, from Golding Cay to Nassau. The expedition was sponsored by the Summer School of Geology and Natural Resources, of Princeton University, and the Buffalo Society of Natural Sciences. The purpose of the expedition was to continue the work started by the first expedition last winter, and to study the region under summer conditions and maximum temperatures. During the winter trip the weather was so stormy that the shallow waters over the Great Bahama Bank were in a constant state of agitation, and not a single glimpse of the bottom could be obtained during the entire time at sea. The results of this trip have already been published.[1] Further and more detailed studies are now being carried on at the Buffalo Society of Natural Sciences and at Princeton University, and will appear shortly.

It has been the authors' belief, for some time, that the region of the West Indies affords an excellent natural laboratory for the study of oceanographic phenomena which should have a direct bearing on paleoceanographic and tectonic problems, and it is interesting to note that the Dutch are planning an expedition to study the eastern portion of the East Indian Archipelago for the same reason, as reported in a recent issue of SCIENCE.

During the recent expedition to the Bahamas, special emphasis was paid to the collection of plankton and a study of the bottom fauna, especially in the shallow waters off the West Coast of Andros Island and in the South Bight.

On crossing the Gulf Stream the usual rich plankton community was encountered, consisting of the customary tropical adult species and also large numbers of fish eggs and young stages of various invertebrates. The most surprising result of the collections from this area proved to be the occurrence of *Calanus finmarchicus*. As it has not heretofore been taken south of the latitude of Chesapeake Bay on the Atlantic coast, its presence in the straits of Florida is most surprising. According to Bigelow,

> So far as known, the latitude of Chesapeake Bay may be set as the southerly limit of its occurrence off the east coast of the United States in numbers sufficient to color the plankton at any season. Westward and southward from abreast of Cape Sable the zones of abundance for *Calanus finmarchicus* are bounded off-shore by the high temperatures and salinities of the Gulf Stream.

One would hardly expect to find this typically cold-water species in midsummer in the superheated water between Miami and the Island of Bimini. It is apparently added evidence of a drift from the north which passes between the Gulf Stream and the shore all along the Atlantic coast and may even be traced around the tip of Florida, where it passes just outside of the line of the islands. Although there is, no doubt, little chance that the species could establish itself in the tropics, those taken were alive and in

[1] R. M. Field, "Suggestions as to the Study of Marine Sediments," *The Canadian Field-Naturalist*, May, 1928, pp. 119 to 122, and map; and R. M. Field, "The Great Bahama Bank. A Study in Marine Carbonate Sedimentation," *American Journal of Science*, September, 1928, pp. 239–246.