SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE, PUBLISHING THE OFFICIAL NOTICES AND PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

FRIDAY, JANUARY 8, 1909

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MSS. intended for publication and books, etc., intended for review should be sent to the Editor of SCIENCE, Garrison-on-Hudson, N. Y.

THE BALTIMORE MEETING

The Baltimore meeting of the American Association for the Advancement of Science and the affiliated national scientific societies has never been equalled in size and importance by any gathering of scientific men in this country or indeed elsewhere. It might have been expected that the meetings held in the great centers of population last year and the year before would have set the high water mark of attendance for some years, but the registration at Baltimore was even larger than at New York or Chicago, and the percentage not registering was greater than ever before. Registration can only be regarded as a habit or duty, as it confers no privilege, the list not even being printed. Of the 300 chemists at the New York meeting only 106 registered; at Baltimore, where the chemists met in a distant part of the city with an attendance of about 400, perhaps not more than 50 registered. The actual registration of members of the association was 1088; the attendance at the meeting can only be guessed, but it may have been in excess of 2,500.

Size is not in itself significant; it may be an advantage or it may be a nuisance. But in so far as the growth of the convocation week meetings means an increased number of scientific workers in this country and a willingness on their part to cooperate, it is grati-

fying and important. A very large meeting has for those in attendance certain advantages and certain disadvantages. It is irritating not to be able to attend the conflicting meetings of nearly equal interest and not to be able to converse at leisure with friends and acquaintances. It should, however, be remembered that if the different societies were meeting in different cities, it would be still less possible to attend the meetings that one would like to attend and to see the friends that one would like to see. It might be possible for the sciences devoted to the biological sciences to meet in one city and for the sciences devoted to the physical sciences to meet elsewhere; perhaps for the geologists and the philosophers to meet by themselves. But in such a case what are the biological chemists, the biometricians, the students of evolution, the cosmical physicists, the geographers, the psychologists, etc., to do?

The real conflict is not between the chemists and the zoologists, for example, but within the single science. Thus at Baltimore the Zoological Society of America and the zoological section of the association each had some sixty papers on its program; there were two entomological societies and a society of vertebrate paleontologists in session, the psychologists had a morning devoted to animal intelligence, etc. It is not possible to read and discuss consecutively three hundred papers. The best that can be done is to have sessions of interest to all scientific men, to all biologists, to all zoologists, and then to divide zoology into sections for the reading and discussion of special papers in different departments. The chemists, whose numbers are the largest, have naturally led the way in organization. They have well-organized sections throughout the country for frequent local meetings; they have a summer meeting, usually by themselves, and meet with the other societies in convocation week; they have certain general meetings and then divide into numerous sections; all the papers in chemistry are referred to the American Chemical Society which organizes the joint program.

We may look back with certain regrets to the "good old days" when there were so few workers in each science that they could all be acquainted with one another and with one another's work, or still further back to the age of academies when all the scientific men of a city or county could meet together with common interests; but no one imagines that we can go back to these days, or that it would be desirable to do so. It is like the man who has acquired wealth and power and thinks of past days when life was less complicated and perhaps happier.

> Haply, the river of Time—
> As it grows, as the towns on its marge
> Fling their wavering lights
> On a wider, statelier stream—
> May acquire, if not the calm
> Of its early mountainous shore,
> Yet a solemn peace of its own.

It is of course true that the problems of scientific organization are by no means solved. Some of them may be settled in a satisfactory manner; others may be quite unsolvable. There were at the present meeting needless mistakes on the program,

such as announcing the wrong building for the address of the president and the wrong afternoon for the meeting of the Naturalists; needless dispersion, as in sending the sections of anthropology and of education to large auditoriums at a distance when the lecture rooms of the university would have held and secured larger audiences than were present; needless conflicts, as the programs of the Zoological Society and the Section of Zoology in adjacent rooms. There should be one man thoroughly familiar with the situation and competent to do the best that can be done under the circumstances. We need a secretary of science for the country, not less influential and not less well paid than the secretary of the Smithsonian Institution, who will devote his whole time to the organization of science and of scientific men.

It is quite possible that it would be better to have a convocation week meeting only on alternate years, or even less often, leaving the societies to scatter in intervening years. Or it might be better to divide the association into sections for the eastern, central and western states and hold a joint meeting once in three or in five years. Again it might be well to have an association devoted to the diffusion and popularization of science, separate from an affiliation of the scientific societies composed of professional scientific men. At present the association fails chiefly in the former function. It has a considerable membership in addition to the scientific workers of the country, and there were many sessions at Baltimore that would have been interesting and useful to them, but practically none were present. The association also fails to exert an influence on the general public through the press.

But in spite of difficulties and partial failures, the convocation week meetings have since their establishment in Washington six years ago performed a great service for science and for scientific men. They lead men of science to recognize the community of interest that should obtain; they impress on the general public the weight and magnitude of science; the council, representing the scientific interests of the country, may become an important factor in their advancement. The members of the association, all of whom have the privilege, or at least the opportunity, of reading this journal, have increased from 1,721 in 1899 to over 7,500. All this represents a coordination that may be used effectively for the advancement of science; and whatever forwards the advancement of science is for the benefit of every one.

An account of the business transacted by the council representing the association and the affiliated societies will be given in the report of the general secretary, and this will be followed by accounts of the proceedings of the several sections and of the different societies and by some of the more important addresses, papers and discussions.

The association was fortunate in being welcomed to the Johns Hopkins University and to Baltimore by two of its distinguished recent presidents, and in having as president of the meeting one of the world's most eminent geologists whose

public services extend far beyond the bounds of his science. The admirable address of the retiring president, printed last week in SCIENCE, deserves to be read by every intelligent citizen. It is unfortunate that our daily papers will not follow the example set in Great Britain and print in full an address of this character. Several of the vice-presidential addresses before the sections of the association and several of the presidential addresses before the special societies were of great general interest, while others equally important were technical in character. It would perhaps be desirable if the vice-presidential addresses were always addressed to an intelligent audience rather than to specialists, or at all events if the program would indicate the class for whom each is intended. Among the interesting public lectures may be noted the following: Professor Poulton, of Oxford, on "Mimicry in the butterflies of North America"; Professor Penck, of Berlin, on "Man, climate and soil"; Professor Münsterberg, of Harvard, on "The problem of beauty"; Mr. Bryan, of Honolulu, on "A visit to Mount Kilauea"; Major Squier, U.S.A., on "Recent progress in aeronautics," and Mr. G. K. Gilbert, of the U. S. Geological Survey, on "Earthquake forecasts."

It seems to be scarcely credible, but it is the case, that there were on the program published by the association the titles of more than one thousand papers to be read at the meeting. The great majority of the papers represent research work of a high order. It is sometimes said that the United States is not doing its part in the advancement of science, but this program is a conclusive answer to such criticism. No other country except Germany could hold a meeting in which so many scientific researches maintaining such high standards could be presented as the result of a year's work, and Germany has never held such a meeting.

These papers were in the main special and technical in character, but there were in each science papers containing results of interest to a wide group of scientific men, and in many cases papers and discussions of broad interest to the general public. Among these were the series of addresses before the American Chemical Society, the symposium on correlation in which sixteen leading geologists took part, three general discussions arranged by the botanists, the symposia on college education and life, on physical instruction in schools and colleges, and on public health. Most important of all—perhaps the most significant scientific celebration hitherto held in this country—was the Darwin centenary memorial. Professor E. B. Poulton, the leading exponent of natural selection, came from England to take part, and after his address a series of papers was presented by our leading workers in problems bearing on evolution. The day's proceedings closed with a dinner, at which speeches were made by President Chamberlin, Professor Osborn, Professor Welch, Professor Penck and Professor Poulton.

The meeting next year will be held at Boston under the presidency of Dr. David

Starr Jordan, president of Stanford University. It was recommended that the following meeting be held in Minneapolis. All the affiliated societies will probably wish to go to Boston, and the meeting is likely to surpass in importance even the present meeting. In the following year the special societies whose membership is chiefly on the Atlantic seaboard will have an opportunity to meet separately. In order that the societies may have information in planning joint or separate meetings, the general committee voted that it looked with favor on convocation week meetings in Washington, Cleveland and Toronto, following those in Boston and Minneapolis. The council of the British Association has invited members of the association to attend the Winnipeg meeting next August, the officers as honorary members. In the following summer a meeting will probably be held in Honolulu.

SCIENCE TEACHING AS A CAREER[1]

IT is scarcely a serious exaggeration to say that the first thought regarding a teacher which comes to the minds of many estimable people is that of a person who, by virtue of a greater or less assumption of knowledge, is able to occupy a position in which he has frequent long vacations, and in the interim draws a comfortable salary for comparatively short working hours. Such, at least, is the conclusion which may apparently be drawn from the frequency with which these topics are introduced into conversations incident especially to the making of new acquaintances. But these same persons would many times experience a tinge of regret if their sons should choose to adopt this career, and that not because they definitely believe it to be an unworthy or inadequate career, but because they understand very little about it. It is, however, not only true that this supposedly comfortable profession is not overcrowded, but there is evidence that there is a positive dearth of able young men who have both the aptitude and disposition to become teachers. It seems to me, therefore, fitting that we who are interested in the advancement of science should spend a few minutes in the consideration of the conditions which confront a young man who is disposed to become a teacher of science, since the maintenance of a corps of competent teachers is of no less interest to us all, practitioners as well as pedagogues, than are the subjects which they should teach, some of which have been ably discussed in recent addresses.

It is the more appropriate that this question should be considered at this time, since certain presumably authoritative data regarding the compensation of teachers have recently become available, and because the establishment of a section on Chemical Education on the part of the American Chemical Society, the first session of which follows this address, indicates an awakening interest in all that pertains to the education of the chemist and chemical engineer, among which the question of the best means to maintain our supply of capable teachers must assume an important place.

What I shall say will apply doubtless most closely to teachers of chemical science in institutions of college grade, because the conditions under which they labor are most familiar to me; but much that may be said of these teachers is true of those in other sciences which stand in a relation to the arts similar to that of chemistry. A

[1] Address delivered by the retiring chairman of Section C of the American Association for the Advancement of Science, at Baltimore, December, 1908.