should be said of the general functions and arrangements. It was recognized by all that Columbia University offered admirable headquarters. Earl Hall not only supplied good facilities for registration, but also provided excellent offices and rooms for writing, conversation and smoking. These were increased by the opening of the adjacent Faculty Club, where two smokers were held. The restaurant charges in the university commons were low and the service as good as could be expected for such large numbers. The rooms for the special meetings were often taxed to their full capacity, but were usually adequate, and there was practically no confusion or conflict. Equally satisfactory were the arrangements at the College of Physicians and Surgeons, which is the medical school of Columbia University, the University and Bellevue Hospital Medical College, which is the medical school of New York University, the Rockefeller Institute, the New York Botanical Garden and the American Museum of Natural History.

Especially to be noted as bringing together large groups of members were the reception given by the president of Columbia University in Earl Hall following the address of the retiring president of the association; the luncheon at the City College, preceded by timely addresses and followed by an inspection of the beautiful and well-arranged new buildings; the extremely interesting ceremonies connected with the unveiling of ten busts of pioneers of American science, presented to the American Museum by Mr. Morris K. Jesup, and the reception at the museum in the evening, given jointly by the museum and the New York Academy of Sciences, with an admirable exhibit of scientific progress arranged by the academy. Nearly every society and group of scientific men had their own smokers and dinners, so that in spite of the large numbers present, there was opportunity for each one to see those who work in his own field. The arrangements of the meeting prove that while the winter may not be so convenient as the summer in giving opportunities for informal metings and social intercourse, much can be accomplished in this direction.

The long line of great men who have filled the presidency of the association was at the New York meeting continued by a president who in rare degree unites dignity, tact and good sense, whose ideas and fit words come directly from broad sympathies and noble achievement. He is able to hand on the office to one eminent in his science, a leader in all movements to advance science and to promote the objects of the association from within and from without. The place of meeting is also fortunate. It will have been forty years since the association last met at Chicago, and in that period the city and the state have become notable for scientific activity. Chicago is nearer to the center of scientific population than New York, and there is every reason to believe that the meeting next year in that city will rival or excel the great New York meeting.

REPORT OF THE GENERAL SECRETARY

The fifty-seventh meeting of the American Association for the Advancement of Science was held at Columbia University,

New York City, December 27, 1906, to January 2, 1907.

The registered attendance of association members was 934. This places the meeting as the fifth in order of size. It was exceeded in attendance by the meetings at Philadelphia in 1884 (attendance 1,261), Boston in 1880 (997), Washington in 1902–3 (975) and Montreal in 1882 (937).

The average attendance at the last twenty meetings of the association preceding the New York meeting was only 458, about one half as great as at the New York meeting.

The above figures are from the registration at the central registration office up to five o'clock on December 31. The registration of attendance of three sections of the association was known to be incomplete at that time on account of an accident which interfered with the arrangements for registration. It is believed that the total number of persons in attendance at the meetings of the association and affiliated societies was not less than 1,500, placing it first in rank among meetings of the association.

The following shows the registered attendance by sections: A—Mathematics and Astronomy, 80; B—Physics, 104; C—Chemistry, 106; D—Mechanical Science and Engineering, 25; E—Geology and Geography, 115; F—Zoology, 181; G—Botany, 139; H—Anthropology, 57; I—Social and Economic Science, 24; K—Physiology and Experimental Medicine, 61; no preference indicated, 42.

The geographical distribution of the 934 members who registered is as follows: 300 from New York; 110 from the District of Columbia; 96 from Massachusetts; 82 from Pennsylvania; 44 from New Jersey; 44 from Ohio; 30 from Connecticut; 25 from Illinois; 17 from Rhode Island; 17 from Canada; 14 from Maryland; 14 from New Hampshire; 12 from Michigan; 11 from Virginia; 11 from Missouri; 10 from Wisconsin; and less than ten from each of twenty-four different states. Two persons registered from England and one each from Ireland, Cuba and Japan.

Four hundred and eleven new members were added to the association at this meeting. Of these about 350 are due to the activity of the local committee, which had, moreover, previously sent nominations in of about 125 members.

Ten papers were furnished to Section A. These papers were presented before the one joint session with the Mathematical Society and the Astronomical Society or were merged in their programs.

Section B had ten papers on its program, and the American Physical Society had 27 papers. The papers were presented in joint sessions.

Section C met in joint session with the American Chemical Society, at which 123 papers were presented. The large number of papers required that the section be divided into sub-sections of inorganic, organic, industrial, agricultural and sanitary, physical and biological chemistry, each presided over by a special chairman who added to the interest of the meeting by an address on his special branch of chemistry. Although the registered attendance of Section C was but little more than 100, the secretary of that section states his belief that about 300 chemists were present at the meetings.

Nine papers were presented before Section D (Engineering).

Section E held two independent sessions for the reading of papers; it also held four joint sessions with the Geological Society of America, the sessions being held in two sub-sections. Ten papers were presented to the section, and more than sixty papers were presented to the Geological Society.

Section F held joint sessions for the reading of papers with the American Society of Zoologists, at which about eighty

papers were presented. There was also held a joint session with Section G for the reading of papers on plant and animal breeding. The secretary of the section says that the attendance at the meetings was from 100 to 300.

Section G held three independent sessions for the reading of papers. About thirty papers were presented. Members of the section also took part in one joint session with Section F, and attended largely the meetings of the Botanical Society of America, one of which was held at the Botanical Garden in Bronx Park.

The program of Section H and its two affiliated societies contained forty-nine papers.

The programs of Section I, including the joint session with the Anthropological Association and Section H, contained eighteen papers.

Section K, together with its affiliated societies, held four sessions.

Much more than one half of the papers of the meeting belonged to the affiliated societies rather than to sections of the association. From this point of view the meeting was a confederation of affiliated societies to a greater extent than it was a meeting of a group of sections of a compact organization.

The subject of the address of the retiring president of the association, Professor C. M. Woodward, was 'The Science of Education.' A vice-presidential address was delivered before each section.

The relations between the sections and the affiliated societies were entirely harmonious, the officers cooperating with each other in making arrangements for meetings.

Columbia University placed its buildings at the disposal of the association and the greater number of sections met at the university. Certain meetings were held elsewhere, notably, the meetings of Section K at the Rockefeller Institute and at the College of Physicians and Surgeons. Appropriate thanks were tendered by the president of the association at the closing general sessions to the local committee, the authorities of Columbia University and to many others who, in their capacities as hosts, contributed to the success of the meeting.

The following general events contributed to the success of the meeting and the pleasure of those in attendance: (1) a reception by the president of Columbia University at Earl Hall on Thursday evening; (2) a general meeting with addresses and luncheon at the College of the City of New York at noon on Saturday; (3) on Saturday afternoon exercises at the American Museum of Natural History, connected with the unveiling of the busts of ten American men of science, presented to the museum by Mr. Morris K. Jesup; (4) on Saturday evening a gathering at the museum to see the collections and special exhibits arranged for the occasion. The cultivation of acquaintance among the members was also promoted by many smokers, dinners and other special events which brought various groups together. The reception at Earl Hall on Thursday evening was probably the only occasion at which one found so large a gathering of members at any one place as to give the idea that this meeting of the association was an unusually large one. Probably most members did not realize that they were attending one of the largest if not the largest meeting of many years.

The most important actions taken by the council and the association were as follows:

1. The addition of a new section to the association, namely, Section L—Education. A petition in favor of the formation of such a section was presented to the association to which were affixed the signatures

of 171 men, including many of the most prominent educators.

2. The title of Section H was changed from 'Anthropology' to 'Anthropology and Psychology.'

3. The permanent secretary was authorized to publish hereafter the programs of the affiliated societies as a part of the official program of the association.

4. Section E, and other sections desiring to do so were authorized to hold meetings in the summer of 1907.

5. A standing committee of fifteen on seismology was appointed. The committee consists of G. K. Gilbert, U. S. Geological Survey; Cleveland Abbe, U. S. Weather Bureau; L. A. Bauer, Carnegie Institution; C. E. Dutton. U. S. Army; H. F. Reid, Johns Hopkins University; Otto Klotz, Observatory, Ottawa, Ont.; W. W. Campbell, Lick Observatory; A. C. Lawson, chairman, California State Earthquake Commission; R. S. Tarr, Cornell University; L. M. Hoskins, Stanford University; C. G. Rockwood, Jr., Princeton University; W. H. Hobbs, University of Michigan; W J McGee, St. Louis; John F. Hayford, U. S. Coast and Geodetic Survey; and T. A. Jaggar, Jr., Harvard University.

6. A standing committee of five on the bibliography of science was appointed, one of whose duties shall be to cooperate with the International Catalogue of Scientific Literature. The committee consists of J. McKeen Cattell, R. S. Woodward, Jas. Lewis Howe, Wm. Trelease and C. B. Davenport.

7. A Darwin Memorial Committee of ten was appointed to consider the manner in which the American Association for the Advancement of Science may suitably commemorate the fiftieth anniversary of the publication of the first edition of the 'Origin of Species.' The committee consists of H. F. Osborn, chairman, L. O. Howard, E. G. Conklin, A. C. Lane, D. T. MacDougal, J. McK. Cattell, J. M. Coulter, H. B. Ward, F. Boas and C. B. Davenport, secretary.

8. Grants for research were made as follows: $100 to the Concilium Bibliographicum; $100 to Professor Frederick E. Clements for aid in the study of the relation of Alpine plants to their environment; $100 to J. Arthur Harris for aid to complete a statistical investigation of the influence of environment on the characteristics of organisms. The last two recommendations were made on the understanding that the grants will be expended under the supervision of the standing committee on the relations of plants to climate.

9. The Entomological Society of America was admitted to the privileges of affiliation.

10. The council recommended that the committee on the policy of the association be requested to consider means by which the efficiency of the organization of the association may be increased and the office of the permanent secretary be made more important, and that the consideration of these matters be made to include the following points: procuring a permanent secretary to devote his entire time to the work of the association and to receive greatly increased pay; the matter of raising the dues of the association; the matter of dropping the entrance fee of the association; the matter of changing the time of convocation week and of the meeting of the association; and the relation of the association to the affiliated societies.

11. It was decided to hold the next regular meeting of the American Association for the Advancement of Science, at Chicago in the winter of 1907–8, and not to hold a summer meeting in 1907.

12. It was recommended to the next general committee that a meeting be held in the summer of 1908, preferably in some New England town, and that the regular

meeting during convocation week in 1908–9 be held in Baltimore.

The officers elected for the ensuing year were:

President—Professor E. L. Nichols, Cornell University.

General Secretary—President F. W. McNair, Michigan School of Mines.

Secretary of the Council—Professor Wm. Harper Davis, Lehigh University.

Vice-presidents of the Sections:

A—Professor E. O. Lovett, Princeton University.

B—Professor Dayton C. Miller, Case School of Applied Science.

C—Professor H. P. Talbot, Massachusetts Institute of Technology.

D—Professor Olin H. Landreth, Union College.

E—Professor J. P. Iddings, Chicago University.

F—Professor E. B. Wilson, Columbia University.

G—Professor C. E. Bessey, University of Nebraska.

H—Professor Franz Boaz, Columbia University.

I—Dr. John Franklin Crowell, New York City.

K—Dr. Ludvig Hektoen, Chicago University.

L—Hon. Elmer E. Brown, U. S. Commissioner of Education.

Secretary of Section B—Professor A. D. Cole, Ohio University, for five years.

Secretary of Section I—Professor J. P. Norton, Yale University, for five years.

Secretary of Section L—Professor Edwin G. Dexter, University of Illinois, for five years.

The Sectional Committee of the New Section, 'L' (Education)—President, David Starr Jordan, Leland Stanford University; President Charles S. Howe, Case School of Applied Science; Professor Thomas M. Balliet, New York University; Professor E. L. Thorndike, Columbia University; Professor C. M. Woodward, Washington University.

The minutes of the opening general session in Earl Hall on December 27, together with the addresses, are appended to this report.

John F. Hayford,
General Secretary

PROCEEDINGS OF THE OPENING SESSION

PRESIDENT C. M. WOODWARD IN THE CHAIR

Professor Woodward: The American Association for the Advancement of Science will please come to order. In opening this meeting, ladies and gentlemen, and before I perform my simple official duty of introducing the new president, I can not avoid saying what a joy it is, what a delight it is, to meet such a congregation of scientific men. As one looks down the fifty-nine years which this association has lived and has seen how from a few hundred it has grown to four thousand members, and how many splendid things it has performed in one way or another all in the interests of science and making that science meet the needs of man in this great community, it is a time for congratulation; and I feel especially proud to be for the moment a representative of such an organization. And with this word of greeting to you and of congratulation for the association, I take great pleasure in presenting to you the president-elect, who will preside over our deliberations and lead us forward during the few days that we now meet together, Doctor W. H. Welch, of the Johns Hopkins University, who is to be president for the coming year—Doctor Welch.

Doctor Welch: *Ladies and gentlemen,* this is not the first meeting of the association over which I have had the honor to preside, inasmuch as the old custom of holding a midsummer meeting was revived last summer. Before this larger gathering of the association I desire to renew the expression of my thanks and of my profound appreciation of the honor conferred upon me by election to this high office. I interpret this honor above all as a recognition of the position held to-day by medicine in its relations to general science, and it is especially as an honor conferred upon the science of medicine that I beg to acknowledge your action in selecting me to preside