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, DECEMBER 14, 1906.

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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 NEW YORK MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE AND THE NATIONAL SCIENTIFIC SOCIETIES.

THE scientific meetings to be held in New York City during convocation week, beginning on December 27, should be of more than usual interest and importance. This is the fifth of the convocation week meetings, the first having been held at Washington in 1902–3, followed by those at St. Louis, Philadelphia and New Orleans. The large meetings at Washington and at Philadelphia must be regarded as important steps in the organization of scientific men and of scientific work, and it is to be hoped that the New York meeting will be even more influential in unifying the diverse scientific interests of the country.

There are obvious objections to too great centralization, and there are doubtless many men of science who would prefer to see the different societies hold their separate meetings, but this has become almost impossible, if only because there are such close relationships between the sciences. For a while there was a tendency for the

societies to meet in two main groups, those devoted to the exact sciences holding their principal meetings with the American Association in the summer and those devoted to the natural sciences holding their principal meeting with the American Society of Naturalists in the winter. But it seems in many ways desirable that these two groups should not become separated, and in any case each group is so large as to interfere with the real advantages of compact and isolated meetings. Thus several years ago the president of Princeton University wrote that the university town could not accommodate the Naturalists and the affiliated societies. It has thus in any case become necessary to select a large city for the meetings, and when this is done it certainly seems desirable for the two principal groups of scientific men to meet together rather than apart.

The advantages and dangers of centralization as compared with local autonomy are similar to those which confront us in civil government. We must make as good a compromise as we can. The fundamental unit for scientific organization is obviously a group of men in the same neighborhood and interested in the same kind of work. The men of science in the same neighborhood should unite in so far as it serves their common interests into an academy for the city or state, and those pursuing the same science should unite in a national society. This organization has to a certain extent taken place. We have numerous local and state academies, often divided into sections or consisting of affiliated societies, and we have national societies for each of the sciences, often divided into local sections.

Probably many men of science regard an organization that would include these groups as too cumbersome to be workable, and it must be admitted that an annual plebiscite of all American men of science is out of the question. But the different sciences and the separate local groups have interests in common. It may be Utopian to fancy that scientific men will some day have control of the scientific interests of the country, but even under existing conditions they have real influence and serious responsibilities which require proper organization.

It is probable that the American Association will ultimately become an association of societies rather than of individuals, and that its work for the advancement and diffusion of science will in the main be performed by a house of delegates. We should perhaps consider the organization effected by the American Medical Association and the possibility of reorganizing the association to let it represent state academies, on the one hand, and national societies, on the other. It might be wise for the association to meet even now in three main sections: one for the eastern, one for the central and one for the western states, letting the council only migrate from one section to the other.

But whatever may happen in the future, it is just now the business of scientific men to make the approaching meeting as useful and profitable as possible, and each can accomplish the most by being present and taking part in the scientific sessions and social gatherings. This will require some sacrifice of convenience, especially for those living at a distance from the Atlantic seaboard. The holidays are short and the meetings follow closely on Christmas day. It is unfortunate that convocation week has not been completely established. It was hoped that our educational institutions and government offices would set aside the week in which New Year's day falls, or even the week following New Year's day, for scientific meetings. It should be recognized that attendance on these meetings is as important a part of the duties of scientific men as any in which

they are engaged. The committee of the American Association which had charge of the arrangements for convocation week secured assent to the plan from over sixty institutions, including all our larger universities, but in many cases the assent extended only so far as to give leave of absence to those who wished to attend the meetings. It is, of course, impossible for classes to be continued if all the officers of the institutions are absent, and it appeared to be necessary this year to hold the meeting in Christmas week, owing to the fact that New Year's day comes as early in the week as Tuesday. It is to be hoped that some joint effort can be made in cooperation with the societies devoted to history, economics, philology, art and other subjects that will ultimately establish a convocation week at some time in the year as part of the regular academic program.

It is to be feared that owing to the incidence of Sunday most of the program this year will be crowded into Thursday, Friday and Saturday, although some of the sessions will extend into the following week, and the meeting of the nominating committee of the association will be on Monday evening. The main features of the program, some of which have already been printed in SCIENCE, are as follows: The executive committee of the council of the American Association will meet at the Hotel Belmont on December 26 at noon and the register for the meeting will be open at two o'clock. On Wednesday evening there will be informal smokers and gatherings of members arriving in New York City at the Hotel Belmont and elsewhere. The council of the association will meet at nine o'clock on Thursday morning. At ten o'clock there will be a general session of the association and affiliated societies, when the retiring president, Dr. C. M. Woodward, will introduce the president of the meeting, Dr. W. H. Welch, and President Butler will welcome the members to Columbia University. The usual announcements will then be made. The sections of the association will hold at 11 o'clock their meetings for organization, followed in several cases by the address of the chairman. Most of the sections of the association and the national societies will meet at Columbia University on December 27 at 2 P.M. Several of the sections of the association will hold sessions in which topics of general interest will be discussed. At 8 o'clock the retiring president will give his address in Horace Mann Hall, his subject being 'Science and Education.' The addresses by the vice-presidents, in so far as the subjects have been announced, are: Professor C. F. Mabery, of the Case School of Applied Science, 'The Education of the Professional Chemist'; Professor Henry B. Ward, of the University of Nebraska, 'The Influence of Parasitism on the Host'; Professor Henry Crew, Northwestern University, 'Fact and Theory in Spectroscopy'; Dr. Erwin F. Smith, of the U. S. Department of Agriculture, 'Problems in Plant Pathology'; Professor Wm. T. Sedgwick, of the Massachusetts Institute of Technology, 'The Expansion of Physiology'; Dr. George Grant MacCurdy, of Yale University, 'Some Phases of Prehistoric Archeology.' Other vice-presidential addresses, the subjects of which are not yet announced, will be given by Dr. W. S. Eichelberger, of the U. S. Naval Observatory; Professor William North Rice, of Wesleyan University; Professor Irving Fisher, of Yale University, and by President F. W. McNair, of the School of Mines, Houghton, Mich.

The presidents of most of the national societies meeting at the same time will give addresses, many of which will be of general interest. The presidents of these societies are: The Astronomical and Astrophysical Society of America, Professor E. C. Pickering, of Harvard College Observa-

tory; the American Physical Society, Professor Carl Barus, Brown University; the American Mathematical Society, Professor W. F. Osgood, Harvard University; the American Chemical Society, Professor W. F. Hillebrand, U. S. Geological Survey; the Association of American Geographers, Mr. Cyrus C. Adams, New York City; the American Society of Zoologists, Professor W. E. Castle, Harvard University; the Association of Economic Entomologists, Mr. A. H. Kirkland, Malden, Mass.; the Society of American Bacteriologists, Dr. Erwin F. Smith, U. S. Department of Agriculture; the American Physiological Society; Professor W. H. Howell, the Johns Hopkins University; the Association of American Anatomists, Professor Franklin P. Mall, the Johns Hopkins University; the Botanical Society of America, Dr. F. S. Earle, Herradura, Cuba; the American Psychological Society, Professor James R. Angell, University of Chicago; the American Philosophical Association, Professor William James, Harvard University; the American Anthropological Association, Professor F. W. Putnam, Harvard University; the American Folk-lore Society, Professor A. L. Kroeber, University of California; the New York State Science Teachers' Association, Professor John F. Woodhull, Teachers College, Columbia University. In the case of the American Society of Naturalists the address will be given by Vice-president Davenport, on 'Cooperation in Science.' Owing to the lamented death of Professor Israel C. Russell, the president of the Geological Society of America, Professor W. M. Davis, of Harvard University, has become acting president, but it is understood that an address prepared by Professor Russell will be read. Among the numerous discussions may be mentioned one before the American Society of Naturalists on 'The Origin of Sex' and one before Section K on 'Protozoa as Factors in the Diseases of Animals and Plants.'

On Thursday evening the trustees of Columbia University offer a reception to the visiting societies and on Saturday evening the trustees of the American Museum of Natural History and the council of the New York Academy of Sciences offer a reception. There will be in connection with the latter a conversazione and an exhibit of scientific progress by the New York Academy. The academy has on several previous occasions arranged conversaziones of this character which have proved very successful. The scientific exhibit will also be open on Friday and on Saturday morning, while on Saturday evening there will be demonstrations and short addresses. Following the receptions at Columbia University and the American Museum of Natural History there will be smokers, the one at the Faculty Club and the other at the Chemists' Club. Friday evening is reserved for the dinners and the smokers of the special societies.

The City College has invited the members to luncheon and to an inspection of its beautiful new buildings on Saturday. At twelve o'clock, immediately preceding the luncheon, there will be addresses at the City College by Professor C. F. Chandler, of Columbia University, and by Professor John M. Clarke, of the Science Division of the New York State Education Department, the former speaking on the industries, the latter on the geology of Niagara Falls. On Saturday afternoon members are invited to the unveiling of ten marble busts of pioneers of American science, presented by Mr. Morris K. Jesup to the American Museum of Natural History.

While most of the meetings will be held at Columbia University, some of them will take place at the American Museum of Natural History, the New York Botanical Garden, the Rockefeller Institute and else-

where. It is almost impossible in the middle of the winter in a city like New York to arrange for general excursions, but there will be a number of excursions and visits arranged for various groups of scientific men.

The Hotel Belmont, Park Avenue and 42d St., opposite the Grand Central Station, has been selected as the headquarters of the association. Other hotels in the immediate vicinity are the Murray Hill, the Grand Union and the Manhattan. Hotels between the headquarters and Columbia University that can be recommended are the Empire, the St. Andrew and the Endicott. In view of the fact that there are many visitors in New York City at Christmas time, reservation of rooms should be made in advance.

The societies that will meet in New York City in convocation week and their officers are as follows:

American Association for the Advancement of Science.—December 27–January 1. Retiring president, Professor C. M. Woodward, Washington University, St. Louis, Mo.; president-elect, Professor W. H. Welch, The Johns Hopkins University, Baltimore, Md.; permanent secretary, Dr. L. O. Howard, Cosmos Club, Washington, D. C.; general secretary, Dr. John F. Hayford, U. S. Coast and Geodetic Survey, Washington, D. C.; secretary of the council, President F. W. McNair, Houghton, Mich.

Local Executive Committee.—J. J. Stevenson, chairman; C. C. Adams, Charles Baskerville, Franz Boas, N. L. Britton, H. C. Bumpus, Chas. A. Conant, Simon Flexner, Wm. J. Gies, Wm. Hallock, Alex. C. Humphreys, G. S. Huntington, Edward Kasner, Henry F. Osborn, C. L. Poor, Clifford Richardson, E. B. Wilson, Frederick J. E. Woodbridge, J. McKeen Cattell, secretary.

Section A, Mathematics and Astronomy.—Vice-president, Professor Edward Kasner, Columbia University; secretary, Professor L. G. Weld, University of Iowa, Iowa City, Iowa.

Section B, Physics.—Vice-president, Professor W. C. Sabine, Harvard University; secretary, Professor Dayton C. Miller, Case School of Applied Science, Cleveland, Ohio.

Section C, Chemistry.—Vice-president, Mr. Clifford Richardson, New York City; secretary, Professor Charles L. Parsons, New Hampshire College of Agriculture, Durham, N. H.

Section D, Mechanical Science and Engineering.—Vice-president, Mr. W. R. Warner, Cleveland, O.; secretary, Professor Wm. T. Magruder, Ohio State University, Columbus, Ohio.

Section E, Geology and Geography.—Vice-president, Dr. A. C. Lane, Lansing, Mich.; secretary, Dr. Edmund O. Hovey, American Museum of Natural History, New York, N. Y.

Section F, Zoology.—Vice-president, Professor E. G. Conklin, University of Pennsylvania; secretary, Professor C. Judson Herrick, Denison University, Granville, Ohio.

Section G, Botany.—Vice-president, Dr. D. T. MacDougal, Washington, D. C.; secretary, Professor F. E. Lloyd, Desert Botanical Laboratory, Tucson, Arizona.

Section H, Anthropology.—Vice-president, Professor Hugo Münsterberg, Harvard University; secretary, George H. Pepper, American Museum of Natural History.

Section I, Social and Economic Science.—Mr. Chas. A. Conant, New York City; secretary, Dr. J. F. Crowell, Bureau of Statistics, Washington, D. C.

Section K, Physiology and Experimental Medicine.—Vice-president, Dr. Simon Flexner, The Rockefeller Institute for Medical Research; secretary, Dr. Wm. J. Gies, College of Physicians and Surgeons, Columbia University, New York City.

The American Society of Naturalists.—December 28. President, Professor William James, Harvard University; secretary, Professor W. E. Castle, Harvard University.

The Astronomical and Astrophysical Society of America.—December 27. President, Professor E. C. Pickering, Harvard College Observatory; secretary, Professor Geo. C. Comstock, Washburn Observatory, Madison, Wis.

The American Physical Society.—President, Professor Carl Barus, Brown University; secretary, Professor Ernest Merritt, Cornell University, Ithaca, N. Y.

The American Mathematical Society.—December 28, 29. President, Professor W. F. Osgood, Harvard University; secretary, Professor F. N. Cole, Columbia University.

The American Chemical Society.—December 27–January 2. President, Professor W. F. Hillebrand, U. S. Geological Survey; secretary, Dr. William A. Noyes, the Bureau of Standards, Washington, D. C.

The Geological Society of America.—December

26–29. Acting president, Professor W. M. Davis, Harvard University; secretary, Professor Herman L. Fairchild, Rochester, N. Y.

The Association of American Geographers.—December 31–January 1. President, Cyrus C. Adams, New York City; secretary, Albert P. Brigham, Colgate University.

The American Society of Zoologists.—December 27, 28, 29. President (Eastern Branch), Professor W. E. Castle, Harvard University; secretary, Professor H. S. Pratt, Haverford College. President (Central Branch), Professor C. C. Nutting, University of Iowa; secretary, Professor T. G. See, University of Michigan.

The Association of Economic Entomologists.—December 28, 29. President, A. H. Kirkland, Malden, Mass.; secretary, A. F. Burgess, Columbus, O.

The Society of American Bacteriologists.—President, Dr. E. F. Smith, U. S. Department of Agriculture; secretary, Professor S. C. Prescott, Massachusetts Institute of Technology.

The American Physiological Society.—December 27, 28, 29. President, Professor W. H. Howell, the Johns Hopkins University; secretary, Professor Lafayette B. Mendel, 18 Trumbull St., New Haven, Conn.

The Association of American Anatomists.—December 27, 28, 29. President, Professor Franklin P. Mall; secretary, Professor G. Carl Huber, 333 East Ann St., Ann Arbor, Mich.

The Botanical Society of America.—December 27, 28, 29. President, Dr. F. S. Earle; secretary, Dr. William Trelease, Missouri Botanical Garden, St. Louis, Mo.

The American Psychological Association.—December 27–28. President, Professor James R. Angell, University of Chicago; secretary, Professor Wm. Harper Davis, Lehigh University.

The American Philosophical Association.—December 27–29. President, Professor William James, Harvard University; secretary, Professor John Grier Hibben, Princeton University.

The American Anthropological Association.—December 27–January 3. President, Professor F. W. Putnam, Harvard University; secretary, Dr. Geo. Grant MacCurdy, Yale University, New Haven, Conn.

The American Folk-lore Society.—December 27–January 3. President, Dr. A. L. Kroeber, University of California; secretary, W. W. Newell, Cambridge, Mass.

New York State Science Teachers Association.—December 26, 27. President, John F. Woodhull, Teachers College, Columbia University.

SCIENTIFIC BOOKS.

Early Chinese Writing. By Frank H. Chalfant. Memoirs of the Carnegie Museum, Vol. IV., No. 1.

The director of the Carnegie Museum, Dr. W. J. Holland, deserves the thanks of oriental scholars for his wisdom in inducing Mr. Chalfant to prepare this valuable and interesting memoir on early Chinese writing. Mr. Chalfant has been a missionary in China for nineteen years, and he certainly employed his time to good purpose in collecting data concerning the early forms of Chinese ideographs. His preliminary chapter on early writing derived from ancient inscriptions is an excellent discussion of the meaning of these primitive hieroglyphs, which began in the form of rude pictographs, and afterwards developed into what are commonly known as Chinese ideographs with their phonetics, radicals, etc. The author justly says that it was unfortunate that the word *radical* should have been applied to certain characters which usually, though not always, are associated with their meaning. He calls attention to a marked example of this incongruity in the group of symbols under the radical *corpse* very few of which have any relation to death.[1] Mr. Chalfant says that the radicals should more properly be called 'determinates' or 'classifiers.' The Chinese character used to express the idea means word-class or classifier, the colloquial term being word-mother, which after all conveys the meaning of radical or root. We may add that Dr. Edkins, the distinguished sinologue, in his 'Introduction to the Study of Chinese Characters' says the word radical is misleading. He says the equivalent *pu* means classes, and corresponds to our word kingdom in natural history, and orders in botany and zoology.

The student will find Mr. Chalfant's memoir of the greatest value in studying the evolution, so to speak, of the Chinese ideogram. At the

[1] In no better way can one appreciate the utter absence of scientific method in the Chinese than by a study of their ideographs. It is enough to say that European philologists alone have the ability to make clear the origin and classification of their symbols.