

devoted colleague of him in whose honor we are gathered to-day, advocated this memorial soon after Theodore Roosevelt's death. Each and every one of us feels sadness to-day that Professor Osborn could not have lived to take his part in this, the culmination of this great desire; we know that his spirit is with us.

The Roosevelt Memorial, which is a New York State undertaking in which the city and private individuals have cooperated, was first advocated by Professor Osborn soon after Theodore Roosevelt's death on January 6, 1919. In 1920 the Legislature appointed a commission to investigate and to make an appropriation.

Ground was broken on October 16, 1929, and the cornerstone was laid on October 27, 1931. The building has been under construction ever since, but numerous delays were encountered because of construction difficulties and because additional appropriations were slow in forthcoming. Up to the present \$3,687,000 has been appropriated.

The structure is practically completed, although there are a number of unfinished details which are expected to cost about \$100,000. One thing lacking is the large equestrian statue of Roosevelt with two accompanying figures on foot, one an American Indian and the other a native African. This statue, the work of James E. Fraser, will occupy a dominant position in front of the memorial entrance.

ATLANTIC CITY ADOPTED AS MEETING PLACE OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE FOR DECEMBER, 1936

At the close of the Saint Louis meeting certain affiliated societies expressed the opinion that they had reason to believe that the change from March to January for the assembling of the new Congress and the inauguration of the President would interfere with holding a successful meeting of the association in the Capital City in December, 1936. This view was presented in person to the chairman of the executive committee and the permanent secretary by secretaries or representatives of several prominent affiliated societies.

The matter was immediately taken up in Washington with the chairman of the local committee, the representatives of affiliated societies in Washington and others involved in the question.

After an exchange of telegrams with members of the executive committee, the chairman authorized the Washington members to check further the situation in that city, study possible solutions of the difficulty and present their recommendations. This was done in the following form:

Careful consideration has been given to all aspects of the problem. Local members of the executive committee had also a conference with Dr. E. B. Wilson, who was in Washington on other business and took time enough to go over the situation fully. It was unanimously agreed that a successful meeting in Washington could not be assured for December, 1936.

It was further agreed that a joint meeting between Washington and Baltimore was not feasible, since the plan would resolve itself inevitably into two separate gatherings.

Finally, it was unanimously agreed to recommend that a meeting be intercalated in our series to care for the emergency.

It seemed likely that of all places mentioned Atlantic City had the most favorable conditions for the prompt and effective assumption of an unexpected responsibility. Inquiry has resulted in the offer of a favorable contract for this plan. The local members have heard the proposal and discussed it in full. We favor its acceptance.

E. B. MCKINLEY
A. F. WOODS
HENRY B. WARD

The executive committee has voted in favor of these proposals, and notices are being sent out this week to officers of all associated societies. The ample accommodations offered by Atlantic City will enable the association to furnish each organization with conditions that are especially desirable for its particular needs. The permanent secretary's office will be glad to receive information from all regarding their wishes.

HENRY B. WARD,
Permanent Secretary

SCIENTIFIC NOTES AND NEWS

At a recent meeting in New York of the board of directors of the American Chemical Society, Dr. James F. Norris, professor of organic chemistry at the Massachusetts Institute of Technology, completed eleven consecutive years as director of the American Chemical Society. For two years he was a member *ex-officio* by virtue of his presidency of the society. Since then he has twice been reelected. A luncheon was tendered by the directors in honor of Dr. Norris

and he was presented with a brief case by those in attendance "as a testimonial for long and faithful service."

DURING the annual meeting of the Society of American Bacteriologists in New York City a reunion luncheon was held in honor of Professor Leo F. Rettger. A group of fifty graduates and present students in the department of general bacteriology of Yale University participated.

DR. KNIGHT DUNLAP, who next month leaves the Johns Hopkins University to accept a professorship of psychology at the University of California at Los Angeles, was the guest of honor at a dinner of former graduate students held in Baltimore on January 11. Dr. Dunlap graduated from the University of California in 1899 and taught there from 1902 to 1906, when he accepted a call from the Johns Hopkins University.

DR. CHAUNCEY D. LEAKE, professor of pharmacology at the University of California, was elected president of the History of Science Society at the annual meeting held in St. Louis in January. Dr. Leake will fill the unexpired term of Dr. C. A. Browne, ending in December.

DR. MARTIN HILL ITTNER, chief chemist for the Colgate-Palmolive Company, was, at the recent annual convention of the American Institute of Chemical Engineers, elected president. He will preside when the institute meets this year with the British Institution of Chemical Engineers in London.

At a recent meeting of the directors of the American Chemical Society, Dr. Charles L. Parsons, of Washington, was re-elected secretary and business manager, and R. T. Baldwin, of New York, was again named treasurer. Dr. Robert E. Wilson, of New York, vice-chairman of the Pan American Petroleum and Transport Company, was chosen director-at-large for a term of three years. Dr. Arthur J. Hill, professor of organic chemistry at Yale University, and Dr. Frank C. Whitmore, dean of the school of chemistry and physics of Pennsylvania State College, were named regional directors for the eastern states. Councilors-at-large were chosen as follows: Dr. James Bryant Conant, president of Harvard University; Dr. Gustav Egloff, chief chemist, Universal Oil Products Company; Dr. John Johnston, director of research, the U. S. Steel Corporation, and R. Norris Shreve, professor of chemical engineering, Purdue University. Alden H. Emery, assistant chief engineer of the Experiment Stations Division of the U. S. Bureau of Mines, was appointed assistant manager, a newly created office.

At its annual meeting held in New York City from December 26 to 28, the Society of American Bacteriologists elected the following officers and councilors-at-large: *President*, Thomas M. Rivers, the Rockefeller Institute for Medical Research; *Vice-president*, James M. Sherman, Cornell University; *Secretary-treasurer*, I. L. Baldwin, University of Wisconsin; *Councilors-at-large*, Oswald T. Avery, the Rockefeller Institute for Medical Research, and Stuart Mudd, University of Pennsylvania.

THE Northwest Scientific Association held its annual meeting in Spokane, Wash., on December 27 and 28. President W. A. Rockie, of the Soil Conservation Service of Pullman, arranged a special symposium on problems of conservation in the Northwest with particular reference to soils. Eight section programs were held. The total number in attendance was about 225. The officers for 1936 are: *President*, J. W. Hungate, department of biological science, State Normal School, Cheney; *Vice-president*, C. W. Hungerford, vice-director of the Experiment Station, University of Idaho; *Secretary-treasurer*, O. W. Freeman, department of science and mathematics, State Normal School, Cheney.

THE annual meeting and banquet of the Torrey Botanical Club was held at Columbia University on the evening of January 6. Dr. Tracy E. Hazen, the retiring president, delivered the annual address on the organization, aims and progress of the club. The following officers were elected for the coming year: *President*, Marshall Avery Howe, director of the New York Botanical Garden; *Vice-presidents*, Henry Allan Gleason and Frank Earl Denny; *Secretary*, John S. Karling; *Treasurer*, Edwin B. Matzke; *Assistant Treasurer*, Mrs. James W. Marvin; *Editor*, M. A. Chrysler; *Bibliographer*, Mrs. B. O. Dodge, and *Business Manager*, Michael Levine.

DR. KENNETH K. LANDES, professor of geology at the University of Kansas and assistant state geologist, was recently elected grand vice-president of Sigma Gamma Epsilon, the professional fraternity for geologists, metallurgists, miners and ceramists. The fraternity was founded at the University of Kansas in 1915, and has grown to be a national organization of thirty chapters.

THE School of Medicine of the George Washington University announces the addition of the following professorial lecturers in preventive medicine to the faculty of the newly established curriculum in public health teaching: Dr. George W. McCoy, Dr. Rolla E. Dyer, Dr. Edward Francis, Dr. Charles Armstrong and Dr. Robert Olesen. Other recent additions to the faculty include: Dr. Ralph W. Barris, assistant professor of anatomy, and Dr. Daniel J. Sullivan, instructor in neurology.

DR. WILLIAM J. HUMPHREYS, meteorological physicist in the U. S. Weather Bureau since 1905, who retired on December 31, after thirty years of active service, has become a collaborator of the bureau. Under a special arrangement, he will now devote his time to research and writing on subjects in which he is most interested and to the solution of technical problems referred to him by the bureau.

DR. P. A. TESCHNER, of Milwaukee, since 1926 a member of the medical staff of the Wisconsin Anti-Tuberculosis Association, has been appointed assistant director of the Bureau of Health and Public Instruction of the American Medical Association. This is a newly created position to take care of the expanding work of the bureau.

DR. J. FRANKLIN YEAGER has been appointed entomologist in the Division of Control Investigations, Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture, and is stationed in the new laboratory of the bureau at the National Agricultural Research Center at Beltsville, Md. Since 1931 he has been associate professor of physiology at the Iowa State College. At Beltsville he will continue his investigations on the physiology of insects.

MISS FLORENCE FALLGATTER has been appointed chief of the home economics education service in the vocational division of the Federal Office of Education. She succeeds Dr. Adelaide S. Baylor, who retired in October and who recently died.

DR. T. H. GOODSPEED, leader of the botanical expedition to the Lower Andes of the University of California, has reported that a collection of 2,000 herbarium specimens has so far been made during the trip. Dr. Goodspeed has given lectures before the American Club of Peru, the University of Chile, the Scientific Society of Santiago and the Museo Nacional de Historia Natural in Chile.

ACCORDING to an Associated Press dispatch, Dr. Arthur H. Compton, professor of physics at the University of Chicago, planned to leave on January 18 to install a cosmic ray meter aboard the steamer *Orangi* as one phase of the observations which will be conducted in various parts of the globe. He will accompany the meter on the *Orangi* as far as Honolulu, boarding the ship again on its return trip from Sydney.

THE College of Natural Science of Yenching University at Peiping, China, reports that leave of absence for the year 1935-1936 has been given to Professor Wm. H. Adolph, of the department of chemistry, who is visiting professor of biochemistry in the Medical School of Yale University; to Professor W. W. Davis, of the department of mathematics, who is studying at the University of Chicago, and to Professor J. C. Li, of the department of biology, who is continuing his work on *Drosophila* in Professor T. H. Morgan's laboratory, at the California Institute of Technology.

DR. EDGAR ALLEN, professor of anatomy at Yale University, delivered the third annual Harry Hayward Charlton Memorial Lecture in Anatomy at the Univer-

sity of Missouri on January 6. Dr. Allen spoke on "The Escape of the Egg from the Ovary." The lecture was illustrated with slides and moving pictures.

DR. W. J. HUMPHREYS, of the U. S. Weather Bureau, spoke on January 7 before the Lancaster Branch of the American Association for the Advancement of Science. His subject was "Fogs and Clouds."

DR. A. E. ALEXANDER, of the Buffalo Museum of Science, addressed on January 13 the Rochester Academy of Science on "What the Buffalo Museum is doing to Interest the Layman in Mineralogy."

DR. PHILIP BARD, of the department of physiology of the Johns Hopkins University, gave the fourth Smith-Reed-Russell lecture at the School of Medicine of the George Washington University on January 16. The subject of his address was "The Neural Bases of Certain Forms of Emotional Expression."

DR. R. S. MULLIKEN, professor of physics at the University of Chicago, recently delivered a series of lectures at the California Institute of Technology on the general subject of "Electron States and the Structure of Molecules."

DR. REUBEN L. KAHN, assistant professor of bacteriology at the School of Medicine of the University of Michigan, will present a course of lectures at the Academy of Medicine, Atlanta, on January 27, 28 and 29, under the auspices of the Atlanta Clinical Society. He will discuss "Tissue Immunity and Clinical Medicine."

DR. SVEN INGVAR, professor of medicine in the University of Lund, Sweden, delivered the Hunterian lecture on January 20. He spoke on "The Physical Basis of Psychoneurosis." The Hunterian Oration on "John Hunter's Time and Our Own Times" will be delivered by Sir G. Lenthal Cheatle on February 24.

THE Federation of American Societies for Experimental Biology, which includes the American Physiological Society, the American Society of Biological Chemists, the American Society for Pharmacology and Experimental Therapeutics and the American Society for Experimental Pathology, will meet in Washington, D. C., on March 25, 26, 27 and 28. The Hotel Willard and Hotel Washington will serve as headquarters. All scientific sessions, except the demonstrations on Friday afternoon, March 27, will be held in these hotels. The demonstrations will be held at the National Institute of Health. Dr. E. B. McKinley, of the School of Medicine of the George Washington University, is chairman of the local committee.

THE winter convention of the American Institute of Electrical Engineers will be held from January 28 to 31 at the Engineering Societies Building, New York.

The Edison medal for 1935 will be presented to Dr. Lewis B. Stillwell on Wednesday evening, January 29. After the presentation, a lecture on astronomy will be given by Dr. Harlow Shapley, director of the Harvard College Observatory. In addition to the long list of technical papers, symposia are planned on magnetic materials and on the modernization of distribution systems. Friday will be devoted to inspection trips, and visits have been planned for the other days of the convention in such a way as to supplement the technical sessions.

OFFICERS for the Sixth Midwest Power Engineering Conference, which will meet from April 20 to 24 at Chicago, are the following: *President*, F. D. Chase, Chicago; J. R. Van Pelt, *chairman*; O. A. Anderson, Frank Innes, J. E. Kearns, G. E. Pfisterer and K. A. Auty, Chicago. The conference will be sponsored as before by the local sections and regional divisions of the following societies: the American Institution of Electrical Engineers, the American Society of Civil Engineers, the American Society of Mechanical Engineers, the Edison Electrical Institute, the Western Society of Engineers, the National Safety Council and the American Society of Refrigerating Engineers. Official hotel headquarters will be at the Palmer House, where the entire fourth floor has been reserved for meetings, lunches and receptions. Afternoon ses-

sions will be held at the International Amphitheater, where the Midwest Power Show will be held. Meetings are open to all persons interested, regardless of membership in the sponsor societies, but participating members must conform to registration rules.

THE second Congress of the International Society of Microbiology will be held in London from July 25 to August 1. University College, Gower Street, London, W.C.1, will be the headquarters and all scientific sections will be held there; additional accommodations, if required, will be available in the adjacent buildings of the London School of Hygiene and Tropical Medicine and the Wellcome Research Institution. The president of the executive committee is Professor J. C. G. Ledingham; the honorary general secretary is Dr. R. St. John-Brooks, both of the Lister Institute. A preliminary program has been issued which may be obtained from the honorary general secretary, Second International Congress for Microbiology, Lister Institute, Chelsea Bridge Road, London, S.W.1, England. All those interested in microbiology may become members of the congress on payment of a subscription of five dollars. Prospective members are urged to register early. Dr. Karl Landsteiner, Rockefeller Institute for Medical Research, is president, and Dr. Malcolm H. Soule, University of Michigan, is secretary, of the American National Committee.

DISCUSSION

THE DAVID EUGENE SMITH GIFT OF HISTORICAL-MATHEMATICAL IN- STRUMENTS TO COLUMBIA UNIVERSITY

THE rather wide publicity recently given by the press to my gift to Columbia University has led to a request that I give a brief summary of the items presented.

A few years ago I gave to the university my library on the history of mathematics, consisting of upwards of 20,000 items—bound volumes, manuscripts, portraits of mathematicians (about 2,700 engravings and 160 medals), catalogued monographs (2,000) and 4,000 letters, including such leaders as Newton, Descartes, Leibniz and the Bernoullis. For use in my lectures I had, over a period of more than 40 years, collected more than 275 instruments of early and medieval times for purposes of calculating, measuring (lengths, areas, volumes, weight and time) and astronomy (navigation, astrology, and the calendar). It therefore seemed appropriate that this historical-mathematical material should be placed alongside the books, many of which describe and illustrate the instruments themselves.

Among the most interesting pieces the following may be mentioned:

Representing numbers: tally sticks beginning with those of the thirteenth century; early Greek alphabetic numerals of the Ptolemaic period on an ikosahedral die; several pieces of papyrus with coptic numerals; several hundred medieval parchments containing numerals; and a few knotted cords and prayer beads from the orient.

Operations with numbers: sets of counters used on a computing table; various forms of the abacus (Chinese, Japanese, Armenian, Russian and Western European); and a cast of an early Greek computing table now in Athens.

Number games: dice of various types and periods from Etruscan, Egyptian, Greek and Roman times through the medieval period.

Measures: length (rods showing the ell, cubit and other units); weight (numerous nests of brass weights, some sealed officially and interesting as works of art; various forms of the steelyard; money-changers sets from various countries); angles (proportional compasses of the Roman period, ordinary compasses—also Roman, and various types from the renaissance