administrative officers of the government. This procedure has worked effectively and rapidly, and the response of leading scientists and engineers to requests by the board for their services on these committees has been uniformly gratifying and has demonstrated the eagerness and effectiveness with which such men are willing to devote their time and energy to government service for the sake of the most efficient operation of the government services which relate to their particular fields of interest. These committees, as well as the members of the board, have served entirely without compensation.

The Science Advisory Board was appointed by the President "with authority, acting through the machinery and under the jurisdiction of the National Academy of Sciences and the National Research Council, to appoint committees to deal with specific problems in the various departments." This board consists of the following members:

Karl T. Compton, chairman, president of the Massachusetts Institute of Technology.

W. W. Campbell, president of the National Academy of Sciences.

Isaiah Bowman, chairman of the National Research Council; director of the American Geographical Society. Gano Dunn, president of the J. G. White Engineering Corporation.

Frank B. Jewett, vice-president of the American Tele-

phone and Telegraph Company; president of the Bell Telephone Laboratories, Inc.

Charles F. Kettering, vice-president of the General Motors Corporation; president of the General Motors Research Corporation.

C. K. Leith, professor of geology at the University of Wisconsin.

John C. Merriam, president of the Carnegie Institution of Washington.

R. A. Millikan, director of the Norman Bridge Laboratory of Physics and chairman of the executive council, California Institute of Technology.

Roger Adams, professor of organic chemistry and chairman of the department of chemistry at the University of Illinois (president-elect of the American Chemical Society).

Simon Flexner, director of the laboratories of the Rockefeller Institute for Medical Research, New York City.

Lewis R. Jones, professor of plant pathology at the University of Wisconsin.

Frank R. Lillie, Andrew MacLeish distinguished service professor of zoology and embryology and dean of the division of the biological sciences, University of Chicago.

Milton J. Rosenau, Charles White professor of preventive medicine and hygiene at the Harvard Medical School and professor of epidemiology at the Harvard School of Public Health.

Thomas Parran, Jr., state commissioner of health for New York.

SCIENTIFIC NOTES AND NEWS

An extended article concerning the Pittsburgh meeting of the American Association for the Advancement of Science, which opens on December 27, prepared by Dr. Henry B. Ward, permanent secretary of the association, will be found in the issue of Science for November 30. Dr. Edward L. Thorndike, professor of educational psychology at Teachers College, Columbia University, presides, and the address of the retiring president will be made by Professor Henry Norris Russell, research professor of astronomy at Princeton University, on "The Atmospheres of the Planets." There have been arranged for the meeting many addresses of more than ordinary interest, including one by Professor Albert Einstein. Pittsburgh is not far from the center of scientific population of the country and a large attendance and a successful meeting are assured.

SECTIONAL presidents of the British Association for the Advancement of Science have been appointed as follows: Mathematical and Physical Sciences, Dr. F. W. Aston; Chemistry, Professor W. N. Haworth; Geology, Professor G. Hickling; Zoology, Professor F. Balfour Browne; Geography, Professor F. Debenham; Economic Science and Statistics, Professor J. G. Smith; Engineering, J. S. Wilson; Anthropology, Dr. Cyril Fox; Physiology, Professor P. T. Herring; Psychology, Dr. Ll. Wynn Jones; Botany, F. T. Brooks; Educational Science, Dr. A. W. Pickard-Cambridge; Agriculture, Dr. J. A. Venn. The annual meeting will be held next year in Norwich from September 4 to 11, under the presidency of Professor W. W. Watts, emeritus professor of geology in the Imperial College of Science and Technology, South Kensington.

The Chandler Medal for 1934 for "conspicuous work in the field of chemistry" was conferred by Columbia University on December 14 on Dr. Jacob Goodale Lipman, dean of agriculture in Rutgers University and director of the New Jersey Agricultural Experiment Station, for "his outstanding achievements in the field of agricultural chemistry." Dean Howard Lee McBain, of the graduate faculties of Columbia University, made the presentation before nearly four hundred scientific men. Mrs. Charles F. Chandler was present.

Dr. Otis W. Caldwell, professor of education and director of the Institute of School Experimentation

at Teachers College, Columbia University, has been elected the first honorary member of the Central Association of Science and Mathematics Teachers. The announcement was made at the recent annual dinner, at which he was toastmaster. Dr. Caldwell is one of the founders of the association and is the oldest living past-president.

Dr. Marion, professor of urology in the faculty of medicine of the University of Paris, has been elected a member of the Paris Academy of Medicine in the section of surgery.

University College, London, was recently presented with a portrait of Sir Flinders Petrie, emeritus professor of Egyptology. The portrait was subscribed for and presented by over three hundred of his friends. It is the work of Mr. P. de Laszlo. Colonel Sir Henry Lyons made the presentation on behalf of the subscribers, and Sir John Rose Bradford, chairman of University College Committee, accepted the portrait on behalf of the college.

THE Petrie Medal for distinguished work in archeology of the University of London has been awarded, according to *Nature*, to the Abbé Henri Breuil, professor of prehistoric ethnography at the Institute of Human Paleontology and of prehistory at the Collège de France.

Dr. R. E. Rose, director of the technical laboratory of the Organic Chemicals Department of the E. I. du Pont de Nemours and Company, Inc., presided at the annual convention of the American Association of Textile Chemists and Colorists, at which more than five hundred and fifty delegates were present. Dr. Rose was reelected president for the coming year.

AT the annual meeting of the American Society of Agronomy, held in Washington on November 22 and 23, the following officers were elected: Dr. H. K. Hayes, University of Minnesota, St. Paul, president; Professor R. M. Salter, Agricultural Experiment Station, Wooster, Ohio, vice-president; Professor J. D. Luckett, Agricultural Experiment Station, Geneva, N. Y., editor; Dr. C. E. Millar, State College, East Lansing, Mich., chairman, Soils Section; Professor R. D. Lewis, Ohio State University, chairman, Crops Section; Dr. P. E. Brown, Iowa State College, secretarytreasurer; Dr. W. A. Albrecht, University of Missouri, and Dr. T. A. Kiesselbach, University of Nebraska, representatives on the council of the American Association for the Advancement of Science. Fellows of the society were elected as follows: Dr. John H. Parker, of Kansas; Dr. F. D. Richey, of the Bureau of Plant Industry, and Dr. R. M. Salter, of the Ohio State University.

Nature reports that officers of the Cambridge Philosophical Society for 1934-35 have been elected as fol-

lows: President, Professor J. Barcroft; Vice-presidents, Professors E. K. Rideal, A. Hutchinson and E. D. Adrian; Treasurer, F. A. Potts; Secretaries, F. P. White, Dr. J. D. Cockcroft, Dr. H. H. Thomas; New Members of Council, Professor G. H. Hardy, Dr. E. G. Holmes and Dr. M. Born.

PROFESSOR K. WENCKEBACH, of Vienna, has been appointed honorary president and Professor W. Kuenen, of Leiden, president, of the recently founded Dutch Association for Cardiology.

The board of trustees of Rensselaer Polytechnic Institute have elected Edwin S. Jarrett, consulting engineer of New York City, vice-president of the institute, with the duties and powers of the president, to act as head until the appointment of a successor to Dr. Palmer Chamberlaine Ricketts, president and director, who died on December 10.

At the University of Nebraska Professor W. C. Brenke has been made chairman of the department of mathematics. The retiring chairman, Professor A. L. Candy, will continue to teach in the department.

Dr. Thomas Horace Evans, formerly associate professor of anatomy at the Long Island College of Medicine, has been elected by the Board of Trustees of the New York Homeopathic Medical College and Flower Hospital as research professor of anatomy.

Dr. Edward Sampson, associate professor of geology at Princeton University, has been appointed departmental chairman.

Dr. Leon Cardenal, professor of surgery at Madrid and president of the last International Congress on Cancer, has been nominated rector of the University of Madrid.

Dr. Martha M. Eliot, formerly associate clinical professor of pediatrics at Yale University School of Medicine and for several years director of the division of maternal and child health in the Children's Bureau of the U. S. Department of Labor, has been appointed assistant chief of the bureau. She will have charge of all matters relating to health. Miss Eliot has been on the staff of the Children's Bureau since 1904.

The editorial board of Genetics has added the following members: Dr. L. J. Cole, University of Wisconsin; Dr. L. C. Dunn, Columbia University; Dr. J. W. Gowen, Rockefeller Institute for Medical Research; Dr. A. H. Sturtevant, the California Institute of Technology, and Dr. Sewall Wright, the University of Chicago.

Professor Fernand Bezançon has been nominated general secretary of the International Union against Tuberculosis, in the place of the late Professor Léon Bernard.

Dr. W. Taylor Thom, Jr., associate professor of geology at Princeton University, has become special assistant to the Subsistence Homestead Division of the Department of the Interior, contributing his services as director of a survey of the coal-mining industry.

Dr. R. W. Chlento, formerly director of public health in New Guinea and of the Australian Institute of Tropical Medicine at Townsville, subsequently the director of the division of tropical hygiene, has been appointed director general of health and medical services in Queensland. He will be given control not only of the hospitals and medical services, aborigines, insanity and aged people's homes, but also of health services now covered by other departments.

Dr. Otis C. Trimble, associate professor of psychology at Purdue University, has been allowed a grant-in-aid by the National Research Council for a special research project in audition.

The American Medical Association has issued a grant to W. W. Brandes and John Bagwell, of Baylor University College of Medicine, to carry out experiments on the effect of acidosis on the formation of immune bodies. A grant has also been made to Dr. L. A. Emge, clinical professor of the Stanford University School of Medicine, for the continuation of his work on "the behavior of benign and malignant transplantable tumors."

Dr. L. E. Noland, associate professor of zoology at the University of Wisconsin, who has been working on the Ciliates at the Bass Biological Laboratory, Englewood, Fla., will take up his work at Wisconsin in the second semester.

AT a special meeting on November 29 of the Royal Society of Medicine, for fellows only, Professor George R. Minot, of the Harvard Medical School, lectured on "Some Aspects of Anemia."

The first John Howard Appleton Lecture for 1934–1935 was delivered on December 17 at Brown University by Dr. John H. Van Vleek, professor of mathematics and physics at Harvard University, who spoke on "Some Examples of the Tunnel Effect in the New Quantum Theory."

Dr. R. W. Wood, of the Johns Hopkins University, spoke at a meeting of the North Carolina Physics Colloquium on the afternoon of December 10. That evening he addressed an open meeting of Sigma Pi Sigma physics society on "High Frequency Sound Waves."

Dr. Harry M. Johnson, of the American University, addressed members of the Virginia Chapter of Sigma Xi on December 7 on "Some Recent Experiments on Human Sleep."

Dr. Roger Adams, professor of organic chemistry

at the University of Illinois, president-elect of the American Chemical Society, addressed a meeting of the New York Section of the American Chemical Society on December 7 on "Recent Trends in Applied Organic Chemistry."

THE two hundred and sixtieth meeting of the Washington Academy of Sciences will be held in the Assembly Hall of the Cosmos Club at 8:15 p. m., on December 20. The general subject will be "Introducing Science to the Public." Thomas R. Henry, of The Evening Star, will speak on "Science, News and Newspapers," and Austin H. Clark, of the Smithsonian Institution, on "Science and the Public."

Professor W. L. Bragg, Langworthy professor of physics in the University of Manchester, will deliver the Children's Christmas Lectures at the Royal Institution, London, on December 27, 29 and January 1, 3, 5 and 8. The subject of the lectures will be "Electricity."

The next meeting of the Pacific Division, American Association for the Advancement of Science, is to be held in Southern California under the auspices of the University of California at Los Angeles. The dates of the meeting have been fixed for the period from June 26 to 29, 1935. Most of the affiliated societies are planning to participate by the organization of meetings for the presentation of scientific papers. Local arrangements will be in charge of the following committee: Professors S. J. Barnett, chairman, E. C. Moore, B. M. Allen, L. E. Dodd, F. C. Leonard, E. K. Soper and O. L. Sponsler. A preliminary announcement descriptive of the meeting will be distributed in March to all members of the association resident on the Pacific Coast and in the Far West.

OFFICERS of the American Standards Association were reelected at the recent annual meeting in New York, the president of the association, Howard Coonley, representing the Society of Mechanical Engineers, being elected for his third term. Since January, sixteen associations have become new member-bodies or associate members, representing seventeen national associations. Twenty-five individual companies have joined the association and ten corporations have voluntarily increased their dues.

The anniversary dinner of the Royal Society, London, was held on November 30. Sir Frederick Gowland Hopkins, the president, was in the chair. Sir Hilton Young, minister of health, proposing the toast of "The Royal Society," spoke, according to the London Times, of the close association with practical science and administration of the department of which he is minister. The president, in reply, said in part that research funds in the hands of the society amounted to well over £600,000, and this year the so-

ciety had distributed £25,000 in support of research in very wide fields of inquiry. Even that sum was not adequate to meet all the current applications received for financial help to scientific enterprises.

THE annual conference of the British Geographical Association will be held at the London School of Economics from January 2 to 5, 1935, under the presidency of Lord Meston. The title of his address will be: "The Geography of an Indian Village."

A FOUR-DAY postgraduate course in ophthalmology and otolaryngology was held at the University of Virginia on December 5, 6, 7 and 8, sponsored by the department of medicine in the university at the request of the Virginia Society of Otolaryngology and Ophthalmology. Dr. E. Ross Faulkner, surgeon director of the Manhattan Eye, Ear and Throat Hospital; Dr. John R. Page, surgeon director of the same institution; Dr. George M. Coats, professor of otorhinology in the graduate school of medicine of the University of Pennsylvania; E. B. Burchell, of the Eno Laboratory of the New York Eye and Ear Infirmary; Dr. Bernard Samuels, professor of ophthalmology in the Cornell University Medical College; Dr. John H. Dunnington, assistant professor of ophthalmology in the Columbia University College of Physicians and Surgeons; Dr. Conrad Berens, directing ophthalmic surgeon, Light House Clinic, New York City, and Dr. John M. Wheeler, of Columbia University, director of the eye department of the New York City Medical Center, assisted in conducting the course. From the medical department of the university the following gave lectures or conducted clinics: Dr. Fletcher D. Woodward, professor of otolaryngology; Dr. Vincent W. Archer, professor of röntgenology; Dr. Oscar Swineford, instructor in internal medicine; Dr. Halstead S. Hedges, professor of ophthalmology, and Dr. Edwin Burton, instructor in ophthalmology.

AMHERST COLLEGE has received a gift of \$21,000 from the Rockefeller Foundation in support of biological research, the amount being payable from time to time during the next five years and being contingent upon the expenditure by the college of about \$9,600. The money contributed by the college will be used for the erection of an addition to the biology building and equipment of a zoological room for the study of specimens under controlled environmental conditions, while the money contributed by the Rockefeller Foundation will be used in maintaining qualified research assistants and two graduate student assistants.

THE ELI LILLY AND COMPANY has established under the auspices of the American Chemical Society a research award of \$1,000 and a bronze medal to stimulate fundamental research in biological chemistry in the United States by a young man or woman working in a college or university. An additional amount of \$150, or as much thereof as may be necessary, is available toward traveling expenses for the recipient of the award. To be eligible a nominee shall not have passed his thirty-first birthday on April 30 of the year of the award and shall have accomplished outstanding research in biological chemistry. For the purpose of this award biological chemistry is not to include immunology, clinical investigations, pharmacology, nor experimental therapeutics, and outstanding research is understood to be that which is of unusual merit for an individual on the threshold of his career.

The biennial award of the Oberly Memorial Prize in memory of the late Eunice Rockwood Oberly, formerly librarian of the Bureau of Plant Industry, Washington, D. C., for the best bibliography in the field of agriculture or the natural sciences has been postponed until March, 1935. This prize consists of the income from \$5,000 for a biennium and is awarded every two years. Those wishing to enter bibliographies in the contest should submit, before February, four copies of their bibliography to the chairman of the Oberly Memorial Fund Committee of the American Library Association, Gilbert H. Doane, librarian, the University of Nebraska, Lincoln, Nebraska.

THE program of public lectures at the New York Botanical Garden for December, January and February is as follows: "Present Day Hawaii," Mr. Ray Jerome Baker, of Honolulu. Illustrated by motion pictures. "Growing Plants in Glass Houses," Dr. Forman T. McLean, supervisor of public education. "Trinidad," Dr. Fred J. Seaver, curator. (Supplemented with motion pictures by Dr. Edmund Full-"Caring for Christmas Plants," Mr. T. H. ing.) Everett, horticulturist. "Origins of Cultivated Plants," Dr. Harold N. Moldenke, assistant curator. "Plant Life on Robinson Crusoe's Island," Dr. Carl Skottsberg, Yale University. "Botanizing in Fiji," Dr. Albert C. Smith, associate curator. "Plants Utilized by the American Indians," G. L. Wittrock, docent. "Travels in Central America, Studying the Sources of Chewing Gum," Dr. John S. Karling, Columbia University. "Puerto Rico: Its Flora and Scenery," Dr. Marshall A. Howe, assistant director. "The Improvement of Cultivated Plants," Dr. A. B. Stout, director of the Laboratories. "A Trip through Wisconsin," Dr. B. O. Dodge, plant pathologist. The lectures are given on Saturday afternoons at 3:30 p. m., beginning on December 1, with the exception of Saturday, December 29.

Dr. John H. Northrop, of the Rockefeller Institute for Medical Research, writes: "In the last number of Science, reference 3, page 506, which reads "M. Kunitz and J. H. Northrop, Jour. Gen. Physiol. (in press)" should read "J. H. Northrop and M. Kunitz, Jour. Gen. Physiol., 16: 267, 1932."