

quate instruction. Of these twelve schools, ten are under the direction of Yale men, and eleven have Yale graduates in their faculties. In addition, forestry is taught as a subject at four other institutions by Yale graduates. In all, forty-one men from this institution are engaged in training professional foresters in America.

POSTBELLUM REORGANIZATION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

THE results of the balloting in the reorganization of the International Commission on Zoological Nomenclature have been announced as follows:

Class of 1922 (elected in 1913):

Dr. J. A. Allen, New York, N. Y.
Dr. J. A. Bather, London, England.
M. Ph. Dautzenberg, Paris, France.
Dr. W. E. Hoyle, Cardiff, Wales.
Dr. K. Jordan, Tring, Eng.
Professor H. Kolbe, Berlin, Germany.

Class of 1925 (newly elected, vice Class of 1916):

Dr. D. S. Jordan, Palo Alto, Calif.
Professor A. Handlirsch, Vienna, Austria.
Professor R. Monticelli, Naples, Italy.
Dr. E. Simon, Paris, France.
Dr. H. Skinner, Philadelphia, Pa.
Dr. L. Stejneger, Washington, D. C.

Class of 1928 (newly elected, vice Class of 1919):

Professor C. Apstein, Berlin, Germany.
Dr. E. J. O. Hartert, Tring, England.
Dr. Geza Horvath, Budapest, Hungary.
Professor Louis Roule, Paris, France.
Dr. C. W. Stiles, Washington, D. C.

No majority was obtained for the vacancies caused by the death of Commissioner Blanchard and by the resignation of Commissioner Roule, accordingly a new vote is being taken. Each class consists of six commissioners, elected to serve nine years and selected from the zoological profession of the world at large.

SCIENTIFIC NOTES AND NEWS

THE address of the retiring president of the American Association for the Advancement of Science, to be given at the opening general session at Chicago, on the evening of December 27, by Dr. Simon Flexner, director of the

laboratories of the Rockefeller Institute for Medical Research, will be on "Twenty-Five Years of Bacteriology—A Fragment of Medical Research." There will be two other general sessions at the Chicago meeting planned to be of interest not only to all scientific workers and all members of the association, but also to the general public. One of these will be to an illustrated lecture on "Mount Katmai and the Valley of Ten Thousand Smokes," dealing with the volcanic region of Mount Katmai, Alaska, by Dr. Robert F. Griggs, of the Katmai Expeditions, National Geographic Society. The other will be an illustrated lecture on "High-Power Fluorescence and Phosphorescence," by Professor Robert W. Wood, of the physics department of the Johns Hopkins University.

THE freedom of the city of Edinburgh, where he was born in 1847, was conferred upon Dr. A. Graham Bell on November 30.

THE authorities of Guayaquil have ordered that a tablet be placed in the bacteriologic laboratory of the Public Health Department of Guayaquil to commemorate the discovery of the causative organism of yellow fever. The inscription reads as follows: "In this laboratory of the Public Health Service, the prominent Japanese bacteriologist, Hideyo Noguchi, member of the Rockefeller Institute, discovered the yellow fever organism, July 24, 1919."

AT the annual meeting of the American Ornithological Union held recently in Washington, Dr. Witmer Stone of the Philadelphia Academy of Natural Sciences was elected president.

HONORARY membership in the Cooper Ornithological Club has been conferred upon Florence Merriam Bailey (Mrs. Vernon Bailey). The present honorary members roll of the club contains seven names: Robert Ridgway, elected in 1905; Henry W. Henshaw, 1919; C. Hart Merriam, 1909; J. A. Allen, 1910; Frank Stephens, 1912; Edward W. Nelson, 1917; and Florence Merriam Bailey, 1920. Each of these ornithologists

has been identified with the development of the ornithology of western North America.

DR. R. W. HEGNER, of the department of medical zoology, School of Hygiene and Public Health, Johns Hopkins University, has been elected a Fellow of the Royal Institute of Public Health of Great Britain.

THE Röntgen Society, London, has made the first award of the Mackenzie Davidson medal to Dr. F. W. Aston, for his paper on "Positive rays."

THE C. M. Warren Committee, of the American Academy of Arts and Sciences, has voted to make the following grants: To Professor Harold Hibbert, of Yale University, the sum of \$250 to aid him in the study of the constitution of cellulose and the mechanism of the reduction of unsaturated aldehydes. To Professor James B. Conant, of Harvard University, the sum of \$222.25 to aid him in the study of reversible oxidation-reduction process in organic chemistry by physical chemical means.

PROFESSOR C. J. TILDEN, of the department of engineering mechanics at Yale University, has accepted the directorship of a national movement which has for its immediate object the laying of a broad educational program for highway engineering and highway transportation, the details of which are soon to be announced.

L. SALAZAR SALINAS, director of the Geological Survey of Mexico, has been in the United States to study the methods and organization of the U. S. Geological Survey.

MR. HUBERT M. FREEMAN, associate physicist of the radio section, Bureau of Standards, has resigned to accept a position with the Westinghouse Electric and Manufacturing Company.

DOUGLAS R. SEMMES, professor of geology at the University of Alabama, has resigned, to become assistant chief geologist of the Mexican Petroleum Co., at Tampico.

THE Washington Academy of Sciences and the Botanical Society of Washington held a joint meeting on December 16, when H. M.

Hall, of the Carnegie Institution of Washington, delivered an address on "Hay fever in its specific botanical relationships."

PROFESSOR FLORIAN CAJORI, professor of the history of mathematics at the University of California, addressed the Sigma Xi at Northwestern University on December 13, on "Switzerland, the mother of American geodesy."

FRANK MILBURN HOWLETT, of the Pusa Research Institute, and pathological entomologist to the government of India, has died at the age of forty-three years.

THE General Interest Session of the Section of Physics of the American Association for the Advancement of Science will be on the afternoon of December 29, when the vice-presidential address on "From Oersted to Einstein," will be given by Professor Max Mason, University of Wisconsin. This will be followed by a symposium on "Recent progress in magnetism," as follows: The electron theory of magnetism, Dr. S. J. Barnett, department of terrestrial magnetism of the Carnegie Institution. Magnetic susceptibilities, Professor S. R. Williams, Oberlin College. The ring electron, Professor A. H. Compton, Washington University.

THE first annual meeting of the American Meteorological Society will be held in Chicago beginning on December 29. The morning session will be devoted largely to papers on aerological work and the applications of meteorology to aeronautics. The afternoon session of the same day will include papers on various aspects of weather forecasting. The address of the president, Professor Robert DeC. Ward, will come at 2 P.M. on the 29th: "Climate and health, with special reference to the United States." This will be followed by an hour of discussion on physiological aspects of meteorology. The session will be closed with a number of short papers on instruments and observations. The sessions will be held in Rosenwald Hall, University of Chicago. There will be an inspection of the unusually complete meteorological station of the U. S. Weather Bureau, in Rosenwald Hall. Most

of the meteorological and climatological papers of the program of the Association of American Geographers will be presented on the 30th.

THE fifth annual meeting of the Optical Society of America will be held in Chicago, at the University of Chicago on Monday, Tuesday and Wednesday, December 27, 28 and 29, 1920. The program contains 32 titles, including the presentation and discussion of the reports of the committees on nomenclature and standards, of which P. G. Nutting is the general chairman. The reports are: (1) Colorimetry: L. T. Troland. (2) Lenses and Optical Instruments: J. P. C. Southall. (3) Optical Glasses: George W. Morey. (4) Photographic Materials: W. F. Meggers. (5) Photometry and Illumination: E. C. Crittenden. (6) Polarimetry: F. E. Wright. (7) Projection: L. A. Jones. (8) Pyrometry: W. E. Forsythe. (9) Reflectometry: A. H. Taylor. (10) Refractometry: C. A. Skinner. (11) Spectacle Lenses: E. D. Tillyer. (12) Spectrophotometry: A. H. Pfund. (13) Spectroradiometry: W. W. Coblenz. (14) Visual Sensitometry: Prentice Reeves. (15) Wave Lengths: W. F. Meggers.

THE Federation of American Societies for Experimental Biology meets at the University of Chicago on December 28, 29 and 30. The members of the Executive Committee for 1920 are as follows: Warren P. Lombard, president, American Physiological Society; Chas. W. Greene, secretary, American Physiological Society; Stanley R. Benedict, president, American Biochemical Society; Victor C. Myers, secretary, American Biochemical Society; A. S. Loevenhart, president, American Pharmacological Society; E. D. Brown, secretary, American Pharmacological Society; Wm. H. Park, president, American Pathological Society; Howard T. Karsner, secretary, American Pathological Society; Wm. H. Park, chairman, 315 W. 76th Street, New York, N. Y.; Howard T. Karsner, secretary, Lakeside Hospital, Cleveland, Ohio.

THE American Anthropological Association will hold its annual meeting at the University

of Pennsylvania on December 27 and 28. This meeting was originally scheduled for Chicago in conjunction with the American Association for the Advancement of Science but decided to change to Philadelphia.

THE National Geographic Society announces the foundation of a series of Memoirs for the publication of the results of its expeditions. The new series will include both narratives, giving accounts of the activities of the expeditions, of interest to the general reader, and technical papers intended for specialists in the fields of science covered by the expeditions. The first number of the new Memoirs will be devoted to a general account of the Katmai Expeditions which resulted in the discovery of the Valley of Ten Thousand Smokes and the creation of the Katmai National Monument which embraces more than a million acres. This will be followed promptly by technical papers embodying the botanical, entomological, geological, and chemical results obtained by the Katmai expeditions. In order to complete the papers as rapidly as practicable the society has requested Dr. Robert F. Griggs to devote his full time to the completion of the work. He has, accordingly, resigned his position at the Ohio State University and will take up his residence at Washington on February 1.

THE *Experiment Station Record* reports that the various technical and cooperative organizations concerned with Danish agriculture have recently organized a Central Agricultural Council, known as the Landbrugsraadet, to promote their general interests. In addition to duties of a purely economic nature, this new institution also intends to disseminate information about foreign agriculture, especially that of a statistical nature, partly by furnishing prominent farmers directly with this data and partly through instructive articles in Danish agricultural periodicals.

It is announced in *Nature* that the government of the Czecho-Slovak Republic has established, under the Ministry of Education, a Weather Bureau in Prague, to do for that country the work formerly done at the mete-

orological central stations of Vienna and Budapest. The new bureau will extend the meteorological service formerly conducted in connection with the K. k. Sternwarte, Prag-Klementinum (Astronomical Observatory). The director, Dr. Rudolf Schneider, is anxious to receive for the library of the bureau all the reports of observations and meteorological publications formerly sent to the Sternwarte, and he will be glad to send to other meteorological stations and offices publications of his bureau in exchange.

THE British Secretary of State for the Colonies has appointed a committee to consider and report what steps can be taken to secure the assistance of the universities in carrying out the research work which is essential to the protection of the inhabitants of the Colonies and Protectorates from disease and to the successful development of their veterinary, agricultural and mineral resources. The members of the committee are: The Right Hon. Lord Chalmers (chairman), Sir H. Birchenough, Sir J. Rose Bradford, Sir W. Fletcher, Professor E. B. Poulton, Sir D. Prain, Sir H. Read, Sir S. Stockman, and Sir A. Strahan.

WE learn from *Nature* that an Institute of Physics has now been incorporated in England and has begun to carry out its work. The object of the institute is to secure the recognition of the professional status of the physicist and to coordinate the work of all the societies interested in physical science or its applications. Five societies have already participated in this co-ordination, namely, the Physical Society of London, the Optical Society, the Faraday Society, the Royal Microscopical Society, and the Röntgen Society. The first president is Sir Richard Glazebrook, who will preside at the opening statutory meeting of the institute, which will be held early in the new year. The list of members now includes the names of more than two hundred fellows. Sir J. J. Thomson, the retiring president of the Royal Society, has accepted the invitation of the board to become

the first, and at present the only, honorary fellow. The diploma of the institute is now being required from applicants for government and other positions requiring a knowledge of physics.

DR. ROBERT KNOX, in his presidential address before the Röntgen Society, London, on November 18, discussed the radiologist's need for fresh apparatus. According to the abstract in the *British Medical Journal* he deplored the lack of unanimity regarding the development of instrument design, which made standardization impossible. Nevertheless, a recognition of certain special needs was emerging—the need for increasingly powerful apparatus, for X-ray tubes capable of steady output, and for a method of exactly measuring radiation. He called upon the designers of high tension apparatus to set to work to produce more powerful apparatus. It seemed likely that radio-therapeutic work would be impeded in its advance unless a more penetrating radiation were available; at all events, if such high penetration were not required for treatment, this could only be proved after extensive experimental work for which the apparatus was lacking. At the suggestion of the British Scientific Instruments Research Association a meeting of medical men, physicists, and manufacturers had been called, and this resulted in the formation of a small committee empowered to draw up a list of questions about the design of apparatus required for radiographic and therapeutic work, and those questions were now being circulated among the radiologists of the country. Dr. Knox maintained that the development of radiological apparatus and technique called for cooperative experiment by physicists, technicians, and medical men. These problems could only be handled comprehensively in a radiological research institute with a suite of laboratories, lecture theaters and demonstration rooms. The establishment of such an institute was the object of the Mackenzie Davidson Memorial Fund. It would be directed by a general committee, with subcommittees for the physical, technical, medical and photographic sides of the work,

each subcommittee supervising a section of the institute, and all conferring together in cases of difficulty. An institute of physics was coming into being; why not an institute of radiology adjoining it or incorporated with it? At Petrograd a new institute of radiology had lately been inaugurated in a building of recent construction. If Bolshevik Russia, asked Dr. Knox, could erect an institute of radiology in the midst of its great upheaval, was the United Kingdom going to be outdone?

THE National Research Council has established the Research Information Service as a general clearing-house and informational bureau for scientific and industrial research. This "Service" on request supplies information concerning research problems, progress, personnel, funds, etc. Ordinarily inquiries are answered without charge. When this is impossible, because of unusual difficulty in securing information, the inquirer is notified and supplied with an estimate of cost. Much of the information assembled by this bureau is published promptly in the *Bulletin* or the "Reprint and Circular Series" of the National Research Council, but the purpose is to maintain complete up-to-date files in the general office of the council. Announcement will be made from time to time of special informational files which have been prepared. Requests for information should be addressed to the Research Information Service, 1701 Massachusetts Avenue, Washington, D. C.

THE Carnegie Foundation for the Advancement of Teaching distributed up to June 30, 1920, the sum of \$7,964,000 in 664 retiring allowances and 245 pensions to widows of professors in 159 universities and colleges. This announcement has been made to the trustees, by Dr. Henry S. Pritchett, the president. The Foundations assets are \$24,628,000. The Teachers Insurance and Annuity Association, established by the Foundation, during its first two years had provided for teachers in 213 institutions, 585 policies totalling \$2,969,000 and 513 annuity contracts representing \$540,000, or total expected payments of \$6,480,000.

The association's annuities have been adopted by thirty-four universities and colleges for all teachers desiring them, it was stated. President Hibben, of Princeton, President Vinson, of the University of Texas, President Perry, of Hamilton College and President Neilson, of Smith College, have been elected trustees to fill vacancies. President Humphreys, of Stevens Institute has been elected chairman; President Thwing, of Western Reserve University, vice chairman, and Chancellor Kirkland, of Vanderbilt University, secretary of the board.

WE learn from *Nature* that the English courts gave on November 17, a decision on the motion for an injunction to prevent Messrs. Brunner, Mond and Co., from distributing £100,000, as it was authorized to do by an extraordinary general meeting on August 5. It will be remembered that at this meeting the directors were empowered to distribute that sum to such universities or other scientific institutions in the United Kingdom as they might select for the furtherance of scientific education and research. The money was to be provided from the investment surplus reserve account. It was urged that in carrying out the resolution the directors would be acting a way which was outside the scope of the stated objects of the company, but Mr. Justice Eve ruled that the resolution came within the bounds of what was likely to lead to the direct advantage of the company, and therefore refused to make an order on the motion.

UNIVERSITY AND EDUCATIONAL NEWS

FRANCIS LYNDE STETSON has bequeathed his residuary estate, estimated at from \$1,000,000 to \$1,500,000, to Williams College, of which he was a senior trustee for many years and a benefactor during his life. He gave \$100,000 additional to the college to establish eight scholarships for worthy students from Clinton County. The testator directs preference be given to students from the city of Plattsburg and the towns of Champlain, Chazy and Ausable in that order.