

School, and has been in the Forest Service continuously since 1904, except for two years of military service with the American Expeditionary Forces.

From 1906 to 1908 he was supervisor of the Sequoia National Forest in California. After a short period of service in the Washington office he was appointed district forester in charge of the National Forests of Montana and northern Idaho, with headquarters at Missoula, Mont. In this position it fell to him to protect these forests, having a total area of over 29,000,000 acres, at the time of the great fires in 1910. The following year he was appointed assistant forester and placed in charge of the branch of silviculture, now the branch of forest management, in the Washington office. This branch has supervision of all national forest timber sales and timber cutting, together with other important lines of work.

With the opening of the war it was decided to raise and send to France forestry troops, and their recruiting was assigned to Colonel Greeley. To prepare the way for their operations in the French forests, the chief forester, Colonel Graves, was sent to France and attached to the General Staff. After Colonel Graves returned to the United States, Colonel Greeley took his place and finally became chief of the forestry section in the American Expeditionary Forces, in charge of 21,000 forestry troops and 95 sawmills, with lumbering operations scattered from the zone of military operations to the Pyrenees and from the Swiss border to the Atlantic.

Colonel Graves, in presenting his resignation after ten years of service as chief forester, wrote:

Since the pecuniary returns afforded professional and scientific men in the government service inadequately provide against the exhaustion of the working powers which must inevitably take place in time, and entail sacrifices from which employment elsewhere is free, the only course consistent alike with self-respect and a regard for the public interests seems to me to be retirement from office before efficiency has been impaired. Present conditions, which amount to a heavy reduction in the rate of compensation in practically every branch of the government service, emphasize this point of view.

SCIENTIFIC NOTES AND NEWS

At the mid-year commencement exercises of the University of Pittsburgh honorary degrees were conferred upon Dr. William H. Nichols, retiring president of the American Chemical Society, and Dr. William A. Noyes, present president.

DR. W. W. CAMPBELL, director of the Lick Observatory, has been appointed "Commander of the Order of Leopold II." by King Albert, of Belgium. Dr. Campbell has also been elected to honorary membership in the Royal Institution of Great Britain.

PROFESSOR WILDER D. BANCROFT, of Cornell University, at present chairman of the division of chemistry of the National Research Council, has been elected a foreign member of the Chemical Society, London.

DR. F. G. NOVY, of the University of Michigan, has been elected a corresponding member of the Society of Biology, of Paris, and associate member of the Royal Society of Medical and Natural Sciences of Brussels.

DR. FREDERICK P. GAY, of the University of California, has been elected an honorary member of the Philadelphia Pathological Society.

PROFESSOR A. FOWLER, professor of astrophysics, Imperial College of Science and Technology, London, has been elected a corresponding member of the Paris Academy of Sciences, in succession to the late Professor E. Weiss, of Vienna.

PROFESSOR R. A. SAMPSON, astronomer royal for Scotland, has been appointed Halley lecturer at the University of Oxford for 1920.

DR. ARTHUR L. DAY, who has been engaged in research work at the Corning Glass Works, Corning, N. Y., is resuming the directorship at the Geophysical Laboratory of the Carnegie Institution, Washington, D. C.

KARL SAX has been appointed biologist at the Maine Agricultural Experiment Station to take charge of the plant-breeding work.

DR. CHESTER SNOW has resigned as professor of mathematics at the University of Idaho, to accept a position as physicist in the Bureau of Standards, Washington.

PROFESSOR ARTHUR D. BUTTERFIELD, of the department of mathematics at the Worcester Polytechnic Institute, has resigned to become educational director for the Norton Company.

SETH S. WALKER has resigned as soil chemist to the Agricultural Experiment Station, Baton Rouge, La., to become chemist to the Florida Citrus Exchange and Exchange Supply Co., with laboratory and headquarters at Tampa, Florida.

MR. J. HOWARD ROOP, former chief chemist of feedingstuffs in the state chemists' department of Purdue University, has accepted a place as chief chemist of the Nobelsville Milling Co., Nobelsville, Indiana.

MR. HOYT S. GALE, geologist in charge of the section of non-metalliferous deposits of the U. S. Geological Survey, who recently returned from Europe where he examined and reported on the potash deposits for the Geological Survey and Bureau of Mines, is on furlough for five months to make an examination of the oil fields of eastern Bolivia. Mr. K. C. Heald, geologist of the survey, is returning from Bolivia by way of the Amazon to the east coast of Brazil.

PROFESSOR E. H. STARLING, F.R.S., has sailed for India to advise as to the locality and equipment of an All India Research Institute. Delhi, the new capital of India, has been suggested as a site for a new institute to serve as the headquarters of the research organization, but other places have been mentioned.

PROFESSOR G. N. LEWIS delivered the faculty research lecture on "Color and molecular structure" during the charter week ceremonies of the University of California.

DR. J. WALTER FEWKES, chief of the Bureau of American Ethnology, Smithsonian Institution, delivered an address on "American Archeology: Its History and Technique" before the Washington Academy of Science on March 8.

DR. COLIN G. FINK, head of the laboratories of the Chile Exploration Company, recently lectured to the graduate students, school of chemistry, Yale University, on "Industrial re-

search" and on "The value of physical chemistry to the organic chemist."

CAPTAIN CARL W. LEWIS, head of the chemistry department of Northwestern University lectured on March 12 at Oberlin College on "Problems of Gas Warfare."

PROFESSOR PIERRE BOUTROUX, of Princeton University, lectured on "French Science" on March 18 at Columbia University.

At a joint meeting of the Washington Academy of Sciences and the Medical and Anthropological Societies on March 31, Sir Arthur Newsholme, K.C.B., former chief medical officer of health of the Local Government Force, England, delivered an address on "The National Importance of Child Welfare Work."

THE third annual Silvanus Thompson memorial lecture of the Röntgen Society was delivered by Professor W. H. Bragg on March 2, the subject being "Analysis by X-rays."

DR. HARVEY CUSHING, Peter Bent Brigham Hospital, Boston, has been requested by Lady Osler to prepare a biography of Sir William Osler. He will be grateful to any one who will send him either letters or copies of letters, or personal reminiscences, or information concerning others who might supply such information.

WE learn from *Nature* that a meeting convened by the chancellor of the University of Cambridge and the president of the Royal Society was held on March 4, at the rooms of the Royal Society, to consider the question of a memorial to the memory of Lord Rayleigh. After a preliminary statement by the president of the Royal Society announcing the purpose of the meeting, speeches in favor of the proposal to erect a memorial were made by Mr. A. J. Balfour, Sir Charles Parsons, Dr. P. Giles (vice-chancellor of the University of Cambridge), Sir Arthur Schuster, Sir Richard Glazebrook, and Sir Joseph Larmor. It was agreed that a fund should be raised for the purpose of placing a memorial, preferably a window, in Westminster Abbey. A general committee was appointed, as well as an executive committee, to consider details, and also

the further question of raising a fund in memory of Lord Rayleigh, to be used for the promotion of research in some branch of science in which he was specially interested.

DR. JAMES EMERSON REYNOLDS, professor of chemistry at the University of Dublin from 1875 to 1903, since engaged in research work in the Davy-Faraday laboratory of the Royal institution, died on February 26 at the age of seventy-six years.

LUCIEN POINCARÉ, author of works on physics and vice-rector of the University of Paris, died on March 9, at the age of fifty-eight years. M. Poincaré was a brother of President Poincaré, and a cousin of the great mathematical physicist, Henri Poincaré.

DR. HUGO EISIG, who cooperated with Anton Dohrn in the foundation and conduct of the Naples Zoological Station, died in Switzerland on February 10, aged seventy-three years.

THE American Pharmaceutical Association has available a sum amounting to about \$450 which will be expended after October 1, for the encouragement of research. This amount either in full or fractions will be awarded in such manner as will in the judgment of the research committee produce the greatest good to American pharmaceutical research. Investigators desiring financial aid in their work will communicate before May first with H. V. Arny, chairman, 115 West 68th St., New York, giving their past record and outlining the particular line of work for which the grant is desired. The committee will give each application its careful attention and will make recommendations to the American Pharmaceutical Association at its meeting in Washington, May 3-8, when the award or awards will be made.

UNIVERSITY AND EDUCATIONAL NEWS

THE fund for the University of Montreal (Laval), recently destroyed by fire, has attained to more than \$3,500,000.

THE *Journal* of the American Medical Association states that Toronto University needs \$4,000,000 for its reorganized medical department. Dr. George E. Vincent, of the Rocke-

feller Foundation, has been in Toronto and has been conferring with the special committee of the medical department, presided over by Dr. Alexander Primrose, C.B. It is planned to pay whole-time professors in medicine, surgery, obstetrics, pathology, and perhaps one or two others, \$10,000 a year. Representatives from Queens, Western at London, and from Winnipeg interviewed Dr. Vincent as to their likelihood of participating in the \$5,000,000 to be allotted to Canada for medical education from the foundation.

A BEQUEST of £4,000 has been left to the University of Manchester by the late Mr. William Kirtley, a nephew of Stephenson, who constructed the Manchester and Liverpool Railway. The fund will be used to establish a William Kirtley scholarship for the promotion of the study of mechanical engineering.

ACCORDING to the forthcoming annual report of President Harry Pratt Judson, a building which the University of Chicago stands especially in need of is a research laboratory for the department of chemistry. The present Kent Chemical Laboratory is overcrowded with students. Such a building is estimated to cost about \$350,000 and would be erected directly west of Kent Chemical Laboratory.

DR. W. C. ALLEE, of Lake Forest College, will next year be head of the department of biology at Knox College.

DISCUSSION AND CORRESPONDENCE THE U. S. GEOLOGICAL SURVEY

IN a recent number of *SCIENCE*, the director of the United States Geological Survey calls public attention to the deplorable fact that the Survey is rapidly losing many of its capable geologists. He seems to ascribe this rapid depletion of the scientific staff entirely to the low salaries offered by the government as compared with the high salaries, often with privileges of investment, offered by corporations—particularly oil companies. Geologists who are familiar with the conditions in the Geological Survey during the past twenty years or more are aware, however, that the director has mentioned only one of the reasons why geologists are rapidly leaving the survey to accept more