bia University, was opened with formal ceremonies on September 22.

The school, a post-graduate institution, to be maintained jointly by the University of Porto Rico and Columbia University, officially greeted a Columbia delegation consisting of Stephen G. Williams, representing the trustees; Dean Frederick J. E. Woodbridge, representing the university, and Dean William Darrach, representing the College of Physicians and Surgeons. The delegation welcoming them included Dr. Robert A. Lambert, director of the school; Antonio R. Barcelo, president of the trustees of the University of Porto Rico and president of the Porto Rican Senate, and Chancellor Benner.

The principal addresses at the inauguration of the school were given by Horace M. Towner, governor of Porto Rico; Don Barcelo and Dean Darrach.

Associated with Dr. Lambert for the year 1926–27 is a group of thirty-seven professors, instructors and resident and visiting lecturers, eight on full time and the rest on part time. Among them are Dr. Donald H. Cook, from Columbia; Dr. William A. Hoffman, from the Johns Hopkins; Dr. Pedro N. Ortiz, from Boston, Commissioner of Sanitation and Health of Porto Rico; Dr. Antonio Fernos Isern, from Maryland; Dr. Luis G. Hernandez, from Michigan; Dr. George C. Payne, from the Johns Hopkins and the International Health Board of the Rockefeller Foundation; Dr. Bailey K. Ashford, and Dr. Earl B. Mc-Kinley and Dr. Calvin B. Coulter, both of Columbia.

Twenty-two courses are being offered in bacteriology, mycology, pathology, chemistry, medical zoology, public health and transmissible diseases, and tropical medicine and surgery.

THE ERIC KNIGHT JORDAN FELLOWSHIPS IN GEOLOGY

DR. AND MRS. DAVID STARR JORDAN have lately established a fund for research fellowships to be known as the Eric Knight Jordan Research Fellowships in Geology. To the sum of \$5,000 already turned over to Stanford University the founders expect to add later, and they cherish the hope that friends of their son as well as of themselves may in time make further contributions.

With this gift, two stipulations only are made:

First: that the name of Eric Knight Jordan shall be perpetuated in the foundation, it being believed that he gave promise of becoming a rare worker in geology, his chosen subject;

Second: that the principal sum be forever kept inviolate, only its earnings to be used for any purpose whatsoever.

In accepting the original gift on behalf of the university, President Wilbur made the following comment:

As years go on Eric Jordan's name will be a source of inspiration to many workers in his own field of geology, in which he had already achieved signal successes, although a young man, and in which he gave promise of a brilliant future. The conditions of the gift are, I think, the wisest I have yet seen in any scholarship or fellowship foundation because they

Knowing that among Stanford men and women there are some who will be glad to join with Dr. and Mrs. Jordan in the purpose specified, we would call attention to this foundation for geological research in memory of a son of Stanford's first president.

permit sufficient elasticity to meet changing conditions.

JAMES PERRIN SMITH, ROBERT VAN VLECK ANDERSON, LEO GEORGE HERTLEIN

SCIENTIFIC NOTES AND NEWS

THE University of Cambridge will commemorate on October 5 the tercentenary of the death of Francis Bacon. Dr. C. D. Broad will give an address and there will be a reception and dinner at Trinity College. Honorary degrees will be conferred upon Sir Ernest Rutherford and Professor William Holdsworth.

In connection with the celebration of the fiftieth anniversary of the founding of the Johns Hopkins University, a volume of the Journal of Pharmacology and Experimental Therapeutics will be issued in honor of Dr. John J. Abel, its founder, who has since 1891 been identified with the university. The volume contains forty articles filling about 550 pages. The contributors are all colleagues, friends or students of Dr. Abel, including among foreign men of science the late Arthur R. Cushny, David I. Macht, Hans H. Meyer, Carl Voegtlin, Archibald V. Hill, P. J. Hanzlik, E. M. K. Geiling and Paul D. Lamson.

THE Russian Academy of Sciences is planning a celebration in honor of the twenty-fifth anniversary of Professor J. P. Pawlow's first announcement in regard to conditioned reflexes.

THE Chicago Chapter of the English Speaking Union arranged a luncheon for Sir James Colquhoun Irvine on September 16.

DR. FRITZ PANETH, professor of inorganic chemistry at the University of Berlin, has been elected non-resident lecturer in chemistry at Cornell University for the coming term.

PROFESSOR V. H. BLACKMAN, Professor F. G. Donnan and Professor F. A. Lindemann have been appointed by Order of Council dated August 20 to be members of the advisory council to the Committee of the Privy Council for Scientific and Industrial Research, in succession to members who have retired on the completion of their terms of office. AT Princeton University Dr. Karl T. Compton, professor of physics, and Dr. Howard C. Warren, professor of psychology, have leave of absence for the first half of the academic year; Dr. Einar Hille, associate professor of mathematics, has a full year's leave.

MAJOR HAROLD P. SHELDON, fish and game commissioner of Vermont, has been appointed chief United States game warden to fill the vacancy caused by the resignation of George A. Lawyer.

DR. HOWARD W. HAGGARD, assistant professor of applied physiology at Yale University, has been appointed on the editorial board of the *Journal of Personnel Research*, succeeding Dr. Alice Hamilton, assistant professor of industrial medicine at the Harvard Medical School.

GEORGE D. SCARSETH has resigned from the position of assistant in soils at the Connecticut Agricultural Experiment Station, to take a position as soils expert for the United Fruit Company, with headquarters at Tela, Honduras. His place has been filled by H. G. M. Jacobson, formerly with the department of agronomy at the University of Arkansas.

DRS. PERCY S. PELOUZE and Frederick S. Schofield, of Philadelphia, have been awarded the Alvarenga prize by the College of Physicians of Philadelphia for an essay on research in urology.

DR. JACOB HOFFMAN, of Philadelphia, has been awarded a year's research work in Berlin and Vienna for meritorious work during his internship at Mount Sinai Hospital.

THE expedition to Greenland led by Professor William H. Hobbs, of the University of Michigan, has returned on the expedition's schooner, the *Guy S*. *Morrissey*, in the best of health. Among them are Professor George P. Putnam, of the U. S. Geological Survey, and Robert E. Peary, Jr., son of Admiral Peary, the polar explorer. The expedition, starting in July, was for the purpose of making preliminary surveys for the University of Michigan-Danish Government expedition of 1927. The *Morrissey* was piloted by its owner, Lieutenant Commander Robert A. Bartlett, who was skipper for Peary.

DR. ALEŠ HRDLIČKA, of the U. S. National Museum, has returned from a summer in the field spent in making an archeological survey of Alaska in which he covered the major portion of the Yukon basin and of the coast from St. Michael and Nome to Barrow, north of the Arctic Circle. The expedition was under the auspices of the Bureau of American Ethnology, Smithsonian Institution, and its main object was to throw further light on the probable route by which primitive man first set foot on the American continent. [Vol. LXIV, No. 1657

Chapman Andrews, explorer and archeologist, has arrived from China after an ineffectual attempt to penetrate into the Gobi Desert to discover possible human evidences that this desert is the "cradle of mankind." Dr. Andrews was halted at Peking by warring Chinese factions. A camel train of 150 animals and a large amount of supplies was sent into the desert to await his coming, but lost track of the train in the fighting around Peking and it is believed that it may have been annihilated by one of the bands of marauding irregulars. Dr. Andrews puts his loss of camels and supplies at \$25,000.

COMMANDER DONALD MACMILLAN, the Arctic explorer, has announced plans for an expedition into the North next summer. He plans to establish a scientific station, from which research and study will be carried on for five years. Commander MacMillan will remain at the station for fifteen months, returning to civilization for fresh supplies. Five scientific men will be included in the expedition.

Museum News states that James P. Chapin, of the American Museum of Natural History, who went to East Africa early in the year in charge of the Ruwenzori-Kivu Expedition, with Messrs. De Witt L. Sage, son of Henry W. Sage, and Frank P. Mathews, son of Dr. Frank S. Mathews, reports that he is meeting with excellent results in his collection of material. The route which they planned was to enter East Africa at Mombasa, cross the highlands and then go through the Uganda to Lake Albert. Turning south in eastern Belgian Congo, they expected to investigate the fauna of Mt. Ruwenzori, of the highest volcanoes of the Kivu district, thence by way of Lake Tanganyika and the Upper Katanga to South Africa. The party arranged to spend about six months. They are collecting birds for habitat groups in the museum.

DR. EUGENE C. TIMS, of the Louisiana Experiment Station, has returned from a trip to Spanish Honduras, where he spent a month making a survey of sugar cane diseases for the Cuyamel Fruit Company.

DR. ROKURO TAKANO, chief of the bureau of public health of the Imperial Japanese Government, has recently arrived at New York to attend the fifth conference of the International Union against Tuberculosis held at Washington, D. C., from September 29 to October 2.

PROFESSOR DR. HATAI, professor of biology in the Tohoku Imperial University, who has been in America delivering lectures in the Rockefeller Institute, has been entrusted with establishing a new biologic institute in Japan. He returned to Sendai last July to negotiate with the committee of the Saito Ho-on OCTOBER 1, 1926]

SCIENCE

DR. EDOUARD RIST, of the Laënnee Hospital and Dispensary, Paris, will deliver an address at the City Club, on October 11, under the auspices of the Chicago Tuberculosis Institute with the cooperation of the Institute of Medicine; there will be a dinner at Grayling's in honor of Dr. Rist, preceding the address. Dr. Ernst Loewenstein, professor of experimental pathology, University of Vienna, will also be in Chicago, October 27, and will deliver an address.

THE trustees and staff of the Mount Sinai Hospital, New York, have announced that Professor Friedrich von Müller will deliver the Edward G. Janeway Lectures on October 1 and 2, on "The Nervous System and Internal Medicine."

DR. GEORGE I. ALDEN, a founder of the Norton Company of Worcester, Mass., the inventor of the Alden absorption dynamometer, and for twenty-eight years professor of mechanical engineering at the Worcester Polytechnic Institute, died on September 13, aged eighty-three years. By the will of Professor Alden a trust fund of \$3,000,000 is established, to be used eventually for philanthropic and educacational purposes.

DR. ARTHUR HENRY GLENNAN, formerly assistant surgeon general of the United States Public Health Service, died at Washington on September 27.

DR. AUGUSTE J. ROSSI, consulting chemist of the Titanium Alloy Manufacturing Company and the Titanium Pigment Company, Inc., of Niagara Falls, N. Y., died on September 19 at the age of eightyseven years after being ill three days.

DR. EDWARD S. BREIDENBAUGH, professor emeritus in chemistry at Gettysburg College, died on September 5, aged seventy-seven years.

GEORGE K. ELLIOTT, chief chemist and metallurgist for the Lunkenheimer Company, Cincinnati, died on September 23, aged forty-five years.

DR. WILLIAM ROMAINE NEWBOLD, Seybert professor of moral philosophy at the University of Pennsylvania, died on September 26, aged sixty-one years.

DR. PAUL KEMMERER, of Vienna, recently appointed professor of biology in the University of Moscow, has died by suicide. He left his library to the University of Moscow and his body to the Vienna Anatomical School.

Dr. F. W. GAMBLE, F.R.S., Mason professor of zoology in the University of Birmingham, died on September 7 at the age of fifty-seven years.

AT the close of the International Congress of Plant Sciences recently held at Cornell University, a western field trip was organized and conducted by Professor Geo. D. Fuller, of the University of Chicago, in order to permit some of the visiting botanists to see something of the vegetation of various portions of the United States. The itinerary included Salt Lake City, Utah, and vicinity, the Yellowstone and Rocky Mountain National Parks, the environs of Fort Collins, Colorado, and the sand dune region of Lake Michigan. Among those participating in the excursion were Dr. John Briquet, Botanical Institute, Geneva, Switzerland; Dr. A. B. Rendle, curator of botany, British Museum, London; Professor Richard Wettstein, University of Vienna; Professor and Mrs. A. Maximow, Agricultural Institute, Leningrad; Professor and Mrs. Karel Domin, Charles University, Prague; Dr. Eduard Rübel, Geobotanic Institute, Zürich: Professor Al. Borza, Cluj University, Roumania; Count A. Marcello, Venice, Italy; Dr. Carl Skottsberg, Botanic Garden, Gothenberg, Sweden; Professor von Slogteren, phytopathologist, Bulb District, Lisse, Holland; Professor W. Szafer, University of Cracow, Poland; Professor T. W. Woodhead, Technical College, Huddersfield, England; Dr. Ferd. Comte, Forestmeister, Yverdon, Switzerland; Professor F. Kotowski, Warsaw, Poland; Dr. Miss Marie Löhnis, Scheveningen, Holland: Professor K. Wise, Posen, Poland, and Mr. Carleton Rea, Worcester, England.

THE Rockefeller Institute for Medical Research was host on September 25 to a group of foreign delegates who attended the recent cancer symposium held by the American Society for the Control of Cancer at Lake Mohonk, N. Y. The party arrived at the institute at 11:30 A. M. and went first to the laboratories of Dr. Alexis Carrel for an inspection of his department and a demonstration of "The New Method for the Study of Malignant Tumors." Dr. Wade H. Brown gave a brief talk and demonstration on "Malignant Disease in the Rabbit." Following luncheon, Dr. James B. Murphy demonstrated in his laboratory some recent work on the experimental production and transmission of tar sarcoma in chickens. Among the group attending these demonstrations were the following: Drs. Henri Hartmann, Claude Regaud and Gustave Roussy, of Paris; Dr. Léon Bèrard, of Lyons; Dr. T. Marie, of Toulouse; Dr. Albert Reverdin, of Geneva; Dr. J. Maisin, of Louvain; Dr. William DeVries, of Amsterdam; Dr. H. T. Deelman, of Groningen, and Professor Maud Slye, of Chicago.

Nature reports the following awards for the year 1926–27 made by the Salters' Institute of Industrial Chemistry and approved by the Court of the Company: Fellowships have been renewed to-Mr. H. S. Pink, University College, Nottingham, and University of Oxford, at the Massachusetts Institute of Technology; Mr. V. E. Yarsley, University of Birmingham, at the Polytechnic, Zürich; Dr. R. Campbell, Armstrong College, Newcastle-upon-Tyne, and University of Oxford, at the department of chemical engineering, University College, London. Fellowships have also been awarded to—Mr. E. A. Bevan, East London College, University of London; Mr. R. M. Deanesly, University of Oxford; Mr. R. Edgeworth-Johnstone, College of Technology, University of Manchester; Mr. H. B. Spalding, University of Oxford. The Salters' Institute has also awarded fifty-one grants-in-aid to young men employed in chemical works to facilitate their further studies.

UNIVERSITY AND EDUCATIONAL NOTES

AMONG the announcements of gifts at the recent convocation of the University of Chicago was the sum of a million dollars given by Douglas Smith for medical research.

By the will of the late Sir John Williams, Bart., president of the University College and of the National Library of Wales, who died on May 24, the residue of the property, which will amount to nearly £100,000, is bequeathed to the two institutions of which he was president.

DR. RALPH D. HETZEL, for nine years president of the University of New Hampshire, has been elected president of Pennsylvania State College. He succeeds Dr. John M. Thomas, who resigned about a year ago to become president of Rutgers University.

DR. ROBERT MULLIKEN, formerly of Harvard University, has been appointed assistant professor in physics at New York University. Dr. Lloyd B. Ham, in charge of the elementary laboratories, has been promoted to the rank of assistant professor in the same department.

R. B. MOORE has resigned his position as general manager of the Dorr Company to become head of the department of chemistry at Purdue University.

AFTER a year spent in study at the University of Chicago, Dr. E. H. Johnson has resumed his work as professor of physics in Kenyon College. Dr. John Coulson, formerly of the Westinghouse Electric Company and of the faculty of the University of Pittsburgh, has been appointed assistant professor of physics. With the opening of the current academic year the department of physics will be housed in the new Samuel Mather Science Hall, the gift of Mr. H. G. Dalton, of Cleveland.

AFTER six years of service with the Michigan De-

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partment of Health, Dr. George H. Ramsey has become associate professor of epidemiology in the School of Hygiene and Public Health, the Johns Hopkins University.

LEON S. WARD, Ph.D. (Wisconsin), has been appointed associate professor of chemistry at the Michigan College of Mines, Houghton.

APPOINTMENTS have been made in the department of zoology at Syracuse University as follows: Julian D. Corrington, Ph.D. (Cornell, '25), assistant professor of zoology; M. Thelma Holmes, M.A. (Syracuse, '26), instructor in zoology; Norman E. Phillips, A.B. (Allegheny, '16), instructor in zoology.

DR. NOEL J. G. SMITH, of the department of botany of the University of Aberdeen, has been appointed professor of botany in the Rhodes University College.

DISCUSSION

THE DISCOVERY OF THE INSECTICIDAL PROPERTY OF CARBON DISULPHIDE

SINCE the sixth decade of the last century, a period of about seventy years, carbon disulphide has been our chief reliance as a fumigant for killing injurious insects in stored grain and in the soil. Attempts to replace it with something better have failed. It has been used in large quantities and the benefits that have resulted have been great. It is therefore worth while to know to whom we are indebted for the discovery of the insecticidal property of this chemical.

W. E. Hinds's "Carbon Bisulphide as an Insecticide"¹ is our standard reference on the use of this material as a fumigant. Dr. Hinds says (page 8), "So far as the writer can learn, the first use of carbon bisulphide as an insecticide was made in 1856 and 1857 by M. Doyère, who demonstrated that a small amount of the liquid poured into a pit of corn or barley would kill all the weevils and their eggs...." W. H. Goodwin, in an article on "Carbon Bisulphid and its Use for Grain Fumigation,"² also gives credit to M. Doyère for introducing the material as an insect fumigant. The evidence that follows indicates that Doyère discovered the insecticidal use of carbon disulphide independently, but that his work was anticipated by another investigator, M. Garreau.

In July, 1854, Garreau published³ the results of experiments with various compounds against grain

¹U. S. Dept. Agr., Farmers' Bull. 145, 1902. (A revision, Farmers' Bull. 799, 1917, omits the historical review of the subject.)

² Mo. Bul. Ohio Agr. Exp. Sta., v. 1, no. 3, 1916, pp. 86-90.

³ Archives de l'Agriculture du Nord de la France (Lille), t. 2, pp. 195-198.