

Charles Armstrong, United States National Institute of Health, Washington, D. C.
Philip Bard, the Johns Hopkins University School of Medicine.
George Wells Beadle, Stanford University.
Hans A. Bethe, Cornell University.
Edward U. Condon, Westinghouse Research Laboratory, East Pittsburgh.
George O. Curme, Jr., Carbide and Carbon Chemicals Corporation, New York, N. Y.
Hugh L. Dryden, National Bureau of Standards, Washington, D. C.
Carl Owen Dunbar, Yale University.
Vincent du Vigneaud, Cornell University Medical College, New York, N. Y.
James Franck, University of Chicago.

Reynold C. Fuson, University of Illinois.
Edwin Bret Hart, University of Wisconsin.
Selig Hecht, Columbia University.
Alfred H. Joy, Mt. Wilson Observatory, Pasadena.
Esper Signius Larsen, Jr., Harvard University.
James B. Macelwane, St. Louis University.
Leonard A. Maynard, Cornell University.
Barbara McClintock, Department of Genetics, Carnegie Institution of Washington, Cold Spring Harbor.
C. R. Moore, University of Chicago.
Alfred S. Romer, Harvard University.
Louis B. Slichter, Massachusetts Institute of Technology.
Lee I. Smith, University of Minnesota.
Don M. Yost, California Institute of Technology.
Oscar Zariski, the Johns Hopkins University.

SCIENTIFIC NOTES AND NEWS

THE Remington Honor Medal for 1944 has been awarded by the New York Branch of the American Pharmaceutical Association to Dr. H. Evert Kendig, dean of the School of Pharmacy of Temple University. The medal is conferred each year for work carried out during the preceding year, or culminating over a period of years, that is judged to be the most important to American pharmacy.

THE Lamme Medal for "outstanding engineering achievement" for 1944 has been awarded by the Ohio State University to Henry M. Williams, of Dayton, Ohio, since 1938 vice-president of the National Cash Register Company in charge of engineering and research. The presentation will be made in June during the commencement of the university.

THE James Ewing Award of the Westchester County, N. Y., Medical Society, was presented on May 16 to Dr. Richard Charlton, for fifteen years chairman of the Westchester Cancer Committee of the American Society for the Control of Cancer.

IN connection with the presentation on April 14 of the Gold Medal of the Royal Astronomical Society to Dr. Otto Struve, as reported in *The Times*, London, Professor E. A. Milne, president of the society, called attention to the circumstance "that this was the fourth time an astronomical member of the Struve family had been awarded the gold medal of the society. It had been received four times in a hundred and eighteen years, or once in each generation."

AT the presentation on May 31 to Dr. George O. Curme, Jr., of the Willard Gibbs Medal of the Chicago Section of the American Chemical Society, Dr. L. M. Henderson, of the Pure Oil Company, chairman of the section, spoke on "The Willard Gibbs Medal," and J. G. Davidson, vice-president of the Carbide and Carbon Chemicals Corporation, discussed "The

Medalist." Dr. Charles L. Parsons, of Washington, D. C., secretary of the American Chemical Society, made the presentation.

DR. E. A. MILNE, Rouse Ball professor of mathematics at the University of Oxford, has been elected president of the Royal Astronomical Society.

DR. HOMER L. DODGE, professor of physics at the University of Oklahoma, dean of the Graduate School and director of the University of Oklahoma Research Institute, has been elected the eighteenth president of Norwich University, Northfield, Vt. Since 1942 Dr. Dodge has been on leave of absence to serve as director of the Office of Scientific Personnel of the National Research Council. He will assume his duties as president on August 1. Norwich University is a military college with basic curricula in liberal arts and engineering. The one hundred and twenty-fifth anniversary of its founding will be celebrated on August 6 with Colonel Herman Beukema, formerly director of the Army Specialized Training Program and now of the U. S. Military Academy at West Point, as the principal speaker.

DR. WILLIAM KING GREGORY, curator of the departments of comparative anatomy and fishes of the American Museum of Natural History, New York City, having reached the retirement age, has resigned as head of these departments. Dr. Gregory has been a member of the scientific staff of the museum since 1900. Dr. Charles M. Breder, who was appointed curator of fishes last December, will become chairman of the department.

DR. WILTON M. KROGMAN, associate professor of anatomy and physical anthropology at the University of Chicago, has been appointed research associate in physical anthropology of the Chicago Natural History Museum and Professor Hanford Tiffany, head of the

department of botany at Northwestern University, has been appointed research associate in cryptogamic botany.

DR. ALONZO QUINN, associate professor of geology at Brown University, has been elected vice-chairman of the Council on Mineral Industries of New York and the New England States.

DR. HERMAN C. MASON, associate professor of bacteriology and immunology at the College of Medicine of the University of North Carolina, has resigned to accept a position with the Schering Corporation of Montclair, N. J.

CLARENCE W. SONDERN, research director of George A. Breon and Company, has become director of laboratories at the White Laboratories, Inc., Newark, N. J.

ATHERTON LEE, from 1934 to 1941 director of the Experiment Station in Puerto Rico of the U. S. Department of Agriculture, later chief of the National Rubber Division of the War Production Board, has become associated with the United Fruit Company.

BERNICE S. BRONNER, formerly head of the textile laboratory of the Good Housekeeping Institute, has joined the staff of the American Standards Association with the title of textile technologist.

DR. HAROLD J. ROSE, vice-president in charge of research of Anthracite Industries, Inc., New York, has resigned to assume a similar position with Bituminous Coal Research, Inc., at Pittsburgh. He will be in charge of a five-year program, on which it is planned to expend \$2,000,000 for research and the development of coal production and utilization to meet wartime problems and to strengthen the post-war position.

PROFESSOR NELSON S. HIBSHMAN, head of the department of electrical engineering of New York University, has been appointed director of the School of Science and Technology of the Pratt Institute, Brooklyn, N. Y.

PROFESSOR SUMNER C. BROOKS and Dr. Matilda Moldenhauer Brooks, of the University of California at Berkeley, have returned to the United States from a six-months visit to South America. They lectured at various universities and academies of science in Lima, Peru, Buenos Aires, Montevideo and Rio de Janeiro under the auspices of the Cultural Relations Division of the Coordinator of Inter-American Affairs Committee. The subject of the lectures was "The Ultra-structure, Permeability and Accumulation of Salts in Living Cells" and "Oxidation-reductions in Living Cells."

BENJAMIN Y. MORRISON, of the Office of Foreign

Agricultural Relations, is in Colombia, where he is assisting in the coordination of the agricultural research program, especially as it relates to the production of cinchona. He will collaborate with the proposed development corporation, the Caja de Crédito Agrario Industrial y Monero, and the Ministry of National Economy as a consultant on research related to agriculture wherever such work is carried on by the Colombian Government.

EDWARD L. TANNER, of the Office of Foreign Agricultural Relations, has been assigned to the Cooperative Experiment Station in Nicaragua to conduct agronomic work on coconuts, sesame and other oil-yielding plants, on rice and on abacá.

DR. ANATOL A. SMORODINTZEV, head of the department of virus diseases of the Institute of Experimental Medicine in Moscow, gave on May 26 the Cutter Lecture on Preventive Medicine at the Harvard Medical School. The lecture was entitled "New Forms of Encephalitis in the U.S.S.R." Dr. Smorodintzev is in America as a guest of the Rockefeller Foundation.

DR. WM. H. HOBBS, professor emeritus of geology of the University of Michigan, delivered on May 12 the annual address before the University of Cincinnati Chapter of Sigma Xi. It was entitled "The North American Glaciation in the Light of Studies of the Greenland Glacier." On May 14 he gave an illustrated lecture on "The Island Fortresses of the Pacific."

PROFESSOR MARSTON T. BOGERT, of the department of chemistry of Columbia University, gave on April 27 an address at Poughkeepsie before the Mid-Hudson Section of the American Chemical Society. The address was entitled "Malaria, Mankind's Public Enemy No. 1."

DR. LAURENCE H. SNYDER, chairman of the department of zoology and entomology of the Ohio State University, addressed on May 10 the combined chapters of Phi Beta Kappa, Sigma Xi and Phi Kappa Phi of the University of Utah. On May 11 he addressed the student body at Brigham Young University. "Medical Genetics" was the subject of both lectures.

DR. WALTER R. MILES, professor of psychology in the School of Medicine of Yale University, on May 1 presented an illustrated lecture on "Aviation Psychology" under the auspices of the newly installed chapter at Vanderbilt University of the Society of the Sigma Xi.

THE four hundred and third meeting of the American Mathematical Society was held at Columbia University on April 28 and 29. The attendance was about two hundred, including one hundred and sev-

enty-eight members of the society. The three following addresses were given by invitation of the Program Committee: "Mathematical Aspects of the Boundary Layer Theory," by Professor K. O. Friedrichs, of New York University; "The Structure of Normed Abelian Rings," by Professor E. R. Lorch, of Columbia University, and "Modern Algebra and the Riemann Hypothesis," by Professor André Weil, of Lehigh University.

AN Institute on Dental Health Economics, of which Dr. Kenneth A. Easlick will be the chairman, will be held from June 26 to July 1 by the School of Public Health of the University of Michigan.

THE Pan American Union has announced the publication of a new series of ten volumes entitled "Higher Education in Latin America," to be issued by the Division of Intellectual Cooperation. The series has been made possible through a grant from the Rockefeller Foundation.

THE National Electrical Manufacturers Association is reported by *Industrial Standardization* to have made arrangements for the distribution throughout Latin America of a large number of copies of a Spanish edition of the National Electrical Code. It is believed that the translation of this code will be helpful in promoting Pan-American cooperation in standardization activities. The documents will be distributed by the office at Buenos Aires of the Inter-American Department of the American Standards Association.

IT is announced that the Textile Research Institute, New York City, has purchased the Morton estate at Princeton, N. J., for conversion into laboratories. The property includes an eighteen-room stone house on the north side of Lake Carnegie. As soon as the necessary changes can be made in the building, the research work of the Textile Foundation, now at the Bureau of Standards, Washington, will be transferred to Princeton. It will continue under the direction of Dr. Milton Harris, who is director of research for both the foundation and for the institute.

IT is reported in the *British Medical Journal* that a Swiss Society for Tropical Medicine has been founded at Berne under the presidency of Dr. P.

Thillot, of Lausanne, and that an Institute for Tropical Medicine has been founded at Basle.

ACCORDING to a communication dated April 10 from the Delhi correspondent of *The Times*, London, Professor A. V. Hill, secretary of the Royal Society, who was expecting to return to England after a stay of five months in India, stated that a visit of Indian scientific men to England had been arranged to take place in May. The delegation includes Colonel Batra, deputy Director-General, Indian Medical Service; Sir S. S. Bhatnagar, director of the Board of Scientific and Industrial Research; Sir J. P. Ghosh, of the Bangalore Institute, and two physicists, Professor S. K. Mitra and Professor M. M. Sar, of Calcutta. *The Times* reports that in speaking of the scientific aspect of the national development of India—upon which he had been asked to advise the Government—Professor Hill "emphasized the need of a great increase of scientific education, particularly in the higher stages. That would involve that young Indian scientists, engineers and doctors should go abroad for advanced study and training, and that specialized institutions should be set up in India where people could be trained to the high standards required to-day. The natural resources of India were very great, but nobody knew exactly what or where they were. The zoological survey of India was at present little more than a museum, and the botanical survey had not had a director for the past seven years. He wanted to see more research carried out in the teaching institutions, and a strong central organization for dealing with problems of research. Public health required attention most urgently. According to the last published census returns, 450 children out of every 1,000 died before they reached the age of 15, and too many people in India died from preventable diseases."

ACCORDING to the daily press, an agreement has been reached between China and the United States under which China is to receive American assistance in the development of her agricultural and forestry enterprises. China will send from ten to twenty-five technicians to America for advanced study and practical training, and the United States will appropriate lend-lease funds for the purchase of agricultural equipment for China.

DISCUSSION

STREAM DOUBLE REFRACTION STUDIES ON THE ORIENTATION OF TOBACCO MOSAIC VIRUS PARTICLES

IN earlier publications^{1, 2} we reported that sols

¹ W. N. Takahashi and T. E. Rawlins, *Proc. Soc. Exper. Biol. and Med.*, 30: 155, 1932.

streaming horizontally from a small tube (.5 mm inside diameter) through a vessel containing the sol show double refraction throughout the width of the stream if the particles are rod-shaped, and only along

² W. N. Takahashi and T. E. Rawlins, *SCIENCE*, 77: 26, 1933.