

ammonia is cheaper than any other so far known, that the production of cheap nitric fertilizers is of a universal importance to the increase of food production, and that consequently the Haber invention was of the greatest value to the world at large.

3. The Haber method was invented and published several years before the outbreak of the great war. At the International Congress for Applied Chemistry held in the United States in 1912, it was described by Professor Bernthsen. The method was consequently known to all nations before the war and available to them to the same extent. It seems to have been put into practise in the United States.

4. Ammonia, the product of the Haber method, must be converted into nitric acid in order to give rise to explosives or to corrosive gases. As a matter of fact, the Haber plants in Germany were erected with a view to producing agricultural fertilizers.

5. As far as I know, no gas masks have ever been manufactured in Sweden. In all events, there existed in Sweden during the whole war an export prohibition on all sorts of war material. That prohibition has been rigorously upheld.

6. The Nobel Prizes are paid in one single post and not in monthly installments.

DYE SECTION OF THE AMERICAN CHEMICAL SOCIETY

THE second meeting of the Dye Section will be held in St. Louis, beginning Wednesday, April 14. At this meeting the committee on permanent organization will submit "By-Laws" for the consideration of the Section, the approval of which by the Section and by the Council, will be the necessary steps to the permanent organization of the Dye Chemists of the United States, as the Dye Division of the American Chemical Society.

The secretary asks all scientific workers in the field of dyes to present the results of their researches and experiences at these meetings of the dye chemists. Papers on the manufacture, properties or application of dyes, both of coal tar or natural origin, will be of timely

interest. Any chemist having any such scientific information ready for presentation is asked to communicate at once with the secretary, giving subject and time for presentation.

As is usual, full details of the final program, time and place of meeting can be obtained by addressing Dr. C. L. Parsons, 1709 G. Street, N. W., Washington, D. C., or the undersigned.

R. NORRIS SHREVE,
Secretary

43 FIFTH AVENUE,
NEW YORK CITY

SCIENTIFIC NOTES AND NEWS

REAR ADMIRAL ROBERT EDWIN PEARY, retired, the distinguished arctic explorer, died at his home in Washington, on February 20, from pernicious anemia, aged sixty-three years.

PROFESSOR E. G. CONKLIN, of Princeton University, and Professor T. H. Morgan, of Columbia University, have been elected honorary members of the Belgian Society of Zoology and Malacology.

DR. JOHN R. SWANTON, of the Bureau of American Ethnology, and Dr. Truman Michelson, of the Bureau of American Ethnology and professor in George Washington University, have been elected corresponding members of the Société des Américanistes de Paris.

THE *Bulletin of the Johns Hopkins Hospital* for December contains a record by Dr. Thomas S. Cullen, of the work and writings of Dr. Henry Mills Hurd, Baltimore, who was the first superintendent of the hospital.

DR. JAMES HARRIS ROGERS, of Hyattsville, Maryland, has received from the Maryland Academy of Sciences, Baltimore, its inventor's medal for his work on "underground and sub-sea wireless."

It is stated in *Nature* that the council of the Glass Research Association has appointed Mr. R. L. Frink, Lancaster, Ohio, director of research. The secretary of the association says: "Mr. Frink has a lifelong experience of the American glass trade and glass research, is well known to the foremost English glass

manufacturers, and his appointment is welcomed by the British glass industry."

PROFESSOR FRANK G. HAUGHWOUT has been placed in charge of the work and investigation in protozoology and parasitology in the Bureau of Science, Manila. He has resigned his chair in the University of the Philippines, but will continue to lecture to the medical students.

MESSRS. C. G. Derick, William Hoskins, F. A. Lidbury, A. D. Little, Charles L. Reese, and C. P. Townsend, have been appointed associate editors with Dr. John Johnston, editor of the *Technological Monographs* of the American Chemical Society. Messrs. G. N. Lewis, L. B. Mendel, Julius Stieglitz and A. A. Noyes, have been appointed associate editors with A. A. Noyes, editor of the *Scientific Monographs* of the society.

PROFESSOR H. A. CURTIS, who has held the chair of organic chemistry at Northwestern University, has resigned to enter industrial work.

MR. R. K. BRODIE has been transferred from the position of industrial fellow at the Mellon Institute of Industrial Research to the chemical department of the chemical division of Proctor and Gamble Company, Ivorydale, Ohio.

DR. GEORGE HEYL has become vice-president and technical director of the Heyl Laboratories, Inc., New York City.

THE directors of the Fenger Memorial Association have awarded Dr. Harry Culver a grant to aid in the study of certain urinary infections.

DR. EDWIN DELLER, secretary of the Brown Animal Sanatory Institution, University of London, has been appointed assistant secretary to the Royal Society to succeed Mr. R. W. F. Harrison, who, owing to the state of his health, has resigned the office, which he has held for twenty-four years.

THE following awards have been made by the council of the British Institution of Mining and Metallurgy: (1) Gold medal of the institution to Mr. H. Livingstone Sulman, in recognition of his contributions to metal-

lurgical science, with special reference to his work in the development of flotation and its application to the recovery of minerals. (2) "The Consolidated Gold Fields of South Africa, Ltd." gold medal to Mr. William Henry Goodchild, for his papers on "The Economic Geology of the Insizwa Range" and "The Genesis of Igneous Ore Deposits." (3) "The Consolidated Gold Fields of South Africa, Ltd." premium of forty guineas to Dr. Edward Thomas Mellor, for his paper on "The Conglomerates of the Witwatersrand."

AT a recent meeting of the advisory committee of the American Chemical Society it was voted to recommend to the Board of Directors that a sum not to exceed \$1,000 for traveling expenses be placed at the disposal of Professor W. A. Noyes, the president of the society, for the year 1920, for the purpose of visiting local sections of the society, such trips to be made by arrangement with the president but only on condition that the section or sections visited pay one half such expenses. It was suggested that local sections so far as possible arrange with the president or among themselves for joint meetings or continuous routing.

It is noted in *Nature* that December 31, marked the bicentenary of the death of John Flamsteed, first astronomer royal of England, and the rector of the parish of Burstow, Surrey, where he is buried. Flamsteed was born four years after Newton. Though prevented by illness from attending a university, he was devoted to mathematical studies, and in 1671 sent a paper to the Royal Society. Three years later he published his "Ephemerides," a copy of which, being presented to Charles II. by Sir Jonas Moore, led to Flamsteed being appointed on March 4, 1675, "our astronomical observer" at a salary of £100 per annum, his duty being "forthwith to apply himself with the most exact care and diligence to the rectifying the tables of the motions of the heavens and the places of the fixed stars, so as to find out the so much desired longitude of places for the perfecting the art of navigation." The observatory at Greenwich, constructed partly of brick from

old Tilbury Fort and of timber and lead from the Tower of London, was designed by Wren and built at a cost of £520, the money being derived from the sale of spoilt gunpowder.

A RESEARCH MEDICAL SOCIETY was organized recently at the Loyola University School of Medicine. The following officers were elected for the academic year 1919-20: *President*, R. M. Strong; *Vice-president*, F. M. Phifer; *Secretary*, A. B. Dawson; *Treasurer*, E. S. Maxwell; *Members of the council*, S. A. Matthews, George W. Wilson, and F. B. Lusk.

PROFESSOR FREDERIC S. LEE, of Columbia University, lectured recently on "Problems of industrial physiology" before the Royal Canadian Institute, Toronto, and the Johns Hopkins School of Hygiene and Public Health.

PROFESSOR H. N. HOLMES, head of the chemistry department in Oberlin College, has recently lectured at Case School of Applied Science, Cleveland, and before the Cincinnati section of the American Chemical Society on "The industrial applications of colloid chemistry."

AN address on the "Theories regarding the formation of phosphate deposits" was given at the Ohio Agricultural Experiment Station on February 16, by Dr. Walter H. Bucher, of the department of geology of the University of Cincinnati.

PROFESSOR H. SHIPLEY FRY, director of chemical laboratories, University of Cincinnati, lectured on "The electronic conception of valence and the constitution of benzene" before a joint meeting of the Leigh Chemical Society and the Lexington, Kentucky, section of the American Chemical Society at Georgetown College on February 13.

At a meeting of the Faculty Club of the University of Mississippi on February 2, 1920, Dr. Hiram Byrd, director of the department of hygiene, delivered a lecture on "Rattlesnakes."

THE president of the Royal College of Physicians, London, has appointed Dr. F. W. Andrews to be Harveian orator, and Dr. R. C.

Wall to be Bradshaw lecturer for this year. The council has appointed Dr. Martin Flack to be Milroy lecturer for 1921. The Oliver-Sharpey prize for 1920 has been awarded to Professor Emil Roux, of the Pasteur Institute, Paris.

UNIVERSITY AND EDUCATIONAL NEWS

MR. J. OGDEN ARMOUR has made a further gift of six million dollars to the Armour Institute of Chicago. A new site for the school has been purchased at the cost of one million dollars, and five million dollars will be expended on buildings.

AT YALE UNIVERSITY, Dr. W. H. Sheldon, of Dartmouth College, has been appointed professor of philosophy. Dr. W. R. Longley, has been promoted to a full professorship of mathematics.

DR. E. F. HOPKINS, associate plant pathologist at the Alabama Polytechnic Institute and Experiment Station, has been appointed plant pathologist and assistant professor of botany at the University of Missouri. Dr. Hopkins will begin his work on April 1.

DR. C. L. METCALF has been promoted to be professor of entomology in the Ohio State University.

DR. H. G. FITZGERALD has received an appointment as professor of hygiene at the University of Toronto, to succeed Dr. J. A. Amyst, who has been appointed deputy minister of health in the Federal Department of Health, Ottawa.

DISCUSSION AND CORRESPONDENCE

A PROPOSED METHOD FOR CARRYING TRIANGULATION ACROSS WIDE GAPS

So far as is known, the possibility of extending an arc of triangulation across straits or arms of the sea has been limited in the past to cases in which one shore is visible from the other, or at most where the masts of a vessel anchored in mid-channel are visible from both shores. It has occurred to us that much wider