needs developed by the expected spring offensive of the Germans, it became necessary to divert to France a large tonnage of nitrate for manufacture of explosives in that country and for further increasing production of explosives in this country for use in France. This immediate need made it impossible for the Department of Agriculture to secure boats sufficient to bring in the full 109,000 tons so that 66,778 tons was actually imported in time for use by the farmers for spring planting.

Owing to military necessity, publicity could not, of course, be given to the reason of the non-arrival of the nitrate sold to the farmers, and this inability to deliver was the cause of considerable felling on the part of users of nitrate of soda. The military necessity was the greatest one and the planters who were unable to get the nitrate were in this way contributing to the supply of explosives in France, which later led to the winning of the war.

The nitrate of soda situation in the United States up until about the first of August was a serious one, although every explosive and chemical plant was kept supplied with sufficient nitrate to maintain full operations at all times. This was done by drawing from government arsenal reserves and by transferring stocks from fertilizer manufacturers and other holders to plants when stocks were about exhausted. Owing to the shortage of nitrate, it was deemed wise to ask the importer to discontinue sales of nitrate to fertilizer manufacturers other than for the making of sulphuric acid, and after the first of July all consignments of nitrate arriving in the country sold to such manufacturers were commandeered by the Ordnance Department and turned over to munitions and chemical manufacturers. These contracts thus handled were made between the importers and the fertilizer people in the fall of 1917.

Immediately on the signing of the armistice, all restrictions were taken off of the importers as far as sales of nitrate to fertilizer manufacturers and agricultural users was concerned, so that there will be no difficulty in supplying the entire needs of the United States for agricultural use for spring planting.

Nitrate of soda is the foundation of smokeless powder and high explosives as well as for other needed chemicals, and the purchase and importation of nitrate are conducted by government through the War Industries Board in cooperation with the importers formerly handling this material, the importers buying in Chile as in times past. The government received their nitrate through the importers at cost and the profit charged by the importers to private users was controlled by the government so that uniform cost to all users was secured, this cost being based on the average monthly cost in Chile, plus the freight storage, exchange, and other elements of cost.

A committee known as the Nitrate Committee of the United States was established with offices in New York and a New York representative of the War Industries Board represented that board in the offices of this committee. Government needs for nitrate were increasing rapidly and the 1919 requirements would have been very large. During the entire period of the war all needed nitrate was secured and there was no let up in the manufacture of war materials depending upon this article.

SCIENTIFIC NOTES AND NEWS

PROFESSOR WALLACE CLEMENT SABINE, professor of physics at Harvard University and formerly dean of the Lawrence Scientific School, died on January 10, aged fifty-one years.

DR. SIMON FLEXNER, director of the Laboratories of the Rockefeller Institute for Medical Research, has been elected a corresponding member of the Société des Hôpitaux de Paris, and has had the title of Officier de Legion d'Honneur conferred upon him by the French government.

THE American Phytological Society at its tenth annual meeting, held in Baltimore, December 23–28, elected the following officers: *President,* C. L. Shear, U. S. Department of Agriculture; *Vice-president,* I. E. Melhus, Iowa State College, Ames, Iowa; *Secretary-Treasurer,* Geo. R. Lyman, U. S. Department

of Agriculture; *Councilor,* Donald Reddick, Cornell University. Dr. Lyman was also elected Business Manager of Phytopathology for the year.

The following were elected officers of the Association of American Geographers at the Baltimore meeting: *President,* Professor Charles R. Dryer; *First Vice-president,* Dr. Herbert E. Gregory; *Second Vice-president,* Dr. Isaiah Bowman; *Secretary,* Dr. Oliver L. Fassig; *Treasurer,* Mr. Francois E. Matthes; *Councilor for three years,* Professor Eliot Blackwelder.

Professor C. K. Leith sailed for France on January 1 to act as mineral adviser for the U. S. Peace Commission. The party included Chairman B. M. Baruch, of the War Industries Board; Chairman Vance McCormick, of the War Trade Board, and Walter Tower, of the Shipping Board. For the past year Professor Leith has been in charge of the joint mineral work of these boards, with special reference to regulation of imports and exports.

Brigadier General William S. Thayer, who has been serving in France, will, on his return to this country within a few days, resume his duties as professor of medicine of the the Johns Hopkins Medical School. Dr. Thayer will take the place of Dr. Theodore C. Janeway, who died several months ago while serving on the staff of the Surgeon-General.

Major John M. Berry, formerly epidemiologist in the New York State Department of Health, has recently been promoted to the rank of lieutenant colonel.

Dr. Karl T. Compton, assistant professor of physics in Princeton University, has returned after a ten months' work for the Research Information Service in the capacity of associate scientific attaché to the American Embassy in Paris.

Dr. Ralph E. Wilson has left his work as an aeronautical mechanical engineer, Bureau of Aircraft Production, to accept a position as astronomer, Department of Meridian Astronomy, Carnegie Institution of Washington, stationed at the Dudley Observatory.

Mr. Neil M. Judd, assistant curator of anthropology, U. S. National Museum, has returned to Washington after eleven months' service in the aviation section of the national army.

Dr. Oscar Harder has resigned his position in the research department of N. K. Fairbanks Co., Chicago, Ill., to accept a fellowship at the Mellon Institute of Industrial Research, Pittsburgh, Pa.

Assistant Professor Samuel D. Graydon, recently of the department of descriptive geometry and mechanical drawing, and who has been in continuous service at Stevens Institute of Technology as assistant professor since 1892, has been retired under the provisions of the Carnegie Foundation.

Dr. L. Baumann, assistant professor and director of research in the department of internal medicine of the University of Iowa, has resigned his position to take effect at the end of the present college year. He will live in New York City.

Mr. J. A. McClintock has resigned his position as extension specialist in cotton, truck and forage crop diseases, to which he had been appointed under a joint project between the U. S. Department of Agriculture and the Georgia State College of Agriculture.

At the request of the U. S. Food Administration, the Rockefeller Institute for Medical Research has granted a leave of absence to Dr. Israel S. Kleiner in order that he might take charge of Professor Lafayette B. Mendel's work at Yale University while the latter is attending the meetings of the Inter-Allied Food Commission abroad.

Professor Percy F. Frankland is retiring from the Mason chair of chemistry in the University of Birmingham at the end of the current term. In accepting the resignation with great regret, the council has expressed to Professor Franklin its thanks for valuable services rendered to the university during the past twenty-four years.

At the annual general meeting of the Faraday Society of London, held on November 12,

the following officers were elected: *President,* Sir Robert Hadfield, Bart., F.R.S.; *Vice-presidents,* W. R. Bousfield K.C., F.R.S., Professor F. G. Donnan, F.R.S., Dr. Eugene Haanel, Professor A. K. Huntington, Dr. T. Martin Lowry, F.R.S., Professor Alfred W. Porter, F.R.S.; *Treasurer,* Robert L. Mond; *Council,* G. S. Albright, W. R. Cooper, Dr. C. H. Desch, Dr. J. A. Harker, F.R.S., Emil Hatschek, Cosmo Johns, Harold Moore, E. H. Rayner, Dr. George Senter, Cav. Magg, E. Stassano.

AT the annual meeting of the Washington Academy of Sciences held at the Administration Building of the Carnegie Institution on January 14, 1919, the retiring president, Dr. Lyman J. Briggs, delivered an address on "The resistance of the air."

A JOINT meeting of the Washington Academy of Sciences and the Chemical Society of Washington was held on January 9, when Dr. F. B. Power, retiring president of the Chemical Society, delivered an illustrated address on "The distribution and character of some of the odorous principles of plants."

THE annual Darwin Lecture of New York University will be given on February 12 by Dr. C. L. Bristol, of the department of biology. In connection with the lecture a series of motion pictures of marine life made in Naples, Italy, will be shown by Dr. R. L. Ditmars, curator of reptiles, New York Zoological Gardens.

A CABLE message announces the death in Rome, on December 31, of David Lubin, of San Francisco, founder of the International Institute of Agriculture, and the American representative on its permanent board. He was born in 1841, and was formerly a merchant in Sacramento, where early in his career he made a fortune. He then devoted himself to economic reforms and was responsible for the establishment at Rome of an international agency for collecting official and reliable information from all parts of the world as to the acreage, output and ability of the cereal crops.

THROUGH an anonymous donor The Long Island College Hospital (Hoagland Laboratory) has had placed at its disposal a farm for keeping animals used in research. Already work and experimentation in fowl influenza (roup), diphtheria and chicken-pox have been begun.

UNIVERSITY AND EDUCATIONAL NEWS

PROPOSALS for extending the accommodation and equipment of the department of pathology and bacteriology at Leeds University have been approved. It is hoped to concentrate the whole of the bacteriological work of the city in the additional accommodation provided by adapting the premises adjacent to the medical school.

THE Massachusetts Institute of Technology plans to offer to students who have substantially completed courses leading to the degree of bachelor of science in chemistry or chemical engineering, an opportunity to enter the school of engineering practise in February. Two terms of preparatory work will be given at Cambridge, the first beginning February 17; it is expected that the work at the practise stations will begin about October 1, and continue until the following May. The general plan of the course will be the same as that carried out while the school was in operation just before the opening of the war.

THE REV. EDWARD P. TIVNAN, S.J., professor of chemistry and regent of the school of medicine, Fordham University, has been appointed president of the university, to succeed the Rev. Joseph A. Mulry, S.J.

THE departments of descriptive geometry and mechanical drawing and of mechanism and machine design at Stevens Institute of Technology have been combined to form a new department of machine design, of which Franklin DeR. Furman is professor and head. The work of the department has been organized with two divisions—one the mechanism division, in which William R. Halliday is assistant professor, and the other the mechanical drawing division, in which Edwin R. Knapp is professor and Samuel H. Lott, assistant professor. The following changes in rank have been made at the institute: Louis A. Hazeltine,