

W. P. RUYSCH, inspector-general of the public health service of the Netherlands and since 1912 president of the public health advisory council, has died at the age of seventy-two years.

PROFESSOR CELORIA, director of the Milan Observatory died on August 17, at the age of seventy-eight years.

THE *Observatory* announces the death of Professor A. Berberich, of the Astronomische Rechen-Institut of Berlin, sometime editor of the *Astronomischen Jahresbericht* and of Robert Philippovitsch Simon Vogel, professor of astronomy and geodesy in the Vladimir University in Kieff, and since 1901 director of the Kieff Observatory.

THE U. S. Civil Service Commission announces an examination for computer, Bureau of Mines, on November 3, 1920, to fill a vacancy in the Bureau of Mines, Pittsburgh, Pa., at \$1,500 a year.

THE eighth annual Indian Science Congress will be held in Calcutta from January 31 to February 5, 1921, under the presidency of Sir R. N. Mukerjee.

THE Carnegie Institution of Washington published on September 9, 1920, the second volume of the *Cactaceæ* by N. L. Britton and J. N. Rose. The first volume of this work was issued June 21, 1919.

MANY American nations, as well as Great Britain, Spain and Portugal, are to be formally invited to participate in the national festivities in November and December in commemoration of the four hundredth anniversary of the discovery of the Straits of Magellan. The festivities will center principally in Santiago and Punta Arenas, the latter the world's southernmost city, where the occasion will be marked by inauguration of important public works, including port improvements, lighthouses in Smith Channel, a highway between Punta Arenas and Natales on the South Atlantic coast and laying of a cornerstone of the Punta Arenas University. It is expected the foreign delegations will visit the straits in December, when warships of the Chilean navy will be assembled there. It was

through these waters that Ferdinand Magellan, the Portuguese explorer, first passed in November, 1520.

UNIVERSITY AND EDUCATIONAL NEWS

UNDER the will of the late Mrs. William J. Wright Harvard University has been left over \$23,000, to be known as the "William J. and Georgiana B. Wright Fund," the income to be used for medical research and the advancement of the medical and surgical sciences. A bequest of \$14,000 has been made by the late Dr. James Ewing Mears, of Philadelphia, for the maintenance of a scholarship in medicine and for the work of the Cancer Commission. Edwin F. Atkins, of Boston, has given \$12,000 for tropical research in economic botany.

DR. ROBERT WAITMAN CLOTHIER, professor of farm economics in the Mississippi College of Agriculture and Mechanic Arts, has become president of the New Mexico College.

AT Yale University Adolph Knopf, Ph.D. (California), from the U. S. Geological Survey, becomes associate professor of physical geology and petrology, and Robert A. Patterson, Ph.D. (Yale), assistant professor of physics.

PROFESSOR OSCAR H. PLANT goes to the University of Iowa this year as professor and head of the department of materia medica and pharmacology. Dr. C. S. Chase, who has been head of the department for many years and a member of the faculty since 1892, remains with the university as full professor in the department and will teach pharmacology and engage in research and writing.

DR. OTTO STUHLMAN, JR., formerly at West Virginia University, has been appointed associate professor in physics at the University of North Carolina, which has enlarged its physics staff since the completion of Phillips Hall, the new laboratory.

It is reported in *Nature* that Dr. R. M. Caven has been appointed to the chair of inorganic and analytical chemistry in the Royal Technical College, Glasgow. This vacancy was caused by the transfer of Dr.

F. J. Wilson to the chair of organic chemistry in succession to Dr. I. M. Heilbron, who was recently appointed professor of organic chemistry in the University of Liverpool. Dr. Caven was for many years lecturer in chemistry at University College, Nottingham, a position he resigned to become Principal of the Darlington Technical College.

DR. HAROLD ST. JOHN, formerly assistant at the Gray Herbarium of Harvard University, has accepted an assistant professorship of botany at the Washington State College.

At the British Empire Forestry Conference in London Lord Lovat dealt with the question of education. According to the *London Times* he said that higher forestry education subsidized by the state had been carried on until recently at eight or nine educational centers. The Forestry Commission had arrived at the conclusion that the forest authority subsidies should only be granted to those centers of education and research which were directly required to carry out the state's forest policy. Educational centers are required for higher forestry education for the training of men who wished to take up forestry as a career, *i. e.*, the forest-officer class; for education in the theory and practice of woodland management for owners and managers of private woodlands; and for education in practical forestry for working foresters and foremen who intended to go in for state or private forest service. The Forestry Commission have therefore come to the conclusion that as far as state assistance went their interest should be confined to the following objects: (1) To assist in the establishment of the machinery (staff equipment and facilities) for a complete course of higher forestry education at one of the universities in the British Isles. (2) To subsidize certain specialized courses, of which forestry engineering should certainly be one, which could be taken as a post-graduate or fourth-year course at one of the other universities. (3) To be responsible for the payment of a lecturer in forestry at certain universities and colleges where adequate agriculture and estate management courses are

established, and to set aside sufficient state woodland for practical instruction. (4) Subject to certain payments by private owners, to be responsible for the establishment and upkeep of not less than seven or more than ten working foresters' schools.

A MEMORIAL has been presented to the German National Assembly urging the formation of an Imperial Chemicotechnical Laboratory, which it is recommended should be formed from the Military Test Bureau which existed during the war. *Nature*, quoting from the *Zeits. des Vereines deutscher Ingenieure* says that it is suggested that the functions of the new laboratory should be, *inter alia*, the execution of scientific and technical investigations relative to raw materials, and particularly (1) the production of materials of importance to the public, *e. g.*, spirit from wood and acetylene instead of from potatoes, and of fatty acids from the products of coal- or lignite-tar or paraffin, and the utilization and improvement not only of cellulose as a substitute for cotton, but also of ammonium nitrate obtained synthetically in large quantities as a fertilizer; and (2) the determination of substitutes for chemical and metallurgical products not available in the country or of which there is a shortage, *i. e.*, substitutes for paraffin, camphor, and glycerine, for substances used in the preservation of leather and metals, also substitutes for lubricants, rubber, gutta-percha, etc. In addition, the proposed new institute would carry out researches of general interest, *e. g.*, on rust-prevention and the corrosion of metals, on the determination of stresses in internal-combustion engines, on the effect of winter cold and the upper-air temperatures on implements and raw materials, and on the testing and improvement of aeroplane and airship fabrics. It is also suggested that scientific and technical investigations should be carried out dealing with the prevention of accidents and the protection of workers in a number of important industries.

WE learn from *Nature* that Mr. John Quiller Rowett has contributed £10,000 towards the endowment of an Institute for Research

in Animal Nutrition in connection with the University of Aberdeen and the North of Scotland College of Agriculture. The new institute, which will be named the Rowett Research Institute, has secured the services of Dr. J. B. Orr, the director, recently associated with Professor E. P. Cathcart in the conduct of a study of the energy output of soldiers, and Dr. R. H. A. Plimmer, chief biochemist in the institute, a research worker in the Physiological Institute of University College, London.

PROFESSOR GEORGE C. COMSTOCK, director of the Washburn Observatory of the University of Wisconsin, forwards the following extract from a letter to be published as a warning to prospective victims: "A short time ago, a man representing himself to be a nephew of yours and giving his name as Mr. R. L. Denny, of 64 Riverside Drive, New York City, obtained a loan of \$8.00 from me after putting up a good story of having lost his pocket-book, being a stranger in the city, etc. I have not heard of him since. I have reason to believe that he is a clever 'crook' working among college men."

THE British Ministry of Agriculture is arranging a series of investigations and exhaustive experiments with regard to certain aspects of foot-and-mouth disease, and for this purpose the Admiralty is placing obsolete warships at the disposal of the Ministry for use as floating laboratories. The ships will be fitted with every essential for the study of the disease, and it is understood that there is no intention of disclosing off which coast the ships will be stationed. An official of the ministry informed a representative of *The Times* that the experiments are to be carried out at sea to obviate any risk of the disease spreading from the experimental station. The investigators will include members of the staff of the ministry and other scientists, including several distinguished foreigners. In dealing with a disease of which the virus is presumed to be ultra-microscopical, and of which the contagion may be air-borne, the difficulties must be very considerable, and the research may last for years. A previous attempt was

made to solve the problem by sending a commission of investigation to India, where it was found that cattle were immune. The necessity of stamping out the disease, it was pointed out, is imperative, if England is to maintain her large cattle exports. Foreign buyers will not take the risk of purchasing cattle in England for transport to the Continent while the danger of foot-and-mouth disease exists. So contagious is it that a healthy animal, passing along a road that had been traversed twelve hours previously by an infected animal, may contract the disease.

DISCUSSION AND CORRESPONDENCE

THE BOUNDARY BETWEEN THE SILURIAN AND DEVONIAN IN SHROPSHIRE AND FRANCE

DURING the German occupation of Lille, Professor Charles Barrois and his able assistant, Dr. Pierre Pruvost, being confined to the city, busied themselves as much as was allowed studying the many undetermined fossils that had been accumulated during the past twenty years by various coal companies of the Calais basin. Not only this, but they also studied in greater detail the local stratigraphy, with the result that we now have a preliminary statement from them entitled "Sur les couches de passage du Silurien au Dévonien dans le bassin houiller du Pas-de-Calais."¹ The complete work is to follow later.

The chief conclusion reached is that the line between the Silurian and Devonian should be drawn at the base of the lower Gedinnian, which in the Ardois is the Bois-Bernard arkose immediately beneath the tentaculite shales of Méricourt; in the Ardennes and Brabant this is the conglomerate of Fépin, which lies at the base of the Mondrépuits shale. To make this matter clearer, the authors also correlate the various horizons studied by them with those of Shropshire, with rather surprising results. All of the "passage beds" (Teme-side shales at the top, followed beneath by the Downton Castle sandstone (= Tilestones), and the Ludlow bone-bed) are referred to the base of the Lower Devonian. The Silurian of the

¹ *Comptes rendus, Acad. des Sciences*, Vol. 167, 1918, pp. 705-710.