nical Committee, and filled many other public appointments. He received the honour of knighthood in 1918.

IT is with great regret that we learn of the death of PROF. GABRIEL LIPPMANN, Foreign Member of the Royal Society, on July 14 on board the liner *La France* while on his way from Canada, where he had formed part of the French Mission under Marshal Fayolle. Prof. Lippmann was born in 1845 and educated in Paris. His work there was concerned mainly with the relation between electrical and capillary phenomena, the outcome of which was his capillary electrometer and other instruments. His process of colour photography, announced in 1891, is widely known. In 1908 he was awarded the Nobel prize for physics, and in 1912 became president of the Paris Academy of Sciences.

WE announce with much regret the death, on June 1, at the age of seventy-nine years, of MR. CHARLES PICKERING BOWDITCH, associate of the Peabody Museum of American Archæology and Ethnology, Cambridge, Mass. Mr. Bowditch was well known for his work on Mexican and Maya codices and inscriptions.

WE regret to announce the death of PROF. J. A. MENZIES, professor of physiology at Durham University School of Medicine, Newcastle-upon-Tyne.

Notes.

THE Civil List pensions granted during the year ended March 31, 1921, amounted to 1200*l.*, and include the following:—Mrs. Frederick Enock, in recognition of her husband's services to natural science and entomology (September 7, 1920), 100*l.*; Mr. Edward Greenly, in recognition of his services in the geological survey of Anglesey (September 7, 1920), 80*l.*; Mrs. J. A. McClelland, in recognition of her husband's distinguished services as an investigator in physical science (September 7, 1920), 100*l.*; Mrs. and Miss Sharman, in recognition of Mr. George Sharman's valuable services in palæontological science (September 7, 1920), 80*l.*; Mr. John Nugent Fitch, in recognition of his long services to the cause of botany, horticulture, and natural history (September 15, 1920), 75*l.*; Mr. W. R. Hodgkinson, in recognition of his valuable scientific work in the public service (March 24, 1921), 100*l.*; and Mr. Herbert Tomlinson, in recognition of his services as a teacher, and of his valuable and distinguished contributions to physical science (March 24, 1921), 100*l.*

THE popular fallacy that explosions can precipitate rainfall found expression in the question asked by Major Morrison-Bell in the House of Commons on July 13 as to whether the Government would be prepared to initiate experiments which might possibly have the result of precipitating a downpour of rain. The answer given was to the effect that from past experiments meteorologists were of opinion that explosions would not induce a fall of rain, and rightly so; for experiments were conducted on a vast scale, not, it is true, with that particular end in view, on the Western Front during the Great War. The collation of statistics of rainfall with the gunfire failed to show any certain connection. The only way in which the water-vapour in the atmosphere can be condensed into rainclouds is by cooling. Unless an explosion can produce a cold current, or cause to any appreciable extent such a disturbance in the atmosphere as will bring about the mixture of a stratum bearing a cold current with that carrying a warmer current, it cannot produce rain. The compression in the air produced by a bursting shell is propagated as a sound-wave. The amplitude of the motion, therefore, diminishes as the square of the distance from the origin, so that at the distance of a quarter of a mile it would probably be no greater than 1/10,000th of an inch. In 1917 M. Angot, Director of the French Meteoro'ogical Office, showed that in the extreme case of two equal masses of saturated air, one at 0° C. and the other at 20° C., it would be necessary, in order to produce rain of even so small an amount as 1 mm. (0·04 in.), for the two masses rapidly and thoroughly to mix throughout an atmospheric layer of 6850 metres (about 4 miles) in thickness. Nor are dust particles and ions, which form the nuclei of raindrops, sufficient of themselves to cause precipitation unless there be a concomitant reduction of temperature.

BY a resolution of the Swedish Riksdag passed on May 18 last, it has been decided to establish an institute for the investigation of the problems of racial biology. To Sweden, therefore, falls the honour of being the first country to establish a State-supported institute of this kind. The history of the movement which led up to this decision is related in a pamphlet, written in English, entitled "The Swedish State Institute for Race Biological Investigation," which has just been published by Dr. Hjalmar Anderson. The success of the movement has been due largely to the indefatigable exertions of one man, Dr. Herman Lundborg, who was the first to direct attention in Sweden to the national importance of the study of eugenics in a lecture which he delivered to the Upsala Physicians' Society in 1904. After much strenuous advocacy on the part of Dr. Lundborg and other prominent men of science, the question was brought to the notice of the Riksdag, and a report was called for. As a result of the opinions then expressed, the Government took up the matter, and Dr. B. Bergvist, the Minister of Education, drew up a recommendation, which received the Royal sanction, in which it was proposed to found an institute with an annual appropriation of 80,000 crowns. In the meantime Dr. Lundborg, with a self-sacrifice worthy of all praise, had rejected an alternative proposal to establish a