

juxtaposition. The situation would be unstable, and in passing from this unstable situation to a stable one the potential energy would be reduced, part of it being converted into the kinetic energy of the ensuing "storm." This paper contains the germ of the theory of line squalls, of the development of cyclones, of polar fronts, and so forth. It includes computations of the horizontal velocities which would result from various distributions of pressure and temperature, and shows that actual distributions would lead to velocities of 50 miles an hour. Margules summed up his conclusions in the sentence: "So far as I can see, the source of storms is to be sought only in the potential energy of position."

Margules retired from active participation in the work of the Austrian Meteorological Service during the directorship of the late Prof. Pernter, and applied himself to the study of chemistry. He fitted up a small laboratory in his own house, where he lived in comparative retirement. The present writer was saddened to see him there in 1909 entirely divorced from the subject of which he had made himself a master. Meteorology lost him some fifteen years ago, and is for ever the poorer for a loss which one feels might and ought to have been prevented. E. GOLD.

THE *Engineer* for October 22 records the death of MR. C. J. BOWEN COOKE on October 18 in his sixty-second year. Mr. Bowen Cooke was educated at King's College School, London, and on the Continent, and thereafter spent the whole of his life in the service of the London and North-Western Railway. After serving a pupilage under the late Mr. F. W. Webb, he was appointed assistant in the running department, and rose to be its superintendent. In 1909 he was appointed chief mechanical engineer, and thereafter was responsible for the design of several important types of locomotive engines. The chief of these was a non-compound superheater engine weighing 116 tons and having four cylinders; this engine was fitted with Walschaert's valve gear. Mr. Bowen Cooke took a very active part in the development of the manufacture of munitions of war in railway workshops, and was made C.B.E. in 1918. He was a member of both the Institutions of Civil and Mechanical Engineers, a Justice of the Peace and County Councillor for Cheshire, and a major in the Engineer and Railway Staff Corps. He was the author of two books on locomotives, and also of a paper on the mechanical handling of coal for British locomotives, read at the Institution of Civil Engineers in 1912.

PROF. HANS PEDR. STEENSBY, whose death at the early age of forty-five is announced by the *Times*, was professor of geography in the University of Copenhagen. He was chiefly known for his researches on the Eskimo in relation to their environment, most of which appeared in

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*Meddelelser om Grønland*, and included "Contributions to the Ethnology and Anthropogeography of the Polar Eskimos" (1910) and "An Anthropogeographical Study of the Origin of Eskimo Culture" (1917). Prof. Steensby came to the conclusion that the Eskimo were originally an inland people dwelling in the tundra, probably in the vicinity of the Great Slave Land and Coronation Gulf, and that their culture was originally an Indian hunting culture adapted later to the conditions of the Arctic shores. He also wrote on the early voyages of the Norsemen, and was returning from America, where he had been in connection with his investigations into this subject, when his sudden death at sea occurred.

Science announces that PROF. SAMUEL MILLS TRACY, agronomist of the United States Department of Agriculture, died at Laurel, Miss., on September 5, aged seventy-three years. Prof. Tracy was born at Hartford, Vermont, and graduated from Michigan State Agricultural College in 1868. From 1877 to 1887 he was professor of botany and agriculture at the University of Missouri, and from 1887 to 1897 director of the Mississippi Agricultural Experiment Station. Since that time he had been attached to the United States Department of Agriculture. He was a fellow of the American Association for the Advancement of Science, in the work of which he took an active part, and a member of the New Orleans Academy of Science and of the Botanical Society of America. Among Prof. Tracy's works are "The Flora of Missouri," "The Flora of Southern United States," and numerous bulletins issued by the Mississippi Experiment Station and the United States Department of Agriculture.

SIR CORNELIUS NEALE DALTON, whose death occurred on October 19 at seventy-eight years of age, was Comptroller-General of Patents from 1897 to 1909. When, in 1901, the Committee appointed by the Board of Trade to inquire into the working of the Patent Acts reported in favour of an examination for novelty, within certain limits, being undertaken by the office, Sir C. N. Dalton laid down the lines on which the examination has since been conducted, and recommended and carried out the necessary scheme of reorganisation. His strength lay in his tact, energy, and power of organisation, and these enabled him to carry out alterations in the law and practice of patents, though it may be doubted whether the changes were to the advantage of the inventor. He was hon. D.C.L. of Oxford, was created K.C.M.G. in 1908, and was chairman of the council of the East London College.

THE death of DR. ANTON WEICHELBAUM, professor of pathological anatomy at Vienna University, at the age of seventy-five years, occurred on Friday, October 22.