

NEWS and VIEWS

Metrology at the National Physical Laboratory :

Mr. J. E. Sears, C.B.E.

MR. J. E. SEARS is retiring on March 31 from the superintendentship of the Metrology Division of the National Physical Laboratory, of which Division he has had charge since 1910. His pioneer work and the contributions he has made to the science and art of metrology are outstanding and have won for him a unique place among scientific workers. The important position which metrology occupies to-day in the field of applied science is, in great measure, due to his efforts. An appreciation of the wide range of Mr. Sears' activities may be gathered from the scope of the work of his Division which, while primarily responsible for maintaining standards for, and advancing the technique of measurement of, the fundamental quantities length, mass and time, and the more immediate derivatives area, volume, density, pressure, etc., deals also with the industrial applications of such measurement. The Division is concerned with the design and development, as well as the inspection, of engineers' gauges and precision measuring instruments, gears and hobs, balances and weights, watches and chronometers, volumetric glassware, hydrometers and barometers—even now the list is incomplete. Mr. Sears' flair for designing is shown in the wide variety of measuring instruments and machines developed and constructed in the Division—screw-measuring machines and optical projectors, a primary standard barometer of unique design and a knife-edge balance of exceptionally high accuracy, to cite a few contrasted examples. Under his leadership, many researches of fundamental importance have been carried out; reference may be made to a determination of the yard and the metre in terms of wave-lengths of light, of the refractive index of air, and of the absolute value of gravity at the National Physical Laboratory.

During the First World War, Mr. Sears rendered invaluable assistance to the Ministry of Munitions by undertaking, within his Division, the inspection of the limit gauges required by the Service departments, a task which necessitated a very large expansion of the gauge-testing section of the Division. For this work he was awarded the C.B.E. Mr. Sears rendered similar service in the Second World War. His experience of standards and standardization is unparalleled and his services on numerous committees, including those of the British Standards Institution, have been continually in demand. During 1921-32, Mr. Sears was Deputy Warden of the Standards, in which capacity he had charge of the Standards Department of the Board of Trade. Since 1930, he has served as the British representative on the Comité International des Poids et Mesures. He will continue to serve on this Committee, of which he is now acting president.

Mr. F. H. Rolt, O.B.E.

MR. F. H. ROLT has been appointed to succeed Mr. J. E. Sears. Mr. Rolt was born on November 1, 1888, and educated at Rutlish School, from which he obtained a Surrey County Council major scholarship to the City and Guilds Institute, London, where he obtained the diploma in civil and mechanical engineering, afterwards obtaining his degree in science at the University of London as an external student.

On leaving college he spent several years gaining practical experience at various engineering works, including Messrs. Cairds, Greenock; Fairfield Shipbuilding Co., Greenock; and Babcock and Wilcox, Ltd., London office. He joined the staff of the National Physical Laboratory, Metrology Division, in 1912. During the First World War, he was associated with the gauge-testing work carried out at the Laboratory for the Ministry of Munitions, and for his services in that connexion was awarded the M.B.E. His subsequent activities in the same field and his work "Gauges and Fine Measurements" have won him an international reputation as a metrologist. In 1941 he was loaned by the Laboratory to the Ministry of Supply, where he acted first as director of gauges and measuring instruments and eventually as director of jigs, tools and gauges. For these services he was recently awarded the O.B.E.

Prof. T. G. Hill

THE title of professor emeritus bestowed on Prof. T. G. Hill, who recently retired from the professorship of plant physiology at University College, London, will give satisfaction to a wide circle of friends and colleagues. Prof. Hill's retirement takes from the councils of the University of London a colourful personality of wide experience, whose ripe judgment and keen sense of humour were a valued asset alike in the lecture theatre and in administrative bodies. He is widely known as the author, with Dr. P. Haas, of the "Chemistry of Plant Products", which first appeared in 1913. This work filled a definite gap in the botanical literature of Great Britain, and the same can be said of Hill's "Essentials of Botanical Illustration" published in 1915. As president of the Botanical Section of the British Association at the centenary meeting held in London in 1931, Hill showed his grasp of historical perspective. Prof. Hill, who was a student at the Imperial College of Science and Technology, was at one time lecturer at St. Thomas's Hospital, and the Goldsmiths' College, prior to his appointment to University College. At the latter he took an active part in the O.T.C. and became a major in the First World War. In his retirement he will pursue his horticultural leanings, where his physiological and æsthetic sense will continue to have full play.

Agricultural Economics at Aberystwyth: Prof.

E. F. Nash

MR. E. F. NASH, who has been elected professor of agricultural economics and advisory economist in the University College of Wales, Aberystwyth, has recently been serving in the Food and Agriculture Branch of the Control Commission in Germany, where he has had responsibility for agricultural and food prices in relation to the cost of living and the control of inflation. He was educated at the City of London School and at University College, Oxford, where he held a classical scholarship. He took first-class honours in Classical Moderations, Greats and Modern Greats. In 1927 he was awarded a Commonwealth Fund Fellowship and proceeded to the University of Chicago, where he studied economics. Afterwards he lectured in economics at Queen's University, Kingston, Ontario, and in 1930 became staff tutor for extra-mural classes, University of Birmingham, where he lectured in economics and economic history. In 1930 he joined the staff of the