

Prize to Powell, the Chemistry Prize to Alder and Diels, and the Prize for Physiology and Medicine to Hensch, Kendall and Reichstein.

Dr. Österling, when addressing Bertrand Russell at that occasion on behalf of the Swedish Academy of Literature, pointed out that Russell's philosophy may be said in the best sense to fulfil just those desires and intentions that Alfred Nobel had in mind when he instituted his prizes. There exist quite striking similarities between their outlooks on life. Both of them are at the same time sceptics and utopians, both take the gloomy view of the contemporary world, yet both hold fast to a belief in the possibility of achieving logical standards for human behaviour.

During the banquet in Stockholm's splendid Town Hall which followed the presentation, tribute was paid to Alfred Nobel's memory and also to the achievements of the present and former laureates. It was emphasized that the great attendance at the fiftieth anniversary ceremonies is a sign of the high esteem in which science and literature are held in Sweden, as well as an expression of deep admiration and indebtedness to those who through their brilliant achievements have enriched our minds and contributed to the welfare of human beings.

In a world torn by political disunity, the Nobel Foundation, in the spirit of its founder, has always tried to serve the cause of international understanding. Let us hope and trust that this spirit will prevail in the times to come.

G. HEVESY

OBITUARIES

Prof. W. Kösters

PROF. WILHELM KÖSTERS, president of the Physik-alisch-Technische Anstalt at Brunswick in Western Germany, died suddenly at Münster, in Westphalia, on July 28, 1950, at the age of seventy-four. With his death the science of metrology loses one of its most energetic and experienced workers.

Wilhelm Kösters was born on April 25, 1876. He studied physics, mathematics, chemistry and mineralogy at the Universities of Münster, Greiswald and Bonn. His first appointment after graduating as Dr. phil. in 1899 was with the Kaiserliche Normal-eichungskommission (Standards Committee), which later became the Reichsanstalt für Mass und Gewicht. When this establishment was amalgamated in 1917 with the Physik-alisch-Technische Reichsanstalt, Kösters became director of the Department for Weights and Measures and was head of the Laboratory. Between 1899 and 1917, Kösters was scientifically active in all the Laboratories of the Committee and at an early age made valuable contributions to the methods of metrological observation and instrumentation; his contribution to the development of the larger comparator was a decisive factor in influencing subsequent measuring technique of the German length standard. In 1917 he was appointed head of the laboratory dealing with length standards.

In 1892, in Sèvres, Michelson compared the metre with the wave-length of the red cadmium line. Fabry and Perot in 1907 made a check comparison and obtained a result which was within one ten-millionth of Michelson's result. Following these measurements, the opinion prevailed in metrological circles that a wave-length of a particular monochromatic light could be used instead of the international metre standard, and Kösters was a pioneer in the appli-

cation of wave-length measurements for determining standard length. He saw the advantage to industry in the use of interference measuring methods, and his work resulted in 1920 in the Kösters's interference comparator built by Carl Zeiss, of Jena, and which, by its universal application, has in no mean way contributed to the fact that German industry in the field of metrology holds the position it does to-day.

In 1921 Kösters was elected a member of the Comité International des Poids et Mesures, and here he successfully advocated the use of a wave-length as a measure of standard length; at the seventh conference, held in 1927, it was decided provisionally that the metre was equivalent to 1,553,164.13 times the wave-length of the red line of cadmium in dry air at 15° C., at a pressure of 760 mm. mercury and $g = 980.665 \text{ cm. sec.}^{-2}$. Kösters's definition of standard gauge length was accepted internationally and, at his proposal, the yellow-green krypton line ($\lambda = 0.565 \mu$) was accepted as the wave-length standard. Under Kösters's leadership this line was selected as it was found to be reproducible with the required degree of accuracy, and, indeed, at the time of his death, Kösters was still experimenting in this field using krypton-84 and -86.

The results of Kösters's scientific work led to improvements and developments in a great number of applications: the development of standard lamps for the interference method of measuring length (1928); investigations on the Doppler spread of the lines of the spectrum and experiments in the cooling of lamps with solid nitrogen (1938); development of the interference double prism (1931); determination of the constituents of sea water by interference methods (1930); development of a comparator for the measurement of the International Ohm (1935); work on the precision measurement of the refractive index of glass plates by the interference method (1940); introduction of a standard temperature of 20° C. for industrial measuring purposes, which Kösters considered specially important and which was adopted by the International Committee for Weight and Measure at Paris in 1939.

In 1948 Prof. Kösters was appointed the first president of the Physik-alisch-Technische Anstalt, Brunswick (now renamed Physik-alisch-Technische Bundesanstalt), which is the successor of the Physik-alisch-Technische Reichsanstalt formerly situated in Berlin-Charlottenburg. He carried out the very difficult executive tasks of rehabilitating the Physik-alisch-Technische Anstalt in its new surroundings at Brunswick during the critical and trying post-war period in an able manner, and his loss will be doubly felt, first, because he was an able executive, and secondly, because the load of executive duties prevented him from completing the metrological work for which he was so well known. It is characteristic of the man that he was not a writer of books; once a scientific problem on which he had been engaged extensively was resolved, his interest in that problem was finished, and perhaps through this he may be known only to the specialists, since he leaves behind remarkably little published scientific work.

E. KORNATZ

Prof. W. T. Gordon

PROF. W. T. GORDON, emeritus professor of geology in the University of London, died on December 12 at the age of sixty-six after a very short period of retirement.