

temperature control has been installed in rooms used for this work. The testing of trichloroethylene inhalers intended for use by registered midwives has been facilitated by the use of the new gas refractometer referred to previously. Two prototypes have been approved, and about 110 inhalers have been tested. "Trouble-shooting", the theme of an interesting exhibit, stressed the assistance given by the Test House to enable manufacturers to overcome their

production difficulties and to improve the quality and accuracy of their output. E. I. BRIMELOW

¹ National Physical Laboratory. Report for the Year 1955 (London: H.M.S.O., 1956).

² Allen, N. P., Hopkins, B. E., and McLennan, J. E., *Proc. Roy. Soc. A*, **234**, 221 (1956).

³ Dadson, R. S., *Nature*, **176**, 188 (1955).

⁴ Essen, L., and Parry, J. V. L., *Nature*, **177**, 744 (1956).

⁵ "Wage Accounting by Electronic Computer" (London: H.M.S.O., 1956).

OBITUARIES

Prof. Carl Ramsauer

CARL RAMSAUER, who died in Berlin on December 24, 1955, was an outstanding character as well as an outstanding physicist. As a young man, he made his way by his toughness and purpose. Born on February 6, 1879, in Osterburg, a little place in Oldenburg where his father was the Lutheran parson, in his early twenties he occupied a diversity of positions, including those of schoolmaster and assistant in the torpedo laboratory at Kiel, at which University he took his doctorate with an interesting and original thesis on the mechanism of ricochet from water. He was twenty-eight when Lenard, who had been professor at Kiel, enabled him to take up an academic career by appointing him to a post in the Physics Institute at Heidelberg. Here he worked, except for the war period, during which he was an artillery officer, until 1921, when he was appointed professor of physics at the Technische Hochschule at Danzig. With Lenard he carried out a series of significant researches on the ionization produced by ultra-violet light; but the work that brought his name into prominence was his discovery, in 1921, that slow electrons pass much more easily than swifter ones through the atoms of the rare gases, the so-called Ramsauer effect. In this connexion he introduced the term Wirkungsquerschnitt (effective cross-section), which has been so widely used.

At Danzig, Ramsauer proceeded to transform the small and comparatively unimportant department into a first-class institute for teaching and research in physics. He was by inclination and training an outstanding teacher, taking the greatest pains and pleasure to devise effective lecture experiments and to make clear the fundamentals of the subject. The research school, which was occupied mainly, but by no means exclusively, with the passage of electrons through matter, was known for the precision and clarity of its work. By 1928 his reputation was such that when the Allgemeine Elektrizitätsgesellschaft decided to found a research institute, Ramsauer was appointed to direct it. His gifts as an organizer and controller of research found full expression in this extremely responsible post. Under him work proceeded not only in physical, but also in chemical, electrotechnical, metallurgical and other departments of the great institute. He installed 'technical-physical workshops', which were of great value. He continued his personal research on effective atomic and molecular cross-sections, and the work which he carried out with Kollath on the scattering of protons is classical. In 1931 he became joint editor of the *Zeitschrift für technische Physik*, and many other responsibilities of this nature accrued to him.

During the Second World War, Ramsauer was elected president of the Deutsche Physikalische

Gesellschaft, a very difficult position at that time. With characteristic courage he spoke out against the many abuses and shameful personalities which were ruining German physics, his letter, sent in 1942, to Rust, then Minister for Education, being particularly uncompromising. It had no result; but if Ramsauer had been a less valuable and less respected man it might have been fatal for him.

After the War, Ramsauer occupied himself with reorganizing the teaching of physics at the Technische Hochschule at Charlottenburg, a task for which his gifts and experience particularly fitted him. In 1953 he published a remarkable little book dealing with the history of certain fundamental experiments in physics. He did not give up his post until he reached the age of seventy-five, and died shortly after his resignation.

Ramsauer was a quite exceptional personality. He disliked any parade of sentiment, but he was a staunch friend and a man of firm principles, who never truckled to those in power. He was a most entertaining talker, with a strong and sometimes biting sense of humour, to which he gave epigrammatic expression. For example, of a certain somewhat undistinguished physicist who had a double name—let us call him Wolf-Braun—he said, "Gauss-Weber were two men, Mittag-Leffler was one man, Wolf-Braun was nobody". He had a close acquaintance with German university folk-lore, including the legends of Bonifacius Kiesewetter, and a great knowledge of German literature in general, including many byways. He will long be remembered by all who had to do with him, and especially by the few still living who knew him at Heidelberg.

E. N. DA C. ANDRADE

Sir John Stirling-Maxwell, Bart., K.T.

SIR JOHN STIRLING-MAXWELL died on May 30 at the age of eighty-nine at his home, Pollok House, famous for its lovely gardens, near Glasgow. He succeeded his father at the age of eleven, and went to Eton and then on to Trinity College, Cambridge. He was Conservative member of Parliament for the College Division of Glasgow between 1895 and 1906, when he lost the seat. It was then that he gave his time to his real hobby. Sir John may be termed one of the early modern pioneers of forestry, then called arboriculture in Scotland and England, in the latter part of the past century and the early years of the present. He studied the subject intensively in many European countries and made use of the knowledge so acquired on his own estate, and was always ready with advice or suggestions to friends.

In his own practice, after failures to establish sitka spruce plantations on his estate at Corrour, and his