

John Fritz Medal (1948), Franklin Gold Medal (1948), Lord Kelvin Gold Medal (1950), Gold Medal, Royal Aeronautical Society (1952), Wright Brothers Memorial Trophy (1954), Daniel Guggenheim Gold Medal (1955), U.S. Air Force Exceptional Civilian Award (1955), U.S. Medal of Freedom (1956), Ludwig Prandtl Ring Award of the Wissenschaftliche Gesellschaft für Luftfahrt (1956), Goddard Gold Medal (1960), U.S. National Science Medal (1963).

Theodore von Kármán died during a visit to Aachen on May 7, 1963, four days before his eighty-second birthday. His place as a leader in applied mechanics and aeronautical and astronautical science, and in international co-operation in science and engineering, will not soon be filled.

HUGH L. DRYDEN

Dr. H. Baines

DR. HARRY BAINES, of Messrs. Kodak, Ltd., died suddenly on June 7.

Dr. Baines was an outstanding figure in the photographic world, where he was extremely popular not only for his wide scientific knowledge, but also for his very happy and genial personality.

Born in 1901 of Yorkshire parentage, Harry Baines spent his youth in Nottingham, where he studied chemistry under the late Prof. F. S. Kipping. He took a University of London external B.Sc. degree with first-class honours in chemistry in 1921 and M.Sc. in 1923, in which year he entered the photographic industry as research chemist to Thomas Illingworth and Co., Ltd. In 1938 he was appointed chief chemist and deputy director

of research in Kodak, Ltd., and in 1953 transferred to the head office in Kingsway, London, where he was scientific liaison officer between Kodak, Ltd., and the Press.

He was always keenly interested in raising the standard of photography in Britain, and for the past three years he was responsible for the successful organization of the Kodak scholarships in colour and advanced photography.

His main contributions to photographic science were the devising of a number of new methods of analysis (which formed the basis of a thesis for D.Sc. (London) in 1928), advances in emulsion-making technology and the elucidation of the mechanism of fixation.

He was considerably interested in the work of scientific societies and had been vice-president of the Royal Institute of Chemistry and of the Society of Chemical Industry; but he was more closely connected with the Royal Photographic Society, of which he was twice president. In 1956 he gave the Royal Institution Christmas Lectures. He was the author of *The Science of Photography*, which quickly became a popular standard work of reference.

Among the appointments he held at the time of his death were principal of the London School of Medical Photography, chairman of the Photographic Information Council and member of the Photographic Advisory Committee of the City and Guilds of London Institute.

His leisure time interests included antique furniture and clocks and he was a member of the Antiquarian Horological Society.

Dr. Baines leaves a widow and two daughters.

NEWS and VIEWS

U.S. Presidential Award and Gold Medal :

Prof. F. L. Whipple

PROF. FRED L. WHIPPLE, director of the Smithsonian Astrophysical Observatory, Cambridge, Mass., has been given the Presidential Award and Gold Medal for Distinguished Federal Civilian Service. The Award, the highest that can be bestowed on a career Federal employee, is being given to Dr. Whipple for his outstanding achievement in conceiving and developing "an optical satellite tracking system which stood ready to track the first artificial satellite launched and has since provided valuable scientific data". This network of twelve tracking stations, located on six continents, is still the most accurate tracking system in operation anywhere in the world. Dr. Whipple, who is also a professor of astronomy in Harvard University, has made major contributions to investigations of comets and meteors. He was the first person to propose that a 'meteor bumper' be placed about a spaceship to protect space travellers and astronauts from the danger of meteor punctures of a spacecraft. This proposal was made in 1946, eleven years before the first satellite was launched and fifteen years before the first man was placed in orbit.

Light Division at the National Physical Laboratory:

Dr. L. A. Sayce, C.B.E.

DR. L. A. SAYCE, who was appointed in 1948 to the position of superintendent of the Light Division at the National Physical Laboratory, retires from this position on June 30 after fifteen years of distinguished service. He took a particular interest in the blending of basic and applied research, and nowhere was this more ably demonstrated than in his personal research on diffraction gratings. During his tenure of office, the Light Division has carried out much basic research on vision, colour and colour rendering, and there have been equally important

advances in the more general fields of photometry, radiometry and optics, including the development of new forms of optical masers. The work on diffraction gratings which Dr. Sayce personally supervised has led to the availability of gratings of high efficiency both in the infra-red and X-ray regions, and out of this work an entirely new application of gratings has developed in their use as accurate scales of measurement. This has required a close study of moiré fringe techniques and has resulted in the extensive use of gratings in metrology and engineering. (He will be continuing and extending this aspect of his work for a further period in a special post which has been created for him at the National Engineering Laboratory.) Graduating from King's College, Newcastle upon Tyne, in 1922, Dr. Sayce took his Ph.D. in 1925. He was appointed lecturer in chemistry there in 1927, and his researches thereafter covered a wide range of interest in physical and inorganic chemistry, instrument design and photography. During the Second World War he served in the Ministry of Home Security, and for two years before joining the National Physical Laboratory, in 1948, he was assistant director of physical research at the Admiralty. He was created C.B.E. in 1958. Dr. Sayce is to be succeeded as superintendent of the Light Division by Dr. J. Dyson (see *Nature*, 198, 738; 1963).

Chemistry at Sheffield: Prof. R. D. Haworth, F.R.S.

PROF. R. D. HAWORTH retires from the Firth professorship of chemistry in the University of Sheffield at the end of this academic year. He had his early education in Stockport and then at the University of Manchester, where he came under the lasting influence of Arthur Lapworth. He proceeded with an 1851 Exhibition Scholarship to Oxford, to conduct very fruitful work on the synthesis of the isoquinoline alkaloids. From 1937 until 1939 he was lecturer in chemistry at King's College, Newcastle upon Tyne, where he carried out his extensive