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Finally, one must mention that the Government of India has indicated its approval of the century's work of the Geological Survey of India by the issue of a special centenary postage stamp, which was placed on sale from the date of the commemoration ceremony, namely, January 13, 1951, at a

special temporary post office in the entrance of the Indian Museum, as well as at the principal post offices throughout India. This stamp shows two Siwalik elephants (*Stegodon ganesa*) in animated conversation, and is reproduced from a drawing made by Margret Flinsch Buba for Henry Fairfield Osborn's "Proboscidea", published by the American Museum of Natural History. There was also a special cancellation used on the first day of issue only.

L. L. FERMOR

OBITUARIES

Dr. Edward Mallett

THE death of Dr. Edward Mallett on December 10 removed a notable figure from the field of technical education in Great Britain. For the past eighteen years, Dr. Mallett had occupied the post of principal of Woolwich Polytechnic, and although he maintained throughout his life his scientific interest and activity, he was most widely known in recent years for his administrative work and his influence on technical education.

That Dr. Mallett, when he took up the principalship of a great technical college, already had behind him a distinguished record in research and university teaching is better known to colleagues and students who were in touch with him in the earlier stages of his career. Having chosen electrical engineering for his profession, Mallett went as an undergraduate to University College, London, in 1905 and there, in due course, he came under the stimulating influence of J. A. Fleming. After graduating in 1908, he had a short period of apprenticeship with Cromptons in Chelmsford before entering the service of the Post Office by Civil Service competition in 1909. He was first appointed to the South-West Scotland Division of the Post Office Engineering Department and afterwards to the Transmission Section of the Engineer-in-Chief's office. During the First World War, Mallett held a commission in the 54th and 74th Divisional Signal Companies, part of his service being in the Middle East area.

In the Transmission Section of the Post Office, Mallett had become engaged in a study of the characteristics of telephone receivers and of the modes of vibration of telephone receiver diaphragms. It was evidently this experience which excited his interest in the characteristics of electro-mechanical vibrating systems, a subject which he afterwards studied and advanced in a notable degree. For his work in this field he was awarded the degree of doctor of science by the University of London in 1926.

In 1921, Dr. Mallett was appointed assistant professor of electrical engineering in the City and Guilds

College, South Kensington, and for eleven years he co-operated with the late Prof. C. L. Fortescue in the development of teaching and research in telecommunications in the Electrical Engineering Department of that College. It was here that Mallett's fine qualities of intellect and ingenuity in experiment found full scope for their exercise, and his exceptional natural ability as a lecturer for its development. His researches resulted in the publication of a series of scientific papers mainly concerned with telephone circuits and apparatus, and he also wrote one of the first English texts for students in which a comprehensive treatment of the subject of telecommunications was given.

When in 1932 Dr. Mallett became principal of Woolwich Polytechnic, he turned all his ability and energies to the furtherance of the interests of the special group of students with which he was now concerned. He championed the cause of the part-time university student, and he developed, in association with local industry, a 'sandwich' course which has become an important feature of the work of the Polytechnic. It was during this period that Dr. Mallett gave valuable service as a member of the Advisory Committee on Telecommunications of the City and Guilds of London Institute; and throughout practically the whole of his teaching career he was a member of the Board of Studies in Electrical Engineering of the University of London. No one who served with him on any committee could fail to appreciate his keen intellect, his grasp of essentials, his ready wit and his puckish sense of fun. No meeting which Mallett attended was ever dull.

Dr. Mallett was a Fellow of the Institute of Physics, a member of the Institution of Civil Engineers and a member of the Institution of Electrical Engineers. He was chairman of the Wireless Section of the Institution of Electrical Engineers for the session 1937-38.

He will be long remembered by colleagues and students as a man of exceptional ability and great personal charm, who was one of the pioneers to whom the subject of telecommunications owes its establishment in Great Britain as a study of university rank.

JAMES GREIG

Prof. H. Tanakadate

HIDEZO TANAKADATE, the Japanese geologist and geographer, died in Tokyo on January 29, after a serious illness. He was born in Fukuoka-Machi, Iwate Prefecture, in 1884, and was adopted in 1916 by Prof. Aikitsu Tanakadate, the doyen of Japanese physicists, who, I am informed, is yet in good health at the age of ninety-four. Hidezo Tanakadate's first interest was in vulcanology, but through his travels he became an international figure and his attention turned to human geography, of which he was professor at Hosei University at the time of his death.

Tanakadate went to Singapore two days after its surrender in 1942, having flown from Saigon at the earliest opportunity to prevent looting of scientific institutions. He made Raffles' Museum the centre of conservation for historic and scientific records, libraries of all kinds, works of art, etc., which would otherwise have been sold up, looted, or destroyed, and he prevented the occupation of the Botanic Garden and the Nature reserves on the island by the Nippon military. Such was his influence that, when the authorities were contemplating the destruction of Raffles' statue in Empress Place, he had it trans-

ferred to the Museum and set up in the most prominent place in the central hall, where, with notices in Japanese, Malay and English, it remained until the ceremony of restoration in 1946. His part in the issue of *Malayan Forest Records* No. 16 has already been noticed in *Nature* (158, 63). But, apart from having preserved the historic and scientific records of Singapore in 1942, and his similar endeavours in Batavia, Buitenzorg and Medan, he displayed a rare humanity which helped all and sundry, and which made Raffles' Museum a sanctuary in those hostile years. It was his pleasure to be able to say, "Perhaps I only among the Japanese can talk with high officers, coolies, and prisoners"; for which independence he consistently refused offers of high official rank. By ill-fate, his own house and scientific records were destroyed during an air-raid on Tokyo in 1945. There must be many, now scattered over

the world, who have felt his grace abounding, and who would join in sympathy with his family.

E. J. H. CORNER

WE regret to announce the following deaths:

Prof. V. F. K. Bjerknes, For.Mem.R.S., the distinguished Norwegian geophysicist and meteorologist, on April 9, aged eighty-nine.

Dr. R. Broom, F.R.S., keeper of physical anthropology and vertebrate palaeontology in the Transvaal Museum, Pretoria, aged eighty-four.

Mr. H. Y. Oldham, sometime reader in geography in the University of Cambridge, on March 14, aged eighty-eight.

Mr. W. G. A. Perring, C.B., director of the Royal Aircraft Establishment, Farnborough, since 1946, on April 8, aged fifty-two.

NEWS and VIEWS

Physics at Leeds:

Prof. R. Whiddington, C.B.E., F.R.S.

PROF. RICHARD WHIDDINGTON is retiring this summer from the Cavendish chair of physics in the University of Leeds, which he has held since 1919. He was educated at the William Ellis School, London, and then went up to St. John's College, Cambridge. After taking both parts of the Natural Science Tripos he became Hutchinson Student and Allen Scholar and was elected to a fellowship in his College in 1911. He worked at the Cavendish Laboratory as research student and demonstrator until the outbreak of the First World War, and it was in this period that he discovered the well-known 'Whiddington Law' connecting the loss of velocity of an electron with the thickness of material it has penetrated. He also discovered a relation between the velocity of a cathode ray and the atomic weight of the atoms in which it can excite characteristic radiation, which pointed in the direction of Moseley's famous law. When the War came, he took a leading part in the development of airborne wireless telegraphy and telephony, first for the R.F.C. and then for the R.A.F. when this service was formed. Much of this work was done at the Royal Aircraft Establishment and involved flying under somewhat hazardous conditions.

After his appointment to the University of Leeds, Prof. Whiddington continued to work with electrons, examining their energy spectrum after passing through matter. Discrete losses were found, sometimes but not always corresponding to the critical potentials of the molecules. This work has inspired researches of a similar character in other places and has opened up what is still a promising field. In the Second World War, Prof. Whiddington served with the Directorate of Scientific Research, Admiralty, and later he was deputy director of scientific research at the Ministry of Supply. With Mr. J. G. Crowther he wrote "Science at War", a valuable account of the British scientific war effort. Among his many outside interests, Prof. Whiddington is a keen sailor of small boats, and his many friends will wish him much happiness in this and other pursuits at King's Lynn, where he has a house.

Prof. E. C. Stoner, F.R.S.

PROF. E. C. STONER, who is to succeed Prof. Whiddington, was born at East Molesey, Surrey,

in 1899 and was educated at Bolton School and Emmanuel College, Cambridge. After graduating in 1921, he spent three years under Rutherford's aegis at the Cavendish Laboratory, working on glow discharges with G. Stead for a year, and then devoting his attention to the subject of X-ray and γ -ray absorption. For this work he was awarded the Ph.D. degree. In 1924 Prof. Stoner went to Leeds as a lecturer in physics and was appointed reader two years later. Emmanuel honoured him with a research fellowship in 1928 (held at Leeds). He was elected to the Royal Society in 1937, proceeded to the Cambridge Sc.D. the following year, and in 1939 became the first occupant of the newly created chair of theoretical physics at Leeds. Prof. Stoner is perhaps best known for his work on magnetism (his books on the subject being particularly well known), an interest which developed out of his early suggestions (1924-25) for modifying the Bohr atomic scheme. His interest in the atomic interpretation of magnetic properties being thus aroused, a number of important papers on the subject followed; particularly remarkable perhaps were two in 1938-39 on collective electron ferromagnetism, a subject which his research students have recently opened up still further. During this time he made occasional digressions into other fields, a specially interesting one being the application of Fermi Dirac statistics and the problem of white dwarf stars. In more recent years his interests have continued in the main general direction of the properties of metals and alloys from an application of quantum mechanics, statistical mechanics and thermodynamics. Besides his research work, Prof. Stoner has been a considerable force within the University of Leeds; he is a first-class teacher and has always taken a full share of the burden which falls nowadays on all professorial shoulders.

Charles Chree Medal and Prize for 1951: Sir George Simpson, K.C.B., C.B.E., F.R.S.

THE Charles Chree Medal and Prize, which is given biennially by the Physical Society for distinguished work in terrestrial magnetism and/or atmospheric electricity, has been awarded to Sir George Simpson, who was for many years director of the British Meteorological Office. The presentation of the Medal and Prize will take place at the Science Museum,