

to contribute to science and learning by providing his colleagues and the students of the College with books and periodicals. How right he was the members of the College soon realized: although he never obtained a formal qualification in librarianship, he possessed a fine sense of the essentials of library service and a great love of books, and in the past twenty years the library has expanded in size much faster than the College itself and its value to the readers grew from year to year.

His work at the City and Guilds College was interrupted by war service, during 1941-46, in the Army. His work there was mainly concerned with motor transport and with radar, and his bent for these branches of engineering remained in clear evidence when he returned to his College on demobilization.

Frank James loved books, but he took an even greater interest in his readers. He knew hundreds of students by name and the subjects on which they were working, and—being a scientist himself—knew the importance of acquainting them, as soon as a journal arrived, with papers in their fields of interest. Several new lines of research at the College were stimulated by his understanding of papers on similar subjects appearing in what seemed unlikely journals. In addition, he was, when asked, ready to offer his help in the design of apparatus and showed a fine understanding of the construction and use of chemical and electronic equipment.

He possessed great charm and modesty and no member of the College had a greater fund of kind-

ness. Students from overseas were especially grateful to him, for he could sense the needs of shy and lonely people and give them comfort for which they, in turn, gave him their devotion. Frank James will be sadly missed by countless friends who will long remember the kindness received from him and his charming wife. In 1958 he was appointed to be librarian in charge of all libraries at the Imperial College, and it is the College's good fortune that his spirit is alive in his staff.

P. O. WOLF

#### Dr. Marcel Ballay

DR. MARCEL BALLAY, president and managing director of the Centre d'Information du Nickel, Paris, died on February 2 after a short illness.

Born in 1896, Marcel Ballay entered early upon a career in metallurgy in the laboratory of the de Dion plant, of which he was afterwards appointed head, in 1925. In 1928 he joined the Centre d'Information du Nickel, first as technical manager, becoming later vice-president and in 1954 succeeding M. Jean Dhavernas as president. In 1955 he was appointed an officer of the Legion of Honour in recognition of his services to industry and to the teaching profession. He was a member of many learned societies in France and Great Britain. Under his direction the services offered to industry by the Centre d'Information du Nickel increased in importance, and it is as the head of that office and as a leading and respected metallurgist that Dr. Ballay will be remembered both in France and Great Britain.

## NEWS and VIEWS

#### Airborne Radar at the Royal Radar Establishment: Dr. T. S. England

DR. T. S. ENGLAND, who has been promoted to deputy chief scientific officer and appointed head of the Airborne Radar Department at the Royal Radar Establishment, Malvern, graduated from the University of Durham with first-class honours in physics in 1937 and remained at Durham to undertake research on the heating effects of ultra-short radio waves in dipole solutions. At the outbreak of the Second World War in 1939, he joined the Air Ministry Research Establishment (later the Telecommunications Research Establishment) and worked primarily on the design of radar transmitters, initially at metric and later at centimetre wave-lengths, becoming head of the Transmitter Design Group in 1944. He was given leave of absence from Malvern during 1948-50 to take up a research fellowship in medical physics at the University of Durham, when he applied his extensive knowledge of electronics to studies of the effects of microwave radiations on living tissues and of microwave resonance phenomena in paramagnetic solids and liquids. He was awarded a Ph.D. for his thesis on these researches. On return to the Telecommunications Research Establishment, Dr. England was for a time responsible for research techniques in the millimetre band before being appointed a superintendent of the Radar Ballistics Division at the Royal Radar Establishment in 1956.

#### Defence Research Policy Staff:

Mr. R. V. Whelpton

MR. R. V. WHELPTON, who has been promoted to deputy chief scientific officer and appointed Ministry of Supply representative on the Defence Research Policy Staff at the Ministry of Defence, took his M.Sc. at the University of Sheffield in 1938. After graduating in physics, he spent the next eight years with the research department of the Metropolitan-Vickers Electrical Company, where he worked on high-voltage research and on the development of the high-speed cathode-ray oscillograph. He was also engaged on investigations of transient phenomena in switchgear and the development of the electron microscope. In 1936 he joined Sir Robert Watson-Watt's original team on research and development of ground radar at Orfordness and Bawdsey. This work in 1940 was transferred to the Royal Aircraft Establishment at Farnborough, where Mr. Whelpton was also concerned with other aspects of radio research and development. In 1949 he continued on the same work with the Directorate of Electronics Research and Development at headquarters of the Ministry of Supply. In 1955 he was appointed scientific adviser on air defence to Supreme Headquarters Allied Powers in Europe (SHAPE) and was a member of the study group which led to the formation of the SHAPE Air Defence Technical Centre (SADTC) in The Hague. While at The Hague, as senior British representative, Mr. Whelpton pioneered efforts to