

Mr Chambers helped to found the Institute of Petroleum, and from 1922 to 1932 was a member of the Council, serving as Vice-President for the last two years. He was elected a Fellow of the Royal Society of Arts in 1928.

He was elected an Associate Member in 1904.

He is survived by his widow and one son, Dr R. A. Chambers.

FREDERICK JAMES RIGG, who was born on 19 July, 1877, died on 20 December, 1964.

Educated at a private school in Hastings, in Germany, and at University College, London, he began his career working for his father in London (both father and grandfather were engineers). After serving his time with an engineering works in East London, he became in 1901 Resident Engineer for the Millwall Dock Equipment Company, and in 1903 started work as a draughtsman in the Dock Engineer's Department of the North-Eastern Railway, Hull. There he was later appointed engineer in charge of the construction of the 2500-ft-long Riverside Quay and of its adjoining roads, railways, station, sheds, etc. In 1909 he went out to Singapore to join Sir William Halcrow & Partners as Chief Assistant to the Resident Engineer on the construction of King's Graving Dock, Keppel Harbour, returning home in 1913. After two years with Norwich Tramways he was appointed Superintendent Engineer to the Anglo-Persian Oil Company and under Mr C. Dalley, Chief Engineer, was engaged on preliminary works at a large oil refinery at Skewen, South Wales. From 1918-1919 he served as a Lieutenant in the Royal Marine Engineers.

There followed six years as Chief Engineer to the British Petroleum Company. In this period several large depots for receiving bulk petroleum products in the United Kingdom were constructed, as well as inland depots for retail distribution, at a cost of two to three million pounds.

In 1926, with Mr G. E. Remington, he founded the firm of Rigg and Remington, Civil Engineers, Westminster, of which he became Chairman some ten years later. He went into private practice in 1945 before rejoining Sir William Halcrow & Partners as Senior Resident Consulting Civil Engineer at Keadby Power Station, Scunthorpe, Lincs. Later he worked in a similar capacity at Marchwood, Southampton, until—at the age of 82—he retired.

Mr Rigg was Author of a Paper presented to the Institution, 'Repairs to Dock Walls'. Min. Proc. Inst. C.E., Vol. 165. He was a member of the Association of Consulting Engineers.

Elected an Associate Member in 1904, he became a Member in 1922.

He is survived by his widow, and one son.

ERNEST LEONARD LEEMING, M.Sc.Tech., who was born on 5 July, 1889, died on 26 December, 1964.

Educated at Manchester Secondary School, he studied engineering at the College of Technology, Manchester, from 1904-1907. Four years' practical training followed, under Mr A. H. Mountain (A.M.). He passed the Associate Membership examination in 1911.

His early experience was with the Fylde Water Board, Blackpool, on the construction of Grizedale Lea Reservoir (1909-1910), and in the Highways Department of the City Engineer's Office, Manchester, where he was to remain