

133. Correspondence: 1939, **12** (Oct.) 251. This paper was awarded the Telford Premium.

Elected an Associate Member in 1937, he became a Member in 1946.

He is survived by his widow, three brothers and two sisters.

Grainger Hope Hargreaves, MC, BSc

who was born in Canton on 24 September, 1891, died on 7 February, 1967.

Educated at Victoria Park School, Manchester, and Oxford High School, he studied engineering at Manchester University and received his BSc in 1913.

His practical training was with Mr W. H. White (M), City Engineer, Oxford (1913–14), with whom he continued as Assistant for a further year, on water supply and sewerage.

During World War I he served from 1915–17 with a commission in the Royal Engineers on the Suez Canal defences. For the next two years, after acting as Staff Officer to the Chief Engineer, IVth Army, B.E.F., he became Liaison Officer to the American Expeditionary Force, and finally Staff Director (engineering stores) at GHQ, B.E.F. For his services he was awarded the Croix de Guerre (Belge) and the MC. He was demobilized with the rank of Major.

After the war he went to the Federated Malay States as Engineer to the Public Works Department, where with a labour force of 1000 men he was engaged on bridges and roads at hill stations—their location, design and construction. A further year was spent as Acting Executive Engineer at Alor Star, Kedah, before he returned to England, where for six months he worked as Divisional Surveyor to Norfolk County Council.

Mr Hargreaves became Assistant Engineer to the Ministry of Transport (Bridges) in 1926, working on design and examination of designs for bridges, investigation of failures and remedial measures. Promoted Inspector to the Ministry in the metropolitan area in 1935 on improvement and traffic schemes and as Engineer to the Traffic Advisory Committee, he was later transferred to an area covering Kent, Surrey and Sussex, in charge of all Ministry road engineering work, highway maintenance and the preparation of plans and contract documents for 12 miles of by-pass roads at Maidstone, Swanley and Sellindge (the London–Folkestone–Dover Road).

In the period 1935–45 he was in charge of the construction of two airfields by direct labour, supervised construction of six other airfields, and in two further cases the extension of runways. During World War II he was responsible for works carried out with a labour force of 500 men for the military authorities.

Appointed in 1945 Divisional Road Engineer (Wales and Monmouth Division), he was transferred in the same capacity to the Metropolitan Division two years later. In 1949 he became Assistant Chief Engineer at Ministry headquarters, where in 1954 he was made Deputy Chief Engineer. On resigning from this post and from the Ministry in 1958 he set up on his own account as a consulting engineer, also acting in association with a firm of consultants.

He was elected an Associate Member in 1917 and became a Member in 1945.

He is survived by his widow.