

staff of Binnie, Deacon and Gourley for whom, but for his death, he would shortly have gone to Iraq as Resident Engineer on a high dam.

Mr Cross was elected an Associate Member of the Institution in 1939 and was transferred to the class of Member in 1945.

In 1941 he was awarded a "Follett Holt" premium for his Paper "San Felipe Dam Construction" read before the Buenos Aires Local Association of the Institution.

He was a Member of Council (Ceylon) from 1950 to 1952.

He is survived by his widow.

ALFRED CHARLES GARDNER, F.R.S.E., who died on the 2nd December, 1952, at the age of 72, was born at Richmond, Surrey on the 4th October, 1880.

He was educated at the Vineyard School, Richmond, Surrey, and at the Polytechnic School of Engineering, London.

He obtained his practical experience by serving an apprenticeship with the Thames Ironworks, Shipbuilding, and Engineering Company, of Blackwall, London, from 1898 to 1901.

On the completion of his training, he was appointed Assistant in constructional steelwork in the Highways Department of the London County Council, and was engaged in the design of the London County Council Generating Station at Greenwich.

He left this post in 1901 to become an Assistant in the Engineering Department of the Great Western Railway, where he was concerned with the design of bridge and roof work.

He left this latter railway company in 1907 to join the staff of another—the Great Central Railway Company—first from 1907 to 1909, as Steelwork Assistant, and later as Principal Bridge Assistant in the New Works Department, and in the years that followed he was responsible for the renewal and construction of over thirty bridges. The most important of these was the new bridge over the River Trent at Keadby, which, at the time, was the largest Lifting Bridge in Europe.

This latter period of his career was terminated by his joining the London and North Eastern Railway Company in 1918, as Docks Engineer, and as such he was subsequently responsible for the design and construction of Grimsby and Immingham Docks, and also the Lifting Bridge across the Alexandra Dock, Grimsby, which was opened in July 1928.

In the following year he was appointed Chief Engineer to the Clyde Navigation Trust, where he was responsible for the Docks and Harbour of Glasgow, and the maintenance of the Clyde. He retired from the post in 1941. The major works undertaken during this period included the reconstruction of General Terminus Quay, Plantation Quay, and Lancefield Quay; the foundations for the 175-ton crane at Stobercross Quay; and the various river works in connexion with the launching of Q.S.T.S. Queen Mary and Queen Elizabeth, involving the deepening of the River Clyde over

a length of 14 miles, the widening of the River at two points, and deep dredging on the line of the launch.

Mr Gardner was elected an Associate Member of the Institution in 1909, and transferred to the class of Member in 1918. He was Chairman of the Glasgow & West of Scotland Association in 1946-47 and was elected a Member of the Council in 1952.

In 1934 he was awarded a Telford Premium for his Paper "Construction of No. 2 Graving Dock at Elderslie,"¹ and he also delivered the Vernon-Harcourt Lecture for 1939-40 on "The Construction of Deep-Water Quays."²

Mr Gardner was a Fellow of the Royal Society of Edinburgh, a Member of the Institutions of Mechanical and Electrical Engineers, and was also a Past-President and Honorary Member of the Institution of Engineers and Shipbuilders in Scotland.

He leaves a widow and a son and daughter.

PROFESSOR ALEXANDER HOPE JAMESON, M.Sc., who died on the 23rd December, 1952, at the age of 78, was born at Highbury, London, on the 15th October, 1874.

He was educated privately and at Owens College, Manchester, which he entered as a student in 1891 and where he graduated with honours in Engineering in 1894. He remained at the College for a further three years as Bishop Berkeley Fellow and Demonstrator in the Whitmore Engineering Laboratory.

He left this post in 1897 to spend three years as a pupil in the Engineering Department of the Lancashire and Yorkshire Railway.

In 1901, at the completion of his practical training, he joined the staff of the Derwent Valley Water Board, first as an Assistant to Mr Edward Sandleman; then from 1905 until 1909 as Resident Engineer on the construction of the Main Aqueduct from Grindleford to Rowsley, and finally from 1909 to 1912 he held a similar post during the construction of the Thirlmere Aqueduct (third pipeline).

In 1912, he was appointed to the Chair of Civil Engineering at King's College, Strand, this he held until his retirement in 1935.

Professor Jameson was Dean of the Faculty of Engineering, University of London, from 1932 until 1935.

He was also author of several standard textbooks, including "Advanced Surveying," "Fluid Mechanics," "Contour Geometry," and "Mathematical Geography."

He was awarded a James Forrest Medal and a Miller Prize in 1896 for his Students Paper on "The Strength of Materials," and also presented to

¹ Sel. Engng Paper No. 160, Instn Civ. Engrs, 1934.

² J. Instn Civ. Engrs, vol. 14, p. 129 (April 1940).