

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).

the Institution a Paper on "Flow over Sharp-edged Weirs: Effect of Thickness of Crest"¹ in 1948.

Elected Associate Member in 1901, Professor Jameson was transferred to the class of Member in 1912. He was for many years a member of the Research Committee on Velocity Formulae for Open Channels and Pipes.

He leaves a widow.

BRIGADIER-GENERAL MAGNUS MOWAT, C.B.E., T.D., F.R.S.E., who died in London on the 19th January, 1953, at the age of 77, was born on the 10th November, 1875.

He was educated at Aberdeen Grammar School, and Blackheath School, and at King's College, London, where he obtained a diploma in engineering.

On leaving College in 1896 he became a pupil to Mr W. H. Holmes, Superintendent of the locomotive shops of the North British Railway at Cowlairs, Edinburgh. On the completion of his pupilage in 1898, he became Resident Engineer and Assistant to Mr E. Parry, M.I.C.E., during the construction of the London to Leicester section of the Great Central Railway.

In 1899, he went to India, first as Assistant Engineer to the Indian Midland Railway at Jhansi in the North West Province, and later as Resident Engineer at Agra for the Great Indian Peninsular Railway.

Returning to Great Britain in 1901, he joined Sir Robert McAlpine and Sons Ltd, as Resident Engineer during the construction of the Partick section of the Glasgow main drainage.

In 1902 he was appointed Chief Assistant to Mr F. E. Duckham, M.I.C.E., Engineer of the Millwall Dock Co., becoming Engineer in 1905; after the formation of the Port of London Authority in 1906 he remained in the charge of the Millwall Docks and the East and West India Docks.

During the First World War, General Mowat, who had been a Territorial officer, served with the Royal Engineers, and for 2 years he was in charge of a division. He then held many important posts including Commandant of the School of Heavy Bridging and Pontooning, and also Commands Roads Officer at the War Office. At the close of the war he was deputy chairman and administrative officer of the Joint Roads Committee.

On leaving the Army he was given the honorary rank of Brigadier-General and in 1919 he was appointed a Commander of the Order of the British Empire.

In 1920 he succeeded the late Mr E. T. Worthington as Secretary of the Institution of Mechanical Engineers, being obliged to retire in 1938 through ill-health.

General Mowat was elected an Associate Member of the Institution in

¹ J. Instn Civ. Engrs, vol. 31, p. 38 (Nov. 1948).