

was Engineer to the contractors for the main-line railway from Melbourne to Bendigo. He was next appointed Engineer of the Melbourne and Suburban, and Melbourne and Brighton railways, and on their completion took up work for the Victorian and Tasmanian Governments, until in 1867 he became Engineer-in-Chief of South Australia, which important position he held for 21 years, retiring from office in 1888. He was responsible for nearly 1,500 miles of railway, besides wharves and jetties, lighthouses, fortifications and roads, involving considerable expenditure of public money. In 1888 he returned to Melbourne and carried on an extensive private practice until 1912, when he retired to private life.

Mr. Mais was elected a Member of The Institution on the 2nd December, 1879. He took part in the formation of the Victorian Advisory Committee in 1890 and was a very active member, holding the position of Chairman for periods of 16 years in all.

ISAAC JOHN MANN, born in Dublin, 26th January, 1836, died at Orford, Suffolk, 13th January, 1917. After being educated at Trinity College, Dublin, he was engaged for a time on railway construction in Ireland and Wales. He was then for several years assistant engineer to the Dublin Port and Docks Board, during which time he gave special attention to the study of the formation of river bars.

In 1883 Mr. Mann became associated with Sir John Fowler in the construction of Rosslare Harbour, and on the completion of that work he was appointed resident engineer at the Fishguard Harbour Works. He retired from this position in 1903. He invented a machine for testing Portland cement, and also an instrument for ascertaining the specific gravity of that material.

He was elected a Member of The Institution 6th March, 1888.

THOMAS DE COURCY MEADE, City Surveyor of Manchester, died at Buxton on the 11th February, 1916. Born on the 14th November, 1852, at Bandon, County Cork, he was apprenticed to the County Surveyor, and subsequently obtained experience on the Cork and Bandon Railway. In 1877 he joined the staff of the late Colonel Haywood, then Engineer to the City of London, under whom he was engaged on drainage and housing work until 1880, when he was appointed Surveyor to the Hornsey Local Board. He retained this appointment until 1894, when he was selected for the office of City Surveyor of Manchester. During his long tenure of this office, he was associated with many important municipal undertakings, especially the main drainage scheme, which he designed and put into execution. He was also connected with town-planning schemes, street improvements, bridges and other structures, and until the appointment of a City Architect in 1902, he was also responsible for the architectural work of the

Corporation. Mr. Meade was elected an Associate Member on the 4th February, 1879, and was transferred to the class of Members on the 30th March, 1891.

JOHN GIBSON NEWBIGGING, born at Bacup on the 24th April, 1863, died at Heaton Moor, near Manchester, on the 28th October, 1916. He was trained under his father, the late Mr. Thomas Newbigging, M. Inst. C.E., and subsequently became assistant engineer in the Salford Corporation Gas Department. Between 1888 and 1900 he successively held charge of the gas undertakings at Pará, Brazil, and Macclesfield, and in the latter year he was appointed Chief Gas Engineer to the Manchester Corporation. Here he carried out much important work, including the construction of one of the largest gasholders in Europe. He was the first to adopt on a large scale coal carbonization in vertical retorts, and was frequently consulted by gas authorities at home and abroad. He was elected an Associate Member on the 22nd May, 1894, and was transferred to the class of Members on the 22nd December, 1903.

HERBERT PILKINGTON, born 23rd October, 1864, at Pilkington, near Radcliffe, Manchester, died at Sheepbridge, Chesterfield, 24th November, 1916, after having held the position of Works Manager of the Sheepbridge Coal and Iron Company, Limited, for nearly 20 years. He was prominently connected with the iron industry, and was a past-president of the British Foundrymen's Association and a member of the Iron and Steel Institute. He was elected an Associate Member of The Institution 3rd December, 1895, and transferred to the class of Members 28th November, 1899.

MONTAGU ALEXIS POLLARD (formerly POLLARD-URQUHART), born in County Westmeath in 1859, met his death by a fall from his bicycle near Castle Pollard on the 5th August, 1916. He gained practical experience under Mr. R. E. Middleton, M. Inst. C.E., and between 1880 and 1888 he was variously occupied on railway construction and waterworks in England and mining work in Spain. In the latter year he became a partner in the firm of Thomas Meik and Sons, Consulting Engineers, Westminster, and was actively associated with many important works, including railways, harbour and dock extensions, and hydro-electric power-works at Kinlochleven, until his retirement in 1909. He succeeded to the family's Irish estates in 1915. Mr. Pollard was elected an Associate Member on the 3rd February, 1885, and was transferred to the class of Members on the 20th February, 1894.

WILLIAM RIDLEY, born 6th November, 1841, at Bedlington, Northumberland, died 25th December, 1916. In 1861 he was engaged on the Mauritius Government Railway, and on the completion of this work was Executive Engineer on the Madras Irrigation and Canal Works. After various railway experience in England and South America he was appointed Chief Engineer to