

engaged during the next 8 years, chiefly under Mr. George Robert Stephenson and Mr. George Parker Bidder, upon the survey and construction of some of the many railway lines then in process of execution in all parts of the country. In 1853 he took part in the surveys for the Swedish Government Railways, and in the following year, on the recommendation of Mr. Robert Stephenson, he was appointed Engineer to the Chilian Government, to carry out railways in that country. During the next 10 years he was engaged on the location and construction of railways and other public works for Chili and Peru, including the Santiago and Valparaiso line, for an account of which, presented to the Institution in 1864,¹ he was awarded a Telford medal and premium.

Upon the completion of the Chilian Railways in 1864, he was appointed Director for the execution of the Mexican Railway, 300 miles in length, between Vera Cruz and Mexico, a line presenting, amongst other unusual features, a gradient of 1 in 25 twenty-three miles in length. He built the greater part of this line before the Revolution arrested the works.

After interesting himself in projects for the construction of railways in Argentina and Guatemala, he next undertook, as one of the concessionaires, an extensive exploration and railway survey for the Brazilian Government, extending from Curitiba to Matto Grosso, a distance of 1,000 miles, traversing for the most part almost unknown and dense primeval forest. A copy of his Report on this survey is in the Library of the Institution.

In 1881, as Director of the Valparaiso Drainage Company, he successfully completed the works in that city; and in 1888 he visited California and Arizona to report on mines in those States, after which he retired from the active pursuit of the profession. He died at his home in St. John's Wood on the 15th July, 1905, at the advanced age of 82.

Mr. Lloyd was elected a Member of the Institution on the 7th March, 1854. His name had thus been borne on the Roll upwards of 50 years.

LEWIS PRITCHARD MOLINE died at South Yarra, Melbourne, on the 12th January, 1904, in his seventy-third year. Descended from an old Huguenot family, he was born at Godalming, Surrey, and educated at the City of London School. After serving his

¹ Minutes of Proceedings Inst. C.E., vol. xxiii, p. 376.

apprenticeship at the Greenwich Ironworks, he obtained employment with Messrs. Penn, of Greenwich, and subsequently pursued a course of study at University College, London.

In 1854 he left this country for Australia, and in the following year, obtained an appointment in the Victorian Railway Department, being employed on the construction of various lines until 1865, when he was transferred to the Water-supply Department. As District Engineer he was engaged for several years on the construction of reservoirs and aqueducts in connection with the supply of water to Bendigo, Castlemaine and other mining districts. In 1870, being again placed in the Railway Department, he was given charge of the construction of a section of the Melbourne and Sydney main line; after completing which, he left the Government service to engage in practice as a consulting engineer for railway and water-supply work. In 1889 he rejoined the Water-Supply Department, and superintended the construction of the Loddon River Reservoir. After his retirement he undertook a sea-voyage to benefit his failing health, and visited England, but died shortly after his return to Victoria. Throughout his career, the energy with which he applied himself to the discharge of his professional duties was coupled with unvarying geniality and courtesy in his dealings with colleagues and subordinates.

He was elected an Associate Member of the Institution on the 21st May, 1889, and was transferred to the class of Members on the 8th December, 1891.

ALFRED MORCOM, born in the Isle of Man on the 4th June, 1848, was descended from an old Cornish family. His father, Mr. James Morcom, was an engineer of some note in his day, and among other works erected the big pumping-engines to drain the Haarlem Meer in Holland, for the historic firm of Harvey and Company, of Hayle. The subject of this notice received his early education at Tavistock Grammar School, and in 1863 passed into Keyham Dockyard as an engineer student. In 1867 he gained a scholarship at the Royal School of Naval Architecture and Marine Engineering, South Kensington, now merged in the Royal Naval College. On completing the course of 4 years at South Kensington he passed out first of his year with a first-class fellowship and honours in mathematics and several other subjects. He was then appointed by the Admiralty first assistant engineer on the "Bellerophon" of the Channel fleet, and subsequently on the troopship "Jumna."