

nection with the Royal Commission on Irish Public Works, of which his father was a member, on surveys of the River Barrow and for light railways in Ireland. In the same year he went to Egypt to superintend the construction of works for the reclamation of Lake Aboukir,¹ under his father, who was Engineer to the English Company which had obtained a concession from the Egyptian Government.

In 1888 Harold Abernethy was appointed Resident Engineer on the Runcorn section of the Manchester Ship Canal. A length of 7 miles, subsequently extended to 10 miles, was placed under his charge. The works included $3\frac{1}{2}$ miles of river embankment and concrete walls in the tideway, three groups of large locks and sluices of great magnitude, and the difficulty attendant on their execution was enhanced by the necessity of keeping open the traffic of two important systems of navigation during their construction. He continued his duties until the canal was opened for traffic in January, 1894, a period of six years, his practical knowledge, his ready and correct judgment when unforeseen difficulties presented themselves, and his straightforward, manly character being thoroughly appreciated by the Engineer-in-Chief and by all officials and others with whom he came in contact.

His appointment as Resident Engineer on the Manchester Ship Canal works was the last Harold Abernethy was permitted to hold. Intermittent fever had attacked him and all medical treatment failed to alleviate the complaint. In March, 1895, he was recommended a voyage to the Cape; but the fever attacks gradually increased in severity and duration, and he embarked in the Union s.s. "Scot" at Durban on the 22nd of June, on the voyage home. He died on the 9th of July, in his thirty-seventh year, and was buried at sea. He was elected an Associate Member on the 14th of April, 1885, and was transferred to the class of Member on the 14th of November, 1893.

ALFRED COLLETT, son of the Rev. W. L. Collett, M.A., late vicar of St. Stephen's, Hammersmith, was born on the 17th of May, 1854, and received his preliminary education at Dr. Huntingford's school, Wimbledon. After a course of training in the Applied Sciences Department of King's College, London, he was articled in December, 1873, for four years to Messrs. Wilkinson and Smith,

¹ Minutes of Proceedings Inst. C.E., vol. ci. p. 189.

engineers, of Westminster, by whom he was employed in surveying, levelling, taking out quantities, designing gas and railway works, and in the preparation of parliamentary plans and estimates. His first appointment, which he held between May, 1877, and September, 1878, was that of contractor's engineer on the Yarmouth and Stalham Railway. He then acted for nine months as Resident Engineer during the construction of the Lynn and Fakenham line, and afterwards had charge of the erection at Yarmouth of a terminal station, station yard and repairing- and running-sheds, and of extensions of the Yarmouth and Stalham Railway to North Walsham and of the Lynn and Fakenham Railway.

In 1881 Mr. Collett was appointed Engineer, under Mr. Henry Gale, of a mountainous district of the Donna Theresa Christina Railway in Brazil. On its completion he returned to England and was engaged on survey work at Wigan for Sir Douglas Fox. From October, 1883, to February, 1885, he acted for Messrs. Sir John Hawkshaw, Son and Hayter as a District Engineer on the surveys for the Dom Pedro I. Railway in Brazil, being for some months, during the absence of the Chief Engineer, in sole charge of the large staff employed and also representing the Company in Brazil. Mr. Collett was then for three years Resident Engineer and Locomotive Superintendent of the Buenos Ayres and Pacific Railway, having charge of the construction and maintenance of the line. From 1888 to 1890 he was Chief Engineer for the Argentine Government during the construction of the Chilecito, the Chumbicha and Catamarca, and the Salta and Jujuy Railways, acting at the same time as Consulting Engineer in Buenos Ayres to the Pacific Railway Company.

Mr. Collett was next engaged, on his own account, between 1890 and January, 1892, in general engineering work in Buenos Ayres and Monte Video, where he constructed tramways of considerable extent and represented the Low Moor Iron Company and the firm of Messrs. Sharp, Stewart and Company. He also carried out 450 miles of survey for the Interior of Uruguay Railway. In January, 1892, he left South America on being appointed Engineer and Manager of the Barcelona Waterworks. During his residence in Spain Mr. Collett had several opportunities of inspecting the construction of the Monistrol-Montserrat Rack-Railway, a line formed for the purpose of conveying pilgrims and visitors to the monastery situated half-way up the mountain of Montserrat in the province of Catalonia, about 18 miles from Barcelona. As that line possessed many points of interest, he presented to the Institution a brief description of it, which, in conjunction

with two other Papers on Mountain Railways, was read early in the present year.¹

In February, 1895, Mr. Collett was appointed Resident Engineer and Manager to the Natal and Nova Cruz Railway in North Brazil, where his active supervision was at once successfully employed. His useful career was however destined to be prematurely cut short: during a season of unusually trying heat he contracted yellow fever, which unhappily proved fatal on the 28th of June. Mr. Collett was elected an Associate Member on the 5th of April, 1881, and was transferred to the class of Member on the 5th of April, 1892.

WILLIAM ALFRED ECKERSLEY, born on the 25th of January, 1856, was the son of Mr. William Eckersley, who for upwards of forty years has been a Member of the Institution. After being educated at Marlborough School and at Pembroke College, Oxford, he served a pupilage to his father from 1874 to 1877, during which period he was engaged in the office and on the construction of a short railway, a timber and iron-pile pier and concrete buildings at Thames Haven. He was then for a time assistant to Mr. James Scott on the construction of the Abbotsbury line, now part of the Great Western system, and from 1879 to 1882 had charge of the construction, first, of river-protection works on the Thames, and, subsequently, of a sea-wall and reclamation works at Trouville-sur-Mer, France.

Between 1882 and 1886, he was on the location and construction of the Jerez-Algeciras Railway as an Assistant Engineer, having for the greater part of two years sole charge of the Gibraltar end. He also reported upon the Algeciras-Ronda-Bobadilla line through the Sierra Nevada. Between 1886 and 1888 he was employed by Messrs. James Livesey and Son to survey and report upon the La Libertad and San Salvador Railway in Central America; he partly surveyed and prepared estimates for the Pontevedra-Carril Railway, a line of 20 miles over mountainous country in Galicia, Spain, for Mr. Edward Woods; and for Messrs. Livesey he inspected and reported on seven of the most important lines in Peru, including the Oroya Railway, and made surveys for a light rail-

¹ Minutes of Proceedings Inst. C.E., vol. cxx. p. 25.