

he was engaged in 1864 and 1865, under the late Mr. O. C. D. Ross, on a section of the Utrera and Osuna Railway in Spain. In 1868 he was employed for a brief period in Bengal on government works in the Barrackpore Division, and on the Sone Canal and irrigation.

Having been obliged to relinquish work in India and return to England, owing to the death of his wife, Mr. Ridings was appointed in 1869 Resident Engineer of the Iquique Nitrate Railway in Peru, a mountain line of 70 miles, of which Mr. George Bush was the Chief Engineer. He held that post until 1878, when family affairs compelled him to resign. His work during the following nine years included the survey in 1883 of the Dique entrance to the Magdalena River in the United States of Colombia, the superintendence of works at East Greenwich in connection with the South Metropolitan Gas Company, and railway surveys in South Africa and in Mexico. From 1887 to 1890 he acted as Borough Surveyor of Walthamstow, and in the latter year he was again sent to Iquique by the Nitrate Railway Company as Resident Engineer on the construction of the southern section of the line. In 1897 he returned to England, and from that time was not engaged in professional work. Mr. Ridings died at 31 Carson Road, West Dulwich, on the 8th January, 1902, in his sixty-third year.

He was elected an Associate of the Institution on the 23rd May, 1865, and was transferred to the class of Members on the 24th November, 1874. In 1883 he presented a Paper descriptive of the Iquique Railway.¹

WILLIAM ROBERT ROBINSON, who died at Crouch End, near London, on the 1st November, 1901, at the age of 69, was born at Tullamore, Ireland, on the 2nd February 1832, and came from a well-known Kerry family. He received his professional education at Queen's College, Cork, and at one time held a lieutenant's commission in the Kerry Militia. In 1857 he was employed on the survey and construction of the Tralee and Killarney Railway, under the late Mr. W. R. Le Fanu, and subsequently on the survey and final location of the Mallow and Fermoy extension.

Towards the end of 1858 Mr. Robinson went to India to join the engineering staff of the Madras Railway, and on his arrival was entrusted with the survey of the North West Line, which

¹ Minutes of Proceedings Inst. C.E., vol. lxxii. p. 185.

work he completed up to the Pennér River. In 1861 he was placed in charge of the 3rd District, the construction of which had been retarded owing to the great difficulty in retaining labour in the feverish tract of dense forest traversed by this portion of the railway; but Mr. Robinson successfully carried out the heavy earthwork and bridging on 25 miles of this section, part of which forms the well-known "Balapalli Ghat." The most important work, however, on which he was engaged was the fine girder bridge of fifty-eight spans of 70 feet, exceeding $\frac{3}{4}$ mile in length, over the Tungabadhra River, near Raichúr. The masonry abutments and piers, some of which are over 40 feet in height, were erected by contract under Mr. Robinson's supervision, and the excellent quality and substantial character of the work challenge comparison with similar structures in other parts of India.

In 1874 he acted as Deputy Chief Engineer on open line, in which post he was confirmed in 1875, and it was during his tenure of that appointment that he had a marvellous escape in the disastrous accident which befel his inspection train on the 16th June, 1874. When running at the speed of 60 miles an hour the train suddenly left the rails while crossing the Papaghni Bridge, and plunged into the dry bed of the river. Mr. Robinson and the Resident Engineer extricated themselves from the débris somewhat severely bruised, but the inspector, who was in the same compartment, and the two firemen on the engine were unfortunately killed. His nervous system, however, suffered so much from the shock that he was compelled to return to England on sick leave. In 1876, on his return to Madras, he was appointed Chief Engineer, which post he held until his retirement in August, 1889, and during that interval on more than one occasion he acted as Agent and Manager, and as the Company's representative in India. His long residence of nearly thirty-one years in the tropics, combined with the effects of the accident referred to, gradually told on a constitution otherwise robust and capable of enduring much hardship, and he finally succumbed to the insidious ailment which developed itself during the last few years of his life. In his younger days Mr. Robinson was a fearless rider, an ardent sportsman, especially after large game, and an enthusiastic angler, having devoted much attention to the habits of fish found in Indian waters. In private life he was held in high esteem by those who knew him well for his large-heartedness, his generous and cheerful nature, and his genial disposition. Mr. Robinson was elected a Member of the Institution on the 6th December, 1870.