

death at Davos Platz, Switzerland, on the 8th February, 1901, at the early age of forty-eight.

Mr. Forman had a wide circle of friends, and was well known and highly respected in Scotland, and at the Parliamentary Bar as an engineer unusually powerful in the promotion of commercial enterprises. He was ever ready to give advice to all who might make him their confidant in matters of business or otherwise, and his quick perception and farsight, coupled with self-forgetfulness and a generous disposition, caused him to be burdened with many responsibilities regarding others. Mr. Forman's loss is much felt by many in Glasgow and the West of Scotland, and his short career is a remarkable instance of personal influence in stimulating both industrial and professional activity within his sphere of action.

In much of his work since 1888 Mr. Forman was more or less intimately associated with Sir John Wolfe Barry, K.C.B., Past-President, and at the date of his death was carrying out jointly with Sir John the Ballachulish extension of the Callander and Oban Railway.

Mr. Forman was elected a Member of the Institution on the 6th December, 1887. To the Engineering Conference of 1899 he contributed a Note entitled, "Economy in Handling and Transport of Minerals."¹

WILLOUGHBY CHARLES FURNIVALL, born in 1837, obtained his early engineering experience on the Great Western Railway of Canada, and in making preliminary surveys for railways in the Western States of America. About the year 1860 he was appointed a District Engineer on the Sind, Punjab and Delhi Railway, and was placed in charge of the construction of part of that line.

In 1867, when Lord Mayo, then Viceroy of India, determined that the Rajputana Railway from Delhi and Agra to the great Salt Lake at Sambhur should be constructed as a State line by the Indian Public Works Department, Mr. Furnivall joined that Department, and was placed in charge of the construction at first of the Delhi Section, and subsequently of the Agra Section in addition. His staff was largely composed of engineers who had little or no previous railway experience. His service to the State was thus of great value in training a body of engineers who were the earliest representatives of the important railway branch of the

¹ Minutes of Proceedings Inst. C.E., vol. cxxxviii. p. 385.

Indian Public Works Department. Some of those who began their railway work under him have held, or are now holding, the highest posts in that branch.

On the completion of the Rajputana Railway Mr. Furnivall was attached to the Government of India as Under Secretary in the railway branch, and afterwards he went as Joint Secretary to the Government of the North West Provinces at a time when the local railways were administered by the local government. Subsequently he had charge of the construction of the Bengal Central Railway, and of the extensions of the Nizam's State Railway, as well as of the working of the open line. Mr. Furnivall left India in 1890 after nearly thirty years of valuable and important work in that country, and returned to England full of health and energy. He soon found work which would have taxed the energies of much younger men, and until quite recently he travelled frequently to Italy and Sardinia, in connection with the supervision of important works and mines.

Mr. Furnivall died at Broadstairs on the 16th May, 1901. His abilities as an engineer, and his qualities as a friend and a chief, endeared him greatly to those who knew him, and specially to those who had served under him. To them his sudden death is a great loss.

He was elected a Member of the Institution on the 2nd December, 1862.

FRANK OWEN, second son of the late Mr. William Owen, of the Foreign Office, and grandson of Sir Richard Owen, was born on the 13th July, 1869. After attending lectures at the Royal School of Mines, South Kensington, he studied practical mining at the East Pool and the Tolgullow United mines in Cornwall in 1885 and 1886. During the following year he was a pupil of Mr. Benedict Kitto, assayer and analytical chemist, and in 1888 he returned to Cornwall and went through a course of mining surveying under Mr. James Henderson, of Truro.

In 1889 Mr. Owen assisted in an examination of the Mount Morgan Gold Mine in Queensland. From 1890 to 1894 he was Assayer and Reduction Officer at the mines of the Frontino and Bolivia Gold Mining Company in the United States of Colombia. He then filled a number of professional engagements, examining and reporting on gold, copper, tin, lead, zinc, and coal mines for London firms and companies, in the performance of which work he visited Norway, Spain, Mexico, the United States, South Africa,