

Horseley Company, Tipton, Staffordshire. Returning to London, Mr. Muriel superintended the building of a house at Chislehurst for Mr. Christie, and afterwards visited the principal cities on the Continent, remaining some months in Spain and Portugal, and acquiring a knowledge of the Spanish and Portuguese languages. In 1868 Mr. Muriel was clerk of works at the Southall gasworks. While there his intelligence and acquirements bringing him into notice, he was, although only twenty-seven years of age, appointed engineer and manager of the Ottoman Gas Company. He remained at Smyrna five years, resigning his appointment in 1874, in order to attend to urgent private affairs. After a short stay in England, Mr. Muriel accepted the post of engineer to the Bahia Gas Company, which up to that period had been unfortunate, and was (at the time Mr. Muriel went to Bahia) paying no dividend. Under Mr. Muriel's judicious management the shares of the Bahia Gas Company nearly doubled in value, and at the time of his death the Company was paying a dividend of $7\frac{1}{2}$ per cent. per annum. He was about to return home on leave of absence when he was attacked by the most virulent form of yellow fever, to which he succumbed, after three days' illness, on the 9th of April, 1881, aged thirty-nine.

Mr. Muriel's distinguishing characteristics were indomitable perseverance, great power of organisation, tenacity of purpose, and open-handed generosity. He was elected an Associate of the Institution on the 4th of May, 1872, and was also connected with several other societies, besides being a member of the Britannia Lodge of Freemasons (No. 33).

MR. JAMES JENKIN TRATHAN was born in Falmouth on the 7th of February, 1822, his parents being members of the Society of Friends. After the death of his father, who was a printer, the business was carried on by his mother, and her son, when his schooling was finished, assisted her. James Trathan was educated at a Quaker's school kept by a very intelligent man, Mr. Lovell Squire, who has long had charge of the Meteorological Observatory at Falmouth. The Cornwall Polytechnic Society was established at Falmouth by the well-known Quaker family, the Fox's. After a few years of struggling infancy, the institution obtained royal patronage, and Mr. Thomas Jordan—a man of unusual inventive powers—was appointed secretary, and the printing of the annual reports was entrusted to Mrs. Trathan. James Trathan was thus thrown into immediate contact with the clever secretary, and with

the high-class mining engineers, who became the judges of the various mechanical inventions which were annually submitted in competition for the prizes and premiums offered by the Society. This awakened in him the natural mechanical genius which the young man possessed. In 1840, Mr. Jordan being appointed the Keeper of Mining Records in the Museum of Practical Geology, Mr. Robert Hunt, F.R.S., became his successor, and James Trathan afforded him valuable aid, from the knowledge which he had obtained during the seven years he had been actively, though indirectly, connected with the Cornwall Polytechnic Society. A close intimacy was formed between Mr. Hunt and young Trathan, who always took great delight in the photographic and physical experiments which Mr. Hunt was then pursuing. A disastrous fire and a series of misfortunes compelled Mrs. Trathan to resign her business, and James Trathan sought employment amongst the engineers. He visited his old friend Mr. Jordan in London, but was not successful in meeting with an engagement. Then, through the influence of Mr. S. W. Jenkin, M. Inst. C.E., he obtained a situation on the works of the Liskeard and Caradon railway, at that time in course of construction; and acted as assistant engineer and superintendent of rolling stock. After the completion and opening of the line he was for many years traffic manager, indeed his connection with this line continued to within about twelve months of his death. In the year 1855 he became a member of the firm of Jenkin and Trathan, Civil Engineers, Liskeard, and in 1867 of the firm of Jenkin, Trathan, and Truscott, and was engaged on various works in connection with:—The East Cornwall Gunpowder Company, the Liskeard and Looe Union Canal Company, the construction of harbour works at Looe and Polperro, the Liskeard waterworks, the Lostwithiel and Fowey railway, the Newquay and Cornwall Junction railway, the Looe water and gasworks, the Bodmin waterworks, waterworks for the Cornwall County Lunatic Asylum, the Camborne waterworks, the Topsham waterworks, the Dorking waterworks, the Plymouth, Stonehouse, and Devonport tramways, Ivybridge drainage and waterworks, the Cornwall Minerals railway and other railways connected with that Company, and various other works of lesser magnitude. He was also for many years manager of the well-known Cheesewring granite quarries. During the last few years of his life he was obliged, by the state of his health, to retire in a great measure from active work. He died at Teignmouth on the 8th of June, 1880, in his fifty-seventh year. Mr. Trathan was elected an Associate of the Institution on the 1st of December, 1857.