

Three or four years before his death Mr. Humber fractured his knee-cap, and he never quite recovered from the effects of the accident. He died suddenly, from an apoplectic seizure, on the 14th of April, 1881. His connection with the Institution dated from his election as an Associate on the 6th of May, 1856.

MR. LAUHLAN ALEXANDER ENTWISTLE MACKINNON was born at Foxholes Hall, Rochdale, on the 3rd of June, 1843, and was educated at the Royal Naval School at New Cross. On leaving school he served an apprenticeship of two years to Mr. James Simpson, Past-President Inst. C.E., at the Grosvenor Engine Works, Pimlico, and subsequently acted as secretary during the building of the Furness Iron Company's works at Askam-in-Furness; and was also employed to take levels, both above and below ground, at the same mines, in succession to Mr. C. J. Clarke, Assoc. M. Inst. C.E. After some years passed in commercial pursuits, Mr. Mackinnon resumed the practice of the profession in 1873, entering the service of the Leeward Islands' Government as Superintendent of Roads, Bridges, and Public Works in Antigua. In 1878 he was removed to St. Kitts and Nevis, and he died on the 27th of February, 1881. Mr. Mackinnon was a man of an original turn of mind, and was constantly scheming new means of employing local resources in public works. He got great credit for the erection of a pile lighthouse at Sandy Island, Antigua, which has successfully withstood the furious hurricanes to which the spot is liable, and which had previously swept away two similar structures. A description of this work will be found in the Minutes of Proceedings, vol. lxiii., p. 255. He was also, at the time of his death, trying to induce the planters to make tramways on their estates, on an ingenious principle initiated by himself, for conveying the sugar-canes from the fields to the crushing mills.

Mr. Mackinnon was elected an Associate Member of the Institution on the 1st of April, 1879.

MR. GEORGE BROOKE MURIEL was the only surviving son of Mr. Brooke Muriel, of Sydenham, surgeon. He was educated at King's College, and in 1859 was articled to the late Mr. Christie, of King William Street and Bankside. On the completion of his term with Mr. Christie, he spent a few months at the works of the

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