

years afterwards he exhibited, at a conversazione of the Manchester Scientific and Mechanical Society, a model of this design, and gave explanations of it in the presence of many representatives of science and engineering.

In 1871 Mr. Leigh published a work giving the results of nearly half a century of practical experience of mills and mill machinery. It was issued in two large volumes, with numerous illustrations, under the following explanatory title: "The Science of Modern Cotton Spinning, embracing Mill Architecture, Machinery for Cotton Ginning, Opening, Scutching, Preparing, and Spinning, with all the latest improvements; also articles on Steam and Water Power, Shafting, Gearing and American system of Belting compared, Generation and Application of Steam criticised and explained, Boilers, Boiler Explosions, &c., all tending to show where the outlay of capital may be economised, and production cheapened."¹ This work is one of authority, circulating both in Europe and in America, and in 1875 had attained its third edition.

At the time of his death Mr. Leigh was in practice as a consulting engineer; he was also interested in the firm of E. A. Leigh and Co., machinery contractors and shippers, Manchester; Evan Leigh and Son, merchants and shippers, Liverpool; and F. A. Leigh and Co., importers of machinery, Boston, U.S. In 1863 he was elected a Member of the Institution of Mechanical Engineers, and he has taken an active part on its Manchester committee. On the 3rd of December, 1872, he was elected an Associate of the Institution of Civil Engineers. He was also an Associate of the Institution of Naval Architects, a Member of the Society of Arts, and in May 1875 he was elected President of the Manchester Scientific and Mechanical Society, of which latter society he was one of the founders in 1870.

Mr. Leigh had latterly become subject to chronic bronchitis, and this, aggravated by heart-disease, caused his death on the 2nd of February, 1876, in his sixty-sixth year. His loss is widely regretted, not only as a man of science, but for the unostentatious way in which he engaged in works of charity.

MR. WILLIAM CHADWELL MYLNE, the second son of the late Mr. W. C. Mylne, M. Inst. C.E., F.R.S., was born at the New River Head, Clerkenwell, on the 7th of February, 1821. He

¹ This work was presented to the Institution by Mr. Leigh, and may be consulted in the Library.—SEC. INST. C.E.

entered his father's office at an early age, and in November 1845 was appointed River Surveyor in connection with his father, the Engineer-in-Chief to the New River Company, who had himself succeeded, in 1811, Robert Mylne, the grandfather of the subject of the present notice. Mr. Mylne, for three years previous to his appointment, was an assistant in the New River Company's works, and he continued the duties of River Surveyor until the spring of 1875, when, from ill-health, he resigned this office and retired to Bath. Mr. Mylne's professional occupations were almost wholly confined to the service of the New River Company, whose extensive concerns necessarily absorbed almost his entire attention. At various times, however, he was engaged in other undertakings, and his last independent professional work was the successful construction, in 1869, of a deep shaft into the chalk at Coldbath Fields House of Correction, Clerkenwell, for a supply of water to that establishment.

Mr. W. C. Mylne was elected an Associate of the Institution of Civil Engineers on the 13th of April, 1847, and he died at Bath on the 14th of March, 1876, aged fifty-five.

MR. FRANCIS NAPIER, the second son of Mr. David Napier of Glenshellish, Argyleshire, and of Millwall, London, whose connection with the early history of steam navigation is well known, was born at Glasgow in the year 1820. He was educated at the Grammar School and University of that city, and studied marine engineering in the workshops of Messrs. Tod and Macgregor, on the Clyde. He was the inventor of the four-piston-rod engine still often met with on that river and elsewhere, and of which the first was fitted in 1842 on board the London, Ramsgate, and Dover steamer, "Isle of Thanet." In 1852 Mr. Napier went to Sydney, New South Wales, and was for some time manager of the Australasian Steam Navigation Company. Afterwards he was in business there on his own account for some years. Being more inclined for scientific pursuits than for practical engineering, he joined the expedition under Captain Cadell, equipped in 1867 by the South Australian Government for the purpose of exploring and surveying their northern territory. On this expedition he discovered a channel, now known as Cadell Strait, between Elcho Island and the mainland, the peninsula there bearing his own name. "An Account of the Natural History and Physical Geography" of this voyage, which he was preparing when he died, was recently communicated by one of his cousins to the Philosophical Society of Glasgow; also a note, "On the apparent