

In 1883, again under Admiralty instructions, Mr. Fishenden proceeded to New South Wales, to make arrangements and prepare designs for the establishments required in that colony for the use of the Imperial Navy. He returned to Portland in the following year and in 1887 was appointed Superintending Civil Engineer of the Western District, in which are included the Dockyards at Devonport and Keyham and the charge of Plymouth Breakwater. There he remained until 1890, when he was transferred to Chatham Dockyard in a similar capacity. The duties of the Superintending Engineer of a large dockyard, in which the construction of warships is being carried on, are of an onerous nature, and were performed by Mr. Fishenden with the ability and zeal he brought to bear upon everything he took in hand. One of his last actions at Chatham was to assist in receiving a large party of Students of the Institution who visited the dockyard on the 9th of May, 1895. Early in the following year he was transferred to his old station at Devonport, where he died on the 10th of April, 1896. Mr. Fishenden was elected a Member on the 5th of February, 1889.

JOHN WILLIAM GRAY, born on the 1st of October, 1828, at Montrose, was the son of Mr. Thomas Gray, general merchant and shipowner. As a boy he showed aptitude for mechanics, spending hours in working at the lathe and in making himself acquainted with the machinery in a flax mill, near Montrose, belonging to his father. At fifteen he was apprenticed to Mr. John Murray,¹ then Engineer to the River Wear Commissioners. During the next four years he was employed, at first under Mr. Murray and subsequently under Mr. Thomas Meik,² on Sunderland Harbour works and on marine surveys for the South Docks at that port. He was next engaged, from 1847 to 1852, in assisting Mr. W. C. Mylne³ to carry out extensive works for the New River Company, after which he spent five years in the service of the East London Waterworks Company, under Mr. Charles Greaves.⁴ In 1858 he returned to Mr. Mylne and for the next three years was occupied in re-arranging the system of supply in the New River Company's district. From 1861 to 1864 he was again employed by the East London Company, after which he set up in business on his own account. Among his first works were

¹ Minutes of Proceedings Inst. C.E., vol. lxxi. p. 400.

² *Ibid*, vol. cxxv. p. 410.

³ *Ibid*, vol. xxx. p. 448.

⁴ *Ibid*, vol. lxxvi. p. 355.

the erection of rifle butts at Wimbledon and the preparation of a report on some proposed harbour works at Holywell on the Dee. He then spent some months in Russia reporting upon schemes for the water-supply and tramway system of Odessa.

On his return to England Mr. Gray was appointed Engineer to the Birmingham Waterworks Company. At that time—January, 1866—the Company was unable to provide an adequate supply of water and Mr. Gray at once advised various extensions, which were duly carried out under his direction. The pumping power at Aston was increased and a deep well was sunk there, water being also obtained from other new wells. In 1876 the works of the Company were purchased by the Corporation of Birmingham, Mr. Gray being retained as Engineer. He then sank a deep well at Selly Oak, and constructed a large storage reservoir at Shustoke, besides improving and enlarging the works at Plant's Brook, Aston, King's Vale and Longbridge, and also advised and carried out the installation of hydraulic power now at work. But the rapid increase of population rendered these measures inadequate, and the question of further sources of supply became one of grave moment. He then advised the Water Committee to seek for fresh sources of supply and recommended that they should take into consideration a modification of the scheme proposed by Mr. (now Sir Robert) Rawlinson in 1871, viz., to bring water from the gathering grounds of the Elan and Claerwen, tributaries of the Wye, in Mid-Wales. Mr. Mansergh, who was called in, confirmed Mr. Gray's recommendation. It was intended that, while Mr. Mansergh should be responsible for the works in Wales and for the construction of the conduit to Hagley, Mr. Gray should have charge of the section between Hagley and Birmingham. Unfortunately, however, his health failed, and in July, 1894, Mr. Gray retired, the City Council granting him a pension of £600 per annum on the understanding that his services should still be available in a consultative capacity.

Mr. Gray did not long enjoy his well-earned leisure. His health gradually became worse and for the last year he was practically confined to his bed. He died at his residence in Leamington on the 14th of August, 1896. He was a man of a large heart and generous nature, always ready to assist anyone in distress, and a kind and genial chief. He was a keen sportsman, never more happy than when thrashing a stream or tramping the moors with dog and gun. He was also a horticulturist of no mean ability. Mr. Gray was elected a Member on the 7th of May, 1872.
