

Davis remained with that firm until 1872, and during ten years of that time he was manager of the design department. He was next for five years manager to Messrs. Nasmyth and Wilson, and while there a 100-ton steam-hammer was made under his supervision, subsequently erected at Woolwich Arsenal under his personal care.

In 1877 Mr. Davis left Patricroft and established himself in London as a Consulting Engineer. During the following sixteen years he was engaged upon work of a varied character, for the Majorca Railway Company, the Salt Company of Ibiza and the Flour Mills Company of the Balearic Islands. He carried out under difficult conditions the narrow-gauge railways in the Island of Majorca and also large flour and jute mills, together with the necessary water-supply. For some years he acted as Consulting Engineer and Agent in London for the Egyptian Railway Administration, and was rewarded by the Khedive with the Order of the Medjidieh for his services in connection with the railway during the last war in Egypt. About the year 1893 Mr. Davis unfortunately developed brain trouble and from that time he was obliged to retire from active work. He died at his residence, Albert House, Sutton, Surrey, on the 20th of February, 1896. Mr. Davis was elected a Member on the 7th of March, 1882.

ELIAS DORNING, born on the 25th of January, 1819, was articled to the late Mr. William Benson, of Bury, in 1836. After serving a pupilage of five years, he was engaged from 1841 to 1843 as Resident Engineer on the Bury Waterworks. Mr. Dorning then commenced to practise on his own account in Manchester as a civil and mining engineer, surveyor and land agent. He became connected with many large works during the early stages of railway development, including extensive Parliamentary surveys and valuations of properties involved, and rapidly extended his business. He was associated with Sir Thomas Bouch¹ in the purchase of land for the Eccles, Tyldesley and Wigan branch of the London and North Western Railway, and he performed similar work for the North Union Railway, the Cheshire Lines Committee and the Wirral Railway Company. He acted as surveyor for the Lancashire and Yorkshire Railway until that Company appointed a permanent surveyor on its staff. He again

¹ Minutes of Proceedings Inst. C.E., vol. lxiii. p. 301.

acted for the Company, however, in connection with the purchase of land for the Manchester, Swinton and Hindley line to Wigan.

As a consulting engineer Mr. Dorning acted for the Earl of Derby, the Earl of Sefton, the Earl of Wilton and many other landowners in the north. He was standing arbitrator for the Corporation of Manchester, for which body he purchased 25 miles of land required for the Thirlmere conduit pipe. He was frequently engaged for other corporations in Lancashire and also as a witness in engineering and compensation cases involving large public and private interests. Mr. Dorning had been sitting for three days as arbiter in a case arising out of the purchase of land by the Liverpool, St. Helen's and South Lancashire Railway Company, when he was taken ill. He died at his residence, Pendlebury Cottage, Manchester, on the 18th of July, 1896, at the age of 77. Mr. Dorning was elected a Member on the 6th of December, 1864.

FREDERIC GEORGE FISHENDEN, born on the 31st of July, 1832, was the son of Mr. William Fishenden, of Sheerness. At the age of seventeen he became a pupil in the Engineering Department of Sheerness Dockyard, where he remained for two years. He then obtained further practical training in the shops of Mr. Hall, contractor for fortification works on the Medway, after which he was engaged for three years as Assistant to Mr. J. Harrison in carrying out drainage and other works in that district for the War Department.

In 1857 Mr. Fishenden entered the Director of Works Department of the Admiralty, in which he served for nearly forty years. He was at once sent to Bermuda, where he remained for five years as Foreman of Works during the reconstruction of the dockyard and other naval establishments. From 1862 to 1871 he was employed, under Mr. Richard Townshend,¹ on the heavy and costly work of extending Keyham Dockyard. In 1872 he was appointed Clerk of Works on the Chatham Dockyard extension, and between that date and 1879 he carried out, under Admiralty orders, extensive works in connection with the reconstruction of the Cape of Good Hope Naval Establishments. On returning to England he was appointed Assistant Civil Engineer in charge of the harbour and breakwater at Portland, including the extensive Government quarries in the island and the supervision of the Admiralty Works in the district.

¹ Minutes of Proceedings Inst. C.E., vol. xciii. p. 492.