

the line, and was subsequently engaged as Locomotive Superintendent. He held that appointment for more than twenty years, from 1871 until his retirement in 1892.

Mr. Urquhart was greatly interested in the subject of liquid fuel in locomotives, and after conducting some experiments in 1874, he successfully introduced a method of burning oil-fuel in the engines of the Grazi-Tsaritzin Railway, with the result that by 1885 oil-fuel had supplanted coal over the whole system. He subsequently published several pamphlets on the subject of his researches, and was the author of Papers read before various engineering societies, among which may be mentioned his note on "Communication in Trains," contributed to the Proceedings of this Institution.¹ He was awarded two gold medals by the Russian Government for his services to railway engineering.

After his retirement Mr. Urquhart occupied himself chiefly with the care of his estate at Delny, where he carried out many improvements, and with local affairs, in which he took a keen interest. He was a Member of the Institution of Mechanical Engineers and of the Imperial Institute.

Mr. Urquhart was elected a Member of the Institution on the 1st March, 1887.

WALTER HENRY WILSON, a member of the shipbuilding firm of Messrs. Harland and Wolff, Belfast, died suddenly on the 4th May, 1904, in his sixty-fifth year, terminating an association with the Queen's Island works which had lasted nearly fifty years, during which time he rose from an apprentice to be a partner in the firm.

Born in Belfast on the 15th November, 1839, the subject of this notice was educated at the Gracehill Schools and at Chester College. At the age of 16, he was apprenticed to the shipbuilding firm of Messrs. Robert Hickson and Company, who two years previously had appointed as their manager Mr. E. J. Harland, afterwards Sir Edward Harland, Bart. In 1858 the business passed into the hands of Mr. Harland, who was joined later by Mr. Wolff, Mr. Wilson continuing in the service of the new proprietors. On completing his apprenticeship in 1861, Mr. Wilson

¹ Minutes of Proceedings Inst. C.E., vol. cvi. p. 277.

was given a place in the drawing-office, and in 1863 his ability and devotion to duty bore fruit in his appointment to the position of chief draughtsman. After retaining that post for five years, he was promoted to be sub-manager in 1868, and two years later, the business having greatly developed in the interval, he became general manager of the works. As general manager he continued until 1874, when he was taken into partnership. Thenceforward, until his retirement a few years ago, Mr. Wilson shared with Sir Edward Harland the active direction of the affairs of the Belfast firm, which was enabled, by the experience, energy and foresight of its principals, to play a prominent part in the remarkable development of shipbuilding and marine engineering which took place in the latter half of the nineteenth century. During Mr. Wilson's connection with its fortunes the business developed from a small factory employing less than a hundred hands into a great shipbuilding and engineering establishment covering an area of more than 50 acres and giving employment to thousands of workmen.

A man of quiet tastes and of reserved demeanour in public, Mr. Wilson's kindly disposition and attractive social qualities showed to best advantage among his friends and in the home life to which he was so strongly attached. He was not, however, unmindful of his responsibilities as a large employer of labour and a prominent citizen, and always took a keen interest in the welfare of his workmen and in local affairs. He was closely identified with the old Working Men's Institute and helped to found the new Technical Institute in Belfast. The Midland Railway Company appointed him to the directorate of the Northern Counties Railway of Ireland, when it took over the line; and besides being a Justice of the Peace, Mr. Wilson, at the time of his death, filled the office of President of the Chamber of Commerce in his native city. He was a Member of the Institution of Naval Architects and of the Institution of Mechanical Engineers.

Mr. Wilson was elected a Member of this Institution on the 1st December, 1891.
