

River Orwell and the Port of Ipswich,"¹ for the latter of which he received a Council Premium of books, Session 1860-61.

Mr. Hurwood was a quiet unobtrusive man; he was not only a skillful mechanic and a good Engineer, but he possessed clear judgment, and he had by study and extensive reading well stored his mind. He was highly respected by his employers and by his fellow townsmen, by whom he was much regretted as a useful member of society.

MR. JAMES JONES was born in London April 6th, 1790, and was, during the early part of his career, in business as a copper and tin worker, having an establishment near the London Docks, the engineering department of which was at that time under the direction of Mr. Telford, as Engineer-in-chief, represented by the late Mr. H. R. Palmer, V. P., by whom he was employed to execute some models of machines. These were completed in such a satisfactory manner as to induce a considerable intimacy between the two, then, young men, and led to Mr. Jones being eventually offered a position under Mr. Palmer, whose principal assistant he ultimately became; assisting him in several ingenious inventions, particularly in the introduction of corrugated iron, for which Mr. Palmer took out a patent. He also became the contractor for the maintenance of the machinery at the Docks, which he continued for a considerable period, only leaving that position to take the appointment, in 1831, of 'Resident Mechanist and Engineer' at the St. Katherine's Docks, for which he was highly recommended by Mr. Telford and Mr. Palmer, and which he held until the year 1836.

When Mr. Palmer undertook, in 1838-39, the construction of the dock at Ipswich, Mr. Jones was appointed the chief Assistant-Engineer, and he executed all the details with such skill and ingenuity, that on the completion of the works, in 1842, he was appointed manager of a part of the engineering establishment of Messrs. Ransomes and Co., of Ipswich, and he held that post until the year 1852, rendering efficient aid in developing the process of manufacturing compressed wood fastenings for railways, patented by the late Mr. Charles May (M. Inst. C.E.), a member of the firm, as also in the ordinary proceedings of the engine-building department of the works. The details of the construction of the Altazimuth instrument, designed in 1845 by the Astronomer Royal, were also mainly under his charge.

In 1852-53, Mr. Jones quitted Ipswich for the appointment of Engineer of the Oxford Waterworks, with which he combined other duties in connection with the local improvements of that city, a

¹ *Vide* Minutes of Proceedings Inst. C.E., vol. xx., p. 4.

position which he held with great credit until the year 1864, when he lost his life by a melancholy accident. He had gone to the brewery of Mr. Evans, Cowley Road, Oxford, on the afternoon of Tuesday, the 24th April, 1864, to give some instructions relative to the water-pipes, when, whilst walking on a stage above the vats, he stepped aside to allow one of the workmen to pass, and fell into a vat of boiling liquid; he was speedily rescued from the dreadful position, and was removed to the Radcliffe Infirmary, where, in spite of the skilful attention of the medical officers, he was released from his severe sufferings early in the morning of Wednesday, the 25th April, 1864, in the 74th year of his age. At the investigation into the cause of the accident, very high testimony was borne by the authorities of the city of Oxford as to the value of the services rendered by Mr. Jones, and to the general estimation in which he was held by all who knew him. He possessed more than a common share of ingenuity and experience as a mechanic, and his memory was so tenacious that he was a walking encyclopædia of inventions and experiments. He was a strictly conscientious man; industrious, careful, and upright in all his dealings; and in his position few men have laboured more strenuously and consistently for the benefit of the profession to which he was devotedly attached.

About the year 1817, James Jones was taken into the counsels of Henry Robinson Palmer and Joshua Field, relative to the formation of a small mutual improvement society, to be composed of a few young Engineers. To them were soon added William Maudslay, Charles Collinge, and James Ashwell, and the first meetings were held in a small room in the Strand, James Jones acting as secretary and treasurer, to which combined posts he was formally elected on the 6th of January, 1818, the six founders of the Society having previously constituted themselves Members on the 2nd of that month. Thus was established the Institution of Civil Engineers, speedily countenanced by Telford; and, by the energy of its founders, supported, under many difficulties, until it obtained a Royal Charter, and eventually attained its present important position in the scientific world. It may be imagined with what pleasure Mr. James Jones watched the progress of a Society, to the formation of which he had contributed such efficient aid, and that this feeling was reciprocated by the Members, was shown by the unanimous resolution of the Council to erect a tablet to the memory of their first Treasurer and Honorary Secretary.

MR. EDWARD OLIVER MANBY, the fourth son of the late Mr. Aaron Manby (M. Inst. C.E.), was born at Horseley,