

engines, combining the use of steam and ether; and although this system has not hitherto obtained extensive application, the results of the careful and numerous trials he made in the steamers of the African and Brazilian Line, cannot fail to be a useful addition to marine engineering knowledge. Mr. Jameson received the Watt Medal of the Institution of Civil Engineers, for his Paper on the performance of the Combined-Vapour Engine,¹ read in 1859, before the Institution.

After leaving Marseilles, he received the appointment of Engineer and Agent of the Oriental Inland Steam Navigation Company of India, whither he proceeded in May, 1859. His attention was first given to the operations of the Company on the Indus, but his stay at Kurrachee being limited to a few months, his labours were confined to the collection of facts relative to the working of the 'steam train' system of navigation, peculiar to the operations of that Company. He then went to Calcutta, in order to establish a 'steam train' on the Ganges. He promptly commenced this undertaking, and the experience he had acquired on the Indus, aided by his thorough knowledge of marine engineering, would, doubtless, have produced important commercial and scientific results, had his health not proved unequal to the heavy professional labours he underwent, in a climate unsuited to his constitution. He died at Calcutta, on the 1st of June, 1860, after a brief illness, adding another to the long list of Englishmen who have fallen in India in the cause of science.

Mr. Jameson's abilities as an Engineer, promised to raise him to an important rank in the profession. He was highly esteemed by all his employers, and he always earned and retained their respect. He was conspicuous for his unimpeachable integrity, and he was always careful, that his conduct should respond to the exalted idea he entertained of his profession, of which he possessed such considerable knowledge, that his opinion might, at all times, be safely relied on. He was devoted to the investigation of principles, but he by no means under-rated the importance of practical knowledge and the study of details. He joined the Institution as an Associate in May, 1859, and if his life had been spared, he would probably have become a very valuable Member of the Society, among whom he had many friends.

MR. WILLIAM SAYCE was brought up as a Land Agent and Surveyor, in which capacity he held a high position at Abergavenny. He was, during several years, in partnership with his Brother, the late Mr. Morris Sayce, at Kington, in Herefordshire,

¹ *Vide* Minutes of Proceedings Inst. C.E., vol. xviii., p. 233.

where they carried on a large and lucrative practice; and at that period, he was employed in laying out and in constructing some of the local tramways and turnpike roads of Herefordshire and Radnorshire. During the railway mania of 1845, he was extensively engaged on the preliminary surveys of several projected railways. In 1847, when he joined the Institution as an Associate, he had been in business on his own account for upwards of twenty years, and he was then employed by the Hereford, Newport, and Abergavenny Railway Company, which line he had previously surveyed, to value the property through which it passed. He continued to practise his profession to the period of his decease; but from his constant residence in Wales, he was rarely able to take any active part in the proceedings of the Institution, to the interests of which he was much attached.

MR. WILLIAM SIMMS was born on the 7th of December, 1793, at Birmingham, whence he was shortly afterwards brought to London by his parents, by whom he was apprenticed to Mr. Bennett, a mathematical instrument maker of considerable ability and reputation. At the expiration of his apprenticeship, he commenced business on his own account, and shortly afterwards, becoming a Member of the Society of Arts, he made the acquaintance of the late Mr. Bryan Donkin and Mr. Francis Baily, who introduced him to Colonel Colby, the then Director of the Ordnance Survey, for which branch of the public service, he was intrusted with the construction of a great number of theodolites. In 1826, he entered into partnership with the late Mr. Edward Troughton, on whose retirement, at the end of seven years, he became sole proprietor of the business in Fleet Street, which enjoyed such high and deserved reputation, for the accuracy of the instruments manufactured at that establishment.

In 1828, he became an Associate of the Institution, and during many years he was a constant attendant at the meetings. In 1834, he delivered, at the request of the then President, Mr. Telford, a lecture on the Edinburgh Mural Circle, which he had just completed, and upon the subject of Graduating Astronomical Instruments.¹ He constructed instruments for many foreign observatories; and the Royal Observatory at Greenwich contains several specimens of his skilful workmanship, particularly the optical part and the graduation of the transit circle, the altazimuth instrument, &c. The Cambridge mural circle was also constructed by him. He made great improvements in the art of

¹ Vide MS. Minutes of Conversation, Inst. C.E. Also a Paper in Phil. Trans. 1809, p. 105, "On a Method of dividing Astronomical and other Instruments, &c.," by Edward Troughton.