

In the spring of 1868 he, in conjunction with Mr. Prebble, Assoc. Inst. C.E., undertook the surveys of the Witepsk Kiew line of railway. In January, 1869, he took charge of the works of the Mediasch section, of 13 miles, of the East Hungarian railway, which embraced in its course several river diversions and stations, as also the yard for the construction of the contractor's plant. In the summer of 1870 he resigned this appointment, in order to assist Mr. Hodges in carrying out the extensive harbour and reclamation works at Callao, Peru. This was the last contract of the late Mr. Brassey, Assoc. Inst. C.E., and in importance and magnitude may be classed with any of the works undertaken by that gentleman. The works, which took nearly five years to complete, inclosed 52 acres, and provided accommodation for twenty-five to thirty large vessels, besides reclaiming an area of $13\frac{1}{2}$ acres of building ground, the whole of which was drained, paved, laid out in streets, and lighted with gas.

On the completion of the harbour in March, 1875, Mr. Gooding returned to England, and was elected an Associate while engaged upon the preparation for the society of a detailed description of the important works he had helped to carry out with such success and credit. Towards the close of the year, however, his health seemed suddenly to break up, and after a few weeks' illness, he died on the 17th of December, 1875, when only thirty-eight years of age, regretted by a circle of friends such as is acquired by few men of his age.

SIR WILLIAM JACKSON, Bart., was born at Warrington, in Lancashire, on the 28th of April, 1805. He was the seventh son of Mr. Peter Jackson, who practised there successfully as a surgeon, and of Sarah, daughter of Mr. Henry Mather. Sir William's mother had, at the time of her marriage, considerable wealth, but her fortune being dissipated by mismanagement and dishonesty, she found herself at her husband's death, in 1810, with a large family of children and but small means. Soon afterwards a removal was made to Liverpool, which seemed to offer better prospects for placing out a family than the comparatively small town of Warrington. William was at first sent to a merchant's counting-house, and as the custom then was, took weights at the ship's side from six in the morning till late at night; but he thus obtained an insight into the detail of commercial life which he

never lost. Before long, however, the firm by whom he was employed gave up business, and the boy, for such he still was, without consulting any one, apprenticed himself to Mr. Hunt, who carried on business in Church Street, Liverpool, and in whose service he succeeded in winning general esteem. On finishing his apprenticeship, he at once started on his own account, and though only twenty-one years of age, his family were glad enough to trust the means they had left to his care. A few years sufficed to make him known as a man of great enterprise and judgment, and to induce Messrs. John and William Hamilton (who were possessed of what was then looked upon as a considerable capital) to join him and his brother in partnership. The firm of Hamilton, Jackson, and Co. had a short but brilliant career. One of the Jackson Brothers had visited the West Coast of Africa, whence he brought home accounts of possible barter, and even hopes of permanent trade. This resulted in ship loads of Manchester and other goods being exchanged for palm oil, ivory, and gold dust, to the great advantage of the Liverpool house. Competition was not so warm then as now, and by 1841 the firm was dissolved, each partner taking with him a handsome fortune. Afterwards, in a maiden speech in the House of Commons, Sir William referred to his commercial relations with the West Coast of Africa, and asserted then, as indeed he did on all occasions through life, that the slave trade had received its greatest blow by the establishment of trading factories, and that its ultimate suppression would be best served by the development of commerce.

Mr. Jackson married, in 1829, Elizabeth, daughter of Lieutenant Hughes, a half-pay officer, who held some post under the Corporation of Liverpool. To the careful devotion and unvarying attention of this lady he owed much of his success in life; whilst her genial manner and graceful hospitality made his house a rendezvous for a rapidly increasing circle of friends. Shortly after his marriage he went to reside at Birkenhead, and at once appreciated its future, taking an active part in the government and politics of this new town. He was soon chosen one of the Improvement Commissioners, and while the place was in its infancy, he joined the late Mr. Brassey, Assoc. Inst. C.E., in purchasing land, in developing which, by laying out streets and building houses, he expended large sums of money. He was an active promoter of the Chester and Birkenhead railway, and was at one time Chairman of the company. It was in connection with this enterprise that he met the late George and Robert Stephenson, the acquaintance ripening into friendship, and con-

tinuing unbroken till they died. At the same time he established the gas and waterworks for the town—the latter were laid out by George Stephenson—and at a later period he projected the magnificent public park there, which was carried out under the personal direction of the late Sir Joseph Paxton, Assoc. Inst. C.E. Mr. Jackson was also one of those who took an active part in the projection and formation of the Birkenhead Docks. The family of the late Mr. John Laird, M.P., jealously claimed the original conception for Mr. William Laird, the founder of their family, and Mr. Jackson himself admitted that claim; but that was years before the scheme was practicable, and certainly Mr. Jackson had as large a share as any one in the labours which actually carried it into execution. As an instance of Mr. Jackson's courage and determination, the purchase by him of the Woodside Ferry may be noted at a time when it "had to be sold," and the transfer by him of this purchase to the township, without profit, when the township saw they had lost a chance. This ferry has proved a lucrative property for the town, and had Mr. Jackson retained it, would alone have secured for him a large fortune.

On retiring from commerce in 1841, Mr. Jackson invested a large part of his fortune in the Birkenhead enterprises, and the fact that he had capital of his own probably enabled him to weather the storm which in 1847 proved fatal to many of his competitors. Although all the anticipations of some of the earlier founders of Birkenhead may not have been realised, still there is the town (which when Mr. Jackson went there had but fifteen hundred inhabitants) with its sixty thousand souls, its streets, its dock, its railways, its parliamentary representation, and its assured future. With this result Sir William Jackson's name will ever be closely connected.

But Birkenhead after all was the field of part only of Mr. Jackson's career, and of only half his work. He was directly interested, with the late Mr. Brassey, in constructing the Victor Emmanuel, the Maria Antonia, the Maremma, and many of the other principal railways in Italy, and also in the Grand Trunk railway of Canada. When the Northern railway of Canada was *in extremis* Mr. Jackson came forward and, jointly with Mr. Brassey, reconstructed it, taking payment to the extent of £200,000 sterling in bonds which were at the time unmarketable, and had the satisfaction of seeing his estimate of the value of this undertaking justified by the result. Mr. Jackson was one of the original proprietors of "The Daily News," a journal which was designed to inaugurate a cheap press, and which has fulfilled its intention,

though at the expense of the original adventurers. His courage and determination led him to despair of nothing, and his friends not unfrequently joked at his fondness for a doubtful investment. In this spirit he joined the board of the Great Eastern Steamship Company when an attempt was made to popularise it; and at a later period he instilled hope into the despairing shareholders of the Imperial Mercantile Credit Company while in liquidation, and by his example and force of will showed them how to save their own property from the ruin for which neither he nor they were responsible.

Sir William Jackson was associated with many other enterprises. He was essentially a Producer. Safe income-yielding investments had no charm for him; as fast as he made money he put his earnings into something which would, in however small a degree, increase the wealth of the world, and thus he earned the praise, that no one was ever the poorer for any money he made.

For many years he was a partner in, and at his death he was the sole owner of, the Clay Cross Coal and Iron Works in Derbyshire. This concern was started by George and Robert Stephenson in connection with the late Lord Wolverton, Mr. George Hudson, Sir Joshua Walmsley, Sir Morton Peto, and others. Gradually all their interests were acquired by Mr. Jackson. He was also the principal owner of the Bettisfield Colliery at Bagillt in Flintshire.

In 1847 Mr. Jackson entered Parliament as member for New-castle-under-Lyne. He continued to represent this borough without interruption till 1865, when he was returned without opposition for the Northern Division of the county of Derby. By the Reform Bill of 1867 that division was subdivided into the Eastern and the Northern. Mr. Jackson elected to stand for the Northern division. At the last moment an opposition sprang up, and the wave of Conservative reaction, which had even then plainly been discerned, flowed into Glossop and the manufacturing districts around, and lost him the seat by a small majority. Shortly after this his health completely failed, and he spent the rest of his days in retirement. Notwithstanding much suffering, he retained his cheerful disposition, and kept up his interest in public matters unimpaired; but in January 1875 Lady Jackson died, and from that time he waited quietly for his own end, which came suddenly on the 30th of January, 1876, when he was in his seventy-first year.

In 1869 he was created a baronet, in recognition, as Mr. Gladstone told him in announcing the distinction, of the eminent services he had rendered to the commercial and manufacturing

interests of the country. Sir William Jackson was a magistrate and deputy-lieutenant for the county of Chester. In politics he was a consistent and hearty Liberal, of what was in his day considered rather an advanced type. But his political temperament was always controlled by good common sense, and he was a thoroughly trusted party man. He did not often speak in Parliament, but when addressing the House was always, notwithstanding some provincialisms which he retained to the last, listened to with attention.

Sir William Jackson was elected an Associate on the 7th of December, 1852.

MR. ELIHU HENRY OLIVER was born on the 8th of November, 1839, at Newcastle-on-Tyne. His early education was pursued at the school of the Society of Friends at Ackworth, Yorkshire. In June 1858 he was articled for five years to Mr. Matthew Liddell, to learn the profession of a Mining Engineer, and he availed himself of the opportunities thus enjoyed. After leaving Mr. Liddell he went to China, and arrived at Shanghai in November 1864, accepting a situation at once as an assistant to Mr. F. H. Knevitt, an architect there. In August 1865 he was appointed Assistant Engineer under the late Mr. John Clark, M. Inst. C.E., at that time Engineer to the Shanghai Municipal Council; in February 1866 he became Surveyor to the Council, and in November 1868 Engineer, which post he held till his death. In these latter positions he had sole charge of the engineering works in the foreign settlements (excepting the French), the population of which in 1875 was seventy thousand, of whom, however, only about three thousand were foreigners, not including the shipping. He carried out successfully the main-drainage scheme of the settlements, which was difficult owing to the flat and low nature of the ground; and although necessarily expensive, the sanitary improvement of the town has since been very marked. He designed and erected several iron and wooden bridges, landing-stages with floating pontoons, buildings, &c., and formed and made several important roads in the town and its vicinity. But, possibly, the greatest improvement was filling up a large portion of the foreshore of the Shanghai Bund, and converting it into a public garden, which he laid out with great taste. The new wooden "Garden Bridge," across the Soochow Creek, built from his designs, was formally