

partnership with other contractors, were mainly in the various systems now grouped under the Great Eastern, and London and South-Western Railways; amongst the former may be named the Colchester and Ipswich, the Ipswich and Bury, the Haughley and Norwich, the Sudbury, Bury St. Edmunds and Cambridge, the Epping, and Dunmow Railways; amongst the latter the North Devon, the Portsmouth direct, and the Salisbury and Yeovil Railways. Outside of these, the Runcorn Branch Railway, on the London and North-Western system, with its important bridge over the Mersey, a portion of the Thames Embankment, and the Metropolitan Mid-level sewer, may be mentioned. The chief foreign works undertaken by him were the Mauritius, the Central Argentine, and the Buenos Ayres and Ensenada, Railways, and the Rio de Janeiro drainage. It may be of interest to state that Mr. Ogilvie executed over £10,000,000 worth of work, out of a total of over £30,000,000 tendered for, and that the actual practical control in the various partnerships fell very largely into his hands. He was elected an Associate of the Institution on the 7th of May 1850, and served as a Member of the Council in the Session 1864-65.

WILLIAM CHARLES RICKMAN, who was born on the 12th of January, 1812, met with instantaneous death on the 21st of June 1886, as the result of a carriage accident, in his seventy-fifth year. Mr. Rickman has special claim to notice from the fact that he was a son of Telford's executor, and the editor of the magnificent work descriptive of the labours of the first President of the Institution.

The subject of this notice was educated at Dr. Buckland's, Laleham, at Westminster School, and at Christ Church, Oxford, obtaining his B.A. degree in 1831; he also noviciated as an architect, having served a pupilage to Mr. Decimus Burton, the well-known architect, and had made the European travelling round of study; but, possessed of independent means, he never seriously followed the profession as a vocation. Before his school days he turned out a fire-engine and a reproduction of the Roman catapult. In 1834 he was engaged in an experimental enquiry respecting the best position for weight as regarded draught of vessels, in which no doubt he was in touch with his intimate ally, old school-fellow and friend, Froude. In 1836 he was stationed at St. Catherine's, Isle of Wight, as a volunteer, from being on very intimate terms with Mr. Walker, Past-President Inst. C.E., the Engineer to

the Trinity Corporation, who was then erecting the present ornate tower and dwellings, taking the place of the early tower on the Downs from the last being so frequently obscured by fog. These buildings, designed or worked out by Mr. M. A. Borthwick, are of a bastard castellated Gothic type, and Rickman from his education was well adapted to overlook the working out of their details. The buildings were founded on the Undercliff, a mass of rock of unusual size in the débris being selected as the foundation for the base of the octagonal tower. When the lantern was being fixed, and the keeper's dwellings were being slated, some ugly but minute fissures made their appearance on the landward side of the site of those buildings, and it was found that the tower had inclined slightly seaward. A careful survey was made of all the surface fissures, in which Rickman assisted, resulting in the adoption of surface contour drains to assist the drainage from the upper cliffs and convey it seaward around the flanks of the site. The drains were so far successful that, after half a century's usage, the works are intact. Here Rickman displayed that kindness and philanthropic spirit he afterwards showed in his own neighbourhood, by directing the studies and lending books to the more ambitious of the workmen employed by the contractors to the Trinity Corporation. In his own private circle, his intimacy with such men as Lefroy, the Secretary to the Speaker; the Rev. Cyril Page, the first incumbent of Christ's Church, Westminster; William Froude, M. Inst. C.E., and some others, who were all members of a social club, founded by them, is indicative of the man's character.

He passed a great portion of his middle life abroad. Marrying somewhat late, and settling down in Charles Kingsley's nook of Hampshire, and in his own parish of Lithanger, near Petersfield, he erected schools and devoted time to the education of the children of his fellow-parishioners, and to popular readings and addresses. The great advantages he had himself derived from superior educational facilities, combined with very engaging manners and a remarkably handsome presence, rendered him essentially effective in such endeavours, which, however, mainly emanated from very earnest religious feelings.

From 1848 to 1851 he was engaged on various naval investigations and improvements; the "American keel" amongst others, which he tested in Wexford harbour, where he assisted a friend in 1851 to start a yard for the manufacture of drain tiles. About this period he read a Paper before the British Archæological Association on the probable means employed to move the monoliths to and at Stonehenge. Several national industrial exhibits

were sent by him to the Great Exhibition of 1851 from Ireland, and numerous mechanical contrivances, in his house at Lithanger built by him in 1849, testify to his genius in this respect.

In a funeral sermon preached by the Rev. Evelyn Joseph Hone, M.A., Vicar of St. John, Deptford, at Empshot, Hants, on the Sunday following his death, passages occur referring to his absolute integrity, his invincible kindness, his indefatigable energy, and his faith; for although "he had his seasons of depression—seasons of anxiety and of fear—yet his faith never failed, and for the most part it was simply triumphant." An eloquent tribute was offered to his natural and acquired abilities, to his originality in mechanical contrivance, to his fine cultivated taste in art, to his knowledge of ancient and modern poetry, to his eminence as a reader from sympathy with author and audience, and to his grace in letter writing.

Mr. Rickman was elected an Associate of the Institution on the 24th of April, 1838.

SANCTON WOOD was born at Hackney, in the year 1815. His father, Mr. John Wood, who was a member of an old and prosperous Cumberland family, had, when a young man, quitted his native county to enter into business in London as a "Manchester Merchant;" from thence he married a Miss Harriet Russell, niece of the eminent painter, Mr. Richard Smirke, R.A.

Six children were born of this marriage, the youngest child and only son taking his distinctive Christian name from an uncle, Mr. Philip Sancton, a successful London Merchant, who had married his father's sister. As a boy, Sancton Wood does not appear to have received any great educational advantages so far as school life was concerned; he was first placed by his father at a small private school in Devonshire, and was afterwards transferred to a school in Birmingham presided over by Mr. T. R. Hill, the father of Sir Rowland Hill, C.B. This school was conducted on a somewhat unique "Voluntary" system, which attracted some attention at the time, and certainly had its measure of success, if Mr. Hill's own sons may be taken as examples. It is to be doubted, however, whether such a system could possibly produce high results with the majority of boys, and Mr. Sancton Wood was wont to declare that he fully entered into its spirit by volunteering to do as little as possible in the way of serious study; however this may be, it is certain that his general acquirements at the time he left school