

MR. WILLIAM BLACKADDER was born in 1789, at East Blanerne, Berwickshire, and was brought up as a Surveyor and Land Valuer, in the office of his Father, who was a well-known man in that district. In 1810, he went to Forfarshire, to survey the Strathmore estates, at the request of Lord Strathmore's trustees, and he soon obtained such an extensive business, that he settled at Glamis, in that county. There he was not only engaged in surveys, over large portions of the surrounding country, but also superintended the construction of the buildings, roads, &c., required for the improvement of the estates; and he acted as general adviser, in agricultural matters, to the principal landed proprietors in Forfarshire, and in part of Perthshire. From 1825 to 1835, he was occupied in improving the public roads in those counties, and he was called upon to give evidence with regard to them before a Parliamentary Committee. His attention was also directed to the subject of drainage; he deepened and enlarged the River Dean, the outlet from Forfar Loch, which likewise serves as the main outfall of a great extent of land; and he was employed by the late Mr. Robert Stevenson, to take the levels for a proposed canal from Arbroath, by Forfar, to Perth. He was consulted as to the works on the Estuary of the Tay, undertaken by Lord Kinnaird. He also prepared several plans, which were not carried out, for supplying Dundee with water; and at the request of the manufacturers of that city, he matured a plan, which was only partially executed, for increasing the water power of the Dighty. He acted, for many years, for the late Marquis of Bute, and after that nobleman's death, he was appointed by his trustees, the Agricultural Engineer to the Scottish portion of the estates. Several local lines of railway were executed under his direction, and his counsel was always sought by the different companies. He made a survey for a railway through Strathmore in 1833,<sup>1</sup> and for the two branches, the Newtyle and Cupar Angus and the Newtyle and Glamis; he also took an active part in carrying out the Scottish Midland Railway.

Mr. Blackadder was a man of remarkable abilities in the classification of soils, and from his knowledge of botany and geology, combined with his great experience, his views were generally sound and practical. The accuracy of his surveys was universally acknowledged, and his zeal in that respect was so great, that he never commenced his practical labours in the field, without taking the precaution of testing his level by a fixed mark which he established on Glamis Castle.

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<sup>1</sup> "Report relative to the Strathmore Railway, being the extension of the Dundee and Newtyle Railway from Newtyle through Strathmore, between Coupar and Dundee." By W. Blackadder. Tract, 4to. [vol. xii.] Maps. Dundee, 1833.

Among his inventions, may be noticed an instrument for measuring the cubic contents of trees, as also a method of counting their number in thick woods by means of parallel ropes.

He was tall and commanding in person, and he adopted so peculiar a costume, that inquiry was made, on one occasion, whether he was a Scotch bishop. His numerous pockets were generally filled with surveying instruments, and his staff was provided with a hammer at one end and a spade at the other. He was apt, sometimes, to give a personal complexion to public disputes,—a course in which perhaps he was somewhat warranted, by the violent party feuds relative to the Dundee water supply in 1835-36, and the action brought against him, on account of the bursting of an embankment on the River Isla, constructed under his direction. Although, perhaps, too enthusiastic in the cause of his employers, he was both kind-hearted and benevolent, as was proved by the extent of his charities, and he was greatly esteemed for his high integrity. The solace of his latter years was the study of the Greek Testament, and his amusement was the perusal of the classics, which brought back the remembrance of his youth. He died at Glamis, on the 20th of October, 1860, in his seventy-first year, and his remains are interred in the churchyard of that picturesque village.

He had long been connected with the Institution, having been elected a Corresponding Member, in 1836, and transferred to the class of Members, in 1837; but his visits to London were too few and far between, to enable him to take any very active interest in the Society.

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**MR. TERENCE WOULFE FLANAGAN** was born at St. Catherine's Park, Leixlip, Ireland, on the 19th of February, 1819. His early education was received principally at Paris and at Brussels, and in the year 1836, he entered the University of Dublin, where he distinguished himself as a linguist and a mathematician, generally obtaining the first place among his competitors, several of whom are now Fellows of the University. At the close of the year 1837, he became an articled pupil of Mr. Charles Vignoles, (M. Inst. C.E.,) with whom he served five years, during which time he had extensive experience in exploring the country for new railways, and in general Parliamentary work. In 1843, he was appointed Resident Engineer of the Blackburn and Preston Railway, under Mr. Collister, and upon the retirement of Mr. Vignoles, he became the Engineer-in-Chief of the Blackburn Railway Company, and superintended the construction of the lines from Blackburn to Bolton and Clitheroe, which he completed in 1850. He subsequently proceeded to Antwerp, and was engaged about