

in its trials in the furnaces of locomotive and stationary engines. He was appointed a borough magistrate for Cardiff in 1868. He took an active interest in several charitable organizations to which he devoted much of his time and means. His kindly disposition and love of children was perhaps at no time more apparent than on the occasions of the annual treat he gave to the children of the Industrial Schools, when they were entertained in the grounds of his residence at Llandaff; on these occasions he entered thoroughly into their amusements and games. In character he was frank and truthful, highly honourable, and just in all his dealings, a man in whom his many clients and friends had—and rightly had—the fullest confidence. To the end of his career he pursued the same honoured course, resolved to do his duty to God and man.

Failing health induced Mr. Bassett to remove to Torquay for the winter of 1878, the subsequent winters of 1880 and 1881 were spent at Mentone. The benefit he received from wintering abroad was not of a permanent nature, and on the advice of his physician he afterwards resided at Bournemouth for three years, where he succumbed from severe attacks of bronchial asthma and weakness of the heart on the 8th of April, 1887, at the age of sixty-three.

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JOHN BOWER was born at Downpatrick, co. Down, Ireland, on the 8th of December, 1818. His father, William Bower, a native of Banffshire, had been a pupil of Mr. Fleming, of Glasgow; but coming to Ireland in 1809 had settled in Downpatrick, where he married in 1814, Sarah, daughter of John Graham, an eminent mathematician of that day, who had been appointed by the Bishop of Down Diocesan schoolmaster, and to whom young Bower, also a mathematician, had been attracted by similarity of tastes and studies. John was the third child of this marriage—a remarkably quick, active, and clever boy. After being educated by his grandfather, he served the usual time of pupilage under his father, and soon became wonderfully proficient—a providential thing for him; for, having in 1839 lost his father by sudden death, he had at a very early age to take on himself the sole whole charge of his mother and her large young family—his father, through some unsuccessful mining speculations, having been unable to leave sufficient provision for them. This charge he nobly and willingly undertook and carried out, devoting himself wholly to it, and never marrying that he might the more

efficiently supply his father's place, his devoted affection to his widowed mother and sisters being one of the strongest traits in his fine character.

As he was too young to enter on business for himself, he accepted an appointment as assistant to Mr. John Fraser, the County Surveyor of Down, with whom he remained for a time. He soon, however, by his activity and knowledge of work attracted notice, and was appointed on the staff of Sir John Macneill, M. Inst. C.E., being then the youngest of his assistants. In 1841 he was sent into Donegal, and there made a complete survey, valuation, and rearrangement of the Earl of Leitrim's estates, for a public loan, estimating the cost of all necessary work, and, as engineer, negotiating and expending a loan of about £21,000 on the operations.

He continued for several years in Donegal and neighbouring counties, doing work for the Board of Works, various Poor Law Boards, and other employers until 1848.

He was next engaged in various works, surveying, estimating, reporting, and carrying out plans. It may here be mentioned as an instance of his ability, while yet a young man, in planning, drawing, estimating, and carrying out works for the efficient and profitable management of estates, that on one large property—the Earl of Leitrim's—he succeeded in readjusting eleven hundred farms, covering an area of one hundred and eighteen townlands, and so arranging them anew in all their details that, only three of the tenants showed any signs of dissatisfaction. That fact speaks volumes for the tact, knowledge, skill, caution, and ability of so young a man as he was at this time, and the success will be understood to be all the more remarkable, when it is stated that the whole estate had been let on *Rundale* tenure, which makes property in Ireland peculiarly difficult of rearrangement.

In 1851, after making a survey and valuation of the Bogh Union for the guardians, he passed an examination for a county Surveyorship, and after a visit to London, returned to Dublin and took an office, entering into partnership with Mr. Charles Swirey. Next year he explored, surveyed, made plans and sections of 50 miles of the country, from Enniskillen to Sligo, for the Londonderry and Enniskillen Railway Company, in connection with Mr. A. W. Forde, M. Inst. C.E., the Chief Engineer.

From this time his fame spread rapidly, and he so increased in popularity that there is no room in this brief sketch to mention the number and variety of his engagements, though it must be stated that he cared far more for the scientific completeness of his

work than for his own pecuniary advantage, and hence, with abounding work, made little profit. Either as promoter or opponent, he was eagerly sought after by various clients for advice, for evidence, and for arbitration. Besides the surveys and valuations for various unions, such as Enniskillen, Sligo, Donegal, &c., some of the works on which he was principal engineer were: the Finn Valley, the Letterkenny, the Dublin and Antrim, the Belfast Central Railways, and the Northern Union and other extensions of the latter line, all involving severe Parliamentary contests, and, with them, intense anxiety and great expense. As some relief from this mental tension, he accepted a quieter sphere in 1860, being appointed County Surveyor of Carlow, where he remained for sixteen years, during which time many of the most important local works were completed under his direction, for which he received high commendation from the Grand Jury. Finding, however, that his extended professional engagements interfered with his county duties as he wished to carry them out, he resigned the surveyorship in 1877. He had been admitted a Member of the Institution in 1870, and in 1874 was appointed Treasury Inspector for the Board of Works; for some years after, he was engaged in the water-supply of Downpatrick and Warrenpoint. The Letterkenny Railway was the cause of much trouble, expense, and legal complexity to him. After piloting it through rocks and shoals—getting new Acts of Parliament, and re-establishing it after a collapse—the Directors refused to carry out the required conditions which finally wrecked it, and almost wrecked him. In 1884 he retired from all work to Scotland, hoping the rest might in time restore him. But it was too late; similar attacks followed of even severer character, until he was for months hovering between life and death. Slowly recovering, he settled in Edinburgh, where he died on the 31st of December, 1886. Few could have recognized in the gaunt old man—old before his time—who daily was to be seen reading in the Philosophical Institution, the strong, ardent, energetic, and successful engineer of some years back. The testimony of one who knew him best was that he was widely acquainted with current literature; a man of great poetical gifts, having left several unpublished works; wonderfully beloved by his friends and relatives; of a most generous and noble nature, a sanguine and enthusiastic temperament, and a helper—far beyond prudence sometimes—to any brother in need.