

and in 1873 found himself without capital or employment. Under these circumstances he joined the North Western of Uruguay Railway as an assistant under Mr. W. G. Ferrar, by whom he was afforded every opportunity of acquiring engineering knowledge. Possessed of a keen intellect, he was, within two years, fully competent to undertake the ordinary duties of an assistant engineer, the practical knowledge gained in his uphill experience making his services of far more than ordinary value. From the North Western of Uruguay Company, Mr. Morant passed to the Buenos Ayres and Campana Railway in the Argentine Republic. Owing to the completion of this line, he was for some time without regular employment, but proceeding to Brazil he was engaged by Mr. John Dixon, on the Rio de Janeiro Waterworks, and subsequently became one of Messrs. Waring's agents on the Minas and Rio Railway. While in Brazil he married a daughter of Mr. John Morritt, a prominent merchant of Rio, and joined him in several business undertakings, reorganizing a cotton-mill, and also aiding in the working of steam-navigation on the great Brazilian rivers. Having made a moderate fortune he returned to London, and entered into business as a contractor. In conjunction with another gentleman, Mr. Morant, in 1886, tendered for the construction of the great sewage-collecting tank at Barking. He was also much interested in the adoption of shale and other mineral oils for fuel purposes, under the form of gas. Mr. Morant was a director of the Amazon Steam Navigation Company, where his intimate knowledge of the river was of considerable service to his colleagues. Mr. Morant was an excellent business man, seeing at once the points of anything presented to him, and was able to go to the root of a matter.

Mr. Morant was elected an Associate Member of the Institution on the 2nd of February, 1886. His death, on the 26th of August, 1888, was the result of being thrown from a dog-cart.

---

ROBERT PINCHIN was born in the year 1821. In 1842 he was articled to Mr. W. J. Lord, formerly of the Royal Engineers, and on the expiration of his pupilage he was employed by Mr. (now Sir Joseph) Bazalgette, who was surveying a proposed railway from Birmingham to Stratford-on-Avon. On the completion of this work Mr. Pinchin, in 1846, had entire charge of the survey of the Parish of Moncton Combes, in Somersetshire. In the same year he sailed for India. In taking his passage, however, provision

was made to give Cape Town a call, and if professional prospects were at all bright, he proposed making the Cape Colony his future home. This was all the more desirable, as India was then universally denounced as an unhealthy country for residence.

On arriving in Cape Town Mr. Pinchin called upon the several Government officers in charge of public works. The result was disappointing. Civil engineering at that date was confined to the construction of a few main lines of road and simple bridges, the erection of prisons, and other Government buildings, works which held out very little encouragement for gaining either professional experience or a suitable livelihood. When on the eve of continuing his journey to India, he was advised to call upon the late Mr. Charles Bell, the then Surveyor-General for the Colony, and at this visit Mr. Pinchin's professional future was decided. Mr. Bell pointed out that the only lucrative or permanent professional employment in the Colony for some years would be Government land surveying, and advised Mr. Pinchin to devote his attention to this branch of his profession, and remain in Cape Colony. Through Mr. Bell's kindly advice and assistance he passed the necessary Government examination, and was licensed to practice as a land surveyor in the Cape Colony. No favourable opening offered itself in the Cape districts, which were at that time overstocked with surveyors, so Mr. Pinchin proceeded to the eastern province.

Port Elizabeth, in 1846, was insignificant compared with its present influential standing, but was even then rapidly rising in mercantile importance. Mr. Pinchin's advent was, therefore, professionally propitious, and subsequently most advantageous from a financial point of view. The laying out of this "Liverpool of South Africa," Port Elizabeth and suburbs, may be said to have been Mr. Pinchin's lifework. For, though enjoying a widespread professional connection, he made his headquarters at Port Elizabeth, where he was an authority upon local land questions to the time of his death. About 1863 he was for a brief time in partnership with Mr. G. W. Smith, the Government Engineer and Surveyor now his successor, but depression in trade led to its termination, and Mr. Pinchin enjoyed for many years almost a monopoly of practice. The enlargement of the town and municipal improvements gave Mr. Pinchin opportunity for the exercise of his attainments as a civil engineer. Prize designs were invited by the Corporation for supplying Port Elizabeth with water, and Mr. Pinchin's scheme was many years afterwards adopted, and construction carried out, by the late Mr. J. H. Wicksteed, at an

outlay of about £150,000. The works for a water-supply to Uitenhage were entrusted to Mr. Pinchin, but his extensive and lucrative land survey practice left him scant time to pursue other branches of the profession.

In 1872, when the Colonial Government entered upon the construction of railways, Mr. Pinchin's services were in constant demand for valuing, defining, and dividing town-lands for the various works and expropriations naturally attending the introduction of railways. About this time he became acquainted with Mr. H. L. Spindler, assistant to the Chief Resident Railway Engineer. Mr. Pinchin, on the part of the public, and Mr. Spindler on the part of Government, carried out the settlement of the many and varied land questions involved in the compulsory expropriation of property. The professional ability and integrity displayed by Mr. Pinchin averted any recourse to law, and his services were appreciated both by the Government and his clients. When Mr. Spindler retired from the railway service in 1879, and entered upon private practice, Mr. Pinchin became his professional associate, and remained so to the day of his death.

Mr. Pinchin enjoyed a well-deserved reputation as a geologist, and was for many years a member of the geological societies of London and Vienna. On several occasions his knowledge of the eastern province of the Colony saved prospectors and others fruitless search for coal, gold, &c.; and his services were freely, and in most cases gratuitously, offered to surrounding farmers to encourage search for precious stones, minerals, and in well-sinking. One of the last of many benefits conferred by him upon Port Elizabeth was the careful arrangement of geological specimens acquired by the Eastern Province Naturalist Society.

From his scientific tastes and education he was not a man to attract many friends in a town of commercial men. He took no part in politics, nor did he seek municipal distinction, being out of touch with what may be termed strife for office. Upright, straightforward, and accurate in his business affairs, he made many friends among the Dutch farmers. Few enjoyed the privilege of his confidence, and though to most he would appear unusually reserved in manner, yet the young surveyor would find him animated and enthusiastic upon professional subjects. On his death-bed he sat up to write out, in Mr. Spindler's memorandum-book, a trigonometrical formula which he greatly admired for its simplicity. He had passed the crisis of a dangerous disorder, and had just returned to his office in a weakened condition, when a chilly south-east wind brought on an attack of inflammation of the

lungs, to which he succumbed on the 9th of May, 1888. Mr. Pinchin was elected an Associate of the Institution on the 3rd of February, 1874, and was subsequently included among the Associate Members.

---

CHARLES THOMAS SPENCER was born on the 12th of May, 1856. At the age of sixteen he was articled to Sir James Ramsden, of Barrow-in-Furness, for four years, and on the expiration of his pupilage, in 1876, he continued in the service of the Furness Railway until 1882. During that period he was engaged, as Assistant Engineer, in surveying and levelling, making plans, sections and drawings, superintending various works in connection with the railway and the Barrow Docks. In 1883-4, he was employed in the office of Mr. Stileman, as Assistant Engineer, in preparing contract and Parliamentary plans and sections. In January, 1884, he entered the service of the East Indian Railway Company, and was appointed as Assistant to Mr. Graham Peddie, District Engineer of the Jubbulpore Extension, and placed in charge of 140 miles of line. In 1885 he was, during the absence of the incumbent, placed in temporary charge of the next division of 83 miles. While thus engaged he carried out the Katni-Umaria (State) Railway Junction works with the East Indian Railway, and subsequently the junction of the Indian Midland Railway at Mánikpur, with the East Indian system. While thus engaged, he died very suddenly of cholera, at Moghal Sarai, on the 7th of July, 1888.

Mr. Spencer was an exceptionally able man, thoroughly well up in his work, and very energetic. His death deprived the East Indian Railway Company of one of the most promising of its younger officers. In private life he was a universal favourite, being an eminently social and accomplished all-round man. He could dance, sing, play cricket and lawn-tennis, fight, preach, and play the organ in church, and was recognised as a type of true English manhood, kind, considerate, and fair. He was elected an Associate Member of the Institution on the 24th of May, 1887.

---