

Alexander Leslie, F.R.S.E. By James Brand, Esq.

(Read January 21, 1895.)

Alexander Leslie, born at Dundee on 16th September 1844, was a son of the late James Leslie, M.I.C.E., who died just five years ago. Mr Leslie was educated at the Edinburgh Academy and the Edinburgh University, and in May 1862 entered the office of Messrs D. & T. Stevenson, M.I.C.E., the lighthouse engineers.

After serving an apprenticeship of three years with Messrs Stevenson, during which he was on the Wick Breakwater Works, he was engaged for some time with Mr MacBey, land surveyor, Elgin, so as to acquire some experience in land surveying, which could not be had in the south to the same extent, owing to the country having all been mapped out by the Ordnance Survey.

He was afterwards engaged in the north of England on the staff of Messrs Morkle & Prodhams, contractors for the Blaydon and Conside Railway. He thereafter entered his father's office as an assistant in the year 1865, and in 1871 was assumed as partner by his father, the name of the firm being Messrs J. & A. Leslie.

Mr Leslie took an active share in the business of the firm, which has been extensive and varied. He was especially engaged in the construction of the Edinburgh Waterworks (Moorfoot Extension), Dundee Waterworks (Lintrathen Extension), also waterworks for Berwick-on-Tweed, Peebles, Dunbar, Peterhead, Thurso, Kirkwall, Lerwick, Galashiels, Bothwell, St Andrews, Leven, and many others of less magnitude. He also carried out harbour works at Montrose, and drainage works at Kirkwall, Lerwick, &c., and was consulted as to many other waterworks, among which may be mentioned Dumfries, Perth, Aberdeen, and Swansea. He acted as Valuator for the Board of Trade in Scotland under the Railways Clauses Act, and was largely engaged in valuations and arbitrations, and in giving evidence before the Courts on engineering questions.

He was frequently employed in Parliament in supporting schemes for which his firm were the engineers, and in supporting or opposing

the schemes of other engineers. He made an excellent witness, and took care to be always well prepared, and was very ready in picking up any flaw in his opponent's case that might emerge in the course of the inquiry.

He had special experience in the construction of reservoir embankments, and had a remarkably quick eye in detecting faults of construction in any piece of work. He had a high ideal of what work ought to be, and it was always his aim, by careful preparation of specifications and close supervision during execution, to attain perfection as far as possible. It may safely be said that the works that have been carried out under his charge bear witness of the thoroughness of his supervision. Since his father gave up active work in 1880 he took chief charge of the maintenance of the Edinburgh Waterworks, which are varied and extensive, there being no less than twelve reservoirs, some of great magnitude, and necessarily include a great length of piping over an extensive area of distribution.

That his services were highly appreciated will be gathered from the minute of the meeting on 14th December of the Edinburgh Water Trustees, of which the following is an excerpt :—

“ Prior to considering the business before the meeting, the Convener referred to the loss the Trust has sustained by the death, on the 7th instant, of Mr Alexander Leslie, C.E., senior partner of the firm of Messrs J. & A. Leslie & Reid, the Trustees' Engineers. During his long connection with the Trust, Mr Leslie, he said, had been distinguished by the zeal and ability which he displayed in regard to its affairs, and by his thorough independence and honesty of purpose, and the faithful manner in which he discharged his duty to the Trustees and to the public.”

He was a Fellow of the Royal Society of Edinburgh, and of the Geological Society of London, and was President for two years of the Royal Scottish Society of Arts, and only demitted office a few weeks before his death, when he gave a very interesting address on the more modern system adopted for the examination of water, making special reference to the bacteriological aspect of the question. Expression was given to the feelings of that Society by his successor in the Chair in the following terms :—

“ At the meeting of the Royal Scottish Society of Arts last night, the President (Dr William Taylor) moved that the meeting be adjourned out of

respect to the memory of Mr Alexander Leslie, their late distinguished President ; and that they should record in the minutes an expression of their deep sense of the loss they had sustained by his death, and of their sincere sympathy with Mrs Leslie and her family circle in their sudden and severe bereavement. That day many of them had followed to the grave all that was mortal of their late beloved President. Few could realise how much he would be missed, for they all knew that no one loved the Society more than he, or contributed more towards the elucidation of the varied subjects which came before it. His mental grasp seemed to be all-embracing, and he seemed to have the power of mastering the intricacies of a new problem almost before its demonstration was completed. He worked silently and unostentatiously amongst them, but his influence was widely felt, and obtained for them the addition to their roll of many illustrious names. His sudden and early death has stirred every emotion of sympathy within them, and left a blank which they could not hope to fill. He dared not speak of what Mr Leslie was to himself personally, and to all of them who knew him as a friend. He dared not speak of the many evidences of the ready hand and the generous heart which were indirectly known to those who experienced them. He was following the dictates of his own heart, and giving expression to the feelings of all, when he proposed that they should adjourn. Dr R. M. Ferguson seconded the motion, which was agreed to unanimously."

Mr Leslie contributed several papers to the *Proceedings of the Institution of Civil Engineers*, among which are accounts of the Paisley Waterworks and Edinburgh Waterworks, and a description of the various kinds of salmon-ladders in use in Scotland.

He also contributed to the Royal Scottish Society of Arts the following papers :—Rainfall and Evaporation, an account of Berwick Waterworks ; Description of an Improved Joint for Levelling Staff ; an account of the Dundee Waterworks ; and Notes on Experiments of the Flow of Water over Triangular Weirs ; for each of which he received the Society's silver medal.

Mr Leslie had a highly versatile mind, and was possessed of many accomplishments. He had travelled much, and his great sense of humour, coupled with his great powers of observation, made him an excellent travelling companion, and brought him a large circle of friends.

His humour was of the old Scottish quality, quaint and pawky, and evidently inherited from both his parents, as all who enjoyed the pleasure of his father's acquaintance and friendship, or of his uncle's, on the mother's side, the late John Hunter, W.S., of Craigmuck, could easily perceive.

Mr Leslie acted in 1893 as a witness for the Caledonian Railway

Company, in the case of Mrs Armour against them, which was an action of damages arising out of the subsidence of a trench formed for the construction of a sewer in Stevenston Street, Glasgow. The water-run of the sewer was about 30 feet from the surface of the street, and the trench was about 8 feet from the building-line. The method adopted in constructing the sewer was open casting by means of hand-piling, and during a heavy rainfall part of the open trench gave way, and serious injury was done to the adjoining buildings.

Mr Leslie, in the circumstances, was called upon to defend the method of hand-piling adopted. There were other three methods suggested, viz., ordinary tunnelling, tunnelling by compressed air, and steam-driven piling. Mr Leslie had great experience of works of this nature, his firm having carried through many important contracts—notably, a portion of the Leith Purification Scheme, which passed through some of the most important streets in Leith; and in preparation of Armour's case he made many helpful suggestions, not only to those entrusted with the conduct of the case, but also to his co-witnesses. It was evident that he had profited by his experience, and one felt that when he spoke he did so as one having authority. His appearance in the witness-box was quiet, dignified, and impressive, his evidence being given in a clear, precise, emphatic manner, coupled with that moderation and fairness which are always so telling in their effect on those sitting in judgment on the case.

Mr Leslie also acted as a valuator appointed by the Board of Trade in a question arising out of the construction of the Tollcross Lines, and in that matter his actions were characterised by promptness and despatch. He showed that he was a man thoroughly capable of discharging judicial functions, and his judgment was by the claimant and by the railway company regarded as being fair and reasonable.

Mr Leslie was of active habits, and was able to attend to business to within a week of his death, which came at the last with startling suddenness. He was cut off at the age of 49, and leaves a widow and son to mourn his untimely death.