

ROBERT WILLIAMSON.

BORN SEPTEMBER 21ST, 1853; DIED SEPTEMBER 24TH, 1914.

ROBERT WILLIAMSON was born in North Shields on September 21st, 1853, and was the fourth son of the late George Williamson, Esq. He was educated first at a local school in North Shields, and subsequently entered the High School at Edinburgh, where he remained for six years, and it was here that he showed his first taste for science, and decided to adopt chemistry as a career. His ability was indeed so marked that soon after leaving school he was accepted as assistant to the late John Pattinson, who practised as a public analyst, and in those days had a high reputation throughout the North of England.

Feeling, however, the need for further study, and desiring rather to become a technical chemist than a professional analyst, he did not remain long in this position, but proceeded to the Royal College of Chemistry, then under the direction of Prof., afterwards Sir Edward, Frankland. His progress here was rapid, and at the conclusion of the course he was at once recommended as suitable for the post then vacant of research assistant to the late Sir William, then Mr. W. H., Perkin. At this period the colour factory of Perkin and Sons at Greenford Green was in its zenith, and although Williamson was not employed actually in the works, being indeed placed in the external laboratory in the Greenford Road, he found his work peculiarly interesting. There is unfortunately no actual record of his concern with any special investigation carried on at this time, but there can be little doubt that in addition to the examination of factory products, he took part in work on anthrapurpurin and anthraflavic acid, both of which were discovered at or about that period.

Williamson was naturally disappointed when in 1874 the Greenford factory passed into the hands of Messrs. Brooke, Simpson, and Spiller, but, on the other hand, although he could have obtained service with the new firm he did not do so, in the hope that he might still participate in colour chemistry problems similar to those in which he had formerly been engaged.

To a certain extent his anticipations were realised, and although he was always proud of his connexion with the "Perkin reaction" which shortly afterwards emanated from the new Sudbury laboratory, by preference he would rather have been entirely engaged in the study of dyestuffs.

Feeling now that his apprenticeship must cease, he accepted an

engagement as chemist in the City laboratory of Messrs. Nelson, Dale and Co., the well-known gelatin manufacturers, and it is there no doubt that he acquired a taste for this subject which proved of service to him in later years.

In the meantime the factory of Perkin and Sons, which had been purchased by Messrs. Brooke, Simpson, and Spiller, passed into the hands of Messrs. Burt, Boulton, and Haywood (now the British Alizarin Co.), who removed the manufacture from Greenford to a site at Silvertown adjacent to their tar distillery. An opportunity of entering this factory was readily accepted by Williamson, and here after a short period of laboratory work he was placed in charge of the anthraquinone process, Mr. Thos. Royle being general manager.

The tenure of the alizarin patents was now approaching conclusion, and attempts were made by the manufacturers to ensure if possible their monopoly for a further period. At this juncture the late Mr. Josiah Hardman, on behalf of his firm, Messrs. Hardman and Co. (now Hardman and Holdens), of Miles Platting, Manchester, decided to start the manufacture of alizarin, and having safeguarded himself, by entering into satisfactory contracts, engaged Williamson to erect and manage the factory.

That Williamson readily undertook these duties speaks highly for his courage and ability, for even at the present time the preparation of alizarin on the large scale is one of the most complex technical processes.

A severe handicap he had to face was the quality of the anthracene available in the district, for this, derived from Lancashire tar, as was well known, is far inferior to that produced in Newcastle and the district. This arises from the fact that in the Lancashire variety, in addition to traces of paraffin wax, a considerable quantity of β -methylantracene is present, the alizarin derived from this possessing inferior dyeing virtues to that obtainable from anthracene itself. These difficulties at that time, new to Williamson, were only overcome by exhaustive experiment, but he was, however, able when the factory he had designed was nearing completion, to feel certain he could produce a satisfactory material, an assumption he later fully justified.

Of the factory he erected for Messrs. Hardman and Holdens Williamson was exceedingly proud, and justly so, for it was universally acknowledged by those permitted to inspect it, to be a model from which the colour works in this country and elsewhere might well take an example.

The manufacture continued there for several years, and as the result of its working there is no doubt that the firm reaped sub-

stantial benefit. More latterly, however, the fall in price rendered its continuation without additional plant extension hardly worth while, and the margin even then being small, the factory was eventually reconverted and employed, as is still the case, for other purposes.

About four years before this occurred, Williamson removed to Middlesborough, and was engaged in the manufacture of alizarin at the works of Messrs. Sadler and Co., who had entered the field at a date later than Messrs. Hardman and Holdens.

Subsequently he returned to Newcastle, where he eventually settled and started, in conjunction with Mr. Walter Corder under the name of Williamson and Corder, a gelatin factory, which is carried on at the present time, and is highly successful.

Although Williamson could without doubt have done well as a pure chemist, as the research he published ("On Some Metallic Derivatives of Coumarin," *J. Chem. Soc.*, 1875, **28**, 850) while at Sudbury indicates, he was at heart a technologist, and appeared never to be so happy as when surrounded by the hum of factory life.

As the writer knew him, he possessed great energy, was calm in the face of unexpected difficulty, and courageous to a degree when occasion required.

He possessed the happy gift, so essential to a works manager, of controlling men, with whom, although firm, he was always lenient and on terms of good fellowship.

Elected to the Chemical Society on December 24th, 1874, he became during his stay in the south, a well known figure at the Ordinary Meetings, and later when this attendance was no longer possible he interested himself in the scientific societies of those other towns in which he for the time resided. More recently he became absorbed in his own business, and was rarely present in scientific circles. He was one of the earlier Fellows of the Institute of Chemistry, which he joined in 1878.

After a period of ill-health, he went to Scarborough in the hope of deriving benefit from the change, but unfortunately this did not prove to be the case, and he died suddenly on September 24th, 1914, at the age of sixty-one.

Williamson was a Conservative in politics, a member of the Church of England, and was unmarried.

By his death the last of the little group of chemists who were connected with Sir William Perkin's colour factory at Greenford Green has now passed away.
