

O B I T U A R Y N O T I C E S .

Archibald Barr, D.Sc., LL.D., F.R.S.

By the death of Professor Archibald Barr on 5th August 1931, at the age of seventy-six years, Engineering Science lost one of its most distinguished figures. He was outstanding as a teacher of Engineering, as an inventor, and as an authority on the design and running of laboratories and workshops.

Professor Barr was born in Paisley and received his early education in Paisley Grammar School. He then proceeded to Glasgow University and entered the classes of Engineering, then presided over by James Thomson, brother of Lord Kelvin. He also attended Kelvin's Natural Philosophy classes. He served his engineering apprenticeship with Messrs A. F. Craig and Company, of Paisley. In 1876, at the age of twenty-one, he was appointed James Young Assistant to Professor James Thomson, and somewhat later received the degree of Doctor of Science of the University of Glasgow. To Professor James Thomson's teaching and example he owed a vast debt, a debt which he never failed to acknowledge and which was handed on by him to generations of his own students.

In 1884 Dr Barr was appointed Professor of Engineering at the Yorkshire College, now the University of Leeds. Then he became the colleague of Professor William Stroud, who occupied the Chair of Physics in that Institution. The two men were strongly attracted to one another, and the partnership was formed which was to result in so much constructive thought, invention, and achievement. While at Leeds Professor Barr took an active part in the collection of funds for new engineering laboratories. These laboratories and workshops he designed and completed.

In 1889 Professor Barr was appointed to succeed his old teacher in the Chair of Engineering at Glasgow University. He occupied this Chair for twenty-four years, retiring in the summer of 1913. He performed great work for the University of Glasgow as a teacher and organiser. His lectures were models of clearness, and he was regarded by his pupils with pride and affection. He initiated, and took a foremost part in, a movement which resulted in the sum of £40,000 being available for the establishment of new laboratories at Glasgow. These, the James Watt Laboratories, were built and equipped under his supervision. On his retirement in 1913 Dr Barr received the degree of LL.D. of the University, and in 1915 he was

presented with two portraits painted by Mr G. Fiddes Watt. One of these is in the possession of Dr Barr's family, the other in that of the University. Some time after his retirement from his Chair, Professor Barr's scientific work was recognised by his admission into the Royal Society as a Fellow.

The history of the Barr and Stroud Rangefinder is somewhat as follows: A War Office advertisement appeared in the *Engineer* of 24th May 1888 and *Engineering* of the following day. With Dr Stroud, Dr Barr designed and constructed an instrument which proved the most successful in the competitive trials. In 1891 the British Admiralty issued a similar advertisement, but specially invited Professors Barr and Stroud to submit a rangefinder for tests. The results were so satisfactory that the inventors were requested to tender for the supply of six instruments. In these early forms of the instrument the mechanical work was carried out by James White in Glasgow, and the optical parts were constructed by Adam Hilger in London. The assembly and adjustment work was effected in the attics of Dr Barr's house in Dowanhill, Glasgow. A small works was established in Byres Road, near the University, and later the present factory at Anniesland was built. The magnitude of the work carried out may be judged from the fact that of one type of rangefinder alone, the Anniesland works constructed 27,000 during the War.

Dr Barr filled many posts of honour. In 1901 he supervised the first Motor Car Reliability Trials held in Scotland. In the same year he served as Convener of the Engineering Committee of the Glasgow International Exhibition. In 1910 he acted as Chairman of the Committee which organised the first Aviation meeting in Scotland. In the course of his career he acted as President of the Institution of Engineers and Ship-builders in Scotland, of the Scottish Aeronautical Society, of the Optical Society of London, of the Royal Philosophical Society of Glasgow, and on more than one occasion of the Engineering Section of the British Association.

He was elected a Fellow of the Society in 1921.

J. G. G.