

DR. FRED IBBOTSON

THE death of Dr. Fred Ibbotson on February 5, at the age of sixty-six years, brings a sense of personal loss to many metallurgists, especially to those connected with the steel industry of Great Britain. As senior lecturer in the Metallurgical Department of the University of Sheffield until his retirement last year, he was responsible for training many students in metallurgical analysis, and his skill both as an analyst and as a teacher was largely responsible for the high standard of accuracy now reached in works manufacturing the higher classes of steels. His course of lectures on the theory of analysis was an admirable introduction to the advanced chemistry of the less common metals and their salts.

Dr. Ibbotson made many improvements in analytical methods, and the textbooks in which he collaborated—"Steel Works Analysis" (with the late Prof. Arnold), "Analysis of Steel Works Materials" (with H. Brearley), and "Analysis of Non-Ferrous Alloys" (with L. Aitchison) are widely used. A fellow-townsmen of Sorby, he was an early worker in metallography and translated the well-known work of Goerens, whilst the papers of Prof. Arnold in the *Journal of the Iron and Steel Institute* were often illustrated by his exquisite drawings of micro-structures.

Dr. Ibbotson was born in Sheffield, but studied at the Royal College of Science in Dublin, of which

he became an associate in 1887. He was a B.Sc. of London and a D.Met. of Sheffield. Of striking appearance, great charm of manner and high character, he was greatly beloved by his students; only a very retiring disposition, which led him to shun meetings, prevented his reputation from reaching a wider circle. C. H. D.

WE regret to announce the following deaths:

Mr. Carsten E. Borchgrevink, the Norwegian antarctic explorer, leader of the first expedition to winter in Antarctica, aged sixty-nine years.

Sir Richard Garton, G.B.E., governing director of the firm of Garton, Sons and Co., brewing sugar manufacturers, one of the founders of the British Empire Cancer Campaign, on April 22, aged seventy-six years.

Mr. Richard Llewellyn Jones Llewellyn, an authority on rheumatism and its allied conditions, on April 19.

Sir Max Muspratt, Bt., president of the Association of British Chemical Manufacturers in 1924, a leading figure in the heavy chemical industry, on April 20, aged sixty-two years.

Prof. John M. Poor, professor of astronomy at Dartmouth College, Hanover, U.S.A., who did much work on the orbits of comets, asteroids and double stars, aged sixty-three years.

News and Views

James Mansergh, F.R.S. (1834-1905)

ON April 29 the centenary occurs of the birth of James Mansergh, the eminent hydraulic engineer, who, both at home and abroad, was well-known for his schemes for water supply and sewage disposal. His most famous work was that by which Birmingham was supplied with water from the Elan and Claerwen Reservoirs in Wales, 73½ miles away, a work which was opened by King Edward VII on July 21, 1904. Mansergh was born in Lancaster. After attending the local schools, he was at Queenwood College, Hampshire, for a short time, where Tyndall and Edward Frankland were among his teachers. At the age of fifteen years he was articled to a firm of civil engineers in Lancaster and afterwards gained experience on railway construction in England, Wales and Brazil. In 1866 he became a consulting engineer in Westminster, and from that time onwards specialised in water supply and sewage schemes. It is said that he appeared more than six hundred times before Parliamentary committees, acted for three hundred and sixty municipalities or local authorities, wrote more than two hundred and fifty reports and gave evidence at about three hundred public inquiries. Among the important schemes he carried out abroad were those connected with the water supply of Toronto and the sewage disposal of Colombo and Melbourne. Entering the Institution of Civil Engineers in 1859 as an associate member, he became

a vice-president in 1895 and president in 1900. The following year his services as a hydraulic engineer were recognised by his election as a fellow of the Royal Society. He died at Hampstead, on June 15, 1905.

Presentation to Prof. Karl Pearson, F.R.S.

WHEN the impending retirement of Prof. Karl Pearson from the Galton chair of eugenics and from the directorship of the Biometric Laboratory at University College, London, was announced last year, it was felt desirable that steps should be taken to commemorate the pre-eminent services which he had rendered to University College, to the University of London and to science, during nearly half a century. An influential committee under the chairmanship of Prof. L. N. G. Filon, Vice-Chancellor of the University of London, therefore decided to raise a commemoration fund for the purpose; Dr. Ethel Elderton acted as honorary secretary and Dr. David Heron as honorary treasurer of the fund. As a result of the appeal then made, subscriptions amounting to more than £600 were received and at a dinner in Prof. Pearson's honour at University College on April 23, under the chairmanship of Prof. Filon, attended by some hundred subscribers, there were presented to Prof. Pearson a bronze portrait plaque, a book containing the signatures of all the subscribers and a cheque for the balance of the fund,

£440; a Brunsviga calculating machine for his personal use had previously been presented to him. The bronze plaque, of which a copy is to be presented to University College, and a small reproduction to each subscriber, bears the following inscription: "Presented to Professor Karl Pearson, M.A., LL.D. F.R.S., by students, colleagues and friends on his retirement after having been a Professor of University College, London, for forty-nine years, in grateful commemoration of his research, teaching and inspiration." The balance of the fund is to be devoted to the completion or publication of such work of Prof. Pearson or his pupils as he may select or to the advancement in any other way of the branches of science with which his name will always be associated. Prof. Filon, in making the presentation, paid eloquent tribute to Prof. Pearson's distinction in so many fields, and was followed by Mr. G. Udney Yule, who gave very interesting personal reminiscences of work and holidays with "K. P."

Joseph Priestley

THE recent issue of *Isis* (pp. 81-97) contains an important paper by Mr. W. Cameron Walker on "The Beginnings of the Scientific Career of Joseph Priestley", disposing of the incorrect views expressed by Priestley's biographers, such as, that his "History of Electricity" was suggested by Franklin and that it led to his election as F.R.S., that this distinction was the result of his electrical experiments, and so on. The Canton Papers and certain letters—some facsimiles are given—in the Royal Society's library show that the writing of the "History" was Priestley's own idea, that he was elected F.R.S. prior, not only to its publication, but also to his experiments, and that his friends secured his election with the view of increasing the sale of his book. Priestley's own account, written long after these events, ascribed his election to his original experiments. But the author is probably correct in hinting at a lapse of memory, since there is other evidence of this failing. The most interesting document here is Seddon's letter of December 18, 1765, introducing Priestley to Price and suggesting in a postscript his introduction to Franklin. As a result Priestley met Franklin and Canton, was elected F.R.S., was led to experiment in electricity, thence to the study of the conductivity of 'mephitic air', and thence to his classic chemical researches on 'airs' and to the discovery of oxygen—to the birth of modern chemistry. Few 'postscripts' have had such historic consequences.

Trevithick Memorials

A MEMORIAL to Richard Trevithick, the great engineer and inventor, was unveiled at Merthyr Tydfil on Thursday, April 19, by Mr. David E. Roberts, to mark in a fitting manner the historic journey of the first rail locomotive on February 21, 1804. The memorial is situated at Pontmorlais, close to what was then the entrance gate to Penydaeren Ironworks, where Trevithick built the locomotive. It ran down to the basin on the Glamorganshire Canal at Abercynon $9\frac{1}{2}$ miles distant, but the damage to

the cast iron rails, which were of course only suited for horse traction, was such that the trials were not followed up. The memorial itself is built of stone sleepers taken from the track, and incorporates also some of the old rails. Its erection is the outcome of local effort backed by help from the Trevithick Centenary Commemoration in London. The event was made a civic occasion, and a concourse of upwards of 3,000 spectators assembled for the ceremony. The unveiling was followed by an address from Mr. Roberts on the work, especially that in South Wales, of Trevithick.

THE second of the memorial tablets erected as a result of the commemoration last year of the centenary of the death of Trevithick, was unveiled at University College, London, on April 23, by the Hon. Oliver Stanley, M.P., Minister of Transport. The tablet has been placed on the Gower Street side of the College to mark the site of the track laid down in 1808 over which Trevithick's locomotive *Catch-me-who-can* ran. This was the first rail locomotive to draw passengers, and the exact site of the experiment has only been determined after long inquiry. The tablet, which bears a medallion of the inventor, a representation of his engine and a suitable inscription, is of bronze; it is a bold and striking memorial and one which effectively attracts the attention of the passers-by. Prior to the unveiling, a meeting took place in the College which was presided over by Sir Murdoch Macdonald, M.P., the chairman of the commemoration committee. When asking Major Stanley to unveil the memorial, and the Provost of the College, Dr. Allen Mawer, to accept the custody of it, Sir Murdoch said that often our great benefactors have reaped but posthumous honours and so it was with Trevithick, for although he died in 1833, it was not until fifty years later that his memory was honoured by the erection of a window in Westminster Abbey. Methods of transport have developed greatly since Trevithick's time, but all our steam locomotives, great and small, work on the principle first effectively applied by him.

Cosmic Rays

PROF. P. M. S. BLACKETT delivered the Friday evening discourse on April 20 at the Royal Institution, taking as his subject "Cosmic Rays". This fascinating subject started more than thirty years ago with the discovery that clean dry air at sea-level is a slight conductor of electricity; it has now grown into one of the important branches of physics, and it perhaps may also be considered as an important branch of astronomy. For whatever the final explanation of the origin of the rays is found to be, it is probable that their origin is of great astronomical significance. The instruments with which the rays have been investigated have been the ionisation chamber, the counter and the cloud chamber, and experiments have been carried out with such apparatus all over the world and at very great heights above the ground and far below the surface. The cosmic radiation is a part, really, of geophysics, to be studied not only in the laboratory but also everywhere that is