Cambridge observations, made on five wave-lengths over the range 0·6–8 metres, aimed at checking results obtained in other ways for the distribution of radiation emission over the corona.

Observers from the Royal Greenwich Observatory were financed by the Admiralty, while those from the Cambridge and London University Observatories were supported almost wholly by a Government grant from the Royal Society through the Joint Permanent Eclipse Committee. St. Andrews observers were also supported in part from this grant. The astronomers concerned have also been grateful for generous assistance from other sources. Much help was received from the R.A.F., and also from the Swedish authorities, who through Prof. Y. Öhman, of the Stockholm Observatory, made arrangements to facilitate travel, Customs inspection, etc., in Sweden. Residents in Sweden living near eclipse camps treated the visiting astronomers with great kindness.

In addition to regular observers engaged on specific programmes of investigation, a party of about 140 members of the Royal Astronomical Society and the British Astronomical Association saw the eclipse through thin cloud in western Sweden, and a small number of others viewed it from aircraft north of Britain.

OBITUARIES

Dr. O. J. R. Howarth, O.B.E.

Dr. O. J. R. Howarth, who died on June 22 at the age of seventy-seven, was one of the earliest recruits to the Oxford School of Geography after he had taken the Final Honours School of Modern History in 1900, and geography remained his professional interest throughout his life. He edited the "Oxford Survey of the British Empire" in 1914 with Prof. A. J. Herbertson and wrote a number of textbooks for the Oxford University Press. Later he became specially interested in protecting the countryside and in town and country planning, and in 1937 he wrote "The Scenic Heritage of England and Wales" for the Council for the Preservation of Rural England. He was president of Section E (Geography) of the British Association in 1951 and president of the Geographical Association in 1953, when his address dealt with the importance of teaching geography from a Commonwealth point of view.

His major occupation, however, was the secretaryship of the British Association, which he held for thirty-seven years—from 1909 until 1946. During this time the activities of the Association underwent considerable changes, as with the general recognition of the national importance of science and scientific research, for which it had striven so hard in the nineteenth century, some of its functions were gradually taken over by other bodies. The Association owes a great debt to Howarth for his long and devoted service, and to the skill and economy with which he carried on its administration with a very small permanent staff. I know from my own experience how grateful successive local secretaries, who had to organize annual meetings of increasing size, were to Howarth for his wise advice and guidance on all the details of the arrangements on which the smooth working of the meetings depended.

The future of the Association, how it could best fulfil its purpose under changing conditions, was the constant thought in Howarth's mind, and his knowledge and experience was of the greatest value to successive general officers. One great service he rendered was his short history of the Association, "A Retrospect, 1831–1931". It gives in a short compass a masterly sketch of the fortunes of the Association during its first century. In it Howarth concentrated the results of many years of study, and from his knowledge of the outstanding personalities and episodes, and with his crisp, clear style, he showed how much the Association had contributed to the advancement of British science. The idea of the book was first suggested in 1919 by Sir Charles Parsons, who made a generous contribution towards the cost of its publication in 1922. Later, again at his suggestion and with his help, it was revised and brought up to date for the centenary meeting of the Association in London in 1931.

During the long presidency of Sir Richard Gregory during the Second World War, interest in the Association was kept alive by a series of conferences on topics of immediate public concern and on the problems that would arise when war ended. Their success owed much to Howarth's untiring enthusiasm and hard work. It was his great satisfaction to see the Association emerge in 1945 stronger in heart than ever and ready to assume even larger burdens.

Most modest as to his own ability, quiet and unassuming, Howarth valued above all else in his career the opportunity the British Association gave him to enjoy the friendship of some of the leaders of science, and with their help to uphold its great traditions. He was looking forward eagerly to the meeting next September in Oxford and to renewing memories of the 1926 meeting with the small band of survivors; but that, alas, was not to be. Almost his last act was to prepare a script for the British Council on the history of the Association; but he died before he could record it.

Mr. E. F. Law

By the death of Edward Fulton Law on May 22, in his seventy-seventh year, the profession of metallurgy loses one who had been closely identified with the rapid progress which has been made both in ferrous and in non-ferrous metallurgy during the past fifty years—as a contributor to the proceedings of the Iron and Steel Institute and to those of the Institute of Metals and as a partner in a firm of consultants (Messrs. Riley, Harbord and Law, of Westminster) until the time of his death.

With a background of training which included chemistry under Tilden at the Royal College of Science (1894–98) and metallurgy under Roberts-Austen at the Royal School of Mines and at the Royal Mint (1898–1902), Law was one of a group of young men (among whom were H. C. Jenkins, A. Stansfield, W. H. Merrett, O. F. Hudson, G. D. Bengough, H. C. H. Carpenter and Walter Rosenhain) who came directly under Roberts-Austen's stimulating influence, and in all of whom the spirit of inquiry had been quickened by spending varying periods in his private laboratory at the Mint. It was there that Law took part in the work of the Alloys Research Committee of the Institution of Mechanical Engineers, which was still in progress at the time when the recently published Fifth Report had done so much to arouse interest in the application of the pyrometer and the microscope to industrial problems.

It was, in fact, in the rapidly developing art of metallography at the turn of the century that Law's exceptional manipulative skill found full expression. This is abundantly shown by the quality of the photomicrographs which appear in his contributions to the publications of the Iron and Steel Institute, to those of the Institute of Metals and particularly perhaps those which appear in the successive editions of his work on "Alloys and their Industrial Applications", first published as one of Griffin's Metallurgical Series of text-books in 1909. The frontispiece to that volume, a reproduction in colour of heat-tinted micro-sections, is one of Law's skilful adaptations of the facilities afforded by the autochrome plates (which had just been introduced by MM. Lumière, of Lyons) to differentiate micro-constituents under high powers. This early application of colour photography to metallographic work formed the subject of a short paper to the Iron and Steel Institute in 1908 and attracted the attention and interest of the Royal Microscopical Society and of the Royal Society of Arts, to which bodies a number of examples were exhibited.

After a period of private practice in Westminster, from 1903 onwards, Law became associated with the late F. W. Harbord (of Messrs. Riley and Harbord); but shortly before the First World War he accepted an appointment with Messrs. Sir W. G. Armstrong, Whitworth and Co., Ltd., at their establishment at Openshaw, Manchester, where he remained until 1922 in charge of the production of armour-plate. He then returned to Westminster as a partner in the firm with which he had been formerly associated. In 1939, however, at the outbreak of the Second World War, his previous links with those responsible for naval construction had led to a request by the Admiralty that he should join the late Sir Stanley Goodall at Bath. He remained there during the earlier years of the War, afterwards returning to Westminster on the death of his partner, Mr. F. W. Harbord, to resume his consulting practice, in association with Mr. Vernon Harbord and Mr. T. G. Howard.

Mr. Law was an associate of the Royal School of Mines and a Carnegie silver medallist. After serving for many years on the Council of the Iron and Steel Institute, he was elected an honorary vice-president of that body in 1950. He was also an original member of the Institute of Metals. His engaging personality and long experience in helping to solve many of the difficulties with which engineers and metallurgists had been confronted had brought him valued friendships throughout Great Britain.

S. W. Smith

NEWS and VIEWS

Mining at Sheffield: Prof. I. C. F. Statham

Prof. Ira C. F. Statham, who has just retired from the chair of mining in the University of Sheffield, was born in Staffordshire and was educated at the University of Birmingham. He went to Sheffield in 1919 as a lecturer in the Mining Department and succeeded the late Prof. Douglas Hay as head of the Department in 1925. In his early years on the staff he carried out a number of researches on the ventilation of mines and ancillary problems, and later, as head of the Department, he continued to initiate and supervise research on this and other aspects of mining. He was responsible for the initial fundamental research work concerning flame-proof enclosures for mining electrical apparatus, and the subsequent routine testing and development of mining switchgear. His services as a consultant have been much in demand both in Britain and abroad, and his outstanding contributions to mining education and research have been recognized by the awards of the Futer's Gold Medal of the National Association of Colliery Managers, the Thornton Medal of the Association of Mining Electrical and Mechanical Engineers and, more recently, the Douglas Hay Medal of the Institution of Mining Engineers. He is a past-president of the Midland Institute of Mining Engineers, a vice-president of the Institution of Mining Engineers and a past-president of the Institute of Mine Surveyors. When Prof. Statham went to the Department, he found it housed in a few rooms at the front of the Applied Science Building; but in 1932 it acquired a new and larger building, and this, in 1953, was extended to meet the expanding requirements of the reorganized coal mining industry. These extensions and developments have been largely his responsibility. Although he reached the retiring age in 1952, he was invited to stay on for a further two years to complete his labours in creating the large Mining Department, fully equipped for modern teaching and research, that to-day stands as a lasting tribute to his tenure of the Sheffield chair.

Prof. F. S. Atkinson

Prof. Statham is being succeeded by Mr. F. S. Atkinson, at present assistant to the production director of the North Eastern Division of the National Coal Board. Mr. Atkinson was educated at Chesterfield Grammar School and the University of Sheffield, where he graduated B.Eng. with honours and obtained the Diploma in Mining in 1922, at the same time serving his apprenticeship at the Tinsley Park Colliery Co. From 1924, Mr. Atkinson was successively assistant to the manager of Frickley Colliery and manager of Hatfield Main Colliery until his appointment to the chair of mining in the University of Leeds in 1936. He resigned from the chair in 1941 on his appointment as mining agent of Upton Colliery. In 1946 he was appointed chief mining engineer of the Indian mines owned by Shaw Wallace and Co., Ltd., which post he held for three years until he went to his present position with the National Coal Board. Mr. Atkinson thus has a wide knowledge of the mining industry, both in Britain and abroad; he has published numerous articles in mining journals.

Theoretical Physics at King's College, London: Prof. C. Domb

The appointment has been announced of Dr. Cyril Domb to the chair of theoretical physics in the University of London at King's College. Dr. Domb was a major scholar of Pembroke College, Cambridge, from 1938 until 1941 and graduated by way of the Mathematical Tripos. During 1941–46 he was at the Admiralty Signals Establishment and from 1946 held a senior research fellowship at the Clarendon Laboratory, Oxford. Since 1952 he has been a University