

Secondary Electron Photography

Two recent letters in the correspondence columns of *Nature* (Tasker and Towers, 156, 695; 1945, and Roberts, 157, 695; 1946) have brought to notice the work of Prof. J. J. Trillat and his colleagues at the Centre National de la Recherche Scientifique, on secondary electron photography. This work, carried out during the war years, is described in a series of notes in the *Comptes Rendus* and the *Revue Scientifique*, Paris, between 1941 and 1945; the fact that it was not referred to earlier is an example of the difficulty of consulting war-time foreign journals. Most of the experiments are concerned with the surface appearances of metal specimens. A low-speed photographic film is placed in contact with the metal surface and irradiated with X-rays of 150–200 kV. The direct effect of the X-rays on the film is small, but the secondary electrons emitted by the metal produce an image of the surface. Differential blackening is produced by metals of different atomic numbers, and with careful control the method is capable of qualitative analysis. Both macroscopic and microscopic photography are possible. For example, a reflexion electron photograph of a magnesium-aluminium alloy containing some manganese, under the microscope shows the distribution of the heavy element around the magnesium-aluminium crystals. This opens up an interesting field in surface metallurgy, with relatively simple apparatus. Alternatively, the secondary electrons from a thin sheet of lead may be used to 'radiograph' very thin objects such as paper or tissue sections. The results are similar to those obtained with very soft X-rays.

Agriculture and the Association of Scientific Workers

THE annual conference of the Agricultural Section of the Association of Scientific Workers was held in London during November 23–24 and attended by delegates from all parts of Great Britain. The conference was addressed by Prof. J. A. Scott Watson, chief of the advisory service of the Ministry of Agriculture, on the technical advisory services in agriculture. There was a discussion on the future of British agriculture and the part that agricultural scientists could play in the research and advisory services. Dissatisfaction with the conditions of service was expressed by many members, and it was agreed that the efficiency of the food production programme might be seriously impaired unless far more adequate provision was made for science and scientific workers. The present critical labour situation in the industry was discussed in detail. A delegate from the National Union of Agricultural Workers stated that the shortage of labour has been greatly exaggerated, and that the introduction of foreign labour is in no way a permanent solution of this difficulty. Mechanization, improved wages and living conditions and an apprenticeship scheme would be of more value.

Many resolutions covering a wide field were discussed, including the need for improved co-ordination between universities and existing institutes for planning more fundamental agricultural research, and the provision of conditions to attract first-class men of science to this work. It was urged that provision should be made on the agricultural research planning boards for representation of the views of the ordinary scientific worker, and that agricultural scientists in general should be assimilated to the

White Paper scales as appropriate to their age and service irrespective of their previous salaries. There was considerable discussion on the National Agricultural Advisory Service.

Naming the Constellations

HENRY I. CHRIST has an interesting article with this title in *Sky and Telescope* of October, which describes a number of proposed names for the constellations which 'fell by the wayside'. Even those suggested to flatter or honour monarchs, such as Frederick's Glory, Charles' Oak, did not survive for very long, though Sobieski's Shield, in honour of the Polish hero who fought the Turks, has been retained. How many people realize the length of the list of forgotten constellations? These include such animals as a cat, a flamingo, a turtle, a reindeer, a night owl and a thrush, and even objects like a printing office, an electric machine, a balloon, a solarium, a sceptre, and a quadrant, some of which were retained for a time, while others never gained acceptance. Wholesale recharting of the sky has not been a success, and perhaps it is just as well that the artificially fostered systems did not last.

Commonwealth of Australia Council for Scientific and Industrial Research

THE annual report of the Council for Scientific and Industrial Research, Commonwealth of Australia, has now been supplemented by a more concise and popular illustrated account (Melbourne: Gov. Printer). Written by Mr. G. Lightfoot, consultant, and former secretary to the Council, with a foreword by Mr. J. J. Dedman, the Minister in Charge, it gives a lucid account of the establishment and development of the Council and of the work carried out during 1945 by the various divisions, illustrating particularly the way in which scientific research can assist the further utilization of Australian resources and the development of its industries. The Council and the author are to be congratulated on the high standard of production and exposition in this brochure, which is admirably designed for the educational purposes it is intended to serve.

Meldola Medal

THE award of the Meldola Medal, which is the gift of the Society of Maccabæans, has normally been made annually, but has been suspended since 1941. The award is to be resumed for 1946, and the Society of Maccabæans will accordingly present it to the chemist who, being a British subject and less than thirty years of age on December 31, 1946, shows the most promise, as indicated by his or her published chemical work. Recommendations and applications, to be addressed to the President, Royal Institute of Chemistry, 30 Russell Square, London, W.C.1, the envelope being marked "Meldola Medal", must be received before December 31, 1946.

Catalogue of Historical Scientific Books

MESSRS. DAVIS AND ORIOLI's latest Catalogue, No. 125 Classics of Science and Medicine, is a lavishly illustrated production containing 444 items. The field covered includes physics, chemistry, astronomy, mathematics, biology, medicine and surgery. Many outstanding works in all these branches of knowledge are offered for sale. Among the authors represented, often by several of their works, in first or early editions, are the following,