

Journal of the Institute of Metals

Volume 81. 1952-53. Edited by N. B. Vaughan. Pp. xvi+768+106 plates. (London: Institute of Metals, 1953.) 60s.

THE Institute of Metals is concerned with theoretical structural metallurgy and the metallurgy of the non-ferrous metals, excluding extractive considerations, and the present volume of its *Journal* contains a representative selection of papers (and discussion). Numerous papers deal with alloy constitution, deformation and behaviour under stress, but also covered are subjects such as viscosity and surface tension, grain refinement of cast metal, metallographic techniques, solid transformations, corrosion and oxidation of metals. In addition, a symposium is included on the control of quality in the melting and casting of ingots for working.

The majority of the papers describe the results of first-class experimental work. They are well written in a concise manner. They are carefully sub-titled, so that coupled with the provision of good synopses, it is easy for the reader to find quickly the information desired.

The format of the *Journal* is of the highest standard. The photographic reproductions are of fine quality, although it is a pity that, in the interests of economy, they are grouped together in what constitutes each monthly issue. The line-drawings are well made and carefully standardized. In all, the *Journal* represents a praiseworthy achievement. A. R. BAILEY

Radioisotope Conference 1954

Sponsored by the Atomic Energy Research Establishment, Harwell. Proceedings of the Second Conference, Oxford, 19-23 July. Edited by J. E. Johnston, with the assistance of R. A. Faires and R. J. Millett. Vol. 1: Medical and Physiological Applications. Pp. xi+418. 65s. Vol. 2: Physical Sciences and Industrial Applications. Pp. ix+223. 45s. Set of two volumes 100s. (London: Butterworths Scientific Publications, 1954.)

THE editors and publishers are to be congratulated on producing this report of the second Oxford Radioisotope Conference within a comparatively short time after the meetings. The magnitude of this task is indicated by the fact that some seventy papers on a very wide variety of subjects are reproduced in full, together with verbatim accounts of the discussions following each paper. Perhaps the most striking feature of these two volumes is the distribution of the subject-matter over the various scientific fields. Of the seventy papers, forty-six are concerned with medical and physiological applications of radioactive isotopes, while the remaining twenty-four are spread over various branches of chemistry, physics, metallurgy and industry. If these figures give a true picture of the distribution of uses of isotopes, there is an implication of a regrettable slowness in making use of these new scientific tools over a wide range of applied science.

As pointed out by Sir John Cockcroft in his opening speech, this was not a specialist conference but rather one designed to discuss and spread the knowledge of radioisotopes as tools of research. This outlook is demonstrated in the published papers, where the emphasis throughout is on techniques and where experimental results are used largely to illustrate advances in technique. An attempt has been made to divide the papers under subject headings, and from the point of view of the main purpose of the

Conference, this may not be considered entirely satisfactory. It results, for example, in related techniques being found in widely separated parts of the books. This is, however, a minor defect and does not detract from the value of this report as a most important addition to the literature on radioisotopes. In such a rapidly expanding field, it seems certain that further conferences and reports will be needed. J. E. R.

The Birds of Ireland

An Account of the Distribution, Migrations and Habits as Observed in Ireland. By P. G. Kennedy, S.J., Robert F. Ruttledge and C. F. Scroope, assisted by G. R. Humphreys. Pp. xv+437+11 plates. (Edinburgh and London: Oliver and Boyd, Ltd., 1954.) 42s. net.

ALTHOUGH books on birds in general are legion, those on the ornithology of Ireland are by no means numerous; indeed, no comprehensive work has been published since that of Usher and Warren in 1900. During this time many changes have taken place in the status of a variety of species. Some have been lost and some gained. In the present volume P. G. Kennedy, R. F. Ruttledge, C. F. Scroope and G. R. Humphreys have endeavoured to supply this want and deal with the "Birds of Ireland" as they are to-day.

Taking them species by species, they describe the position of each, often having much to say concerning fluctuation of numbers and alteration of status. For example, of the red-necked phalarope they write: "In 1900 two or three pairs were noticed during the breeding season in a marsh in Co. Mayo, and two summers later breeding was definitely established. Since 1902 a colony has bred there with varying success. It seems to have reached its greatest strength in 1905, when about fifty pairs were found. . . . In 1932 Mr. P. E. Dunn and the writer could count only twenty-five birds". They go on to recount the gradual decline of this and neighbouring colonies, pointing out that some of the blame must go to the collectors who took heavy toll of the eggs; but the destruction of nests and eggs by cattle must not be overlooked. Their summing-up of the present position of this phalarope in Ireland is "summer visitor in small numbers and very local. Has decreased rapidly. Extremely rare as an autumn migrant". FRANCES PITT

Reports on the Progress of Applied Chemistry Vol. 37, 1952; pp. 983. Vol. 38, 1953; pp. 989. (London: Society of Chemical Industry, 1954.) 60s. each vol. (40s. to members).

THE excellent survey of applied chemistry provided by these annual reports is familiar to chemists, and no general description of their contents should be necessary. It may, however, be useful to mention that they are likely to be serviceable in a wider field. In the present volumes, for example, there are sections on agriculture and horticulture dealing with pest control, which should interest botanists; there are also sections on medicinal substances and antibiotics, which will be useful to those interested in medicine.

The general fields of applied chemistry are admirably covered. In view of the very wide range of literature used by the reporters, the volumes, which have author and subject indexes, give a comprehensive survey of all branches of applied chemistry and are indispensable in any chemical library.