

Annual Reports on the Progress of Chemistry for 1936
Vol. 33. Pp. 512. (London: Chemical Society, 1937.)
10s. 6d.

THE annual reports on the progress of chemistry, published by the Chemical Society, have for long tended to become collections of monographs on selected phases of the process whereby the science is advancing along the parallel paths of experiment and theory. In this way both professional chemists and other readers interested in the progress of the natural sciences can best be presented with an outline sketch of what is in reality a rapidly expanding and frequently changing picture.

The subject-matter is broadly divided into radio-activity and sub-atomic phenomena, general and physical chemistry, inorganic chemistry, crystallography, organic chemistry, biochemistry and analytical chemistry. The method of treatment may be exemplified by quoting the titles of the sections of organic chemistry, as follows: stereochemistry; carbohydrates; natural resins; aromatic compounds; dehydrogenation in the determination of structure; synthesis of polycyclic hydroaromatic compounds; natural products of the sterol group; heterocyclic compounds; alkaloids; vitamin B₁ and thiochrome. Under "Chemical Kinetics", the quantal theory of chemical change, the object of which is to predict the absolute magnitude of the velocity of chemical reactions of all kinetic orders in homogeneous and heterogeneous systems, is discussed. The chapter on atomic weights refers to the importance of establishing an invariable standard for chemical work, a requirement which has arisen from the discovery that oxygen in air is heavier than oxygen combined in water. A summary of recent work on fluorine and its compounds and on the rare earths is given; it is interesting to be reminded that the rare earths as a whole are not particularly rare, being as plentiful in Nature as lead, zinc or cobalt.

Reference is made to a new modification of insulin therapy involving the use of protamine insulinate, and considerable space is devoted to the phenomena of photosynthesis in plants, whilst the new magnetooptic method of chemical analysis is briefly criticized. Since in every case the authors are investigators of acknowledged authority, the volumes of this series are of permanent value as well as of immediate interest.

A. A. E.

An Outline of Malayan Agriculture

Compiled by D. H. Grist. (Malayan Planting Manual, No. 2.) Pp. xiii + 388 + 86 plates. (Kuala Lumpur: Department of Agriculture, 1936.) 3 dollars.

THIS handbook, which has been prepared by the Agricultural Department in Malaya, is an enlarged and completely revised edition of one published some years ago. It supplies information on all aspects of Malayan agriculture.

The first chapters are devoted to a general discussion on agricultural conditions (including land tenure) and agricultural practice throughout the Peninsula. Part 3 of the volume deals in detail with the major crops, which are rubber, coco-nuts, rice,

oil-palms and pineapples. Parts 4 and 5 are devoted to the numerous secondary and minor crops of that region, including the large groups represented by fruits, vegetables and spices. Although some of the crops or plants dealt with, such as the durian mangosteen and rambutan are typically Malayan or East Indian, most of the others are cultivated generally throughout the tropics. The book should therefore be of interest or value to agriculturalists in other parts of the tropics besides Malaya. In the section on livestock, cattle, pigs, poultry and freshwater fish are dealt with, and in the appendix there are lists of import and export duties, Malayan weights and measures and a full bibliography. A large number of photographs are used to illustrate the text.

The authentic nature of the information and the amount of detail contained in this handbook, combined with the care and thoroughness with which it has obviously been prepared, should place it in the front rank of works on tropical agriculture.

Higher School Revision Mathematics

By L. Crosland. Pp. viii + 164 + xviii. (London: Macmillan and Co., Ltd., 1937.) 3s. 6d.

THE usefulness of the author's "Revision Mathematics" for the First School Certificate Examination has led to a request from teachers for a similar book dealing with the pure mathematics required by the non-specialist for the Second or Higher Certificate Examination. The present volume has therefore been compiled to supply this demand.

The book provides a large number of exercises arranged in four main groups: algebra, trigonometry, geometry and calculus. Each section is introduced by some fully worked-out questions which are well chosen to illustrate the main points essential for adequate revision. The graphical illustrations are especially clear, and should lead pupils to see that, what they sometimes consider to be rather a dull part of the subject, is really very interesting and stimulating. The section on integration, too, deserves special mention for its clarity and completeness. It should certainly help to pilot the pupil through the great sea of the calculus.

The concluding section consists of a very useful set of typical examination papers illustrating the standard required by the various examining authorities.

The book is excellently adapted to its purpose, and may be confidently recommended. We notice a few errors which will no doubt be corrected in a future issue.

Quantity Surveying for Builders:

a Text-Book for Surveyors, Civil Engineers, Builders and Contractors. By Wilfrid L. Evershed. (Directly-Useful Technical Series.) Fourth edition, revised. Pp. xix + 282 + 12 plates. (London: Chapman and Hall, Ltd., 1936.) 10s. 6d. net.

THE fact that this work has necessitated four editions in fourteen years shows that it is fulfilling a definite need. Designed to illustrate methods commonly used in the best London practice, and clearly illustrated and set out, it can be recommended with confidence not only to students of quantity surveying, but also to the practitioner.