

the analyst should be able to undertake at once the bulk of the work of most food laboratories.

A study of the book fails to substantiate these claims: the methods selected are empirical, the underlying principles are not explained, and the directions are often at fault—e.g. the Reichert-Meißel-Polensky method of determining fatty acids (pp. 157-159); in but one case (p. 200) is the student taught to make a second weighing after driving off moisture, &c., to ensure constancy; important details are omitted, e.g. the test for phosphates (p. 80) contains no indication of the necessity for adding excess of molybdate solution, and some of the short references, e.g. to the Roese-Gottlieb method of determining fat in sweetened milk (p. 30), are positively misleading.

In the microscopical section the student is not taught to observe on such test objects as pleurosigma, nor to recognise and ignore air bubbles and dust particles out of focus; but is plunged in *medias res* with plates excellent in themselves but containing, as a guide, elaborate details that only the experienced microscopist can see. Many of the other illustrations are explanatory of apparatus, but the pictures of common laboratory apparatus such as pipettes, cork borers, flasks, desiccators, &c., seem rather unnecessary.

A redeeming feature of the book is the author's excellent, reasoned description of his method of the determination of water by drying in hydrogen, which might be more generally adopted.

H. DROOP RICHMOND.

**WHAT INDUSTRY OWES TO CHEMICAL SCIENCE.** By RICHARD B. PILCHER and FRANK BUTLER-JONES, with an Introduction by SIR GEORGE BEILBY. Pp. 150. (London: Constable and Co., Ltd.) Price 3s. net.

The scheme of this book is good and is indicated in the introduction by Sir George Beilby, who says rightly that there is no desire to present "a pleasing and literary work which would greatly stimulate the imagination of the reader, but to set forth in their bare simplicity the broad facts of achievement, leaving each case to make its own appeal."

This admirable aim has been thoroughly attained. The joint authors recognise it fully, and in their preface put forward the claim that the work may be of use to many classes of the educated public. It may be said that the claim is too modest. Every man claiming to be educated should understand the whole of this book, and if he does not then he may be dismissed as one uneducated and possibly too old to suffer that process.

To come to particulars. There is shown great industry in both collecting and collating all the essential facts of chemical industry. To take the first chapter: after a short but good description of the history and modern conditions of steelmaking, follows one on the most up-to-date modes of obtaining non-ferrous metals. The rarer metals are not neglected, and, as an instance of the care exercised, citation of the note on p. 21 may be made; this gives as simple and clear an explanation of the nature of an eutectic as could be wished.

Descriptions of the methods of manufacture of heavy chemicals follow, and are as interesting from the historical as from the technical point of view. There is here, as throughout the book, a large amount of historical matter which has caused the reviewer to search his memory and sometimes to be glad that such data are at his service. But when the next edition of this book appears—and that may be soon—he suggests a larger proportion of things in being to those of former days, naturally with an enlargement of the book, as the historical matter could not be spared. As an example, the chapter on rubber might well be much expanded, and the same applies to the two succeeding chapters on cement and on refractory materials. The chapters on

refractory materials, glass, enamels, pottery, and porcelain would be improved by the alteration of the ratio of historical to modern practice which has been suggested above.

The chapter on gases is one of the best. Here chemists and physicists meet on common ground, and, as the study of gases was the very beginning of chemico-physical science, a full and interesting historical account is entirely in place. It is accurately balanced by a description of modern developments in the preparation and utilisation of gases in industry.

The book is a good one and much wanted. It contains information accurate in itself and clearly stated. The authors are to be congratulated.

BERTRAM BLOUNT.

## PUBLICATIONS RECEIVED.

**THE ALKALI INDUSTRY.** By J. R. PARTINGTON. Pp. 304, 63 illustrations. (London: Baillière, Tindall, and Cox.) Price 7s. 6d.

**PLANT PRODUCTS AND CHEMICAL FERTILISERS.** By S. HOARE COLLINS. Pp. 236. (London: Baillière, Tindall, and Cox.) Price 7s. 6d.

**TEXTBOOK OF INORGANIC CHEMISTRY.** By R. M. CAVEN. Pp. 468. (London: Charles Griffin and Co., Ltd.) Price 15s.

**BULLETIN OF THE IMPERIAL INSTITUTE.** Edited by the Director and Prepared by the Scientific and Technical Staff of the Imperial Institute, and Others. Vol. xv. No. 4. Oct.-Dec. 1917. Pp. 620. (London: John Murray.) Price 2s. 6d.

**SIR WILLIAM RAMSAY.** By SIR W. A. TILDEN, F.R.S. Pp. 311. (London: Macmillan and Co., Ltd.) Price 10s.

**DYEING AND CLEANING.** By FRANK J. FARRELL, M.Sc. Pp. 253. (London: Charles Griffin and Co., Ltd.) Price 6s.

**RUBBER: ITS PRODUCTION, CHEMISTRY, AND SYNTHESIS.** By A. DUBOSC and DR. A. LUTTINGER. Pp. 383. (London: Charles Griffin and Co., Ltd.) Price 21s.

## EDITORIAL NOTICES.

The Society as a body is not responsible for statements and opinions appearing in the Review.

Hon. Secretaries of Sections are earnestly requested to forward announcements of forthcoming meetings, and reports of past meetings, at the earliest possible opportunity.

Publishers are kindly requested to address books, &c., intended for review, also catalogues and announcements of forthcoming publications, to the Review Editor.

The Editor would be pleased to consider original articles from Members of the Society and others, with a view to their insertion in the Review. They should be clearly written (preferably type-written) on one side of the paper only, and if a reply is wanted, a stamped and addressed envelope must be enclosed. The Editor would also be pleased to accept relevant news or notes, but the sources of information must always be stated. Contributions of either kind will be paid for, but in the event of duplication only the earliest received and published will be recognised.

To secure prompt attention, all communications concerning the contents of the Review, and the Calendar of Forthcoming Events, should be sent direct to: *The Review Editor, Society of Chemical Industry, Central House, Finsbury Square, E.C. 2.* [Telephone: London Wall, No. 7331. Telegraphic Address: Induchem, Finsquare, London.]