a deeper study of the subject. It is, however, a disadvantage that too few references are given in the text. Some textbooks and general articles are listed at the end. As these references often treat a multitude of topics (e.g. Bozorth's *Ferromagnetism*), it will not be very easy to find the special subjects mentioned in the text.

Though the X-ray crystallographer will find here the necessary concepts for his investigations on alloys, X-ray diffraction itself is rather scantily represented. In my opinion only X-ray crystallographers will understand the theoretical part (Chapter 2), and the experimental results are given without much explanation of the methods used.

As, however, X-ray diffraction is only one of the tools for investigating alloys, this omission may perhaps be excused.

J. BOUMAN

Technische Hogeschool, Delft
Netherlands

Although the basic concepts of many parts of the subject are essentially wave mechanical, the book does not call for a detailed knowledge of the formalism of modern quantum theory, and consequently most of it may readily be understood by any well taught university student of the physical sciences. Several topics have been omitted: perhaps the most surprising is the omission of any mention of thermoelectric effects. Other topics such as low-temperature conductivity are only touched upon.

The book is beautifully produced with clear diagrams on almost every page and several photographic reproductions of especially interesting phenomena. Sets of problems are to be found at the end of each chapter along with a useful list of general references.

H. JONES

Department of Mathematics
Imperial College
London S.W. 7, England

Introduction to Solid State Physics. By C. KITTEL. Pp. vii+617 with many figs. New York: Wiley; London: Chapman and Hall. 2nd. ed. 1956. Price $12·00; 96*s*.

The second edition of this well known book on solid-state physics by Prof. Kittel will be welcomed by all interested in this subject. The length of the book has been increased from approximately 400 to 600 pages. The new material consists of sections on alloys, semiconductors (including a clear account of transistor action), photoconductivity, luminescence and imperfections in solids. The object of the book remains the same: to provide an introductory textbook on solid-state physics for students of physics, chemistry and engineering. It achieves this object perfectly. As in the first edition, the exposition of each topic is reduced to its simplest terms, the essence of the phenomenon being made clear with a minimum of formal mathematics.

Les Dislocations dans les Cristaux. By W. T. READ. Translated from the English by P. COULOMB. Pp. xv+237 with 76 figs. Paris: Dunod. 1957. Price f. 2650.

This is a translation of *Dislocations in Crystals*, already reviewed at length in these columns (*Acta Cryst.* (1954), **7**, 522), which follows the original very closely in both matter and format. In a preface by P. Lacombe it is stated that the translation was written by M. Coulamb 'during an untimely recall to the colours'.

The price is considerably higher than that ($ 5·00) of the original American edition although the quality of printing, paper and binding are somewhat inferior.

R. C. EVANS

Crystallographic Laboratory
Cavendish Laboratory
Cambridge, England

Books Received

The undermentioned works have been received by the Editors. Mention here does not preclude review at a later date.

Anorganische Pigmente und Röntgenstrahlen. By R. KÖNIG. Pp. xi+132 with 174 figs. and 28 tables. Stuttgart: Enke. 1956. Price DM. 24·00.

Principles of Engineering Geology and Geotechnics. By D. P. KRYNINE and W. R. JUDD. Pp. xiii+730 with many figs. and photographs. New York; Toronto; London: McGraw-Hill. 1957. Price $10·00; £3.15*s*. 0*d*.

Elements of Pure and Applied Mathematics. By H. LASS. Pp. xi+491. New York; Toronto; London: McGraw-Hill. 1957. Price $7·50.

Rheology: Theory and Applications. Volume 1. Edited by F. R. EIRICH. Pp. xiii+761 with many figs. and tables. New York: Academic Press; London: Academic Books. 1956. Price $20·00; £7.3*s*.0*d*.

Phase Diagrams in Metallurgy. By F. N. RHINES. Pp. ix+340 with many figs. New York; Toronto; London: McGraw-Hill. 1956. Price $12·00; 90*s*.

The Barker Index of Crystals. By M.W. PORTER and R. C. SPILLER. (Published for the Barker Index Committee.) Vol. 2. Crystals of the Monoclinic System. Part 1: Introduction and Tables. Parts 2 and 3: