

of intermediates were as follows: the compounds are not available commercially or, if available, are relatively expensive; they are useful intermediates for the synthesis of other chemicals, or their method of preparation serves as an example of a generally useful type of organic reaction; the starting materials are commonly available (in the United States) or, if not, their preparation is described in "Organic Syntheses" or elsewhere in the book.

All the preparations are on a convenient and useful laboratory scale. The inclusion of some catalyst preparations and certain precautionary notices concerning hazards are commendable features. In addition to a molecular formula and general index, there is a "type of reaction" index which is valuable and which serves to indicate the wide range of reactions covered.

This book is a worthy companion volume to "Organic Syntheses".

J. IDRIS JONES

Artificial Fibres

By R. W. Moncrieff. Pp. x+313. (London: National Trade Press, Ltd., 1950.) 25s. net.

FIBRES from groundnuts, others from seaweed, fibres long known such as those from the cuprammonium process, celanese and viscose, others more modern such as nylon, 'Terylene', and vicara, lesser-known ones such as those made from glass or from polythene; fibres manufactured, spun, woven, stretched, regenerated, dyed, their strength tested; fibres examined, analysed, identified and their molecular structure investigated; staple fibres, lustrous fibres, anti-crease fibres; all are described or discussed by the author—himself a master craftsman—in this interesting and informative book.

Besides being clearly and singularly well written, the book is made additionally attractive by its 112 illustrations, many of which are in half-tone. The thirty-one chapters are grouped to make five parts severally headed as follows: the structure and properties of fibres; regenerated cellulosic and alginic fibres; regenerated protein fibres; synthetic fibres; and processing. The greater part of the text will be easily understood and enjoyed by the ordinary reader. The sections appealing only to the expert are well done and supported by abundant references to the literature. A perusal fully bears out the publisher's claim that the book affords a thorough up-to-date survey of modern synthetic fibres, and it should appeal to all in any way concerned with these new and promising materials.

The Hardness of Metals

By D. Tabor. (Monographs on the Physics and Chemistry of Materials.) Pp. ix+176. (Oxford: Clarendon Press; London: Oxford University Press, 1951.) 15s. net.

STANDARD text-books satisfactorily describe the various techniques of hardness testing and critically discuss their relative advantages and disadvantages in practice. They do not, however, provide any clear understanding of what is meant by 'hardness'; nor do they explain the hardness behaviour of metals in terms of any of the well-understood physical properties. The omission is rectified by the book under review. Over a period of several years the author has studied the problems of contact between solid surfaces and, finding the existing theory of deformation by indenters quite inadequate, he has proceeded to build up a satisfactory treatment in terms of the formal theory of

plasticity using only very simple mathematical methods. No reader can fail to be impressed by the thorough way in which this has been done, for light is thrown on almost every aspect of hardness behaviour. Meyer's Law is derived from the stress-strain curve; the relationship between Brinell hardness and ultimate tensile strength is explained, and many empirical relationships deduced from practical experience are given a physical basis.

Dynamic or rebound hardness and the factors determining the area of contact between solids are discussed in the final two chapters.

This book is clearly written and illustrated and can be warmly recommended to all those who are interested in the hardness of metals. It is without doubt the most important work on the subject to have appeared for many years.

A. G. QUARRELL

The Old Place

By C. C. Vyvyan. Pp. 190. (London: Museum Press, n.d.) 15s. net.

IN an age of ever-increasing statistics and sociological studies there is a danger that the history of our times may become intelligible only to those of our successors who have familiarized themselves with the requisite techniques. Yet shades of emphasis and the nuances of everyday life are still difficult to express mathematically and need the eye and expressive powers of the artist before they can be transmitted to others elsewhere. In "The Old Place", Miss C. C. Vyvyan would be the last to claim that she had written a precise account of what the Second World War had meant to those who lived in large country homes. She could claim to have recorded faithfully her part in the struggle to 'keep up' at least some of the standards of one fine old country house, and especially its garden. This simple account of a determined and not unsuccessful effort to restore the house and garden to a state of beauty after years of requisition by military and other authorities is one which was worth the telling; it deserves readers, now and hereafter.

The British Pharmaceutical Codex, 1949

Supplement 1952. (Published by direction of the Council of the Pharmaceutical Society of Great Britain.) Pp. xii+148. (London: Pharmaceutical Press, 1952.) 25s. net.

THE continual appearance of new drugs makes it difficult to keep the books of reference up to date. The "British Pharmacopœia" of 1948 was followed by an addendum in 1951, and the "Codex" of 1949 is followed by a supplement in 1952. This supplement contains new general monographs, dealing with twenty-two drugs now officially described for the first time in Great Britain, and fourteen drugs already described in the addendum to the British Pharmacopœia. There are also fourteen old monographs which have been amended because the drugs appeared in the addendum.

The new drugs include amidone, aureomycin, cyanocobalamin (vitamin B₁₂), dapsone, decamethonium, diethylcarbamazine (Hetrazan), gallamine (Flaxedil), gammabenzene, luncanthone (Miracil D), mephenesin, solapsone (Sulphetrone) and troxidone (Tridione). It is good to have official standards and names for all these drugs, and reliable paragraphs on their actions and uses. The Codex Revision Committee is to be congratulated.