Under each country are given tables showing imports, exports and production, and short descriptions of the geology and of the mineral occurrences. The statistical information relative to market prices, output and consumption, notoriously difficult to obtain in many cases, is well presented by means of tables and diagrams and is, on the whole, probably as accurate as was possible in the existing circumstances although, especially in the case of "Tin Ores," several unexplained discrepancies are noticeable when the tables of exports and imports are compared.

An effort has been made to include particulars concerning new deposits or potential sources of supply but, whilst much interesting information has been collected from official and unofficial sources and put into a convenient form for reference, it varies in reliability, and little regard appears to have been paid to the relative importance of such occurrences. Mr. Curtis appears to have been the most successful in overcoming these difficulties, and his monograph throughout shows care in its compilation.

The effect of the war upon the ore-minerals in question is clearly brought out in all three cases. The United States, the largest consumer of tin but not a producer before the war, now takes the place of Germany as a purchaser of Bolivian ores. Practically all the tungsten ore produced within the British Empire was taken by Germany before the war; now there is more than adequate plant capacity in England for this country's needs. Brazilian manganese ores could not compete seriously with those of Russia and India before the war but, owing to the cutting off of the Russian supplies and the Indian production being required by Great Britain, the United States increased its importation from Brazil, whose output of ore rose from 70,000 tons in 1913 to 495,000 tons in 1916. Much has been written in the press concerning the war period increase of tungsten ores. The increase in the world's production was approximately from 8000 tons in 1913 to 22,000 in 1917, a special feature being the production of China, which is stated to have risen from a negligible quantity before the war to 1200 tons in 1917 and to over 4000 tons in 1918. As a matter of fact, China produced approximately 8000 tons in 1918; equal in amount to the world's production in 1913.

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ANIMAL AND VEGETABLE OILS, FATS, AND WAXES. *By* GEOFFREY MARTIN. *Manuals of Chemical Technology IX. Pp.* 218. *(London: Crosby Lockwood and Son.* 1920.) *Price 12s. 6d. net.*

Several attempts have been made during recent years to cover in a short treatise either the whole or a considerable part of the wide field outlined by the above title. The present attempt to deal with the whole field of the nature, manufacture, analysis, and uses of oils in the brief space of some two hundred pages (including a good deal of space given up to diagrams and illustrations) is obviously a bold one, and the result cannot be said to be particularly successful.

In spite of the concentration of a large amount of information into a small space by the copious use of small type, and by cutting down descriptions of methods or processes so far as to render them frequently of little use, valuable space is often wasted by needless repetition. Chapter XI., for example, dealing with analytical methods, is to a large extent covered by Appendix II., consisting of a reprint of the Report of the Committee of Analysts on Standard Methods of Analysis of Seeds, etc., to the Ministry of Food.

The attempt to deal in five pages with the manufacture and analysis of butter is obviously futile, especially as nearly two pages are devoted to tables of tests for added colouring matter; whilst the chapter on margarine occupying six pages, and including three pages of statistical information, is also poor, although in this case there is more excuse, as the literature of the subject is scanty and manufacturers are somewhat reticent as to details of certain processes.

Chapter X., entitled "Varieties of Fats, Fatty Oils, and Waxes," is, unfortunately, one of the weakest in the book. A notable omission is to be traced under castor oil, no reference being made in the description of this oil to its characteristic acetyl value, and, although figures for acetyl values of various oils are given in the tables of analytical constants, no reference is made to this constant in the chapter on methods of analysis.

There is throughout an unfortunate lack of system; botanical names of plants furnishing oil-seeds are sometimes given (in several cases inaccurately), and in many other places are omitted, whilst no serious attempt is made to indicate the relative commercial importance of different oils. The information is at times not so "up-to-date" as it might be—*e.g.*, no mention is made of the most important modern source of whale oil, viz., the South Atlantic fisheries, though less important sources are referred to (p. 32).

One must confess relief at finding that the author realises that edible oils may be manufactured by the solvent extraction process, though even now he appears hardly to realise, or else is reluctant to admit, that enormous quantities of edible oils have been manufactured in this way for some years past.

In spite of its many faults this book possesses redeeming features, such as the numerous diagrams and illustrations of modern plant and machinery (largely from machinery manufacturers' catalogues), the inclusion of brief descriptions of the manufacture of fish oil and meal, and of the recovery of oil from engineering-shop waste, whilst the important subjects of the hydrogenation of oils and extraction of oils by solvents appear to be dealt with as well as it could be in the small space available.

After a careful perusal of this book one is tempted to ask, to what class of reader is it likely to appeal most. It seems to be written in too condensed a form to prove of much value as a work of reference to the technologist, manufacturer, or chemist; it should, however, enable anyone with little previous knowledge of oils to obtain rapidly, and with a minimum of labour, a general idea of the subject, and serve to indicate where more detailed information is to be found.

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WASTE AND CORRECT USE OF NATURAL GAS IN THE HOME. *By* S. S. WYER.
APPROXIMATE QUANTITATIVE MICROSCOPY OF PULVERISED ORES. *By* W. H. COGHILL *and* J. P. BONARDI.

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FELSPAR. *Price* 6*d.*
FULLER'S EARTH. *Price* 6*d.*
CHROME ORE AND CHROMIUM. *Price* 1*s.*