

formed. Of the numerous native risings with which the company has had to deal, the most formidable was that headed by the redoubtable Mat Saleh, who was defeated and killed in 1899.

Mr. Rutter gives a very complete account of the geography and economic resources of the country, of which, however, the greater part is still undeveloped. The native population offers many points of interest to the ethnologist. The Dusuns and Muruts, the up-country agricultural population, are of Indonesian stock. The coastal peoples, Bajau, Illanun, and others, represent an incursion of Malayan stock. The latter are Mahomedans, while the former are pagan. A remarkable feature in the religious beliefs of some of the Dusuns is the cult of the sacred jar, in each of which a small company of relatives has a joint ownership.

*Incandescent Lighting.* By S. I. Levy. (Pitman's Common Commodities and Industries.) Pp. x + 129. (London: Sir Isaac Pitman and Sons, Ltd., 1922.) 3s. net.

THE author has produced an interesting and well-written book which gives a good historical account of the development of artificial lighting; particular attention being given to incandescent lighting. A chapter is devoted to the growth of the rare earth industry. The dramatic discovery of rich deposits of monazite in the British Empire, and notably at Travancore in India during the War, was a great help to this country; the sands at Travancore contain more than 45 per cent. of monazite. The processes of extracting pure thorium compounds from monazite demand great ingenuity, and they are well described. Descriptions are also given of the recent great improvements in the manufacture of incandescent mantles. The author gives a very fair comparison of the costs of oil, gas, and electric methods of lighting. The average candle-power (formerly called the mean spherical candle-power) should, however, have been taken as the basis of the comparison and not the mean horizontal candle-power.

*Lubrication and Lubricants: a Concise Treatment on the Theory and Practice of Lubrication; the Physical, Chemical, and Mechanical Properties and Testing of Liquid and Solid Lubricants; with Notes on Recent Developments and Examples from Practice; for Engineers, Chemists, and Students.* By J. H. Hyde. (Pitman's Technical Primers.) Pp. x + 114. (London: Sir Isaac Pitman and Sons, Ltd., 1922.) 2s. 6d. net.

ALTHOUGH very uneven, the little book under notice is interesting. The definitions are usually rather carelessly given, if at all. Thus, in the chemical section (which is not very satisfactory) neither the iodine nor the acetyl value is explained, although both are quoted. Langmuir's name is incorrectly spelt throughout the book. The chapter on recent developments is of interest, and deals among other matters with the variation of efficiency with temperature and the effect of adding vegetable to mineral oils. We have previously commented on the very ambitious titles of the small books in this series; the remark applies in the present volume, and any one who expects what he might from the title will be disappointed.

NO. 2786, VOL. 111]

*Molybdenum Ores.* By Dr. R. H. Rastall. (Imperial Institute: Monographs on Mineral Resources with Special Reference to the British Empire.) Pp. ix + 86. (London: J. Murray, 1922.) 5s. net.

THE molybdenum minerals, their origin and mining, are dealt with, and an account of the metallurgy of molybdenum is also included in this work. The account of the electrical treatment on p. 5 does not seem complete, as no mention is made of the furnace charge. The sections on the sources of supply appear to be exhaustive, nearly every reported occurrence of molybdenum being mentioned, together with the production, if any. The table on p. 12 indicates that the demands for the metal are limited; the production in 1918 was equivalent to about 800 metric tons of metal; that in 1921 was only 7 tons. The principal use is in the preparation of special steels; a lower amount of molybdenum will replace tungsten in a high-speed tool steel, and a small amount of molybdenum is said to improve a mild structural steel.

*History of Chemistry.* By Dr. F. P. Venable. Pp. vii + 169. (London and Sydney: D. C. Heath and Co., 1922.) 5s. net.

DR. VENABLE'S "History of Chemistry" is a second edition of a book that appeared in 1894. A history of chemistry which contains no illustrations or diagrams, and in which formulæ are used only in the few passages where their historical development is under consideration, must be subject to serious limitations and in the nature of things cannot be much more than a sketch. It is not quite clear to the reviewer what type of reader will be attracted by such a sketch; but it is likely that the well-read student of chemistry will find some interest in this brief outline, and may be led by it to follow up the history of his science in some volume in which more details are given.

*The Elements of Scientific Psychology.* By Prof. Knight Dunlap. Pp. 368. (London: Henry Kimpton, 1922.) 18s. net.

THE author has here produced one of the best and most useful of the many text-books now available on psychology. He is a good experimentalist, and is thoroughly alive to the importance of a knowledge of physiology to the psychological student. He shows himself able at the same time to maintain a distinctively psychological point of view. The main faults of the book are that it attempts to cover too much ground, and that occasionally it presents, as text-book material, conclusions which require to be subjected to much further research.

*Grundzüge einer Physioklimatologie der Festländer.* Von Dr. Wilh. R. Eckardt. Pp. v + 123. (Berlin: Gebrüder Borntraeger, 1922.) 4s. 6d.

DR. ECKARDT has produced a useful little book, which aims at giving an outline, according to the most recent investigations, of the distribution of temperature, pressure, and precipitation in the main land-masses. Particular attention is paid to Europe. There are a number of sketch maps and diagrams, and a short bibliography. The book gives in a convenient and authoritative way information that is not generally accessible in a collected form. It should prove very acceptable to students of geography.