BOOK REVIEWS

MINERALS IN WORLD AFFAIRS. By T. S. Lovering, Professor of Economic Geology, University of Michigan. Prentice-Hall, Inc. Pp. 394, 40 illustrations, Price $4.00.

The overwhelming importance of minerals in the genesis of war, its conduct and final outcome is rapidly becoming a matter of general knowledge. It is inevitable that the significance of the mineral industries and the consequence of the part that they play in human affairs will receive increased attention from the public in the post-war years. It is also apparent that more educational institutions will be inclined to add course instruction to their curricula covering this field. The publication of Dr. Lovering's, "Minerals in World Affairs" is fortunate in that it presents data which can be read with interest and profit by the non-technical reader and which can serve as a text for organized instruction.

The value of the discussion of present day conditions is enhanced by the inclusion of an historical background of industrial development. The role of minerals in primitive commerce, relationship to national power and military strength, place in national economy and peculiar economic problems is presented. A chapter devoted to the fundamentals of geology and their relationship to mineral deposits supplies the reader with a necessary technical background.

Discussion of mineral commodities is restricted to the basic sinews of war and peace; coal, petroleum, iron and steel, the ferro-alloy elements, and the common nonferrous metals. Completeness of the industrial significance of each commodity is attained by the inclusion of geology, technology, utilization, and international distribution which is illustrated by maps showing world wide dispersion. An appendix containing production tables of representative years supplies factual data. In the past such information could be found only by laborious search through a widely scattered and voluminous literature. The author is to be congratulated on having assembled a comprehensive picture of the role and influence of the common minerals in modern society.

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AFRICAN HANDBOOKS: 2. THE MINERAL RESOURCES OF AFRICA by A. Williams Postel. The University of Pennsylvania Press, 3622 Locust St., Philadelphia. **1943,** Price $1.50 (paper cover).

This is one of a series of seven "African Handbooks." This pamphlet of 105 pages contains much statistical data on the mineral resources of Africa. The seven chapter headings are: I Base metals (iron, tungsten, manganese, nickel, chromium, molybdenum, cobalt); II Non-ferrous metals (copper, aluminum, tin, lead, zinc); III Minor metals (titanium, beryllium, radium and uranium, antimony, arsenic, cadmium, columbium and tantalum, magnesium, mercury); IV Precious metals (platinum, gold, silver); V Non-metallics (coal, petroleum, diamonds, asbestos, mica, corundum, phosphate, diatomite, fluorspar, graphite, talc, gypsum, sodium compounds, pyrite, barite, slate, building stone, lime and cement); VI Water power and supply; and VII Madagascar. An appendix lists the geographical distribution of Africa's mineral production and mineral resources.

In the discussions, Africa's annual production is given together with the annual world's production and the world's chief producer of the substance in question. Where available figures on African ore reserves are likewise included. There is a brief description of the occurrence but technical geological details are omitted. It is interesting to note that Africa

leads the world in the mining of diamonds (99%), gold (40%), phosphates (36.6%) and radium ores, and is a large producer of copper (18%), chromium (31.6%), manganese (21.6%) and vanadium (47.5%). She has also large potential reserves of aluminum ore.

W. F. H.

NEW MINERAL NAMES

Ramsdellite

MICHAEL FLEISCHER AND WALLACE E. RICHMOND. The manganese oxide minerals: a preliminary report. *Econ. Geol.*, **38**, 269–286 (1943).

NAME: For L. S. Ramsdell, who first described the mineral (*Am. Mineral.*, **17**, 143–149 (1932)).

CHEMICAL PROPERTIES: Composition stated to be MnO_2. No analysis given. Inverts to pyrolusite when heated at 300° C.

PHYSICAL PROPERTIES: Orthorhombic. Color iron-gray to black. Streak black. Hardness 3, G=4.7. *X*-ray powder data are given.

OCCURRENCE: Occurs as thick tabular crystals and as massive material that has a platy appearance, owing to two cleavages at right angles. Commonly mixed with pyrolusite (transformation product?). Three localities are listed: Lake Valley, Sierra Co., N. Mex.; East River, Pictou Co., Nova Scotia; Kodjas Karil mine, Moustapha Pasha, Roumelia, Turkey.

MICHAEL FLEISCHER

NEW DATA

Coronadite, Cryptomelane, Hollandite, Lithiophorite, Ranciéite

FLEISCHER AND RICHMOND, *op. cit.*

X-ray powder data and a list of occurrences are given for all these minerals, with a brief summary of their physical properties. Lithiophorite and ranciéite, previously considered to be varieties of psilomelane, are independent species. No analyses are given, but the following formulas are tentatively suggested:

cryptomelane, KR_8O_{16}(?)

coronadite, PbR_8O_{16}(?) R = Mn^4 chiefly, also Mn^2, Co, Zn, Fe^3.

hollandite, BaR_8O_{16}(?)

lithiophorite, $Li_2(Mn^2, Co, Ni)_2Al_8Mn^4_{10}O_{35} \cdot 14H_2O$(?)

ranciéite, $(Ca, Mn^2)Mn^4_4O_9 \cdot 3H_2O$(?)

DISCUSSION: In the *American Mineralogist*, **28**, 174 (1943), J. W. Gruner refers to material from Postmasburg, South Africa, as "corresponding to a new manganese mineral called oakite by W. E. Richmond. Oakite is found at White Oak Mt., Tenn."

The name oakite was a tentative designation for material later found to correspond to the old mineral lithiophorite. It is to be regretted that the name oakite accidentally found its way into print. The name oakite should be stricken from the literature.

M. F.