BOOK REVIEWS

CRYSTALLOGRAPHY, MINERALOGY, STRUCTURES, extracted from Volumes VIII (1927–1928) and IX (1929) of the ANNUAL TABLES OF CONSTANTS, PROFESSORS NIGGLI AND BRANDENBERGER (ZURICH) AND MATHIEU (PARIS). 223 pages, 22 cm./28 cm. Price, bound Frs. 100 ($3.91). Publishers, Gauthier-Villars & Co., 55 Quai des Grands Augustins, *Paris*.

The extreme importance of these complete tables to the research worker is clearly indicated by the statement that their preparation required the careful examination and systematic classification of data collected from more than 650 scientific journals.

The section of special interest to mineralogists is that portion, separately bound and comprising 223 pages, that records the new data in the fields of crystallography, mineralogy and crystal structure. Drs. P. Niggli and E. Brandenberger have compiled the material relating to mineralogy, and the crystallography of minerals and artificial compounds, both organic and inorganic. Measurements which merely confirm previous results but do not exceed them in accuracy have been omitted from the Tables, as well as optical determinations on insufficiently defined substances, except when accompanied by chemical analyses. For new mineral species all observed forms and symbols are given, but for previously known minerals only the absolutely new forms are recorded. The chemical data have been quoted fully.

The portion devoted to crystal structure, compiled by Dr. M. Mathieu, lists for each substance: crystal system; length of unit cell edges; angles between the cell edges; the experimental and calculated density; number of molecules in the unit cell; and the space group according to Schönflies-Asbury or that of Wyckoff.

W.F.H.

PROSPECTING AND OPERATING SMALL GOLD PLACERS. WILLIAM F. BOERICKE. Published by John Wiley and Sons, Inc., *New York*.

This small volume of 132 pages, devoted to the timely subject of the recovery of gold from placer deposits, has been prepared to assist the man without technical education, in prospecting and operating placers efficiently with a minimum investment for equipment.

The simple geology of placers, the common methods of prospecting employed in their discovery, and the methods and mechanical means necessary for the separation and recovery of the gold are sucessively treated in a very readable, non-technical manner. Inclusion of data relative to the operation of dry placers, and the use of placer mining machines, which may be operated by one or two men where water is available is of interest. A discussion of the legal location of a claim, sale of gold, and sale of a placer property increases the usefulness of the volume.

This handbook will be found decidedly useful to those with sufficient optimism to engage in the search for gold. The price is $1.50.

W. M. MYERS

REPORT ABOUT THE MINES IN THE UNITED STATES OF AMERICA, 1783. SAMUEL GUSTAF HERMELIN. Translated from the Swedish by Amandus Johnson. The John Morton Memorial Museum, Philadelphia, 1931. 76 pp., 1 plate.

In 1783 Hermelin visited America to investigate the "geology and the purification of metals"; after 148 years his report is published for the first time. The work constitutes the first one on the mineral resources of this country. It preceded by four years the well known Schoepf's "Beiträge zur mineralogischen Kenntniss des östlichen Theils von Nord-Amerika und seinen Gebirge" (1787), usually considered the first book on American minerals.

With the exception of certain general geological and botanical notes, only iron ore deposits and mines are described: "In some parts of the United States of America, rich iron ores are obtained at cheap prices on account of the nature of the ore quarries . . . ." "The majority of the iron ore fields hitherto exploited are situated in the following three states: New Jersey, . . . Pennsylvania, . . . Maryland . . . . In addition a few mines are worked in other states . . . ." Among the mines described are those of Hibernia, Mount Hope, Succasunny and Andower in New Jersey; and Durham, Warwick, Jones, Hopewell, and Cornwall in Pennsylvania. The translator's unfamiliarity with geological terms results in the use of "sweep" where "strike" should have been used.

SAMUEL G. GORDON