

Vivianite is essentially a hydrous ferrous phosphate, $\text{Fe}_3(\text{PO}_4)_2 \cdot 8\text{H}_2\text{O}$; ($\text{H}_2\text{O} = 28.7$ per cent). Its composition suggests an association with glauconite which is a hydrous silicate of aluminum, iron, and potash.

Vivianite is mentioned as occurring in clays and marls in New Jersey and elsewhere, but its occurrence in indurated greensands in Virginia has not heretofore been described in the literature so far as is known.

A Correction

The foot-note reference on page 134, volume 16, No. 4, should read: H. W. Foote instead of A. W. Foote and *Jour. Am. Chem. Soc.*, instead of *Am. Jour. Sci.*

BOOK REVIEW

HANDBOOK FOR PROSPECTORS, M. W. VON BERNEWITZ. Second edition. McGraw-Hill Book Company, Inc., *New York*, 1931. XI+359 pages, 89 illustrations. Price, \$3.00.

This book is written as a handy guide for prospectors and other men who, from time to time, may wish to undertake some kind of prospecting work. The author assumes that these readers have not had a basic training in mineralogy and geology and therefore attempts to present the subject matter in such terminology and simplified classification that the layman may readily understand it. In undertaking such a difficult task, however, he occasionally throws himself open to criticism by his professional associates, which in such an endeavor is almost an inevitable result.

One-half of the book is devoted to a discussion of the most common non-metallic and metallic minerals in reference to their occurrence, description, detection, use, value, etc. They are listed alphabetically for ready reference. Each mineral or metal is treated with special regard to its particular attributes and considerable supplementary material is added where appropriate, such as methods of prospecting, mechanical concentration, types of deposits, minerals which might be mistaken for the one in question, etc.

A short but good "glossary of terms used in mining" is included which contains many words not used in the simple discussions in the book but are intended, apparently, to aid the prospector in reading governmental, and other publications, so often referred to.

Because of the growing importance of geophysical methods of prospecting, a chapter in keeping with the general simplicity of the book has been included on this subject. It has as its object merely the familiarizing of the prospector with the various methods of geophysical prospecting and the opinions of experts regarding their utility.

The first third of the book is devoted to a series of twenty-six very short chapters which deal with the following subjects: financial aid to prospectors, equipment, food, water, transportation, mining laws, first aid, introduction to mineralogy and geology, occurrence of ores, outcrops, sampling, field tests, development of prospects, and markets and prices.

Aside from certain minor criticisms which might be mentioned such as: certain ambiguous expressions; improper designation of crystallographic forms and their orientation; and the antiquated treatment recommended for snake bites, the book contains many helpful suggestions to prospectors and should command a wide sale.

A. J. EARDLEY

PROCEEDINGS OF SOCIETIES

PHILADELPHIA MINERALOGICAL SOCIETY

Academy of Natural Sciences of Philadelphia, June 4, 1931

A stated meeting of the Philadelphia Mineralogical Society was held on the above date, Mr. Toothaker presiding. Mr. Strock announced his resignation as secretary of the society.

Mr. Morrell G. Biernbaum addressed the Society on *The Crystal Identification of Minerals*. The speaker limited his discussion to those points which are useful as a means of identification in the field. Introductory to his presentation Mr. Biernbaum gave an elementary description of the various crystal systems and common forms. It is frequently necessary to utilize certain peculiarities of crystal habit common to some minerals, in order to distinguish them from closely related species. Among these peculiarities may be mentioned, striations, etch figures, internal fracture, and cleavage.

Mr. Fleming Jr. exhibited excellent specimens of white stilbite, golden calcite and heulandite from the old Workhouse quarry at Moores Station, New Jersey. Mr. Hoadley described a visit to the dumps at Tilly Foster.

Dr. Newcomet exhibited some experimental results involving radiation. An exposure of X-ray films to powdered gas mantles, and to some radioactive minerals, showed that the radiation from the mantles is mostly superficial and has little penetrating power, whereas the radiation from radioactive minerals is chiefly "deep" radiation and has a high penetrating power. Mr. Vanartsdalen reported small vesuvianite crystals from a recent cut at New Hope, Pennsylvania.

Mr. Trudell announced the prize winners of the Northeast High School Mineralogical Exhibit, held May 20.

Sixty-four persons including forty-nine members were present.

LESTER W. STROCK, *Secretary*

NEW MINERAL NAMES

Nagatelite

SATOYASU IIMORI, JUN YOSHIMURA AND SHIN HATA: A new radioactive mineral found in Japan. *Scientific Papers Inst. Phys. Chem. Research, Tôkyô*, **15**, No. 285, 83-88, 1931.

NAME: From the locality, Nagatejima, a small headland on the Noto Peninsula.

CHEMICAL PROPERTIES: A phospho-silicate of aluminum, rare earths, calcium and iron; $4RO \cdot 3R_2O_3 \cdot 6(SiO_2, P_2O_5) \cdot 2H_2O$. Analysis: SiO_2 25.2, TiO_2 0.57, P_2O_5 6.48, Al_2O_3 14.3, Fe_2O_3 2.40, Ce_2O_3 14.58, La_2O_3 , etc. 7.84, Y_2O_3 , etc. 4.51, ThO_2 0.88.