

oxides, it being assumed that the composition of the mineral can be expressed as $H_2FePO_5 \cdot H_2O$, the bivalent bases occurring in replacement of the basic hydrogen. These bases may in part exist as extraneous or adsorbed constituents in such a fine grained material of evidently metacolloidal character, or may possibly be in part combined with the silica. That the mineral is to be referred to barrandite is shown by its optical properties which are quite distinct from those of strengite (mean index above 1.70) and koninckite (isotropic).

PROCEEDINGS OF SOCIETIES

PHILADELPHIA MINERALOGICAL SOCIETY

Academy of Natural Sciences, June 14, 1923.

A stated meeting of the Philadelphia Mineralogical Society was held on the above date, Mr. Harry W. Trudell presiding in the absence of Mr. Geo. Vaux. In the absence of the Secretary, Mr. J. C. Boyle assumed the Secretary's place *pro tem*. Fifteen members were present.

The minutes of the previous meeting were read and approved. Mr. Jos. L. Darlington, of West Chester, Pa. was proposed for membership by Mr. Biernbaum, and seconded by Mr. Horace Hallowell. Several excursions were proposed by Mr. Oldach, as follows: Perkiomenville, Wood's Chrome Mine, and Feeney's Quarry, at Holland, Pa.

Mr. Hoadley reported the digging of a water tunnel by the Newark Water Co. near Great Notch, N. J. which passes under the floor of the old Francesco Quarry. The minerals from the new boring are the same as formerly found at the Quarry; gmelinite, calcite, heulandite, stilbite, amethyst, smoky quartz, prehnite. Mr. Hoadley also reported that the New York Club had found autunite, hyalite and yellow beryl at the second Kunkle Quarry, Bedford, N. Y. on May 30th last. Mr. Vanardsdalen stated that Feeney's Quarry seemed a good prospect at present and that while the Jarrett Quarry was being worked nothing was found worthy of comment. Mr. Hoadley stated that brucite of superb quality, crystallized, had been found several winters ago in the excavation for the New York Stock Exchange Annex. Mr. Blank exhibited hornblende from Rock Hill Quarry near Quakertown, Pa., which was accompanied by an undetermined microscopic mineral. Mr. Millson reported being at Perkiomenville on May 30th but found little of interest as the recent blast had covered what minerals were usually found near the bottom of the Quarry. Mr. Keeley exhibited fine specimens of blue tourmaline from Andover, Maine, purchased for the Vaux Collection, as well as kunzite crystals for the same collection. He stated he had received a letter from the Pennsylvania State Geological Survey, requesting specimens of cut stones of Pennsylvania minerals, and asked for whatever good material the members cared to furnish.

The trip to French Creek on May 27th and 28th was reported upon by various members; Mr. Oldach reported having secured an octahedron of pyrite of good size, considerable chalcopyrite crystals in blocks of byssolite, and apophyllite.

He stated he had secured three varieties of this mineral from French Creek, out of a possible four mentioned in Dana. One variety seemed to consist of concentric layers.

Mr. Hoadley reported chalcodite in feldspar and a pyrrhotite crystal with two pinacoids and all but one prism face; also attractive pyrite. Report was also made of the trip down the mine to the 1250 foot level. Mr. Trudell made especial reference to this trip and Mr. Maddern, who accompanied the party, presented an interesting geological sketch and explanation of the practical mining problems.

Commenting on the subject of French Creek Minerals, Mr. Keeley reported having found, about 40 years ago, elongated octahedrons of pyrite. In the discussion of apophyllite, Mr. Keeley stated that under polarized light, crystals with concentric structure, cleaved parallel to the base, show wedges of color like andalusite. This seems characteristic of this variety and the same phenomenon is present in Brazilian topaz. The impression conveyed is that of inter-penetrating twinning, but seems to be due to a tendency of the mineral to change its crystal structure after crystallization.

Mr. Biernbaum, reporting upon various localities, stated that the Springfield Quarry was "dead," while Leipers showed promise in the upper levels, but on his visit yielded nothing but a broken beryl. Dutton's Mills yielded two small doubly terminated amethysts and a few fragments; Brinton's he reported as "dilapidated." Mr. Keeley called attention to the granite dyke at Brinton's as being of an unique type, as it is entirely free of dark colored minerals. Mr. Hoadley mentioned an interesting outcrop of fine grained nepheline syenite at Beamerville N. J. above Franklin, which parallels the Kittatiny Range for a mile and is about three quarters of a mile wide. The rock at the surface is rust covered and contains numerous fumaroles. No large crystals have been seen in this formation, but the whole section is reported as being very interesting, geologically.

A letter from Dr. Washington was read, expressing his hearty enjoyment of his trip to Philadelphia in May and his pleasure in addressing the Society and meeting its members. No further business being offered, the Society adjourned.

J. C. BOYLE, *Secretary pro tem.*