## JOURNAL MINERALOGICAL SOCIETY OF AMERICA

Missouri, of the U. S. Geological Survey. Starting out from Harrison, the main road running southwestward (in 1925 not completed, but ultimately to extend to Fort Smith) is followed. About 25 kilometers (16 miles) from Harrison the tiny settlement of Compton is passed, recognized by the right-angled turn of the road from south to west; and 6.5 km. (4 m.) further west, where the road swings southward, one's auto must be parked and the journey continued on foot.

An indistinct road, used to haul out timber, extends east from the main road down into the gorge of Sneed's Creek (which rises somewhat further west than shown on the map) and this is to be followed about 200 meters, to a point where the slope becomes very steep. Then, on scrambling down the hillside perhaps 100 meters, a group of small prospect pits will be more or less plainly seen. These have long since fallen shut, and good sized trees are growing on the dumps, but the light color of many of the fragments renders them rather conspicuous against the brown forest soil. On digging into the mass of decomposed shale—a pickaxe and spade will be found useful-occasional small lumps of a soft, white, chalky material, more or less stained by iron oxides, are encountered; and this is the newtonite. Under the microscope it is seen to be made up of minute grains of nearly square outline, which have been variously interpreted as rhombs or as tetragonal bipyramids, but which, it is hoped, can now be further studied. The small amount obtained has been deposited in the mineral collection of the U.S. National Museum.

# HEDYPHANE FROM FRANKLIN FURNACE, NEW JERSEY

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In a paper on the minerals of Langban, Sweden, C. Flink<sup>2</sup> lists hedyphane as one of the most typical minerals of that famous locality. It was with some interest, therefore, that the writers found among some minerals recently collected at Franklin Furnace, specimens of this same mineral. No doubt, this mineral has been

<sup>1</sup> Published with the permission of the Secretary of the Smithsonian Institution. <sup>2</sup> Zeit. Krys., 58, 357 (1923).

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frequently overlooked by the different collectors of Franklin Furnace minerals, for specimens of it have since then been identified in other collections.<sup>3</sup>

The hedyphane was found between the 500 and 600 ft. level on the east side of the ore deposit. Apparently, this locality is impregnated with arsenic minerals, for schallerite and chlorophoenecite came from the same place.

In general appearance, the Franklin Furnace hedyphane is similar to that found at Langban, but none of the fibrous variety has as yet been found at Franklin Furnace. The chief difference, however, is in the associated minerals. The Franklin Furnace material is found as seams in the willemite-franklinite ore, associated with calcite, rhodonite, willemite and sometimes native copper. In some of the specimens the hedyphane is the chief mineral, forming the matrix for the other species; in others calcite incloses the minerals. The willemite is of the glassy light green variety, often in crystals; the rhodonite occurs in light pink, wedge shaped crystals, while the copper is in distorted crystals. In the calcite the hedyphane may form irregular masses or occur as thick prismatic crystals bounded by the prism, base and unit pyramid.

In color the hedyphane ranges from pure white to light buff. It shows a rough conchoidal fracture and a decidedly greasy luster. It is very brittle and has a hardness of about three (3). In the closed tube, it decrepitates like barite, and forms an arsenic coating in the neck of the tube. Before the blowpipe the edge fuses at a fairly high temperature to a white, brown or black milky bead, depending upon the purity of the material. A slight coat of PbO and  $As_2O_3$  can often be observed. Under the microscope it was found to be uniaxial with negative optical character and with indices as follows:  $\omega = 2.026 \pm .01$ ,  $\epsilon = 2.010 \pm .01$ .

Material for analysis was selected from one of the specimens (U.S.N.M. 95193) and found on microscopic examination to be free of all extraneous material. Some of the grains, however, had a somewhat muddied appearance as if having been somewhat altered. The analytical results upon this sample is as follows:

<sup>3</sup> Colonel W. A. Roebling, of Trenton, New Jersey, has a beautiful specimen of this material, containing well-developed crystals in a matrix of limestone. This specimen also contains native copper crystals, for which it was originally secured. Analysis of hedyphane from Franklin Furnace, N.J.

Insol.	0.17
Cl	2.98
As <sub>2</sub> O <sub>5</sub>	29.94
PbO	52.77
MnO, FeO	0.28
CaO	14.98
MgO	0.10
ZnO	0.23
$H_2O$	0.08
	101.52
-0 = Cl	.67
	100.07
	100.85

From the results given above the ratios of lime and lead are calculated as 267 and 236, respectively. Lime is molecularly in excess and hedyphane is predominantly a lime mineral. We therefore propose that hedyphane be accorded species rank and that the name be applied to those chloro-arsenates of the apatite group in which lime is molecularly the predominant base.

## NOTES AND NEWS

#### THE MINERALOGICAL SOCIETY OF AMERICA

Nominations of the Council for officers for the year 1926 are as follows:		
President: Waldemar T. Schaller	Treasurer: Alexander H. Phillips	
Vice President: George Vaux, Jr.	Editor: Walter F. Hunt	
Secretary: Frank R. Van Horn	Councilor, 1925-29: W. A. Tarr	

A Committee of the Council was appointed at the last annual meeting to revise the Constitution and By-laws. This committee recommends that the following changes be made:

#### CONSTITUTION

#### Article III. Insertion of Section 2 to read as follows:

Section 2. The Council shall be empowered to elect from time to time as honorary officers or fellows of the Society persons of eminence in the field of mineralogy, or some closely allied science, who shall serve for life.

Arlicte V, to read as follows:

This constitution shall be amended when the proposed amendment is favored by four fifths of all the Fellows voting upon it. A copy of the proposed amendment shall be published in the journal of the Society at least three months before the annual meeting. Voting shall be by mail ballot.

## **By-Laws**

#### Article II, Section 3, to read as follows:

An arrearage in payment of annual dues of four months shall deprive a Fellow or member of the privilege of taking part in the management of the Society and