

NOTES AND NEWS

A PROBABLE OCCURRENCE OF NATIVE LEAD NEAR
PORTLAND, MAINEGERALD R. MACCARTHY, *Chapel Hill, North Carolina*

In the summer of 1920 the writer obtained several specimens of metallic lead which occurred as a discontinuous sheet projecting from the joints of a gneissic cliff at Cape Elizabeth, near Portland, Maine. At the time the importance of a discovery of native lead was not realized, and little attention other than the prying out of several small specimens was paid to it. Since then no opportunity for a second visit has presented itself, but hoping that some one may find the time to look it up, the following facts are offered.

The lead was found in two or more vertical joints in a gneissic cliff, near the extremity, and on the shoreward side of a rock spit running northward a few hundred feet north of the Cape Elizabeth Casino. The metal, which seemed to be of natural origin, was in the form of thin sheets, about 4 or 5 mm. in thickness, and could be traced as a somewhat discontinuous streak for ten or fifteen feet along each of the joints in which it was found.

No chemical tests other than simple blowpiping were made, but the lead would seem to contain a little silver and perhaps some antimony. Its distribution along several vertical joints spaced rather far apart would seem to preclude the possibility of the overturning of a pot of molten metal on top of the low cliff, or of the lead being a relic of an abandoned rifle range, though a closer investigation might possibly indicate something of the kind. At any rate, the time spent in a more careful examination would be well worth while, should any mineral enthusiast chance to pass that way.

Mme. Curie, on June 7, laid the corner stone of a radium institute and hospital in Warsaw to be named in her honor.

Dr. H. Foster Bain, since 1921 director of the Bureau of Mines, has resigned. He has been appointed chief secretary of the American Institute of Mining and Metallurgical Engineers.

Mr. Henry R. Goodnow, 98 Riverside Drive, New York City, a member of the Mineralogical Society of America, died on May 3.

The report of the Committee on the Measurement of Geological Time by Atomic Disintegration states that the ratio of lead to uranium increases in the older uraniumiferous minerals. If lead from other sources can be eliminated the relative age of different minerals can be estimated.

For Tertiary minerals, Colorado pitchblende, carnotite, brannerite, tyuyamunite, betafite, etc., the ratio is less than .01. For those associated with the Appalachian uplift, whether in Connecticut, Saxony, or Cornwall, it is .04. For great pre-Devonian disturbances, especially south of the equator, it is .08, and for

various pre-Cambrian minerals, over .10; being for most of the pitchblendes that have been most closely studied .16, plus or minus .015.

The committee consists of Alfred C. Lane, chairman; H. V. Ellsworth, Frank L. Hess, S. C. Lind, R. B. Moore, and Roger C. Wells. The names of T. W. Richards and F. F. Grout have been recommended to be added to the committee.

Dr. Wheeler P. Davey, of the research laboratory of the General Electric Company, delivered a series of lectures on "X-ray Analysis of Crystal Structure" at the summer session of the graduate school in the physics department of the University of Michigan.

By making use of spectra obtained by passing X-rays through concentrated solutions of platinum ores and of the minerals gadolinite and columbite, Dr. Walter Noddack and his assistants, Otto Berg and Ida Tacke, discovered the missing chemical elements numbers 43 and 75. These elements fall in the group with manganese in the periodic table. Dr. Noddack has named them *masurium* and *rhenium*, after the territories lost by Germany as a result of the peace treaty.

Donald H. McLaughlin, chief geologist of the Cerro del Pasco Mining Corporation, in Peru, has been called to the professorship of mining engineering at Harvard University.

NEW MINERALS: NEW SPECIES

CLASS: NATIVE ELEMENTS.

"Palladium Amalgam"

J. B. HARRISON AND C. L. C. BOURNE. *The Official Gazette, British Guiana*, No. 71, (1925); Also No. 181, (1924).

NAME None given.

CHEMICAL PROPERTIES: A mercury amalgam of palladium. Formula: (Pd, Hg). Analysis: Pd 34.8-45.6, Hg 65.2-54.4. Upon heating it loses mercury leaving the palladium as a spongy mass.

PHYSICAL PROPERTIES: Malleable but somewhat brittle. Color white. Luster metallic. Sp. Gr. variable; with 64% Hg, 15.82; with 54% Hg, 13.48.

OCCURRENCE: Found in the diamond gravels of the Potaro River in the Kangeruma District, British Guiana, associated with gold.

DISCUSSION: The allopladium from British Guiana described by L. J. Spencer (*Mineralog. Mag.*, 20, 217, 1924) came from the same source as the material here described and is believed by the above writers to be the same mineral as theirs. Dr. Spencer's material was apparently too scanty for detailed investigation. Artificial amalgams of palladium are well known but this is the first reported occurrence in nature.

W. F. FOSHAG