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WITH TEN PLATES.

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1892.

7. *Untersuchungen über fossile Hölzer Schwedens*; von H. CONWENTZ. Kongl. svenska Vetenskaps-Akademiens. Bandet 24, No. 13.—The vegetable remains described in this important memoir all come from the southern extremity of Sweden, sometimes called Scania, in which so many horizons are exposed that yield fossil plants, especially the Rhetic and the Pleistocene. Nilsson, as long ago as 1831, proved that there was a Tertiary plant bed at Köpinge, and now we have evidence of an Upper Cretaceous (Senonian) deposit, called the Holma sandstone, which contains coniferous remains consisting of silicified trunks in place and also lesser twigs and even well-preserved pine cones. Most of these belong to two species, both of which are regarded as new to science, which Dr. Conwentz here fully describes and illustrates in his thorough manner, both in their external characters and their internal structure, and names respectively, *Pinus Nathorsti* and *Cedroxylon Ryedalense*. The Holma Sandstone occurs on both sides of the Ryssberge north of the 56th parallel of north latitude.

Besides these remains in place the present memoir also describes a large amount of drift wood (*Geschiebehölzer*) from the extreme southern peninsula, much of which had long lain in the museums at Stockholm and elsewhere awaiting identification. Most of these proved to be coniferous, but wholly unlike the Holma Sandstone flora, having the *Sequoia* type of structure which is referred to *Cupressinoxylon*, or if roots, to *Rhizocupressinoxylon*. One piece, however, turned out to be a palm stem and was intrusted to Dr. Stenzel who is so great an authority on such forms. He describes it as *Palmacites filigranum*, a new species of fossil palm.

As regards the original source of those blocks of silicified wood, their systematic character is sufficient proof that they cannot be in place in the comparatively modern drift (*Diluvian*) in which they chiefly occur. They differ too widely from the forms found in the Holma Sandstone to make it at all probable that they belong to that age. The author concludes that they were originally derived from a formerly wide-spread Tertiary formation, the softer parts of which have been long since eroded away leaving only these heavy undestructible blocks of silicified wood which now lie buried under the superficial deposits.

L. F. W.

8. *On Penfieldite, a new species*; by F. A. GENTH. (Communicated by the author.)—While examining a lot of minerals, formed by the action of sea water on ancient slags which Mr. Geo. L. English collected at Laurion, Greece, I noticed a *very few* hexagonal crystals which proved to be a new species, for which I propose the name: Penfieldite, in honor to Prof. Sam'l L. Penfield the indefatigable worker in mineralogy and crystallography.

Hexagonal; generally in prisms with basal plane; the first pyramid is indicated by striation of the prismatic planes; a second obtuse pyramid appears on some of the crystals in small triangu-

lar planes. Some of the crystals are tapering at the ends and the basal plane is thus obliterated. The crystals with basal plane are generally dull, being coated with an opaque film, suggesting incipient alteration. Cleavage indistinct, basal. The tapering crystals from 0.5–1^{mm} thick and up to 5^{mm} long, the opaque from 0.5–2^{mm} thick and 2–3^{mm} long. Color white; luster vitreous, inclining to greasy. B.B. in a closed tube, gives *no water*, decrepitates and gives an abundance of sublimed lead chloride, soluble in water, leaving a yellowish white oxychloride. Easily soluble in dilute nitric acid.

Composition = $PbO \cdot 2PbCl_2$.

The analyses gave :

	1.	2.	
	Tapering crystals.	Opaque crystals.	Calculated
Cl =	18.55	17.94	18.21
Pb =	78.25	lost.	79.73
O =	----	----	2.06
			100.00

Associated with the Penfieldite is a mineral in long (up to 10^{mm}) silky needles, which largely volatilizes on heating, and *may* be another form of Penfieldite, or a new mineral; the other associates are anglesite and small quantities of laurionite.

Philadelphia, July 26th, 1892.

9. *Brief notices of some recently described minerals.*—**MASRITE** is a fibrous kind of alum found in Upper Egypt and described by H. DROOP RICHMOND and HUSSEIN OFF. It contains a small amount of cobalt and, as believed by the authors, a minute quantity of a new element for which the name *masrium* is proposed, after the Arabic name for Egypt. Assuming that masrium is a bivalent element, its atomic weight is calculated as 228, and it is regarded as belonging in the beryllium-calcium group in which group there is a place in the periodic system for an element with an atomic weight of 225. The analysis of masrite gave:

SO ₃	Al ₂ O ₃	Fe ₂ O ₃	X*	MnO	CoO	FeO	H ₂ O	Insol.	
36.78	10.62	1.63	0.20	2.56	1.02	4.23	40.35	2.61	= 100

* X = Masrium oxide.—*Proceedings Chem. Soc.*, April 21, 1892; *Nature*, May 26.

BASILITE is a hydrous manganese antimonate described by IJELSTRÖM from the Sjö mine, Grythytte parish, Sweden. It occurs in steel-blue bladed forms with metallic luster, which it loses upon exposure; it is not magnetic. An analysis gave:

Sb ₂ O ₃	Mn ₂ O ₃	Fe ₂ O ₃	H ₂ O
13.09	70.01	1.91	15.00 = 100.01

For this the formula $11Mn_2O_3 \cdot Sb_2O_3 \cdot 21H_2O$ is calculated.—*Geol. För. Förh.*, vol. xiv, 307, 1892.