

come from the northwest, from Maryland and Pennsylvania, sometimes a distance of 40 miles, with the boulders increasing in coarseness to the southward. Reference to the "iron ore clays" of Maryland, pp. 155-157. The papers also include numerous observations on the overlying gravels, with a correlation.

FRAZER, PERSIFOR, JR. Classification of Coals. (Read May, 1877.)

Trans. Amer. Inst. Min. Eng., vol. vi, 1879, pp. 430-451.

The ratios of volatile to fixed combustible matter is given for several Cumberland coals (after W. R. Johnson).

———— [The Lake Superior Copper Rocks in Pennsylvania.]

Trans. Amer. Inst. Min. Eng., vol. vii, 1879, pp. 336-339.

Quotes from Report CC (Second Geological Survey of Pennsylvania) and other articles. Holds that South Mountain is separate from Primal of Rogers and that the rocks found there are not igneous.

———— The Mesozoic Sandstone of the Atlantic Slope.

Amer. Nat., vol. xiii, 1879, pp. 284-292.

Review of three papers—Heinrich, Mesozoic formations of Va., Trans. Amer. Inst. Min. Eng., 1878; Fontaine, Notes on Mesozoic of Va., Amer. Jour. Sci., 1879; Russell, On the Physical History of the Triassic, Annals N. Y. Acad. Sci., 1878.

FRAZER, PERSIFOR, JR. Fossil (?) Forms in the Quartzose Rocks of the Lower Susquehanna, with plate. (Read Apr. 4, 1879.)

Proc. Amer. Phil. Soc., vol. xviii, 1880, pp. 277-279.

Deals with some curious indeterminate forms from Frazer's Point, Cecil county. Letters by Whitfield and Hall.

HEINRICH, OSWALD J. The Mesozoic formation in Virginia. (Read Feb. 1878.)

Trans. Amer. Inst. Min. Eng., vol. vi, 1879, pp. 227-274.

The author recognizes four divisions very nearly parallel running from S. 30° to W. 37°, which are described. Distinguishes conglomerates, sandstones, slates, shales, limestones and coal. Apparently considers that the formation extended to New Market, Westminster and Strassburg (p. 250). Maps and sections.

HUNT, T. STERRY. (On the Geology of the Eozoic Rocks of North America.)

Proc. Boston Soc. Nat. Hist., vol. xix, 1879, pp. 275-279.

MCCREATH, ANDREW A. Second Report of Progress in the Laboratory of the Survey at Harrisburg.

Rept. 2nd Geol. Surv. Pa. MM, Harrisburg, 1879.

Contains analyses of Maryland materials, pp. 29, 266, 269.

PRIME, FREDERICK. A Catalogue of Official Reports upon Geological Surveys of the United States and Territories and of British North America.

Trans. Amer. Inst. Min. Eng., vol. vii, 1879, pp. 455-525.

A partial list of publications relating to Maryland, corrected in 1881, which see.