calcite 154, damourite 126, dolomite 155, eosophite 149, fluorite 29, goalarite 149, graphite 8, greenockite 18-19, halloysite 122, kaolinite 120, lanthanite 165, lignite 272, limonite 49-50, marcasite 22, martite 35, melaniterite 149, palomolene 53, pyrite 20, pyroxene 66, quartz 57-58, quartz, feld 59, 217, serpentine (pinite?) 115, siderite 159, smithsonite 161, spilite 15, turgite 47, wad 53-54.

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

Contains analyses, most of which were also published elsewhere, of iron ores from Lehigh County (pp. 48-54, 89-90), four analyses of limestones (p. 76), damourite slate (p. 92), and two analyses of other (p. 92).


General discussion of iron ores of Great Valley, with special reference to lines of outcrop and cause of accumulation of ore. Mention of damourite-slates and theories of siderite replacement of limestone.

PRIME, FREDERICK, Jr. Report of Progress on the Brown Hematite Ore Ranges of Lehigh County with a description of the mines lying between Emmaus, Alburtis and Fogelsville.

Describes briefly the geology of Lehigh County. Locates and gives brief descriptions of 93 iron mines between Emmaus, Alburtis and Fogelsville. In a note on the district by the State Geologist, J. P. Lesley, the following sentence appears: "What seems so smooth and regular a surface conceals one of the most contorted, twisted, fractured, cleft, plicated, complicated and even over turned set of subsol rocks in the world" (p. 59).


Describes the limonite ores of the Great Valley. Says they were probably formed by the oxidation of iron pyrites but not in situ.

26 pp., 1 col. map 23"x40". Hist. Soc. of Pennsylvania, Philadelphia, 1875.
Some early geographic names are given. Contains several errors.

1876

ANONYMOUS. Pumping-Engine at the Lehigh Zinc Works, Friedensville, Penna.
Complete description of the great engine at Friedensville, giving weights of the different parts. States that the engine is the largest in the world at the date of writing. Contains two excellent engravings of the engine.

ANONYMOUS. Friedensville Zinc Mines.
Reports that the Bethlehem Zinc Company has contracted for ore for five years from New Jersey Zinc Company. It will abandon its Friedensville mine. For some time it has cost $4 a ton to keep the mine water-free. 30,000,000 gallons of water per day pumped out (Sept. 30, 1876) (p. 216). An historical sketch of the Friedensville mine, with the measurements and history of the "President," the large Cornish pumping engine. The reasons for stoppage, and the qualities of the ore discussed (pp. 325-326).

72 + 37 pp., 50 maps. Reading Publishing Co., Reading, Pa., 1876.
72 pp. dealing with Lehigh Co., followed by 37 pp. of maps and descriptions of the Countries of the World.
Contains a complete series of township and borough maps on which iron ore mines and furnaces, quarries, brick yards, etc., are located.

HALL, CHARLES E. Notes on Glacial Action Visible along the Kittatinny or Blue Mountain, Carbon, Northampton and Monroe Counties, Pennsylvania.