ore has been found in paying quantity only in a very restricted area at and northwest from Friedensville.

Published reports.—Many articles descriptive of the Friedensville deposits, the mines, and the furnaces have been published. The general bibliography in another part of this volume shows such articles published in 1850, 1853, 1854, 1855, 1857, 1858, 1860, 1871, 1872, 1876, 1877, 1878, 1883, 1884, 1885, 1886, 1887, 1889, 1890, 1892, 1893, 1911, 1913, 1914, 1917, 1922, 1924, 1925, 1931, 1935, 1936, and 1939. Some of these are little more than worked-over material, but all should be examined by any one making a thorough investigation.

History of mining operations

Early in the nineteenth century an unusual mineral was found in the soil on the farm of Jacob Ueberroth, half a mile north of Friedensville, but as iron was the only economic mineral known to occur in the region, little attention was given to this strange material. However, about 1830 a wagon-load of the unknown substance was hauled to the Mary Ann iron furnace in Berks County to be tested. Naturally the experiment yielded no metal, as the zinc was all volatilized and escaped.

In 1845 Andrew Wittman, after studying Overman’s Metallurgy, experimented with the ore by means of a small crucible in a stove and obtained a few globules of metallic zinc.

In the same year (1845) reports were current of the discovery of gold in the vicinity. Ueberroth therefore suspected that this unknown mineral might be a gold mineral. He took a few pieces to William Theodore Roeper, a local mineralogist who later became the first professor of mineralogy and geology in Lehigh University (1866-1869, Curator of Museum 1866-1871). Roeper experimented with the material in Lehman’s foundry, Bethlehem, and proved it to be a zinc ore by making brass from the calamine and native copper.

Roeper induced Robert Earp, a Philadelphia importer, to examine the deposit and obtain a lease on the Ueberroth farm. This being done, Earp mined nine tons of the ore, which was shipped to England in one of Earp’s vessels in January 1846. The temperature of the English furnaces being gauged for roasted ore was not high enough for the calamine, so the report came back that the ore could not be used.

Earp and Roeper decided that they did not care to invest their money in further experimentation and offered their lease to the New Jersey Zinc Co. The company turned down the proposition, but the superintendent, Samuel Wetherill, and George Gilbert, decided to take up the offer. Wetherill, a paint manufacturer, in connection with his business, had been carrying on experiments for making zinc oxide from calamine ore and had received a patent for a new process. On obtaining possession of the Ueberroth zinc deposit, he came to Bethlehem and began the erection of zinc oxide furnaces.

The furnaces were located on the south side of the Lehigh River in a community known as Augusta, which later became a part of South Bethlehem. The choice of the site proved to be a fortunate one since, only a few years later, two railroads were built close to the plant, one