and the other on May 25, 1870. The company owned several iron mines near Hellertown and Bingen, and a few miles of railroad connecting some of the mines with the North Pennsylvania, Philadelphia & Reading Railroad. The company's properties were sold to the Thomas Iron Co. on December 13, 1884, and the furnaces were in operation almost continuously for many years. Local limonite mines furnished much of the ore at first but later, ore was shipped in from other States.

The North Pennsylvania Iron Co. was chartered in April 1869, and proceeded to build a furnace at Bingen. The furnace was first blown in on June 1, 1871. On July 8, 1872 it was damaged by an explosion, and operations ceased until October 15 of the same year. After a few weeks the stack burst, and the furnace remained idle until January 25, 1873. It then worked with little interruption until April 8, 1875, but is now in ruins. The largest amount of pig iron manufactured in one year was 10,777 tons in 1874. Nearly all the ore used came from limonite mines near Bingen.

Many persons still living recall the time when the roads in all directions were occasionally almost impassable on account of the heavy loads of ore hauled over them to the furnaces from the local mines. Mining was one of the principal occupations and at times the roads were occupied by long lines of ore wagons. At present the old mine holes that are filled with water serve as swimming holes for the boys of the vicinity or furnish excellent places for raising bullfrogs or fish. However, interest in the mining of iron ore has not been lost, prospecting for good deposits is still being carried on from time to time, and many persons are confidently looking forward to the revival of mining activity in the region.

**TYPES OF IRON ORE**

The iron ores of Northampton County belong to two classes—the brown (limonite) and gray (carbonate) ores of the Cambrian and Ordovician formations, and the magnetite ores of the pre-Cambrian gneisses. The two classes are sharply separated in practically all their characteristics, such as kind of ore, mode of occurrence, and origin.

The brown ores (limonite) of the region are generally known locally as brown hematite. There is some justification for this usage, as some of the ore is decidedly red on account of the admixture of goethite and turgite and in places might be confused with hematite. The limonite ores are separable into two kinds, which have been called "mountain ores" and "valley ores." Both are well represented in this county. The mountain ores occur along the slopes of South Mountain and in some of the narrow valleys east of the Saucon Valley.