

**Liberty Furnace,
The Forgotten Furnace of Liberty Township**

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Liberty Iron Furnace is one of the lesser known smelting sites in our local history. However, it was among the first. It was erected in the summer of 1839 by John Trego for Burd Patterson and Co. of Pottsville, Pa. In fact it was the third furnace built in the county. (Keep in mind that there was no Montour County at that time so this means third in what is now Columbia and Montour Counties.) It was on the North side of Montour Ridge, nestled within a gap in the foothills, about three-fourths mile southwest of Mooresburg, PA. It was first leased by James and William Trego, who ran it until 1841 and produced about 28 tons of pig iron per week.

The two iron ores of Montour County –the fossil and the iron sandstone – both were mined and used at Liberty Furnace. Although only my speculation, this is probably the very reason that the furnace was built where it was. The furnace sat literally on an outcrop of the fossil ore and only about 200 feet from a sandstone ore outcrop. In addition, 2000 acres of woodland were attached to the parcel, providing hardwood for charcoal. The third ingredient for making pig iron, limestone, is found only about one-half mile to the north in a vein that runs east and west.

After exploring the site I am confident that the furnace used both iron ores; it appears, however, that the largest mine worked the fossil ore bed westward. No documentation has been found regarding these mines but they all appear to be shallow surface pits and drifts / rock tunnels. It appears that the operators only mined the ore found above the water table and never sank slopes or shafts as was done in Frosty Valley and in Beaver Place, Danville.

Something that made this furnace unique was that it switched from charcoal to anthracite coal, possibly several times over its existence. As early as August 1840 it was using anthracite coal, although there is a reference from April 1841 to the furnace being “put to blast with charcoal.”

To complicate the matter further, one reference claims the furnace did not use anthracite until 1844. By studying the slag dumps of the site I can confirm that the furnace did use both fuels; however, it is unclear as to whether or not the fuel switched back and forth several times. Considering that there was neither canal nor railroads in the area at the time, it can be assumed the cost of importing anthracite coal as well as exporting its pig iron exclusively on wagons became a significant hindrance.

In 1845 the Furnace was advertised for rent. The advertisement provides some of the most detailed information about the furnace. Here it is in its entirety (courtesy of Sis Hause):

For Rent, The Liberty Furnace

Situated in Liberty Township, Columbia County, Pa., 6 miles from the town of Danville. The Furnace stands thirty feet high and eight feet across the Bosches, with a hot blast on the furnace head. The Casting House is Eighty by sixty feet. Bridge house thirty by thirty five feet. The coal shed is one hundred feet in length. The steam engine, attached to the furnace, is 30 horse power. There is comfortable dwelling house on the property together with houses for the workman and suitable outbuildings. Two thousand acres of woodland are attached to the Furnace and will be leased with it. Iron ores of superior quality on the property. The furnace has been in successful operation for three years using both charcoal and Anthracite coal. The iron manufactured there has commanded a more ready sale than any other in the same region of the county. For terms apply to:

E.H. Baldy, Danville PA

Thos. Dunlap, Philadelphia PA

J.H. Beers' *Historical and Biographical Annals of Columbia and Montour Counties* asserts that "the competition of the Danville furnaces and the exhaustion of the nearby ore beds made its suspension imperative about 1850." I accept the part about competing with Danville furnaces due to their closeness to canals and railroads. However, I do not agree with the claim that nearby ore beds had been exhausted. There is still plenty of both iron ores in the area. Instead, I suggest an exhaustion of charcoal as the basic cause of the furnace's closing. Although the furnace was fitted to use Anthracite coal, charcoal would have been far less expensive as it could be made on the grounds.

I offer two pieces of evidence for my claim. First, some simple math. It takes about 1 acre of forest to make enough charcoal for 3 tons of pig iron (Pawling). If the furnace was making 28 tons per week, that's 4 tons a day (furnaces ran 7 days a week when in blast). That's 1.3 acres per day. Liberty Furnace had 2,000 acres. Divide 2000 acres by 1.3 acres per day and you get 4.2 years. Granted, that figure does not consider down time. Regardless, the furnace tried to operate for 11 years on about 5 years' worth of charcoal. Second, my wife and I live on Tower Road in Liberty Township, just on the western edge of what would have been part of the 2000 acre tract of the Liberty Furnace. Charcoal pits, flat areas where the charcoal was made, can be seen throughout our woods. If the colliers were making charcoal this far west of the furnace, then I argue that it was charcoal they ran out of, not iron ore. The cost of importing coal and exporting pig iron probably stopped making financial sense.

So where is the furnace now? I speculate that the furnace stones were either sold and reassembled in the Danville or Milton area as a new furnace, or perhaps were used as structural stones for the Catawissa Railroad (the Pennsylvania RR from Milton to Danville) being built about the time the furnace ceased production. All that remains in 2006 is the foundations of several structures, ore tailings, and thousands of tons of slag.

It may be an exaggeration to claim that Liberty Furnace was especially significant in terms of American iron production. However, it can be said that this early furnace helped train young ironmen who would later be famous giants of the industry. Trego, Patterson, Baldy, and Maus Brothers are names now well known in Pennsylvania iron heritage.

References:

Sis Hause, Danville PA

John Auten, Danville PA

Richard Pawling, History Alive! Sinking Spring PA

J.H. Beers, *Historical and Biographical Annals of Columbia and Montour Counties*, 1915