THE IRONWORKS AT MARMORA

THE QUICK FACTS

The following is the history of the building, operating, and closing of mine and smelting operations at Marmora:

Pre-1819

Crow tribe of the Ojibwa sole inhabitants of lands around Crowe Lake and Crowe River. Crow were hunters who could not conceive of any value of owning land so had been easy in negotiations with the Crown in the sale of two million acres around Crowe Lake for a 740 pound annuity and perpetual hunting and fishing rights. (Philpot)

1819

Hayes visited North America, took ore samples, initiated discussions with Sir Peregrine Maitland about land grants. Maitland apparently had some discussion with business people and received confirmations that orders for iron products would be forthcoming if he supported an inland iron industry.

1820

October 26 Order in Council Upper Canada - Hayes reserved 1200 acres for the Ironworks and 1200 acres for fuel. The reserves were to be granted on completion of the road from "the Front".

1821

February 16 - opened 15 miles of road from Belleville to Marmora. Hayes claimed land reserves and began construction of the Works. Skilled labour - a founder, ironworkers, a moulder, two tapmen, masons, carpenters, and blacksmiths - all imported from Ireland. Unskilled labour of five times as many as skilled, mostly Irish immigrant settlers Construction materials, firebricks and furnace equipment, purchased for the most part in United States and hauled in by road using oxen. Heaviest items such as the hearthstone waited for winter and sufficient snowfalls.

1822

Spring - first "blast" or "campaign". A blast would run continuously

24 hours a day for several months. Iron smelting was 3000 years old at this time but recent technology had improved the quality of iron from a furnace. Prior to this iron ore could only be heated enough to produce a spongy mass referred to as a "bloom". (In 1822 there were already bloomeries at Chippewa and

Furnace Falls.) A bloom could be made into reasonable quality iron only by repeated heating and hammering by a blacksmith. Hayes' forges were blast furnaces. The **blast** was created by a pair of German bellows, each 28 feet long and 15 feet wide and driven by water wheels anchored to the river (the wheel were 27 feet high and 6 feet wide). The furnaces, built on huge one-piece hearthstones were conical structures 9 feet in diameter and 30 feet high. At the top of the furnace was an open short chimney into which men poured, in layers, the rock containing the ore, limestone' for flux, and charcoal to feed the fires. The founder was the man responsible for the correct mix and timing of the feeding at the chimney head. During the firing heavy stone tampers, also powered by water wheels, beat the molten mass on the floor of the furnace to help break down the bloom. Temperatures of the mix reached 3000F degrees.

At the base of the furnace was a tunnel which could be opened to draw off the molten iron. This would flow into a long gutter prepared in the moulding sand on the ground or floor. Each gutter had several branches sticking out at right angles on both sides (These resembled piglets feeding at the mother sow and are the reason why newly smelted iron is known even today as **pig** iron.)

1822

Autumn - population of Mar mora reached 400. Hayes requested and received a Post Office which postmarked mail "The Marmora Iron Works" and a Peace Commissioner. Population 2/3 male. Drunkenness a problem despite Hayes' repeated requests that no liquor sales licences be granted in the vicinity of Mar mora (Philpot)

1823

Sawmill and grist mill opened. 7700 acres on reserve around Marmora; 125 acres cultivated. Two stores opened. Barter with local farmers preferred method of trade. Iron ore on the riverside had been exhausted. Open pit mine opened at Blairton. Ore mined and loaded, at 150 tons per load, onto lake barges. The barges were pushed and poled the five miles across Crowe Lake to the Works, a journey of two days. Canal built from the river to the loading houses-to bring in the barges. Blairton "Mountain of Ore" had not been in Hayes' original land patent. The acreage he needed was granted to him but he was required by

Maitland to conduct an extensive and expensive survey himself before any land changed hands. (Philpot)

April, 1823 - Canada's first mining fatality, Patrick Butler killed in a rock slide in the Blairton pit. (Philpot) Positions filled at the Marmora Iron Works: woodsmen, boatmen, fillers, colliers, guttermen, moulders, blacksmiths, labourers, teamsters hammers, masons, casters. Products being offered for sale as pig iron (to be reworked elsewhere by blacksmiths) and a full line of moulded or casted items such as stoves, ploughshares, sleigh runners, pots, cauldrons.

1824

School opened; 100 children under the age of 16, though many would have been working full time.

September - Hayes' debt reaches 24,000 pounds with no ability to repay. Creditors agree to postpone 5 years, forgive 14,000 pounds, operate under trusteeship of Peter McGill and Anthony Manahan, major

creditors. Hayes signed over everything he owned as security for the refinancing. He was retained to run the business on a salary. Workers were to be repaid first in an attempt to keep them on site and the business running, a necessity if it were to be attractive to buyers.

1825

August - no improvement in debt situation. Hayes left for England to attempt to raise capital there. He wrote Maitland's office in 1827 saying that he was still trying but never did return to Canada. (Natt.

Archive &lPhilpot) McGill took over the responsibility; Manahan on-site manager. Second furnace opened. Production now at 4 tons per day.

1826

Period of development. Naval ballast contract completed and McGill turned more toward production of items settlers required. Works still not profitable but kept running as attraction to buyers.

1830

Thomas Hetherington offered to buy operation; deal eventually collapsed and Hetherington became a partner with McGill and Manahan.

1831

Manahan left to enter politics. Blast silenced.

1836

First survey for proposed Trent Canal construction; E.H. Baird, Engineer, recommended including the Crowe River in the Canal system in order to serve the Marmora Iron Works bringing their products to a

market at "the Front".

1847

Experienced Ironmaster, Joseph Van Norman, bought Marmora Ironworks for $21,000. He renovated, upgrading the blast from the bellows and reducing heat loss. He increased efficiency and reduced

costs. He designed a new export route by road and lake barge (across Rice Lake) to Cobourg which had developed as a trading post sufficient to handle the products.

1857

Export difficulties defeated Van Norman exhausting his considerable fortune. Canal work going ahead on St. Lawrence making high quality iron from foundries at Trois Rivieres more economical in Upper Canada Province. Marmora ceased operation again.

1865

Blairton ore being sold to Pittsburgh consortium and transported by railway built right from the mine. By 1873 Blairton had boomed as Marmora before it. By 1882 competition and recession had closed Blairton. Falconbridge International became long term owners of the land which they deeded for recreational use in 1988. Nothing remains of Blairton today.

1875 Brief firing at Marmora using petroleum due to lack of firewood available for charcoal. By then technology elsewhere in the world had reached the stage of steam power and coke burning. This meant the Marmora works would require significant renovations to upgrade them and fuel would now have to be transported in. After a few official government visitors and a couple of newspaper tributes, the Marmora

Ironworks settled into the silence of the countryside. In early spring, before the heavy vegetation grows over it, you may be able to find the rusty and crumbling "bear" of one of the furnaces; the "bear" is the block of molten iron which hardens on the floor of the furnace when the fires are allowed to go out.

1876 Lumbering took over in Marmora. Pearce's Mills flourished using the water's power to a completely different end. All remnants of the 1828 Ironworks were obliterated during their 50 years in business. In 1929 a succession of fires destroyed the Pearce family business.