

operation by Joseph Van Norman in 1822. A furnace of small capacity was erected for the smelting of bog iron ore found in the locality with charcoal fuel. The ore was drawn to the furnace in waggons, and for eight or nine months in the year the daily make of pig-iron was about three tons, three tons of ore producing one ton of pig. There was, however, no sale for the pig-iron, and the whole of it was made into various kinds of castings, shipped to ports along the lake shore, and taken into the interior by teams to find a retail market. In this way the new settler was furnished with sugar kettles and potash kettles, the latter for manufacturing the only article of export for which payment was received in cash. There was little money in the country in those days, and business was carried on by the exchange of commodities. Mr. Van Norman himself is authority for the statement that what the farmers of the district had to sell was brought to the furnace and exchanged for the wares or due bills of the firm; and when the home market became overstocked the wares were shipped to Buffalo and other United States ports. But owing to the scarcity of ore and fuel the furnace was blown out in 1847, after having been in successful operation for a quarter of a century. A subsequent venture to make charcoal pig-iron with bog iron ore was undertaken by Mr. Van Norman at a point farther west in the same county, in the township of Houghton, under a contract to supply pig-iron for the manufacture of car-wheels; but it was found to lack the chilling quality of good malleable iron, and the furnace was abandoned. Several efforts have been made to smelt the magnetic ores of the Hastings district, and all have failed. The first of these was begun at Marmora about 1820, where the ore smelted was obtained from the Blairton mine. This furnace was worked at intervals by various owners, among whom was Mr. Van Norman, but the business was never successfully managed, and all the capital invested in it was sunk. Another blast-furnace was erected about the year 1836 at Madoc, to smelt ore taken from the Seymour mine. It was attended by misfortune from the beginning, due in part to the want of means and in part