

the unskilled workers generally Canadians. Consequent upon the exhaustion of raw materials the plant was abandoned in 1883, when it was the oldest active furnace on the continent.

*The Radnor Forges.*—The Radnor Forges at Fermont in the Seigneurie of Cap de la Madeleine of the county of Champlain, are situated about ten miles from Three Rivers, and were erected about 1860 by Messrs. Larue and Co. The establishment was extensive, consisting of a blast furnace, forge and large rolling mill, as well as a car wheel foundry in Three Rivers, 40,000 acres of land also forming a part of the property. The annual production was 2,000 tons of cast iron, resulting from the use of from 4,000 to 5,000 tons of bog ore. The employees varied from 200 to 400 men, part of whom were engaged in digging and transporting the ore to the plant. The finished products included car wheels manufactured in the auxiliary foundry at Three Rivers, whilst the rolling mill furnished iron for the manufacture of scythes and nail rods.

*First Furnace in Ontario.*—The first attempt to manufacture iron in Ontario was made at Lyndhurst, then called Furnace Falls, on the Gananoque river, where in 1800 a blast furnace was erected and water power utilized to drive the machinery and work the blast. The blast furnace was abandoned after two years on account of the inferior quantity of the ore and its distance from the plant. The attempt to cast hollowware for the use of settlers proved a complete failure. A forge for the manufacture of bar iron was active until 1812, when operations were discontinued on account of the derangement of business consequent upon the war.

*Normandale Furnace.*—The next attempt was made in 1815 at Normandale in the county of Norfolk, near lake Erie. A furnace to smelt bog ores was built by John Mason, who was attracted by the favourable factors of the location, including a supply of water power furnished by a nearby creek, moulding sand conveniently located on the site of the furnace, and a great variety of timber available for charcoal. Six years later a new blast furnace was constructed and operated until 1847 by Joseph van Norman and his associates. In the early stages the entire production of iron was converted into various kinds of castings, as there was no market for pig iron. Some were exported to Buffalo, and a vessel load of stoves and castings was sent to Chicago. After the opening of the Welland canal two vessels were employed in the distribution of iron wares to the district within reach of lake Erie and lake Ontario. On account of the limited circulation of money in the country, business was carried on largely by barter. Products which the customers had for sale were brought to the furnace and exchanged for the wares, or due bills were taken payable in iron ware. Among the articles manufactured were sugar kettles and kettles for making the potash which was the chief exportable article of the time.

*First Furnace in Nova Scotia.*—Coal and iron ore were discovered in the Maritime provinces as early as 1604, but it was not until the third decade of the nineteenth century that a small quantity of bar iron was made in a Catalan forge from the ores at Nictaux. The Annapolis Mining Company erected a large smelting furnace, coal houses and stores at an expenditure of £30,000. Smelting and casting went on favourably for a short time, as the iron produced was excellent both for foundry work and for refined bar iron. The works, on account of their small maximum capacity of not over 13 tons of cast iron per week, were unable to compete with British-made goods.

*Londonderry.*—The plant at Londonderry, operated from 1850 to 1879, was the most pretentious endeavour that had been made up to that time in the iron and steel industry of Nova Scotia. The ironworks, consisting of Catalan forges, one puddling