

to a lack of knowledge of the proper way to treat hard magnetic ores. For some time a supply of charcoal could not be procured, and cordwood was used in the furnace instead. The daily product of pig-iron was, however, too small for profit with this kind of fuel, and smelting with charcoal was again resumed ; but the death of one of the partners, caused by an explosion in the mine, resulted in the closing of the works. With small capital and primitive methods it was not to be expected that smelting works could be managed successfully in regions so inaccessible as Marmora and Madoc were in those days, and added to these drawbacks was the lack of experience and skill in preparing magnetic ores for the furnace. With modern plant, a practical and scientific knowledge of how to treat and mix these ores, adequate capital, facilities for cheap transportation and good business management, there is no reason to doubt that the manufacture of charcoal iron might not be as successfully carried on in Ontario as in New York, Michigan or Wisconsin. A number of mines have been opened and worked to some extent along the lines of the Ontario Central and the Kingston & Pembroke railways, as well as at several points in the county of Lanark ; and there is reason to believe that were furnaces erected at convenient points in those districts, or a good market obtained elsewhere, they might prove to be valuable properties. Lead mines have been worked in the counties of Frontenac and Lanark and in the district of Algoma, and smelting furnaces have been erected at Kingston and near Carleton Place ; but none of these undertakings have been fortunate, and mines and furnaces have been closed down. Better success has attended phosphate mining in the eastern part of the Province, chiefly in Lanark and Frontenac. Numerous veins or occurrences have been worked in these counties during the past twenty years, and phosphate of rich quality has been raised and shipped to the English markets. Discoveries of an important character have recently been made in the counties of Renfrew and Haliburton, and although phosphate has nowhere in Ontario been found in such large bodies as in Quebec it is certain that we possess it in