

years may be seen on perusal of the following figures: in 1883 it was 2,352,840 (long) tons, in 1886, 3,559,371 tons; in 1889, 7,292,644 tons, and in 1892, 9,074,243 tons. In last year's production was included 4,245 tons from the Mesaba range in Minnesota, a new source of supply just beginning to be opened up, which promises to be as prolific as the Marquette, Menominee, Gogebic, or any of the older ranges. There is at present one mine, the Norrie, situated on the Gogebic range in Michigan, which is producing iron ore at the rate of about 1,000,000 tons per annum. Alabama increased her output of ore from 171,139 tons in 1880 to 1,570,319 tons in 1890, and 1,986,830 tons in 1891. Wisconsin produced 37,000 tons in 1880, and in 1890 the production had risen to 837,399 tons. Tennessee in 1880 produced 93,272 tons; in 1890, 473,294 tons, and in 1891, 543,923 tons. Pennsylvania, New York, New Jersey and other States, have long been heavy producers of iron ore, but the States named above have all (with the exception of Tennessee), begun the mining of iron ore in appreciable quantity at a date subsequent to the beginning of the business in Ontario, and all have left her hopelessly behind in the race. Alabama, which in 1872 produced 11,171 (long) tons of pig iron, in 1892 smelted 915,296 tons; Michigan in 1872 made 89,484 tons, and in 1892, 148,421 tons; Tennessee in 1872, 37,905 tons, and in 1892, 300,081 tons; and Wisconsin, in 1872, 58,092 tons, and in 1892, 114,961 tons. The total production of iron ore in the United States in 1890 was 14,518,857 tons, and of pig iron 9,202,702 tons, the latter in 1892 being a trifle less, viz., 9,157,000 tons. But further statistics of this sort are unnecessary. They but help to bring more unmistakably into notice the fact that while other portions of the North American continent have been making constant and very rapid progress in iron mining and iron making, here in the favored Province of Ontario in the year of grace 1892 we are forced to confess that not only is no progress being made, but that we are actually retrograding.

The courses which have led to this unsatisfactory condition of things are perhaps less important to know than the means to be adopted to remedy it, yet the latter can only be intelligently applied when the former are understood. No one who considers the situation with an unbiased mind can do otherwise than come to the conclusion that in whatever way freer trade relations with the remainder of this continent would affect other industries and interests in Ontario it could have none but beneficial results upon iron mining. The close competition which the opening up of the new sources of supply within the past few years has given rise to in the United States markets has made it impossible to raise iron ore and ship it across the lines in face of a duty of 75 cents per ton, and the result is that the iron mines of central and eastern Ontario within easy distance of the great smelting centres in Ohio and Pennsylvania have been forced not only to cease raising ore to the surface but have

even in some cases been obliged to keep on hand considerable quantities which had accumulated at the mouth of the mines when last in operation. Were commerce as free between Ontario and the United States as it is between Michigan and the rest of the Union, it is surely reasonable to suppose that results would ensue in Ontario similar to those which have followed in Michigan. Not only could iron ore be exported, which in itself would be a very great boon, but with a large outlet for charcoal iron, for the production of which the facilities possessed by Ontario are unequalled, the business of smelting would receive an impetus which could not be imparted to it in any other way. The Report of the Commission on the Mineral Resources of Ontario (1890) sums up this aspect of the situation very concisely in the following words: "The beneficial influence to be exerted upon the interests of the province by the stimulating effect certain to be the result of the breaking down of hostile tariffs between Canada and the United States would in the case of the export of iron ore, and probably of pig iron also, be certain to promote the prosperity of Ontario to an extent greater than any but the most sanguine would venture to predict."

But exporting iron ore to the United States against a duty of seventy-five cents a ton is an impossibility, and any trade re-arrangements with that country which would admit our ore free or at a low tariff are apparently doomed to remain in the clouds for some time yet. Is the iron business, then, to continue in its present state of deadly dullness, or is it out of the range of possibility to adopt some means within our own command to infuse life into it? Exporting iron ore being out of the question, obviously the only way in which a market for it can be provided is by establishing furnaces within the Province to smelt the ore at home. We have a population of over two millions which is a steady and large consumer of iron for all sorts of purposes, and the annual consumption will inevitably increase with the increase in our population. Nor is there anything which would tend more to the prosperity of the country, the development of its resources, or the general building up of its industries than the establishment of a healthy and successful business in the production of pig iron. All the labor employed in foreign countries in the mining of the ore, in taking it to market, in handling and smelting it at the furnace, is paid for in Canadian money when the pig iron is brought to the borders of our Province, and it takes the place of an equal amount of labor which might be employed at home were the iron produced here.

Up to the present time our energies as a people have been mainly directed to the development of agriculture, and the policy of our Provincial Government has been steadily directed to the encouragement of farming in every possible way. An agricultural college has been established and maintained at large expense, dairymen's and fruitgrowers' associations have received annually subventions from the Pro-

vincial treasury, travelling dairies perambulate the country at public expense teaching the youths and maidens of the land to make good butter instead of a corresponding quantity of axle grease, every township fair draws from the chest a grant to swell its prize list for fat pigs and log-cabin quilts, and no one grumbles at the cost. But surely agriculture is not everything. The miner draws the raw material from the bosom of mother earth and converts it to forms suitable for man's use just as truly as the farmer does, and his operations are attended as a rule with very much more expense and risk. On the other hand when his business is conducted in a large way the miner affords employment to labor on a scale with which the farmer, no matter how many acres he may work, cannot compare, and around his mine and furnaces there springs up a market of the very best kind for everything the farmer can produce. Every one knows that there is no better market for farm produce than a mining town. The honest farmer has been a favored guest at the Government table for, lo! these many years, and it would now seem in order if his mining brother were to get a share of the favors which have hitherto fallen almost exclusively to the agriculturist's lot.

There are indications, both many and strong, that the present time is an auspicious moment for the government of Ontario to reach out a helping hand to the iron industry. The conviction has become general that it is little short of a disgrace to the Province that she should be dependent upon foreign countries for her supply of iron when the raw material exists in such profusion within her own limits, and public spirited citizens ask what is better calculated to check the exodus and keep our young men at home than providing the means of employment which the mining, hauling, handling and smelting of iron ore would afford, to say nothing of the many related industries that would be its natural outgrowth. Smelting works once in operation would give a market for ores, and would naturally be followed by rolling mills, foundries, car wheel works, etc., to utilize and work up the pig iron produced. What has helped to build up Pittsburgh, Detroit, Cleveland, Buffalo, and many other cities across the line? Have these places not grown largely because they have become the seat of a thriving business in handling and smelting iron ore and pig iron? It is true that there is a much larger market across the line to absorb the output of the furnaces situated in these cities and elsewhere, but is there any reason to suppose that like results would not follow the establishing of furnaces here to supply our Ontario market? The Dominion government have placed a protective duty of \$4 per ton on pig iron, and have added a bonus of \$2 per ton on pig produced in the Dominion, now let the Ontario government grant some substantial assistance, and there can be little doubt that smelting furnaces will quickly rear their stacks in our province. Practical men and capitalists stand ready to risk their means in the venture if they can be assured of the government's en-