

total falling off in the exports of metals and machinery in 1892, compared with 1891, amounted to about \$35,000,000. The markets are now swamped, and there is not enough work for half the country's steel-producing plants," while scores and scores of the blast furnaces are idle. It is true that the last official returns to hand show an upward turn, at length, in the exports, and this turn is most welcome, as the British iron men think it will be more than temporary. But the point to remember is, that the flow of the tide, whether temporary or permanent, is brought about on a scale of prices lower than ever known in the history of the trade. So changed are the world's market prices, in fact, that what was a fair and reasonable protection put on certain classes of iron in Canada six years ago, has now become an absurd and inequitable burden.

Turning now to the United States, we find the record of the past year the same as in Great Britain, with this exception, that at the present moment the condition of the industry is worse and not better than at the close of the last year. The review of the American Steel Association showed the year to have been one of low prices, of moderate profits for some, but of no profits for most and serious losses to many. This was partly due to the fact that while prices were so low the demand increased somewhat, but manufacturers increased their output so that they were always ahead of the demand. This applies particularly to the steel industry, but in the iron industry a new condition of things has arisen which, while creating consternation in the old mining districts, is destined to produce far reaching changes in the American, and very likely in the Canadian, iron trade. This is the discovery and development of beds of iron where the ore can be got out so easily and in such enormous quantities that the old mines cannot compete. Of the mines in the Marquette, Menominee and Gogebic ranges along the south shore of Lake Superior—mines which have shipped over 60,000,000 tons of ore at a good profit—there is hardly one that is not either closed down or working in a limited way without profit; and it is said that at least 12,000 wage earners are out of employment in the Michigan peninsula and Northern Wisconsin owing to this cause. It was supposed by many that this was owing to the dull season and the depression brought about through the silver panic, but this is in reality only a hastening cause. The real cause is very clearly explained by a correspondent of the *New York Sun*, who writes on the 8th inst. from Duluth. He says:—

"The outlook for both mines and villages is alarming. This condition of affairs is due to the newly opened iron range lying back of Duluth in Northern Minnesota, the Mesaba. A year or more ago, when this range was discovered, and it was found that its ore lay in great beds, in consistency and position much like an ordinary sandbank, figures were made as to the cost of mining that seemed so ridiculously low that the men of the older ranges simply laughed. To-day three great mines on the Mesaba, each of which has 'shown up' deposits of not less than 20,000,000 tons, are mining ore direct from the natural deposit, and using steam shovels as their only mining tools. No expensive steam or air drills, no explosives, no underground workings or timberings, no great hoisting or air compressor plants—simply a steam shovel filling a car standing beside it on a track in a cut in the ground at the rate of four or five tons every minute. Including

the cost of stripping the surface off the ore, these mines are mining and loading their Bessemer ore on cars at a cost of fifty cents per ton or less. This they will be able to do for too long a period for the comfort of the operators on other ranges. This Mesaba range is in the market to sell ore. Its greatest mines are the property of a syndicate of which John D. Rockefeller is the chief holder, and which has invested \$7,000,000 in the mines and in transportation facilities to Duluth since January of this year. There are vast ore supplies on the Mesaba, and it is not likely that its owners will let the price of iron ore get to such a point as will allow too free outside competition, as long as they can help it."

Now inasmuch as the existing mines cannot sell ore as low as \$3.75 a ton delivered in Cleveland, and the new mines can go much below that and still make a big profit, it will be seen what great changes are in store for the iron trade—at least in the Bessemer branch. It means a new era for the trade and a general dislocation of present centres of production in the States. What may it mean for Canada? Unless some new mines are opened up in the Dominion, where ore can be got under similar favorable conditions, what duties can countervail the advantages which American producers would have? Happily for us, these wonderful beds run across the Minnesota boundary into Canada, and it is believed that quantities equal to the American fields can be got as easily on the Canadian side. This is a question which will soon be solved, and already American iron men are hunting over Canadian ground in view of the duty on ore being taken off by the Cleveland administration.

This development would mean the establishment of a new centre of Bessemer iron and steel production in Canada; but meanwhile towns by the dozen want smelting works. Hamilton is first in the field, having voted a bonus of \$50,000 to the American firm who are to establish a furnace there. The weak point in the Hamilton enterprise is that the promoters propose to get their ore from the United States. This is not building up a native iron industry, because the chief investment of capital and the chief employment of labor is at the mines and not at the furnace. For instance, at the Radnor mines in Quebec there are only about 100 men employed at the furnaces, while in getting out the ore and bringing it to the furnaces there are 800 to 850 men employed. It is therefore evident that under a tariff which proposes a comprehensive iron industry—as we suppose the Dominion Government do propose to inaugurate next session—the Hamilton firm must either work at a heavy disadvantage in paying duties on ore, or else get their supplies from distant points in Canada. It has been argued by many others besides the correspondent whose letter will be found elsewhere, that a situation like Belleville, Deseronto, Kingston, or Peterboro, would afford a better site for an Ontario charcoal iron industry, as being not only close to mines of good quality, but having supplies of wood for charcoal within easy distance. At all events, the erection of a furnace is the smallest part of the equipment of an iron producing industry, and there are any number of owners of blown-out stacks in the United States who will be only too glad to transfer their now useless property across the line here, if they can persuade a town to pay them a bonus. The Dominion Government, in their new tariff, should take