

reduced its tonnage, with the result that his grain has been cast still more completely into the hands of a single buyer.

What makes the whole matter a hard one for Canadian exporters to bear is the fact that while Canadian exports to Germany have decreased, German imports to this country have been increasing in value and quantity with leaps and bounds, even in spite of the preferential tariff with Great Britain. Another thing is that while the American tariff against German manufactures is almost double the rate levied by Canada, yet American cereals are imported into Germany at a tariff which discriminates against the Canadian almost to prohibition point.

At present, negotiations are being carried on between Great Britain and Germany with a view to the establishment of trade relations satisfactory to both parties, and the occasion is being seized by the Montreal Board of Trade, aided, as that body hopes, by other Boards throughout the country, to arrive at some concerted scheme for the amelioration of the present conditions under which Canadian grain exporters are suffering. They are going to petition the Dominion Government to make overtures to Germany, through Great Britain, with the view of obtaining the most-favored-nation treatment for Canadian produce and manufactures. How this treatment can be secured, however, and on what basis reciprocity is to be expected, are questions which, so far as we understand, have not been gone into very deeply. It is obviously out of the question for the Canadian Government to offer a reduced tariff of duties on German manufactured goods, for the manufacturers in this country might reasonably be expected to remonstrate against that, seeing how, even under present circumstances, the former are making headway. And what other plan can be suggested which Germany is likely to consider?

In the meanwhile, this subject is of much importance. Those interested say that the quantity of our grain which Germany would take every year is not the chief thing to be considered; the main point is that it would be a competitive market. As an instance of this, it is stated that Canadian shippers are receiving 2 cents per bushel more for oats shipped to Europe this year, merely on the strength of the competition with Liverpool presented by the Belgian market. Conversely, at the present time, Canadian shippers of wheat have to accept what is offered them by the Liverpool importers; if, however, German buyers were in the market also, one could be set against the other, and the result would often be the difference between profit and loss.

### IRON AND STEEL PRODUCTION.

The growth of pig iron production is a subject of interest as lying at the root of industrial production of nearly every sort. This growth has been astonishing, more especially in the latter half of the present century; for where the production of pig iron increased sixfold in the fifty years from 1800 to 1850, the increase was nine-fold from 1850 to 1899, which is the latest year for which we have figures. But even more striking is the growth of steel production, to illustrate which the United States Treasury Bureau of Statistics has compiled a diagram, giving each year's steel output

by Belgium, France, Germany, Britain and the United States from 1873 to 1899. The world's production of pig iron was approximately:

Year 1800.....	825,000 tons	Year 1880.....	17,950,000 tons
Year 1830.....	1,825,000 tons	Year 1890.....	27,157,000 tons
Year 1850.....	4,750,000 tons	Year 1899.....	39,410,000 tons
Year 1870.....	11,900,000 tons		

The United Kingdom of Great Britain and Ireland long led the world in the production of pig iron, no country approaching her in the quantity turned out. But since the discovery of the great Lake Superior iron ranges, and the development of deposits in her Southern States the United States of America have increased their output by leaps and bounds, and a few years ago surpassed Great Britain, to whom, indeed, Germany is becoming a close second. In 1899 the pig iron output of the United States was 13,620,000 tons, or 34½ per cent. of the whole; that of Britain, 9,305,000 tons, or 23½ per cent.; of Germany, 8,142,000 tons, or 20½ per cent. of the world's output. It will be seen from the table which we print below, that nearly 70 per cent. of the world's pig iron production is now made into steel, leaving only about 20 per cent. to be made into the various forms and kinds of iron. This is an extraordinary development, when we remember that Bessemer's first patent was granted as recently as February 12th, 1856, and in the same year Siemens Brothers obtained their first patent for the use of the regenerative gas furnace in the open-hearth process of steel manufacture.

Country.	—Pig Iron—			—Steel—		
	Years.	Tons.	%	Years.	Tons.	%
United States..	1899	13,620,703	34.56	1899	10,639,857	39.25
Great Britain....	1899	9,305,319	23.61	1899	5,000,000	18.44
Germany .....	1899	8,142,017	20.66	1899	6,290,434	23.20
France .....	1899	2,567,388	6.51	1899	1,554,354	5.73
Belgium .....	1899	1,036,185	2.63	1899	729,920	2.70
Austria-Hungary	1898	1,427,240	3.62	1896	880,696	3.25
Russia and Fin-						
land .....	1898	2,222,469	5.64	1898	1,494,000	5.51
Sweden .....	1898	531,766	1.35	1898	265,121	.98
Spain .....	1899	295,840	.75	1899	122,954	.45
Italy .....	1897	8,393	.02	1898	94,667	.35
Canada .....	1899	94,077	.24	1899	22,000	.08
Japan .....	1897	57,678	.15	.....	.....	.....
Other countries						
(about) .....	1899	100,925	.26	1899	15,997	.06
Total .....		39,410,000	100.00	.....	27,110,000	100.00

In this table English tons of 2,240 pounds are used for Britain, Canada, the U.S., and "other countries" not named, and metric tons of 2,204 pounds for all other countries, metric tons being taken as the equivalent of English tons in ascertaining the total production for all countries. The statistics of steel for the United States, Great Britain, France, Belgium, Austria-Hungary, Russia and Finland, Sweden, Spain, and Canada, embrace ingots and direct castings, but for Germany and Luxemburg and Italy, the statistics for finished steel have been used, complete ingot statistics not being available.

In the production of steel, the United States overtook and passed the United Kingdom in 1889—90, and has kept ahead of her and of all other nations ever since. Since 1896, the steel output of the Americans has doubled, having gone up from 5,300,000 tons to 10,600,000 tons. In same period the United Kingdom rose from 4,300,000 tons to 5,000,000, but Germany