

The *Canadian Manufacturer* places the value of the pig iron production of 1893-4 at \$965,968.77, and when it is considered that almost nine-tenths of this has been paid out for labor to Canadian workmen, the value of the industry will perhaps be better appreciated. A continued encouragement of the industry will mean that Canadian pig iron will yet form a base for many articles of finished iron and steel not now produced in this country. It has been well said that the production of pig iron is one of the best tests of a country's metallurgical greatness. This has been particularly true of Great Britain and the United States. The statistics referred to above evidence the fact that Canada is on the "right track." The Dominion may rank low as yet in the scale of iron producing countries, but she is on record along with such nations as Great Britain, the United States, Germany, France, Sweden, Russia, Austria and Spain, and the Canadian percentage of the world's output, though small, is steadily increasing, and must increase if the industry is encouraged as the circumstances of the case demand.

THE AMERICAN TRADE.

1895 has been a year of surprises. As one authority puts it: "1895 iron trade was like a sandwich, the meat, or best part of it, was in the middle." Opened badly, surprisingly good during the summer and autumn months, and surprisingly bad at the close. On the whole, however, a year fairly prosperous, and with few, if any, failures of importance attending its operations. In this respect an improvement on 1894, and a marked contrast to 1893.

As an evidence of the great fluctuation of prices during the year, Bessemer pig iron was quoted at \$10 at Pittsburgh, equal to \$9.35 at Valley furnace, in the early part of the year. Later on in the season this iron went up to \$17.50 at Pittsburgh, but receded again before the close of the year to \$11.00 per ton. On some lines of finished goods the prices advanced fully 100%, but again receded. While the actual figures of the output of pig iron in the United States to the close of the year have not yet been compiled, it will aggregate almost, if not quite, 9,500,000 tons, and 1896 opens with the enormous output of almost one million tons of pig iron a month, and with but a very light demand for steel and finished material. This would not seem to be an encouraging position of affairs, yet it is safe to say that the actual conditions are quite as favorable as they were along in the summer and autumn of last year, when buyers were "tumbling over" one another in their anxiety to get orders filled. The great railways and other large corporations have not by any means supplied their legitimate wants. Speculators have rushed the market during 1895, and many of them are carrying stocks to-day which were purchased at fairly high prices. The legitimate buyers, at least the larger ones, notably among the railways, have held back, but they must come into the market sooner or later, and there is good ground for believing that even the present immense output will not be, at least for some little time to come, too great for the legitimate demands of the country, when the unsettling war scare, combined with the drawbacks of a presidential year, have permitted trade to settle down into ordinary grooves.

Natural conditions will all tend more or less to keep prices steady through the coming year. With advanced prices on ore and coke, Bessemer pig cannot be made for \$10.00, or anything like it. Labor is 30 per cent. higher than it was a year ago, and it is now costing more to make iron than it did last season. It is therefore probable that the present low prices are more or less temporary.

The New York Journal of Commerce says that the ore shipments of the lakes have been about one-third greater than the previous year, and they have exceeded by more than 10 per cent. the shipments of the banner year, 1892. A significant feature is that ever since 1892 a surplus of about 2½ million tons of ore has been lying on the docks, while now the supplies are down to a point that there are fears of an ore famine, and prices have advanced accordingly. The Mesaba mines commenced shipping in 1892, but the amount that year was nominal. In 1893 there was a considerable shipment, and this was tripled in 1894, but the shipment of 4,000,000 tons in 1895 has a good deal more than doubled the shipments of the previous year. It is notable that at the beginning of last season only ten mines in the Mesaba range contemplated making shipments, but at the close of the year 22 mines were in operation, and a dozen more are making arrangements to ship as soon as spring opens. There is considerable activity in the other ore-bearing districts, and on the Gogebic range it is deemed probable that there will be a repetition of the boom of six years ago.

There will be no lack of ore, yet many of the best authorities agree that prices will be well maintained throughout 1896.

GREAT BRITAIN.

It is too early yet to give full returns of the British output for 1895. The production of pig-iron, however, for the first half of 1895 was 3,721,870 tons which is at the rate of 7,443,740 gross tons, against a production in 1894 of 7,427,342 tons. It will be seen that the output in the United States shows a steady and marked increase over that of the rival market, Great Britain.

In marked contrast with the excited fluctuations of the American iron market during the past year, the course of Scotch pig-iron has been of an extremely placid and uneventful description. Opening at 41/7 with a quiet market, Scotch Warrants closed at the close of 1895 at 45/7, without any special features of interest. The price at which they opened at the beginning of the year was very low, and the market gradually recovered during the spring and early summer, until in the month of September, when the American boom was at its height, they reached the high figure of 48/10, which, however, was maintained for only a short time. Prices then began to settle again, and they continued gradually to recede until the close of the year, when 45/7, as we have stated, was the ruling price. It was expected at one time during the course of the year that the Scotch and English markets would follow the lead of the American, but the collapse of the boom on this side of the Atlantic effectually stopped this.

Another incident happened to further depress the buoyant feeling which was prevalent in Scotland during the month of September, and that was the unfortunate trouble that arose in the ship-building yards on the Clyde, and also at Belfast and in England, in connection with the wages of the ship-building hands. A large quantity of tonnage was placed in the latter part of 1895, and it was expected that the Scotch and English ship-building yards would be fully employed, and the demand for steel would thus be considerably increased. The disputes, however, between the ship-builders and their employees has undoubtedly sent a large quantity of this tonnage to foreign ship-building yards, and consequently the large demand for steel that was expected has not developed. It is understood that these disputes have now been satisfactorily settled, and it is not expected that the prices will decline further than they are at present.

The fluctuations in the Warrants market are of course largely of a speculative character, and are often due more to condition of the money market, and other outside causes, than to any special increase or decline in the demand for pig-iron or consumption. In order, therefore, to judge of the actual condition of the consumptive pig-iron market it is necessary to look at the figures of Scotch shipping brands, such as "Summerlee," "Coltness," "Calder," "Gartsherrie," etc. In looking at the prices of these brands, the extremely placid nature of the market during the past year is especially noticeable. No. 1 "Summerlee" was quoted f.o.b. Glasgow in January,

1895, at 52/6, and the quotation at the close of the year was 51/-. The lowest price quoted during the year was 50/- on several occasions, while the highest was during the months of September and October, when 53/- was asked, and possibly a little higher may have been the ruling price for a short time, but the margin of fluctuation during the whole year was never greater than about 3/6, or under \$1.00 per ton. This is rather different from the course of the American market, for the same grade of pig-iron, such as is made in Northern Ohio, No. 2 American Scotch, was sold as low as \$9.25 at the furnace, while during the boom it went as high as \$14.50, showing a margin of fluctuation of over \$5.00 per ton on this grade.

The figures in connection with the production, consumption and exportation of British iron have not come to hand, but it is safe to say that the British production during 1895 will not fall short of the previous year, and will approximate the figures mentioned below.

With regard to foreign iron imported into Canada, statistics show a great falling off in the imports of pig-iron from Great Britain as compared with the United States. The returns for the fiscal year ending June 30th, 1895, show importations of 33,944 net tons, of which only 6,346 tons came from Great Britain, while 27,550 tons are credited to the United States. 1894 was certainly a most exceptional year, as the iron market in the United States was at the very depths of its depression, and sales of American iron were made at prices very much below the average of previous years, and without doubt below the actual cost of production. Now that matters have been somewhat more equalized it is expected that the British iron-master will be better able to compete for a portion of the Canadian trade, with their American rivals, than during the past year, and particularly in the Montreal and eastern seaboard markets. With the advent of the new Hamilton furnace the Canadian iron industry will make it more and more difficult for British and American producers to secure any portion of the Canadian trade, beyond what little iron may for a time seem desirable or necessary for mixtures. In due course even this moderate market may be lost to the foreign producers.

Cleveland iron import returns, issued at Middlesboro', Eng., show an increase in stocks of 4,000 tons for November. There have been previously uninterrupted decreases since April. The production was 245,000 tons, 120,000 tons being Cleveland iron, and the remainder hematite, etc. The total stock of Cleveland iron is 271,000 tons, 93 furnaces in blast—one increase. The total stocks 12 months since were 200,000 tons. The condition of affairs at the close of the year will probably remain relatively the same, the stocks being greater than they were a year ago.

GERMANY.

The German production for the first ten months of 1895 was 4,788,571 metric tons, as against production for a similar period in 1894 of 4,579,180 tons, an increase in production of 209,391 metric tons.

CANADA.

It is an acknowledged fact that a time of depression in the United States is nearly always followed (generally speaking, a year later), by a period of dull times throughout Canada. 1895 has been no exception to this general rule, but thanks to the moderate dividing wall afforded by our system of protection to native enterprises, we have been preserved from any such panic as the markets of the neighboring Republic experienced in 1894, and the solid financial condition of Canada has been the subject of favorable discussion in the money markets of the world. This has been true of all important Canadian industrial enterprises. In the iron department our operations have been carried on upon a safe basis. Most of the furnace companies have restricted themselves during the year to comparatively short campaigns, being wise enough to suit the output to the times. In the face of this the record for 1895 is creditable, and now starting the new year, 1896, with comparatively light stocks at the various furnaces, and with a knowledge that the new 100-ton per day Hamilton furnace can be depended upon for the coming year, it is safe to predict that 1896 will prove the banner year of the iron industry in Canada, so far as the past is concerned, and the beginning of a new and more vigorous existence in the metallurgical history of our country.

The record of the various Canadian furnaces during 1895 is as follows:—

Nova Scotia Steel Co., New Glasgow and Ferrona, N.S.

	Tons.	Lbs.
Coke pig iron made	19,410	1,440
Ore charged	38,783	1,520
Fuel	28,110	1,560
Flux	16,304	1,920
		Men.
Labor employed in steel works		450
In ore production		100
In furnace work		250
		800

This company manufacture all grades of agricultural implement steel, forgings, etc., the basis of which is very largely "Ferrona" iron, made from Canadian ore, so that the utmost possible amount of labor is secured to the country in the special lines now made by this company.

Londonderry Iron Co. Ltd.

	Tons.	Lbs.
Coke pig iron made	17,744	320
Ore charged	41,557	1,200
Fuel charged—Coke	25,264	1,920
" " Coal	3,088	1,920
Cast iron water and gas pipe produced	2,110	160

Average number of men employed, 425.

Furnace output of 1895, campaign 8 months.

Pipe foundry campaign, 7 months.

It is a notable fact that the tariff revision of session 1894, by which a duty (on a sliding scale), was imposed on wrought scrap iron, has already resulted in the Londonderry Iron Co. making contracts with Canadian manufacturers of bar iron which is enabling them to start up their rolling mills. The work is just commencing in this department, and will afford steady employment to a large number of Canadians.

Canada Iron Furnace Co. Ltd.

Charcoal iron produced in 1895, in a campaign of nine months.

	Tons.	Lbs.
Ore made	6,598	420
Charcoal consumed	654,361	bushels.
Ore	16,203	
Lime	1,500	417

Average number of men employed, 600.