tee he wanted would be that competing Canadian bridge builders should pay the same for their material that he did.

The protective feature of the tariff should be such as to be efficient in hard times as well as in good times. Even under present circumstances, American mills while very busy on their home orders, are making special prices for Canada on steel rails for railway purposes; and our information is that their prices for Canadian consumption are fully \$3 per ton below what they sell at to the largest railroads in the United States. The object of this is obvious.

An illogical provision of the tariff as it now stands, is with regard to the heavier sections of rails and shapes; and we point

to the fact that under the tariff the manufacturers of steel ingots and billets are given protection to the extent of \$2 per ton, while, if more capital and more labor is invested by them in the conversion of their products into the higher forms of rails and architectural sections, no corresponding protection is afforded.

Too much stress cannot be laid upon the fact that that portion of encouragement granted to Canadian producers of iron and steel, in the form of Customs duties, is bestowed very largely for the purpose of protecting our home market from just such unfair competition as that herein alluded to; and as long as steel rails are in the free list, Canada will be a slaughter market for the overproduction of the United States, Germany and Belgium, and our

manufacturers be a somewhat easy mark for American trusts.

OUR IRON INDUSTRY.

The preface to the fifteenth edition of the "Directory to the Iron and Steel Works of the United States and Canada," collated by Mr. James M. Swank, general manager of the American Iron and Steel Association, just published, supplies facts regarding the iron and steel industry in the two countries which show that Canada is making satisfactory progress in it at this time. Approximately the population of the United States is about fifteen times that of Canada, and on that basis we draw a few comparisons and conclusions.

Canada now has fourteen complete blast furnaces, and four in course of construction. The completed and building furnaces have a total annual capacity of producing 1,090,300 gross tons of pig iron. In his Directory Mr. Swank describes 406 completed furnaces in the United States, either active or reported to him as likely to be some day active. Eliminating some of these in the latter category as being, in his opinion dead for all time, there remains less than 400 live furnaces

to-day, and many of these are the largest that the world has ever seen. The total annual capacity of these live American furnaces is placed in round numbers, at 24,000,000 gross tons, an increase since 1898 of 33½ per cent. The actual production of pig iron in the United States in 1901 was 15,878,354 gross tons. Since 1898 Mr. Swank has transferred fifty-eight furnaces to the abandoned, dismantled or inactive list. According to this showing, if all the completed furnaces in Canada had in the past year been worked to their full capacity, and if the four furnaces not then completed, had been in operation, they would have produced a little more than one fifteenth of the entire quantity of pig iron produced in the United States,

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For many long years THE CANADIAN MANUFACTURER has done all it could to create sentiments and circumstances which would result in the manufacture of steel rails in Canada; and we have pleasure in announcing, as above, that Messrs. Drummond, McCall & Co., Montreal, are now offering for sale highest quality Bessemer steel rails made by the Algoma Steel Company, at their mills at Sault Ste. Marie, Ont. This is the first time in the history of Canada that Canadian-made steel rails have been offered for sale; and we are pleased to say that THE CANADIAN MANUFACTURER is the first journal that ever contained such an advertisement.

notwithstanding, as Mr. Swank points out, many of the active American furnaces are the largest in the world. In June, 1898, Canada had only eight completed furnaces with one in course of erection; and only two or three of the completed furnaces could be called large.

Capacity of production does not mean actual production, and this fact applies alike to the furnaces in both countries; for while the capacity of American furnaces in 1901 was, in round numbers, 24,000,000 gross tons, the actual production was only 15,878,354 gross tons; the capacity of Canadian furnaces being 1,090,300 gross tons, and the actual production only 244,976 gross tons. In the United States the actual production was 66 per cent. of the capacity, while in Canada the actual production was only

22 per cent. of the capacity. Mr. Swank shows that since 1898, 58 American furnaces had been transferred to the inactive list, while he does not mention that any similar transfer had been made in the Canadian list. No more furnaces of small capacity are being built in Canada, but on the other hand several of large capacity were completed last year, and several others have been or will be completed this year.

Considering the population of the United States to be, in round numbers, 75,000,000, and of Canada, one fifteenth of that number, say 5,000,000, the per capita production and consumption of pig iron in the former in 1901 was about 475 pounds, and in the latter about 110 pounds of domestic production, and of both domestic and imported iron about 125 pounds; the imports of pig iron into Canada in that year amounting to 35,782 net tons.

It is not to be supposed that the per capita requirement of manufactures of iron in the United States as compared with the requirement in Canada is nearly four times as great, for it is not; and it should be borne in mind that Canada is a large consumer of certain forms which are not produced here, such as steel rails, architectural shapes, etc., the value of imports of