elsewhere, are producing annually, at a fair estimate, 80,000 tons of the products of iron. Unfortunately the raw material for this output is very largely foreign, although there is no good reason why within the next few years every ton of this should not be supplied by Canadian labor from Canadian ore.

Our iron founders use annually about 80,000 tons of pig iron in castings, such as stoves, agricultural implements, and machinery of all classes, one-half only of the material used in this class of work being the production of Canadian furnaces.

Aside from these leading lines, the country consumes each year a large quantity of such products as band and hoop iron, special quality bar iron, steel boiler plates, steel sheets, sheet iron, chain cables, slabs, blooms, bridge and structural iron, railway fish-plates, rolled beams, nail and spike rods, wire, locomotive tires, iron and steel for ships, steel ingots, bars, and other forms of iron too numerous to mention, but almost wholly the product of foreign labor.

In railways and shipping Canada pretty well holds her own, proportionately to population, with either Great Britain or the United States.

Possessed of the necessary raw materials, and reasonably protecting her own home market, there is no reason why she should not, in proportion to her population, hold an equally prominent position in her iron industries.

The history of the Canadian iron industry dates back to the establishment of St. Maurice forges by the French government about the year 1737. This was followed at various periods by the erection of iron works at Batiscan, L'Islet, Hull, Baie St. Paul and Mosaic, in the Province of Quebec; Furnace Falls, Normondale, Marmora, Madoc and Houghton, in the Province of Ontario; Woodstock, in New Brunswick; Moose River, Nictau and Bloomfield, in Nova Scotia. In the course of time each and every one of these enterprises had to succumb to the competition of foreign iron, then admitted free of duty into Canada.

In addition to the difficulty of competing with the more advanced industries of other countries, Canadian pioneer furnace men labored under many grave disadvantages. The records in every instance speak of small outputs, lack of capital, lack of shipping facilities, mismanagement—good and sufficient reasons in any country, or in any branch of industry, for ultimate failure.

In not a single case has it been shown that lack of raw materials necessitated the closing down of a Canadian furnace. It is true that an almost absolute want of proper shipping facilities in these earlier days made it troublesome and costly to procure raw materials and deliver them at the furnace, but this difficulty has long since been removed by the easy shipping facilities afforded through the network of railways now in operation all over the country, not to speak of the perfect waterways and splendid system of canals now possessed by the Dominion.

Passing over the pioneer stage, we come to perhaps the most important epoch in the history of the iron industry in Canada, viz., the introduction of the protective tariff on iron, which came into force in 1887. The tariff as then framed, and still in force, was based upon the American tariff of import duties on iron and steel, and their products, in the proportion of about two-thirds of the said American tariff, and unquestionably the Dominion Government designed the tariff with a view to protecting native Canadian labor against the cheaper labor of Europe and the better equipment of the United States. It was evidently the intention of the Government in doing this to afford, at least approximately, an equal ratio of protection to labor, in whatever branch of the industry it was employed, as this is the system upon which the American tariff is undoubtedly based, and the only system possible of complete success.

Unfortunately the Dominion Government made one mistake, viz., the admission of wrought scrap iron, as the raw material for the manufacture of bar iron, at a less rate of duty than puddled bars, blooms and billets, with which it came into competition. This exception is, as Sir Charles Tupper once said, the "one blot" on the tariff, for it has ever since deprived Canadian furnacemen of a home market for their forge iron, a class of iron which in the order of things they must necessarily produce from time to time, and which should be used by Canadian rolling mill men as their raw material for bar iron, either in the shape of puddled bars, or soft steel billets, as the trade may demand.

The admission of scrap iron at a low rate of duty has resulted in two evils. First—It has retarded the progress of the manufacture of pig iron from Canadian ores, inasmuch as the ironmasters cannot afford to produce puddled bars or steel billets at competitive prices with cheap wrought scrap. Secondly—It has caused the Canadian rolling mill proprietors to make investments in special plant for the manipulation of scrap, and brought about a condition of affairs in the rolling mill business that would be greatly disturbed by any sudden change in the tariff with regard to the admission of wrought scrap.

It is the plain duty of the Government to rectify the mistake it has made, but to do so with due regard to the vested interests of all sections of the industry.

This may be done in several ways, for instance, by naming a definite date, say within from three to five years, when wrought scrap, the present raw material for Canadian bar iron, shall be placed at the same rate of duty as puddled bars, or steel billets, with which it comes into competition, and that in the meantime a sufficient bounty be granted, either to the rolling mill companies on such iron and steel as they may produce from the products of Canadian blast furnaces, or to the blast furnace companies direct, as an inducement to them to produce steel billets and puddled bars, so that they may shortly be in a position to supply the mills (at a reasonable living profit to themselves) with all the raw material necessary for the manufacture of bars and other finished iron.

It is not improbable but that a comprehensive arrangement on some such lines would result in the rolling mill companies considering the question of going into blast furnace work on their own account, with most beneficial results to the whole Dominion, or they may adopt the course of erecting plant for the manufacture of steel billets and puddled bars from Canadian pig iron.

In the face of many difficulties the pig iron industry has continued to make creditable progress since 1887, and especially has this been the case within the past two years.

At the close of the calendar year 1891, the total production of pig iron in Canada was only 23,891 tons. Within eighteen months, that is to say, at the close of the fiscal year 1892, the output had increased to about