

the duties on other branches, particularly scrap iron, had been harmonious therewith. The incongruity was the result of the obstinateness of Sir Charles Tupper, who, in that matter at least, was only a theorist, and who would not listen to the suggestions of practical men. His idea was that the pig iron duty plus the bounty would be sufficient to establish the blast furnace industry, to do which would require several years, and that in the meantime the wants of the country for rolled iron could be quite promptly and cheaply met by placing a very low duty—\$2 per ton—on wrought scrap. He did not seem to recognize the fact that no blast furnace ever built could produce a single uniform quality of iron only, and that if furnaces were built it should be made possible to utilize every variety of iron that might be produced by them. It costs more to convert pig iron into puddled bars than to roll scrap into merchant iron. In the first instance two processes are required, in the latter but one. With a duty of but \$2 per ton on scrap it should not have been expected that Canadian iron men would erect puddling furnaces when their raw material could be had at much lower cost. If these iron men, then, declined to build puddling furnaces and become consumers of pig iron, where, pray, were the furnace men to find a market for such of their pig iron as could not be used for foundry purposes? Foundry pig is always in demand, but how could the mill iron be disposed of?

Clearly, then, the Government erred in placing the duty on scrap so low; and if we are ever to have blast furnaces and a prosperous pig iron industry the error must be corrected. The duty on muck iron is \$9 per ton, and if that is what it ought to be, and perhaps it is, the duty on all scrap, both wrought and cast, should be the same. If it was we would very soon have blast furnaces enough to supply our entire demand. There would be such a variety of foundry iron produced by them as to meet all the requirements of foundrymen; and there would be an output of mill irons sufficient to manufacture all the puddled bars the railways and all other consumers would require. If this were done the price of merchant iron would not be advanced, for as it now is we import large quantities of bar iron.

The rolling mill men would not favor the change, but it would be of great benefit, not only to all consumers of iron, but to the country at large. The rolling mill men would be forced to erect puddling furnaces, and this would give largely increased employment to labor; and instead of our importing hundreds of thousands of dollars worth of pig, scrap and bar iron every year, the money would be saved to the country, and Canadian capital and Canadian labor find new and profitable employment.

AS TO CANADIAN CEMENT.

In our last issue we alluded to the fact that the Department of Railways and Canals had determined to ignore the use of Canadian-made cement in the construction of the Soulages Canal, giving the preference to the English article. We understand that this determination was arrived at after tests of all the various kinds of cement had been made under the supervision of the engineer in charge of the work; and as he reported very strongly in favor of the English Portland cement, the Department proposed to adopt his recommendation.

The engineer in charge of the Soulages Canal is, we are informed, Mr. Thomas Monroe. We are also told that some time prior to the commencement of this work, this gentleman was sent to England by the Dominion Government, to observe how such work was being done in that country, and particularly the Manchester Ship Canal, then in course of construction. Mr. Monroe was the engineer in charge of the Welland Canal enlargement, and in that responsible position had occasion to know, and did know, of the quality and value of the cement that was used in that important work.

We quite fully appreciate the fact that it is the desire as well as the duty of the Government to use only the very best materials in the construction of so important a work as the Soulages Canal, and that in deciding in such matters great reliance must be placed in the recommendations of the engineers whose business it is to investigate the merits of the articles available for use in the works. But in our opinion it is also the duty of the Government to have some knowledge of what its engineers have previously done in the way of making recommendations; and to know why, if an engineer had previously made a recommendation regarding an article, he should subsequently recommend its rejection, or why he should not again recommend it. In this instance it was within the knowledge of the Department that there were quite a number of concerns in Canada engaged in the manufacture of Portland cement; that Canadian cement had been very extensively used in the construction of canals and other public works, that it had given the utmost satisfaction in such works, and that many of the most eminent Canadian engineers had recommended the use of these Canadian cements. This information was and is within the knowledge of the Department of Railways and Canals, and also that Mr. Monroe, who now recommends the use of a foreign cement in the construction of the Soulages Canal, when he was engineer in charge of the Welland Canal made a certificate to the effect that during the previous four years about one million bushels of a cement made at Thorold had been used in the construction of that canal then in his charge.

If the manufacture of cement in Canada were a new industry, and the merits of the article unknown and untried, it might be well for the Government to decline using it in the construction of public works. But it is well known that a most excellent cement has been made in Canada for the last fifty years, and that it has been generally accepted by the Government in many of the most important works which have been constructed. Mr. John Page, Chief Engineer of Canals, writing officially from Ottawa relative to a cement manufactured at Thorold, says:—"For the past forty years the cement obtained at Thorold has been used on various extensive public works, and in every instance the result has proved highly satisfactory. It will compare favorably with any natural or artificial cement that I know of." Mr. Thomas Monroe, now engineer in charge of the Soulages Canal, while engineer in charge of the Welland Canal, wrote:—"During the past four years about one million bushels of Thorold hydraulic cement have been used in the construction of the canal works in my charge. This experience enables me to testify to the excellence of the article." Mr. W. G. Thompson, resident engineer on the Welland Canal, says:—"My tests of the