CIHM Microfiche Series (Monographs) ICMH
Collection de
microfiches
(monographies)



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques



Technical and Bibliographic Notes / Notes technique et bibliographiques

L'Institut a microfilmé le meilleur examplaire qu'il lui a

été possible de se procurer. Les détails de cet exem-

plaire qui sont peut-être uniques du point de vue bibli-

ographique, qui peuvent modifier une image reproduite,

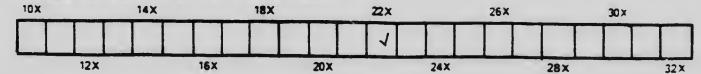
ou qui peuvent exiger une modifications dans la méth-

ode normale de filmage sont indiqués ci-dessous.

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming are checked below.

V	Coloured covers /		Coloured pages / Pages de coulous
٣	Couverture de couleur		Coloured pages / Pages de couleur
	Covers damaged /		Pages damaged / Pages endommagées
	Couverture endommagée		Pages restored and/or laminated /
	Covers restored and/or laminated /		Pages restaurées et/ou pelliculées
	Couverture restaurée et/ou pelliculée		Degra discolarized state of a 1 /
	pomocio		Pages discoloured, stained or foxed /
	Cover title missing / Le titre de couverture manque		Pages décolorées, tachetées ou piquées
		<u> </u>	Pages detected / Dages détactées
	Coloured maps / Cartes géographiques en couleur		Pages detached / Pages détachées
	The state of the s		Object 17
	Coloured ink (i.e. other than blue or black) /		Showthrough / Transparence
	Encre de couleur (i.e. autre que bleue ou noire)		
	Lincie de codiedi (i.e. adite que biede ou figire)		Quality of print varies /
	Coloured plates and/or illustrations (Qualité inégale de l'impression
1 1	Coloured plates and/or illustrations /		
	Planches et/ou illustrations en couleur		Includes supplementary material /
_		لسا	Comprend du matériel supplémentaire
	Bound with other material /		
	Relié avec d'autres documents		Pages wholly or partially obscured by errata
		لــا	slips, tissues, etc., have been refilmed to
	Only edition available /		ensure the best possible image / Les pages
	Seule édition disponible		totalement ou partiellement obscurcies par un
			feuillet d'errata, une pelure, etc., ont été filmées
	Tight binding may cause shadows or distortion		à nouveau de façon à obtenir la meilleure
	along interior margin / La reliure serrée peut		image possible.
	causer de l'ombre ou de la distorsion le long de		illage possible.
	la marge intérieure.		Opposing pages with warning anto attack
			Opposing pages with varying colouration or
	Blank leaves added during restorations may appear		discolourations are filmed twice to ensure the
	within the text. Whenever possible, these have		best possible image / Les pages s'opposant
	been omitted from filming / II se peut que certaines		ayant des colorations variables ou des décol-
	pages blanches ajoutées lors d'une restauration		orations sont filmées deux fois afin d'obtenir la
	apparaissent dans le texte, mais, lorsque cela était		meilleur image possible.
	possible, ces pages n'ont pas été filmées.		
	possible, des pages il din pas ele illinees.		
	Additional commonts (
	Additional comments /		
	Commentaires supplémentaires:		

This item is filmed at the reduction ratio checked below/ Ce document est filmé au taux de réduction indiqué ci-dessous.



The copy filmed here has been reproduced thanks to the generosity of:

National Library of Canada

The images appearing here are the best quality possible considering the condition end legibility of the original copy end in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the lest page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the lest page with a printed or illustrated impression.

The last recorded frame on each microfiche shell contain the symbol — (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Meps, plates, charts, etc., may be filmed at different reduction retios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diegrams illustrate the method:

1 2 3

4

L'exemplaire filmé fut reproduit grâce à la générosité de:

Bibliothèque nationale du Canada

Les images suivantes ont été raproduites avec le plus grand soin, compte tenu de le condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exempleires origineux dont ls couverture en pepier est Imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençent par le première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microtiche, selon le cas: le symbole → signifle "A SUIVRE", le symbole ▼ signifie "FIN".

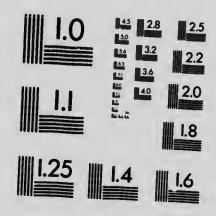
Les cartes, plenches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

1

			2
			3
1	2	3	

MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)





APPLIED IMAGE Inc

1653 East Moin Street Rochester, New York 14609 USA (716) 482 - 0300 - Phone

(716) 288 - 5989 - Fax

IRON AND STEEL IN NOVA SCOT

'BY J. H. PLUMMER"

Company from the Constitution Minimage Reports

The state of the s

IRON AND STEEL IN NOVA SCOTIA

By J. H. PLUMMER

THIS article was written at the request of the editor of the CANAD. IN MINING JOURNAL for its Nova Scotia number.

It is reprinted, with some verbal changes, at the wish of several of those who are interested in the manufacture of iron and steel.

J. H. PLUMMER

15th October, 1912

IRON AND STEEL IN NOVA SCOTIA

Ī.

That the manufacture of iron and steel is a fundamental industry, and that these commodities are among the earliest which any country should seek to produce, is universally accepted. To this was due the general support given by both sides in Parliament to the granting of bounties in aid of the industry.

We have in Canada the natural resources for the production of iron and steel, and as regards the past ten years, at any rate, have nothing to be ashamed of in the progress we have made in their manufacture, but we are as yet occupying only a small part of the field open to us.

П.

So far as present knowledge of our resources goes, there are three districts in Canada where this industry may be naturally developed. In the Maritime Provinces we have ample coal, of which, among the raw materials used, the largest tonnage is needed. We have cheap ore from Newfoundland, and there are good prospects of ore deposits being developed within the Provinces. The larger plants have besides the great advantage of water transportation for the finished products.

In Ontario there: much iron ore, there is coal in the United States within reach at a reasonable cost, and an excellent market. The raw materials cannot be assembled as cheaply as in Nova Scotia, but there are some counterbalancing advantages in the facilities for distribution.

In the west, British Columbia has resources which must lead to the developmers in good time of iron and steel industries. What there may be in the vast country lying between Ordario and British Columbia it is too early to say.

At present Nova Scotia is the chief centre of the industry, with Ontario following closely in her wake, and it is of Nova Scotia that I have been asked to write.

To do justice to the claim of any industry in Nova Scotia, one must look back at earlier days. When Confederation was first proposed, a large number of her people were strongly hostile, and it cannot be denied that at first the province did not gain by the change. Before Confederation her trade was mostly in the hands of her own merchants, and Halifax held a strong position as a distributing centre. She levied her own duties, which she imposed on such articles as, under the local conditions, were best suited to bear the burden, and she had the whole world to look to for such supplies as she did not herself produce.

After Confederation her trade fell largely into western hands, and she became a customer of the other provinces for most of her needs; flour and other foodstuffs, clothing, boots and shoes, and other things. Her industries were largely undeveloped; she sent little to the west, but men and money; she bought a good deal. She had great possibilities in agriculture, in coal and in fisheries, but in none of these got much benefit from western trade in these earlier days.

Then came the industrial awakening. The stimulation of the manufacture of iron and steel by bounties, the important help to the coal industry which this in itself gave, and the development of coal mining by the opening of the markets on the St. Lawrence as the effect of the duty on coal, all combined to give to the province her first serious benefit under Confederation. I am, of course, speaking of material benefits only; it would be a grave injustice to her people to suggest that 'hey do not value the benefits of another sort which the are proud to share with all Canadians. But citizenship in a great Dominion and the wider national life and outlook which it gives, however greatly to be valued, do not in themselves provide homes, or food and clothing for wives and children. Before the coming of the industrial development the young men and women of the province found new homes abroad to an alarming extent, and New England absorbed her citizens by hundreds of thousands.

The growth of such centres as the Sydneys, New Glasgow, Amherst, etc., with the less marked but very important industrial growth elsewhere in the province, has greatly modified all this, and has had an immense effect on its prosperity. It has created a public revenue which has enabled the province to undertake many important and necessary works, and it has saved it from the usual fate of agricultural communities in Canada.

The recent census made it clear that, but for the growth of the industrial centres, the population of Nova Scotia as a whole would have shown a decrease, and there was an actual decrease in the farming population.

Prince Edward Island, which is practically without industries, also shows a decrease. . cannot speak from personal knowledge of the Island, but I am told that her young men are drifting avay, that the proportion of unmarried women is increasing, and that it is becoming more difficult to find labour for her farms.

The striking point in this, which applies in some degree to Nova Scotia as well, is that this shrinkage of population has been accompanied by the growth of large and excellent markets at their doors for all that they raise. I am told that the farmers are prosperous, and that the conditions of the whole Island have improved as the industrial centres in Nova Scotia have grown.

This is not a r .. thing. Ontario, Quebec, the New England States and other places have had the same experience. It seems to show that true prosperity, with room and scope for a growing population, must be lacking where there are no industries. Men are not all alike, and only a certain percentage in any community take to farming or other work on the land. Many prefer industrial pursuits because of the wider opportunities they give, because of the steady work, the higher wages, the shorter hours, and, most of all, the town or city life with which they are usually identified. Such men will seek new fields of work elsewhere if they do not find these opportunities at home, and their own communities can ill afford to lose alient.

The duty of Parliament to deal fairly with the claims of the different provinces, with due consideration for their differing needs, will not be gainsaid. No Nova Scotian grudges the unstinted pouring out of money in aid of immigration, of railways, of canals, and of other things for the development of the West. But Nova Scotia, and to some extent the Maritime Provinces generally, must look chiefly to the development of their industries for their share of the national growth.

If, then, it be admitted that this hasic industry of iron and steel-making is one which should be fostered; if the facts I have outlined be considered; if the several interests of the provinces are to receive justice in the framing of our fiscal policy, I think the claim of Nova Scotia to full consideration for these primary industries of iron, steel and coal, in which she leads, cannot be overlooked.

As regards the actual condition of the iron and steel trade in Nova Scotia, it may be said that from one point of view it is very promising. At all points large extensions are being made to existing plants and larger production has been reached, or is within sight. These extensions have been entered on in reliance on the willingness of Canadians, of Government and Parliament, to continue a policy of reasonable protection for Canadian enterprise.

From another point of view the condition of affairs is not good. The depression in the iron and steel trade in the United States last year brought Canadian prices to a low level, the effects of which are still felt, and earnings have been poor. The tariff conditions affecting the trade are in many respects unsatisfactory. Its difficulties in that regard have been respectfully laid before the Government; there are low duties on articles which should be made in Canada, such as the larger sizes of structural steel; in other cases, where the duties are in themselves adequate, exemptions or drawbacks make a large portion of the market duty free. These drawbacks have the further disadvantage that they affect the home market for goods to which they do not apply, by making it difficult to separate the orders; a point of much greater importance than one would suppose.

The tariff on wire rods, wire and similar products, might have been framed expressly to divert a large part of this important and growing tonnage into foreign hands. There is an annual sum of four or five million dollars paid to foreign workmen in this line alone which should be paid to Canadian workmen. If Canadian makers had this business it would do little more than enable them to operate fully the plants already in existence, and one is only calling attention to the obvious in saying that full operation is the key to lower costs, to which in this as in other lines we look for ultimate independence of tariffs. I cannot refrain from saying that to give large bounties to establish the making of iron and steel, and with their lapse so to deal with the tariff as to deprive the makers of a large part of their market, is a most inept and wasteful policy.

V.

Free trade would doubtless command the support of most business men if things were industrially equal all the world over. But they are not. And no country ever tried to establish its industries and maintain free trade at the same time; certainly not England, or the United States, or Germany, and the more that the competition which the industries in a new country must meet comes from countries where industries are fully developed and specialized, the more need there is of protection at home until conditions have become more nearly equal.

We hear a great deal about opposition to the tariff among the American people, and we are often told that the public we serve will follow in their train. But we ask, with confidence, for fair play, and fair play demands that the course of the industrial development in both countries, and its relative stage in each at present, should be fully considered. In the United States there has been protection, literally for generations, to an extent far beyond anything dreamt of in Canada; a protection so effective, so far as iron and steel are concerned, that in these lines they now lead the world.

The resentment of the American people is not, it seems to me, directed against duties reasonably necessary to protect their industries, but against excessive duties which impose an undue and unnecessary burden on the consumers. So far as I can judge, most Americans, whatever their politics may be, are firm supporters of such protection as is necessary for the prosperity of their industrial workers, which necessarily includes prosperity for those who employ them. If in dealing with the Canadian tariff this spirit prevails, neither the manufacturers nor their employees will have anything to complain of.

VI.

The production of iron and steel in Canada in a large way began only ten years ago, and while we have had foreign experience to guide us, there is not a branch of the industry in which we have not had to meet our own special difficulties, and work out our own salvation. We have had to organize our staffs, to train our workmen, to deal with ore, coal, limestone and other materials previously untried, to develop efficient and economical means of transportation, and to master our own special problems, and in most of these matters there is little help to be had from the experience of others. We have had to buy and pay for our own, and we have still much to learn.

We have, however, made great progress, a progress sufficient to make many reasonable people ask such questions as this: "You should by this time be able to make steel at about the same cost as the United States manufacturers; why cannot you secure the market?"

The answer to this is found in the unequal conditions which exist. To take one obvious point, manufacturers in the United

States supply a home market ten or twelve times as large as ours in the mere number of buyers, and relatively much larger still in volume, with some part of our own market and of other foreign markets in addition; they manufacture in large quantities and are able to specialize. All this gives them a great advantage. They could add to their ordinary production a tonnage which would supply us fully, and yet be but a trifling increase of their large output. They can sell it here, if they choose, at its nominal cost or even below it, and still get some advantage out of the business. They could not live on such prices as they usually get in Canada, if the same prices governed their home sales, and our own manufacturers could not hope to succeed if such prices as these had to be accepted as a permanent condition. That we escaped without disaster from the serious market conditions last year was due chiefly to the fact that, although so large a part of the trade was attacked, and in many cases secured, by United States manufacturers, the tariff and the cumping duties in the main prevented slaughter sales and so secured a portion of the market to the Canadian manufacturers.

Passing by other considerations, such as the effect of the preferential tariff, and of competition from the Continent; from Belgium, for instance, where the average wages were found a year or so ago to be 85 cents per day, as compared with \$2.08 per day at Sydney; I will go on to a second point, not quite so obvious, which is involved in our geographical conditions.

In that portion of the United States which lies near our borders, from the Atlantic to the Middle West, and within easy reach of Canada, in many cases right on the lakes which join the two countries, there are a very large number of iron and steel plants. There is scarcely a business centre in Canada east of Winnipeg which cannot be reached at comparatively low cost for transportation from some of these plants, and this appears to be further helped when times are bad by favourable rates of carriage of goods intended for export.

In Canada, on the other hand, the volume of trade compared to that of the United States is still small, and as plants on a large scale are essential to cheap production, there can as yet be very few of them to supply the home market. It follows that there are many places which these plants can reach only at considerable cost for transportation. Compared with the nearest source of supply in the United States, the home industries are in such cases under a disadvantage, and the duty which United States manufacturers pay is often counterbalanced in whole or in part by the extra freight charges which the Canadian products

have to bear. This is a natural condition of which Canadians, if they are to manufacture iron and steel, must make the best until more plants are built. A little consideration of the long east and west stretch of country which Canadian manufacturers serve, and of the limit within which such a sum as \$2.50 per ton (the present duty on pig iron and steel billets) would carry these products by rail, will show how seriously this question of transportation affects the value of the duty as a protection to the industry.

VII.

I hasten to admit that in all this an excellent argument for free trade can be found, and that the conditions justify such a question as this: Why should we not let the foreign manufacturers supply us, since they can and do send us goods at prices at which it does not pay Canadians, in their present stage of development, to make and deliver them?

One answer is that under such conditions we should have no manufacturing industries in Canada, and should never get into a position where we can meet foreign manufacturers on more equal terms; also that we do not wish to be a purely agricultural country, with the limited scope which that condition would offer to our sons, and with no outlet for such of our people as eannot find or do not wish for work on the land. I believe this to be the firm desire of the majority of Canadians: that they wish to see Canada grow along all the lines of national life; agriculture as the mainstay, but balanced and complemented by industries of all kinds natural to the country.

This brings us into touch with one of the chief issues between protection and free trade, into which I do not wish to enter, but there is another answer of a very practical kind. If we were relying on foreigners alone for our goods we should not get them at low prices. It is because goods are being made in Canada that goods brought in are offered at low prices; but for that faet United States manufacturers would only have to meet European competition in our markets, and the chances are that under ordinary conditions both would exact higher prices in Canada than at home.

It is searcely necessary to bring forward any argument to support this point, but the ease of barbed wire may be mentioned as an illustration.

The earlier duties and prices for this article were doubtless unduly high, but in the years immediately preceding the removal of the duty, when a large number of mills were making the article in Canada, competition was strong and prices fair.

In 1896 the Toronto wholesale price was \$2.85 per 100 lbs. In 1897 it fell still lower, but the reduction to \$2.20 was doubtless due to the proposed change in the tariff. On January 1st, 1898, barbed wire became free. The American mills thereupon inaugurated a policy of competition at ruinous prices that drove the Canadian mills out of business and secured for themselves absolute control of the market. The effect may be seen in the price; it was \$1.80 in 1898, but when the Canadian mills had been closed it advanced, until in December, 1899, it reached \$3.00.

Since then nearly the whole of the barbed wire used in Canada has come from the United States, and their manufacturers have fixed the price. Of late there has been keen competition among the American manufacturers and it is due to this condition, whose permanence would be contrary to experience, that the price has been easier. I think it quite reasonable to claim, and it is in keeping with our general experience, that if, instead of making barbed wire free, a duty of moderate amount had been left, Canadian farmers would on the whole have had cheaper fencing.

Another case that may be mentioned is that of anthracite coal. The duty on this was removed some years ago, because it is not produced in Canada, but the Canadian consumer did not receive the slightest benefit from the reduction. There can be no home competition and the anthracite producers, working together, keep the price at the high level which they themselves fix.

VIII.

The needs of the industry in Nova Scotia are the same as elsewhere: a reasonable revision of the tariff. I have referred hitherto to American competition but in this connection we must consider also the preferential duties on British goods, which are in a great degree the controlling factors in Canadian prices, especially in the East. These duties are very low; measured in the ordinary way they represent about 10 per cent. on pig iron, 7 per cent. on billets, and 15 to 20 per cent. on other articles. The average tariff on all dutiable articles is about 26 per cent., so that as compared with other things the duties on iron and steel are moderate.

Our chief troubles, however, arise from lack of any principle in the fixing of the duties, and from exemptions. We have in the general tariff, for example, \$7.00 per ton on small rolled

sections, but only \$3.00 on the larger sizes where the tonnage is heavy and the market most important.

Again, the largest users of small sections are the manufacturers of agricultural implements, who are exempt from duty on most of the materials they use. There are similar exemptions in other lines.

The billets from which wire rods are made are subject to duty: the wire rods themselves, in the sizes most commonly used, are free. Wire woven into fencing is subject to a duty, but Canadian manufacturers have no protection on the wire from which it is made, on the wire used for making barbed wire, or on the barbed wire itself.

These, however, are merely illustrations. What we should have is a reasonable tariff, based on principle and fairly apportioned, with a sweeping away of all exemptions save where Canadian manufacturers cannot supply the articles. It should not be so high as to shelter careless or ignorant methods, or obsolete and inefficient plant and machinery, at it should be high enough to compensate for the higher wages paid here as compared to Europe, and to help us to meet the special forms of competition from the United States which I have mentioned above.

With such a tariff a great growth may be confidently looked for, and it should be remembered that while there must be a profit for those whose capital and enterprise make the growth possible, the chief benefit is not to the employer, but to the employed. Even at present, when many things are imported for use in the industry which should be made in Canada, over 80 per cent. of the entire cost of making iron and steel in Canada goes out in payment for Canadian labour.

There is ample tonnage to keep much larger plants in operation than we now have; there is enterprise enough to create them if the tariff conditions are made reasonable and are based on principle; there is capital to be had if the existing plants are able to make a proper showing in the way of earnings, and there is a plentiful supply of the raw materials.

Speaking of Nova Scotia in particular, the development of the iron and steel business is of vital importance to the growth of coal mining in the province. The prosperity of the province, her ability to provide for educational and other social needs, to build roads and to carry on other public services, is bound up in the growing royalties from her coal fields, and to Nova Scotia, as to the Maritime Provinces as a whole, reasonable tariff conditions for iron and steel are of primary importance.

