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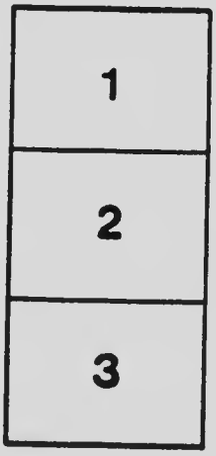

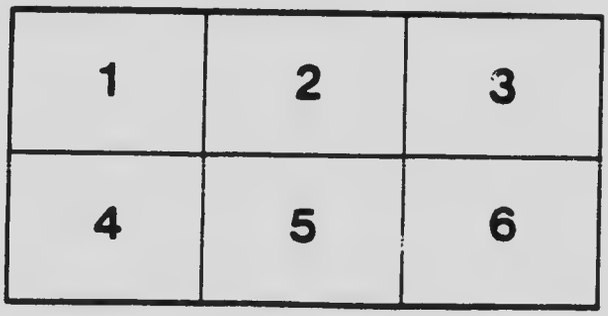

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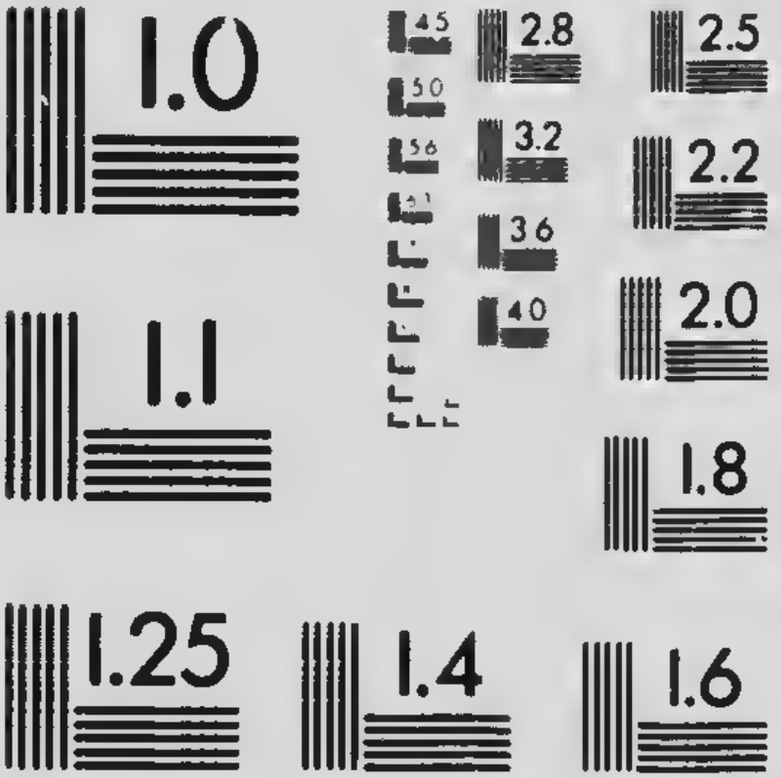

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THE DECLINE

OF

Iron Mining in Nova Scotia

ALTHOUGH NOVA SCOTIA CONTAINS MILLIONS OF TONS OF EXCELLENT IRON ORE, HER PRINCIPAL SUBSIDIZED IRONMASTERS DID NOT CONSUME 1000 TONS OF IT DURING THE FISCAL YEAR ENDING JUNE 30th, 1904

THE CHRONICLE PUBLISHING COMPANY, LIMITED

Preface.

THE *Morning Chronicle* having supported the Federal and "local" legislation that has made Nova Scotian steel-making a technical and financial success, owes it to the public to endeavor to stop the decline of iron mining in Nova Scotia.

This is especially our duty, seeing that there is reason to fear that the Nova Scotian iron mining industry has been injured by foreign iron ores imported by the steel companies, whose upbuilding we have supported.

Since May last we have exhaustively discussed the matter in our columns and on June 20th said:—

"After attentively considering the industrial situation in Nova Scotia, we are of the opinion that further iron and steel legislation should be deferred until the Federal Government decides how best to re-establish the Nova Scotian iron mining industry, and we think it may be advisable to refer the matter to the proposed Tariff Commission for arrangement. We are decidedly opposed to further 'iron legislation,' unless it adequately encourages iron ore mining in this country."

The Tariff Commission being now in session we submit to it in this concise form, an account of the decline of iron mining in Nova Scotia, also our proposals for the re-establishment of that invaluable industry; and we hope the Commission will recommend the Government to adopt measures for the development of our iron fields.

THE MORNING CHRONICLE.

Synopsis of Contents.

IN Nova Scotia iron mining declines as the manufacture of pig iron increases.

This is not due to any lack of native ore, but to increasing importations of ore from foreign mines owned by our steel companies.

The circumstances under which the substitution of foreign for native ore began.

How our steel companies thus stimulate iron mining in Newfoundland and depress it here, although we subsidize them and Newfoundland does not.

The objection of capitalists to develop our iron mines under these anomalous conditions.

Why this sort of thing should not continue in the public interest.

The imperative necessity of developing our iron mines for the assured support of our valuable steel industries, which are now operating in precarious dependence on foreign mines from which they can be cut off, for the permanent support of the proposed Nova Scotian Steel Shipbuilding industry and for the good of the public.

Admission that foreign iron ores cannot be taxed in the interests of our iron mines at present.

The most feasible alternative policy for the development of our iron mines.

Iron mining one of the chief labor providers and wealth distributors of modern times.

Brief notes on the distribution of our iron ores; notes on the iron fields of Annapolis, Colchester, Antigonish and Cape Breton; on the number of iron leases issued by the government of Nova Scotia; on iron lands held in fee simple; on the samples of Nova Scotian iron ores exhibited in the Provincial Museum and at the Paris Exhibition of 1900.

Tables showing the fluctation of iron mining in Nova Scotia during the past thirty years and other matters.

The Decline of Iron Mining in Nova Scotia.

I.

SIR WILLIAM FAIRBAIRN in "Iron, Its History, Properties and Processes of Manufacture," states that Nova Scotia contains abundance of rich iron ores, and that the iron manufactured from them is of the very best quality. This is strictly true, and many of those who have watched the production of pig iron in Nova Scotia increase from 31,000 to 150,000 tons, 1892–1904, doubtless conclude that the Nova Scotian iron masters are utilizing the abundant native ore.

But the table below, although not complete, shows that this is not the case.

PRODUCTION OF IRON ORE AND PIG IRON IN NOVA SCOTIA, 1892–1904.

YEAR.	IRON ORE. TONS	PIG IRON. TONS.
1892 (1)	75,000	31,069
1893 (2)	66,837	
1894 (3)	83,512	
1895	79,636	29,090
1896	65,932	33,831
1897	44,146	
1898	31,050	
1899	16,169	
1900	15,507	
1901	15,200	90,030
1902	15,214	206,193
1903	11,952	194,444
1904 (4)	49,619	150,508

These statistics also show that in Nova Scotia iron mining declines as the manufacture of pig iron increases, and they decidedly suggest that imported foreign ores are injuring our iron mining industry.

On inquiry this proves to be the case. Newfoundland iron ore pours into Nova Scotia so persistently that our iron mines cannot be developed, and although the province holds millions of tons of excellent iron ore our principal steel companies did not use 1,000 tons of it during the fiscal year ending June 30, 1904. This importation of Newfoundland iron ore into the province—this "carrying of coals to Newcastle," so to say, is not due to any lack of known deposits of similar ore in Nova Scotia, as reference to the local Mines Reports conclusively shows. These reports also show that the substitution of foreign for native ore began as follows: Early in 1896 the Hon. Commissioner of Mines informed the Legislature, through his 1895 "Mines Report," that the Nova Scotia Steel Co., Ltd., expected that the hematite ores supplied to its Ferrona furnaces by the Torbrook iron mines (which the company did not own) would be more or less replaced by the same class of ore from a mine in Newfoundland (which the company did own.)

These expectations were realized; during 1896 Nova Scotian iron mining declined as Newfoundland ore arrived at Ferrona, and 10,000 tons of excellent iron ore was that year left in the Torbrook mine in order that 10,000 tons of similar ore might be taken out of the Nova Scotia Steel Co.'s Newfoundland mine.

(The analyses of these ores, contrasted at the end of this pamphlet (vide reference note 5), and the estimate of ore in a division of the Torbrook region (vide note 6), establish the quality and abundance of the native ore).

The explanation of the introduction of Newfoundland ore into Nova Scotia thus does not lie in a lack of excellent native ore, but rather in the fact that in 1896 the Nova Scotia Steel Co., Ltd., went into business in Newfoundland as ore miners for foreign markets. This business promised to materially increase its revenues and incidentally afforded such facilities for supplying the Ferrona furnaces with iron ore that the company became independent of the Nova Scotian iron mining companies.

Our Canadian companies naturally suffered by this irruption of Newfoundland ore into their markets and the most important of them (Torbrook) immediately stopped, leaving in the mine (so the Mines Report states) a large quantity of available ore.

Thus began the decline of iron mining in Nova Scotia. During the following years the industry continued to decline as foreign ore entered more and more into local consumption; and we have consequently now reached a point, where, as already stated, our principal steel companies did not consume 1,000 tons of Nova Scotian iron ore during the fiscal year ending June 30, 1904.

The Dominion Iron & Steel Co. did not stimulate the declining industry: in fact that large corporation has been of no assistance to it whatever, as it also exclusively uses ore from its Newfoundland mines.

The elimination of native ores from Nova Scotia steel making has thus been effected (with the indirect assistance

of Canada's iron and steel bounties) by, at least one of our steel companies, in order to provide business for its Newfoundland iron mines. This company—the Nova Scotia Steel Co., knows that there are important iron fields in Nova Scotia: itself owns iron ore deposits in several parts of the province and has established their presumptive importance by mortgaging them for value.

The steel companies we subsidize thus depress our iron mining industry and stimulate the iron mining industry of Newfoundland—a country that does not contribute to the subsidies they receive.

The comparative table below shows the extent to which our iron mining industry is the loser by this sort of thing:

PRODUCTION OF IRON ORE.

(Tons 2240 lbs.)

YEAR.	IN NOVA SCOTIA TONS.	IN NEWF'LAND. TONS.	
1894 (7)	83,512	(nil)	
1895	79,636	(8) 750	
1896	65,932	38,450	
1897	44,146	58,940	
1898	31,050	102,000	At the Bell Island Mines of Nova Scotia Steel Co. and Dominion Iron and Steel Co.
1899	16,169	306,880	
1900	15,507	317,216	
1901	15,200	738,206	
1902	15,214	728,721	
1903	11,952	588,795	
1904	49,619	589,739	

The injurious effect of foreign ores on our iron mining industry must now be apparent.

These imported ores undoubtedly interfere with the development of our iron fields, exactly as foreign coal formerly interfered with the development of our coal fields. The reader will doubtless remember that as long as foreign coal was permitted to supplant native coal in the home market, Nova Scotia's coal fields lay correspondingly undeveloped, and our iron fields must lie similarly dormant, while foreign ore supplants our own (8a).

Capitalists cannot of course be expected to develop our iron fields under fiscal conditions which permit, if they do not actually encourage, this anomalous state of affairs. They see that our steel companies, indirectly assisted by the subsidies they receive from the nation, persistently pour ore from their foreign mines into Nova Scotia at low rates, and they naturally do not care to develop our iron mines, exposed to such peculiar foreign competition—a foreign competition in effect subsidized by Canada.

This should appeal to the public as a reasonable explanation of the stagnation of iron mining in Nova Scotia, for no reader of these lines would himself invest money in our iron mines, while they remain without even a shadow of Fiscal protection, or other state aid, exposed to this injurious foreign competition. To expect our iron mines to become highly productive under these conditions is clearly to expect too much and were it not for some relatively small works recently reopened at Londonderry, iron mining would consequently be extinct in Nova Scotia.

II.

From the foregoing it appears: (1) that although iron and steel making is thriving in Nova Scotia, its logical basis, iron mining, is almost extinct, owing to exeessive imports of foreign iron ore: (2) that in 1896 this competing foreign ore closed at least one Nova Scotian iron mine, in which large quantities of excellent ore lay ready for extraction and that the consumption of native ore has so declined since that time, that our principal iron masters did not consume 1,000 tons of it during the Fiscal year 1903-04; (3) that our ores have thus been eliminated from manufactures of steel: (4) that although Nova Scotia contains abundance of excellent iron ore, her own steel companies, supported by national bounties amounting to $600,000 in 1904, fostered by the taxation of eompeting iron and steel and encouraged by large annual grants from the Treasury of Nova Scotia, bring in this competing foreign ore from their Newfoundland mines, indifferent to its injurious effect upon the iron mining industry of the province; (5) that capitalists will not develop our iron fields under Fiscal conditions which permit, if they do not actually encourage, this sort of thing; hence the stagnation of iron mining in Nova Scotia.

This state of affairs should not be allowed to continue for several very obvious reasons.

(1.) It is absurd for us to build up an iron mining industry for Newfoundland—a country whieh does not share any of our national burdens—instead of for ourselves.

This is what we are doing and already $300,000 per annum, the wages annually paid by our steel companies to

their 1,100 iron miners, etc., is consequently diverted from Nova Scotian to Newfoundland miners.

(2.) Iron mining is one of the chief labor providers and wealth distributors of modern times. Indeed its benevolent influence upon the economic progress of nations so markedly resembles that of coal mining that the two industries are styled the basis of modern civilization. States fortunate enough to possess coal and iron lands like our own, energetically press their joint development and upon this intelligent combination of their own coal and iron mines rise the numerous interdependent industries of those enlightened peoples. The development of our iron fields is therefore very much to be desired in the public interest.

(3.) We need home iron mines for the assured support of our steel industries. These industries, as we have shown, at present depend upon Newfoundland mines for iron ore and they are consequently in an insecure position, for Newfoundland can cut off their ore supplies, just as she has cut off the United States' bait supplies.

This is a probable contingency, should Newfoundland ever want something Canada does not feel disposed to grant: and it should be provided for; but apart from it, other circumstances can arise, to prevent supplies of iron ore from coming over sea into Nova Scotia.

This is a delicate position for our costly steel industries to be in, and if the renowned United States iron master who called them "mirages" had in mind their extraordinary dependence on foreign ores, his criticisms were in a measure well founded. Home iron mines for

the support of these invaluable industries are therefore an imperative necessity.

(4.) We should have developed iron mines to enable us to support the steel shipbuilding industry, for which our geographical position, natural resources and the inclinations of our people fit us and through which Canadian built steamships will eventually transport Canadian produce to all parts of the globe. The organization of Nova Scotian steel shipbuilding yards under present conditions, i. e., while the local manufacturers of steel depend upon foreign iron mines from which they may at any time be cut off, does not appeal to a large body of bona fide investors; we should therefore provide the all important basis of native iron mines for native steel shipbuilding.

These things being considered we believe it to be a national duty to promote the development of iron mines on this eastern seaboard of Canada and (if necessary) to so regulate all future assistance to our steel companies that they will deem it advisable to support the development of home iron mines by consuming large quantities of native ore.

Foreign iron ores cannot of course be taxed at present, and consequently our iron mines cannot enjoy the direct protection which, it is alleged, so materially assists our coal mines.

The most feasible policy for the encouragement of iron mining is, therefore, we believe, the payment of a bounty to the iron miner on every ton of ore removed from the mine and smelted. A similar policy has

increased the production of pig iron, etc., and we are satisfied that direct bounties to the iron miner will also increase the production of native iron ore.

We therefore urge the Tariff Commission to recommend the Federal Government to encourage iron mining by granting bounties to iron miners and thus promote the development of this important industry in a manner which will not disturb the interests already vested in iron and steel manufacturing in this province.

Notes on the Distribution of Iron Ores in Nova Scotia.

AS the opening sentences of this memoir show, Sir William Fairbairn in "Iron, Its History, Properties and Processes of Manufacture," has drawn the world's attention to the fact that Nova Scotia contains abundance of excellent iron ore. (9.)

The late Sir William Dawson has also testified to the importance of our iron resources. "Even in Great Britain itself" he says, "the two staples of mineral wealth (coal and iron) are not in more enviable contiguity and the iron ores of Great Britain are, as a rule, neither so rich nor so accessible as those of Nova Scotia." And again "iron ore though known to exist in one form or another in every part of Nova Scotia and of extreme purity has not received attention commensurate with its extent."

The Canadian Mining Manual, outlining the distribution of iron ore in Nova Scotia some years ago, furnished an interesting resume of the trend of the local iron fields and said, in part: "The statement that there is in Nova Scotia an unlimited supply of iron ore of every variety and quality is warranted by the facts. The ores are magnetic, hematite of several varieties, limonites, spathose and bog ores. They extend along the Cobequid Mountains and the Annapolis Valley and uniting in the vicinity of Truro, pass through Pictou, Antigonish and Guysboro Counties to the Straits of Canso." They probably, also,

extend into Cape Breton for the mining manual, continuing says, that "in the island of Cape Breton enough work has "been done to show that there are numerous deposits of "iron ore important from their size and quality." (10.)

The Geological Survey of Canada also bears testimony to the importance of Nova Scotia's iron fields.

Reference Notes.

(1.) Year ending Dec. 31, 1892.

(2.) For nine months ending Sept. 30, 1893.

(3.) Year ending Sept. 30, 1894; all following years run from Oct. 1 to Sept. 30: except pig iron production 1904, which is for Fiscal year ending June 30, 1904.

(4.) Ankerite ore and black ore. The latter includes various "limonites," "Paint ore" and a small proportion of Hematite. These ores were mined owing to the reopening of the Londonderry works.

(5.) Comparative Analyses of Torbrook, Annapolis County, and Bell Island, Newfoundland, Iron Ores:

	Average of 30,000 tons from Torbrook mine.	Average of 150,000 tons from Bell Island, Newfoundland.
Metallic iron	55.00	54.37
Phosphorus	.30 to .40	.71
Sulphur	Nil.	.63

Excellent samples of Torbrook Ore were displayed at the Nova Scotia Provincial Exhibition this year.

(6.) A recognized and disinterested authority has studied that district and remarks of part of it that prospecting work done shows a tract underlain by say 300,000,000 tons of iron ore.

A recent Mines Report also refers to the Torbrook iron field and states (1) that a large bed of iron ore 6-10 feet thick has been traced some distance: (2) that several other beds of workable dimensions have been opened over a distance of 5-6 miles: (3) that explorations have shown a wonderful regularity in the measures at Torbook, and (4) that there is no doubt that there are millions of tons of iron ore in that district.

(7.) All in Nova Scotia column relates to year ending September 30th.

(8.) All in Newfoundland column relates to year ending December 31st.

(8a.) As we stated on July 5th the true explanation of the stagnation of iron mining in this province does not lie in a lack of native ores, but rather in the fact that under our present fiscal system foreign ores supplant our own.

(9.) These ores are as a rule controlled by private parties or by small mining companies. The Nova Scotia Steel Co., Ltd., however, controls some of them. The trust deed securing its consolidated mortgage bonds shows that on October 15th last that company mortgaged iron ore properties in three counties of Nova Scotia for value. According to the Mines Report for 1904, fifty-six leases of iron ores are held from the Crown (six of them by the Nova Scotia Steel Co., Ltd.): other exceedingly valuable iron areas are held in fee simple.

There are numerous samples of Nova Scotian iron ores in the Provincial Museum, Hollis Street, Halifax, N. S., and at least 29 samples of our ores were displayed at the Paris Exhibition, A. D., 1900.

(10.) The correctness of the Mining Manual statement that there is iron in Antigonish County has since been tested by prospecting and other operations. An officer of the Mines Department recently reported to the Commissioner of Mines on the Arisaig iron deposits, as follows:

"I examined the beds along their strike for about "a mile, but am told their crops have been opened for a "much longer distance. Six or seven distinct beds (of "iron) have been opened along the face of Campbell's "Bank. Of these, No. 2 has been opened in several "places and shows about 12 feet in width. No 6 has "been opened across its width and shows a section of "about 20 feet ore and stone. This bed has been also "opened elsewhere."

"From the openings on Iron Brook, half a mile to "the west, a better idea can be got of the deposits. The "widths could not be ascertained accurately owing to the "pits, in many places, being partially filled with debris, "but the widths of the veins given below were supplied "by my guide (who is thoroughly acquainted with the "ground), viz.:

No. 1 said to be 16 feet wide.
2 " 10-12 " "
3 " 10 " "
4 " 10 " "
5 " 5-6 " "

"These veins contain stone bands."

Corroborative of the foregoing a correspondent recently stated in our columns that 8,050,000 tons of iron ore had been prospected at Arisaig: that samples of ore taken from nineteen different pits had been assayed

by the Geological Survey and that the samples from the four principal pits showed 53; 53.88; 57.86 and 59.89 per cent. metallic iron, a trace of phosphorus, sulphur nil.

(10.) A handbook recently prepared by the Mines Department refers to the iron ores of Colchester County, and states that deposits of ore sometimes 50 feet wide have been traced for more than 12 miles.

(11.) There is evidence of the existence of important deposits of iron ore in Cape Breton. One of these—a bed of red hematite ore from 4 to 13 feet vide—has (says a Mines Report) been traced several miles; and other deposits have been followed for some distance by trenches and natural exposures. Seven of the twenty-nine samples of Nova Scotian iron ores exhibited at the Paris Exhibition in 1900 were selected from Cape Breton deposits.

TABLE 1.

Showing how Canada's iron policy, as at present regulated, is promoting the consumption of foreign instead of native ores at Canadian blast furnaces:

PRODUCTION OF PIG IRON IN CANADA.

(Tons of 2,000 lbs.)

YEAR.	FROM FOREIGN ORE TONS.	FROM CANADIAN ORE TONS.
1898	53,463	19,576
1899	46,186	31,861
1900	67,221	34,618
1901	50,581	99,758
1902	268,553	73,101
1903	274,741	46,450
1904	226,989	46,445

TABLE 2.

Showing quantity of "Foreign Iron Ore" Imported to Sydney, C. B., by the Dominion Iron and Steel Co., Ltd., from its Newfoundland mines to date:

	Tons 2000 lbs.	
1900	255,130	
1901	71,000	
1902	313,721	
1903	217,074	
1904	219,828	
1905	234,663	To Aug. 31st.
Tons	1,611,416	

This ore could have been procured from Nova Scotia's iron fields and, in the public interest, should have been, especially as the Company (according to a calculation made by the Montreal Herald) has already received Municipal, Provincial and Dominion subsidies amounting to fully $2,857,000.

TABLE 8.

THIRTY YEARS PROGRESS AT THE NOVA SCOTIAN IRON MINES. FLUCTATIONS IN THE OUTPUT OF NOVA SCOTIAN IRON ORE.

YEAR.	TONS OF ORE	YEAR.	TONS OF ORE.
1875	4,467	1890	51,191
1876	15,274	1891	57,311
1877	18,603	1892	75,000
1878	39,702	1893	66,837
1879	29,889	1894	83,512
1880	51,193	1895	79,636
1881	39,843	1896	65,932
1882	42,135	1897	44,146
1883	52,410	1898	31,050
1884	54,885	1899	16,169
1885	48,129	1900	15,507
1886	44,388	1901	15,200
1887	43,532	1902	15,214
1888	41,611	1903	11,952
1889	45,907	1904	49,619