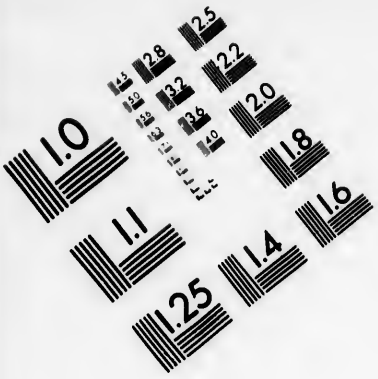

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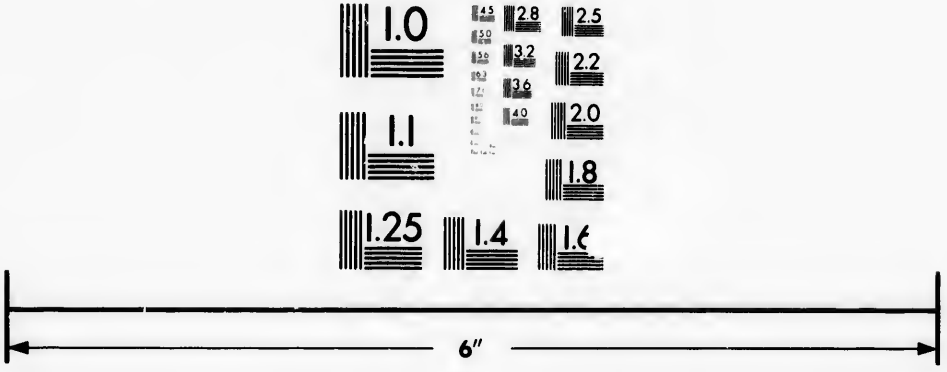

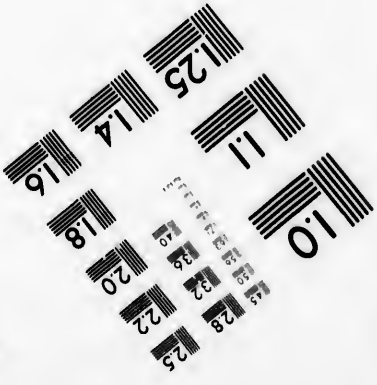

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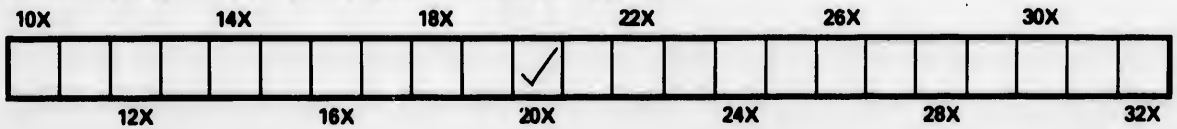

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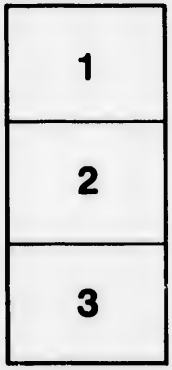

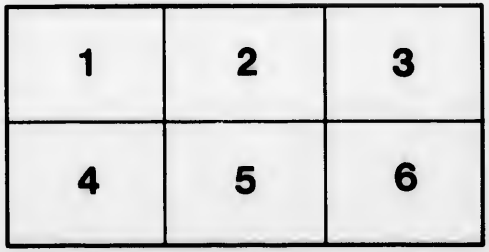

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32X

PROSPECTUS

OF THE

OTTAWA

IRON AND STEEL

MANUFACTURING COMPANY,

(LIMITED.)

HEAD OFFICE, - - - - OTTAWA.

INCORPORATED UNDER A SPECIAL ACT OF THE PROVINCE OF QUEBEC, No. 46, 3RD SESSION, 2ND PARLIAMENT, 37 VIC., 1873; AMENDED 3RD PARLIAMENT.

Ottawa:
PRINTED AT THE OFFICE OF A. S. WOODBURN, ELGIN ST.
1875.

THE OTTAWA

IRON AND STEEL MANUFACTURING COMPANY,

(LIMITED.)

HEAD OFFICE, OTTAWA.

Incorporated under the Special Act of the Province of Quebec, No. 46, 3rd Session, 2nd Parliament, 37 Victoria, 1874.

Amended 3rd Parliament.

Capital, $500,000, in 20,000 Shares of $25 each.

DIRECTORS:

PRESIDENT, Hon. JAMES SKEAD, Vice-President Dominion Board of Trade.

VICE-PRESIDENT, R. S. CASSELS, Esq., President Union Forwarding Company.

J. H. WOODMAN, Esq., Manager Ontario Bank, Ottawa.

G. B. BURLAND, Esq., President Bank Note Company, Montreal

EDWARD HAYCOCK, Esq.

BANKERS:
THE ONTARIO BANK.

SOLICITORS:
pro. tem.
MESSRS. COCKBURN, WRIGHT & CLEMOW.

SECRETARY:
D. WEST.

OTTAWA:
PRINTED BY A. S. WOODBURN, ELGIN STREET.
1875.

THE OTTAWA

IRON AND STEEL MANUFACTURING COMPANY,

(LIMITED.)

This Company has been formed for the purpose of purchasing and working the valuable iron mines situate in the Townships of Templeton and Hull, in the County of Ottawa, and Province of Quebec, called the Haycock Iron Location. The Company holding the power under the Act to "carry on the business of exploring "for, mining, smelting, manufacturing, dealing in and disposing of "iron and other ores and metals, and the manufacturing, selling, "dealing in and disposing of steel workings, or the products of iron "and steel."

The property to be acquired is fully described in the report of the Eminent Mining Engineer Dr. E. J. Chapman, Professor of Mineralogy and Geology in the University College, Toronto, (vide prospectus) it may be briefly described as follows:

1. SITE AND GENERAL CHARACTER OF THE PROPERTY:—The Haycock Iron Location comprises a compact area of 300 acres of mineral land, and 100 acres of timber land, situated in the Province of Quebec, about eight miles north-east of the City of Ottawa; together with an additional piece of land of 10 acres near the head of navigation on the River Gatineau, as described in the following statement:—

1. The North-half of Lot 1 in the 11th Range of Hull, comprising 100 acres of mineral land.

2. The adjoining lot 28 (North and South Halves) of the 6th Range of Templeton, comprising 200 acres of mineral land.

3. The contiguous South-half of Lot 27 in the same Range, comprising 100 acres of timber land.

4. Ten acres in Lot 2 on the 6th Range of Hull, on the left bank of the River Gatineau, which has been secured partly to serve as a storing place and loading ground for shipping the ore, but chiefly as a convenient site for the erection of furnaces. This area is connected with the mineral or iron area proper by a tramway of 6¼ miles in length, This tramway, of three-feet guage, has been very solidly constructed, and it is now in complete working order. It runs for a short distance through the Haycock property, and is then continued along the town-line between Hull and Templeton, on to the furnace-site on the Gatineau.

In addition to the 6¼ miles of tramway in complete running order, with full right of way from the ore beds to the furnace-site and shipping ground on the River Gatineau, the assets of the property include a Steam Saw Mill, of 20 horse power, sawn timber and

logs, a Boarding House, Manager's House, Store House, Office, Stables, Powder House, and Blacksmith's Shop. Also a Derrick and other mining plant, tools, &c.; together with about 5,000 tons of raised ore, and 30 tramway cars.

The quantity of the ore as described by Professor Chapman, is practically, inexhaustible, it lies close to the surface and is easily mined, while its quality may be estimated from the fact that *steel has been made direct from the ore.* The fullest particulars of analyses and experiments proving these statements can be had at the Head Office of the Company, Ottawa.

The price to be paid for the purchase of the property is $250,000. One half in cash, and the balance in fully paid-up shares of the Company, in consideration of which the proprietor will make over the freehold of the estate free from all incumbrances whatsoever.

And further, as a proof of his *bona fides*, and his entire confidence in the prospects of the undertaking, HE WILL GUARANTEE TO THE SHAREHOLDERS A MINIMUM DIVIDEND OF NOT LESS THAN TEN PER CENT PER ANNUM on the paid-up capital *for three years* from the date of the allotment of shares, and as security for the due payment thereof, he will deposit in the hands of the Company the whole of his paid-up shares, and give such further security in cash as may be thought necessary for the carrying out of his guarantee.

The capital will be called up as follows:—

On application	$2 per share	15th May, 1875	$2 per share
On allotment	3 "	15th June, "	2 "
15th January, 1875	5 "	15th July, "	2 "
15th February, "	2 "	15th August, "	2 "
15th March "	2 "	15th Sept., "	1 "
15th April, "	2 "		

The share list will close on the 10th December, 1874, and as the shares will be allotted *pro rata* according to priority, an early application is desirable.

The share list is re-opened for the subscriptions of a limited amount of stock.

Prospectus and any further information relative to the Company, can be had on application to the Head Office.

QUALITY OF THE ORE.

The ore of the location is specular (see report of E. J. Chapman, Ph. D., &c.) The specific gravity of the average ore is equal to 5.0—remarkable in its freedom from titanium, phosphorus and sulphur. The metallic iron returns in the several analysis, are:—

Dr. Chapman (average of tests)	66.40
Mr. Harrington (Geol. Dep. Canada)	64.45
Dr. Wuth (Pittsburg)	64.00
Cambria Works (Johnstown)	66.00
Mr. Britten (Philadelphia)	66.02
Mr. Wendel (Bessemer Steel Works, Troy)	64.24
Mr. E. Riley, F.C.S. (London, England	68.49

Average=65.65.

The great purity of ore, and its capability of making a superior quality of steel is shewn by the following analysis:

Analysis made on the Ore.

	Prof. Chapmann.			Griswold & Co., per Wendell.	Blodget, Britten.	Cambria Works	E. Riley, F.C.S.	Harrington.	Wuth. — Surface specimen.
	1	2	3						
Peroxide or Sesquioxide of Iron	89.80	88.08	85.45	87.40	55.95	.....	89 04	.....	78.98
Protoxide of Iron	7.06	6.86	5.24	3.93	10.09	.....	7.92	.....	.....
Titanic Acid.....	2.34	3.17	2.12	3.41	3.84	.....	.....	.....	0.87
Protoxide of Manganese	Trace.	0.55	0.41	0.37	.....	.....	.....	.....	0.06
Magnesia	0.22	0.13	0.17	0.47	0.08	.....	0.40	.....	1.13
Lime	Trace.	0.55	0.41	0.66	0.13	.....	0.56	.....	2.14
Phosphoric Acid.	Trace.	0.16	0.13	0.25	0.14	.....	0.21	0.34	0.012
Sulphur	Trace.	0.03	0.07	0.10	0.02	.....	0.04	0.37	0.04
Graphite.....	0.43	0.35	0.28	.....	.....	.....	.....	.....	.....
Insular rock matt'r	0.11	0.26	5.77	.....	1.09	.....	.....	.....	.....
Oxygen with Iron	.....	.....	.....	.....	26.85	.....	.....	.....	.....
Alumina.....	.....	.....	.....	1.67	0.49	.....	0.32	.....	8.70
Silica	.....	.....	.....	2.10	1.34	.....	1.77	.....	Acid8.07
TOTALS	99.96	100.14	100.05	100.34	100.00	.....	100.26	.....	.....
Metallic Iron	68.34 as =	66.98 66.40	63.88 —	64.24	66.02	66.00	68.49	64.45	Bed 64
Phosphorus.....	.....	.....	.....	0.10	0.06	.....	0.093	.....	.....

The tests made by melting the ore have proved very satisfactory, giving in all cases at the first heat, a fine quality of steel, from which tools have been made, taking a good cutting edge, and this from the pure ore itself, shewing that the ore contains within itself the components parts of good steel.

The first test was made by Mr. S. K. Wellman, Superintendent of the Nashua Steel Company, New Hampshire, who ran two lots in a Siemens Furnace, giving in the first instance 62 per cent. of metal, in the second 60 per cent., as see his communication.

NASHUA, N.H., Oct. 8th, 1873.

To. E. HAYCOCK, Esq.,

We smelted the first sample of ore you sent us early in September in our Siemens Furnace, and it produced sixty-two per cent. of pure metallic iron, of which you took a sample. The second lot sent we smelted yesterday, and it produced sixty per cent., and sample went to you to-day.

S. K. WELLMAN,
Supt. of the Nashua Iron and Steel Co.

From this metal cold chisels, knife blades and rasors, were made of good quality, at the works of Blasdell & Co., Ottawa, under the direction of Horace Merrill, Esq., whose opinion as to the merits of the steel, is, that it is superior to the best imported English cast steel, a remarkable fact, insomuch that this metal was only the ordinary pig metal, or first run, direct from the ore.

The ore was also tested at the steel works of Charles Cammell & Co., Sheffield, England, who made steel direct therefrom, using only "a little lime and charcoal to act as a flux," this steel was "forged or drawn out under the hammer into a rude ingot;" it was also taken in hand by Edward Riley, Esq., F.C.S., metallurgist, analytical, consulting chemist, one of the leading members of the Steel and Iron Institute of London, England. The first test contained too small a portion of charcoal, making a mild steel. See letter May 22nd.

Laboratory and Assay Office,
14 Finsbury Square, City Road,
London, May 22nd, 1874.

Dear Sir,

Herewith I beg to forward you the result of my analysis of the sample of specular iron ore received from you, several pounds weight of the sample pulverized together gave:—

Peroxide of Iron	89.04	
Protoxide of Iron	7.92	
Alumina	.32	
Lime	.56	
Magnesia	.40	
Silica	1.77	
Phosphoric Acid	.21	= Phosphorus .091
Sulphur	.04	
	100.26	
Metallic Iron per cent	68.49	

This ore is specular iron ore, containing a little magnetic oxide, I carefully tested it for titanic acid, but could not detect any, or any manganese.

The silica contains a little rock, consisting of mica and micacious shist, the quantity is however so small that it could not be separated.

I ran down 1,500 grains of the ore in a small crucible, using only a little manganese and fluor spar, with wood charcoal, the result was a well formed button, weighing 1,040 grains.

This button was worked by a smith into a cold chisel without a crack or flaw, (although the shape of the button was most unfavourable). The steel was too soft to take a temper, shewing it to be a mild steel, due to too little charcoal being used to make a hard tool steel.

Believe me to remain,
Yours very faithfully,

Edward Riley, F.C.S.,
Metallurgist, Analytical and Consulting Chemist.

To Edward Haycock, Esq.

P.S.—The ore was run down at the first trial most readily.

Mr. Riley afterwards (see his letter, May 23rd,) made another test, adding more charcoal. From this he made the cold chisel marked A, to be seen at the Head Office.

Laboratory and Assay Office,
14 Finsbury Square, City Road,
London, E. C., May 23rd, 1874.

Dear Sir,

I have sent you by same post a small box, button of steel made since you were here, I sent it to show you the difference in the form and the surface of the button, due to the steel being a little harder, by adding more charcoal.

Please return it to me by post and I will have it worked out, as the furnace is nice and hot; I have put three times the quantity in a crucible, and hope to get about ½ lb. steel.

Believe me to remain,
Yours ever faithfully,
Edward Riley.

Edward Haycock, Esq.

A very able and full report on the ore of the Haycock Iron Location, and metal made therefrom, has been kindly given to the Company by Mr. John Griffen, General Superintendent of the Phœnix Iron Works, P. A., dated January, 29th, 1875. The report is too lengthy to publish in full; extracts therefrom only are inserted herein. It is addressed to T. C. Clarke, Esq., of Philadelphia, through whom the samples were sent.

Mr. Griffen commences by saying: "I have received the samples of steel, together with the samples of ore from which the steel was made, and also the prospectus of The Ottawa Iron and Steel Company. I have read the latter with considerable interest.

"The ore is, in my opinion, one of the very best in the world for the manufacture of steel."

Again, "from its great freedom from earthy matter, it is especially adapted to the manufacture of steel by the direct process, that is without the ore having been first converted to pig iron."

Mr. Griffen recommends the same system of treatment of the ore as that the Company are adopting, saying: "The best way to do this is, in my opinion, and probably the cheapest, would be to erect Catalan forges, and treat the ores with charcoal, as they are treated by the Messrs. Rogers at the forks of the Au Sable river, near Lake Champlain, from the blooms of which steel is made by Pack Brothers, Pittsburg.

After shewing that in his opinion the ore will make steel, and the best manner of working the ore, he states that a ready market can be found for the metal. "These blooms, if the metal from them would produce a high grade of steel, could be sold either in England or the United States at a very high price, so that the Company could have the choice, either work the whole into steel themselves, or sell the blooms to other steel makers."

(From the Montreal "Daily Witness.")

IMPORTANT EXPERIMENT WITH CANADIAN ORES.—It has been known for a year or more that an extensive deposit of specular iron ore exists on the Haycock Property, in the Townships of Hull and Templeton, opposite Ottawa. Some few days since a quantity of these ores was at the Siemens furnaces, of the Nashua Steel and Iron Company, Nashua N. H., smelted with charcoal in crucibles, direct into ingots, one operation serving for the whole. Last week one of these ingots was at the Moisic Iron Works, in this City, heated in the usual way, and without the use of the steam hammer, rolled direct into bars of different sizes. The ingot on fracture showed a very fine steel-like grain; the bars, however, on being broken, had in every way the appearance of the very finest Sheffield steel. Experiments were then made with the bars. Cold chisels of splendid quality were made from them, and under the hammer the bars were readily drawn out without flaw. These bars were produced, it will be noticed, in two operations—a most important result, since, as is well known, in order to make ordinary cast steel, the metal must undergo various expensive processes. Some of these bars are on view at the office of Drummond, Cassels & Co.

THE ESTIMATED AMOUNT OF ORE.

(See Dr. Chapman's Letter of Nov., 1873.)

TORONTO, November 14th, 1873.

EDWARD HAYCOCK, Esq., Ottawa.

DEAR SIR,

As the drawing up and printing of my reports on your iron location, (embodying the result arrived at by a second and more complete examination of the ground) may occupy ten or fifteen days, I send you in the interim, my estimate of the amount of readily available ore upon the property.

With regard to this estimate, certain points have to be observed, namely:—

(1.) The estimate embraces the central portion of the property, only,—the indications of ore, (and these are numerous) on the more southern and northern portions of the location not having been as yet thoroughly traced out. To do this properly would require an expenditure of two or three hundred dollars, and would have no useful purpose, as the immense amount of ore in the central portion of the property is sufficient to yield for very many years all the output that could by any possibility be required.

(2.) The estimate is to be considered strictly as a *minimum estimate*. In view of the large amount of ore upon the property, I have been anxious to keep free from all suspicion of exaggeration, my estimate might therefore be greatly increased, and still be within the truth, as it takes the bands of ore merely at their surface strength; and most of these bands, if not all will probably be found to widen more or less in descending.

(3.) The estimate includes merely the beds of ore to a depth of 200 feet from the surface. It will of course be understood that each bed of ore—dipping towards the north west—passes from its line of outcrop entirely under the area lying between this outcrop and the northern limits of the property; but, as the angle of dip exceeds 45° or 50°, the depth at a certain distance from the outcrop would be too great to be profitably reached. I have therefore taken the moderate and readily workable depth of 200 ft. as my limit in the present estimate. The beds might readily be worked, however, to a much lower level.

Thus limited, the quantity of readily available ore in this central part of the property must amount to at least 6,300,000 British tons, at an output of 100 tons per day, yielding 60 tons of first quality pig metal; this amount would not be exhausted in less than about two centuries.

This statement of quantities is of course offered as a careful approximation only; but it is an approximation which keeps strictly within the mark, and its general accuracy is undeniable.

I am, dear sir,

Yours very truly,

EDWARD J. CHAPMAN.

See also Dr. Chapman's Report, Folio 13, in General Summary.

"From surface to the moderate depth of 200 feet, these united "beds, in the most central portion of the property alone, cannot "carry less than from six to six and a half millions of tons of ore, "and they probably contain a much larger amount;" which (see Folio 11) corresponds "to a daily output of 100 tons of ore, or 60 "tons of metal, during a period of upwards of a century and a half. "it refers, it must be remembered, to merely a portion of the pro- "perty." This estimate shows that for all practical purposes, the ore of the location is sufficient to guarantee the erection of extensive works for the manufacture among ourselves of the large amount of steel and iron now imported, the payment for which adds so much to the drainage of the Dominion's life blood in the shape of currency.

FUEL.

It is proposed to erect Bloom Forges and Furnaces, and sell ore.

The supply of timber for charcoal is very large, as the estate is on the verge of the forest. Every facility is promised by the Commissioner of Crown Lands, Province of Quebec, in making these lands available for so important a project for the public welfare.

The importation of anthracite coal from Pennsylvania is made easy, in consequence of the lumber barges carrying lumber to

Albany and Troy, returning empty; offers have been made this year (1874) to supply coal of best quality at $6.50 per ton, delivered at the works.

The estimates of cost of fuel in pig metal productions, are charcoal 8 cents per bushel, and coal $7 per ton.

The use of peat in this manufacture, in consequence of its purity from chemicals, injurious to iron and steel, and its cheapness, is a matter deserving much careful consideration.

COST OF MANUFACTURING.

The cost of making a ton of metal is taken as $20.00 per ton, this is a full estimate, as see Dr. Chapman's Report, Folio 13:

Mining, hauling and breaking 1⅔ tons of ore	$ 3.00
Charcoal 24 cwt. at 8 cts. the bushel of 18 lbs	12.00
Limestone, &c	0.15
Labour and furnace expenses	4.50
	$19.65

Mr. F. Rumpf, of West Point Foundry, Cold Springs, gives the cost per ton of metal at $19.60.

West Point Foundry,

Cold Springs, Oct. 30th, 1873.

SCHEDULE No. 1

Cost of labor to produce, say 30 tons of iron per 34 hours.

Assuming 340 working days in one year,=340 x 30=10,200 tons.

2 Main Keepers	@	$2.50	per day.....	$5.00
2 Helpers to Keepers	"	2.00	"	4.00
2 Top Fillers	"	1.50	"	3.00
8 Stock Men	"	1.00	"	8.00
4 Laborers	"	1.00	"	4.00
3 Cinder Men	"	1.00	"	3.00
1 Blacksmith	"	2.00	"	2.00
2 Weighers	"	1.50	"	3.00
2 Teamsters	"	1.25	"	2.50
2 Engineers, one $2.50 and one $2.00				4.50
Total				$39.00

SCHEDULE No. 2.

Cost of 30 tons of Iron, the average production of 24 hours.

60 Tons of Ore @ $2.00	$120.00
48 " Coal " 7.00	336.00
10 " Lime " 75	7.50
Interest on Capital	20.00
Labour as per Schedule No. 1	39.00
Superintendent, Clerk, Steel, Iron and Horses	36.00
Sinking funds and repairs	30.00
	$588.50
This will make the cost of each ton of iron	$19.60

An experienced Engineer gives the outlay necessary in erecting Forges and their appurtenances complete, capable of turning out 7 tons per day, at $25,000, and the cost of making Blooms from the ore of the location, under $25.00 per ton.

As shown before the results from all tests made in smelting the ore have proved to be a superior quality of steel, it is to be supposed it will continue to do so in large quantities in a furnace, as it has in small, in crucibles. This is the opinion of Mr. Wellman, as see his letter.

NASHUA IRON AND STEEL WORKS,
NASHUA, N.H., 17th Oct., 1873.

EDWARD HAYCOCK, Esq.,

Dear Sir,

Your favour of the 13th is at hand and contents noted. Your ore was pounded up, say as fine as wheat or thereabouts, and put in pots with a little charcoal and lime to smelt it, and nothing else, and I know of no reason why, by making it in large quantities, it would not make just as good metal and give the same per centage of iron. Your analysis of the iron is good, and ought to make good Bessemer steel. Hope you will succeed well in starting off in the manufacture. I have not been able yet to see Mr. Crombia, but think I will soon.

Yours truly,

S. K. WELLMAN.

The result may therefore reasonably be expected to give that of cast steel, which carries a large margin to cover incidentals of all sorts.

It may be found advisable to make not only cast steel, but car-wheel iron and blooms, all of which, even at the present low state of the markets, show a very handsome return to the investment.

These estimates have all been made against the operation, for instance, charcoal at 8c. per bushel, which, by using charcoal kilns, should cost 6c. Anthracite coal at $7.00 should only cost from $6.00 to $6.50, &c., &c.

Subjoined will be found a copy of the Act. The originals of letters and statements herein contained; samples of ore and metal will be found at the head office, Ottawa.

The following parties state they have every confidence in the report of Dr. Chapman on the Haycock Iron Location.

Rt. Hon. Sir J. A. Macdonald,
J. M. Currier, Esq., M.P. for Ottawa,
Dr. Grant, M.D., F.G.S.,
Hon. Jas. Skead, Chairman Board of Trade.

E. HAYCOCK,

Proprietor of the Location.

Ottawa, Aug. 1st, 1874.

SUPPLEMENTARY REPORT

ON THE

HAYCOCK IRON LOCATION,

BY

E. J. CHAPMAN, Ph. D., &c.,

Professor of Mineralogy and Geology in University College, Toronto, and Consulting Mining Engineer.

To EDWARD HAYCOCK, Esq., &c., &c.,

OTTAWA.

SIR,—Having received your instructions in the spring of this year (1873) to make an examination of your Mineral Property in the vicinity of Ottawa, known as the HAYCOCK IRON LOCATION, I visited the spot, and drew up a brief Report upon the property. At the period of my visit, however, the property, in a mining point of view, was practically undeveloped; and the examination was in other respects was rendered more or less incomplete by the snow which still covered the greater portion of the ground. Nevertheless, as stated in my Report, I was able to satisfy myself as to the presence, throughout the location generally, of a very large amount of iron ore, favourably situated for mining, and of more than average quality. Since that period, I have made a second and more complete examination of the ground, under more favorable circumstances for tracing out the beds of ore upon it; and I have thus been able not only to confirm the leading statements of my Preliminary Report, but also to add to these statements in many essential respects. I have now therefore the honour to furnish a second and revised Report, including a general description of the property, for public information. To this Report I have added a small plan, on which I have laid down the courses of the beds of ore at present discovered, and also a section of the principal metalliferous ridge—a portion of the property to which mining operations will probably in the first instance be confined, as the amount of ore in this ridge alone is sufficient to yield a very large supply for many years.

1. *Site and General Character of the Property*:—The Haycock Iron Location comprises a compact area of 300 acres of mineral land, and 100 acres of timber land, situated in the Province of Quebec, about eight miles north-east of the City of Ottawa; together with an additional piece of land of 10 acres near the head of navigation on the River Gatineau, as described in the following statements:—

(1.) The North-half of Lot 1 in the 11th Range of Hull, comprising 100 acres of mineral land.

(2.) The adjoining Lot 28 (North and South Halves) of the 6th Range of Templeton, comprising 200 acres of mineral land.

(3.) The contiguous South-half of Lot 27, in the same Range comprising 100 acres of timber land.

(4.) Ten acres in Lot 2 of the 6th Range of Hull, on the left bank of the River Gatineau.

This latter area has been secured partly to serve as a storing place and loading ground for shipping the ore, but chiefly as a convenient site for for the erection of furnaces; as a much larger profit should accrue, under proper management from the reduction of the ore at home, than by its sale in the crude state. Coal can be laid down at this spot for about seven dollars per ton. The area is connected with the mineral or iron area proper by a tramway of 6¼ miles in length. This Tramway, of three-feet gauge, has been very solidly constructed, and it is now in complete working order, It runs for a short distance through the Haycock property (see the annexed plan), and is then continued along the town-line between Hull and Templeton, to the furnace-site on the Gatineau.

As regards surface conditions, it may be stated that the mineral portion of the location is traversed by several roughly parelled but more or less broken ranges of high land, running for the greater part in a general north-east and south-west direction with intervening breadths of somewhat marshy ground. The latter, across which the beds of ore run without interruption, can easily be drained, as there is a fall of about fifteen feet from the marsh in Lot 28 of Templeton, to the low ground in Lot 27 to the east. The higher portions of these lots are covered with an abundont growth of timber suitable for mining and other use.

2. *Mineral Features:*—The Haycock Location is underlaid by by micaceous and gneissoid strata referable to the higher portion of the Laurention series. These strata have a general north-east and south-west strike, and they dip towards the north-west at an average angle of from 45 °. to 50 °. Outcrops of bands of iron ore, running parallel with the stratification, occur more more or less throughout the property, and are especially numerous on the slopes of the ridge along the central line of Lot 28, as shewn in the section attached to this Report. The strata, here, exhibit sundry foldings and corrugations along their course; and thus it may happen that excavations opened on the face of the ridge, although at somewhat different levels, and therefore apparently on distinct beds of ore, may be really on the same bed. Apart, however, from this probability, twelve distinct beds occur on the southern slope of this ridge alone, and another of workable dimensions outcrops at the foot of the northern flank of the same ridge. The ore in these beds is almost free from intermixed rock-matter, and is in other respects of very remarkable purity. This applies, indeed, to the upon the property generally. I have examined some hundreds of pieces taken from all parts of the lacation, without detecting in any one the slightest visible trace of pyrites. The great purity and richness of the ore is also confirmed by the analysis given below.

Some of these beds of ore exhibit a surface thickness of a few inches only, although, where several narrow bands outcrop within a short distance of each other, they will probably be found to run together at lower depths, and so form a workable deposit. But many of the beds shew a thickness of several feet, and large blocks of ore, weighing four or five tons, have been taken out of these. The beds at present opened, moreover, appear to widen rapidly on decending. This has been shewn especially in the case of a bed opened at the foot of the ridge referred to above, on its south-eastern slope. At its outcrop at this place, the bed in question was under two feet in thickness; but the width increased considerably at the depth of a few feet, and at the present depth of the opening, the bed, allowing for slope, exceeds twelve feet in width, and is still increasing. Upwards of a thousand tons of ore, all of the same uniformly good quality, have already been taken out of a comparatively small excavation at this spot. It is evident, therefore, without regard to other portions of the property, that a very large amount of easily accessible ore must be present in this iron ridge, alone.

3. *Nature and Composition of the Ore.*—The ore of this location consists essentially of hematite or specular iron ore; but it contains a small amount of magnetic oxide and traces of graphite, by which in most samples the normal red streak is rendered greyish-black and lustrous. It presents a dark steel-grey colour, and in many places a strongly-marked cleavable structure with the well-known cross striæ on the cleavage faces. Here and there, indeed, it occurs in large well-defined crystals, mostly combinations of the ordinary hematite rhombohedron (with broadly developed basal planes) and other hemi-hexagonal forms. The specific gravity of the average ore may be assumed to equal 5.0. Two pieces, free from visible rock-matter, gave me respectively 5.181 and 5.116. As a rule, the ore is practically non-magnetic; but in places it exerts a feeble action on a delicately suspended needle, and shews slight polarity. This general want of magnetism, coupled with its dark streak and tabular crystallization, might lead to the inference that it contained titanic acid in considerable amount. I have made, however, a careful analysis of a crystal of this kind, and of two other samples of the ore taken personally from different parts of the location, and although I have found titanic acid in each, the highest amount scarcely exceeds 3 per cent. The ore has also been analysed by Dr. Harrington, of the Geological Survey of Canada, who states expressly that he detected no titanium in it; and likewise by Dr. Wuth, of Pittsburg, who found in it only 0.87 per cent of titanic acid; by Mr. Blodget Britten, who obtained from it 3.84 per cent.; and, quite recnetly, by Mr. Wendell (at the works of Griswold & Co.,) who obtained 3.41 per cent. This general freedom from titanic acid is corrobated by the high specific gravity of the ore, and by the comparatively easy solution of the ore in hydrochloric acid. It need scarcely be observed, that an amount of titanic acid averaging no more than 2 or 3 per cent. does not in any way affect the practical value of the mineral.

The results of my analysis, as published in my Report of last April, are given in the tabular statement below. No. 1 is the composition of a fragment of a large crystal from a bed on the slope of the iron ridge on Lot 28 in Templeton; No. 2 shews the composition of a piece of the so-called "steel-ore," taken from a continuation of one of the beds on the south side of the marsh; and No. 3 represents the composition of the average ore, as obtained from the foot of the iron ridge on the same lot. It is this latter analysis which must be taken as the expression of the general quality of the ore, as it was made from a large sample, selected carefully from a heap of about 300 tons, with a view to obtain a trustworthy average result.

	(1.)	(2.)	(3.)
Sesquioxide of Iron	89.80	88.08	85.45
Protoxide of Iron	7.06	6.86	5.24
Titanic Acid	2.34	3.17	2.12
Protoxide of Manganese	trace	0.24	0.15
Magnesia	0.22	0.13	0.17
Lime	trace	0.55	0.41
Phosphoric Acid	trace	0.16	0.13
Sulphur	trace	0.03	0.35
Graphite	0.43	0.35	0.28
Insol. Rock-matter	0.11	0.26	5.77
Metallic Iron	In No. 1=68.34 per cent.		
	In No. 2=66.98 "		
	In No. 3=63.88 "		

The average amount of metallic iron in the Haycock ore generally, is thus shewn to be equal, in round numbers to 64 per cent., a result confirmed by other independent analysis.* The rock-matter, with which the ore is more or less intermixed, consists essentially of orthoclase feldspar (composed of silica, alumina and potash). with traces of hornblende, tourmaline and magnesian mica. The amount of free silica is apparently very slight. Hence, in the furnace treatment of the ore, the loss by slagging would be comparatively low, and but little flux would be required. The average furnace-yield may be fairly estimated at 60 per cent., and thus five tons of ore would make three tons of pig-metal. This latter, it is evident from the above and other analysis, would be a first-class metal, equal to the best brands of Bessemer pig. Since the date of my first Report (in which the high quality of the ore was strongly insisted upon), two or three hundred weights have been practically tested by reduction in a Siemen's furnace at the works of the Nashua Steel Company. The result was a *steel* of surprisingly good quality, averaging as nearly as possible about 60 per cent. of the ore employed.†

4. *Estimated Amount of Ore* :—That a very large amount of ore is contained within the limits of the Haycock Location is beyond the possibility of doubt. The number and near contiguity of the

*64.45, Harrington; 79 to 64, Wuth, 66, Britten; 64. 24, Wendell.

†A sample of this steel may be seen at the Assay Office of the writer, 11 King Street West, Toronto.

beds at present discovered—the proved extension of many of these, as shown on the plan attached to this Report, across the property generally, and hence the legitimate inference that all will be found to present similar relations—the openings made here and there upon the beds, and the amount of ore already taken from them—are alone sufficient to warrant the assertion that a constant and steady output of thousands of tons might be obtained annually from the location without exhausting it. But until regular mining work is commenced and systematically carried on, it is not possible to state in precise figures, except as a general approximation, the actual amount of ore within the property. The indications of ore on many parts of the location, for example, have not been traced and opened out, simply for the reason that to do this would entail an expenditure of four or five hundred dollars without serving any really useful purpose, as the known exposures of ore on other parts of the property are amply sufficient to guarantee for very many years all the output that could by any possibility be required.

In this Report, therefore, I have limited my estimate to merely the central portion of the property, including, and more or less immediately surrounding, the principal iron ridge. And, even here, one is met by many difficulties in coming to a fair conclusion without wronging the property, as the widening of the beds of ore may cause the amount calculated from surface observations to be entirely below the mark. It is necessary, moreover, in framing an estimate, to fix upon some limit as regards depth. Their comparatively high angle of dip would carry the beds, at a certain distance from their outcrop, to too low a level to admit of profitable working. But these beds, it will be admitted, may certainly be worked to a depth of 200 feet without any exceptional difficulty or outlay. Taking this moderate depth, therefore, with an aggregate thickness of only 70 feet of ore in this central portion of the property, and an average length of 35,000 feet (which is quite within the mark), and making 8 cubic feet equal to a ton of ore, so as to allow amply for waste in mining, the amount becomes no less than 6,300,000 British tons. This estimate, high as it is, might be greatly increased, I feel assured, and still be within the truth. It corresponds to a daily output of 100 tons of ore, or 60 tons of metal, during a period of upwards of a century and a half; and it refers, it must be remembered, to merely a portion of the property. The small area around the central or iron ridge alone must contain (within the limited depth of 200 feet) at least 675,000 tons of first-class ore.

5. *Buildings, Mining Plant, and Piled Ore upon the Property:*—In order to complete the present description of the Haycock Mineral Property, a brief reference must be made to the buildings, mining plant, and raised ore upon the ground. In addition to the 6¼ miles of tramway in complete running order, with full right of way from the ore-beds to the furnace-site and shipping ground on the River Gatineau, the assets of the property include a steam saw-mill of 20-horse power, with a considerable amount of sawn timber and logs; a Boarding House; Manager's House; Store House; Office;

Stables; Powder House; and Blacksmith's Shop. Also a Derrick and other mining plant, tools, &c.; together with about 5,000 tons of raised ore, and 30 tramway cars.

6. *Proposed Furnace Treatment of the Ore*—Although the Haycock ore might undoubtedly be shipped from the Gatineau, at remunerative prices, for furnace treatment in the United States, it is evident that a much larger profit would accrue from the reduction of the ore at home. In my earlier Report, it was shown that the cost of production of pig-metal per ton would be under $20, according to the following general estimate:

Mining, hauling and breaking 1¾ tons of ore.....	$3 00
Charcoal, 24 cwt., at 8c. the bushel of 18 lbs.....	12 00
Limestone, &c.....	0 15
Labor and furnace expenses.....	4 50
	$19 65

The cost, thus stated, has been confirmed by detailed estimates obtained more recently from furnace engineers of extensive practice in the States and elsewhere. In these estimates, the cost of production per ton, in reference to the Haycock ore, is placed at from $19 to $20; and there can be no reasonable doubt that, under proper management, it would fall within the latter sum. The value of the pig-metal, on the other hand, could not (in Canada,) as a general rule, be far short of $50; and it could hardly fall below $40 under any adverse circumstances that might arise. The metal would certainly rank with the best Lancashire or Bessemer brands if its furnace treatment were properly carried out. The storing place on the Gatineau is well situated for a furnace-site. The cost of putting up at this spot a 30-ton hot blast furnace, with all its necessary appointments, &c., in complete running order, according to trustworthy estimates, would be from $128,000 to $130,000. A cold-blast 10-ton furnace of the best modern construction would cost from $45,000 to $50,000 (£10,000), all complete.

General Summary and Conclusions:—The statements given in this Report may be condensed, for convenient reference, into the following summary:

The Haycock Iron Property comprises, in one area, 300 acres of mineral and 100 acres of timber lands, connected, by a tramway of 6¼ miles in length, with a storage and furnace site of 10 acres on the River Gatineau.

The 300 acres of mineral lands are traversed in a general north-east and south-west direction by numerous bands of iron ore, favourably situated for mining, and for the greater part, if not entirely, of workable thickness—the beds at present opened widening rapidly on descending.

From surface to the moderate depth of 200 feet, these united beds, in the more central portion of the property alone, cannot carry less than from six to six-and-a-half millions of tons of ore, and they probably contain a much larger amount.

The ore is of very remarkable purity, and it holds on an average 64 per cent. of metal, equivalent to a furnace yield of about 60 per cent.

A practical test made upon several cwts. of the ore, in a Siemen's furnace, produced at one heat a steel of very superior quality.

The cost producing first-quality pig-metal from the ore at the furnace-site on the Gatineau would not exceed $20 per ton, whilst the value of the metal in the Canada market, allowing for all possible fluctuations, could not average less than from $40 to $50.

These statements and estimates, which I have sought to keep scrupulously within the truth, and which are confirmed, I may observe, by independent and thoroughly trustworthy testimony, are sufficient in themselves to prove the value of the Haycock Location as an iron property. Under judicious management, the property cannot fail to yield large returns for the necessary capital invested in its development.

I have the honour to be,

Sir,

Your obedient servant,

E. J. CHAPMAN, Ph. D., &c.,

Professor of Mineralogy and Geology in University College, Toronto, and Consulting Mining Engineer.

Toronto, November 22nd, 1873.

BILL.

An Act to incorporate the Ottawa Iron and Steel Manufacturing Company, (Limited.)

Preamble. WHEREAS Edward Haycock, the Honorable James Skead, Joseph Merrill Currier, Edward McGillivray, Richard Scougall Cassels, Helier Vavasour Noel, and Samuel Hatt Haycock, all of the City of Ottawa, Esquires, have by their petition, represented that the said Edward Haycock is possessed of valuable iron mines in the townships of Hull and Templeton in the county of Ottawa, and province of Quebec, and also of certain lands, mining rights, privileges and easements held in connection therewith, and has expended a large sum of money in exploring, developing, and proving the said mines, that it requires a large and extended capital fully to develop and work the said mines, and that the said petitioners are desirous of forming a joint stock company, with limited liability, for the purpose of acquiring the said mines, lands, mining rights, privileges, and easements, and other lands, mining rights, privileges, and easements, and of carrying on the business of exploring for, mining, smelting, manufacturing, dealing in, and disposing of, iron and other ores and metals, and the manufacturing, selling, dealing in, and disposing of steel and steel workings, or the products of iron or steel, and have prayed for the passing of an Act to that end; and whereas it is expedient to grant the prayer of said petitioners; Therefore, Her Majesty, by and with the advice and consent of the Legislature of Quebec, enacts as follows:

Incorporation. **1.** The said Edward Haycock, the Honorable James Skead, Joseph Merrill Currier, Edward McGillivray, Richard Scougall Cassels, Helier Vavasour Noel, and Samuel Hatt Haycock, together with all such other persons as shall become shareholders in the company hereby constituted, shall be, and they are hereby made a body corporate, by the name of "The Ottawa Iron and Steel Manufacturing Company, (limited.)" Corporate name.

Business of the Company. **2.** The Company may carry on the business of exploring for, mining, smelting, manufacturing, dealing in, and disposing of, iron and other ores and metals, and the manufacturing, selling, dealing in, and disposing of steel and steel workings, or the products of iron or steel, and may do all things necessary to such ends.

Company may acquire real estate and mining rights.

3. The Company may, by any legal title, acquire, and hold any lands and mining rights, privileges or easements, necessary or requisite for the carrying on of such business, and construct and maintain such buildings, machinery, and other improvements thereon, and they may sell and dispose of the same, and acquire others in their stead, as the company may deem for its advantage.

Power to acquire vessels, boats, &c.

4. The said Company are authorized to build, purchase, possess, and hold one or more vessels to be propelled by steam or other power, with all such necessary scows, boats, and barges, as may be required to be used and employed by the said company for the purposes, and in connection with the objects and undertakings referred to in this act, and to construct, maintain, and use all necessary wharves, piers and booms, required for the purposes of the said Company.

To construct wharves.

Power to construct railway or tramway, &c.

5. The said Company are authorized and empowered to acquire construct, maintain and use a double or single railway or tramway, of wood or iron, or both, from any point in the lands which or the mining rights in which may be acquired by the said Company, to the navigable waters of the River Ga...eau, and to construct, maintain, and use branch lines of tramway or railway, to run from any other point or points in the said lands, and over and through the said lands to the said first mentioned railway or tramway, and to purchase, acquire, and hold all necessary locomotives, rolling stock, matters and things, which may be required, and to use the same to carry iron and other ores, merchandize and materials, to and from the said lands.

Railway act to apply.

6. The following clauses of "the railway act," are incorporated with this act, that is to say, the first, second, third and fourth clauses thereof, and the clauses relating to "powers, plans" and "surveys" "lands and their valuation," except in so far as they may be inconsistent with this act.

Capital stock and shares.

7. The capital stock of the Company shall be the sum of five hundred thousand dollars, divided into one thousand shares of five hundred dollars each, and may be from time to time, increased, as the wants of the Company require, by vote of not less than two-thirds of the shareholders, at a meeting of the Company called for the purpose, to an amount not exceeding one million dollars in the whole.

Increasing Capital.

8. The capital stock shall be paid by the subscribers thereof, when, where, and as the directors of the Company shall require, or as the by-laws may provide; and if not paid at the day required, interest at the rate of seven per cent per annum, shall be payable after the said day, upon the amount due and unpaid; and in case any instalment or instalments shall not be paid as required by the directors with the interest thereon, after such demand or notice as the by-laws prescribe, and within the time limited by such notice, the directors may, by notice, reciting the facts, summarily forfeit any shares whereon such payment is not made, and the same shall thereupon become the property of the Company, and may be disposed of as the by-laws or votes of the Company may provide.

How the stock to be paid.

If not paid promptly, interest to be charged.

Forfeiture for non-payment.

9. The Company may enforce payment of such calls and interest, by action in any competent court of law, and in such action it shall not be necessary to set forth the special matters, but it shall be sufficient to declare that the defendant is a holder of one share or more, stating the number of shares, and is indebted in the sum of money to which the calls in arrear amount, in respect of one call or more, upon one share or more, stating the number of such calls and the amount of each, whereby an action hath accrued to the Company under this act; and a certificate under their seal, and purporting to be signed by any officer of the Company, to the effect that the defendant is a shareholder, and that such call or calls have been made, and that so much is due by him and unpaid thereon, shall be received in all courts of law as *primâ facie* evidence to that effect.

How payment of subscribed stock may be enforced

Proof in actions for calls.

10. The stock of the Company shall be deemed personal estate, and be assignable in such manner only, and subject to such conditions and restrictions as are, by the by-laws, prescribed; but no share shall be assignable except to this Company, until all instalments called for thereon have been paid, unless it has been declared forfeited for non-payment.

Stock personal property and how assignable.

11. The Company, from time to time, after at least one-half of their stock has been paid in, and not sooner, may borrow, in this province or elsewhere, any sums not exceeding in all five hundred thousand dollars, and may make the bonds, debentures and other securities they shall grant for such sums, payable in sterling or currency, at such rate of interests, and at such place or places in this province or elsewhere, as they shall deem advisable; and such bonds, debentures and other securities, may be made payable to bearer, or transferable

When half of the stock is paid up, the Company may borrow $500,000 on bonds.

by simple endorsement or otherwise, and may be in such form as to the directors of the Company may seem fit, and for assuring payment of any such sums and interest, the Company may thereby hypothecate their-

May hypothecate their property.

real estate or any part thereof, and in such case the enregistration in the proper registry office of such bond, debenture, or other security, if not passed before notaries, shall create the hypothec thereby purporting to be created.

Meetings and manner of voting thereat.

12. At all meetings of the Company, every shareholder not being in arrear in respect of any instalment called for, shall be entitled to as many votes as he, she, or they, hold shares in the stock of the Company, and which shares shall have been held in his, her, or their names, at least one month prior to the time of voting, and no shareholder being in arrear shall be entitled to vote; and

Proviso.

all votes may be given in person or by proxy provided always, the proxy is held by a shareholder, and in comformity with the by-laws.

Board of directors, how elected and qualification of a director.

13. The affairs of the Company shall be administered by a board of not less than three and not more than seven directors, being severally holders of at least ten shares of stock, who shall be elected at the first general meeting; and thereafter at each annual meeting of the Company, to hold office until their successors are appointed, and

Directors to elect a President

who (if otherwise qualified) may always be re-elected: three of such directors, until otherwise provided by the by-laws, shall be a quorum; and such directors shall, as soon as may be, elect one of their number to be president;

Vacancies.

and if any vacancies shall at any time, occur in the office of president or director, the remaining directors may fill the vacancy until the next annual meeting of the Company; the president shall have a vote as director at all meetings of the board, and in case of a tie shall have the casting vote likewise; but no director shall vote by proxy, unless otherwise provided by the by-laws, and a failure to elect directors shall not dissolve the corporation, but all proper acts by the said directors shall be valid and binding as against the Company, until their successors shall be elected; and an election may be had at any general meeting of the Company called for the purpose as prescribed by the by-laws.

Powers of the Board to make by-laws for certain purposes.

14. The board of directors shall have full power in all things to administer the affairs of the Company, and to make or cause to be made, any purchase and any contract not contrary to law; to adopt a common seal, and to altar the same at pleasure; from time to time, to make any and all by-laws (not contrary to law,) regulating the issue and registration of certificates of stock, the calling

in of instalments on stock, and the payment thereof; the forfeiture of stock for non-payment; the disposal of forfeited stock and the proceeds thereof; the transfer of stock; the declaration and payment of dividends; the appointment, functions, duties and removal of all agents, officers and servants of the Company; the security to be given by them to the Company; their remuneration and that (if any) of the directors; the time and place for holding the annual and other meetings of the Company; the calling of meetings of the Company and of the board of directors; the quorum, the requirements as to proxies; the procedure in all things at such meetings; the site of their chief place of business and of any other offices which they may require to have: the imposition and recovery of all penalties and forfeitures admitting of regulation by by-laws, and the conduct in all other particulars of the officers of the Company; and every copy of any by-law under the seal of the Company, and purporting to be signed by any officer of the Company, shall be received in all courts of law as *primâ facie* evidence of such by-law.

Copies of by-laws to be *primâ facie* evidence thereof.

15. Until the first election of such board of directors, the said Edward Haycock, the Honorable James Skead, Joseph Merrill Currier, Edward McGillivray, Richard Scougall Cassels, Helier Vavasour Noel, and Samuel Hatt Haycock, shall be a provisional board of directors, with power to open stock books and to convene general meetings of the Company, at such time and place as they shall determine, and generally to do and perform all matters and things which any other board of directors is empowered to do, and any other act necessary and proper to be done to organize the Company and conduct its affairs.

Who shall be first director

Their powers.

16. The directors of the Company may, from time to time, dispose of, place or allot any of the stock of the said Company to any person or persons, at such price or prices, or for such consideration or considerations, and in such amounts, and bearing such rank, position or priority in respect to any other shares, and in such class or classes of order in respect as well to the principal amount of such shares as the interest or dividends thereon and so designated, and upon such conditions as the directors, may, from time to time, find expedient; provided that no preference stock shall be issued, unless with the approval of a majority in value of the stockholders present or represented by proxy, at a special general meeting called to consider the same.

Power to allot stock.

Company not liable as trustees

17. The Company shall not be bound to see the execution of any trust, whether express, implied or constructive, in respect of any share or shares, and the receipt of the person in whose name the same shall stand in the books of the Company, shall be a discharge to the Company for any dividend or money payable in respect of such share or shares, whether or not notice of such trust shall have been given to the Company; and the Company shall not be bound to see to the application of the money paid upon such receipt.

Liability of shareholders defined, &c.

18. The shareholders of the Company shall not, as such, be held responsible for any act, default or liability whatsoever of the Company, or for any engagement, claim, payment, loss, injury, transaction, matter or thing whatsoever, relating to, or connected with the Company, beyond the amount of calls, if any, remaining unpaid on their shares in the stock thereof; provided, however, that the stock-holders of the Company shall be severally individually liable *pro rata* to the amount of stock held by them respectively, for all debts that may be due and owing to all or any of their laborers, for services performed for such corporation.

Company bound by the acts of their servants.

19. All contracts, promissory notes, bills of exchange, and engagements, made on behalf of the Company by the directors, officers, agents or servants thereof, in accordance with their powers, under the by-laws, or by vote of the Company, shall be binding upon the Company, and in no case need the seal of the Company be affixed thereto, nor shall such directors, officers, agents or servants thereby become individually liable to any third party therefor; but the Company shall issue no bank note or notes to circulate as money.

May not issue bank notes.

Prosecution of actions; who may be competent witnesses.

20. Any description or action may be prosecuted and maintained between the Company and any person or corporation whatever, whether he, she, or they, be shareholders or otherwise, and no shareholder, not being a party to such action, shall be incompetent as a witness therein.

Commencement of operations.

21. The Company may commence operations and exercise the powers hereby granted, so soon as two hundred thousand dollars of the capital stock shall be subscribed, and ten per centum thereon paid up; and any stock paid in part or in full, which may have been taken by parties conveying lands, mining rights, privileges or easements, or any real or personal property, to the Company, in part payment or in full, for such lands, mining rights, privileges, easements, or real or personal property, shall be held to have been so paid in cash, for the purposes of this section, and of the eleventh section of this act.

BILL.

An Act to amend the Act intituled: "An Act to incorporate the Ottawa Iron and Steel Manufacturing Company, (Limited)."

WHEREAS the said Company have petitioned to amend their Act of Incorporation by reducing the shares in their Capital Stock to Twenty-five dollars each, instead of Five Hundred dollars each; and also, by reducing the qualification of the Directors to Two Thousand dollars of stock, instead of Five Thousand dollars, and it is deemed expedient to make the amendments required: Therefore, Her Majesty, by and with the advice and consent of the Legislature of Quebec, enacts as follows:—

1. The seventh section of the Act of last session, 37 Victoria: chapter fifty-five, shall be and the same is amended, as follows: the word "one" in second line is struck out, and the word "twenty" is inserted instead thereof; and the words "Five hundred" in the third line thereof are struck out, and the words "Twenty-five" are inserted instead thereof.

2. The thirteenth section of the said Act shall also be amended, and the same is amended as follows: the word "ten" in the third line thereof is struck out, and the word "eighty" is inserted instead thereof.

3. This Act shall come into force on the day of its sanction.