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SECOND SESSION OF THE FIRST PARLIAMENT

OF THE

DOMINION OF CANADA.

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SESSION, 1869.

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## CORRESPONDENCE.

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# INTERCOLONIAL RAILWAY LOAN, &c.

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*Laid before Parliament by command of His Excellency the  
Governor General.*

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#### INTERCOLONIAL.

LONDON, June, 1868.

**MY LORD DUKE,**—Your Grace will already have been apprised that the Government of Canada have had under consideration the question of determining the Line of Railway between Rivière du Loup and Truro, to be submitted for the approval of Her Majesty's Government in accordance with the provisions of the Canada Railway Loan Act, 1867.

Three lines presented themselves for discussion: the first, proceeding to, and crossing over to the right or southern bank of the St. John River, at Woodstock, or Fredericton; thence continuing on the right bank of that river, by branch lines now in progress, to the town of St. John, by what is termed the Western Extension Railway: the second, in a more central direction through the Province of New Brunswick, connecting with the European

and North American Road at some point between St. John and Shediac: and the third, the line surveyed by Major Robinson, in the year 1848.

Your Grace is now aware of the result of the deliberations of the Canadian Government on this question, and it being important that the necessary financial arrangements should be made for the prosecution of the work with as little delay as possible, I have the honor, very respectfully to beg that the approval of the Line may be given by Your Grace, as contemplated by the Imperial Act, and that the sum of money provided by the Government of Canada in excess of the three millions to be raised on the Imperial Guarantee, may be held sufficient for the construction of the Railway.

I have further the honor to inform Your Grace, that Thomas Baring, Esquire, M.P., and George Carr Glyn, Esquire, M.P., have been named Trustees by the Government of Canada, under the 3rd section of the Act for the management of the Sinking Fund.

On consultation with the Financial Agents of the Dominion, in London, it is thought to be extremely desirable that advantage should be taken of the present low rate of interest, to place the loan, or a portion of it, on the market at as early a day as possible, and I have, accordingly, to solicit the sanction of Her Majesty's Government to that proceeding.

I have, &c.,

To His Grace  
The Duke of Buckingham and Chandos,  
&c., &c.

(Signed,)

JOHN ROSE,  
M.F.

#### INTERCOLONIAL RAILWAY.

(Copy Memo:)

MY LORD DUKE,—On the letter from the Nova Scotia and New Brunswick Intercolonial Railway Company, Limited, of the 9th inst., addressed to his Grace the Duke of Buckingham and Chandos, I beg to say, that the only arrangements now existing for the construction of the Intercolonial Railway, are to be found in the Imperial Act, 30th Vic., c. 16, and in that of the Parliament of Canada, 31st Vic., c. 13.

The previous negotiations, which had, for a number of years, taken place between the several Provinces now composing the Dominion of Canada, are superseded by the provisions contained in these two Acts.

The Imperial Act left to the Dominion of Canada to adopt such agency as it saw fit for the prosecution of the work, provided the requisite money provision was made; and by the Act of the Canadian Parliament it is provided that the work shall be done directly by a Commission, and not through the interposition of a Company, and shall be a public work belonging to the Dominion.

It will be the duty of the Commission to locate the road on the line approved by the Imperial Government, and they are in no way whatever bound to assume any intermediate portion of road, or to adopt any contracts which either of the Provinces may have previously made in respect of such local sections. Indeed, they are prohibited, by the terms of the Act, from concluding any contract, exceeding \$10,000, without the sanction of the Government in Canada. It is of the first importance that the whole, from Truro to River du Loup, should be done in the most economical manner, and that the Dominion should have the advantage which payments in cash to contractor, out of the money raised on the Imperial Guarantee and on the credit of the Dominion, afford. Provisions of former contracts may be altogether too onerous, the prices excessive, the location and character of the work may be bad, the specifications insufficient. It was never contemplated that the work itself, or the Commission for its execution, should be trammelled by any arrangements anterior to the two Acts of Parliament above quoted. If any contracts or engagements have been entered into by either of the Provinces anterior to the Act of Union they will be faithfully carried out by the Dominion, if by the provisions of the Union Act they are entailed upon it. But it would be contrary to the spirit and terms of the Intercolonial Acts, both Imperial and Canadian, to tie the hands of the Commissioners appointed to carry them into effect.

The assumption of any intermediate section of work, or the adoption of any contracts, must be matter of arrangement with the Commissioners.

In conclusion I beg to call His Grace's attention to the fact that the negotiations referred

to in the letter written by direction of His Grace the Duke of Newcastle to Mr. Watkin, under date of the 19th March, 1864, were never completed, and as in that letter His Grace expressly states, "That no claim is to be made on the Imperial Government under the old project" is to be carried into execution, and if the offer of 1862-3 should fall to the ground this assurance will fall with it.

It therefore follows (wholly irrespective of the entirely new Legislative provision made in 1867,) that no possible claim can be based on the terms of that communication.

I have, &c.,

To His Grace

(Signed,)

JOHN ROSE.

The Duke of Buckingham and Chandos,  
&c., &c.

*Messrs. Sheward and Webb to the Duke of Buckingham.*

(Copy.)

THE NOVA SCOTIA AND NEW BRUNSWICK (INTERCOLONIAL) RAILWAY COMPANY  
(limited), 6 Westminster Chambers, Victoria Street, London, S. W.,  
9th June, 1868.

MY LORD DUKE,—We, the Directors of the Nova Scotia and New Brunswick (Intercolonial) Railways Company, Limited, respectfully beg to draw the attention of Your Grace to the following facts :—

This Company was formed for the purpose of constructing, under concessions granted by the Nova Scotia and New Brunswick Governments, two of the most important sections of the Intercolonial Railway.

The Section in New Brunswick, which extends from a junction with the European and North American Railway, near Moncton, in New Brunswick, to a point on the Nova Scotia boundary near Amherst, is about 36 miles in length, and is now in course of construction. The contract is in the hands of Messrs. Edwin Clark, Punchard & Co., and the works are so far advanced that a portion of the line will be open for traffic in the Autumn of the present year.

The contract for the Nova Scotia Section, 74 miles in length, from Amherst to Truro, where it joins the Nova Scotia State Line to Halifax, is also let to Messrs. Clark, Punchard & Co., and heavy responsibilities, as well as considerable outlay, have already been incurred.

Both these lines were located by the respective Governments of Nova Scotia and New Brunswick as part of the proposed Intercolonial Railway, and were to be covered by the Imperial Guarantee, as Your Grace will perceive by reference to the despatch of the late Duke of Newcastle to Mr. Watkin, M. P., dated March 19th, 1864.

It was on this understanding, and on the personal assurance to that effect of the Delegates of the Nova Scotia Government, that these lines were undertaken, and the necessary capital raised for their construction.

We beg to submit these facts for the information of Your Grace, in order that the rights which we possess, and the responsibility we have incurred, may be duly considered in any decision that may be taken by the Imperial Government, with respect to the Intercolonial Railway.

We have, &c.,

(Signed,)

GEORGE SHEWARD,  
*Chairman.*

(Signed,)

F. W. WEBB,  
*Secretary.*

His Grace

The Duke of Buckingham and Chandos,  
&c., &c.

*The Under Secretary of State to Mr. Watkin.*

(Copy):

DOWNING STREET, 19th March, 1864.

SIR,—The Duke of Newcastle desires me to inform you that he has received from the Lords of the Treasury a copy of your letter, of the 15th of February, contemplating the con-

struction by New Brunswick and Nova Scotia of the first link of the Intercolonial Railway between Truro and the Bend, and suggesting that the line so constructed should be held to be part of the larger scheme contemplated in the laws recently passed by those two Provinces and by the memoranda of December, 1862, and January, 1864, recited in those laws.

I am directed by His Grace to inform you in reply, that if the Lower Provinces shall, at their own expense, commence the construction of a Railway on a line approved by Her Majesty's Government between Truro and the Bend, and if subsequently the proposed Loan of £3,000,000 shall be raised under the Imperial Guarantee in virtue of the offer contained in the above memoranda, the Railway between Truro and the Bend, and the works constructed thereupon by the Lower Provinces, shall, (as far as Her Majesty's Government is concerned) be considered to form part of the Railway on which the Loan of £3,000,000 is to be expended, and that His Grace sees no reason for requiring any change in that part of the memoranda which declares that  $\frac{5}{12}$ ths of the Loan shall be chargeable against Canada,  $\frac{3}{12}$ ths against Nova Scotia, and  $\frac{2}{12}$ ths against New Brunswick.

The further question, what part of that sum of £3,000,000 should be paid over to New Brunswick and Nova Scotia in consequence of the works effected by them without the concurrence of Canada, will be mainly a question for the Provincial Governments, in which it must be understood that Her Majesty's Government is not to be involved. But the Imperial Government, before being party to any such payment in respect of this section of the Railway, must have sufficient security that the whole scheme will be prosecuted with effect.

It is scarcely necessary to observe, that this assurance is given merely for the purpose of providing (as far as Her Majesty's Government is concerned), that New Brunswick and Nova Scotia shall not be prejudiced by commencing the Railway in anticipation of a final arrangement (if such arrangement should ever take effect), and is not to be construed as in any way varying or keeping alive, or extending that arrangement, or as imposing on the Imperial Government any liability to assist in the construction of the shorter line now contemplated, whether by way of guarantee or otherwise, except in pursuance of the offer of December, 1862, and January, 1863. Therefore, no claim whatever is to be made on the Imperial Government, unless the old project is carried into execution; and if the offer of 1862-3 should fall to the ground, this assurance, will of course, fall with it. It must also be understood, that the present correspondence is not to affect the right of the Home Government to determine for itself at what period the offer of 1862-'3 shall be held to be cancelled by the failure of the Canadian Government to fulfil the first of the proposed conditions, viz., that of submitting immediately to the Colonial Legislature the Bills required for carrying that offer into effect.

I am to add, however, that Her Majesty's Government consider that offer as still subsisting, but would certainly cease to do so, unless a definitive arrangement were made, and the necessary colonial laws passed within five years of the date of the first memorandum, *i. e.*, before December, 1867.

I am &c.,

E. W. Watkin, Esq.

FLEMING'S HOTEL, CLARGES STREET, W.,  
7th July, 1868.

MY LORD DUKE,—I venture to submit the following observations on the points adverted to by Your Grace in person, as those in respect of which some explanation might with propriety be offered:—

First, touching the vagueness of the definition in speaking of the line submitted for the approval of Her Majesty's Government as the Bay of Chaleurs Line.

This term has been applied to indicate the route surveyed by Major Robinson in 1848 (and which in its general course follows the coast of the Gulf of St. Lawrence), in consequence of its being used in the telegraphic message sent by Your Grace to the Governor General of Canada in May last, and because a junction with the Bay of Chaleurs is incompatible with the adoption of the Frontier route, or any practicable central route.

I may now add, by way of supplement to my letter of the 1st inst., that the line submitted by the Canadian Government for your Grace's approval is understood to be the

Robinson route, as contra-distinguished from the Frontier or Central route, subject, of course, to any such local modifications and changes in its location as more minute examination may show to be advantageous.

I would, therefore, presume to suggest, in approving of the line, Your Grace, for the sake of greater certainty, might designate it as that following the general line of the route surveyed by Major Robinson, and indicated in his report laid before Parliament in January, 1849: touching at the Bay of Chaleurs, and thence proceeding to Truro, in Nova Scotia, in such a course as may be shortest and best, and as may offer the greatest engineering advantages, touching, where practicable, and consistent with these conditions, at any points in the Gulf of St. Lawrence which it may approach. The approval in such terms would seem to overcome any difficulty arising from the communication being made by telegraph, since Your Grace would have thus defined with precision the Line recommended in general terms by the Government of Canada.

That Government cannot, of course, proceed to construct any other line than the one approved of, and it would seem to be unimportant whether the adoption of it by the Government of Canada, take place before or after the approval by Her Majesty's Government. As it is of the greatest moment that no time should be lost in making the financial arrangements, and as my public duties require my immediate return to Canada, I trust I may be pardoned if I express the hope that Your Grace may find it not incompatible with your public duty to give the necessary sanction at the present time.

I transmit for the information of Your Grace, the copy of a letter which Mr. Fleming, the engineer by whom the first surveys have been made, has addressed to me, shewing that it is impossible that any more complete definition of the Line can be given at the present time.

On the second point, relating to any supposed contracts for particular sections of the work, I desire, with the greatest respect, to repeat the objections I have already made to imposing these contracts in any way on the Commission appointed to carry out the works. These objections are, if possible, strengthened by a communication which I have received from Mr. Fleming since I addressed Your Grace on the subject, and a copy of which communication I enclose for your information.

I cannot but feel assured that Your Grace will consider the scope of duty devolving on Her Majesty's Government by the Act of Parliament, to be limited to an approval of the general line of the route to be followed, and will leave to the Commissioners for the work, the duty of determining whether, or not it be in the public interest to avail themselves of any pre-existing arrangements for its partial execution.

Trusting that these explanations may be sufficiently satisfactory to enable Your Grace to give the necessary reference to the Commissioners of Her Majesty's Treasury, in order that the Canadian Government may have the advantage of making their financial arrangements at the present moment which is so favorable for that operation.

I have the honor to be, with the highest respect,

Your Grace's most humble servant,

JOHN ROSE.

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No. 2 MONTAGU STREET, RUSSELL SQUARE,  
LONDON, 6th July, 1868.

(Copy.)

*The Honorable John Rose, Minister of Finance, Canada :*

SIR,—I am unable to find a copy of my letter to Sir John A Macdonald, which you enquired for, relative to the estimated cost of the whole length of the Intercolonial Railway ; I enclose, however, at your request, a copy of my Report to the Minister of Public Works, on that portion of the line between Moncton and Amherst.

In my report on the exploratory surveys of 1864, I ventured to give \$20,000,000 as the probable total cost of the Intercolonial Railway. The information which I have since acquired in the Maritime Provinces, convinces me that this estimate is not only sufficient, but that with very good management it is quite possible to complete the Main Line between

Truro and Rivière du Loup, and also the projected branch from Bathurst to \_\_\_\_\_, for the sum named.

If, however, the line be twisted and warped from the best position, to serve private and local interests, it will not be possible to form any reliable estimate of what the expenditure will ultimately come to. It appears necessary that I should allude to this in expressing, at your request, an opinion as to the sufficiency of the appropriation for the construction of the railway, because at the only point where the question of location has practically arisen as yet, viz., between Moncton and Amherst, the line advocated by the local authorities, and adopted by a contracting firm, is not only less favorable in an engineering point of view, but is actually from 21 to 35 per cent. longer than the line which ought to be constructed.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

SANDFORD FLEMING.

*Mr. Fleming to Mr. Rose.*

(Copy.)

INTERCOLONIAL RAILWAY,

LONDON, 7th July, 1868.

SIR,—Referring to our conversation this morning, allow me to remark :

It would not be possible to furnish plans and sections of the Intercolonial Railway, as it may finally be built, for a very long time. Railway surveys are very laborious operations, in a wild wooded country. In England, the Ordnance surveys enable engineers very readily to define the line of a projected railway, but in a country like Canada, where no such surveys exist, the best position for the railway can only be ascertained after repeated trials and laborious surveys. After the work is commenced, desirable changes and improvements in the location are frequently made in a wild country, and it would not, in my opinion, be wise to define the line so exactly that no such changes could be made.

With regard to the name of the route selected for the Intercolonial Railway, it has been designated "Major Robinson's Line," "The North Shore Line," and "Bay Chaleurs Route" (No. 15). It is, probably, best known as "Major Robinson's Line," but as the expression—*line*, might be taken to mean the exact line laid down by Major Robinson on the plans furnished by that gentleman, and which plans do not profess to be more than the results of a rough exploratory survey, and the line shewn thereon as a possible railway line, it would, perhaps, be wise to define the route for the railway so as to avoid any misconceptions. I would suggest, therefore, that the route be described generally as follows:—

The shortest and best line that can be found from the existing railway at Rivière du Loup to the Bay Chaleurs by the River Matapédia, and from the Bay Chaleurs to the existing Railway at Truro, in Nova Scotia. The general designation of this intended line to be "The Bay Chaleurs Route."

On an examination of the map it will be found that a line touching the Bay Chaleurs, as above described, cannot be taken to mean a central or a frontier line, and that it is, in fact, substantially the route indicated by Major Robinson in his report laid before Parliament.

Referring to my report to the Minister of Public Works, dated 15th May last, on the location of that portion of the line between Moncton and Amherst, and also to my letter of yesterday, addressed to you, on the same subject, I consider it my duty again to submit that within the limits of the route above defined, the Railway should be located, as far as it is possible to do so, on that line which presents the most favorable engineering features, and subserves in the highest degree the general interests of the Dominion. If, on the contrary, other interests are too largely consulted, it will probably be discovered, when too late, that a large and useless expenditure has been incurred in constructing a railway proportionately expensive to maintain and operate.

I have, &c.,

(Signed,)

SANDFORD FLEMING.

To the

Honorable John Rose,  
Minister of Finance, Canada.

(Copy).

INTERCOLONIAL,  
LONDON, July 7th, 1868.

SIR,—I am in receipt of your note of yesterday's date intimating that Messrs. Clark and Punchard propose calling here to morrow morning at 10.30.

I regret that I have engagements on that day from which I cannot escape, but if they wish to see me I shall be ready to make an appointment for a future date.

Yours truly,

(Signed,)

JOHN ROSE.

T. H. Webb, Esq.,

5, Westminster Chambers, Victoria St. W., London.

LONDON, July 11th, 1868.

Messrs. Edwin Clark, Punchard &amp; Co.

GENTLEMEN,—I have to acknowledge your letter of yesterday's date, with the accompanying statements on the subject of certain works in the Provinces of Nova Scotia and New Brunswick.

I think it right to say, in order that misapprehension may not arise in future, that I have no authority whatever to come to any arrangements respecting these contracts, nor should I feel myself warranted in even expressing an opinion which might influence your action with reference to the subject matter of your communication.

While it is due to you, as a matter of courtesy, that I should meet you and hear your representations, I trust you will understand that I can do no more than give respectful attention to your statements.

Your ob't servant,

(Signed,)

JOHN ROSE.

DOWNING STREET, 22nd July, 1868.

SIR,—I am directed by the Duke of Buckingham and Chandos to acknowledge your letters of the 1st and 7th instant, supplying information bearing on the choice of the line of railway to be constructed between Rivière du Loup and Truro, in order to complete the Intercolonial Railway.

The Duke of Buckingham and Chandos received with much satisfaction a telegraphic message from the Governor General, by which it appears that the Bay of Chaleurs Line has been selected by the Canadian Government. Her Majesty's Government readily acquiesce in this selection, as you will learn from the despatch to Viscount Monck, of which a copy is annexed.

I am, Sir, Your obedient servant,

I. G. ELLIOT.

*The Duke of Buckingham to Viscount Monck.*

(Canada—No.—)

DOWNING STREET, 22nd July, 1868.

MY LORD,—I have received Your Lordship's telegraphic message that the route by Bay of Chaleurs has been selected by the Canadian Government as the one to connect Truro with Rivière du Loup, and thus complete the Intercolonial Railway.

I understand three routes to have been under the consideration of the Government of Canada, namely, one crossing the St. John River, either at Woodstock or Fredericton; the second in a more central direction through New Brunswick; and the third following the Line selected by Major Robinson in 1848.

The route crossing the St. John River, either at Woodstock or Fredericton, is one to which the assent of Her Majesty's Government could not have been given. The objections on military grounds to any line on the south side of the St. John River are insuperable. One of the main advantages sought in granting an Imperial Guarantee for constructing the Railway would have been defeated if that line had been selected.

The remaining lines were the Central Line, and that following the general course of route surveyed by Major Robinson, and Her Majesty's Government have learned with much satisfaction that the latter has been selected by the Canadian Government. The communication which this line affords with the Gulf of St. Lawrence at various points, and its remoteness from the American frontier, are conclusive considerations in its favor, and there can be no doubt that it is the only one which provides for the national objects involved in the undertaking.

I have, &c.,  
(Signed,) BUCKINGHAM & CHANDOS.

Governor,  
The Right Honorable Viscount Monck,  
&c., &c.

#### INTERCOLONIAL.

FLEMING'S HOTEL, 11th July, 1868.

SIR,—I have the honor to transmit herewith certain documents on the subject of the proposed loan for construction of the Intercolonial Railway, to be guaranteed by the Commissioners of Her Majesty's Treasury, under the authority of the Canadian Railway Loan Act, 1867.

In the terms of the Act of the Canadian Parliament, as well as the proposed line of railway having been approved by Her Majesty's Government, it now only remains for the Commissioners of Her Majesty's Treasury, to convey their sanction to the conditions of the loan, as detailed in enclosures A. & B., and to approve of the form on which it is suggested the guarantee of Her Majesty's Government may be evidenced.

I have prepared for facility of reference a brief statement (enclosure, No. 1,) of the several Acts of Parliament, and of the communications which have taken place on this subject, to which I would respectfully crave your attention.

I shall be happy to give any further information which may be desired, and as my public duties require my return to Canada as speedily as possible, I trust I may be pardoned if I express the hope that I may be favored with an early communication of the views of Her Majesty's Government on the subject of the enclosed.

I have, &c.,  
(Signed,) JOHN ROSE.

The Right Hon. S. E. Hunt,  
Chancellor of the Exchequer,  
&c., &c.

#### *Canada Intercolonial Railway Loan.*

(Copy).

The Canadian Railway Loan Act authorized the Commissioners of Her Majesty's Treasury to guarantee, in such manner and form as they think fit, payment of interest, not exceeding 4 per cent, on any principal sum, not exceeding three millions, sterling, to be raised by the Government of Canada, for the purpose of constructing the Intercolonial Railway, on condition that Canada should pass an Act providing:—

- 1st. For the construction of Railway; for its use by Her Majesty's Troops; and, provided the line should be approved by a Secretary of State.
- 2nd. That the Canadian Act should provide to the satisfaction of the Commissioners of Her Majesty's Treasury, for the raising and expending by Canada of the three millions on the Railway; for creating a Sinking Fund, and for making the Loan and Sinking Fund charges in a specified order on the Revenue of Canada; for the appointment of Trustees to manage the Sinking Fund; and lastly, for raising such further sum, on the sole credit of Canada, beyond the three millions, as might be necessary to complete the line.



31st Vic., s. 13. The Canada Act has complied with all three conditions, and authorized the raising of one million sterling, beyond the three millions guaranteed by the Imperial Government, and has been approved of by Her Majesty's Principal Secretary of State for the Colonies.

The line has also been approved of by the Colonial Secretary; and Thomas Baring, Despatch, July 18th. Esq., M. P., and George Carr Glyn, Esq., M. P., have been named Trustees by Canada, for the management of the Sinking Fund.

The Canadian Act provides that the work shall be performed and the money expended by a Commission, named by the Canadian Government; and it is intended that operations shall be prosecuted by them as rapidly as possible.

Canada now proposes to put a portion of the Loan on the market, and after consultation Prospectus A. with Messrs. Baring, Brothers & Co., and Messrs. Glyn, Mills, Currie & Co., the Financial Agents of the Dominion in London, the Terms specified in the annexed paper are suggested as those on which it should be offered to the public.

It will be perceived that it is proposed that the Bonds for that portion of the Loan which is guaranteed by the Imperial Government should, when issued, be countersigned on the part of Her Majesty's Government in the same form as was adopted in 1855 in the case of the Turkish Loan guaranteed by Her Majesty and the Emperor of the French.

The approbation of the Commissioners of Her Majesty's Treasury is necessary before Paper B. preparing the form of Bond to be issued by the Government of Canada, which is also annexed, as well as the proposed terms of Loan, and the form in which the guarantee is to be evidenced, and it will be requisite that the Financial Agents of the Dominion or the Minister of Finance should receive the Commissioners' authority to grant the interim receipts embodying the undertaking, for the countersignature on the part of Her Majesty's Government to the Bond when issued.

(Signed,)

JOHN ROSE.

## INTERCOLONIAL LOAN.

1st. It is proposed that of the Intercolonial Loan of four millions, sterling, the present issue shall be for two millions, three-fourths of which to be raised on the guarantee of the Imperial Government, and one-fourth on the Bonds of Canada without such guarantee.

2nd. The Bonds will be redeemable in thirty-five years; a Sinking Fund of one per cent per annum will be provided for the redemption of the Imperial portion and the ordinary Sinking Fund already existing for the redemption of the consolidated debt of Canada will be applicable for the Canadian Bonds.

3. The Loan will be payable to the subscribers by the following instalments, with the liberty to anticipate the rebate of interest at the Bank rate.

4. Form of Bond, to be prepared for approval of Treasury, who will authorize Messrs. Baring & Co., and Messrs. Glyn, Mills, Currie & Co., to grant Interim Certificates on payments made previous to completion of Bonds.

5. Loan to be offered to public by tender, and minimum price to be fixed, and placed in the hands of the Governor of the Bank of England.

Issue of £1,500,000 Canada Bonds, bearing four per cent interest, and guaranteed by the Imperial Government of the United Kingdom, under the authority of the Act of 30 Victoria, c. 16, being one moiety of the Loan authorized by that Act; and of £500,000 5 per cent Bonds of the Government of Canada, being also a moiety of the Loan of £1,000,000 authorized by the Act of the Parliament of Canada, passed on the 21st of December, 1867, for the construction of the Intercolonial Railway.

Messrs. Baring, Brothers & Co., and Messrs. Glyn, Mills, Currie & Co., are authorized by the Minister of Finance of the Dominion of Canada to receive at the office of the former firm, No. 8, Bishopsgate street, within, on Thursday, the 23rd instant, between the hours of one and two o'clock of the day, Sealed Tenders for

£1,500,000 Canada 4 per cent Bonds, guaranteed by the Imperial Government of the United Kingdom, and to be repaid on 1st October, 1903, as per form of Bond annexed.

And £500,000 Canada five per cent Bonds, of the form and tenor annexed, to be repaid also on the 1st October, 1903.

All these Bonds will bear interest from 1st July, 1868. A dividend for three months will be paid on 1st October, and the dividends will thenceforth be payable half yearly, on 1st April and 1st October of each year, as per coupons.

The above mentioned sealed tenders may be for the whole or part of £2,000,000, in the proportion of three quarters of guaranteed Bonds, and one quarter of ordinary five per cent Canada Bonds; and no tender will be admitted which does not comply with this condition, namely, stating one price for the two stocks united.

The Minister of Finance of Canada will deliver to the partners present of Messrs. Baring, Brothers & Co., and Messrs. Glyn, Mills, Currie & Co., a sealed paper containing the minimum price at which he will sell the above mentioned £2,000,000 Bonds, and those partners will then open the tenders and allot the Bonds to the highest bidder or bidders pro rata, according to the price offered. The sealed paper will only be opened in case the Minister of Finance declares that the whole amount has not been tendered at or above his minimum.

Neither Messrs. Baring, Brothers & Co., nor Messrs. Glyn, Mills, Currie & Co., will make any tender.

Upon allotment, a payment of 20 per cent will be required, and the subsequent instalments must be paid at the office of Messrs. Baring, Brothers & Co, or Messrs. Glyn, Mills, Currie & Co., or, in default, the previous payments will be forfeited.

25 per cent. on the 13th of October, 1868.

25 per cent. on the 12th January, 1869.

And the balance on 13th April, 1869.

Payment of these instalments may be made in full, on any of the above days, under discount at the then existing Bank of England minimum rate of discount.

Script receipts will be issued without delay, and Bonds of £1,000, £500 or £100, will be delivered in exchange as soon as practicable.

London, 18th July, 1868.

(Form of Guaranteed four per cent. Bond.)

CANADA.

Under the authority of an Act of the Parliament of Canada, passed on the 21st December, 1867, entitled: "An Act respecting the construction of the Intercolonial Railway," this Debenture entitles the bearer, on the 1st October, 1903, to the sum of

of lawful money of Great Britain, being part of the sum of £3,000,000 raised under the authority of the said Act, the said principal sum to be paid in London, at the Banking Houses of Messrs. Baring, Brothers & Co., and of Messrs. Glyn, Mills, Currie & Co., and to interest thereon, until repayment of the principal, at the rate of four per cent. per annum, payable half yearly, at the Banking Houses of Messrs. Baring Brothers & Co., and of Messrs. Glyn, Mills, Currie & Co., in the City of London, on presentation of the proper coupon for the same as hereunto annexed, namely, two per cent on the 1st April, and two per cent on the 1st October, in each year; the said principal sum, and the interest thereon, being charged on the Consolidated Revenue Fund of Canada, immediately after the charges specifically made thereon by sections 103, 104, and 105, of the British North America Act, 1867. And, whereas, under the authority of an Act of the Imperial Parliament of the United Kingdom of Great Britain and Ireland, passed in the 30th year of Her Majesty's Reign, chapter 16, the Commissioners of Her Majesty's Treasury are authorized to guarantee, in such manner and form as they think fit, payment of interest at a rate not exceeding four per cent. per annum on any principal money, not exceeding £3,000,000, to be raised by way of loan, by the Government of Canada, for the purpose of the construction of the Railway, and are further authorized to cause to be issued from time to time out of the Consolidated Fund of the United Kingdom, or the growing produce thereof, any money required for giving effect to such guarantee, and the said Commissioners of Her Majesty's Treasury having accordingly

guaranteed the due payment of such interest, such guarantee is testified, so far as relates to the interest on the amount of this Debenture, until payment thereof, by the signature hereto of the undersigned, duly appointed by the Warrant of the said Commissioners for such purpose.

(Form of Canada 5 per cent. Bond.)

DOMINION OF CANADA.

The Government of Canada hereby acknowledges to be indebted to the bearer in the sum of \_\_\_\_\_ pounds sterling, being part of the sum of £1,000,000 sterling, to be raised in virtue of an Act of the Parliament of Canada, passed on the 21st December, 1867, entitled, "An Act respecting the construction of the Intercolonial Railway," which sum the said Government undertakes to pay on the 1st October, 1903, at the offices of Messrs. Baring, Brothers & Co., and Messrs. Glyn, Mills, Currie & Co., in the City of London, in England, with interest, in the mean time, from the 1st July, 1868, at the rate of 5 per cent. per annum, such interest being payable half yearly, on the 1st days of October and April in each year, at the same place, on presentation of the proper coupons as hereunto annexed.

The principal and interest of the above sum are chargeable on the Consolidated Revenue Fund of Canada under the authority of the above Act, and a sum equal to 1 per cent of such principal sum will be set apart yearly, and invested for the redemption of such portion of the aforesaid loan as may be issued.

*Form of Tender for £1,500,000, Canada 4 per cent. Bonds guaranteed by the Imperial Government of the United Kingdom, and £500,000 Canada 5 per cent. Bonds.*

\_\_\_\_\_ hereby tender for a sum of £ \_\_\_\_\_ nominal capital, three-fourths in Canada 4 per cent. Guaranteed Bonds, and one-fourth in Canada 5 per cent Bonds at the price of \_\_\_\_\_ per cent, and \_\_\_\_\_ engage to accept the above sum, or any portion thereof which may be allotted to \_\_\_\_\_, and to pay the deposit thereon of 20 per cent., and the subsequent instalments as they become due, in conformity with the terms of your circular of the 18th instant.

London, July 1868.

Name.  
Address.

To Messrs. Baring, Brothers & Co.  
To Messrs. Glyn, Mills, Currie & Co.

TREASURY CHAMBERS, 15th July, 1868.

In the reply to this letter the following number should be quoted: 11.112-68. SIR,—I am directed by the Lords Commissioners of Her Majesty's Treasury to state, that the Chancellor of the Exchequer has laid before them the letter which you addressed to him on the 11th inst., on the subject of the loans to be raised by the Government of Canada for the purpose of the construction of a Railway connecting Quebec and Halifax, under the provisions of the Act 30 V., c. 16, together with the statement enclosed in your letter, shewing the substance of the terms and conditions on which it is proposed to raise the said loans (marked A), and also the form of Bond or Debenture (marked B), upon which it is suggested that the guarantee of Her Majesty's Government should be given for the payment of interest at the rate of 4 per cent. on a loan of £3,000,000, in accordance with the provisions of the aforesaid Act.

I am desired by my Lords to acquaint you that their Lordships have no objection to offer to the terms and conditions proposed for raising these loans in accordance with statement A (copy of which is enclosed); and that they are prepared to guarantee interest at the rate of 4 per cent. on a loan of £3,000,000, in accordance with the form of Bond or Debenture marked B, copy of which is also enclosed.

I am further to acquaint you that my Lords have appointed Mr. G. A. Hamilton, the permanent Secretary of this Board, to act for them, and in their name, for the purpose of guaranteeing the interest on the loan of £3,000,000, as provided by the before mentioned

Act. And I am to add that it will be necessary that each Bond or Debenture should be forwarded to this Department, in order that his signature may be affixed thereto.

I am, Sir,

Your obedient servant,

(Signed,)

G. SCLATER BOOTH.

A.

Issue of £1,500,000 Canada Bonds, bearing 4 per cent. interest, and guaranteed by the Imperial Government of Great Britain, under the authority of the Act of 30 Victoria, c. 16, being one moiety of the loan authorized by that Act, and of £500,000 five per cent. Bonds of the Government of Canada, being also a moiety of the loan of £1,000,000, authorized by the Act of the Parliament of Canada, passed on the 21st of December, 1867, for the construction of the Intercolonial Railway.

Messrs. Baring, Brothers & Co., and Messrs. Glyn, Mills, Currie & Co., are authorized by the Minister of Finance of the Dominion of Canada, to receive at the office of the former firm, No. 8 Bishopsgate Street within, on \_\_\_\_\_ between the hours of eleven and twelve o'clock of the day, sealed tenders for £1,500,000, Canada 4 per cent Bonds guaranteed by the Imperial Government of Great Britain, and to be repaid at the end of thirty-five years, say on 1st July, 1903, as per form of Bond annexed, and £500,000 Canada five per cent. Bonds of the form and tenor also annexed, and for which a Sinking Fund of one per cent. per annum will be provided. All these Bonds will bear interest from July, 1868, and the dividends will be payable half yearly, on \_\_\_\_\_ and of each year, as per dividend warrants.

The above mentioned sealed Tenders may be for the whole or part of £2,000,000, in the proportion of three-quarters of guaranteed Bonds, and one-quarter of ordinary five per cent. Canada Bonds, and no Tender will be admitted which does not comply with this condition.

The Minister of Finance of Canada will deliver to the partners present, of Messrs. Baring, Brothers & Co., and Messrs. Glyn, Mills, Currie & Co., a sealed paper containing the minimum price at which he will sell the above mentioned £2,000,000 Bonds, and those partners will then open the Tenders, and afterwards the Minister's sealed paper, and allot the Bonds to the highest bidder or bidders, *pro rata*, according to the price offered.

Neither Messrs. Baring, Brothers & Co., nor Messrs. Glyn, Mills, Currie & Co., will make any tender.

Upon allotment a payment of \_\_\_\_\_ per cent. will be required, and the subsequent instalments must be paid at the office of Messrs. Baring, Brothers & Co., or Messrs. Glyn, Mills, Currie & Co., as follows, or in default the previous payments will be forfeited.

Payment of these instalments may be made in full on any of the above days under discount, at the Bank of England minimum rate of discount.

Scrip Receipts will be issued without delay, and Bonds of £1,000—£500, or will be delivered in exchange as soon as practicable.

(Copy.)

London, July 16th.

Sir,—I have the honor to acknowledge receipt of your communication of the 15th instant, informing me by direction of the Lords Commissioners of Her Majesty's Treasury, that their Lordships have no objection to offer to the proposed mode of raising the loan for the construction of the Intercolonial Railway, and that they are prepared to guarantee interest on the sum of £3,000,000 sterling, in the manner stated in your letter, and that Mr. G. A. Hamilton, the permanent Secretary of the Board, has been appointed to sign the bonds when forwarded to the Department.

Permit me, in reply, to express my grateful acknowledgments, both on my own part, and on behalf of the Government of Canada, for the great courtesy and promptitude which the Chancellor of the Exchequer, and the Lords Commissioners, so kindly evinced in the course of the recent negotiations, and for their readiness to meet the wishes of the Government of Canada.

The Bonds will be forwarded in accordance with your instructions to the Secretary of the Treasury as soon as received from Canada through Messrs. Baring, Brothers & Co., and

Messrs. Glyn, Mills, Currie & Co., the Financial Agents of the Dominion, in England, and will be countersigned by one or other of those firms, in evidence of their genuineness.

I have the honor to be,

Your very obedient servant,

(Signed,) JOHN ROSE.

LONDON, July 18th, 1868.

Messrs. Baring, Brothers & Co. ;  
Messrs. Glyn, Mills, Currie & Co. :

GENTLEMEN,—Referring to the communications which have taken place between us during the last fortnight, on the subject of the Intercolonial Railway Loan, I have now the honor to enclose the copy of a letter from the Lords Commissioners of Her Majesty's Treasury, approving of the terms suggested in the course of our recent interviews, and of the form in which the guarantee of the Imperial Government shall be given.

I have, accordingly, to request that you will be good enough to take the necessary measures for placing the loan upon the market, in the terms stated in the enclosed draft of prospectus, and form of bond, attached thereto. The bonds themselves will be prepared in Canada, in such amounts as you may indicate, and will be transmitted to you with the least possible delay.

I should be glad to be apprised of the result of your views on the question of commission, which has been discussed between us, and which you informed me would not, in any case, exceed the customary charge for similar operations on behalf of other foreign governments, nor what, under the circumstances, would be a proper and reasonable remuneration for agency.

On the subject of investing the instalments that may be made, I have only to repeat the instructions already verbally expressed, that you will obtain the best rate of interest compatible with perfect security and immediate convertibility. The Indian Stock held as a Sinking Fund for the last instalments of the former loan on the Imperial Guarantee, may, I presume, be considered of that character, and I will be glad if you will make arrangements with Commissioners, in whose control it is, for the retention of that stock, by your paying the balance of the loan, on its maturity, out of the money to be raised by the present operation.

I have the honor to be, gentlemen,

Your most obedient servant,

(Signed,) JOHN ROSE,  
Minister of Finance, Canada.

LONDON, July 28th, 1868.

SIR,—We have delayed our reply to the letter, which you have done us the honor to address to us, under date of the 18th instant, until the conclusion of the negotiation of the loan for the Dominion of Canada, in order to reply at once more positively to its several contents, and you will allow us now to commence by congratulating you, and by expressing our own sincere satisfaction, on the result of the tenders on 23rd instant, which have proved to be so favorable to the interests and credit of your Government.

The conditions on which the loan was offered to the public, were in conformity with the official sanction of Her Majesty's Treasury, and with the instructions contained in your letter; and we observe with pleasure, that the greatest possible expedition will be insured for the transmission to us here of the necessary bonds from Canada, since for the satisfaction of the subscribers, it is most desirable that delay in their delivery should, as much as possible, be avoided.

With regard to the commission which our two firms will charge upon this operation, we are influenced, not only by the wishes for economy which you have personally expressed to us, but by our own desire to render the proceeds of the loan as advantageous as possible to the Dominion, in agreeing that a commission of one per cent. on the nominal amount, and not on the actual sum received, £20,000 between our two firms, should cover, not only our own remuneration for the agency, and responsibility of the transaction, but should also relieve the Government from all the incidental charges of legal expenses, advertisements, printing

here, and other petty disbursements, so that the only additional expense for which the Dominion will be liable, will be the stamp duty required by the British Government; and we shall charge no additional commission for any purchases of stock which we may be required to make for the future employment of the Sinking Fund. Without entering into details, we must add, that the commission we now charge is much below that usually adopted for the agency in the negotiation of any foreign loan.

We take note of our instructions, that we should obtain for the temporary employment of the money to be received by us, the best rate of interest compatible with perfect security, and immediate convertibility; but we regret that, in the present state of the money market, and consistently with these conditions, we cannot credit this account with a higher rate of interest than one per cent. per annum, whilst we assure you that we shall avail of any improvement in the value of money, to afford to the Government such increased advantages as opportunities may allow.

With regard to the Indian Securities to which you allude, they are not under our control, and we must await your further powers and instructions; but we take due note of your order to us to pay the balance, when due, of the former guaranteed loan of Canada, which will be regularly complied with.

It only remains with us to repeat the assurance of our anxiety to devote our services in every way to the advancement of the credit and prosperity of the Dominion of Canada, and to renew to you the expression of the personal respect with which

We have the honor to be, Sir,

Your most obedient servants,

(Signed,)

BARING, BROTHERS & Co.

“ GLYN, MILLS, CURRIE & Co.

Messrs. Baring Brothers & Co.;  
Messrs. Glyn, Mills, Currie & Co.:

LONDON, 29th July, 1868.

GENTLEMEN,—In acknowledging your letter of yesterday's date, in reply to mine of the 18th instant, permit to convey my cordial acknowledgments to your respective firms, for the satisfactory manner in which the recent operations connected with the Intercolonial Loan were carried out by you, and to say I feel assured the Government of Canada recognize in the anxiety you evinced to make it successful, a practical evidence of the interest which you express in the future prospects and credit of the Dominion.

I trust that the occasion which has arisen, of bringing its resources and character before the public, with your co-operation (on which I feel assured Canada may at all times rely), tend to place its securities and credit as high as those of the most favored nations.

The charge which you make for commission, which you propose shall cover not only your ordinary remuneration for the agency and responsibility of the transaction, but all incidental charges of legal expenses, advertising, printing here, and petty disbursements, is satisfactory, and I have to express my thanks for your consideration in waiving the important item of commission in connection with the future management of the Sinking Fund.

I note your assurance, that you will avail of any improvement in the value of money, to obtain for the Government such rate of interest as opportunity may allow. Meanwhile be pleased, out of the first instalments, to extinguish the amount standing at the debit of the Province, with your respective firms.

I have communicated with the Treasury, on the subject of the Indian Securities, and I will thank you to redeem the balance of the former loan at maturity, and to intimate to Her Majesty's Government, that you will be prepared to do so out of funds in deposit with you.

Will you be kind enough to furnish me with a list, under your signatures, of the bids for the loan, and also to apprise me, as soon as possible, of the number of bonds for the respective amounts of £1,000, £500, and £100, which you wish sent over.

I beg to thank you for the kind expressions at the close of your letter, and to acknowledge, very cordially, the uniform courtesy and kindness which you have extended to me in common with all my predecessors in official intercourse with you.

I have the honor to be, gentlemen,

Your obedient servant,

(Signed,)

JOHN ROSE,

Minister of Finance, Canada.

LIST OF TENDERS FOR INTERCOLONIAL LOAN.

	£	£ s. d.		£	£ s. d.		£	£ s. d.
1	10000	104 5 0	63	1600	100 0 0	132	2000	145 10 0
2	10000	104 2 6	64	10000	104 11 0	133	50000	103 5 0
3	300000	103 0 0	65	20000	102 11 0	134	3000	103 11 0
4	1250	102 15 0	66	10000	105 11 0	135	2000	103 10 0
5	400	104 0 0	67	10000	105 5 0	136	2000	103 10 0
6	2000	101 11 6	68	10000	103 5 0	137	30000	103 10 0
7	2000	103 2 6	69	20000	101 5 0	138	50000	102 0 0
8	2000	102 12 6	70	10000	104 5 0	139	2800	101 11 0
9	4000	104 7 6	71	20000	104 0 0	140	3000	101 6 0
10	4000	103 2 6	72	5000	101 0 0	141	5000	102 0 0
11	20000	104 16 0	73	5000	103 0 0	142	10000	103 0 0
12	2000	104 1 0	74	10000	104 5 0	143	50000	102 10 0
13	5000	104 6 0	75	1000	95 0 0	144	50000	104 3 0
14	2000	104 1 0	76	40000	104 2 6	145	38000	101 17 6
15	2000	104 1 0	77	40000	104 10 6	146	34000	102 15 6
16	2000	103 0 0	78	40000	105 6 0	147	19200	103 13 0
17	2000	102 0 0	79	40000	105 2 6	148	16800	103 11 6
18	2000	101 0 0	80	40000	105 7 6	149	4800	104 3 0
19	2000	105 1 0	81	1000	102 10 0	150	50000	104 3 0
20	75000	105 1 0	82	500	95 0 0	151	10000	104 17 6
21	100000	104 2 6	83	10000	104 10 0	152	4000	101 0 0
22	8000	105 6 0	84	16000	101 11 0	153	2000	103 0 0
23	4000	105 6 0	85	5000	101 11 0	154	2000	104 5 0
24	50000	105 1 0	86	4000	102 11 0	155	5000	103 3 0
25	38000	102 10 0	87	1000	102 11 0	156	10000	104 12 6
26	8000	105 3 0	88	4000	101 1 0	157	10000	105 1 3
27	4000	100 1 0	89	1000	101 2 6	158	10000	105 10 0
28	5000	104 2 6	90	4000	103 2 6	159	2000	104 1 0
29	3000	104 17 6	"	4000	104 11 0	160	10000	100 2 6
30	5000	103 2 6	91	10000	102 0 0	161	2000	105 15 0
31	25000	103 10 0	92	100000	104 2 6	162	2000	102 0 0
32	15000	104 0 0	93	20000	100 13 1	163	5000	104 15 0
33	25000	105 10 0	94	400	95 0 0	164	3000	106 5 0
34	5000	102 10 0	95	1200	104 15 0	165	20000	104 6 0
35	1000	102 11 6	96	1200	105 5 0	166	20000	104 13 0
36	4000	103 10 0	97	5000	102 0 0	167	10000	104 18 0
"	4000	103 0 0	98	400	104 0 0	168	10000	105 1 0
37	4000	105 0 0	99	4000	102 10 0	169	10000	105 6 0
"	4000	104 10 0	100	4000	102 12 6	170	3000	104 15 0
38	4000	104 0 0	101	3000	103 0 0	171	3000	104 10 0
"	400	100 5 0	102	5000	104 5 0	172	3000	104 5 0
39	800	102 10 0	103	5000	103 15 0	173	3000	104 0 0
40	49000	105 0 0	104	5000	103 10 0	174	3000	103 15 0
41	4000	103 0 0	105	5000	103 17 6	175	3000	103 15 0
42	4000	104 0 0	106	4000	102 10 0	176	3000	100 0 0
43	1000	102 10 0	107	4000	103 10 0	177	50000	105 2 6
44	6000	103 5 0	108	2000	104 0 0	178	2000	103 0 0
45	5000	103 11 0	109	100000	105 0 0	179	300	104 0 0
46	20000	104 7 6	110	400	106 0 0	180	500	103 0 0
47	3000	103 10 0	111	400	103 0 0	181	400	101 1 6
48	3000	104 10 0	112	600	101 0 0	182	6000	101 11 0
49	1000	103 2 6	113	5000	103 0 0	183	4000	103 0 0
50	1000	103 12 6	114	50000	105 0 0	184	10000	102 0 0
51	50000	103 18 0	115	250000	104 5 0	185	5000	105 1 0
52	5000	103 1 0	116	400	101 1 6	186	5000	104 11 0
53	5000	103 15 0	117	2000	92 0 0	187	5000	102 15 0
54	10000	104 5 0	118	6000	90 10 0	188	10000	103 3 6
55	5000	103 17 6	119	100000	103 15 0	189	9600	105 2 0
56	5000	103 15 0	120	4000	100 0 0	190	10000	103 11 0
57	9000	100 0 0	121	6000	97 0 0	191	8000	102 5 8
"	4000	100 5 0	122	4000	100 10 0	192	1000	105 5 0
58	4000	100 10 0	123	10000	103 0 0	193	1000	104 2 6
"	4000	100 15 0	124	2000	103 0 0	194	3000	103 3 0
"	4000	101 0 0	125	2000	102 0 0	195	5000	103 6 0
"	5000	103 12 6	126	800	104 0 0	196	5000	103 12 0
59	4000	104 5 8	127	500	95 0 0	197	5000	104 1 0
60	4000	105 5 0	128	100000	101 15 0	198	2000	105 0 0
61	1200	105 0 0	129	10000	101 10 0	199	10000	104 17 6
"	10000	103 17 6	130	10000	102 0 0	200	10000	105 5 0
62	10000	104 7 6	131	6000	101 10 0	201	20000	103 10 0

LIST of Tenders for Intercolonial Loan.—Continued.

	£	£ s. d.		£	£ s. d.		£	£ s. d.
202	50000	102 10 0	256	5000	105 2 6	310	20000	104 10 0
203	38000	102 10 0	257	10000	103 12 6	311	50000	103 13 6
204	5000	104 7 6	258	5000	104 2 6	312	20000	104 3 6
205	5000	104 2 6	259	25000	103 2 6	313	10000	105 3 6
206	5000	102 5 0	260	20000	101 2 6	314	4000	105 5 0
207	5000	103 5 0	261	10000	105 0 0	315	4000	105 17 6
208	150000	104 7 6	262	50000	104 1 6	316	10000	105 11 0
209	3000	95 12 6	263	60000	104 1 6	317	20000	104 11 6
210	10000	104 0 0	264	2000000	105 12 6	318	30000	103 16 6
211	60000	103 0 0	265	1000	104 10 0	319	30000	103 11 0
212	24000	102 10 0	266	4000	104 10 0	320	40000	103 7 0
213	20000	103 0 0	267	6000	103 10 0	321	50000	102 12 7
214	75000	103 11 0	268	2000	104 0 0	322	50000	101 2 0
215	75000	102 12 0	269	2000	105 10 0	323	50000	104 10 0
216	75000	102 4 0	270	20800	102 0 0	324	12000	101 2 0
217	10000	104 8 0	271	50000	102 10 0	325	20000	104 10 0
218	10000	104 16 0	272	10000	104 0 0	326	5000	104 3 9
219	6000	105 5 0	273	2000	105 1 6	327	10000	104 11 6
220	50000	105 6 0	274	400	105 7 6	328	10000	102 5 0
221	50000	104 13 0	275	25000	103 0 0	329	4000	104 17 6
222	100000	103 11 6	276	4000	104 0 0	330	5000	104 1 3
223	5000	100 0 0	277	4000	104 1 0	331	5000	103 10 0
224	12000	104 5 0	278	4000	105 1 0	332	10000	103 0 0
225	12000	103 15 0	279	4000	106 1 0		10000	103 10 0
226	1000	98 15 0	278	4000	104 1 0	"	10000	103 10 0
227	2000	101 5 0	"	2000	104 12 0	"	10000	103 15 0
"	2000	102 5 0	279	10000	103 10 6	"	10000	104 0 0
"	4000	102 15 0	280	100000	104 10 0	333	30000	104 10 0
"	2000	103 5 0	281	100000	104 0 0	334	30000	10 0 0
228	10000	96 5 0	282	400	103 0 0	335	30000	105 0 0
229	6000	102 5 0	283	135000	104 12 6	334	30000	106 10 0
230	6000	103 5 0	284	70000	104 2 6	315	4000	195 17 6
231	1000	104 16 0	285	75000	104 2 6	290	30000	106 1 6
232	8000	102 5 0	286	10000	105 1 3	277	4000	106 1 0
233	8000	103 5 0	287	25000	103 10 0	164	2800	106 5 0
234	20000	104 0 0	288	3000	102 10 0	161	2000	105 15 0
235	10000	104 6 6	289	2000	105 0 0	101	400	106 0 0
236	20000	104 1 3	290	30000	106 1 6			
237	6000	104 5 0	291	20000	103 15 0			
238	20000	104 10 0	292	5000	103 6 0		73200	
239	20000	104 10 6	293	3000	102 9 6		1926800	105 12 6
240	50000	105 6 0	294	5000	103 5 3			
241	10000	105 1 3	295	100000	105 6 0		2000000	
242	60000	105 2 6	296	100000	104 1 0		739650	
243	5000	104 16 0	297	130000	104 10 6		230200	
244	4000	103 0 0	298	6800	105 0 0		504300	
245	5000	104 3 9	299	10000	104 12 6		700500	
246	6000	105 6 6	300	50000	103 13 6		507600	
247	400	95 0 0	301	20000	104 3 6		236800	
248	5000	102 0 0	302	10000	105 3 6		918000	
249	20000	104 17 6	303	5000	102 10 0		643600	
250	800	104 7 6	304	6000	103 0 0		2552800	
251	400	105 1 0	305	5000	104 10 0		1004800	
252	7500	105 4 0	306	7000	103 8 9		211000	
253	20000	102 10 0	307	50000	105 2 0			
254	50000	104 0 0	308	50000	103 3 6			
255	20000	104 15 0	309	10000	103 15 0		8249250	

The above is a list of the tenders for the Canadian Intercolonial Railway Loan, received 23rd July, 1868.

(Signed,)

BARING, BROTHERS & Co.,  
GLYN, MILLS, CURRIE & Co.



## BANK OF MONTREAL,

MONTREAL, 12th June, 1868.

Hon. John Rose,  
Minister of Finance :

DEAR SIR,—I have to acknowledge the receipt of your letter of the 10th instant, referring to the heavy expenditures, on the part of the Government, pending the financial arrangements about to be made in London, and desiring a renewal of the loan from the bank of \$2,500,000, maturing on the 30th instant, say \$1,000,000 for three months, to mature 30th September; and \$1,500,000 for six months, to mature 31st December next.

The bank is quite ready to meet the wishes of the Government, and will renew its loan in the manner you propose.

You are correct in the estimate of \$500,000, available to the Government from the sales of Dominion Bonds, issued in connection with the export of American silver, as verbally reported, a sale of \$500,000 of bonds has been made to the Government of Ontario, and only awaits the sanction of an Order in Council from Toronto, to render the proceeds available to the Government of the Dominion.

An account is being prepared of the recent silver operations, which I hope to furnish to-morrow.

MONTREAL, 24th August, 1868.

DEAR SIR,—I should be glad to know what arrangements the Bank would be willing to make respecting the loan of two and one half millions of dollars, maturing on the 30th September and 31st December next, in case the Government should determine to anticipate the payment of any of the instalments.

It is probable that a considerable sum of money may be at the disposal of the Dominion, and I will thank you to say whether it will suit your arrangements to receive any, and what sum in deposit in excess of the debt due to the bank, and what rate of interest the bank would be willing to allow on such deposits.

I should likewise feel obliged by your stating whether arrangements can be made, so that a credit of £500,000 sterling can be available to the Government at such time within the next eighteen months, and in such sums as may be required for the purposes of the Intercolonial Railway.

In case the bank cannot meet the views of Government with reference to the repayment of the loan, or further deposits, I will thank you to say whether any arrangement can be made for the purchase of any, and what amount of Dominion Stock, and on what terms.

Your obedient servant,

(Signed,) JOHN ROSE.

E. H. King, Esq.,  
General Manager, Bank of Montreal,  
Montreal.

## BANK OF MONTREAL,

MONTREAL, 25th August, 1868.

Hon. John Rose,  
Minister of Finance, Ottawa :

DEAR SIR,—I beg to acknowledge your letter of 24th instant. In the present state of the money market, the bank can find no profitable employment for the large sum of \$2,500,000, and it would much prefer that the loans, maturing for that amount, should remain undisturbed until maturity.

The Directors request me to say, however, that if it will be any advantage to the Government, to deposit the sum of \$2,500,000, with the understanding that it is to be supplied in payment of the loans at their maturity, the bank will allow interest thereon, at the rate of 4 per cent. per annum. And with reference to the enquiry whether an available credit for a similar amount, on say £500,000 sterling, can be arranged, I am desired to reply, that the Directors will be quite willing, and entertain no doubt of their ability to make

advances to the Government to that extent, within the next eighteen months, if required, for the purpose of the Intercolonial Railway.

With respect to any further deposits of money, the Directors are compelled to decline them at present, as they can see no outlet for their profitable employment, and in response to your last enquiry, they would suggest that such moneys be invested in the purchase of Dominion Stock, which can probably be obtained at a small discount, to the extent of £500,000. This would be a more advantageous than the present arrangement for the Government, and if there be no objection to the redemption of what is now a permanent loan, at 6 per cent. per annum, the Directors would prefer to see a portion of the money intended for the repayment of their loan, employed for that purpose, rather than in deposit with the bank, under present circumstances.

I remain, Dear Sir,

Yours truly,

(Signed,)

E. H. KING,  
General Manager.

OTTAWA, 25th August, 1868.

DEAR SIR,—I have to acknowledge your letter of the 25th instant, in reply to mine of the 24th.

The terms you name, with reference to the deposit of the \$2,500,000, and the application of that sum to the repayment of the bank loan, are satisfactory; and I have to express my acknowledgment to the bank for its readiness to meet the wishes of the Government, as well in that matter as in granting the credit of £500,000, referred to in my letter.

The available bank balances in Canada will be required to meet maturing bonds and other engagements of the Government here, and payment of the \$2,500,000 will have to be made by exchange on our London Agents.

I am apprehensive of the effect, which throwing so large an amount of exchange on the market would have on the rate; and I will feel obliged by your favoring me with your opinion as to the quantity which the market here could absorb without causing a decline, and also on the expediency of having the bills drawn against a credit authorized by the Government, in London, rather than by the Receiver General himself.

I will further thank you to say, what arrangements the bank would be willing to make itself, for having the money available, and placed to the credit of the Government here.

I do not think, that, for the present, I am in a position, under the circumstances of the contemplated arrangement, to negotiate for the purchase of the Dominion Stock.

Thanking you for the promptitude with which you have acted on my former communications, and awaiting your early reply to this letter,

I am, Dear Sir,

Yours faithfully,

(Signed,)

JOHN ROSE.

E. H. King, Esq.,  
General Manager, Bank of Montreal,  
Montreal.

BANK OF MONTREAL,

MONTREAL, 25th August, 1868.

Hon. John Rose,

Minister of Finance:

DEAR SIR,—I have to acknowledge your letter of this date, there can be no doubt that the sale of £500,000, sterling, would cause a decline in the exchange market. So far as the local market is concerned, it would assist you but little. It would not absorb more than £20,000 to £25,000 per week, for cash sales, and not even that without a concession on the rate, which approximates, for such sales, very close to that of New York. You would also find Commissariat bills competing with yours in the market, before you had sold any considerable amount.

I am satisfied that it is not advisable for the Government to draw their own bills for

sale in New York. Their appearance would at once give rise to the impression, Government was drawing very heavily against the Intercolonial Railway Loan, and this would immediately cause a decline in the market. To avoid this, I think it would be more for your advantage to use our bills of exchange, paying our English bank commission, and the stamps we require to affix. If this were done, the bank would undertake the sale of the bills through its agents in New York, at the rate of £100,000 per week, charging a commission of one-quarter of one per cent., which would cover the remittance of the funds to the credit of the Government at Ottawa, without further charge.

The highest class of bills can be bought in New York to-day, according to my latest telegrams, at  $9\frac{1}{2}$  per cent. premium, and you might limit our sales, for your account, to that, or such lesser rate, as you think advisable. It would doubtless be more for the advantage of the Government, if the whole £500,000 sterling could be disposed of in one sale, at a fair rate, inasmuch as it would give you the benefit of interest immediately.

I am unwilling that the bank should take any risk of loss, by decline of the market, and I don't think it could be considered entirely safe in making an offer for such a sum, even with a margin of one-half of one per cent. in the rate exclusive of English commission; this would make the rate, based upon to-day's quotations,  $8\frac{1}{2}$  per cent. premium, net, for the funds in Canada.

If the Government should be disposed to accept the rate, I shall submit to the Directors; but I shall be more pleased, so far as the bank is concerned, if you elect to take the chances of the market, and direct us to sell for your account.

I remain, Dear Sir,

Yours truly,

(Signed,)

E. H. KING,

General Manager.

P.S.—Since the above was written, I have lower quotations from New York, and I wish my suggestion, as to the bank purchasing the whole amount, to be understood as contingent on present rates.

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*Telegram sent by the Honorable the Minister of Finance to E. H. King, Esq., General Manager, Bank of Montreal, 25th August, 1868.*

Bank to sell one-half on commission; and for other half, Government will accept your rate; sales of your own, and Government Exchange, to be "*pari passu*." Will it not answer if Baring and Glyn deposit money in Union Bank to your credit.

Any commission or stamps saved by that course, Government will expect to be allowed. Telegraph, if possible, to-night, whether that course will answer, or whether bills shall still be sent.

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*Telegrams sent by the Honorable the Minister of Finance to E. H. King, Esq., General Manager, Bank of Montreal.*

27th August, 1868.

E. H. King, Esq.,  
B. of M. :

Letters to Baring and Glyn, sent you by post to-day, directing them to place Five hundred thousand at your disposal, when required.

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28th August, 1868.

E. H. King, Esq.,  
Montreal. :

Letter and telegram received, and quite satisfactory. Leave operations to-day and to-morrow, to your discretion; will approve sales you make.

Have sent copy instructions direct, Baring and Glyn. Please give them a few days' notice of any large withdrawals.

1st September, 1868.

E. H. King, Esq.,  
Montreal :

Exercise discretion as to sale of exchange to-day ; cannot leave till Wednesday.

10th September, 1868.

E. H. King, Esq.,  
Agency Bank of Montreal,  
William Street, New York :

Inclined to realize even at fraction under, unless you would advise holding.

(Signed,) JOHN ROSE.

*Telegrams received by the Honorable the Minister of Finance from E. H. King, Esq.,  
General Manager, Bank of Montreal.*

August 26th, 1868.

12.15 a.m. Montreal.

Hon. John Rose :

Rate has fallen to-day ; will answer fully in the morning, when New York telegram comes in.

E. H. KING.

MONTREAL, August 27th, 1868.

Hon. John Rose.

New York quotation is lower than my calculations, but we will carry out transactions ; do you send bills or letter as suggested this morning.

E. H. KING.

MONTREAL, August 27th, 1868.

Hon. John Rose :

We pay same English commission for deposits on bills, but if you will send me official letters addressed to each agent, requesting payment of respective sums, as I may direct, it will save English stamps, and give us some interest, which we will allow to Government ; send either letters or bills this mail. New York telegram not yet to hand ; will advise you at once if it interferes with proposed arrangement.

E. H. KING.

MONTREAL, August 28th, 1868.

Hon. John Rose :

Following telegram just received from New York agent : Eight seven-eighths ( $8\frac{7}{8}$ ). Serious decline apprehended. No demand.

E. H. KING.

MONTREAL, August 28th, 1868.

Hon. John Rose :

Message received. Have telegraphed, New York, to sell fifty at eight seven-eighths ( $8\frac{7}{8}$ ), or better; will not reduce the limit without your instructions.

E. H. KING.

MONTREAL, August 28th, 1868.

Hon. John Rose :

Rate in New York to-day, weak at nine. Please fix rate for Government. Will do better than your limit if possible.

E. H. KING.

MONTREAL, September 9, 1868.

Hon. John Rose :

Market very heavy; must take less than nine (9) for large amounts; will you give me limit, or postpone sales.

E. H. KING.

*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 27th of August, 1868.*

The Committee have had under consideration the annexed memorandum of the Honorable the Minister of Finance, reporting for Your Excellency's information, the proceedings adopted by him whilst recently in England, for the negotiation of the Intercolonial Railway Loan, and the arrangements entered into with the Financial Agents of the Dominion, in London, in relation thereto, and they respectfully report their concurrence in the measures so adopted by the Finance Minister, and submit the same for Your Excellency's sanction.

(Certified,) W. H. LEE,  
Clerk, P.C.

The undersigned has the honor to submit for the information of His Excellency the Governor General, the following report of his proceedings in England, on the subject of the Intercolonial Railway Loan: It was important that the preliminary arrangements with Her Majesty's Government, should be made without delay, in order that advantage might be taken of the unusually favorable state of the money market, and that the loan should be placed before the Summer holidays, as well as previous to certain anticipated loans by the Governments of France, Egypt, and Sweden.

Communication was, accordingly, immediately had with His Grace the Duke of Buckingham and Chandos, for the purpose of obtaining the requisite assent to the sufficiency of the legislation here, and of having that assent conveyed to the Chancellor of the Exchequer and the Lords Commissioners of Her Majesty's Treasury.

Copies of the correspondence which took place, are herewith submitted.

After full discussion with Messrs. Baring, Brothers, and Messrs. Glyn, Mills, Currie & Co., the Financial Agents, it was considered proper to offer the loan on the terms stated on the accompanying prospectus, which terms were accordingly communicated to the Chancellor of the Exchequer and the Lords Commissioners of the Treasury.

The approval of the Secretary of State for the Colonies having been obtained, the general conditions, and the terms of the proposed bond, were discussed at a meeting with His Grace, the Colonial Secretary, the Chancellor of the Exchequer, and the Secretary of the Treasury, at which Mr. Baring and Mr. Glyn were present, and these terms were finally settled.

The correspondence on that subject is annexed to this report. Every publicity was given by advertisement, through the press, and otherwise, respecting the loan.

The minimum price was settled by the undersigned, and placed in a sealed paper in the

hands of the Financial Agents, in the presence of the bidders for the loan, but was not communicated to any one.

The sealed tenders (in number 335) were opened by the Financial Agents, in the presence of the parties tendering. A schedule of those bids is herewith submitted.

Letters dated London, A good deal of communication took place on the subject of the J. Rose to Baring Bros. commission to be charged by the Financial agents. The result of those and Glyn, Mills & Co., communications will be found in the correspondence entered in the 18th July, 1868.

Reply dated 28 July. margin.

Reply dated 29 July.

The undersigned thinks it right to acknowledge the exertion made by the Financial Agents to place the loan on the most advantageous terms possible, and to say that he believes the arrangements touching the commission, and management of the Sinking Fund, are more favorable to Canada, than are ordinarily accorded by London Agents to foreign Governments, on like operations.

He cannot close this report without mentioning the courtesy and ready assistance which were on all occasions extended to him by His Grace, the Secretary of State for the Colonies, the Chancellor of the Exchequer, and by the Lords Commissioners of Her Majesty's Treasury.

But for the facilities which were at all times so kindly afforded, it might have been difficult to have placed the loan on the market during the present season.

(Signed,)

JOHN ROSE,

Minister of Finance.

Ottawa, 14th August, 1868.

*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General, in Council, on the 27th August, 1868.*

The Committee have had under consideration the annexed memorandum from the Honorable the Minister of Finance, submitting for consideration and approval, certain arrangements which he suggests should be made in view of the exceptional state of the financial affairs of the Dominion, and reporting the measures he has adopted in reference thereto.

The Committee advise that the action taken by the Minister of Finance be approved; and further, that the balance due to the Financial Agents in London be paid out of the amounts on deposit with them; that the maturing bonds, and other engagements mentioned in the memorandum of the Finance Minister, be paid, and that his recommendation, as to the issue of Exchequer Bills or Bonds be carried into effect through the Treasury Board, in such form as may be deemed expedient; and finally, that the Finance Minister be authorized to carry out his suggestion with reference to Exchange, in such manner as he may deem most advantageous.

(Certified,)

W. H. LEE,

Clerk, P.C.

The undersigned has the honor to submit a statement of the amount deposited on account of the Intercolonial Loan, together with the other balances available to the Government in the banks here, amounting in the aggregate to about \$6,200,000, accompanied with a statement of the engagements which the Dominion has to meet at an early day.

The loan of two and one-half millions of dollars from the Bank of Montreal, and the bonds amounting to \$880,000, issued in 1866, both bear 7 per cent. interest, while the amount payable to Ontario, bears five per cent.

The balance on the account of the Financial Agents in London also bears five per cent. interest.

These Agents report that they are unable at the present moment to obtain in England, more than one per cent. per annum on the sum in their hands. It is obvious, therefore, that, unless other employment can temporarily be found for the money, a serious loss of interest may take place, for the Dominion is paying at the rate of 7 per cent. interest on all its old current loans, four per cent. on three-fourths, and five per cent. on one-fourth of the Intercolonial Loan, and five per cent. to Ontario, and a like rate on any balance due the Fiscal Agents in London.

The Minister of Finance begs to bring under the notice of His Excellency in Council, the following suggestion, by which it is sought to accomplish the double purpose of finding such employment for the money, as will avert a serious loss to the Dominion, in the way of interest, and at the same time provide, beyond all possible eventuality, for having the Intercolonial money immediately available whenever it may be required for the prosecution of the work.

The credit with Messrs. Baring and Glyn, which the Dominion may avail of, to the extent of £250,000 sterling, he proposes shall be specially used if need be, to recoup any portion of the Intercolonial money that may now be invested in any interest-bearing securities, issued for the reduction of such Dominion liabilities, as bear a high rate of interest, and the Bank of Montreal have agreed to grant a further credit for the like purposes of the Intercolonial Railway, to the extent of £500,000 sterling.

He suggests further, in addition to these special credits provided for recouping the Intercolonial Loan, that Exchequer Bills of the Dominion, bearing a like rate of interest as is payable on that loan, be prepared; that these Exchequer Bills shall be receivable in payment of all dues to the Government, and be placed in the hands of the Receiver General, as Trustee for the Intercolonial Fund, and not be issued by him unless needed for that work.

There will thus be available, for recouping the Intercolonial Fund, apart from the general resources of the Dominion, the special credits of the Financial Agents and of the Bank of Montreal, and Exchequer Bills convertible at any moment, as they are receivable in payment of public dues, at short date.

Although the undersigned does not contemplate the probability of any occasion arising, which will render it necessary for the Dominion to avail itself of any of these special means provided for replacing the Intercolonial Fund, and although, under ordinary circumstances, the surplus revenues of the Dominion, and the incomings from good debts actually due to it from Savings' Banks deposits, and the issue of Dominion stock to Insurance Companies and the public, as demand for it may arise, might be relied on to meet the payments on the works, according to their progress; yet in view of the circumstances attending the issue of the Intercolonial Loan, he is of opinion that the special provisions before suggested, should be supplied before even a temporary use of any portion of the fund is made.

If Council deem it expedient to invest any portion of the Intercolonial money in such way as to reduce the interest payable by the Dominion, it will be necessary to bring the funds now in deposit with the London Financial Agents, to Canada.

In anticipation of the possibility of that operation the undersigned had informal communication with the Bank of Montreal, the substance of which is contained in the correspondence and telegrams herewith submitted.

It will be seen that the Bank is willing either to sell the Bills of Exchange of the Government for a Brokerage, and place the proceeds to the credit of the Dominion at Ottawa, or themselves to purchase the Exchange at the rate specified in the Manager's letter placing the proceeds to the credit of the Government at once to bear four per cent interest.

The undersigned has considered the propriety, first of importing gold from England, and secondly of asking public tenders for Bills of Exchange. In the former way the money could not be laid down here except at a considerable loss as compared with the present quoted rates of Exchange in New York, and if the latter course were adopted he believes it would lead to a serious decline in the rates as well in Canada as in New York. He is of opinion that the same result would follow if the Government were to offer its own Bills drawn on the Financial agents in London, for sale through any Broker, or through the agency of the Bank of Montreal, and he thinks it would be for the interest of the Government to allow the Bills of the Bank of Montreal on the Union Bank of London, its agents there, to be used. This course will subject the Government to the payment of a Brokerage to the Bank of Montreal on the sale of the Bills in New York and the transfer of the funds thence to Canada, as well as to the cost of recouping that institution for the commission it may have to pay to its London Agents on their acceptance and payment of the Bills it may draw. But he considers it probable that the cost to the Government of that plan would be less than the loss which would be occasioned by the decline in the rate of Exchange were the Government to draw its own Bills on Messrs. Baring and Glyn.

From the best information within his reach the undersigned is inclined to the opinion that the price of Exchange is less likely to rise than to decline for some time to come.

The present demand for American securities in Europe, the probable heavy export of grain and other products in the Autumn, the prospect of a considerable Cotton crop, and the light Fall importations into Canada, are among the causes which prompt this belief, and he thinks it improbable that the Government would gain as much by waiting for a rise, as it would lose in the way of interest which the deposit of money on the sale of the Bills would otherwise give. He therefore submits, for the consideration of Council, the expediency of realizing the exchange as expeditiously as practicable in New York, and placing the amount at four per cent interest.

But in view of the impossibility of making any certain calculations with reference to the result, and in order that the Government may have the advantage of any rise in Exchange, and at the same time place a considerable sum at once at interest, he proposes:—

- 1st. That the offer of the Bank to purchase, at the rate specified in Mr. King's letter, be accepted as to the half of the £500,000 sterling only.
- 2nd. That the other half be sold by the Bank on Commission on the terms stated by him, either *pari passu* with the purchased half, or at a minimum rate to be fixed from day to day by the Government when apprised of the daily quotations in New York.
- 3rd. That the sum of £500,000 be placed by the Financial Agents in London at the disposal of the Bank of Montreal, by letter of instruction to that effect, to meet the drafts of the Bank, and on the understanding that if the payment of stamps and commission to the Bank Agents is thereby avoided, these charges will be allowed to the Government.

(Signed,)

JOHN ROSE,  
Minister of Finance.

Ottawa, 27th August, 1868.

Approximate.

*A Statement of the Engagements which the Dominion has to meet at an early date.*

	\$	cts.
Amount of Loan due to the Province of Ontario .....	500,000	00
“ payable to do., on 30th September, on account of Subsidy.....	300,000	00
“ for redemption of 7 per cent. Debentures, due 1st September.....	887,000	00
“ of Loans per Bank of Montreal, due on 30th September.....	\$1,000,000	
“ Do., 31st December.....	1,500,000	
	2,500,000	00
“ payable on account of Nova Scotia and New Brunswick, on account of works.....	700,000	00
“ balances due to Financial Agents in London.....	973,333	00
Total.....	\$ 5,860,333	00

Finance Department,  
Ottawa, August 27th, 1868.

Approximate.

*A Statement of the amount Deposited on account of the Intercolonial Loan, together with other balances available to the Government.*

	\$	cts.
Deposits on account Intercolonial Loan.....	2,000,000	00
Balances in Banks in Canada.....	1,200,000	00
Instalments on account—		
Intercolonial Loan payable in October.....	2,500,000	00
Bank balance on account of silver.....	500,000	00
Total.....	\$ 6,200,000	00

Finance Department,  
Ottawa, 27th August, 1868.



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# RETURN

To an ORDER OF THE HOUSE OF COMMONS, dated 3rd May, 1869; for Copies of Tenders received for the Construction of the Intercolonial Railway, with Schedules of prices attached; the names of sureties, and copies of contracts, and all correspondence between the Government and the Railway Commissioners, concerning such contracts.

By command.

HECTOR L. LANGEVIN,  
Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE,  
Ottawa, 19th May, 1869.

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INTERCOLONIAL RAILWAY COMMISSIONERS' OFFICE,

*Ottawa, 19th May, 1869.*

SIR,—Referring to Order of the House of Commons, of date 3rd May, 1869, I beg to hand you herewith Copies of Tenders received for the construction of Sections 1 to 7 inclusive, of the Intercolonial Railway. These copies show the Schedule of prices, and also the names of the sureties offered.

Also, copies of Contracts for the said Sections; and copies of Reports of the Commissioners to the Honorable the Privy Council, with copies of Reports of the Privy Council, both on the subject of these Contracts. These Reports constitute the "Correspondence between the Government and the Railway Commissioners concerning such Contracts."

I have the honor to be,

Sir,

Your most obedient servant,

C. S. ROSS,  
*Secretary.*

The Honorable  
The Secretary of State,  
Ottawa.

INTERCOLONIAL SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
1	<i>Onuphe Peltier</i> ..... Charles Bertrand, Jean Langlois.	280,000 00	14,000 00	124 00	9 30	1 25	0 24	34 00	2 50	9 00
4	<i>Adolphe Cimon</i> ..... Jean Langlois, Charles Bertrand.	260,000 00	13,000 00	120 00	9 20	1 20	0 22	33 00	2 30	9 00
5	<i>A. F. Macdonald,</i> ..... M. McLennan, James Craig.	242,000 00	12,100 00	45 00	14 00	0 90	0 23	12 00	2 00	15 00
8	<i>Ryan, Cuillier &amp; Co.</i> ..... William McNaughton, John Donnelly Beth.	304,000 00	15,200 00	50 00	10 00	1 50	0 33	40 00	4 50	20 00
13	<i>Jones, Cooke &amp; Co.</i> ..... N. C. Ford, O. Ford Jones.	248,000 00	12,400 00	100 00	10 00	1 40	0 26	40 00	5 50	15 00
16	<i>Henry Simmon</i> ..... Dacres W. Hart, James Weyms.	460,000 00	23,000 00	50 00	11 00	1 50	0 30	30 00	4 00	10 00
19	<i>W. J. Johnstone</i> ..... Hon. A. B. Foster, Hon. J. J. C. Abbott.	468,340 00	23,417 00	40 00	12 00	1 50	0 32	30 00	4 00	11 00
27	<i>A. S. Brown</i> ..... John Bell, James Brown.	350,000 00	17,500 00	115 00	13 00	1 30	0 30	30 00	3 50	16 00
31	<i>John Steacy</i> ..... Wm. Stewart, James Stewart.	370,000 00	18,500 00	120 00	14 00	1 30	0 30	40 00	3 50	17 00
35	<i>Henry J. Friel and</i> } <i>Cornelius Daly,</i> } ..... John Richard Casselman, Daniel O'Connor.	700,000 00	35,000 00	560 00	45 00	1 25	0 28	42 00	3 50	20 00
36	<i>Andrew Elliott and</i> } <i>Malcolm Cameron,</i> } ..... The Hon. Alexander Vidal, Geo. E. Desbarats.	239,488 88	11,975 45	30 00	15 00	1 25	0 34½	15 00	3 00	13 00
42	<i>John A. Cameron</i> ..... N. J. McGillivray, C. C. Snowdon, A. Campbell.	259,000 00	12,950 00	50 00	10 00	1 00	0 30	12 00	2 00	9 00
44	<i>William Guest</i> ..... T. B. Guest, William McIntosh.	320,000 00	16,000 00	80 00	11 00	1 25	0 35	35 00	5 00	15 00

RAILWAY TENDERS.

No 1.

OF PRICES.

Plank, Pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
24 00	7 00	11 00	17 00	32 00	44 00	05	0 11	6 00	16 50	16 00	9 00	8 00	5 00	7 00
24 00	6 50	10 80	16 75	30 00	40 00	04½	0 10	5 00	16 00	15 20	8 00	7 20	5 00	6 00
18 00	8 00	10 00	18 00	20 00	18 00	08	0 12½	4 00	10 00	9 00	8 00	6 00	4 00	2 00
30 00	12 00	18 00	20 00	30 00	45 00	07	0 15	5 00	16 00	15 00	13 00	12 00	6 00	6 00
20 00	8 00	10 00	15 00	30 00	0 50	05	0 08	6 00	15 00	12 00	10 00	9 00	7 00	7 00
18 00	6 00	13 00	17 00	22 00	50 00	04	0 08	4 00	18 00	17 00	12 00	10 00	5 00	4 00
18 00	8 00	14 00	18 00	22 00	50 00	04	0 08	4 00	18 00	17 00	14 00	13 00	5 50	4 50
21 00	9 00	11 00	14 00	20 00	45 00	07	0 14	5 00	18 00	17 00	12 00	11 00	8 00	5 00
25 00	10 00	12 00	18 00	25 00	50 00	07	0 15	5 00	18 00	17 00	12 00	11 00	10 00	7 00
40 00	20 00	30 00	40 00	40 00	38 00	10	0 25	3 50	12 00	8 50	9 00	8 00	5 00	5 00
18 00	5 00	8 00	14 00	18 50	55 00	04½	0 12½	5 00	11 25	10 00	7 50	6 25	5 75	5 00
12 00	12 00	15 00	18 00	20 00	40 00	05	0 10	4 00	12 00	11 00	10 00	9 00	6 00	3 00
20 00	7 00	10 00	13 00	18 00	0 60	04	0 08	3 50	15 00	13 00	13 00	10 00	5 00	7 00

INTERCOLONIAL

SECTION

No.	NAMES OF TENDERERS AND SURETIES.	SCHEDULE																	
		Gross Amount.		Amount per Mile.		Clearing, cutting & grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B. M.							
		\$	cts.	\$	cts.								\$	cts.	\$	cts.	\$	cts.	
46	T. B. Guest..... Hiram Guest, J. W. Guest.	380,000	00	19,000	00	120	00	12	00	1	50	0	40	50	00	6	00	17	00
51	Robert James Reekie and } Victor Hudon. Messrs. P. Redpath and Drummond, Messrs. Hudon and Plamondon.	220,000	00	11,000	00	60	00	7	25	1	00	0	26	20	00	1	00	15	00
52	Duncan Macdonald..... Morland, Watson & Co., Pierre Hudon.	216,000	00	10,800	00	60	00	7	25	1	00	0	25	20	00	1	00	15	00
54	Geo. Worthington and } James Worthington. } ..... Cash deposit or convertible securities, or individual names.	189,700	00	9,485	00	64	00	10	00	0	90	0	21	6	60	3	50	12	00
58	Nich. Piten and } E. Dussault. } ..... James Gibson, Etienne Dussault, George Couture.	291,914	00	14,595	70	40	00	6	50	0	90	0	25	26	50	1	50	10	00
60	George Leveque ..... Hon. E. Dionne, Messrs. A. Hamel and Frères.	300,000	00	15,000	00	60	00	10	00	1	25	0	22½	40	00	1	50	10	00
62	John Elliot, } Robert Grant and } ..... Charles Grant, James Weyms, J. B. Rasey, W. H. Scott.	199,995	00	9,995	00	125	00	11	00	1	25	0	30	25	00	3	00	17	00
66	Thomas Fahey & Co..... Geo. Coté, Patrick Fahey.	265,000	00	13,250	00	65	00	12	00	1	25	0	25	60	00	3	50	9	00
73	A. Hamel & Co..... F. Dionne, C. Marcotte.	318,000	00	15,900	00	80	00	12	75	1	40	0	27	40	00	3	00	9	50
77	R. H. McGreevy & Co..... John Henry, James Warnock.	337,800	00	16,890	00	75	00	13	00	1	45	0	30	35	00	2	50	10	00
79	J. S. Fosburgh ..... Schuyler Shibley, John Shibley.	238,500	00	11,925	00	60	00	9	00	1	25	0	27	5	00	1	30	10	00

RAILWAY TENDERS.

No. 1.—Continued.

OF PRICES.

Plank, Pine, per 1000 feet, B. M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Pieces not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Faving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
25 00	8 00	11 00	13 00	18 00	70 00	05	0 09	4 50	16 00	14 00	14 00	11 00	6 00	9 00
17 50	15 00	20 00	25 00	40 00	40 00	08	0 10	5 00	15 00	13 00	12 00	8 00	6 00	10 00*
17 50	15 00	20 00	25 00	40 00	40 00	08	0 10	5 00	15 00	13 00	12 00	8 00	6 00	10 00*
15 00	8 00	12 00	16 00	20 00	33 00	05	0 10	4 50	8 50	8 00	7 50	7 00	4 00	10 00
15 00	4 00	5 50	7 00	20 00	40 00	05	0 09	2 30	12 00	11 00	8 50	6 00	4 00	5 50
18 00	8 00	12 00	16 00	20 00	50 00	06	0 11	4 50	15 00	13 50	8 00	6 00	5 00	6 00
40 00	12 00	14 00	18 00	20 00	40 00	07	0 12	5 00	16 00	15 00	12 00	11 00	9 00	8 00
18 00	10 00	11 50	15 00	25 00	40 00	04	0 12	4 00	14 50	13 25	8 00	7 50	5 00	6 00
20 00	10 00	12 00	14 00	21 00	50 00	04½	0 13	4 50	15 00	14 00	9 00	8 00	5 00	4 00
19 00	9 00	11 00	13 00	22 00	35 00	05½	0 12½	5 00	16 00	14 50	9 75	8 50	6 00	7 00
12 00	5 00	10 00	13 00	20 00	45 00	07	0 15	5 00	20 00	18 00	17 00	15 00	6 00	2 00

\* Stones to dimensions.

INTERCOLONIAL

SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE							
				Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.	
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.	
81	Terence McGivern..... Albert Wright, J. H. Pope, M.P.P.	244,000 00	12,200 00	55 00	9 20	1 30	0 29	5 10	1 50	12 00	
87	J. Hatch ..... W. W. Scott.	375,000 00	18,750 00	85 00	12 00	1 50	0 37	50 00	1 50	10 00	
89	S. S. Lagier ... .. Hon. Robert Read, James Brown, M.P.	370,000 00	18,500 00	150 00	3 00	2 50	0 65	45 00	2 00	20 00	
93	Geo. Randall.....	630,000 00	26,600 00	50 00	9 00	1 25	0 31	10 00	3 00	12 00	
95	Augt. Trepanier..... Victor Belanger, Felix Motard.	300,000 00	15,000 00	100 00	12 00	1 50	0 25	40 00	1 25	6 00	
97	Guillaume Charland..... John Ross, Frank Ross.	395,000 00	19,750 00	120 00	15 00	1 45	0 39	60 00	1 50	10 00	
98	Simon Peters..... Chas. Samson, J. K. Boswell.	384,344 00	19,217 20	100 00	14 00	1 50	0 33	50 00	1 50	10 00	
100	Augustin Mathieu and } Joseph Julien, } John Ross, Frank Ross.	340,000 00	17,000 00	150 00	12 00	1 25	0 30	60 00	2 50	8 00	
103	Edward Ware, } Alfred Hamel and } Alexander Sewell, } Rev. E. W. Sewell, Ed. Zéphirin Boudreau.	355,400 00	17,770 00	30 00	10 50	1 50	0 30	25 00	2 70	20 00	
105	Walter Kerr..... John K. Weir, Hebron Harris.	323,240 00	16,162 00	40 00	10 50	1 20	0 38	60 00	4 00	13 00	
118	Pierre Dumontier ... .. George Couture, Louis Carrier.	350,000 00	17,500 00	80 00	12 00	1 25	0 30	35 00	1 50	8 00	
121	Antoine Pampolin..... Geo. Couture, Louis Carrier.	400,000 00	20,000 00	90 00	13 00	1 40	0 33	43 00	1 50	10 00	
122	Jacques, Jobin & Co..... George Couture, Louis Carrier.	425,443 00	21,272 00	100 00	14 50	1 50	0 35	45 09	1 75	9 50	
124	J. & G. Jackson..... Thomas W. Walsh, Col. David Tisdale.	400,000 00	20,000 00	225 00	10 00	1 00	0 30	20 00	2 50	8 00	

RAILWAY TENDERS.

No. 1.—Continued.

OF PRICES.

Plank, Pine, per 1000 feet, E. M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
16 00	4 70	6 00	9 00	12 00	50 00	07	0 16	5 25	20 00	17 00	18 00	14 00	6 00	2 25
20 00	8 00	10 00	14 00	18 00	50 00	06	0 12½	4 50	13 50	12 25	7 00	6 25	5 00	6 00
25 00	20 00	25 00	30 00	40 00	50 00	10	0 20	3 00	8 00	7 00	6 00	5 00	3 00	1 50
14 00	7 00	10 00	15 00	28 00	100 00	05	0 12	8 00	16 00	15 00	11 00	10 00	6 00	4 00
15 00	7 00	10 00	13 00	15 00	40 00	05	0 10	4 00	11 50	10 00	6 00	5 00	4 00	5 00
20 00	7 00	11 00	15 00	20 00	75 00	06½	0 12	4 75	14 40	13 40	8 60	6 60	5 60	6 00
20 00	8 00	12 00	16 00	20 00	50 00	07	0 10	4 50	15 00	13 50	8 00	6 50	5 00	6 00
18 00	7 00	10 00	14 00	20 00	74 00	05	0 10	4 00	12 50	11 25	7 00	5 75	4 75	5 00
26 00	6 00	9 00	12 00	20 00	30 00	04	0 15	2 25	15 00	14 50	10 00	9 50	6 00	6 50
40 00	9 00	12 00	15 00	26 00	26 00	08	0 12½	2 50	17 00	16 50	12 50	12 00	8 00	0 75
20 00	7 00	10 00	13 00	15 00	50 00	05½	0 11½	4 20	13 00	11 75	7 25	5 75	4 50	6 00
23 00	9 00	14 00	18 00	23 00	75 00	06	0 12½	4 75	14 50	13 25	7 75	6 00	5 00	5 50
25 00	9 00	13 00	17 00	23 00	60 00	07½	0 13	5 00	16 50	15 25	9 00	7 00	6 00	5 00
12 00	3 00	5 00	10 00	12 00	25 00	05	0 10	2 00	20 00	19 00	12 00	10 00	7 00	4 50

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.		SCHEDULE															
		\$	cts.	\$	cts.	Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.							
126	Strickland & Sutton..... Wm. Cottingham, David Brown.	225,800	00	13,790	00	60	00	6	00	1	00	0	28	25	00	4	50	18	00
127	George Angus & Co..... James Agnew, James Tutt.	254,000	00	12,700	00	50	00	5	25	1	00	0	25	26	00	4	00	16	00
129	Geo. Neilson & Co..... John Bell. John Fraser.	248,000	00	12,450	00	25	00	8	00	1	00	0	25	10	00	1	00	12	00
133	William Kingsford..... Geo. R. Godson, Philip Alexander Derbishire	276,000	00	13,800	00	125	00	13	50	1	00	0	24	15	50	2	00	15	00
135	Jos. Rosa ..... L. N. Duvernay, Jos. Benj. Trudell.	399,000	00	19,950	00	25	00	13	00	1	75	0	35	50	00	1	50	15	00
137	A. Brooks..... Daniel McLaughlin, Daniel Hilliard.	273,545	00	13,677	00	50	00	12	00	1	25	0	25	12	00	1	25	15	00
145	Murdoch McLennan..... Donald McLennan, Duncan McLennan.	268,000	00	13,500	00	40	00	10	00	0	90	0	23	15	00	3	00	15	00
146	Louis Payett and } Jos Wright, } Jos. Tiffin, E. E. Shelton.	222,700	00	11,135	15	30	00	8	00	1	20	0	25	15	00	1	20	10	00
149	Laberge & Cushing..... To give all the security re- quired by the Commissioners	640,000	00	32,000	00	60	00	15	00	1	75	0	37	30	00	3	00	9	00
150	William Ellis & Co..... J. M. Currier, M. P., Henry McCormick.	280,000	00	14,000	00	120	00	10	50	1	25	0	25	30	00	1	50	12	00
154	Alex. McBean..... Donald Fraser, Alexander McIntosh.	230,000	00	11,500	00	90	00	9	00	1	00	0	20	8	00	2	00	20	00
155	P. G. Brophy & Co... E. Griffin, Robert Skead.	226,400	00	12,320	00	32	00	12	00	1	30	0	27½	17	50	1	70	14	75
160	Andrew Elliott and } M. Laurent, } Jno. Shedden, George Stephen, Wm. Robinson.	300,000	00	15,000	00	170	00	0	12	1	50	0	34	13	00	3	50	15	00

\* And one cent per yard extra haul over 400 yards.



RAILWAY TENDERS.

No. 1 *Continued.*

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
22 00	9 00	12 50	15 00	22 00	20 00	05	0 12½	3 50	20 00	18 00	11 00	9 00	7 00	9 00
21 00	9 00	12 00	14 00	19 00	18 00	04½	0 11	2 75	18 00	16 00	10 00	9 00	6 00	8 00
20 00	6 00	10 00	20 00	20 00	1 00	06	0 09	5 00	12 00	11 00	10 00	8 00	4 00	5 00
18 00	8 75	9 25	11 25	21 00	19 00	05	0 09	4 50	13 00	12 25	10 25	9 60	5 00	10 50
22 00	8 00	12 00	16 00	25 00	20 00	06	0 10	4 75	15 00	14 00	11 00	9 00	8 00	9 00
25 00	6 00	9 00	12 00	25 00	0 75	08	0 12	5 00	20 00	18 00	12 00	10 00	8 00	4 00
18 00	8 00	12 00	15 00	19 00	25 00	09	0 14	5 00	16 00	14 50	10 00	8 00	6 00	5 50
15 00	6 00	8 00	12 00	15 00	18 00	06	0 09	4 00	9 00	8 00	6 00	6 00	4 00	1 20
15 00	10 00	11 00	19 00	22 00	39 00	08	0 10	3 00	19 00	17 00	9 00	7 00	7 00	4 00
15 00	5 00	6 00	8 00	12 00	4 00	08	0 10	1 50	14 00	14 00	12 00	11 00	9 00	11 00
30 00	13 00	14 00	15 00	25 00	36 00	10	0 13	5 00	15 00	14 00	12 00	10 00	8 00	4 00
18 00	5 60	7 40	14 50	18 75	1 00	05½	0 11	5 00	11 75	9 75	7 25	5 60	3 70	4 00
20 00	10 00	11 00	13 00	14 00	25 00	07	0 12	5 00	16 00	15 00	12 00	11 00	9 00	5 00

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plant, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
161	Isaac Hope & Co..... Samuel Muckleston, Patrick Brown.	264,400 00	13,220 00	51 00	14 20	1 70	0 32½	22 50	2 10	15 00
165	James Goodwin .. R. W. Scott, Edward McGillivray.	256,400 00	12,820 00	50 00	13 00	1 05	0 30	20 00	1 75	14 00
176	Alex. McDonell and } John J. McDonald, } A. T. Wood, William McGivern.	313,800 00	15,690 00	50 00	12 00	0 90	0 26	13 50	4 00	30 00
179	Cooke and Dickson.... Col. James Crawford, Hon. J. R. Benson.	240,000 00	12,000 00	100 00	9 00	1 25	0 28	40 00	4 00	20 00
181	Donald Robertson and } John Worthington, } If contract awarded, will provide proper securities.	270,725 00	13,537 00	50 00	8 00	1 25	0 25	9 00	2 50	15 00
186	John Ginty & Co..... James Manning, Thomas Woodside.	230,000 00	11,500 00	130 00	7 00	1 20	0 23	11 00	2 75	20 00
189	Alex. Manning & Co..... J. D. Merrick, James Farquhar.	245,000 00	12,250 00	100 00	8 50	1 30	0 23	11 00	2 50	21 00
196	John Ferguson & Co.. Thomas Ferguson, Angus Campbell.	210,000 00	10,500 00	80 00	7 00	1 20	0 19	8 00	9 50	18 00
197	W. E. Macdonald & Co..... Edward Griffin, Alexander Johnston.	220,000 00	11,000 00	60 00	8 00	1 00	0 20	9 00	2 00	20 00
202	Edward Haycock..... James W. Ritchie, Geo. W. Eaton.	193,050 00	9,652 00	80 00	7 00	1 25	0 22	7 00	1 50	15 00
206	H. Yates..... W. McGivern, Alfred Brown.	326,500 00	16,325 00	30 00	8 00	1 00	0 22	*16 50	1 50	11 00
210	W. D. Campbell..... Abraham Joseph, D. Cameron Thomson.	319,760 00	15,988 00	120 00	9 30	1 25	0 22	34 00	2 50	9 00
212	Noble and McIntosh..... James Levekin, James Burns.	305,733 00	14,558 75	60 00	12 00	1 20	0 24½	30 00	3 00	15 00

\* Under drains.

RAILWAY TENDERS.

No. 1.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
18 00	6 00	7 40	11 10	19 25	1 20	6½	0 14	6 10	13 50	10 75	9 60	7 50	4 10	4 30
18 00	5 00	7 00	10 00	18 00	1 00	06	0 12½	5 00	12 00	10 00	9 00	7 00	3 00	4 00
45 00	10 00	12 00	16 00	45 00	0 30	10	0 13	5 00	14 00	13 00	11 00	10 00	6 00	5 00
25 00	8 00	10 00	15 00	25 00	50 00	06	0 10	6 00	15 00	14 00	12 00	10 00	8 00	4 00
20 00	9 00	12 00	16 00	25 00	30 00	06	0 10	4 00	13 00	12 50	11 50	11 00	9 00	5 00
22 00	8 00	9 00	11 00	16 00	39 00	06	0 13	5 00	16 00	13 00	12 00	6 75	6 00	5 50
23 00	9 00	10 00	12 00	15 00	32 00	08	0 12½	4 75	15 00	14 00	12 50	7 00	6 00	5 50
20 00	10 00	11 00	12 00	18 00	30 00	08	0 10	4 00	12 00	11 00	9 00	7 00	5 00	4 00
25 00	10 00	12 00	14 00	20 00	35 00	09	0 12	5 00	14 00	12 00	10 00	8 00	6 00	5 00
20 00	6 00	9 00	12 00	15 00	30 00	06	0 10	4 00	14 00	13 50	6 50	6 00	6 00	6 00
12 00	8 50	4 50	7 00	9 50	18 00	03½	0 05½	4 50	11 00	10 00	8 00	7 00	6 50	5 50
24 00	7 00	11 00	17 00	32 60	44 00	05	0 11	6 00	16 50	15 50	9 00	8 00	5 50	7 00
18 00	9 00	11 00	20 00	22 50	25 00	07	0 14	5 00	17 00	16 00	11 00	10 00	7 00	4 50

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE							
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.	
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.	
216	<i>H. H. Horsey &amp; Co.</i> ..... Edward Horsey, Henry Grist.	175,000 00	8,750 00	25 00	9 00	0 90	0 25	30 00	1 00	10 00	
220	<i>James G. Ross</i> ..... Thomas W. Lester, James Gibbs, Jr.	299,334 00	14,960 00	60 00	9 00	1 50	0 30	30 00	2 00	20 00	
221	<i>John McLachlan,</i> <i>Walter M. Buck, and</i> } ... <i>S. Parker Tuck,</i> <i>Thomas R. Jones,</i> <i>George James Chubb.</i>	236,173 00	11,809 00	180 00	6 66	1 70	0 26	5 50	0 60	15 00	
227	<i>Robt. Jobson</i> ..... John W. Gilleland, J. S. Arbuchell.	222,243 00	11,112 00	25 00	17 00	1 75	0 30	15 00	3 00	20 00	
234	<i>J. H. Beaubien, M. D., and</i> } <i>J. S. P. O'Hanley,</i> <i>Edward McGillivray,</i> <i>William G. Pooley.</i>	229,480 00	11,474 00	30 00	15 00	1 25	0 34	15 00	3 00	13 00	
239	<i>J. C. Taché</i> ..... Edward Ennis, Napoleon Hardy.	319,900 00	15,995 00	40 00	12 00	1 40	0 30	20 00	1 00	30 00	
241	<i>Thomas Dumble, Jr.</i> ..... John Henry Dumble, Robert Cockburn.	280,000 00	14,000 00	30 00	8 00	1 25	0 30	12 00	3 00	10 00	
243	<i>Henry Bulmer,</i> <i>Ferdinand David, and</i> } ... <i>M. Laurent &amp; Co.,</i> <i>Louis Boyer,</i> <i>Edward Maxwell.</i>	553,200 00	.....	120 00	20 00	2 00	0 40	35 00	5 00	14 00	

## SECTION

2	<i>Onuphe Peltier</i> ..... Charles Bertrand, Jean Langlois.	420,000 00	21,000 00	120 00	9 20	1 20	0 25	33 00	2 30	9 00
3	<i>Cleophe Cimon</i> ..... Jean Langlois, Charles Bertrand.	440,000 00	22,000 00	124 00	9 36	1 25	0 27	34 06	2 50	9 00
6	<i>A. T. Macdonald</i> ..... M. McLennan, James Craig.	406,000 00	20,000 00	45 00	14 06	0 90	0 23	12 00	2 00	15 00

RAILWAY TENDERS.

No. 1.—Continued.

PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
12 00	7 00	10 00	13 00	20 00	25 00	05	0 10	1 50	16 00	15 00	8 00	7 00	6 00	8 00
30 00	10 00	15 00	20 00	22 00	45 00	07	0 14	4 00	16 00	14 00	12 00	11 00	6 00	6 00
30 00	10 00	12 00	15 00	12 50	30 00	03½	0 12½	1 50	18 00	17 50	8 50	8 00	6 50	3 00
25 00	15 00	18 00	20 00	25 00	60 00	06	0 13	4 00	12 00	11 00	7 00	6 00	5 00	.....
18 00	5 15	8 25	14 00	18 00	56 50	04½	0 12½	4 00	11 25	10 00	7 25	6 00	5 00	5 00
44 00	10 00	22 50	40 00	48 00	200 00	07	0 10	5 00	12 50	11 00	8 00	6 25	4 00	5 50
15 00	5 00	7 00	10 00	20 00	0 25	05½	0 07	4 00	14 00	13 00	7 50	6 50	4 50	4 00
15 00	12 00	14 00	18 00	30 00	35 00	06	0 12	6 00	20 00	18 00	15 00	13 00	12 00	14 00

No. 2.

24 00	6 50	10 80	16 75	30 00	40 00	04½	0 10	5 00	16 00	15 20	8 00	7 20	5 00	6 00
24 00	7 00	11 00	17 00	32 00	44 00	05	0 11	6 00	16 50	16 00	9 00	8 00	5 50	7 00
18 00	6 00	10 00	18 00	20 00	18 00	08	0 12½	4 00	10 00	9 00	8 00	6 00	4 00	3 00

\* Included in the masonry.

INTERCOLONIAL

SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Cleaning, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
9	Ryan, Cuvillier & Co..... William McNaughton, John Donnelly.	670,000 00	33,500 00	50 00	10 00	1 50	0 45	40 00	4 50	20 00
14	Jones, Cooke & Co..... W. C. Ford, D. Ford Jones.	572,000 00	28,600 00	100 00	10 00	1 50	0 45	40 00	5 50	15 00
15	Henry Simmon..... Dacres W. Hart, James Weyms.	600,000 00	30,000 00	75 00	12 00	1 50	0 37	30 00	4 00	10 00
20	W. J. Johnstone..... Hon. A. B. Foster, Hon. J. J. C. Abbott.	616,900 00	30,845 00	60 00	12 00	1 50	0 37	30 00	4 50	11 00
24	Thomas McGuire..... Thomas Sheridan, James McGuire.	.....	.....	*	3 70	1 15	0 17	5 25	2 80	16 00
28	A. S. Brown..... John Bell, Jas. Brown.	475,000 00	23,750 00	120 00	13 00	1 30	0 40	40 00	4 00	14 00
32	John Steacy..... Wm. Stewart, Jas. Stewart.	500,000 00	25,000 00	120 00	14 00	1 30	0 45	40 00	4 00	15 00
37	Andrew Elliott and } Malcolm Cameron, } Hon. Alex. Vidal, G. Desbarats.	410,940 16	20,547 01	30 00	15 00	1 25	0 33	15 00	3 00	13 00
45	William Guest..... T. B. Guest, William McIntosh.	340,000 00	17,000 00	80 00	11 00	1 25	0 35	35 00	5 00	15 00
46	John A. Cameron..... N. J. McGillivray, C. C. Snowdon, A. Campbell.	390,140 00	19,507 00	50 00	10 00	1 00	0 30	12 00	2 00	9 00
47	T. B. Guest..... Edward Adams, Robert Guest.	420,000 00	21,000 00	120 00	12 00	1 50	0 40	50 00	6 00	17 00
50	Robert James Rechie and } Victor Hudon, } Messrs. P. Redpath & Drum- mond, Messrs. Hudon & Plamond.	480,000 00	24,000 00	60 00	7 25	1 00	0 30	20 00	1 00	15 00
53	Joseph Hamel and } Duncan Macdonald, } Morland, Watson & Co., Pierre Hudon.	486,000 00	24,300 00	65 00	7 50	1 00	0 32	0 21	1 00	15 00

\* Grubbing, \$70; close chopping, 38; common chopping, \$26.

† Under surface. Catch water drains, 17 cts

RAILWAY TENDERS.

No. 2.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
30 00	12 00	17 00	20 00	28 00	45 00	07	0 14	5 00	16 00	15 00	14 00	13 00	6 00	6 00
20 00	8 00	10 00	15 00	30 00	0 50	05	0 08	6 00	15 00	13 00	10 00	9 00	7 00	7 00
18 00	8 00	13 00	17 00	22 00	55 00	04	0 08	4 00	18 00	17 00	12 00	10 00	5 00	4 00
18 00	8 00	14 00	18 00	22 00	60 00	04	0 08	4 00	17 00	16 00	12 00	11 00	6 00	4 00
25 00	15 00	18 00	20 00	45 00	1 00	09	0 14	2 75	12 00	10 00	12 00	10 00	4 50	*5 50
20 00	9 00	11 00	14 00	25 00	40 00	07	0 13	5 00	18 00	17 00	12 00	11 00	8 00	5 00
30 00	12 00	14 00	18 00	25 00	60 00	07	0 14	7 50	18 00	17 00	12 00	11 00	9 00	5 00
18 00	5 00	8 50	15 00	19 00	57 00	04½	0 12½	5 00	11 25	10 00	7 50	6 25	5 75	5 00
20 00	7 00	10 00	13 00	18 00	0 60	04	0 08	3 50	15 00	13 00	13 00	10 00	5 00	7 00
12 00	12 50	15 00	18 00	20 00	40 00	05	0 10	4 00	14 00	12 00	11 00	9 00	6 00	3 00
25 00	8 00	11 00	13 00	18 00	70 00	05	0 09	4 50	16 00	14 00	14 00	11 00	6 00	9 00
17 00	15 00	20 00	25 00	40 00	40 00	08	0 10	5 00	15 00	13 00	12 00	8 00	6 00	10 00
18 00	17 50	22 00	26 00	40 00	42 50	08	0 10	5 50	15 50	13 25	12 50	8 25	6 25	10 00

\* Catch water drains in rock, \$1.15.

INTERCOLONIAL SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Dreins, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
55	George Worthington and } James Worthington, } Either a cash deposit, con- vertible securities or indi- vidual names.	299,000 00	14,950 00	64 00	9 00	0 90	0 25	6 60	3 50	12 00
59	Michel Piton and } E. Dussault, jun., } James Gibson, Etienne Dussault, senr., George Couture.	464,280 00	23,214 00	40 00	6 50	0 90	0 25	26 50	1 50	10 00
61	Geo. Leveque..... Hon. E. Dionne, Messrs. A. Hamel & Bros.	490,000 00	25,500 00	60 00	10 00	1 50	0 30	50 00	1 50	10 00
63	John Elliot, Robert Grant and } Charles Whitehead, } James Weyms, J. B. Rasey, W. H. Scott.	360,000 00	18,000 00	125 00	11 00	1 25	0 30	25 00	3 00	17 00
67	Thos. Fahey & Co..... George Côté, Patrick Fahey.	410,000 00	20,500 00	65 00	12 00	1 20	0 30	60 00	3 50	9 00
72	A. Hamel & Co..... Fr. Dionne, C. Marcotte.	470,000 00	23,500 00	80 00	12 75	1 25	0 40	40 00	3 00	9 50
76	R. H. McGreevy & Co..... John Heney, James Warnock.	515,000 00	25,750 00	75 00	13 00	1 40	0 35	35 00	2 50	10 00
78	J. S. Vosburgh & Co..... Schuyler Shibley, John Shibley.	528,400 00	26,420 00	60 00	9 00	1 25	0 27	5 00	1 30	10 00
80	Terence McGovern..... Albert Knight, J. H. Pope, M.P.	500,000 00	25,000 00	55 00	9 20	1 30	0 29	5 10	1 50	12 00
88	J. Hatch ..... W. W. Scott.	540,000 00	27,000 00	85 00	12 00	1 50	0 32	50 00	1 50	10 00
92	Geo. Randall and } A. W. Schwirger, } Are prepared to furnish satisfactory security if Tender be accepted.	820,000 00	41,000 00	50 00	9 00	1 25	0 40	10 00	3 00	12 00
95	Auguste Trepanier..... Victor Belanger, Felix Motard.	400,000 00	20,000 00	100 00	12 00	1 50	0 25	40 00	1 25	6 00



RAILWAY TENDERS.

No. 2.—Continued.

OF PRICES.

Pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
15 00	8 00	12 00	16 00	20 00	23 00	05	0 10	4 51	8 50	8 00	7 50	7 00	4 00	10 00
15 00	4 00	5 50	7 00	20 00	40 00	05	0 09	2 30	12 00	11 00	8 50	6 00	4 00	5 50
18 00	8 00	12 00	16 00	20 00	50 00	06	0 11	4 50	15 00	13 50	8 00	6 50	5 00	6 00
40 00	12 00	14 00	18 00	20 00	40 00	07	0 12	5 00	16 00	15 00	12 00	11 00	9 00	8 00
18 00	10 00	11 00	15 00	25 00	40 00	04	0 12	4 00	14 00	13 00	7 00	7 00	5 00	6 00
20 00	10 00	12 00	14 00	23 00	50 00	04½	0 13	4 50	15 00	14 00	9 00	8 00	5 00	4 00
19 00	9 00	11 00	13 00	24 00	35 00	05½	0 12½	5 00	15 75	14 25	9 75	8 50	6 00	7 00
12 00	5 00	10 00	18 00	20 00	50 00	07	0 15	5 00	20 00	18 00	18 00	15 00	16 00	2 00
16 00	4 75	6 00	9 00	12 00	00 50	07	0 16	5 25	20 00	17 00	18 00	14 00	6 00	2 25
20 00	8 00	10 00	14 00	18 00	50 00	06	0 12½	4 50	13 50	12 25	7 00	6 25	5 00	6 00
14 00	7 00	10 00	15 00	28 00	100 00	05	0 12	8 00	16 00	15 00	11 00	10 00	6 00	4 00
15 00	7 00	10 00	13 00	15 00	40 00	05	0 10	4 00	11 50	10 00	6 00	5 00	4 00	5 00

## INTERCOLONIAL

## SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
96	<i>Guillaume Charland</i> ..... John Ross, Frank Ross.	590,000 00	29,500 00	120 00	15 00	1 45	0 39	60 00	1 50	10 00
99	<i>Simon Peters</i> ..... Chas. Samson, J. K. Boswell.	612,099 13	30,604 95	100 00	14 00	1 50	0 40	50 00	1 50	10 00
101	<i>Augustin Mathieu and</i> } ..... <i>Joseph Julien.</i> } John Ross, Frank Ross.	520,000 00	26,000 00	75 00	12 00	1 25	0 35	60 00	2 50	8 00
102	<i>François Xavier Marquis</i> } ..... <i>and Olivier Mathieu.</i> } John Ross, Frank Ross.	506,000 00	23,500 00	75 00	12 00	1 50	0 40	50 00	2 50	9 00
106	<i>Walter Kerr</i> ..... John K. Weir, Hebron Harris.	533,002 00	26,650 00	40 00	10 50	1 20	0 42	60 00	4 00	13 00
113	<i>E. Demers, jr.</i> ..... George Couture, Louis Carrier.	624,918 00	31,245 00	100 00	14 00	1 50	0 40	50 00	1 50	10 00
117	<i>F. X. Berlinguet and</i> } ..... <i>S. H. Huot.</i> } W. W. Scott, Norbert Germain.	410,226 00	20,511 30	50 00	8 00	1 10	0 50	3 00	3 50	10 00
119	<i>F. X. Thompson</i> ..... George Couture, Louis Carrier.	600,000 00	30,000 00	95 00	13 50	1 50	0 35	50 00	1 50	12 00
120	<i>Antoine Pampolin</i> ..... George Couture, Louis Carrier.	525,000 00	26,250 00	120 00	12 25	1 25	0 34	40 00	1 50	8 00
123	<i>Jacques Jobin</i> ..... George Couture, Louis Carrier.	550,000 00	27,500 00	98 00	13 75	1 55	0 43	48 00	2 00	10 00
128	<i>Strickland and Sutton</i> ..... Wm. Cottingham, David Brown,	478,000 00	23,900 00	60 00	6 00	1 00	0 35	25 00	4 50	18 00
130	<i>Geo. Neilson</i> ..... John Bell, John Fraser.	455,600 00	12,780 00	25 00	8 00	1 00	0 25	10 00	1 00	12 00
134	<i>William Kingsford</i> ..... George R. Godson, Philip A. Derbishire.	585,000 00	29,250 00	125 00	13 50	1 00	*0 24	15 50	2 00	15 00

\* Earth excavation at Trois Pistoles between stations 1,200 and 1370; fifty-five cents.

RAILWAY TENDERS.

No 2.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, strays, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yard.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
20 00	7 00	11 00	15 00	20 00	75 00	06½	0 12	4 75	14 75	13 40	8 20	6 60	5 60	6 00
20 00	8 00	12 00	16 00	20 00	50 00	07	0 10	4 50	15 00	13 50	8 00	6 50	5 00	6 00
18 00	7 00	10 00	14 00	20 00	74 00	05½	0 11	4 50	12 50	11 25	7 00	5 75	4 75	5 00
18 00	7 00	11 00	13 00	18 00	72 00	04	0 10	3 00	12 50	11 25	7 00	5 75	3 00	3 10
40 00	9 00	12 00	15 00	27 00	25 00	08	0 12½	2 50	18 00	17 50	13 00	12 50	8 00	0 80
22 00	8 00	12 00	16 00	20 00	50 00	07	0 12½	4 50	15 00	13 50	8 00	6 50	5 00	6 00
15 00	6 00	9 00	12 00	13 00	8 00	04	0 05	3 00	5 00	4 50	4 00	3 50	3 00	3 00
20 00	7 50	13 00	15 00	23 00	70 00	06½	0 12	4 25	14 50	13 25	7 75	6 25	5 00	7 00
20 00	7 00	10 00	13 50	17 00	42 00	06	0 10	4 00	12 50	11 50	6 75	6 00	4 50	5 25
30 00	10 00	14 25	19 50	25 00	65 00	07½	0 13	5 00	15 25	14 50	8 75	9 00	7 50	5 00
22 00	9 00	12 50	15 00	22 00	20 00	05	0 12½	3 00	20 00	18 00	11 00	9 00	7 00	9 00
20 00	6 00	10 00	20 00	20 00	1 00	06	0 09	5 00	12 00	11 00	10 00	8 00	4 00	5 00
18 00	8 75	9 25	11 25	21 00	19 00	05	0 09	4 50	13 00	12 25	10 25	9 60	5 00	10 5

INTERCOLONIAL SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
136	Joseph Rosa ..... L. N. Duvernay, J. B. Trudelle.	511,000 00	25,500 00	25 00	13 00	1 75	0 37	50 00	1 50	15 00
138	A. Brooks ..... Daniel McLachlin, Daniel Hillard.	550,000 00	27,500 00	50 00	12 00	1 25	0 40	12 00	1 50	15 00
144	Murdoch McLennan ..... Donald McLennan, Duncan McLennan.	595,000 00	25,750 00	40 00	10 00	0 95	0 23	15 00	3 00	12 00
147	Louis Payette and } Jas. Wright, } ..... Joseph Tiffin, E. E. Shelton.	325,651 00	16,232 55	30 00	8 00	1 20	0 25	15 00	1 20	10 00
148	Laberge & Cushing..... All securities required by Commissioners.	620,000 00	31,000 00	60 00	15 00	1 75	0 37	30 00	3 00	9 00
151	William Ellis & Co..... J. M. Currier, M. P. Henry McCormick.	440,000 00	22,000 00	120 00	10 50	1 20	*00 24	30 00	1 50	12 00
156	P. G. Brophy & Co ..... Edward Griffin, Robert Skead.	354,000 00	17,700 00	40 00	13 00	1 00	00 50	19 00	1 75	16 00
159	Andrew Elliott and } M. Laurent } ..... John Sheddon, Geo. Stephen, Wm. Robinson.	550,000 00	25,000 00	170 00	00 12	1 50	37 00	13 00	3 50	15 00
162	Isaac Hope & Co..... Samuel Muckleston, Patrick Brown.	366,300 00	18,315 00	33 00	13 00	1 05	00 31	22 00	1 80	14 00
166	James Goodwin..... R. W. Scott, Edward McGillivray.	376,300 00	18,815 00	56 00	14 00	1 00	00 33	23 00	2 00	14 50
171	Alexander McDonell and } John J. Macdonald. } ..... A. T. Wood, William McGivern.	565,000 00	28,250 00	50 00	12 00	1 00	00 33	15 00	4 00	30 00
176	H. Abbott & Co..... J. J. C. Abbott, E. S. Freer.	650,000 00	22,500 00	100 00	9 00	1 50	30 00 †	50 00	4 00	18 00

\* And 40 cents for blue clay, and one cent per yard for extra haul above 400 feet. † Clay, 80 cents.

RAILWAY TENDERS.

No. 2.—Continued.

OF PRICES.

Plank, Pine, per 1000 feet, B. M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
22 00	8 00	12 00	16 00	25 00	20 00	06	0 10	4 75	15 00	14 00	11 00	9 00	8 00	9 00
25 00	6 00	9 00	12 00	25 00	00 70	08	0 10	5 00	20 00	18 00	12 00	10 60	8 00	4 00
18 00	7 00	12 00	15 00	19 00	25 00	09	0 14½	5 00	16 00	14 50	10 00	8 00	6 00	5 50
15 00	6 00	8 00	12 00	15 00	18 00	06	0 09	4 00	10 00	9 50	8 00	6 50	5 00	1 50
15 00	10 00	11 00	19 00	22 00	39 00	08	0 10	3 00	19 00	17 00	9 00	7 50	7 00	4 00
15 00	5 00	6 00	8 12	12 00	4 00	08	0 10	1 50	16 00	14 00	10 00	9 00	8 00	10 00
19 00	7 00	9 00	16 00	22 00	1 00	06	0 12	0 05	12 00	10 00	8 00	6 00	3 75	4 20
20 00	10 00	11 00	13 00	14 00	25 00	07	0 12	5 00	16 00	15 00	12 00	11 00	9 00	5 00
18 00	5 20	7 00	10 00	18 40	1 10	06	0 12	4 75	12 50	10 50	9 25	7 00	3 85	4 50
19 00	6 00	8 00	12 00	21 00	1 25	06½	0 12½	5 50	14 00	11 00	10 00	8 00	3 80	4 50
45 00	10 00	12 00	16 00	45 00	00 30	10	0 12	7 00	15 00	14 00	12 00	11 00	7 00	5 00
25 00	8 00	10 00	15 00	20 00	30 00	06	0 10	5 00	15 00	14 00	12 00	10 00	8 00	5 00

## INTERCOLONIAL

## SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Rip rap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
178	<i>Cook &amp; Dickson</i> ..... Col. James Crawford, Hon. J. R. Benson.	560,000 00	28,000 00	100 00	9 00	1 50	0 35	40 00	4 00	20 00
182	<i>Donald Robertson and John Worthington</i> , } ..... If contract awarded, to pro- vide proper securities.	504,750 00	25,238 00	50 00	8 00	1 25	0 30	9 00	2 50	15 00
187	<i>John Ginty &amp; Co</i> ..... James Manning, Thos. Woodside.	420,000 00	21,000 00	114 00	7 00	1 20	0 32	15 00	2 20	22 00
190	<i>Alex. Manning &amp; Co</i> ..... J. D. Merrick, James Farquhar.	440,000 00	22,000 00	120 00	7 50	1 30	0 32	16 00	2 40	23 00
195	<i>John Ferguson &amp; Co</i> ..... Thomas Ferguson, Angus Campbell.	405,000 00	20,200 00	90 00	8 50	1 30	0 29	12 00	2 50	20 00
198	<i>W. E. Macdonald &amp; Co</i> ..... Edward Griffin, Alexander Johnstone.	396,000 00	19,800 00	100 00	8 00	1 25	0 30	12 00	2 25	22 00
203	<i>Edward Haycock</i> ..... James W. Ritchie, George W. Eaton.	338,000 00	16,900 00	80 00	7 00	1 25	0 25	7 00	1 50	15 00
207	<i>H. Yates</i> ..... W. McGiverin, Alfred Brown.	498,500 00	25,920 00	30 00	8 00	1 00	0 22	16 50	1 50	11 00
211	<i>W. D. Campbell</i> ..... Abraham Joseph, Donald Cameron Thomson.	620,400 00	31,020 00	120 00	9 30	1 25	0 27	34 00	2 50	9 00
213	<i>Noble &amp; McIntosh</i> ..... James K. Levekin, James Burns.	438,493 00	21,924 65	60 00	12 00	1 25	0 30	36 00	3 50	13 00
219	<i>James G. Ross and Jno. Wardrop</i> , } ..... Thomas Webster, James Gibb.	649,600 00	32,480 00	60 00	9 00	1 50	0 45	30 00	4 00	20 00
222	<i>John McLachlin, Walter M. Buek, and S. Parker Tuck</i> , } ..... Robert J. Lewane, George Fleming.	539,947 00	26,997 00	180 00	6 66	1 70	0 42	5 50	0 60	15 00
229	<i>Robt. Jobson</i> ..... John N. Gilleland, L. S. Arbuckell.	437,771 00	21,888 00	25 00	15 00	1 25	0 34	15 00	3 00	20 00

## RAILWAY TENDERS.

No. 2.—Continued.

## OF PRICES.

Plank, Pine, per 1000 feet, B. M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
25 00	8 00	10 00	15 00	25 00	50 00	07	0 12	6 00	15 00	14 00	12 00	10 00	8 00	4 00
20 00	9 00	12 00	16 00	25 00	30 00	06	0 10	4 00	13 00	12 50	11 50	11 00	9 00	5 00
27 00	12 00	13 00	16 00	19 00	36 00	09	0 13	6 50	15 00	13 00	11 00	10 00	9 00	5 00
28 00	12 00	14 00	17 00	21 00	40 00	10	0 14	6 50	16 00	14 00	13 00	11 00	9 00	6 00
30 00	11 00	12 00	15 00	24 00	37 00	10	0 13	5 50	16 00	15 00	13 00	12 00	8 00	5 00
27 00	11 00	13 00	14 00	22 00	36 00	09	0 13	5 50	15 00	13 00	12 00	10 00	9 00	5 00
20 00	6 00	9 00	12 00	15 00	30 00	06	0 10	4 00	14 00	13 50	8 00	7 50	6 00	6 00
12 00	3 50	4 50	7 00	9 50	18 00	03½	0 05½	4 50	11 00	10 00	8 00	7 00	6 50	5 50
24 00	7 00	11 00	17 00	32 00	44 00	05	0 11	6 00	16 50	15 50	9 00	8 00	5 50	7 00
16 00	10 00	15 00	20 00	25 00	25 00	07	0 14	5 00	17 00	16 00	12 00	10 00	7 00	5 00
30 00	10 00	15 00	20 00	22 00	45 00	07	0 14	4 00	16 00	15 00	13 00	12 00	6 00	6 00
30 00	10 00	12 50	15 00	12 50	30 00	03½	0 12½	1 50	18 00	17 50	8 50	8 00	6 50	3 00
25 00	15 00	18 00	20 00	25 00	60 00	06	0 13	4 00	12 00	11 00	7 00	6 00	5 00	*

\* Included in masonry.

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE							
				Clearing, cutting & grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Dreains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B. M.	
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.]	
233	J. H. Beaubien, M. D., and } J. S. P. O'Hanley, Edward McGillivray, William G. Perley.	405,540 45	20,277 03	30 00	15 00	1 25	0 32½	14 80	3 00	12 50	
240	Thomas Dumble, Jr..... John Henry Dumble, Robert Cockburn.	460,000 00	22,600 00	30 00	8 00	1 00	0 35	12 00	3 00	10 00	
242	Louis Cloutier..... George Couture, Louis Carrier.	500,000 00	25,000 00	100 00	11 50	1 25	0 33	44 00	1 30	8 00	
244	Henry Bulmer } Ferdinand David and }... M. Laurent & Co., Louis Boyer, Edward Maxwell.	921,000 00	46,050 00	120 00	20 00	2 00	0 40	35 00	5 00	14 00	

SECTION

7	A. F. Macdonald..... M. McLennan, James Craig.	504,600 00	21,000 00	45 00	14 00	0 90	0 23	12 00	2 00	15 00
10	Ryan, Cuvillier & Co..... William McNaughton, John Donnelly.	620,120 00	25,400 00	50 00	10 00	1 40	0 32	40 00	4 00	20 00
12	Jones, Cook & Co..... N. C. Ford, D. Ford Jones.	408,000 00	17,000 00	100 00	10 00	1 35	0 28	35 00	5 00	15 00
17	Henry Lemmon..... D'Acres W. Hart, James Weyms.	780,000 00	32,500 00	75 00	12 00	1 50	0 38	30 00	4 00	10 00
21	H. J. Johnstone..... Hon. A. B. Foster, Hon. J. J. C. Abbott.	792,000 00	33,000 00	70 00	12 00	1 50	0 36	30 00	4 00	11 00
23	Frederick Steeves and } John T. Steeves. } William H. Steeves, Joseph D. Steeves.	354,000 00	14,750 00	14 00	8 50	1 15	0 24	6 50	1 2½	8 00
26	W. B. Leather..... John Cameron, Peter Grant.	396,000 00	16,500 00	25 00	4 00	1 00	0 35	12 00	2 50	6 00
29	A. G. Brown..... John Bell, James Brown,	400,000 00	16,666 00	124 00	12 00	1 30	0 30	40 00	4 00	15



RAILWAY TENDERS.

No 2.—*Concluded.*

OF PRICES.

Plank Pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
18 00	5 25	8 25	14 50	19 00	56 50	04½	0 12½	4 00	11 15	10 00	7 25	6 25	5 75	4 75
15 00	5 00	7 00	10 00	20 00	00 25	03½	0 07	4 00	14 00	13 00	7 50	6 50	4 50	4 00
18 00	7 00	10 25	13 00	18 00	45 00	05½	0 12½	4 00	12 50	13 00	7 50	6 00	5 50	5 50
15 00	12 00	14 00	18 00	30 00	35 00	06	0 12	6 00	20 00	18 00	15 00	13 00	12 00	14 00

No 3.

18 00	8 00	10 00	18 00	20 00	18 00	08	0 12½	4 00	10 00	9 00	8 00	6 00	4 00	2 00
30 00	12 00	15 00	20 00	28 00	48 00	07	0 14	5 00	16 00	15 00	13 00	12 00	6 00	6 00
20 00	8 00	10 00	15 00	25 00	00 45	05	0 08	5 50	15 00	13 00	12 00	11 00	7 00	6 00
16 00	6 00	12 00	14 00	20 00	50 00	04	0 08	4 00	18 00	17 00	12 00	10 00	6 00	6 00
18 00	6 00	12 00	15 00	20 00	56 00	04	0 08	4 50	18 00	17 00	12 00	11 00	6 50	4 00
11 00	4 00	5 00	6 00	7 00	7 00	05	0 08	5 00	16 00	12 00	10 00	7 00	6 00	3 00
15 00	3 00	4 00	6 00	7 00	20 00	10	0 12½	3 00	12 00	11 00	10 00	9 00	8 00	6 00
30 00	10 00	12 00	17 00	25 00	45 00	07	0 13	8 00	18 00	17 00	12 00	13 00	10 00	6 00

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	c.	\$ cts.
33	John Steacy..... W. Stewart, Joseph Stewart.	444,000 00	18,500 00	140 00	14 00	1 30	1 30	30 00	3 50	14 00
38	Andrew Elliot and } Malcolm Cameron, } Hon. Alex. Vidal. George E. Desbarats.	390,160 73	16,256 70	37 50	14 00	1 25	0 35½	15 00	3 00	12 50
41	John A. Cameron..... N. G. McGillivray, C. C. Snowden and A. Campbell.	418,200 00	17,425 00	50 00	10 00	1 00	0 30	12 00	2 00	9 00
48	T. B. Guest.... Edward Adams, Robert Guest.	540,000 00	20,000 00	120 00	12 00	1 50	0 40	50 00	6 00	77 00
56	Geo. Worthington and } James Worthington, } A cash deposit or other satisfactory security.	312,000 00	13,000 00	64 00	10 00	1 00	0 25	6 60	3 50	12 00
64	John Elliott, } Robert Grant and } Charles Whitehead, } James Weyms, J. B. Rasey, W. H. Scott.	288,000 00	12,000 00	160 00	11 00	1 25	0 30	25 00	3 00	*17 00
68	Thomas Fahey & Co..... George Coté, Patrick Fahey.	619,200 00	25,800 00	70 00	13 00	1 30	0 30	60 00	3 35	9 00
71	A. Hamel & Co ..... F. Dionne, C. Marcotte.	633,600 00	26,400 00	80 00	12 00	1 50	0 35	40 00	3 00	9 50
75	R. H. McGreevy & Co ..... John Heney, James Warnock.	760,000 00	31,666 00	75 00	13 00	1 40	0 40	35 00	2 50	11 00
84	A. W. Masters..... Hon. Thos. R. Jones, Thomas Templeton.	537,600 00	22,420 00	50 00	7 25	1 35	0 38	32 00	2 25	14 50
85	Henry Walford.....	339,600 00	14,150 00	180 00	13 00	1 60	0 35	12 50	4 00	8 50
91	A. W. Schrieger, and } Geo. Randall, } Satisfactory security should Tender be accepted.	936,000 00	39,000 00	50 00	9 00	1 30	0 31	10 00	3 00	12 00

\* With labour.

RAILWAY TENDERS.

No.3.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
18 00	8 00	11 00	14 00	20 00	45 00	07	0 14	7 00	18 00	17 00	11 00	10 00	7 00	5 00
19 00	5 25	8 75	15 50	19 50	60 00	04½	0 12½	5 40	11 25	10 00	7 50	6 25	5 75	5 00
12 00	12 50	15 00	18 00	20 00	40 00	05	0 10	4 00	14 00	12 00	11 00	9 00	6 00	3 00
25 00	8 00	11 00	13 00	18 00	70 00	05	0 09	4 50	14 00	12 00	12 00	11 00	6 00	9 00
15 00	8 00	12 00	16 00	20 00	23 00	05	0 10	4 50	10 00	9 50	9 00	8 50	5 00	11 00
40 00	12 00	14 00	18 00	20 00	40 00	07	0 12	5 00	16 00	15 00	12 00	11 00	9 00	8 00
18 00	10 00	11 50	15 00	25 00	40 00	04	0 12	4 00	15 00	13 50	9 00	7 50	5 00	6 00
20 00	10 00	12 00	16 00	22 00	50 00	04½	0 13	4 50	16 00	14 00	9 50	8 00	5 00	4 00
20 00	10 00	12 00	14 00	23 00	45 00	05	0 12½	6 00	17 00	15 00	10 00	8 50	6 00	7 00
30 00	10 00	15 00	20 00	28 00	40 00	06	0 12	4 25	17 50	16 50	11 50	10 00	9 00	4 00
15 00	12 00	13 00	14 00	17 00	20 00	08½	0 10	3 60	19 00	17 00	14 00	12 00	9 50	4 00
14 00	7 00	10 00	15 00	28 00	100 00	05	0 12	8 00	16 00	15 00	11 00	10 00	6 00	4 00

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
107	Walter Kerr..... John K. Weir, Hebron Harris.	661,060 00	27,544 00	42 00	10 50	1 30	0 39	65 00	4 00	14 00
111	Peter McDonald..... James Bent, William M. Fullerton.	576,000 00	24,000 00	350 00	13 00	1 25	0 26	21 00	2 50	7 00
112	Malcolm McDonald..... William M. Fullerton, James Bent.	552,000 00	23,000 00	342 00	12 75	1 25	0 25	20 50	2 50	7 00
125	J. and G. Jackson..... Thos. W. Walsh, Col. David Tisdale.	552,000 00	23,000 00	225 00	10 00	1 00	0 30	20 00	2 50	8 00
131	George Neilson & Co..... John Bell, John Fraser.	358,074 00	13,272 00	251 00	81 00	1 00	0 28	10 00	1 00	12 00
140	A. Brooks..... Daniel McLachlin, Daniel Hilliard.	540,000 00	22,500 00	40 00	12 00	1 10	0 35	11 00	2 00	15 00
141	E. R. Burpee..... William Parks, Alex. Jardine, Isaac Burpee.	550,000 00	22,916 66	45 00	12 00	1 15	0 35	13 00	1 50	12 00
152	William Ellis & Co..... J. M. Currier, M. P., Henry McCormick.	450,000 00	18,800 00	120 00	10 50	1 25	*0 25	30 00	1 50	12 00
153	Andrew Bell..... Geo. Stephens, John Shedden.	419,544 00	17,481 00	40 00	10 00	1 30	0 30	5 00	2 00	15 00
157	P. G. Brophy & Co..... Edward Griffin, Robert Skead.	339,120 00	14,130 00	40 00	13 00	1 00	0 30	20 00	1 75	13 00
163	Isaac Hope & Co..... Daniel Muckleston, Patrick Brown.	367,440 00	15,310 00	70 00	14 00	1 25	0 35	26 00	2 50	16 00
167	James Goodwin..... R. W. Scott, Edward McGillivray.	354,960 00	14,790 00	65 00	13 00	1 20	0 34	25 00	2 00	15 00
172	Alex. McDonell, John J. Macdonald, } ..... A. T. Wood, William McGiverin.	542,000 00	22,600 00	60 00	10 00	1 25	0 28	15 00	3 50	25 00

\* And one cent extra for all haul over 500 feet.

RAILWAY TENDERS.

No. 3.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
41 00	9 00	12 00	15 00	26 00	26 00	08	0 12½	2 50	17 00	16 50	14 00	13 50	9 00	0 75
10 00	2 50	4 75	9 00	15 00	2 50	06	0 08	1 50	18 00	16 00	10 50	9 25	7 25	3 20
10 00	2 50	4 75	9 00	15 00	2 50	08	0 08	1 50	18 00	16 00	10 50	9 25	7 25	3 20
12 00	3 00	5 06	10 00	12 00	25 00	05	0 10	2 00	20 00	19 00	12 00	10 00	7 00	4 50
20 00	6 00	10 00	20 00	20 00	1 00	06	0 09	5 00	12 00	11 00	10 00	8 00	4 00	5 00
25 00	6 00	9 00	12 00	20 00	50 00	08	0 12	4 50	18 00	17 00	10 00	8 00	7 00	3 50
22 00	7 00	9 00	11 00	22 00	0 65	06	0 10	4 00	17 00	16 00	10 00	9 00	7 50	4 00
15 00	6 00	7 00	8 00	10 00	4 00	08	0 10	1 50	16 00	14 00	13 00	12 00	9 00	10 00
25 00	11 00	14 00	16 00	20 00	25 00	06	0 10	5 00	20 00	18 00	12 00	10 00	8 00	3 00
16 00	5 00	6 00	12 00	18 00	1 00	5½	0 11	3 50	12 00	10 00	9 00	7 00	2 50	3 50
21 00	8 00	9 50	14 00	23 00	1 35	06½	0 13	5 50	15 00	12 00	10 50	9 00	4 20	5 25
20 00	7 50	8 50	14 00	25 00	1 50	07	0 12½	5 50	14 00	11 50	10 50	9 00	4 00	5 00
40 00	8 00	10 00	12 00	35 00	0 30	10	0 13	7 00	17 00	16 00	13 00	12 00	6 00	4 00

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cuttings, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
175	H. Abbott & Co..... J. J. C. Abbott, E. S. Freer.	480,000 00	20,000 00	100 00	9 00	1 50	0 30	50 00	4 00	18 00
180	Cook & Dickson..... Col. James Crawford, Hon. J. R. Benson.	420,000 00	17,500 00	100 00	10 00	1 50	0 30	45 00	4 00	20 00
183	Donald Robertson and } John Worthington, } ..... If contract awarded, to pro- vide proper securities.	517,741 00	21,573 00	50 00	8 00	1 25	0 29	9 00	2 50	15 00
185	John Ginty & Co..... James Manning, Thomas Woodside.	360,000 00	15,000 00	120 00	8 00	1 30	0 32	16 00	2 40	23 00
191	Alex. Manning & Co..... J. D. Merrick, James Farquhar.	383 000 00	15,958 09	95 00	8 72	1 36	0 29	14 00	2 50	24 00
193	John Ferguson & Co..... Thomas Ferguson, Angus Campbell.	384,000 00	16,000 00	100 00	9 00	1 40	0 30	13 00	2 00	20 00
199	W. E. Macdonald & Co..... Edward Griffin, Alexander Johnstone.	367,533 00	15,313 00	95 00	8 00	1 50	0 30	12 00	2 50	22 00
204	Edward Haycock..... James W. Ritchie, George W. Eaton.	392,491 00	16,353 00	80 00	7 00	1 25	0 22	7 00	1 50	15 00
208	A. Yates..... W. McGivern, Alfred Brown.	538,540 00	22,435 00	30 00	8 00	1 00	0 22	*16 50	1 50	11 00
214	Noble & McIntosh..... James K. Looken, James Burns.	423,812 00	17,658 83	60 00	12 00	1 20	0 24	30 00	3 00	12 00
218	James G. Ross..... Thomas Webster, James Gibb, Junr.	605,566 00	25,230 00	60 00	9 00	1 40	0 30	30 00	4 00	20 00
223	John McLachlin, Walter Buck, and } J. Parker Tuck, } ..... William F. Harrison, Zachariah Adams.	479,392 00	19,975 00	180 00	6 66	1 75	0 33	5 50	0 60	-13 50
226	Ross & McKenzie..... Thos. W. Daniel, John Boyd.	600,000 00	25,000 00	30 00	7 50	1 50	0 35	20 00	2 50	10 00

\* Earth drains.

RAILWAY TENDERS.

No. 3.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry, in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
25 00	8 00	9 00	15 00	25 00	30 00	06	0 10	6 00	15 00	14 00	12 00	10 00	8 00	4 00
25 00	8 00	10 00	15 00	25 00	50 00	06	0 10	6 00	15 00	14 00	10 00	8 00	6 00	4 00
20 00	9 00	12 00	16 00	25 00	30 00	06	0 10	4 00	14 00	13 50	12 50	12 00	10 00	6 00
28 00	12 00	14 00	17 00	21 00	42 00	10	0 14	6 50	16 00	14 00	13 00	11 00	9 00	6 00
28 00	11 50	13 25	14 10	23 00	37 00	07	0 14	5 25	12 50	10 00	9 00	8 00	7 00	4 50
28 00	13 00	14 00	16 00	25 00	38 00	10	0 14	5 00	13 50	12 50	10 50	8 50	7 50	4 00
30 00	12 00	13 00	14 00	24 00	36 00	10	0 14	5 00	13 00	12 00	10 00	8 00	7 00	4 00
20 00	6 00	9 00	12 00	15 00	30 00	06	0 10	4 00	12 00	11 50	6 50	6 00	6 00	6 00
12 00	3 50	4 50	7 00	9 50	18 00	03½	0 05½	4 50	11 00	10 00	8 00	7 00	6 50	5 50
15 00	9 00	11 00	13 00	16 00	25 00	07	0 14	5 00	17 00	16 00	11 00	10 00	7 00	4 00
30 00	10 00	15 00	20 00	22 00	45 00	07	0 14	4 00	16 00	14 00	12 00	11 00	6 00	6 00
28 00	9 00	11 00	14 00	12 00	25 00	03½	0 12½	1 50	18 00	17 50	8 50	8 00	6 50	3 00
25 00	9 00	21 00	33 00	39 00	50 00	05½	0 11	5 00	20 00	19 00	12 00	10 00	8 50	3 00

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting, , and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
228	<i>Robt. Jobson</i> .....	331,261 00	13,802 00	25 00	13 00	1 25	0 32	15 00	3 00	20 00
	<i>John W. Gilleland, L. S. Arbuckleil.</i>									
232	<i>F. H. Beaubien, M. D., and } J. L. P. O'Hanley, Edward McGillivray, William G. Perley.</i>	391,360 00	16,307 50	37 00	14 00	1 25	0 35½	15 00	3 00	12 00
236	<i>Horatio Jell Tuck &amp; Co.... Edward Handy, C. J. Ladd.</i>	364,800 00	15,200 00	60 00	*1 25	1 40	0 26	100 00	2 00	25 00
237	<i>Ephraim A. Jones..... Joseph Seeton, Robert B. Seeton.</i>	702,960 00	29,290 00	137 50	26 00	1 25	0 30	27 60	6 25	9 00
245	<i>Henry Bulmer, Ferdinand David, and }... M. Laurent, Louis Boyer., Edward Maxwell.</i>	697,000 00	29,041 67	120 00	20 00	2 00	0 40	35 00	5 00	14 00

SECTION

11	<i>Jones, Cook &amp; Co.....</i>	486,000 00	18,000 00	120 00	10 00	1 35	0 30	40 00	5 60	15 00
18	<i>Henry Lemmon ..... Dacres Hart, James Weyms.</i>	729,000 00	27,000 00	75 00	12 00	1 40	0 35	30 00	4 00	10 00
22	<i>W. J. Johnstone ..... Hon. A. B. Foster, Hon. J. J. C. Abbott.</i>	734,945 00	27,220 18	70 00	12 00	1 40	0 36	30 00	4 50	11 00
25	<i>Andrew Somers and } ..... W. W. J. Sumner, W. J. Fraser, Allan Smith.</i>	479,928 00	17,775 00	100 00	9 00	1 00	0 27	15 00	2 00	12 00
30	<i>A. G. Brown ..... John Bell, James Brown.</i>	500,000 00	18,574 00	120 00	12 00	1 30	0 28	36 00	4 00	14 00
34	<i>John Steacy..... William Stewart, James Stewart.</i>	459,000 00	17,000 00	120 00	14 00	1 30	0 28	30 00	4 00	14 00
39	<i>Andrew Elliot and } ..... Malcolm Cameron, Hon. Alex. Vidal, Geo. E. Desbarats.</i>	465,742 70	17,249 70	35 00	15 00	1 25	0 35	15 00	3 00	15 00

\* Per hundred rods. † Per mile.



RAILWAY TENDERS.

No. 3.—Continued.

OF PRICES.

Plank, Pine, per 1000 feet, B. M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
25 00	15 00	18 00	20 00	25 00	60 00	06	0 13	4 00	12 00	11 00	7 00	6 00	5 00	*
19 50	5 40	8 00	16 00	19 00	57 50	04½	0 12½	4 00	11 25	10 00	7 75	6 50	6 00	5 00
35 00	20 00	22 00	22 00	24 00	24 00	10	0 12	4 00	16 00	12 00	12 00	9 00	8 00	4 00
20 00	5 00	8 10	8 75	10 00	62 50	06	0 11	13 75	16 25	13 75	13 75	11 25	8 75	8 00
15 00	12 00	14 00	18 00	30 00	35 00	06	0 12	6 00	20 00	18 00	15 00	13 00	12 00	14 00

No. 4.

20 00	8 00	10 00	15 00	30 00	0 50	05	0 08	6 00	14 00	13 00	10 00	9 00	7 00	6 00
16 00	8 00	12 00	14 00	22 00	60 00	04	0 08	4 00	17 00	16 00	10 00	9 00	4 04	4 04
18 00	6 00	14 00	15 00	22 00	60 00	04	0 08	18 00	17 00	16 00	12 00	10 00	5 00	4 00
15 00	5 00	7 00	10 00	15 00	20 00	06	0 10	5 00	12 00	11 00	9 50	8 50	6 00	2 00
18 00	9 00	12 00	15 00	18 00	35 00	07	0 13	7 00	18 00	17 00	12 00	11 00	9 00	5 00
18 00	9 00	11 00	13 00	18 00	35 00	07	0 13	6 00	18 00	17 00	12 00	11 00	8 00	5 00
20 00	5 30	9 00	16 00	20 00	60 00	04½	0 12½	5 00	11 25	10 00	7 50	6 25	5 75	5 00

\* Included in masonry.

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
43	John A. Cameron..... N. J. McGillivray, C. C. Snowden, and A. Campbell.	451,340 00	16,723 00	50 00	10 00	1 00	0 30	12 00	2 00	9 00
49	Thos. B. Guest..... Hiram Guest, J. W. Guest.	480,000 00	20,000 00	120 00	12 00	1 50	0 40	50 00	6 00	17 00
57	Geo. Worthington and } James Worthington. } ..... A cash deposit, or other satisfactory security.	297,000 00	11,000 00	64 06	9 00	1 00	0 25	6 60	3 00	10 00
65	John Elliot, Robert Grant, and } ..... Charles Whithead, } James Weyms, J. B. Racy, W. H. Scott.	324,000 00	12,000 00	190 00	10 50	1 25	0 32	25 00	3 00	18 00
69	Thomas Fahey & Co..... George Coté, Patrick Fahey.	525,600 00	21,900 00	70 00	13 00	1 30	0 30	60 00	3 50	9 00
70	A. Hamel & Co..... F. Dionne, C. Marcotte.	607,032 00	23,100 00	80 00	12 50	1 40	0 35	40 00	3 00	9 50
74	R. H. McGreevy & Co... John Heney, James Warnock.	682,917 00	25,293 00	75 00	13 00	1 50	0 40	35 00	2 50	12 00
82	Walter Lawson, and } ..... William Stewart, } Donald Robertson, Wm. Fraser.	796,500 00	29,500 00	52 00	15 00	2 00	0 40	17 00	3 00	18 00
83	Malcolm McDonald ..... James Bent, Wm. M. Fullerton.	671,787 00	24,881 00	350 00	9 25	1 25	0 25	20 00	2 50	7 00
86	James A. Fraser..... John Oulton, Donald Fraser.	712,800 00	26,400 00	22 00	10 50	1 20	0 24	10 50	7 00	9 00
90	George Randall, and } ..... A. W. Schurieber. } Satisfactory security should tenders be accepted.	918,000 00	32,000 00	50 00	9 00	1 25	0 31	10 00	3 00	12 00
94	Jas. McDonald & Co ..... John B. Carmichael, Daniel Chisholm.	429,360 00	15,902 00	39 00	12 00	1 25	0 40	18 00	1 50	14 00
104	Henry Peters ..... Wm. Hare, H. H. Fuller.	657,585 00	24,355 00	100 00	12 00	1 25	0 22½	12 50	2 50	10 00

RAILWAY TENDERS.

No. 4.—Continued.

OF PRICES.

Plank, Pine, per 1000 feet, B. M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yard.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
12 00	12 50	15 00	18 00	20 00	40 00	05	0 10	4 00	12 00	11 00	10 00	9 00	6 09	3 00
25 00	8 00	11 00	13 00	18 00	70 00	05	0 09	4 50	14 00	12 00	12 00	11 00	6 00	9 00
16 00	8 00	12 00	16 00	21 00	23 00	05	0 10	4 50	8 50	8 00	8 00	7 50	3 50	10 00
40 00	12 00	14 00	18 00	20 00	50 00	07	0 12	5 00	16 00	15 00	12 00	11 00	9 00	8 00
18 00	10 00	11 50	15 00	25 00	40 00	04	0 12	4 00	15 00	13 50	9 00	7 50	5 00	6 00
20 00	10 00	12 00	14 00	22 00	50 00	04½	0 13	4 50	16 00	14 00	9 50	8 00	5 00	4 00
19 00	9 00	11 00	13 00	23 00	45 00	05	0 12½	6 00	17 90	14 50	10 25	8 75	6 00	7 25
30 00	10 00	14 00	18 00	20 00	30 00	08	0 10	5 00	13 00	12 00	11 00	10 00	8 00	6 00
10 00	2 50	4 75	9 00	15 00	2 00	06	0 08	1 50	18 00	16 00	10 50	9 25	7 25	3 20
14 00	4 00	5 75	7 00	8 00	0 45	10	0 12½	17 00	18 00	17 50	17 50	17 00	16 00	9 00
14 00	7 00	10 00	15 00	28 00	100 00	05	0 12	8 00	15 00	14 00	10 00	9 00	6 00	4 00
20 00	10 00	8 00	6 25	6 60	* 0 33	09	0 10	5 50	13 00	12 50	10 50	9 00	6 00	2 00
15 00	4 00	6 00	8 00	12 50	21 00	05	0 10	4 00	13 00	11 50	9 00	7 50	6 50	4 50

\* Per foot.

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE							
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.	
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
108	Walter Kerr,..... John R. Weir, Hebron Harris.	445,773 00	16,510 00	42 00	10 00	1 40	0 38	65 50	5 00	15 00	
109	A. W. Masters..... Hon. T. R. Jones, Thomas Temple.	615,600 00	22,800 00	50 00	7 25	1 30	0 38½	30 00	2 00	14 50	
110	Peter McDonald..... Wm. M. Fullerton, James Bent.	594,000 00	22,000 00	340 00	10 50	1 25	0 24	20 00	2 50	6 75	
114	John Stewart Beatty, Frankford Davis and } James A Grant, Thos. A. DeWolfe & Sons, David Stair & Sons.	461,700 00	17,100 00	80 00	12 00	1 00	0 30	12 00	2 00	12 00	
115	J. H. Beatty & Co..... J. A. De Wolfe & Sons, Hiram Blanchard.	513,000 00	19,000 00	80 00	12 00	1 00	0 30	00 12	2 00	9 00	
116	H. Blanchard, } J. H. Beatty, } Thos. A. De Wolfe & Sons, David Stair & Sons.	483,300 00	17,900 00	80 00	11 00	1 10	0 29	12 00	2 00	14 00	
132	Geo. Neilson & Co..... John Bell, John Fraser.	341,016 00	14,209 00	25 00	8 00	1 00	0 25	10 00	1 00	12 00	
139	A. Brooks..... Daniel McLachlin, Daniel Hilliard.	621,000 00	23,000 00	45 00	12 00	1 15	0 40	12 00	1 75	15 00	
142	E. R. Burpee*..... Wm. Parks, Alex. Jardine, Isaac Burpee.	610,200 00	22,600 00	50 60	11 00	1 20	0 40	10 00	1 50	12 00	
143	E. R. Burpee..... Wm. Parks, Alex. Jardine, Isaac Burpee.	631,800 00	23,400 00	50 00	11 00	1 25	0 40	00 12	2 00	13 00	
158	P. G. Brophy..... Edward Griffin, Robt. Skead.	416,070 00	15,410 00	58 00	12 50	1 00	0 30	19 00	1 75	13 00	
164	Isaac Hope & Co..... Samuel Muckleston, Patrick Erown.	430,650 00	15,950 00	70 00	13 00	1 25	0 35	24 00	2 50	14 00	
165	John Goodwin..... Ed. McGilHvray, R. W. Soott.	445,230 00	16,490 00	75 00	13 00	1 30	0 36	26 00	2 50	16 00	

\* Will bind myself, under this tender, to complete the whole before the 1st Nov., 1870 .

RAILWAY TENDERS.

No. 4.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yard.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ 40 00	\$ 9 00	\$ 12 00	\$ 15 00	\$ 24 00	\$ 27 00	08	\$ 0 12 $\frac{1}{2}$	\$ 2 50	\$ 17 00	\$ 16 50	\$ 12 50	\$ 12 00	\$ 8 00	\$ 0 75
30 00	10 00	15 00	20 00	25 00	35 00	05	0 10	4 00	16 50	15 50	10 50	9 00	8 50	4 00
9 50	2 50	4 50	8 50	14 00	2 00	05	0 07	1 50	17 00	15 00	10 00	9 00	7 00	3 00
35 00	2 00	4 00	6 00	15 00	48 00	05 $\frac{1}{2}$	0 12 $\frac{1}{2}$	3 00	13 00	11 00	10 00	8 00	5 00	2 00
45 00	2 00	4 00	6 00	15 00	48 00	05 $\frac{1}{2}$	0 12 $\frac{1}{2}$	3 00	12 00	9 00	8 00	7 00	5 00	2 00
35 00	2 00	4 00	7 00	15 00	46 00	05 $\frac{1}{2}$	0 12 $\frac{1}{2}$	3 00	12 50	11 00	9 50	8 00	5 00	2 00
20 00	6 00	10 00	20 00	20 00	1 00	06	0 09	5 00	12 00	11 00	10 00	8 00	4 00	5 00
25 00	6 00	9 00	12 00	24 00	0 50	08	0 10	4 00	17 00	16 00	7 00	6 00	5 00	4 00
22 00	6 00	8 00	10 00	22 00	0 60	06	0 10	4 00	17 00	16 00	10 00	9 00	7 00	4 00
23 00	7 00	8 00	10 00	22 00	0 65	07	0 10	4 50	18 00	16 50	10 00	8 50	7 50	4 00
17 00	5 50	7 50	11 00	18 00	1 05	05	0 12 $\frac{1}{2}$	4 00	13 00	10 00	8 00	6 00	3 00	4 00
19 00	7 00	8 50	13 50	24 00	1 25	07	0 12	5 00	18 00	16 00	13 00	11 00	5 50	5 50
22 00	10 00	12 00	18 00	30 00	1 50	07	0 12 $\frac{1}{2}$	5 50	18 00	14 00	12 50	10 50	4 00	5 00

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE							
				Clearing, cutting & grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B. M.	
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.	
169	<i>John Brookfield</i> ..... Thos. Briggs, John E. Turnbull.	489,125 00	18,200 00	50 00	8 00	1 00	0 26	25 00	5 00	12 00	
173	<i>Alex. McDonald,</i> } <i>John McDonald,</i> } A. T. Wood, Wm. McGivern.	594,000 00	22,000 00	60 00	10 50	1 00	0 28	15 00	4 50	25 00	
174	<i>Ranald Macdonell,</i> } <i>John Parcell,</i> } Patrick Parsal, Donald McMillan.	580,500 00	21,500 00	60 00	12 00	0 95	0 26	15 00	3 50	25 00	
177	<i>Cooke &amp; Dickson</i> ..... Col. James Crawford, Hon. J. R. Dickson.	513,000 00	19,000 00	120 00	10 00	1 25	0 30	50 00	4 00	20 00	
184	<i>Donald Robertson,</i> } <i>John Worthington.</i> } If contract awarded, to provide proper securities.	499,902 00	18,515 00	50 00	8 00	1 00	0 30	9 00	2 50	15 00	
188	<i>John Ginty &amp; Co</i> ..... James Manning, Thos. Woodside.	413,000 00	15,300 00	120 00	8 00	1 30	0 28	14 00	3 00	19 00	
192	<i>Alexr. Manning &amp; Co</i> ..... J. D. Merrick, Jas. Farquhar.	396,900 00	14,700 00	95 00	9 00	1 25	0 26	12 50	2 50	19 50	
194	<i>John Ferguson &amp; Co</i> ..... Thos. Ferguson & Co., Angus Campbell.	463,000 00	17,148 00	90 00	12 00	1 60	0 31	12 00	2 00	21 00	
200	<i>W. E. Macdonald &amp; Co</i> ..... Edward Griffin, Alex. Johnston.	453,600 00	16,800 00	85 00	10 00	1 50	0 28	12 00	2 00	22 00	
201	<i>Edward Haycock</i> ..... James W. Ritchie, Geo. W. Eaton.	341,116 00	12,633 00	80 00	7 00	1 25	0 25	7 00	1 50	15 00	
205	<i>A. M. Bean &amp; Co</i> ..... Donald Fraser, Alex. McIntosh.	451,840 00	16,734 81	200 00	1 50	1 25	0 30	100 00	1 50	25 00	
209	<i>H. Yates</i> ..... W. McGivern, Alfred Brown.	549,990 00	20,370 00	30 00	8 00	1 00	0 22	*16 50	1 50	11 00	
215	<i>Noble &amp; McIntosh</i> ..... James K. Levekin, James Burns.	383,196 00	14,192 44	60 00	12 00	1 20	0 24	30 00	3 00	12 00	
217	<i>James G. Ross</i> ..... Thos. Webster, James Gibb.	594,000 00	22,000 00	60 00	9 00	0 75	0 35	30 00	4 00	20 00	

\* Under d rains.

## RAILWAY TENDERS.

No 4.—Continued.

## OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
20 00	5 00	9 00	13 00	16 00	30 00	07	0 10	5 50	16 00	15 25	11 00	10 00	8 50	6 00
45 00	8 00	10 00	14 00	45 00	0 45	10	0 14	9 00	15 00	14 00	13 00	12 00	7 00	4 00
40 00	0 10	0 12	0 16	40 00	0 50	10	0 15	8 00	14 50	12 50	12 00	11 00	7 00	5 00
25 00	10 00	12 00	15 00	30 00	60 00	08	0 12	6 00	15 00	14 00	12 00	10 00	8 00	6 00
20 00	9 00	12 00	16 00	25 00	30 00	06	0 10	4 00	12 00	11 50	10 50	10 00	8 00	4 50
28 00	13 00	12 00	13 00	23 00	40 00	09	0 16	6 00	13 00	11 00	10 00	9 00	7 00	5 00
27 00	12 50	12 75	13 00	22 00	36 00	08	0 15	6 00	12 50	11 00	10 00	9 00	8 00	4 75
28 00	14 00	15 00	16 00	26 00	40 00	10	0 13	6 00	14 00	13 00	11 00	9 00	8 00	5 00
30 00	13 00	13 00	14 00	25 00	38 00	08	0 12	6 00	13 00	12 00	10 00	9 00	8 00	5 00
20 00	6 00	9 00	12 00	15 00	30 00	06	0 10	4 00	12 00	11 50	7 00	6 50	6 00	6 00
30 00	20 00	20 00	22 00	25 00	35 00	10	0 12	5 00	14 00	14 00	12 00	11 00	10 00	4 00
12 00	3 50	4 50	7 00	9 50	18 00	03½	0 05½	4 50	11 00	10 00	8 00	7 00	6 50	6 50
15 00	8 00	10 00	14 00	18 00	25 00	07	0 14	5 00	17 00	16 00	11 00	10 00	7 00	4 00
30 00	10 00	15 00	20 00	22 00	45 00	07	0 14	4 00	15 00	14 00	12 00	11 00	6 00	6 00

## INTERCOLONIAL

## SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
224	<i>John McLachlan, Walter M. Buck and S. Parker Tuck, Hon. A. Wetmore, Thomas M. Reed.</i> } ...	\$ cts. 503,456 00	\$ cts. 18,646 00	\$ cts. 180 00	\$ cts. 6 66	\$ cts. 1 75	\$ cts. 0 34	\$ cts. 5 50	\$ c. 0 60	\$ cts. 15 00
225	<i>Ross &amp; McKenzie..... Thos. W. Daniel, John Boyd.</i>	634,500 00	23,500 00	32 00	9 00	1 40	0 35	20 00	2 00	12 00
230	<i>Robert Jobson ..... John W. Gilleland, L. S. Arbuckell.</i>	457,724 00	16,952 00	25 00	13 00	1 25	0 37	15 00	3 00	20 00
231	<i>J. H. Beaubien, M.D., and J. P. L. O'Hanley, Edward McGilivray, Wm. G. Perley.</i> }	459,942 00	17,034 89	32 50	14 75	1 20	0 35	14 75	3 00	14 00
235	<i>Horatio Jell &amp; Ed. Tuck..... Edward Handy, C. J. Ladd.</i>	405,000 00	15,000 00	90 00	* 1 25	1 30	0 28	13 00	2 00	20 00
238	<i>Ephraim A. Jones. .... Joseph Seeton, Robert B. Seeton.</i>	599,346 00	22,198 00	137 50	26 00	1 25	0 30	27 60	6 25	9 00
246	<i>Donald Fraser..... Messrs. Allso and Weir.</i>	489,654 00	18,135 00	20 00	10 00	1 00	0 30	10 50	2 00	11 00
247	<i>James H. Fraser..... James Fraser, Wm. McKay.</i>	370,575 00	13,725 00	40 00	5 00	0 70	0 32	12 00	3 50	10 00

## SECTION

3	<i>Wm. Ellis &amp; Co ..... J. M. Currier, M.P., T. R. Ferguson, M.P.</i>	633,647 00	24,370 00	†	9 00	1 40	†	20 00	1 00	15 00
5	<i>Thos. McGuire &amp; Co..... Thos. Sheridan, James McGuire.</i>	378,978 00	14,576 00	134 00	3 70	1 25	0 17½	5 25	2 80	16 00
9	<i>Onuphe Peltier..... Charles Bertrand, Jean Langlois.</i>	598,000 00	23,000 00	122 00	9 00	1 25	0 24	34 00	2 50	9 00
11	<i>Thos. B. Guest..... James W. Guest, Hiram Guest.</i>	751,950 00	28,882 00	30 00	12 00	1 30	0 28	30 00	4 50	16 00

\* Per rood. † \$18, \$25, and \$100 respectively. ‡ Twenty to forty cents, according to the haul.



RAILWAY TENDERS.

No. 4.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
30 00	10 00	12 50	15 00	12 50	30 00	03½	0 12½	1 50	18 00	17 50	9 00	8 50	6 50	3 00
32 00	10 00	22 00	34 00	40 00	50 00	05	0 10	5 00	16 00	15 00	12 00	10 00	8 50	3 00
25 00	15 00	18 00	20 00	25 00	60 00	06	0 13	4 00	14 00	11 00	7 00	6 00	5 00	*
20 00	5 50	8 75	15 80	20 50	58 00	04½	0 12½	4 00	11 00	10 00	7 15	6 20	5 80	5 00
30 00	0 12	0 12	0 14	0 20	0 36	09	0 12	5 00	12 00	11 00	10 00	8 00	6 00	4 00
20 00	5 00	8 10	8 75	10 00	62 50	06	0 11	12 75	16 00	13 00	13 00	11 25	8 00	8 00
16 00	4 00	6 00	8 00	12 00	20 00	10	0 12½	4 00	13 00	12 00	11 00	10 00	8 50	5 00
20 00	3 50	5 00	7 00	7 50	20 00	07	0 08	6 00	11 00	10 00	9 25	8 75	8 00	5 00

No. 5.

15 00	6 00	9 00	12 00	12 00	35 00	12	0 12	4 00	14 00	13 00	13 00	9 00	7 00	8 00
25 00	15 00	18 00	20 00	45 00	† 1 00	09	0 14	3 50	12 00	10 00	12 00	10 00	4 50	† 5 50
24 00	7 00	11 00	17 00	23 00	44 00	05	0 11	6 00	16 00	15 50	9 00	8 00	5 50	7 00
20 00	9 00	13 00	16 00	18 00	60 00	04	0 09	2 50	14 00	13 00	9 00	8 00	4 00	8 00

\* Included in masonry. † Per foot. ‡ Farmers' gates, according to specification, \$5.50.

INTERCOLONIAL

SECTION

No.	NAMES OF TENDERERS 'AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grabbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
14	J. W. Guest..... J. Moore, A. Nichol.	546,000 00	21,000 00	25 00	11 00	1 00	0 24	25 00	4 00	16 00
17	Sherwood, Campbell & Wood. Turner Koyl, Richard F. Steele.	682,860 00	36,263 84	*	10 00	1 25	0 29	30 00	3 00	25 00
21	H. J. Sutton & Co..... John Squires, Wm. Thirkill.	388,674 00	14,949 00	30 00	4 50	0 75	0 20	12 00	2 00	18 00
22	A. Sanborn..... M. Lebourveau, Lockhart Hall.	517,270 00	19,895 00	16 50	4 00	1 00	0 15	.....	.....	.....
25	C. A. Bailey..... H. H. French, J. L. French.	442,000 00	17,000 00	16 00	3 90	0 90	0 14	6 00	1 00	9 00
29	Geo. Worthington and } James Worthington, } James Worthington, Geo. Worthington.	559,000 00	21,500 00	50 00	9 00	1 00	26 00	10 00	2 50	10 00
31	Alex. McBean & Co..... Dr. McIntosh, Donald Fraser.	611,000 00	23,500 00	75 00	9 00	1 25	0 30	35 00	1 25	17 00
52	Wm. Donohue & Co..... O. Archambault, L. Ouellet.	363,740 00	13,990 00	47 00	9 50	1 00	0 25	15 00	2 75	9 00
33	J. C. Taché..... Edward Ennis, Napoleon Hardy.	702,000 00	72,000 00	40 00	12 00	1 40	0 30	20 00	1 00	30 00
36	Wm. E. Macdonald, } D. Robertson, and } W. H. Mitchell, } Donald McKellar, D. M. Thompson.	530,560 00	20,406 00	30 00	10 00	1 15	0 25	23 00	1 50	15 00
39	Payette & Wright..... Wm. E. E. Shelton, Wm. Cross.	572,000 00	22,000 00	30 00	10 00	1 40	0 28	12 00	1 50	10 00
40	John J. McDonald & Co..... John McKeown, Thos. Thomson.	487,500 00	18,750 00	50 00	10 00	1 12½	0 28	12 00	2 75	16 00
43	A. Brooks & Co..... Daniel Hillyard, A. S. Brown.	598,000 00	23,000 00	36 00	12 00	1 00	0 33	40 00	2 00	15 00

\* Clearing, \$24. Cutting and grabbing, \$100.

RAILWAY TENDERS.

No. 5.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry, in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
20 00	8 00	12 00	15 00	18 00	60 00	04	0 09	2 50	13 00	12 00	8 00	7 00	4 00	7 00
60 00	8 00	15 00	20 00	25 00	25 00	08	0 14	4 00	16 00	15 00	10 00	9 00	8 00	5 00
22 00	9 00	12 00	15 50	16 00	20 00	05	0 10	1 75	12 00	10 00	6 00	5 00	3 00	3 00
.....	.....	.....	.....	.....	.....	04	0 05	.....	6 00	.....	4 00	.....	.....	.....
.....	2 00	2 75	.....	.....	.....	04	.....	.....	6 50	5 00	.....	.....	.....	.....
18 00	8 00	10 00	14 00	20 00	24 00	05	0 10	5 00	10 50	10 00	9 50	9 00	5 00	12 00
20 00	17 50	22 00	27 50	45 00	45 00	08	0 10	5 00	14 00	13 00	10 00	8 00	6 00	7 00
10 00	8 00	9 00	11 00	15 00	40 00	04	0 11	4 00	11 00	10 00	10 00	9 00	5 00	7 00
44 00	10 00	22 50	40 00	48 00	200 00	07	0 10	5 00	12 50	11 00	8 00	6 25	4 00	5 50
22 00	10 00	12 00	13 00	15 00	32 00	10	0 12	4 00	12 00	11 00	7 00	6 00	5 00	*4 00
12 00	10 00	13 00	18 00	25 00	20 00	08	0 10	4 00	11 00	10 00	7 00	6 00	5 00	4 00
32 00	13 00	16 00	18 00	26 00	30 00	09	0 12	5 00	12 50	11 75	9 50	9 00	6 00	5 00
25 00	6 00	9 00	12 00	20 00	40 00	08	0 12	5 00	15 00	13 00	12 00	10 00	8 00	4 00

\* Home Truss superstructure, per lineal foot, \$26.

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
47	Chas. G. Gregory..... T. C. Burpee, E. R. Burpee.	557,700 00	21,450 00	22 00	6 00	1 40	0 28	20 00	1 00	12 00
49	John Wardrop..... Thos. Webster, John Donnelly.	639,400 00	24,592 00	50 00	9 00	1 25	0 28	20 00	3 00	18 00
53	Alex. McDonell & Co..... David Tisdale, J. E. O'Rielly.	503,100 00	19,350 00	60 00	10 50	1 25	0 29	13 00	2 50	17 00
57	Ryan, Cuillier & Co..... John Donnelly..... W. McNaughton.	685,400 00	25,360 00	50 00	10 00	1 40	0 30	20 00	4 00	18 00
58	W. J. Johnstone..... Hon. A. B. Foster, Hon. J. J. C. Abbott.	584,245 00	22,470 96	30 00	8 00	1 20	0 30	30 00	3 50	10 00
	Cooke & Dickson..... H. Abbott, J. B. Rivers.	617,000 00	23,730 00	100 00	8 00	1 40	0 25	30 00	4 00	15 00
64	Elliott, Grant & Whitehead.. James Weyms, W. H. Scott, W. W. Fanan.	605,800 00	23,300 00	160 00	11 00	1 25	0 30	25 00	3 00	17 00
69	John McLachlin and } .. S. Parker Tuck, Wm. F. Harrison, G. J. Chubb.	507,932 00	19,536 00	132 00	6 66	1 50	0 33	5 50	1 00	15 00
71	John A. Cameron..... N. J. McGillivray, C. C. Snowden.	742,807 00	28,569 50	30 00	10 50	1 00	0 30	20 00	3 00	8 00
73	Steacy, Yerston & Co..... Wm. Stuart, Robt. Webster.	657,900 00	25,304 00	60 00	10 00	1 25	0 29	10 00	1 25	15 00
76	Terence McGovern & Co..... Albert Knight, John Henry Pope.	674,750 00	25,951 00	50 00	9 30	1 30	0 29	30 00	5 00	15 00
81	Angus L. Sinclair..... Alex. Sinclair, John McKay.	416,000 00	16,000 00	20 00	6 00	0 90	0 26	9 00	0 75	20 00
86	H. H. Bailey..... Caleb Jordan, Joseph Aubry.	361,400 00	13,900 00	15 00	3 60	0 80	0 12½	5 00	1 00	8 00

RAILWAY TENDERS.

No. 5.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
35 00	3 00	6 00	12 00	15 00	35 00	04	0 08	2 25	13 50	12 50	6 50	6 00	5 00	2 50
25 00	12 00	14 00	20 00	25 00	50 00	12	0 14	4 00	14 00	13 00	11 00	10 50	5 00	5 00
35 00	15 00	17 00	19 00	26 00	30 00	11	0 13	5 25	12 75	12 00	10 00	9 25	6 00	4 50
25 00	13 00	15 00	20 00	28 00	50 00	12	0 15	5 00	14 00	13 00	11 00	10 00	6 00	6 00
18 00	8 00	14 00	16 00	22 00	50 00	04	0 08	3 00	16 00	14 00	10 00	8 00	5 00	3 50
20 00	4 00	6 00	10 00	15 00	30 00	08	0 12½	4 00	15 00	12 00	10 00	8 00	6 00	4 00
40 00	12 00	14 00	18 00	20 00	40 00	07	0 12	5 00	16 00	15 00	12 00	11 00	9 00	8 00
30 00	10 00	12 50	15 00	12 50	30 00	03½	0 12½	1 50	18 00	17 50	10 00	9 00	7 00	4 00
12 00	12 50	15 00	18 00	20 00	40 00	06	0 12	4 50	14 00	12 00	12 50	10 00	7 00	3 00
45 00	4 00	6 00	10 00	25 00	25 00	05	0 10	4 00	15 00	13 00	11 00	10 00	9 50	3 00
20 00	6 00	9 00	12 00	25 00	40 00	10	0 15	5 00	15 00	13 00	12 00	11 00	6 00	5 50
30 00	2 40	3 60	9 00	20 00	16 00	10	0 15	5 00	13 00	12 00	12 50	11 25	10 00	4 00
.....	2 00	2 50	4 00	5 00	.....	.....	.....	.....	6 00	.....	4 00	.....	.....	.....

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Milo.	SCHEDULE							
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet B.M.	
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.	
92	James Abel..... Wm. Choasley, Martin Fox.	533,000 00	20,500 00	20 00	6 00	1 25	0 25	3 00	1 00	20 00	
94	A. F. Macdonald..... James Crnig, George C. Wood.	495,561 45	18,950 00	30 00	8 00	1 10	0 21	13 30	1 00	22 00	
95	Marcus Fournier..... To give all the security re- quired by the Commissioners	360,750 00	13,875 00	16 00	10 00	1 00	0 25	16 00	4 00	1 40	
102	Joseph Fournier..... To give all the security re- quired by the Commissioners	416,000 00	16,000 00	16 00	10 00	1 20	0 25	16 00	4 10	1 45	
103	Collingwood, Schreiber & Co. Black, Bros. & Co., John McDonald.	738,504 00	28,404 00	*	9 00	1 30	0 28	13 00	2 50	14 50	
106	John Halpin & Co..... Chas. G. Sheffers, Jones & Co.	596,768 00	22,952 00	28 00	11 00	1 10	0 22	30 00	3 50	12 50	
109	Simon Peters..... Chas. Samson, John O'Leary.	467,289 60	17,972 60	100 00	14 00	1 40	0 30	50 00	1 50	10 00	
112	Henry Bulmer, } F. Davis and } M. Laurent, } Louis Boyer, Edward Maxwell.	596,700 00	22,950 00	100 00	10 00	1 50	0 30	36 00	5 00	14 00	
114	Wm. Kingsford ..... Geo. B. Godson, Philip A. Derbishire.	482,300 00	18,550 00	95 00	10 50	1 00	0 23	15 50	2 00	15 00	
117	Thomas Fahey & Co..... George Coté, Patrick Fahey.	349,960 00	13,460 00	38 00	11 00	1 00	0 27	21 00	3 00	11 00	
121	James Goodwin..... E. McGillivray, Edwd. Griffin.	499,200 00	19,200 00	65 00	13 50	1 00	0 26	20 00	1 75	17 00	
123	Joseph Rosa..... L. N. Duverney, Joseph B. Trudelle.	501,176 00	19,276 00	10 00	9 00	1 00	0 25	25 00	1 00	13 00	
124	J. B. Resther and } A. J. Auger, } Jacques Auger, E. Hausselman.	551,884 00	21,230 60	10 00	12 00	1 25	0 20	20 00	3 00	2 50	
133	Hamel & Tetu..... Prudent Tetu, Laurent Tetu.	738,000 00	28,400 00	20 00	10 50	1 50	0 30	25 70	2 70	20 00	

\* \$17, \$30, and \$70.

RAILWAY TENDERS.

No. 5.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
20 00	12 00	15 00	20 00	22 00	100 00	15	0 20	1 00	4 75	4 00	3 00	2 75	1 50	1 50
30 00	8 00	11 00	13 00	0 18	0 50	08	0 10	4 50	10 00	8 00	6 00	5 00	3 00	5 00
2 00	5 00	10 00	20 00	25 00	15 00	04	0 08	4 00	4 00	3 60	3 50	3 00	2 30	2 00
2 00	5 00	10 00	20 00	25 00	16 00	04	0 08	4 10	4 15	3 65	3 50	3 10	2 40	2 10
18 00	7 00	8 00	9 00	30 00	40 00	06	0 12	4 50	15 00	13 50	8 50	7 50	6 50	4 00
17 50	6 00	7 50	12 00	20 00	5 50	06	0 10	4 25	11 50	8 50	9 50	8 50	6 25	5 00
20 00	8 00	12 00	16 00	20 00	50 00	07	0 10	4 50	15 00	13 50	8 00	6 50	5 00	6 00
15 00	12 00	14 00	18 00	30 00	35 00	06	0 12	5 00	18 00	16 00	13 00	11 00	8 00	10 00
18 00	8 75	9 25	11 25	21 00	19 00	06	0 10	4 50	13 00	12 00	10 25	9 60	5 00	8 00
13 00	9 00	10 00	12 00	18 00	42 00	03	0 10	4 00	11 50	10 00	10 50	8 00	4 00	6 00
19 00	7 50	9 00	16 50	27 00	1 00	08	0 12	5 50	14 00	12 00	9 00	7 00	3 75	4 00
20 00	8 00	12 00	16 00	20 00	25 00	06	0 10	4 00	15 00	13 00	8 00	7 00	6 00	5 50
2 50	10 00	13 00	18 00	18 00	15 00	06	0 12	4 00	15 00	14 00	5 00	4 00	3 00	3 00
26 00	6 00	9 00	12 00	20 00	30 00	05	0 15	2 25	15 50	14 50	10 50	9 50	6 00	6 50

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE							
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.	
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.	
141	<i>Duncan Macdonald</i> ..... Morland, Watson & Co.	520,000 00	20,000 00	60 00	7 25	1 00	0 25	20 00	1 00	15 00	
143	<i>Ronald Macdonell and</i> } ... <i>John Purcell,</i> <i>Donald McMillan,</i> <i>Patrick Purcell.</i>	613,500 00	23,596 00	40 00	10 50	1 00	0 27	25 00	2 00	25 00	
148	<i>Berlinguet &amp; Huot</i> ..... W. W. Scott, Norbert Germain.	345,997 00	13,307 00	40 00	7 00	0 75	0 30	2 50	1 50	10 00	
150	<i>Wm. Toole</i> ..... Robt. Hamilton, W. H. Scott.	481,687 00	18,526 00	20 00	5 55	0 80	0 22½	6 95	2 00	12 00	
151	<i>R. J. Reekie</i> ..... Peter Redpath, Geo. A. Drummond.	507,000 00	19,500 00	60 00	8 00	1 20	0 30	35 00	1 50	15 00	
154	<i>Charles Touchette</i> ..... Chas. Touchette, Edouard Boudreau.	21,000 00	8 00	16 00	1 00	0 15	2 00	6 00	10 00		
156	<i>John O'Donnell</i> ..... Miles Murphy, Francis Sousise.	507,000 00	19,500 00	60 00	7 50	1 00	0 30	21 00	1 00	15 00	
160	<i>R. H. McGreevy &amp; Co</i> .... John Heney, Michael Kavanagh.	414,700 00	15,950 00	40 00	9 00	1 00	0 25	20 00	4 00	10 00	
161	<i>John Fowler</i> ..... W. J. Fowler, Samuel Fowler.	659,800 00	25,377 00	40 00	6 00	1 50	0 30	10 00	4 00	20 00	
164	<i>Cleophe Cimon</i> ..... Charles Bertrand, Jean Langlois.	650,000 00	25,000 00	124 00	9 30	1 40	0 25	34 00	2 50	9 00	
165	<i>A. W. Schwiger and</i> } ..... <i>Geo. Randall,</i> <i>Shubal H. Randall,</i> <i>Henry Knell.</i>	1,014,000 00	39,000 00	25 00	9 00	1 25	0 31	10 00	3 00	12 00	
169	<i>Manning &amp; Ginty</i> ..... J. D. Merrick, J. E. Smith.	470,000 00	18,423 00	90 00	1 25	1 25	0 24	20 00	2 00	18 00	
174	<i>John Damp</i> ..... John Davis, Joseph McCausland.	528,000 00	20,307 69	80 00	15 00	0 50	0 25	12 00	4 00	16 00	



RAILWAY TENDERS.

No. 5.—Continued.

OF PRICES.

Plank, Pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yard.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
17 50	15 00	20 00	25 00	40 00	40 00	08	0 10	4 00	15 00	13 00	12 00	8 00	6 00	10 00
40 00	0 12	0 15	0 25	0 40	0 50	10	0 15	6 00	13 00	12 00	11 00	10 00	8 00	7 00
15 00	6 00	9 00	12 00	13 00	6 00	04	0 05	2 25	5 00	4 50	4 00	3 50	3 00	3 00
15 00	3 00	4 50	8 00	40 00	15 00	06	0 10	5 00	.....	.....	7 50	4 00	2 00	2 00
20 00	15 00	20 00	25 00	40 00	40 00	06	0 10	5 00	13 00	12 00	10 00	8 00	6 00	10 00
6 00	25 00	30 00	30 00	24 00	20 00	04	0 08	10 10	12 00	9 00	11 00	9 00	8 00	7 00
20 00	22 00	24 00	40 00	40 00	45 00	08	0 10	4 00	15 00	12 00	12 00	10 00	6 00	10 00
12 00	10 00	12 00	15 00	20 00	30 00	04	0 12½	5 00	11 00	10 00	10 00	9 00	5 00	8 00
20 00	5 00	7 00	10 00	20 00	20 00	10	0 12	4 00	10 50	9 50	8 50	7 50	5 00	4 00
24 00	7 00	11 00	17 00	32 00	44 00	05	0 11	6 00	16 50	16 00	9 00	8 00	5 50	7 00
14 00	7 00	10 00	15 00	28 00	50 00	05	0 12	6 00	15 00	14 00	11 00	10 00	6 00	4 00
24 00	10 00	12 00	14 00	16 00	35 00	06	0 12½	3 00	10 00	9 00	8 00	7 00	5 00	2 00
16 00	8 00	10 00	12 00	14 00	35 00	10	0 15	4 00	12 00	8 00	9 00	8 00	4 00	12 00

## INTERCOLONIAL

## SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Dreains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
176	<i>Joseph B. Moore</i> ..... G. L. Marler, Saml. Evans.	693,911 66	26,688 91	32 00	8 40	1 30	0 28	13 50	2 50	15 00
178	<i>F. X. Thompson</i> ..... George Couture, Louis Carrier.	546,000 60	21,000 00	60 00	10 00	1 25	0 30	35 00	1 60	16 00
182	<i>Antoine Pampolin</i> ..... George Couture, Louis Carrier.	527,150 00	20,275 00	60 00	10 00	1 15	0 25	45 00	1 50	10 00
184	<i>E. Demers</i> ..... George Couture, Louis Carrier.	565,500 00	21,750 00	70 00	11 00	1 25	0 30	50 00	1 50	15 00
189	<i>P. Dumontier</i> ..... George Couture, Louis Carrier.	487,500 00	18,750 00	55 00	9 00	1 15	0 26	45 00	1 40	10 00
191	<i>Jacques Jobin</i> ..... George Couture, Louis Carrier.	507,000 00	19,500 00	70 00	10 00	1 25	0 28	35 00	1 50	10 00
194	<i>Louis Cloutier</i> ..... George Couture, Louis Carrier.	585,000 00	22,500 00	70 00	11 00	1 25	0 30	55 00	1 75	15 00
198	<i>P. Thomson</i> ..... George Couture, Louis Carrier.	422,500 00	16,250 00	55 00	9 00	1 15	0 25	30 00	1 30	13 00
200	<i>Magloire Maranda</i> ..... George Couture, Louis Carrier.	442,000 00	17,000 00	55 00	10 00	1 10	0 25	45 00	1 20	10 00
203	<i>Ralph Jones</i> ..... F. Shanly, Dr. W. H. Brouse.	578,750 00	22,258 00	25 00	8 00	0 95	0 26	1 50	1 50	14 00
205	<i>Walter Kerr</i> ..... John Sellick, Hebron Hains.	783,000 00	30,114 00	50 00	12 00	1 30	0 40	10 00	4 00	10 00
208	<i>Ware &amp; Co</i> ..... E. W. Sewell, Thos. H. Oliver.	776,856 00	29,900 00	20 00	8 00	1 25	0 35	20 00	2 50	20 00
211	<i>Malcolm Cameron</i> ..... Geo. E. Desbarats, P. E. Bucke.	517,510 27½	19,840 23	20 00	13 00	1 25	0 25	13 00	2 00	12 50
216	<i>George H. Perry</i> ..... Robert Skead, E. McGillivray.	617,932 00	23,766 00	45 00	25 00	1 00	0 25	3 00	2 00	18 00

## RAILWAY TENDERS.

No. 5.—Continued.

## OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles, not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.
20 00	7 50	8 50	10 00	16 00	38 00	06	0 12½	4 00	16 00	14 25	9 75	8 00	6 50	4 00
21 00	11 00	13 00	16 00	20 00	53 00	06½	0 12	4 00	12 50	10 75	7 50	5 75	4 50	4 50
20 00	8 00	12 00	16 00	19 00	50 00	06	0 11	4 25	12 00	10 75	7 50	6 25	5 00	6 00
22 00	10 00	14 00	18 00	22 00	70 00	07	0 12½	5 00	14 00	12 00	9 00	7 75	5 00	5 00
20 00	8 00	12 00	16 00	20 00	50 00	06	0 11	4 50	12 50	10 75	8 00	6 50	5 00	6 00
20 00	8 00	12 00	16 00	20 00	50 00	06	0 11½	4 00	12 50	10 75	7 50	6 00	4 50	5 00
22 00	10 00	15 00	20 00	27 00	70 00	07½	0 13	5 25	13 00	11 25	8 50	6 00	5 50	6 00
18 00	10 00	12 00	14 00	18 00	45 00	05	0 11	3 75	11 75	10 25	7 00	6 25	4 00	4 00
19 00	8 00	11 00	15 00	18 00	45 00	05½	0 11	3 75	12 00	10 25	7 00	6 00	4 50	5 50
16 00	1 00	1 10	1 25	1 50	0 30	07	0 10	5 00	11 00	10 00	8 50	8 00	7 00	1 50
15 00	15 00	18 00	20 00	30 00	30 00	08	0 15	3 00	15 00	14 50	10 00	9 50	6 00	6 00
26 00	6 00	9 00	12 00	20 00	30 00	04	0 15	2 50	15 00	14 50	10 00	9 50	6 00	6 50
16 00	5 00	8 00	14 00	19 00	55 00	04½	0 12½	3 50	11 00	10 00	7 00	6 00	5 00	4 00
24 00	6 00	8 00	12 00	15 00	25 00	06	0 12	5 00	12 00	10 00	7 00	5 50	4 50	3 00

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.		Amount per Mile.	SCHEDULE														
		\$	cts.		\$	cts.	Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.						
218	George Neilson..... Wm. Sutherland, James Gordon.	634,686	00	24,411	00	25	00	10	00	1	20	0	27	35	00	1	25	20	00
221	John Worthington & Co..... Samuel Platt, Wm. Bush.	585,060	00	22,510	00	50	00	8	00	1	20	0	26	8	00	3	00	15	00
225	John Steacy..... Joseph Stuart, C. Fletcher.	675,350	00	25,975	00	55	00	10	00	1	25	0	29	11	00	1	50	15	00
227	Andrew Elliott and } Wm. Robinson, } Geo. Stephen, John Shedden.	637,000	00	24,500	00	170	00	10	80	1	00	0	31	13	00	3	00	15	00
231	A. S. Brown..... James Glass, A. Sutherland.	800,420	00	30,785	00	24	00	12	00	1	40	0	38	43	00	2	00	20	00
233	Aug. Trepanier..... François Gingras, Olivier Mathieu.	492,550	00	18,944	00	20	00	10	00	1	20	0	24	15	00	2	00	10	00
237	Mich. Petin and } Et. Dussault & Sons, } H. McHugh, James Gibson, Et. Dussault.	441,610	00	16,958	00	*		6	00	0	90	0	25	0	30	1	50	10	00
241	Andrew Bell..... Brunet Rosamond, Richard O'Brien.	726,700	00	27,950	00	15	00	10	00	1	40	0	30	4	00	2	00	15	00
243	L. Maclean..... Joseph Archer, Messrs. Archer & Co.	563,070	00	21,656	00	32	00	25	00	1	20	0	20	6	00	3	00	10	00
247	J. & G. Jackson..... Thos. W. Walsh, R. S. Livingstone.	517,400	00	19,900	00	130	00	10	00	1	25	0	30	15	00	3	00	18	00
250	Edward Haycock..... J. W. Ritchie, R. H. Haycock.	361,574	00	13,907	00	50	00	7	00	1	25	0	26	11	00	2	00	15	00
251	A. Hamel & Co..... J. C. Marcotte, S. O. Rousseau.	380,120	00	14,620	00	37	00	10	00	1	05	0	23	18	00	3	00	9	00

\* \$10, \$10, and \$20.

RAILWAY TENDERS.

No. 5.—*Concluded.*

OF PRICES.

Plank, Pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
40 00	15 00	20 00	30 00	30 00	50 00	08	0 12	5 00	12 00	11 50	9 00	8 00	7 00	5 00
20 00	9 00	12 00	16 00	25 00	30 00	06	0 10	4 00	11 00	10 50	8 50	8 00	7 00	3 00
50 00	4 00	7 00	14 00	20 00	30 00	05	0 10	3 50	15 00	14 00	12 00	10 50	10 00	3 50
25 00	10 00	12 00	15 00	15 00	20 00	10	0 12	5 00	13 00	13 00	10 00	10 00	8 00	5 00
40 00	15 00	20 00	30 00	30 00	50 00	08	0 12	6 00	13 00	12 00	11 00	10 00	9 00	7 00
13 00	8 00	10 00	12 00	20 00	55 00	06	0 12	5 00	13 50	11 25	8 00	6 50	5 00	5 00
15 00	4 00	5 50	7 00	20 00	40 00	05	0 09	2 30	12 00	11 00	8 50	6 00	4 00	5 50
20 00	10 00	15 00	20 00	25 00	28 00	05	0 10	3 50	16 00	15 00	11 00	9 00	5 00	2 50
16 00	7 00	10 50	14 00	15 00	40 00	05	0 10	3 50	15 00	12 50	14 00	12 00	4 00	13 00
25 00	10 00	12 00	17 00	25 00	35 00	05	0 10	5 00	16 00	15 00	12 00	11 00	6 00	7 00
20 00	8 00	12 00	16 00	20 00	30 00	06	0 10	4 80	12 00	11 50	8 00	7 50	6 00	6 00
10 00	11 00	12 00	14 00	21 00	35 00	03½	0 12	4 00	10 50	10 00	9 50	9 00	4 00	7 00

INTERCOLONIAL

SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE							
				Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Planks, hemlock or spruce, per 1000 feet, B.M.	
				\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.
1	Wm. Ellis & Co..... J. M. Currier, M. P., T. R. Ferguson, M. P.	364,153 00	17,340 00	*	9 00	1 25	†	20 00	1 00	15 00	
6	John Parry & Co..... Martin C. Upper, Archibald Galbraith.	370,825 00	17,658 81	40 00	15 00	1 00	0 25	10 00	3 00	10 00	
8	F. W. Steeves & Co..... Frederic Steeves, Wm. H. Steeves.	248,900 00	11,852 38	14 00	6 50	1 00	0 24	8 00	1 00	8 00	
12	Thos. B. Guest..... James W. Guest, Hiram Guest.	455,200 00	21,676 19	40 00	12 00	1 30	0 28	30 00	4 50	16 00	
15	J. W. Guest..... James Moore, Andrew Nichol.	399,000 00	19,000 00	25 00	11 00	1 00	0 24	25 00	4 00	16 00	
16	Sherwood, Campbell & Wood. Turner Koyl, Richard F. Steele.	498,650 00	23,632 60	+	10 00	1 15	0 27	30 00	3 00	25 00	
19	Strickland & O'Brien..... James Burnskill, John Kirby.	353,850 00	15,421 00	60 00	5 50	0 80	0 22	20 00	3 00	17 00	
23	A. Sanborn..... Moses Lebourveau, Lockhart Hall.	364,350 00	17,350 00	16 50	4 00	1 00	0 15	.....	.....	.....	
27	C. A. Bailey..... H. H. French, J. L. French.	302,400 00	14,400 00	16 00	3 90	0 90	0 14	6 00	1 00	9 00	
35	W. H. Mitchell..... Donald McKellar, D. M. Thompson.	358,500 00	18,500 00	35 00	11 00	1 10	0 26	24 00	1 40	13 00	
38	Payette & Wright..... E. B. Shelton, W. Cross.	405,300 00	19,300 00	38 00	10 00	1 30	0 30	8 00	1 50	10 00	
41	John J. McDonald & Co..... John McKeoun, Thos. Thomson.	396,900 00	18,900 00	45 00	10 00	1 25	0 28	12 00	3 00	16 00	
44	A. Brooks & Co..... David Hilliard, A. S. Brown.	535,000 00	25,500 00	40 00	12 00	1 25	0 35	40 00	2 00	15 00	
48	Chas. C. Gregory..... E. R. Burpee, A. Brooks.	441,000 00	21,000 00	22 00	10 00	1 25	34	30 00	1 50	12 00	

\$18, \$25, and \$100 respectively. † Twenty t forty cents according to haul.  
Clearing, \$24; Cutting and grubbing, \$100.0

RAILWAY TENDERS.

No. 6.

OF PRICES.

Plank, Pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yard.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
15 00	6 00	9 00	12 00	12 00	35 00	12	0 12	4 00	11 00	10 00	10 00	9 00	7 00	8 00
12 00	10 00	12 50	15 00	18 00	20 00	06	0 12	3 00	8 00	7 00	7 00	6 00	4 00	5 00
11 00	3 00	4 00	5 00	6 00	7 00	04½	0 08	2 00	10 00	8 00	7 50	5 00	4 00	2 00
20 00	9 00	13 00	16 00	18 00	15 00	04	0 09	3 00	14 00	13 00	9 00	8 00	4 00	8 00
20 00	8 00	12 00	15 00	18 00	60 00	04	0 09	2 50	13 00	12 00	8 00	7 00	4 00	7 00
60 00	8 00	15 00	20 00	25 00	25 00	08	0 14	4 00	16 00	15 00	10 00	9 00	8 00	5 00
23 00	10 00	13 00	16 00	17 50	25 00	05½	0 11	2 25	13 50	11 50	7 00	6 00	3 00	5 00
.....	.....	.....	.....	.....	.....	04	0 05	.....	6 00	.....	4 00	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	6 50	.....	5 00	.....	.....	.....
27 00	10 00	11 00	12 00	15 00	32 00	11	0 13	4 00	12 50	11 50	8 00	7 00	5 50	4 00
12 00	10 00	13 00	18 00	25 00	20 00	08	0 10	4 00	12 00	11 00	9 00	8 00	5 00	3 00
32 00	13 00	16 00	18 00	28 00	35 00	09	0 12	7 00	13 00	12 00	10 50	10 00	6 00	5 00
25 00	6 00	9 00	12 00	20 00	40 00	08	0 12	5 00	15 00	13 00	12 00	10 00	8 00	4 00
30 00	5 00	7 00	12 00	15 00	35 00	05	0 08	2 50	15 00	14 00	7 00	6 50	5 50	2 00

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE							
				Clearing, cutting and grubbing, per acre.	Fencing per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.	
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
50	John Wardrop..... T. Webster, John Donnelly.	428,900 00	20,423 00	50 00	9 00	1 25	0 29	25 00	4 00	18 00	
52	Alex. McDonell & Co..... D. Tisdale, J. E. O'Reilly.	406,350 00	19,350 00	60 00	10 50	1 25	0 28	13 00	2 50	17 00	
56	Ryan, Cuivillier & Co..... John Donnelly, Wm. McNaughton.	454,000 00	21,619 00	60 00	10 00	1 35	0 29	30 00	4 50	19 00	
59	W. J. Johnston..... Hon. A. B. Foster, Hon. J. J. C. Abbott.	446,250 00	21,250 00	30 00	8 00	1 20	0 30	30 00	3 50	10 00	
62	Cook & Dickson..... H. Abbott, J. B. Rivers.	304,500 00	14,500 00	100 00	8 00	1 25	0 25	30 00	4 00	15 00	
66	Elliott, Grant & Whitehead.. James Weyms, W. H. Scott. W. W. Fanen.	325,500 00	15,500 00	160 00	11 00	1 25	0 30	25 00	3 00	17 00	
67	John McLachlan, and } S. Parker Tuck, } Geo. Fleming, Z. Adams.	336,526 00	16,025 00	132 00	6 66	1 50	0 33	5 50	1 00	15 00	
72	John A. Cameron..... N. J. McGillivray, C. C. Snowdon.	572,300 00	27,252 38	40 00	10 50	1 00	0 30	20 00	3 00	8 00	
74	Stacy, Forston & Co..... Wm. Stuart, Robt. Webster.	506,550 00	24,121 00	60 00	11 00	1 30	0 30	11 00	1 50	16 00	
78	Terence McGovern & Co..... A. Knight, J. H. Pope.	443,500 00	20,900 00	50 00	9 50	1 30	0 29	30 00	5 00	15 00	
79	Angus L. Sinclair..... Alex. Sinclair, John McKay.	237,300 00	11,300 00	24 00	6 00	0 75	0 20	7 00	0 69	16 00	
82	Otty, McKenzie & Co..... Hon. Edward Williston, Hon. B. Botsford, James Robertson.	312,992 00	14,904 38	25 00	4 00	1 00	0 25	11 30	0 90	10 00	
88	H. H. Bailey..... Caleb Jordan, Joseph Aubry.	270,165 00	12,865 00	15 00	3 60	0 80	0 12	5 00	1 00	8 00	
89	Jas. A. Grant & Co..... T. A. De Wolfe & Sons, David Starr & Sons.	317,100 00	15,100 00	60 00	9 00	1 05	0 26	10 50	2 60	9 00	



RAILWAY TENDERS.

No 6.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 8 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yard.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ 25 00	\$ 13 00	\$ 15 00	\$ 20 00	\$ 28 00	\$ 50 00	12	\$ 0 15	\$ 4 00	\$ 15 00	\$ 14 00	\$ 11 00	\$ 10 00	\$ 6 00	\$ 6 00
34 00	14 00	16 00	18 00	26 00	30 00	11	0 13	6 00	13 00	12 00	10 50	9 50	6 00	4 50
24 00	14 00	16 00	21 00	27 00	55 00	13	0 15	4 50	16 00	14 00	11 50	9 50	5 50	6 00
18 00	8 00	14 00	16 00	22 00	50 00	04	0 07	3 00	16 00	14 00	10 00	8 00	5 00	3 50
20 00	4 00	6 00	10 00	15 00	30 00	08	0 12½	4 00	12 00	10 00	8 00	7 00	5 00	4 00
40 00	12 00	14 00	18 00	20 00	40 00	07	0 12	5 00	16 00	15 00	12 00	11 00	9 00	8 00
30 00	10 00	12 50	15 00	12 50	30 00	03½	0 12½	1 50	15 00	17 50	10 00	9 00	7 00	4 60
12 00	12 50	15 00	18 00	20 00	40 00	06	0 12	4 50	14 00	12 00	12 50	10 00	7 00	3 00
48 00	5 00	7 00	12 00	26 00	26 00	05	0 10	4 50	16 00	14 50	12 00	11 00	10 00	4 00
20 00	6 00	9 00	12 00	25 00	40 00	10	0 15	5 00	15 00	13 00	12 00	10 00	6 00	5 50
24 00	2 60	3 40	9 70	20 00	17 00	07	0 11	3 50	8 00	7 00	7 50	7 00	6 50	4 50
17 00	4 00	6 00	12 00	12 50	20 00	03	0 05	3 50	10 50	10 00	8 00	7 25	7 00	1 50
.....	.....	.....	.....	.....	.....	04	0 05	.....	6 00	.....	4 00	.....	.....	.....
18 00	12 00	9 00	14 00	16 00	0 30	06	0 09	2 50	14 00	9 00	8 50	6 50	4 50	2 25

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
93	James Abel..... Wm. Cheasley, Martin Fox.	277,600 00	15,600 00	25 00	6 00	1 25	0 25	4 50	1 00	20 00
98	R. J. Mitchell & Co..... David Starr & Sons, DeWolf & Sons.	399,000 00	15,000 00	33 00	9 00	1 00	0 30	12 00	3 50	7 00
99	Martin Murphy & Co..... J. DeWolf & Son. J. D. Nash.	336,000 00	16,000 00	35 00	10 00	1 00	0 29	12 00	3 50	8 00
101	Wm. Buchanan..... Chas. Burpee, M. P., R. T. Babbitt, M. P. P.	360,000 00	15,000 00	90 00	18 00	1 25	0 25	4 80	3 00	12 00
—	Collingwood, Schreiber & Co. Black Bros. & Co., John McDonald.	473,844 00	22,564 00	*	9 00	1 25	0 27	13 00	2 50	13 00
107	J. B. Dussault, Frère & Co., Property valued at \$2,000.	848,843 00	40,421 05	30 00	10 00	0 60	0 60	1 50	1 50	1 50
110	Simon Peters..... Chas. Samson, John O'Leary,	388,731 00	18,511 00	100 00	14 00	1 40	0 32	50 00	1 50	10 00
111	H. Bulmer, F. David, and } M. Laurent. } Louis Boyer, Edward Maxwell.	409,500 00	19,500 00	100 00	10 00	1 50	0 30	30 00	5 00	14 00
—	Wm. Stubbs..... John Poupore, E. McGillivray, J. R. O'Connor.	445,600 00	21,220 00	65 00	8 00	1 25	0 25	50 00	1 00	*15 00
115	Horatis Jell and } Edward Tuck, } C. J. Ladd, Edward Handy.	375,900 00	17,900 00	30 00	10 00	1 15	0 26	23 00	1 50	12 00
119	Thomas Fahey & Co..... George Coté, Patrick Fahey,	325,500 00	15,500 00	45 00	11 00	0 95	0 29	21 00	3 00	11 00
120	P. G. Brophy & Co..... Jas. Goodwin, Geo. Goodwin.	357,000 00	17,000 00	67 00	12 00	1 25	0 30	18 60	2 00	14 75
122	Jos. Rosa, and } Alexander Fraser, } Jas. Ritchie, Wm. Hamilton.	252,000 00	12,000 00	10 00	9 00	1 00	0 28	25 00	1 00	18 00
126	Townsend, Walker & Co..... David G. Dickson, Wm. Hickman.	381,801 00	18,181 00	60 00	8 00	1 25	0 25½	14 10	0 80	15 00

\* \$18; \$34, and \$80.

RAILWAY TENDERS.

No. 6.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
20 00	12 00	15 00	20 00	22 00	100 00	15	0 20	1 00	4 75	4 00	3 00	2 75	1 50	1 50
25 00	6 00	7 00	9 00	9 50	80 00	05½	0 11	40 50	11 00	10 50	9 00	8 00	6 00	.....
25 00	4 00	6 00	8 00	9 00	100 00	04½	0 10	4 25	10 50	9 50	9 00	8 50	4 75	5 00
18 00	15 00	18 00	20 00	30 00	100 00	06	0 09	1 25	15 00	14 00	12 00	10 00	7 00	7 00
15 00	7 00	8 00	9 00	15 00	30 00	06	0 12½	4 50	14 25	12 75	8 50	7 50	6 50	4 00
2 00	25 00	25 00	25 00	25 00	30 00	08	0 12½	4 00	30 00	30 00	25 00	25 00	25 00	30 00
20 00	8 00	12 00	16 00	20 00	50 00	07	0 10	4 50	15 00	13 50	8 00	6 50	5 00	6 00
15 00	12 00	14 00	18 00	30 00	35 00	06	0 12	5 00	15 00	13 00	12 00	10 00	8 00	10 00
*18 00	*10 00	*12 00	*15 00	*15 00	25 00	10	0 15	2 00	13 50	12 50	9 50	8 75	5 00	5 75
25 00	9 00	10 00	12 00	14 00	30 00	08	0 12	3 75	12 00	11 50	7 50	6 50	5 50	3 50
13 00	9 00	10 00	12 00	18 00	42 00	03	0 10	4 00	11 50	10 50	10 00	9 00	4 00	8 00
17 95	6 80	10 00	17 40	26 00	1 00	07½	0 13	6 25	13 25	12 00	8 60	7 25	3 50	4 40
20 00	8 00	12 00	10 00	20 00	25 00	06	0 10	4 00	15 00	13 00	8 00	7 00	6 00	5 50
17 00	4 50	7 00	13 50	20 00	21 00	04	0 10	3 50	14 25	13 25	10 00	9 00	7 00	7 00

\* On the ground but not in work.

## INTERCOLONIAL

## SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
127	<i>H. B. Leather</i> ..... Donald Fraser, James Fraser.	480,400 00	22,876 00	50 00	10 00	1 00	29 00	9 00	4 00	10 00
129	<i>James McDonald &amp; Co.</i> ..... John R. Carmichael, Daniel Chisholm.	304,500 00	14,500 00	47 00	10 50	1 18	0 30	12 00	3 00	8 00
132	<i>Wm. Buchanan</i> ..... C. Burpee, M. P., R. T. Babbitt, M. P. P.	375,500 00	15,500 00	90 00	18 00	1 25	0 25	4 80	3 00	12 00
134	<i>Frankford, Davis &amp; Co.</i> ..... Thos. A. S. DeWolfe & Son, David Starr & Sons, Shaw & Murphy.	392,700 00	18,700 00	90 00	9 00	0 95	0 25	10 50	3 00	9 00
136	<i>Henry Walford &amp; Co.</i> .....	524,834 00	24,992 00	176 00	10 00	1 25	0 30	12 00	3 25	8 50
140	<i>Duncan McDonald</i> ..... Morland, Watson & Co.	500,000 00	23,170 00	30 00	10 00	1 00	0 30	30 00	1 00	15 00
144	<i>Ronald Macdonell and John Purcell,</i> } <i>Donald McMillan, Patrick Purcell.</i>	498,940 00	23,759 00	75 00	10 50	1 00	0 26	25 00	1 50	25 00
147	<i>Berlinguet &amp; Huot</i> ..... W. W. Scott, N. Germain.	241,806 00	11,514 00	40 00	7 00	0 75	0 30	2 50	1 50	10 00
149	<i>Wm. Toole</i> ..... Robert Hamilton, W. H. Scott.	408,200 00	19,438 09	20 00	5 55	0 90	0 24	6 95	2 00	12 00
152	<i>Robert James Reekie</i> ..... Peter Redpath, Geo. A. Drummond.	410,000 00	19,524 00	60 00	8 00	1 20	0 30	35 00	1 75	15 00
154	<i>Charles Touchette</i> ..... Chas. Touchette, Edouard Boudreau.	.....	21,000 00	8 00	16 00	1 00	0 15	2 00	6 00	10 00
—	<i>John O'Donnell</i> ..... Miles Murphy, Francis Suscise.	449,287 00	21,347 00	65 00	7 50	1 00	25 00	21 00	1 00	15 00
159	<i>R. H. McGreevy &amp; Co.</i> ..... John Heney, M. Kavanagh.	344,166 00	16,388 86	40 00	10 00	1 00	0 27	20 60	4 00	14 00
163	<i>John Fowler</i> ..... W. J. Fowler, Samuel Fowler.	452,800 00	21,562 00	40 00	6 00	1 50	0 30	10 00	4 00	20 00

RAILWAY TENDERS.

No. 6.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in w.r.f., per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yard.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
20 00	3 00	4 50	6 00	8 00	20 00	06	0 07	5 00	12 00	11 00	10 50	9 50	7 00	4 50
12 00	3 00	5 00	8 00	12 00	14 00	08	0 12½	5 00	15 00	14 00	12 50	11 50	7 50	3 50
18 00	15 00	18 00	20 00	30 00	100 00	06	0 09	5 00	15 00	14 00	12 00	10 00	7 00	7 00
18 00	12 00	9 00	15 00	16 00	35 00	06	0 10	3 00	14 00	10 00	9 00	8 00	6 00	2 50
15 00	12 00	13 00	14 00	17 00	20 00	08½	0 10	3 50	15 00	13 50	11 00	10 00	9 00	4 00
20 00	17 50	22 00	26 00	40 00	45 00	08	0 10	4 00	15 00	13 50	12 00	8 25	6 25	10 00
46 00	0 12	0 15	0 25	0 40	0 50	10	0 15	7 00	15 00	14 00	13 00	12 00	0	7 00
15 00	6 00	9 00	12 00	13 00	8 00	04	0 05	2 25	5 00	4 50	4 00	3 50	3 00	3 00
15 00	3 00	4 50	8 00	40 00	.....	08	0 10	5 00	.....	.....	7 50	4 00	2 00	.....
20 00	15 00	20 00	25 00	40 00	40 00	06	0 10	5 00	13 00	12 00	10 00	8 00	6 00	10 00
6 00	25 00	30 00	30 00	24 00	20 00	04	0 08	10 10	12 00	9 00	11 00	9 00	8 00	7 00
22 00	22 00	26 00	40 00	40 00	42 50	08	0 10	4 00	14 00	13 00	12 00	11 00	10 00	10 00
12 00	10 00	12 00	15 00	20 00	40 00	04	0 12½	5 00	12 00	10 50	11 00	9 50	5 00	7 00
20 00	5 00	7 00	10 00	20 00	20 00	10	0 12	4 00	10 50	9 50	8 50	7 50	5 00	4 00

## INTERCOLONIAL

## SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting & grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
166	A. W. Schwrieger and } Geo. Randall, S. H. Randall, Henry Knell.	633,150 00	30,150 00	40 00	9 00	1 25	0 31	10 00	3 00	12 00
168	G. P. Carr & Co..... Geo. Sanderson, F. W. Stayner.	309,999 90	14,761 90	30 00	5 00	1 00	0 20	5 00	3 00	10 00
170	Manning & Ginty..... J. Merrick & Bros., Jas. E. Smith.	332,000 00	16,143 00	90 00	1 25	1 12½	0 25	20 00	2 00	10 00
173	John Damp..... John Davis, Joseph McCausland.	477,400 00	22,733 33	80 00	15 60	0 50	0 25	12 00	4 00	16 00
177	Joseph B. Moore..... G. L. Marler, Samuel R. Evans.	489,428 73	23,306 13	32 00	8 40	1 30	0 27	13 50	2 50	15 00
180	F. X. Thompson ..... George Couture, Louis Carrier.	315,000 00	15,000 00	60 00	10 00	1 25	0 30	35 00	1 60	16 00
181	Antoine Pampalon ..... George Couture, Louis Carrier.	262,500 00	12,560 00	55 00	10 00	1 10	0 25	40 00	1 25	10 00
186	E. Demers..... Geo. Couture, Louis Carrier.	287,700 00	13,700 00	60 00	10 00	1 15	0 27	45 00	1 50	12 00
188	P. Dumontier..... Geo. Couture, Louis Carrier.	273,000 00	13,000 00	55 00	9 00	1 15	0 26	45 00	1 40	16 00
190	Jacques Jobin..... Geo. Couture, Louis Carrier.	241,500 00	11,500 00	60 00	9 00	1 15	0 25	35 00	1 25	10 00
195	Louis Cloutier..... Geo. Couture, Louis Carrier.	327,600 00	15,600 00	65 00	10 50	1 25	0 28	47 00	1 50	12 00
197	P. Thompson ..... Geo. Couture, Louis Carrier.	301,854 00	14,374 00	60 00	10 00	1 25	0 28	35 00	1 50	15 00
201	Magloire Maranda..... Geo. Couture, Louis Carrier.	344,400 00	16,400 00	70 00	11 00	1 30	0 30	60 00	1 60	12 00

## RAILWAY TENDERS.

No. 6.—Continued.

## OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron per lb.	Wrought iron, in- cluding spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class mason- ry in cement, per cubic yard.	Second-class mason- ry in common lime, per cubic yd.	Second-class mason- ry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
14 00	7 00	10 00	15 00	28 00	50 00	05	0 12	6 00	15 00	14 00	11 00	10 00	6 00	4 00
9 00	8 00	9 00	11 00	12 00	19 00	05	0 08	6 00	8 00	7 00	6 00	5 00	3 00	4 00
24 00	10 00	12 00	14 00	16 00	35 00	06	0 12½	3 00	10 00	9 00	8 00	7 00	5 00	2 00
16 00	8 00	10 00	12 00	14 00	35 00	10	0 15	4 00	12 00	8 00	9 00	8 00	4 00	12 00
20 00	7 50	8 50	10 00	18 00	40 00	06	0 12½	4 00	15 25	13 50	9 75	8 00	6 50	4 00
21 00	11 00	13 00	16 00	20 00	55 00	06½	0 12	4 00	12 50	10 75	7 50	5 75	4 50	4 50
20 00	7 50	11 50	14 00	18 00	50 00	06	0 11½	3 75	11 50	9 75	7 00	5 75	6 00	5 50
22 00	8 00	12 00	16 00	20 00	60 00	07	0 12	4 50	13 00	11 00	8 00	6 50	4 75	5 00
20 00	8 00	12 00	16 00	20 00	50 00	06	0 11	4 50	12 50	10 75	8 00	6 50	5 00	6 00
20 00	7 00	11 00	15 00	18 00	45 00	05½	0 11	4 00	11 00	9 50	7 00	5 75	5 00	4 50
22 00	9 00	12 00	16 00	20 00	60 00	07	0 12½	4 75	11 75	10 50	8 25	6 75	6 00	6 00
20 00	12 00	14 00	18 00	20 00	50 00	06	0 12	4 00	12 50	10 75	7 50	6 25	4 50	4 50
22 00	9 00	12 00	15 00	20 00	70 00	07	0 12½	5 00	13 00	11 00	9 00	7 50	6 00	6 00

INTERCOLONIAL

SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts
202	Ralph Jones..... F. Shanly, Dr. W. H. Brouse.	410,500 00	19,548 00	*	8 00	0 95	0 24	1 50	1 50	14 00
207	Walter Kerr..... John Sellick, Hebron Harris.	574,850 00	27,373 80	45 00	13 00	1 25	0 38	11 00	5 00	12 00
209	Ware & Co..... E. W. Sewell, T. H. Oliver.	565,465 00	26,600 00	30 00	8 00	1 25	0 33	20 00	2 50	20 00
212	Malcolm Cameron..... Geo. E. Desbarats, P. G. Bucke.	301,000 00	14,344 23	25 00	13 00	1 25	0 25	13 00	2 00	12 50
215	Geo. H. Perry..... Robert Skead, E. McGillivray.	418,383 00	19,923 00	30 00	25 00	1 25	0 25	3 00	2 00	18 00
219	Geo. Neilson..... Wm. Sutherland, James Gordon.	527,444 00	24,164 00	32 00	10 00	1 40	0 35	40 00	1 25	20 00
220	John Worthington..... Samuel Platt, Wm. Bush.	410,970 00	19,570 00	25 00	8 00	1 25	0 25	8 00	3 00	15 00
224	John Steacy..... Joseph Stewart, C. Fletcher.	484,500 00	23,738 00	60 00	10 00	1 40	0 30	11 00	1 25	15 00
226	Andrew Elliott and } Wm. Robinson, } Geo. Stephen, John Shedden.....	495,600 00	23,600 00	170 00	10 80	1 10	0 31	13 00	3 00	15 00
230	A. S. Brown..... James Glass, A. Sutherland.	574,550 00	27,359 00	40 00	12 00	1 40	0 38	43 00	2 00	20 00
232	Aug. Trepanier..... François Gingras, Olivier Mathieu.	373,450 00	17,733 00	20 00	10 00	1 20	0 24	15 00	2 00	10 00
236	Mich. Piton and } Et. Dussault & Sons, } H. McHugh, James Gibson.	373,800 00	17,800 00	†	6 50	0 90	0 25	30 00	1 50	10 00
238	Peter Ross and } A. L. McKenzie, } Thos. W. Daniel, John Boyd.	420,466 80	20,022 23	148 00	8 40	1 25	0 25	6 00	1 50	12 00

\* \$25 and \$150. † \$10; \$10 and \$20.



RAILWAY TENDERS.

No. 6.—Continued.

OF PRICES.

Flank, Pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yard.	Second class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
16 00	1 00	1 10	1 25	1 50	0 30	07	0 10	5 00	11 00	10 00	8 50	8 00	7 00	1 50
15 00	16 00	19 00	21 00	32 00	30 00	08	0 15	3 00	15 00	14 50	11 00	10 50	7 00	6 00
26 00	6 00	9 00	12 00	20 00	30 00	04	0 15	2 50	15 00	14 50	10 00	9 50	6 00	6 50
17 00	5 00	8 00	14 00	19 00	35 00	04½	0 12½	3 30	11 00	10 00	7 00	6 00	5 00	4 00
24 00	6 00	8 00	12 00	15 00	25 00	06	0 12	5 00	12 00	10 00	7 00	5 50	4 50	3 00
40 00	15 00	20 00	30 00	30 00	50 00	08	0 12	5 00	12 00	11 00	9 00	8 00	7 00	5 00
20 00	9 00	12 00	16 00	25 00	30 00	06	0 10	4 00	10 50	10 00	8 00	7 50	6 50	3 00
47 00	5 00	7 00	10 00	23 00	26 00	05	0 10	4 00	15 00	14 00	12 00	10 50	9 00	3 50
25 00	10 00	12 00	15 00	15 00	20 00	10	0 12	5 00	13 00	13 00	10 00	10 00	8 00	5 00
40 00	15 00	20 00	30 00	30 00	50 00	08	0 12	6 00	13 00	12 50	11 00	10 50	10 00	7 00
18 00	8 00	10 00	12 00	20 00	58 00	06	0 12	5 00	13 50	11 25	8 00	6 50	5 00	5 00
15 00	4 00	5 50	7 00	20 00	40 00	05	0 09	2 30	12 00	11 00	8 50	6 00	4 00	5 50
32 00	10 00	11 00	12 00	15 00	50 00	05	0 09	5 00	15 00	14 00	10 00	9 00	8 00	2 00

INTERCOLONIAL SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drainage, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce per 1000 feet, B. M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
240	Andrew Bell..... B. Rosamond, Richd. O'Brien.	493,500 00	23,500 00	25 00	9 00	1 10	0 27½	4 00	1 75	15 00
244	L. Maclean..... Joseph Archer, Archer & Co.	438,963 00	20,903 00	32 00	25 00	1 20	0 20	6 00	3 00	10 00
245	J. & G. Jackson..... Thos. W. Walsh, R. T. Livingstone.	413,700 00	19,700 00	150 00	10 00	1 25	0 30	15 00	3 00	18 00
248	Edward Haycock..... J. W. Ritchie, R. H. Haycock.	321,055 00	15,288 00	50 00	7 00	1 25	0 26	11 00	2 00	15 00

SECTION

2	Wm. Ellis & Co..... J. M. Currier, M. P., T. R. Ferguson, M. P.	528,321 00	20,000 00	*	9 00	1 25	†	20 00	1 00	15 00
4	Thos. Lowe, and } Ira Hanson, Thos. Lowe, Ira Hanson.	358,248 00	14,927 00	30 00	8 00	0 65	0 13	9 45	0 25	7 20
7	John Parry & Co..... Martin C. Upper, Archibald Galbraith.	506,345 00	20,880 00	40 00	15 00	1 00	0 25	10 00	3 00	10 00
10	Thos. B. Guest..... James W. Guest, Hiram Guest.	649,300 00	27,054 16	50 00	12 00	1 30	0 28	30 00	5 00	16 00
13	J. W. Guest..... J. Moore, A. Nichol.	624,000 00	26,000 00	60 00	12 00	1 25	0 26	30 00	5 00	16 00
18	Sherwood, Campbell & Wood. Turner Koyl, Richard F. Steele.	709,450 00	29,316 11	†	10 00	1 20	0 28	30 00	3 00	26 00
20	H. J. Sutton & Co..... John Squires, Wm. Thirkill.	413,955 00	17,248 12	30 00	4 50	0 75	0 20	12 00	2 60	18 00
24	A. Sanborn..... Moses Lebourveau, L. Hall.	432,000 00	18,000 00	16 00	4 00	1 00	0 15	.....	.....	.....

\* \$18, \$25, and \$100 respectively. † Twenty to forty cents, according to haul.  
† Clearing, \$24; cutting and grubbing, \$100.

RAILWAY TENDERS.

No. 6.—*Concluded.*

OF PRICES.

Plank, Pine, per 1000 feet, B. M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yard.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
23 00	8 00	12 00	17 00	20 00	27 00	06	0 10	4 00	16 50	15 00	11 00	9 00	5 00	2 25
16 00	7 00	10 50	14 00	15 00	40 00	05	0 10	3 50	15 00	12 00	14 00	12 00	4 00	13 00
25 00	10 00	12 00	17 00	25 00	35 00	05	0 10	5 00	16 00	15 00	12 00	11 00	6 00	7 00
20 00	8 00	12 00	16 00	20 00	30 00	06	0 10	4 80	12 00	11 50	8 00	7 50	6 00	6 00

No. 7.

15 00	6 00	9 00	12 00	12 00	35 00	12	0 12	4 00	10 00	9 00	9 00	8 00	7 00	.....
12 00	4 00	4 00	12 00	12 00	* 0 30	06	0 08	6 00	11 00	10 00	8 00	6 00	4 00	1 50
12 00	10 00	12 50	15 00	18 00	20 00	06	0 12	3 00	8 00	7 00	7 00	6 00	4 00	5 00
20 00	9 00	13 00	16 00	18 00	65 00	04	0 09	3 00	15 00	14 00	10 00	9 00	5 00	8 00
20 00	9 00	12 00	16 00	18 00	60 00	04	0 09	3 00	14 00	13 00	9 00	8 00	5 00	8 00
60 00	8 00	15 00	20 00	25 00	25 00	08	0 14	4 00	16 00	15 00	10 00	9 00	8 00	† 5 00
22 00	9 00	12 00	15 50	16 00	20 00	05	0 10	1 75	12 00	10 00	6 00	5 00	3 00	3 00
.....	.....	.....	.....	.....	.....	04	0 05	.....	6 00	.....	4 00	.....	.....	.....

\* Per foot. † Rock Tunnelling, \$5 per cubic yard.

INTERCOLONIAL

SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
26	C. A. Bailey..... W. H. French, J. L. French.	396,000 00	16,500 00	16 00	3 00	0 90	0 14	6 00	1 00	.....
28	R. J. Mitchell (for self & Co.) Messrs. De Wolf & Son, Messrs. D. Starr & Sons.	475,200 06	19,800 00	30 00	10 00	0 95	0 27	10 00	4 00	8 00
30	Alexr. McBean & Co..... Dr. McIntosh, Donald Fraser.	624,000 00	26,000 00	75 00	8 00	1 25	0 30	35 00	1 50	17 00
34	W. E. Macdonald, Donald Robertson, } W. H. Mitchell, Donald McKellar, D. M. Thompson.	570,004 00	23,750 00	35 00	10 00	1 30	0 26	23 00	1 50	14 00
37	Payette & Wright..... E. E. Shelton, W. Cross.	562,800 00	23,400 00	38 00	10 00	1 25	0 26	10 00	1 50	10 00
42	John J. McDonald & Co ..... John McKeown, Thos. Thomson.	525,600 00	21,900 00	50 00	9 00	1 25	0 30	13 00	2 50	15 00
45	A. Brooks & Co..... David Hilliard, A. S. Brown.	584,000 00	24,000 00	40 00	12 00	1 00	30 00	40 00	2 00	15 00
46	Chas. C. Gregory..... E. R. Burpee, A. Brooks.	570,000 00	23,500 00	25 00	7 00	1 40	0 30	20 00	1 00	12 00
51	John Ryan, and John Wardrop, } Thos. Webster, John Donnelly.	702,650 00	29,277 00	50 00	9 00	1 20	0 30	24 00	4 00	18 00
54	Alexr. McDonell & Co..... David Tisdale, J. E. O'Reilley.	544,800 00	22,700 00	60 00	10 00	1 25	0 30	15 00	2 75	17 00
55	Ryan, Cuvillier & Co..... John Donnelly, Wm. McNaughton.	726,650 00	30,276 00	55 00	9 00	1 20	0 31	25 00	4 50	17 00
60	W. J. Johnstone..... Hon. A. B. Foster, Hon. J. J. C. Abbott, W. Johnstone.	744,000 00	31,000 00	30 00	8 00	1 25	0 30	30 00	3 50	30 00
61	J. Cooke & Dickson..... H. Abbott, J. B. Rivers.	570,000 00	23,750 00	100 00	8 00	1 40	0 25	30 00	4 00	15 00

RAILWAY TENDERS.

No. 7.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yard.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
.....	.....	.....	.....	.....	.....	.....	.....	.....	6 50	.....	5 00	.....	.....	.....
22 00	4 50	6 00	7 00	10 00	75 00	05	0 10	4 50	10 00	9 50	9 00	8 50	6 00	5 00
20 00	17 50	22 00	27 00	45 00	45 00	08	0 10	5 00	14 00	13 00	10 00	8 00	6 00	7 00
24 00	10 00	12 00	13 00	15 00	32 00	10	0 12	4 00	12 00	11 00	7 00	6 00	5 00	4 00
12 00	10 00	13 00	18 00	25 00	20 00	08	0 10	4 00	12 00	11 00	9 00	8 00	5 00	3 00
38 00	13 00	16 00	19 00	30 00	30 00	10	0 13	7 00	13 00	12 50	11 50	11 00	6 00	5 00
25 00	6 00	9 00	12 00	20 00	40 00	08	0 12	5 00	15 00	13 00	12 00	10 00	8 00	4 00
35 00	3 00	6 00	12 00	15 00	35 00	04	0 08	2 25	14 00	13 00	8 00	7 50	7 00	2 00
25 00	13 00	15 00	20 00	28 00	50 00	12	0 15	4 00	15 00	14 00	11 00	10 00	6 00	6 00
38 00	14 00	17 00	19 00	30 00	30 00	09	0 12	6 00	12 50	11 50	11 00	10 25	5 00	5 50
24 00	12 50	14 00	18 00	25 00	45 00	13	0 16	5 00	16 00	14 00	10 50	9 50	5 50	5 50
18 00	8 00	14 00	16 00	22 00	50 00	04	0 08	3 00	16 00	14 00	10 00	8 00	5 00	5 50
20 00	4 00	6 00	10 00	15 00	30 00	10	0 15	5 00	15 00	12 00	10 00	8 00	6 00	4 00

INTERCOLONIAL

SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE							
				Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Rip rap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.	
				\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.
65	<i>Elliott, Grant &amp; Whitehead.</i> James Weyms, W. H. Scott.	612,000 00	25,590 00	160 00	11 00	1 25	0 30	25 00	3 00	17 00	
68	<i>John McLauchlan and</i> } <i>J. Parker Tuck,</i> } Robt. J. Leonard, <i>Thos. M. Reed.</i>	490,145 00	19,605 00	132 00	6 66	1 50	0 34	5 50	1 00	15 00	
70	<i>John A. Cameron</i> ..... N. J. McGillivray, C. C. Saunders.	817,845 00	34,076 87½	40 00	10 50	1 00	0 30	20 00	3 00	8 00	
75	<i>Stacey, Yorston &amp; Co</i> ..... E. R. Burpee, Robert Webster.	636,000 00	26,500 00	200 60	9 50	1 25	0 28	12 00	1 50	12 00	
77	<i>Terence McGovern &amp; Co</i> ..... Albert Knight, J. H. Pope.	738,650 00	30,750 00	50 00	9 00	1 15	0 30	30 00	5 00	15 00	
80	<i>Angus S. Sinclair</i> ..... Alex. Sinclair, John McKay.	504,000 00	21,000 00	20 00	6 00	0 75	0 25	9 00	0 75	20 00	
83	<i>Otty, McKensie &amp; Co</i> ..... Hon. Edward Williston, Hon. Bliss Botsford, James Robertson.	544,531 00	22,689 00	25 00	4 10	1 10	0 27	11 30	0 90	10 00	
84	<i>Wm. Stewart &amp; Co</i> ..... Wm. Fraser, L. J. Croll.	667,655 00	27,532 00	20 00	6 80	1 28	0 31	13 50	2 00	12 00	
85	<i>Geo. Reading and</i> } <i>H. B. Prince,</i> } Messrs. Black Bros. & Co.	525,000 00	21,875 00	15 00	13 00	1 05	0 28½	13 00	6 00	12 00	
87	<i>H. H. Bailey</i> ..... Caleb Jordan, Joseph Aubry.	323,360 00	13,890 00	15 00	3 60	0 80	0 12½	5 00	1 00	.....	
90	<i>James A. Grant &amp; Co</i> ..... J. A. S. DeWolf & Son, David Starr & Sons.	.....	21,200 00	80 00	10 50	1 10	0 28	11 00	2 60	9 00	
91	<i>Sumner &amp; Somers</i> ..... Fraser, Parish & Co., A. Smith.	477,096 00	19,879 00	100 00	9 00	0 97	0 25	15 00	2 00	12 00	
96	<i>McDonald &amp; Co</i> ..... Jeffrey McCole, Angus Chisholm.	480,000 00	17,000 00	40 00	7 00	1 00	0 30	6 00	10 00	6 00	

RAILWAY TENDERS.

No. 7.—Continued.

OF PRICES.

Plank, Pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
40 00	12 00	14 00	18 00	20 00	40 00	07	0 12	5 00	16 00	15 00	12 00	11 00	9 00	8 00
30 00	10 00	12 50	15 00	12 50	30 00	03½	0 12½	1 50	18 00	17 50	10 00	9 00	7 00	4 00
12 00	12 50	15 00	18 00	20 00	40 00	06	0 12	4 50	14 00	12 00	12 50	10 00	7 00	3 00
46 00	6 00	8 00	10 00	25 00	30 00	05	0 10	3 50	14 00	12 00	12 00	10 00	8 00	3 00
20 00	6 00	9 00	12 00	25 00	40 00	10	0 15	5 00	17 00	15 00	12 00	10 00	6 00	5 50
30 00	2 20	3 00	9 50	20 00	15 00	10	0 15	4 00	12 00	11 00	11 50	10 25	9 00	4 00
17 00	4 00	6 00	12 00	12 50	20 00	03	0 05	3 50	10 55	10 10	9 15	8 00	7 00	1 50
20 00	15 00	18 00	19 00	20 00	30 00	06	0 12½	5 00	10 00	9 00	8 50	8 00	7 00	3 50
30 00	4 00	8 00	10 00	12 00	12 00	05	0 10	2 50	12 00	11 00	9 00	8 00	5 00	6 00
.....	.....	.....	.....	.....	.....	04	0 05	.....	6 00	.....	4 00	.....	.....	.....
12 00	9 00	12 00	14 00	16 00	0 30	06	0 09	2 50	14 00	9 00	8 50	7 00	4 50	2 25
15 00	5 00	7 00	10 00	15 00	20 00	06	0 10	5 00	13 00	12 00	10 00	9 50	7 00	2 00
10 00	2 00	3 50	5 00	6 00	3 00	03½	0 05½	10 00	12 00	11 00	8 00	7 00	5 50	4 00

† Tun nelling, per lineal foot, \$30.

INTERCOLONIAL

SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
				\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.
97	<i>Don. Sutherland &amp; Co.</i> ..... <i>S. A. S. DeWolfe &amp; Co.,</i> <i>Keith, McLean &amp; Co.</i>	519,480 00	21,645 00	35 00	10 25	1 00	0 28	9 50	3 25	8 25
100	<i>Martin Murphy (for self</i> <i>&amp; Co.)</i> ..... <i>J. D. Nash,</i> <i>S. D. Oakes.</i>	496,800 00	20,700 00	33 00	10 00	1 00	0 28	9 00	3 00	8 00
105	<i>Collingwood, Schreiber &amp; Co.</i> <i>Black Bros. &amp; Co.,</i> <i>John A. McDonald.</i>	640,491 00	26,412 00	*	8 50	1 25	0 28	13 00	2 50	13 50
108	<i>Simon Peters</i> ..... <i>Chas. Sampson,</i> <i>John O'Leary.</i>	539,640 00	22,485 00	100 00	14 00	1 40	0 32	50 00	1 50	10 00
116	<i>Horatio Jell and</i> } <i>Edward Tuck,</i> } ..... <i>Edward Handy,</i> <i>C. J. Ladd,</i>	588,000 00	24,500 00	40 00	12 00	1 40	0 27	25 00	1 40	12 00
118	<i>Thos. Fahey &amp; Co.</i> ..... <i>Geo. Coté,</i> <i>Patrick Fahey.</i>	467,040 00	19,460 00	38 00	11 00	1 05	0 25	22 00	3 00	11 00
125	<i>Townsend, Walker &amp; Co.</i> ..... <i>David G. Dickson,</i> <i>Wm. Hickman.</i>	672,762 00	28,032 00	60 00	9 20	1 25	0 25	14 10	0 80	15 00
128	<i>James H. Fraser, and</i> } <i>Donald Fraser,</i> } ... <i>Wm. McKay,</i> <i>Messrs. Albro &amp; Weir.</i>	678,000 00	28,250 00	60 00	9 00	1 00	0 32	10 00	3 00	10 00
130	<i>James McDonald &amp; Co.</i> ..... <i>John R. Carmichael,</i> <i>Daniel Chisholm.</i>	420,000 00	17,500 00	47 00	10 00	1 18	0 32½	12 50	2 50	8 40
131	<i>J. Frazer &amp; McKenzie.</i> ..... <i>Wm. McKenzie,</i> <i>Alex. McLeod.</i>	594,000 00	24,750 00	50 00	8 00	0 95	0 35	12 00	4 00	9 00
135	<i>Frankfort, Davis &amp; Co.</i> ..... <i>Thos. DeWolf &amp; Son,</i> <i>D. Starr &amp; Sons.</i>	564,000 00	23,500 00	95 00	10 00	1 10	0 32	11 00	2 50	10 00
137	<i>T. Bulmer &amp; Louther</i> ..... <i>N. M. Fallerton,</i> <i>Rupert F. Burt.</i>	468,000 00	19,500 00	30 00	8 00	0 80	0 24½	14 00	3 00	8 00
138	<i>Henry Peters</i> ..... <i>Wm. Ware,</i> <i>H. H. Fuller.</i>	625,737 42	26,072 47	100 00	12 00	1 25	0 38	12 50	2 50	10 00

\* \$20; 40, and \$100.



RAILWAY TENDERS.

No. 7.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
23 00	4 00	5 50	6 75	10 50	65 00	06	0 10	5 00	10 50	9 50	9 25	8 50	5 75	6 00
22 00	4 00	5 00	6 50	10 25	63 00	05	0 12½	5 00	10 50	9 50	9 00	8 50	5 50	5 50
18 00	7 00	8 00	9 00	16 00	30 00	06	0 12½	4 50	14 25	12 75	8 50	7 50	6 50	4 00
20 00	8 00	12 00	16 00	20 00	50 00	07	0 10	4 50	15 00	13 50	8 00	6 50	5 00	6 00
25 00	8 00	11 00	14 00	17 00	35 00	13	0 15	5 00	13 00	12 00	8 00	7 00	6 00	5 00
13 00	9 00	10 00	12 00	18 00	42 00	03	0 10	4 00	11 50	10 50	10 00	9 00	4 00	8 00
17 00	4 50	7 00	13 50	20 00	21 00	04	0 10	3 50	14 25	13 25	10 00	9 00	7 00	7 00
20 00	3 00	4 50	6 00	8 00	20 00	06	0 07	5 00	12 00	11 00	11 00	10 00	8 00	5 00
13 00	5 50	8 50	12 00	13 50	14 00	07	0 12½	3 00	15 00	14 00	12 50	11 60	7 50	3 50
13 00	2 50	3 50	8 00	9 00	18 00	09	0 10	6 00	13 00	12 00	11 00	10 00	9 00	7 00
15 00	8 50	12 50	15 00	16 00	35 00	10	0 10	2 50	13 00	12 00	9 00	8 00	6 00	2 00
20 00	5 50	11 50	19 00	20 00	0 30	05	0 08½	3 00	12 00	11 00	9 00	8 00	6 50	2 50
15 00	4 00	6 00	8 00	12 00	21 00	05	0 10	4 00	13 00	11 50	9 00	7 50	6 50	4 50

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
139	<i>Ephraim A. Jones</i> ..... Joseph Seaton, Robt. B. Seaton.	1,008,000 00	*42,000 00	137 50	26 00	2 00	0 30	27 60	6 25	9 00
142	<i>Duncan Macdonald</i> ..... Messrs. Morland, Watson & Co.	700,000 00	29,583 00	30 00	10 00	1 00	0 30	30 00	1 00	15 00
145	<i>Ronald Maedonell and</i> } <i>John Purcell,</i> <i>Donald McMillan,</i> <i>Patrick Purcell.</i>	648,700 00	27,029 00	75 00	10 00	1 00	0 25	25 00	1 50	25 00
146	<i>Berlinguet &amp; Huot</i> ..... W. W. Scott, Norbert Germain.	351,875 00	14,661 00	40 00	7 00	0 75	0 30	2 50	1 50	10 00
153	<i>Robert James Reekie</i> ..... Peter Redpath, Geo. A. Drummond.	600,000 00	25,000 00	60 00	8 00	1 20	0 30	35 00	1 50	15 00
155	<i>John O'Donnell</i> ..... Miles Murphy, Francis Sousise.	664,800 00	25,200 00	60 00	7 50	1 00	25 00	21 00	1 00	15 00
158	<i>Robt. H. McGreevy &amp; Co</i> .... John Heney, M. Kavanagh.	527,600 00	22,400 00	45 00	10 00	1 10	0 27	21 00	4 00	10 00
162	<i>John Fowler</i> ..... W. J. Fowler, S. Fowler.	665,500 00	27,729 00	40 00	6 00	1 50	0 30	10 00	4 00	20 00
167	<i>A. W. Schwiriger,</i> } <i>Geo. Randall,</i> } <i>S. H. Randall,</i> <i>Henry Knell.</i>	876,000 00	36,400 00	40 00	9 00	1 25	0 31	10 00	3 00	12 00
171	<i>Hanning &amp; Ginty</i> ..... J. D. Merrick, Jas. E. Smith.	580,000 00	24,165 16	100 00	1 25	1 50	0 25	20 00	2 00	18 00
172	<i>John Damp</i> ..... John Davis, Joseph McCausland.	565,480 00	23,561 66	80 00	15 00	0 50	0 25	12 00	4 00	16 00
175	<i>Joseph B. Moore</i> ..... G. S. Marlee, Saml. G. E. Evans.	656,516 61	27,072 85	32 00	7 50	1 25	0 28	13 50	2 00	15 00
179	<i>F. X. Thompson</i> ..... George Couture, Louis Carrier.	487,200 00	20,300 00	80 00	10 00	1 20	27 00	30 00	1 50	15 00
183	<i>Antoine Pampolin</i> ..... George Couture, Louis Carrier	604,800 00	25,200 00	70 00	11 00	1 30	0 30	55 00	1 75	15 00

\* Or I will undertake the same at the rate of thirty-nine thousand dollars (39,000) per mile, if the time be extended to 1st July, 1872. (Signed,) **EPHRAIM A. JONES.**

RAILWAY TENDERS.

No. 7.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
20 00	5 00	8 00	8 75	10 00	62 50	06	0 11	12 75	16 00	13 00	13 00	11 25	8 00	8 00
20 00	17 50	22 00	26 00	40 00	45 00	08	0 10	4 00	15 00	13 50	12 00	8 25	6 25	10 00
40 00	0 12	0 15	0 25	0 40	0 50	10	0 15	7 00	12 00	11 00	11 00	10 00	9 00	7 00
15 00	6 00	9 00	12 00	13 00	8 00	04	0 05	2 50	5 00	4 50	4 00	3 50	3 00	3 00
20 00	15 00	20 00	25 00	40 00	40 00	06	0 10	5 00	13 00	12 00	10 00	8 00	6 00	10 00
20 00	22 00	24 00	26 00	40 00	42 50	08	0 10	4 00	14 00	12 00	10 00	9 00	6 00	10 00
12 00	10 00	13 00	15 00	20 00	40 00	04	0 12½	5 00	13 00	12 00	12 00	11 00	5 00	8 00
20 00	5 00	7 00	10 00	20 00	20 00	10	0 12	4 00	10 50	9 50	3 50	7 50	5 00	4 00
14 00	7 00	10 00	15 00	23 00	50 00	05	0 12	6 00	14 00	13 00	9 00	8 00	5 00	4 00
24 00	10 00	12 00	14 00	16 00	35 00	08	0 15	3 00	9 00	7 00	8 00	6 00	5 00	2 00
16 00	8 00	10 00	12 00	14 00	35 00	10	0 15	4 00	12 00	8 00	9 00	8 00	4 00	12 00
20 00	7 50	8 50	10 00	16 00	35 00	06	0 12½	4 00	14 50	13 25	9 50	8 00	6 50	4 00
20 00	10 00	12 00	15 00	18 00	50 00	06	0 11	3 75	12 00	10 00	7 00	5 00	4 00	4 00
22 00	10 00	15 00	19 00	24 00	70 00	07	0 13	5 00	13 00	11 25	8 50	6 75	6 00	5 50

INTERCOLONIAL

SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
185	<i>E. Demers</i> ..... Geo. Couture, Louis Carrier.	576,000 00	24,000 00	65 00	11 00	1 20	0 25	45 00	1 50	15 00
187	<i>P. Dumontier</i> ..... Geo. Couture, Louis Carrier.	463,000 00	19,500 00	50 00	9 00	1 10	0 25	40 00	1 30	9 00
192	<i>Jacques Jobin</i> ..... Geo. Couture, Louis Carrier.	656,000 00	26,500 00	70 00	10 00	1 25	0 30	50 60	1 50	12 00
193	<i>Louis Cloutier</i> ..... Geo. Couture, Louis Carrier.	520,000 00	21,700 00	60 00	10 00	1 15	0 25	45 00	1 50	10 00
196	<i>P. Thompson</i> ..... Geo. Couture, Louis Carrier.	559,200 00	23,300 00	60 00	10 00	1 25	0 28	35 00	1 50	15 00
199	<i>Magloire Maranda</i> ..... Geo. Couture, Louis Carrier,	540,000 00	22,500 00	55 00	10 00	1 20	0 25	50 00	1 50	10 00
204	<i>Henry Dunbar, &amp; Co.</i> ..... Henry McLean. Donald Fraser.	478,800 00	19,950 00	22 00	10 25	1 25	0 25	10 50	7 25	9 00
206	<i>Walter Kerr</i> ..... John Sellick, Hebron Harris.	821,075 00	34,211 46	55 00	12 00	1 30	0 39	10 00	4 00	12 00
210	<i>Ware &amp; Co.</i> ..... E. H. Sewell, Thos. H. Oliver.	830,324 00	35,200 00	30 00	6 50	1 25	0 35	20 00	2 40	22 00
213	<i>Malcolm Cameron</i> ..... Geo. E. Desbarats, P. G. Buck.	48,950 42	20,392 50	25 00	13 00	1 25	0 25	13 00	2 00	12 50
214	<i>Geo. H. Perry</i> ..... Robert Skead, E. McGillivray.	697,517 00	29,063 00	40 00	25 00	1 25	0 30	3 00	2 00	18 00
217	<i>George Neilson</i> ..... Wm. Sutherland, James Gordon.	707,000 00	29,500 00	32 00	10 00	1 20	0 28	35 00	1 25	20 00
222	<i>John Worthington &amp; Co.</i> ..... Samuel Platt, Wm. Bush.	567,840 00	23,660 00	20 00	8 00	1 00	0 25	8 00	3 00	15 00
223	<i>John Steacy</i> ..... Joseph Stuart, C. Fletcher.	716,856 00	29,869 00	50 00	9 00	1 30	0 28	10 00	1 75	16 00

RAILWAY TENDERS.

No. 7.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
22 00	10 00	15 00	20 00	25 00	65 00	07	0 12½	5 00	12 50	10 75	8 00	6 50	6 00	5 50
18 00	7 50	10 50	15 50	18 00	45 00	05½	0 10½	3 75	11 50	9 75	7 00	5 75	5 00	6 00
22 00	10 00	15 00	20 00	25 00	70 00	07	0 13	5 00	13 50	12 00	9 00	7 75	6 00	5 00
21 00	8 00	12 00	15 00	18 00	60 00	06½	0 12	3 75	11 50	10 00	6 75	5 25	5 00	6 00
20 00	12 00	14 00	18 00	20 00	50 00	06	0 12	4 00	12 50	10 75	7 50	6 25	4 50	4 50
21 00	9 00	12 00	16 00	19 00	60 00	06½	0 12	4 25	11 50	9 75	7 50	6 00	5 00	5 50
16 00	3 75	5 50	7 50	8 00	0 45	10½	0 12½	17 00	18 25	17 50	17 25	16 35	15 75	9 00
17 00	15 00	18 00	20 00	31 00	30 00	08	0 15	3 00	15 00	14 50	12 00	11 00	6 50	6 00
26 00	6 00	9 00	12 00	20 00	30 00	04	0 15	2 50	15 00	14 50	10 00	9 50	6 00	6 50
17 00	5 00	8 00	14 00	19 00	55 00	04½	0 12½	3 50	11 00	10 00	7 00	6 00	5 00	4 00
24 00	6 00	8 00	12 00	15 00	25 00	06	0 12	5 00	12 00	10 00	7 00	5 50	4 50	3 00
40 00	15 00	20 00	30 00	30 00	50 00	08	0 12	5 00	14 00	13 50	10 00	9 00	8 00	5 00
20 00	9 00	12 00	16 00	25 00	30 00	06	0 10	4 00	10 50	10 00	8 00	7 50	6 50	3 00
46 00	4 00	6 00	15 00	25 00	30 00	05	0 10	3 50	15 00	14 00	11 00	10 00	9 50	3 00

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
228	Andrew Elliott and Wm. Robinson, Geo. Stephen, John Shedden.	\$ 679,500 00	cts. 28,312 00	\$ * 44 00	\$ 10 80	\$ 1 00	\$ 0 31	\$ 13 00	\$ 3 00	\$ 15 00
229	A. S. Brown..... James Glass, A. Sutherland.	843,420 00	35,142 00	44 00	12 00	1 35	0 35	40 00	2 00	30 00
234	Aug. Trepanier..... François Gingras, Olivier Mathieu.	533,175 00	22,215 00	20 00	10 00	1 20	0 24	15 00	2 00	10 00
235	Nich. Petit and Et. Dessault, Hugh McHugh, Et. Dessault.	597,600 00	24,900 00	20 00	6 50	0 90	0 25	30 00	1 50	10 00
239	Peter Ross and A. L. McKensie, Thos. W. Daniel, John Boyd.	615,450 00	25,643 75	162 00	9 00	1 25	0 25	6 00	1 50	10 00
242	L. Maclean..... Joseph Archer, Archer & Co.	506,058 00	21,037 00	32 00	25 00	1 20	0 20	6 00	3 00	10 00
246	J. & G. Jackson..... Thos. W. Walsh, R. F. Livingstone.	595,200 00	25,800 00	130 00	10 00	1 25	0 25	15 00	3 00	18 00
249	Edward Haycock..... J. W. Ritchie, R. H. Haycock.	422,733 00	17,613 00	50 00	7 00	1 25	0 26	11 00	2 00	15 00
252	A. Hamel & Co..... J. C. Marcotte, S. O. Brousseau.	483,840 00	20,160 00	40 00	10 00	1 15	0 26	20 00	3 00	9 00

\* \$10, \$10, and \$20.

RAILWAY TENDERS.

No 7.—*Concluded.*

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
25 00	10 00	12 00	15 00	15 00	23 00	10	0 12	5 00	13 00	13 00	10 00	10 00	8 00	5 00
40 00	15 00	20 00	30 00	30 00	50 00	08	0 12	6 00	14 00	14 00	12 00	11 50	10 00	.....
18 00	8 00	10 00	12 00	20 00	55 00	06	0 12	5 00	13 50	11 25	8 00	6 50	5 00	5 00
15 00	4 00	5 50	7 00	20 00	40 00	05	0 09	2 30	12 00	11 00	8 50	6 00	4 00	5 50
15 00	10 00	11 00	12 00	15 00	50 00	05	0 09	5 00	14 00	13 00	10 00	9 00	8 00	2 00
16 00	7 00	10 50	14 00	15 00	40 00	05	0 10	3 50	15 00	12 50	14 00	12 00	4 00	13 00
25 00	10 00	12 00	17 00	25 00	35 00	05	0 10	5 00	16 00	15 00	12 00	11 00	6 00	7 00
20 00	8 00	12 00	16 00	20 00	30 00	06	0 10	4 80	12 00	11 50	8 00	7 50	6 00	6 00
10 00	11 00	12 00	14 00	21 00	35 00	03½	0 12	4 00	12 00	11 00	11 00	10 00	4 00	8 00

## INTERCOLONIAL RAILWAY.

## FORM OF TENDER.

*Section No.*

The undersigned having seen the plans and profiles of Section No. \_\_\_\_\_, of the Intercolonial Railway, hereby tender to construct said section in accordance with the plans and profiles, and all other detailed plans which may be supplied, and in accordance with the general specifications signed by the Commissioners and dated Ottawa, \_\_\_\_\_, 1869, and to execute the contract, a form of which is printed at the end of the specifications, binding not to demand any extras of any kind whatever, for the sum of \_\_\_\_\_ dollars \_\_\_\_\_ cents, being at the rate of \_\_\_\_\_ dollars \_\_\_\_\_ cents per mile of Railway.

And bind \_\_\_\_\_ to complete such section for the abovenamed sum, to the satisfaction of the Chief Engineer and the Commissioners, such sum to be the full payment, without extras of any kind, for the entire completion of the section.

And propose \_\_\_\_\_ and \_\_\_\_\_ as sureties for the due fulfilment of this tender.

Name.  
Address.  
Date.

## Witness.

We the above named, tendered as sureties, hereby agree to execute such Bond or other Document as may be required by the Commissioners for the due performance of the Contract attached to the Specifications, &c., upon which the above Tender is made.

Name.  
Address.  
Name.  
Address.

## Witness.

And hereby further supply, solely for the purpose of informing the Commissioners, and as a guide to the Chief Engineer in making up his progress estimates, and not in any way to affect \_\_\_\_\_ contract, the following schedule of prices for some of the principal items of construction.

(Copy.)

## CONTRACT, &amp;c.

## SECTION No. 1.

THIS INDENTURE made this fourth day of March, in the year of our Lord one thousand eight hundred and sixty-nine, between George Worthington and James Worthington, both of South Quebec, in the Province of Quebec, contractors, hereinafter designated as "The Contractors," of the first part; and Her Majesty Queen Victoria, represented herein by Aquila Walsh, Esquire, M.P., The Honorable Edward Barron Chandler, Charles John Brydges, Esquire, and William Foster Coffin, Esquire, Commissioners appointed under and by virtue of an Act of the Parliament of Canada, passed in the Session held in the thirty-first year of Her Majesty's Reign, intituled: "An Act respecting the construction of The Intercolonial Railway," hereinafter designated as "The Commissioners," of the second part.

Whereas, it was and is in and by the said cited Act, amongst other things enacted and provided, that there shall be a Railway constructed, connecting the Port of Rivière du Loup, in the Province of Quebec, with the line of Railway leading from the City of Halifax, in the Province of Nova Scotia, at or near the Town of Truro, and that such Railway shall be styled and known as "The Intercolonial Railway;" that such Railway shall be a public work belonging to the Dominion of Canada, and shall be made with a gauge of five feet six inches, and on such grades, in such places, in such manner, with such materials, and on



such specifications as the Governor in Council shall determine and appoint as best adapted to the general interests of the Dominion; and further that the construction of the said Railway and its management, until completed, shall be under the charge of four Commissioners, with the powers and duties provided by the said Act; and whereas the said Aquila Walsh, Edward Barron Chandler, Charles John Brydges, and William Foster Coffin have been duly appointed such Commissioners, and in the discharge of the duties imposed on them by the said Act, have duly advertised for tenders for the construction of certain portions of the said Railway, including the portion hereinafter described and designated as "Section No. One," and the tender of the Contractors for the construction of such Section No. One, in the manner hereinafter set forth, has been accepted, and the Contractors have in consequence agreed (by and with the sanction of the Governor in Council, as provided by the said Act) with the Commissioners to construct and complete the said Section No. One, of the said Railway, and to supply all proper and requisite materials therefor, upon the terms and subject to the conditions, stipulations and agreements hereinafter contained.

NOW THIS INDENTURE witnesseth, that in consideration of the sum of one hundred and eighty-nine thousand and seven hundred dollars, of lawful money of Canada, to be paid to the Contractors, their heirs, executors, administrators and assigns, by Her Majesty, Her Heirs or Successors, in manner hereinafter mentioned, they, the Contractors, do and each and every of them doth hereby for themselves and himself and for the heirs, executors, and administrators of themselves and himself respectively, jointly and severally covenant, promise and agree to and with Her Majesty, Her Heirs and Successors, in manner following, that is to say:—

1. They, the Contractors, shall and will well, truly and faithfully make, build, construct and complete that portion of the Railway known as "Section No. One," and more particularly described as follows, to wit: that portion of the Railway which will extend from a junction with the Grand Trunk Railway at Rivière du Loup, in the Province of Quebec, towards Rimouski, for a distance of twenty miles, more or less, the whole of said Section lying within the said Province of Quebec, and all the bridges, culverts and other works appurtenant thereto, to the entire satisfaction of the Commissioners, and according to the Plans and Specifications thereof, signed by the Commissioners and the Contractors, the Plans whereof so signed are deposited in the Office of the Commissioners in the City of Ottawa, and the Specification whereof so signed is hereunto annexed and marked "Schedule A," which Specification is to be construed and read as part hereof and as if embodied in and forming part of this Contract. But nothing herein contained shall be construed to require the Contractors to provide the right of way for the Construction of the Railway.

2. The Contractors shall be bound to provide all proper tools, plant and materials for the execution of the works, and shall be responsible for the sufficiency of the same; they shall take upon themselves the entire responsibility of the centring, scaffolding and all other means used for the fulfilment of the contract, whether such means may or may not be approved of or recommended by the Engineer; and the Contractors shall alone suffer loss, and shall indemnify and hold harmless, Her Majesty and the Commissioners from loss arising from, and shall run all risk of accidents or damages, from whatever cause they may arise, until the completion of the contract. The Contractors shall also be responsible for all damages claimable by the owners or occupants of land arising from loss of crops or cattle, or injury thereto respectively, sustained by any cause or thing connected with the construction of the work, or through any of their agents or workmen; and they shall be responsible for all damage which may be done to property or persons through the blasting of rocks or other operations carried on by them; and they shall assume all risks and contingencies that may arise during the progress of the works, and shall make good all defects and failures, whether from negligence on the part of themselves, or their agents, or workmen, or from bad workmanship, or the use of improper materials; and they shall hold harmless and indemnify Her Majesty from all claims, losses or damages in respect thereof. The Contractors shall, subject to the approval of the Engineer as to the same, make all necessary temporary provision during the progress of the works, for the owners or occupants of lands crossing the line of Railway, and shall provide the necessary accommodation for the passage of the public at the intersection of roads or highways; and shall also make such provision, until fences be erected, as may be necessary to prevent the straying of cattle upon the line of Railway. In the event of any bad materials being delivered or worked up or any bad work being executed at any time, the same shall be immediately removed on notice being given by the Engineer, and the work shall be recon-

structed at the expense of the Contractors in strict conformity with this Contract and the said specification, and to the entire satisfaction of the Engineer. The Contractors shall employ as many competent agents and foremen on the whole works as may be considered requisite by the Engineer, and the said agents and foremen shall be regularly and constantly present on the works for the purpose of effectually overseeing the same, and receiving instructions from the Engineer. The Contractors shall respect and preserve, in their true and original position, all bench marks, hubs, all centre, slope, reference, and all other stakes and marks placed or made by the Engineer on or near the line of work; and shall adopt every means in their power to prevent the same being burned in the clearing, or altered, removed or destroyed at any time, and whenever required by the Engineer, they shall furnish the necessary assistance to correct or replace any stake or marks which, through any cause, may have been removed or destroyed. The Contractors shall not encourage, but shall take all lawful means in their power to prevent the sale of spirituous liquors on or in the vicinity of the line of Railway. The Contractors shall perform and execute all the works required to be performed by this Contract and the said specification, in a good, faithful, substantial and workmanlike manner, and in strict accordance with the plans and specifications thereof, and with such instructions as may be from time to time given by the Engineer, and shall be under the direction and constant supervision of such District, Division and Assistant Engineers and Inspectors as may be appointed. Should any work, material, or thing of any description whatsoever, be omitted from the said specification or the Contract, which, in the opinion of the Engineer, is necessary or expedient to be executed or furnished, the Contractors shall, notwithstanding such omission, upon receiving written directions to that effect from the Engineer, perform and furnish the same. All the works are to be executed and materials supplied, to the entire satisfaction of the Commissioners and Engineer; and the Commissioners shall be the sole judges of the work and material, and their decision on all questions in dispute with regard to the works or materials, or as to the meaning or interpretation of the specification or the plans, or upon points not provided for, or not sufficiently explained in the plans or specifications, is to be final and binding on all parties.

3. The Contractors shall commence the works embraced in this Contract within thirty days, from and after the date hereof, and shall diligently and continuously prosecute and continue the same, and the same respectively and every part thereof shall be fully and entirely completed in every particular and given up under final certificate and to the satisfaction of the Commissioners and Engineer, on or before the first day of July, in the year of our Lord one thousand eight hundred and seventy-one, time being declared to be material and of the essence of this Contract, and in default of such completion as aforesaid on or before the last mentioned day, the Contractors shall forfeit all right, claim or demand to the sum of money or percentage hereinafter agreed to be retained by the Commissioners, and any and every part thereof, as also to any moneys whatever which may be, at the time of failure of the completion as aforesaid, due or owing to the Contractors, and the Contractors shall also pay to Her Majesty, as liquidated damages, and not by way of fine or penalty, the sum of two thousand dollars, for each and every week, and the proportionate fractional part of such sum for every part of a week, during which the works embraced within this Contract, or any portion thereof, shall remain incomplete, or for which the certificate of the Engineer, approved by the Commissioners, shall be withheld, and the Commissioners may deduct and retain in their hands such sums as may become due as liquidated damages, from any sum of money then due or payable or to become due or payable thereafter to the Contractors.

4. The Engineer shall be at liberty, at any time before the commencement or during the construction of any portion of the work, to make any changes or alterations which he may deem expedient in the grades, the line of location of the Railway, the width of cuttings or fillings, the dimensions or character of structures or in any other thing connected with the works whether or not such changes increase or diminish the work to be done or the expense of doing the same, and the Contractors shall not be entitled to any allowance by reason of such changes, unless such changes consist in alterations in the grades or the line of location, in which case the Contractors shall be subject to such deductions for any diminution of work, or entitled to such allowance for increased work (as the case may be), as the Commissioners may deem reasonable, their decision being final in the matter. The Engineer shall have full power to dismiss any foreman, workman or other person employed, whom he may deem unfit for the duties assigned him, or who may in the opinion of the Engineer be

guilty of slighting the work, or of wilful disobedience of orders, or improper, intemperate or disorderly conduct, and the Contractors shall forthwith supply the places of all such men so dismissed, and shall not employ them again on the works.

5. The Contractors shall, by themselves their agents and workmen, faithfully carry on the works until completion, and shall not sell, assign, or transfer this Contract to any person or persons whomsoever, without the consent of the Commissioners first had and obtained.

6. The Commissioners shall have the right to suspend operations at any particular point or points or upon the whole of the works, and in the event of such right being exercised so as to cause any delay to the Contractors, then an extension of time equal to such delay or detention shall be allowed them to complete the Contract, but any such delay shall not vitiate or avoid this Contract or any part thereof, or the obligation hereby imposed, or any concurrent or other Bond or Security for the performance of this Contract, nor shall the same entitle the Contractors to any claim for damages unless the Commissioners shall otherwise determine, and then only for such sum as they may think just and equitable. If at any time during the progress of the works, it should appear that the force employed, or the rate of progress then being made, or the general character of the work being performed, or the material supplied or furnished are not such as to ensure the completion of the said works within the time stipulated, or in accordance with this Contract, the Commissioners shall be at liberty to take any part or the whole works out of the hands of the Contractors, and employ such means as they may see fit to complete the works at the expense of the Contractors, and they shall be liable for all extra expenditure incurred thereby; or the Commissioners shall have power at their discretion to annul this Contract. Wherever it may become necessary to take any portion or the whole work out of the hands of the Contractors or to annul this Contract, the Commissioners shall give the Contractors seven clear days' notice in writing of their intention to do so, such notice being signed by the Chairman of the Board of Commissioners, or by any other person authorized by the Commissioners, and the Contractors shall thereupon give up quiet and peaceable possession of all the works and materials as they then exist; and without any other or further notice or process or suit at law, or other legal proceedings of any kind whatever, or without its being necessary to place the Contractors *en demeure*, the Commissioners in the event of their annulling the Contract may forthwith, or at their discretion, proceed to re-let the same or any part thereof, or employ additional workmen, tools and materials, as the case may be, and complete the works at the expense of the Contractors, who shall be liable for all extra expenditure which may be incurred thereby, and the Contractors and their assigns or creditors shall forfeit all right to the percentage retained and to all money which may be due on the works, and they shall not molest or hinder the men, agents or officers of the Commissioners from entering upon and completing the said works as the Commissioners may deem expedient. If at any time it shall appear to the Commissioners that the security of the works is endangered, or the peace of the neighborhood is likely to be disturbed, or any other difficulty likely to arise by reason of the men being left unpaid, the Commissioners may pay any arrears of wages so far as they can ascertain the same to be due on the best information they can obtain, and charge the same as a payment on account of this Contract.

7. Any notice or other paper connected with this Contract may be served on the Contractors by being left at his or their usual domicile, or by being directed to them or either of them through the Post Office at their or his last known place of business, and any notice or other paper so left or directed shall to all intents and purposes be considered legally served.

8. It shall be in the power of the Commissioners to make payments or advances on materials, tools or plant of any description procured for the works or used or intended to be used about the same, in such cases and upon such terms and conditions as to the Commissioners may seem proper, and whenever any advance or payment shall be made to the contractors as aforesaid, the materials, tools or plant upon which such advance or payment shall be made shall thenceforth be vested in and held as collateral security by Her Majesty for the due fulfilment by the Contractors of the present Contract, it being however well understood that all such materials, tools or plant shall remain and be at the risk of the Contractors who shall be responsible for the same until finally used and accepted, or given up by the Commissioners; but the Contractors shall not exercise any act of ownership or control whatever over any materials, tools or plant, upon which any advance or payment has been so made, without the permission in writing of the Commissioners, and the Commissioners may retain and deduct

any such payment from the amount payable to the Contractors upon the next or any succeeding certificate thereafter.

9. It is distinctly understood, intended and agreed, that the said price or consideration of one hundred and eighty-nine thousand seven hundred dollars shall be the price of, and be held to be full compensation for all the works embraced in, or contemplated by this Contract, or which may be required in virtue of any of its provisions or by law, and that the Contractors shall not upon any pretext whatever, be entitled by reason of any change, alteration or addition made in or to such works, or in the said plans and specification, or by reason of the exercise of any of the powers vested in the Governor in Council by the said Act, intituled, "An Act respecting the construction of the Intercolonial Railway," or in the Commissioners or Engineer, by this Contract or by law, to claim or demand any further additional sum, for extra work or as damages or otherwise, the Contractors hereby expressly waiving and abandoning all and any such claim or pretension to all intents and purposes whatsoever, except as provided in the fourth Section of this Contract.

10. In this Contract and in the said specification, the words "Her Majesty" shall mean Her Majesty Queen Victoria, Her Heirs and Successors. The words "The Commissioners" shall mean the Commissioners for the time being, appointed under the herein first cited Act, intituled, "An Act respecting the construction of the Intercolonial Railway." The words "The Contractors" shall mean the hereinbefore mentioned George Worthington and James Worthington, and the Heirs, Executors, and Administrators of them and each and every of them jointly and severally. The words "The Work" or "The Works" shall, unless the context require a different meaning, mean the whole of the work and materials, matters and things required to be done, furnished and performed by the Contractors under this Contract. The words "The Engineer" shall mean the Chief Engineer for the time being, appointed under the said act, intituled "An Act respecting the construction of the Intercolonial Railway," and shall extend to and include any of his assistants acting under his instructions, and all instructions or directions given by those acting for the Chief Engineer will be subject to his approval. The word "Railway" shall mean the said Intercolonial Railway.

The construction of the words given in this clause shall not control any more extended signification or construction which may be given to any such words in this contract or the said specification.

11. And it is further mutually agreed upon by the parties hereto, that cash payments, equal to eighty-five per cent. of the value of the work done, approximately made up from returns of progress measurements, will be made monthly on the certificate of the Engineer, that the work for or on account of which the sum shall be certified, has been duly executed, and upon approval of such certificate by the Commissioners. On the completion of the whole work to the satisfaction of the Engineer, a certificate to that effect will be given, but the final and closing certificate including the fifteen per cent retained will not be granted for a period of two months thereafter. The progress certificates shall not in any respect be taken as an acceptance of the work or release of the Contractor from his responsibility in respect thereof, but he shall at the conclusion of the work deliver over the same in good order according to the true intent and meaning of this Contract and of the said specification.

12. This contract and the said specification shall be in all respects subject to the provisions of the herein first cited Act, intituled, "An Act respecting the construction of the Intercolonial Railway," and also in so far as they may be applicable, to the provisions of "The Railway Act, 1868."

IN WITNESS WHEREOF the Contractors have hereunto respectively set their hands and affixed their seals, and the Commissioners, acting herein on behalf of Her Majesty, have hereunto respectively set their hands and affixed their seals the day and year first above written, at the Township of Hull, in the Province of Quebec.

(Signed,)

GEORGE WORTHINGTON, (L. S.),

"

JAMES WORTHINGTON, (L.S.),

"

A. WALSH, Com., (L. S.),

"

ED. B. CHANDLER, Com., (L. S.),

"

C. J. BRYDGES, Com., (L. S.),

"

WM F. COFFIN, Commissioner, (L.S.)

*Signed, Sealed and Delivered,*

In the presence of

(Signed,) H. BERNARD,

Deputy Minister of Justice.

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 SCHEDULE A.
 

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 INTERCOLONIAL RAILWAY.
 

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 GENERAL SPECIFICATION FOR THE CONSTRUCTION OF THE WORK.
 

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1. This specification refers to all works of construction and materials required in making and building the Railway up to *formation level* and preparing it for the permanent way. It comprises, clearing, close cutting, grubbing, fencing, excavation, draining, ditching, foundation works, bridge and culvert masonry, the superstructure of the bridges, together with all other works connected with the construction and completion of the line of the Railway. The intention being that the contractors shall complete the road-bed of the railway and provide all materials of every kind except the ties or sleepers, iron rails and their fastenings, the ballasting and the laying of the track.

## CLEARING, ETC.

2. Where the Railway passes through wooded sections the land must be cleared to the width of fifty feet on each side of the centre line, or such greater or lesser width as the Engineer may direct.

3. The clearing is to be done so that all the brush, logs, and other loose material, within its limits, will be burned. A sufficient quantity of fencing stuff only may be reserved, cut into equal lengths and piled. In no case shall any of the brush or logs be cast back upon the adjacent timber lands; they must invariably be made into piles near the centre of the space to be cleared, and there entirely consumed. All brush or trees accidentally or otherwise thrown into the adjacent woods must be dragged out and burned. The land when cleared must be left in a clean condition.

4. Where embankments are to be formed less than four feet, and more than two feet, in height, all the standing timber and stumps must be chopped close to the ground within the limits of the embankment, and burned.

5. Where excavations will not exceed three feet in depth, or embankments two feet in height, all stumps must be grubbed out, and if possible burnt; those that will not burn, must be carried beyond the limits of the cuttings and embankments, where directed, and there piled. Directions will be given at the proper time, as to the extent of ground required to be cleared, close cut and grubbed.

## FENCING.

6. The fencing through cleared and settled sections of the country will be a straight panel fence. Each pannel will be 10 feet long and four feet 6 inches high, it will be formed by placing posts in pairs and kept about 4 inches apart by the insertion of a horizontal rail at top. The top rail will lap between the posts not less than 14 inches, and will be secured in its position by a half inch screw bolt passing through both posts. The top rail may either be a spruce board 2 x 6 inches or a cedar pole of corresponding strength, reduced at the ends to two inches, so as to form a proper lap between the posts. The post will be sunk in the ground half their length, they will be of cedar, 9 feet long and not less than 5 inches diameter at the smallest end, they will be flattened at the top to allow the proper lapping of the top rail and the insertion of the iron bolts to secure the whole firmly. The bolt will be eleven inches long,  $\frac{1}{2}$  inch diameter, with suitable head, screw-nut, and washer. At the option of the Contractor the posts may be made from a single cedar stick not less than 6 inches diameter at the small end, sawn through the middle and with the sawn faces placed on the lap of the top rail.

7. Each panel will be filled in from the ground to the under side of the top rail, with good strong common split fence rails or fence poles, of the most suitable description of timber

found in or near the locality, each rail will rest on the top of its fellow in each alternate panel. All holes or depressions under the lower rail that would admit small animals must be stopped up with earth, stones or blocks of wood.

8. The farm gates will be light and strong, of an approved design, similar to those on the Grand Trunk Railway east of Quebec, or the Nova Scotia Railway east of Truro, they will be furnished complete with proper fastenings, they will receive two coats of white paint or one coat of tar.

9. The fencing to be thoroughly completed through all the cleared lands and wherever else it may be required by the Engineer.

#### GRADING.

10. In woodland the grading will not be commenced until the clearing, close cutting and grubbing required, be completed to the satisfaction of the Engineer, and the Contractor will be held responsible for all damage to crops.

11. The width of embankments at sub-grade or formation level is intended to be 18 feet. The width of through cuttings will, as a general thing, be 22 feet, and of side cuttings 20 feet; but they may vary according to the section of the country and other circumstances as the Engineer may direct. The slopes of earth work will be made one and a half horizontal to one perpendicular. In rock cuttings the slopes will be, as a rule, one horizontal to four perpendicular. In cuttings partly earth and partly rock a berm of 6 feet shall be left on the surface of the rock. The widths, slopes and other dimensions above defined, may be varied by the Engineer at any time to suit circumstances.

12. The material to be placed in the embankments must be approved by the Engineer, and in places where the natural surface of the ground upon which the embankment is to rest, is covered with vegetable matter, which cannot be burned off in clearing, and which would, in the opinion of the Engineer, impair the work, the same must be removed to his entire satisfaction. All sloping ground covered with pasture shall be deeply ploughed over the base of the embankments before the latter are commenced.

13. All side hill ground to be covered by embankments shall first be thoroughly underdrained as the Engineer may see expedient, and all cuttings after being formed, and all slopes likely to be affected by wet must be similarly underdrained longitudinally or transversely, or both, as circumstances may seem to him to require. These drains will be constructed in a similar way to that in which ordinary land drains are sometimes made; a trench will first be dug to a depth of four feet on an average, and barely wide enough for a man to stand. In the bottom of this trench, three or four cedar or spruce poles from 2 to 3 inches diameter, will first be laid by hand, breaking joint, over the poles will then be placed two feet of coarse gravel or broken stone not larger than ordinary road metal, over which will be placed a coating of brush, and then the trench will be filled up to the surface of the ground with such material convenient to the place as the Engineer may approve of. The Contractor must find all the material required in these drains, do all the work described and remove the surplus earth. These drains must always be made with a sufficient longitudinal fall for the easy flow of the water, and therefore they may in level cuttings be deeper at one end than at the other, but the average depth will in all cases be considered 4 feet.

14. On the completion of the cuttings and the under-drains provided for in last clause, ditches for the removal of surface water shall be formed along each side at the bottom of the slopes according to directions to be given. Catch water ditches shall also be formed some distance back from the top of slopes to exclude from the excavation any water flowing from the adjoining lands; the contractor shall also construct all other drains and ditches which the Engineer may deem necessary for the perfect drainage of the Railway and works.

15. All open ditches in cuttings and elsewhere, and all excavations required for turning, making or changing water-courses other than the under-drains above mentioned, the formation of public roads, grading depot grounds, branches or turnouts and foundation pits for masonry and the material deposited as directed by the Engineer, must be executed as may from time to time be directed.

16. The embankments must be made to such sufficient height and width as will allow for the subsidence of the same, and both cuttings and embankments shall be left at the completion of the contract at such heights, levels, widths and forms as directed by the Engineer.

17. The whole of the grading shall be carefully formed to the levels given, and the roadway in cuttings shall invariably be rounded and left from 6 to 8 inches lower at the sides than on the centre line. In rock cuttings it will be sufficient to form a water channel about two feet wide and eight inches deep along each side. All materials found in excavations, whether in road-bed cuttings, ditches, water-channels, road crossings, borrowing pits, or elsewhere, must be deposited in such places as the Engineer may direct. In cases where the road-bed excavations are insufficient to form the embankments, the deficiency shall be supplied by widening the cuttings, or from the sides of the road, or from borrowing pits, but no material shall be so supplied without his concurrence, and not until the cuttings are completed, without his express directions. All borrowing pits shall, if required by the Engineer, be dressed to a good shape and properly drained; where material to make up embankments is taken from the side, a berm of at least 10 feet from bottom of slope of embankment shall remain untouched.

18. Where the excavation in a cutting exceeds what may be required to make the embankments of the specified width, the Engineer may direct that the embankments be increased in width with the surplus material, and when this is done to his satisfaction the remainder, if any, may be wasted: but in every case where either borrowing or wasting is resorted to, the materials must be taken and deposited as he may regulate and direct.

19. In cases where pitching or riprapping will be required for the protection of embankments contiguous to streams, all stone suitable for this work found in excavations may be removed and deposited in some convenient place until required, and all good building stone which may be found in rock excavations may, with the approval of the Engineer, be preserved and used in masonry.

20. Riprap work, wherever required and ordered for the protection of slopes of embankments, must be well and carefully performed, in such manner and of such thickness as may be directed.

21. Roads constructed to and from any point on the line of Railway for the convenience of the Contractor, for the conveyance of material or otherwise, must be at his own risk, cost and charges, but the Contractor will not be required to purchase land for the Railway track, for branches or for borrowing pits.

22. Wherever the line is intersected by public or private roads, the Contractor must keep open at his own cost convenient passing places, and he shall be held responsible for keeping all crossings, during the progress of the works, in such condition as will enable the public to use them with perfect safety, and such as will give rise to no just ground of complaint. Contractors will be held liable for any damages resulting from negligence on their part or that of their men. At all public roads crossed on the level, the Contractor will be required to put in two substantial cattle guards of wood of such dimensions as may be directed by the Engineer, and also provide the notice boards required by law.

23. Whenever any material is met with in the excavations which the engineer shall consider suitable and required for ballast, the same shall at his discretion be reserved for that purpose.

24. When slips occur in cuttings, after they are properly formed, the material must be immediately removed by the Contractor, the slopes reformed and such precautions adopted as the Engineer may deem necessary, the whole work being done at the expense of the Contractor.

25. In forming embankments, great care must be taken to place against the backs of all walls exposed to the action of frost, three feet in thickness or any greater thickness that the Engineer may direct, of Riprap backing, consisting of small stones blinded with spalls or coarse gravel, to prevent the retention of moisture and the action of frost thereon. And in forming embankments between wing walls, against abutments of bridges, viaducts or culverts, and over arches, the earth filling must be carefully packed or punned in thin layers, and a proper quantity of material must be carefully placed equally against each side of and over all bridges, culverts or other work before the embankment approaches it, and in forming embankments the greatest care must be observed and every precaution must be taken to load the masonry of structures evenly.

26. In the event of earth excavation being proceeded with in winter, no snow or ice must be placed in embankments, or allowed to be covered up in them, and all frozen earth must be excluded from the heart of the embankments.

27. The Contractor shall, at his own cost, before the work is finally accepted, finish up cuttings and embankments, dress and drain borrowing pits when required, dress slopes to the required angles, repair all damages by frost or other causes, and complete everything connected with the grading of the road bed, bridging, &c., in a creditable and workmanlike manner, in accordance with the directions and to the satisfaction of the Engineer.

#### FOUNDATIONS.

28. Foundation pits must be sunk to such depths as the Engineer may deem proper, for the safety and permanency of the structure to be erected; they will in all cases be sunk to such depths as will prevent the masonry being acted on by the frost. The material excavated therefrom will be deposited in embankment, unless the Engineer direct otherwise. Wherever timber or other artificial foundations may be found expedient, the pits will be made of sufficient dimensions to admit them without difficulty.

29. No masonry shall be commenced in any foundation pits before they have been inspected and approved by the Engineer, and they must be kept free from water during the progress of the work until the masonry is brought above the level of the surface.

30. Foundation timbers, when required, will be of such dimensions and of such kinds as the Engineer may direct. The timber employed will be Tamarack or Hackmatack, Hemlock, Black Spruce or Pine, in plank, from 3 to 6 inches thick, or timber flatted on two sides only, and ranging from 6 inches to 12 inches thick. The faces of the flatted timber will, at least, measure as much as its thickness, and the bark will be removed from the sides not flatted.

31. All spikes, bolts, straps, or other iron work found necessary to be used in timber foundations, must be of the best quality of iron usually employed for similar purposes.

32. Whenever the Engineer may direct piling to be done, the timber shall be in every respect sound and of such description as he may approve. Where he may think it necessary trial piles shall first be driven.

33. The piles shall be carefully and truly pointed, shod and hooped with iron as may be directed. They shall be driven to any depth the Engineer may deem expedient, and the weight of ram as well as the fall shall be such as he may consider necessary. The greatest care must be taken to drive the piles plumb or battered, in such positions and distances apart as he may direct; any pile that may be damaged or too short or out of proper line when driven shall be taken up and replaced by another; the heads of piles must not be injured in driving.

34. Wherever concrete is employed, it will be composed of hydraulic lime, clean, sharp sand and good gravel of approved quality and proportions. The proportion of sand and lime will be about the same as in mortar, and in making the concrete, a sufficient quantity will be used with the gravel, to fill up every interstice, and render the mass when set perfectly solid and compact.

#### MASONRY.

35. All the masonry must be of a substantial and permanent character, made of durable and suitable materials, and in every respect equal to the best description of masonry in Railway works.

36. The masonry shall not be started at any point before the foundation has been properly prepared; nor until it has been examined and approved by the Engineer, nor until the Contractor has provided a sufficient quantity of proper materials and plant to enable the work to be proceeded with regularly and systematically.

37. Hydraulic lime mortar will be used, unless otherwise directed, in building all masonry from the foundations up to a line two feet above the ordinary level of the stream. It will be used also in turning arches, in laying girder beds, coping, covering of walls generally, in lipping and in pointing. The Hydraulic lime or cement must be fresh ground, of the best brand, and it must be delivered on the ground, and kept till used, in good order. Before being used, satisfactory proof must be afforded the Engineer, of its hydraulic properties, as no inferior cement will be allowed.

38. Lime mortar must be made of the best common lime and will be employed in all masonry (except dry) where cement is not directed to be used.

39. Both cement and lime must be thoroughly incorporated with approved proportions



of clean large grained sharp sand. The general proportions may be one part of lime to two parts of sand, but this may be varied according to the quality of the lime or cement. Mortar will only be made as required, and it must be prepared and used under the immediate direction and to the satisfaction of an Inspector, by the Contractor's men, failing which the Inspector may employ other men to prepare the mortar, and any expense incurred thereby shall be borne by the Contractor. Grout shall be formed by adding a sufficient quantity of water to well tempered and well proportioned mortar.

40. The stone used in all masonry on the line of railway, must be of a durable character, large, well proportioned and well adapted for the construction of substantial and permanent structures; parties tendering must satisfy themselves as to where fitting material for the masonry can be most conveniently procured.

41. The masonry will be classified as follows:—

- 1st Class masonry, in cement,
- Do in common lime,
- 2nd Class masonry, in cement,
- Do in common lime,
- Do Dry.

42. *First class masonry* shall be in regular courses, of large well shaped stone, laid in mortar on their natural beds, the beds and vertical joints will be hammer dressed, so as to form quarter inch joints. The vertical joints will be dressed back square 9 inches, the beds will be dressed perfectly parallel throughout. The work will be left with the quarry "face" except the outside arrises, strings, and coping, which will be chisel dressed.

43. The courses of first class masonry will not be less than twelve inches, and they will be arranged in preparing the plans to suit the nature of the quarries, courses may range up to 24 inches and the thinnest courses invariably be placed towards the top of the work.

44. Headers will be built in every course not farther apart than 6 feet, they will have a length in line of wall of not less than 24 inches, and they must run back at least  $2\frac{1}{2}$  times their height, unless when the wall will not allow this proportion, in which case they will pass through from front to back. Stretchers will have a minimum length in line of wall of 30 inches, and their breadth of bed will at least be  $1\frac{1}{2}$  times their height. The vertical joints in each courses must be arranged so as to overlap those in the course below 10 inches at least.

45. The quoins of abutments, piers, &c., shall be of the best and largest stones, and have chisel drafts properly tooled on the upright arris, from two to six inches wide, according to the size and character of the structure.

46. Coping stones, string courses and cut-waters shall be nearly dressed in accordance with plans and directions to be furnished during the progress of the work.

47. The bed stones for girders shall be the best description of sound stone, free from dries or flaws of any kind, they must be not less than 12 inches in depth for the smaller bridges, and eight feet superficial area on the bed. The larger bridges will require bed stones of proportionally greater weight; these stones shall be solidly and carefully placed in position, so that the bridge will sit fair on the middle of the stone.

48. The backing will consist of a flat bedded stone, well shaped, having an area of bed equal to four superficial feet or more. Except in high piers or abutments two thicknesses of backing stone but not more will be allowed in each course, and their joints must not exceed that of the face work; in special cases, where deemed necessary by the Engineer to insure stability, the backing shall be in one thickness; the beds must, if necessary be scabbled off, so as to give a solid bearing—no pining will be admitted. Between the backing and face stones there must be a good square joint, not exceeding one inch in width, and the face stones must be scabbled off to allow this. In walls over three feet in thickness, headers will be built in front and back alternately, and great care must be taken in the arrangement of the joints so as to give perfect bond.

49. Every stone must be set in a full bed of mortar and beaten solid, the vertical joints must be flushed up solid, and every course must be perfectly level and thoroughly grouted.

50. *Second class masonry* shall be built of good, sound, large, flat headed stones laid in horizontal beds. It may be known as Random work or broken coursed rubble. The stones employed in this class of masonry will generally be not less in area of bed than three superficial feet, nor less in thickness than eight inches, and they must be hammer dressed so as to give good beds with half inch joints. In smaller structures and in cases where stones of

good size and thickness cannot be had, they may, if in other respects suitable, be admitted as thin as five inches. All stones must be laid on their natural beds.

51. Headers shall be built in the wall from front and back alternately at least one in every five feet in line of wall and frequently in the rise of wall. In the smallest structures headers shall not be less than twenty-four inches in length and the minimum bed allowed for stretchers shall be twelve inches. In the larger structures all stones must be heavier in proper proportion. Every attention must be paid to produce a perfect bond and to give the whole a strong, neat, workmanlike finish.

52. Wing walls will generally be finished with steps formed of sound durable stone, and not less than from 10 to 12 inches thick, and six feet superficial area; other walls will be covered with coping of a similar thickness, and of seven feet or upwards superficial area. Those coverings will be neatly dressed, when required, and as may be directed. The walls of the box culverts will be finished with stones the full thickness of wall, and the covers will be from 10 to 15 inches thick, according to the span; they must have a bearing of at least twelve inches on each wall, and they must be fitted sufficiently close together to prevent the earth from falling through.

53. In second class masonry each stone, except when dry work is intended, will be laid in full mortar, all joints flushed solid and each course regularly and thoroughly grouted.

54. In all walls built in common lime, the exposed faces will have a four inch lipping of cement.

#### ARCHES.

55. A distinction will be made between arches of 10 feet span and upwards and those of 8 feet span and under. The former will be of first class masonry although they may be constructed on walls of second class work. Arches of 8 feet span and under will be second class masonry. Arches of each class will be semi-circular,

56. First class arches will be constructed of stones cut so that when laid, their beds will radiate truly from the centre of the circle, the depth of stones will of course vary with the span, but will never exceed 30 inches, they must not be less in length than 27 inches and they must break joints ten inches; their thickness on the soffit must be at least 9 inches, and it will be dressed to the circle. All the stones must be dressed to the full depth of bed so as to give truly radiated joints from 3-16 to  $\frac{1}{4}$  inch, they must be set without pinning of any kind and the end joints must be properly squared. Each stone to be full bedded in cement, and each course afterwards thoroughly grouted. The outer ring stones to be neatly worked with a chisel draft around their edges.

57. Second class arches shall be constructed of suitable flat bedded stones ranging according to the span from 16 to 24 inches deep and with a minimum length of from 16 to 24 inches, and 5 to 6 inches in thickness on the soffit, they must invariably extend through the entire thickness of the arch. Each stone to be well and closely fitted so as to give half inch joints and to break joint with its fellow 7 to 9 inches. The whole must be laid in thin mortar and each course must be well grouted immediately after being laid. The outer arch stones to be as nearly uniform in thickness as possible, of large size and neatly incorporated with the perpendicular face of the masonry. The key stones to be 10 or 12 inches on the soffit, to have a chisel draft around their edges, and to project beyond the face of the wall 2 or 3 inches.

58. Arches of each class shall be built in cement, and before being covered with earth, or the centering removed, they must be thoroughly flushed on the back, levelled up and rounded to a moderately even and smooth surface with the same material.

59. Centres of arches must in all cases be well formed, of ample strength, securely placed in position, and in every respect to the satisfaction of the Engineer. The ribs must not be placed farther apart than three feet in any case. The laggings shall be cut to a scantling of three inches square. The supports of centres shall be substantial and well constructed and they must be provided with proper wedges for easing centres when required,

60. Structures having more than one arch shall be provided with as many centres as the Engineer may deem proper, and in no case shall the centres be struck without his sanction.

61. Centering and scaffolding of all kinds shall be provided by the Contractor.

62. All masonry must be neatly and skillfully pointed, but if done out of season, or if from any other cause it may require repointing before the expiration of the contract, the

Contractor must make good and complete the same at his own cost. Work left unfinished in the autumn must be properly protected during the winter by the Contractor, at his risk and cost.

#### MISCELLANEOUS WORK.

63. After the masonry of a structure has been completed for a period of four or five weeks, the formation of the embankment around it may be proceeded with. The earth must be carefully punned in thin layers around the walls, and in this manner the filling must be carried up simultaneously on both sides. The Contractor must be extremely careful in forming the embankments around culverts and bridges, as he will be held liable for any damages to the structures that may arise. The punning must be carefully attended to, and the whole filling must invariably be done in uniform courses from the bottom to the top of the embankment, without loading one side of the masonry more than another.

64. The bottoms of culverts will be paved with stones set on edge, to a moderately even face, packed solid, and the interstices filled with grout formed of hydraulic cement. The paving will be from 12 to 16 inches deep.

65. All the works shall be executed in a thoroughly good, substantial and workmanlike manner, to the satisfaction of the Engineer, and upon their completion the contractor shall clear away all rubbish and unnecessary material.

#### BRIDGES.

66. To be of the most approved Howe Truss pattern, built of pine, with white oak keys, cast iron prisms, and wrought iron rods; the whole to be first-class material and workmanship, painted three coats. Detail drawings and specifications will be prepared during the progress of the work by the Engineer, to suit each span on bridge, and to which the Contractor must work.

The foregoing Schedule A. is the specification of the work referred to in the Contract for the construction of Section No. 1 of the Intercolonial Railway, made and executed between the Contractors of the one part, and Her Majesty, represented by the Commissioners, of the other part, on the fourth day of March, in the year of our Lord one thousand eight hundred and sixty-nine, and hereunto annexed.

(Signed,)	GEORGE WORTHINGTON,	(L. S.)
"	JAMES WORTHINGTON,	(L. S.)
"	A. WALSH, Commissioner,	(L. S.)
"	ED. B. CHANDLER, Com.,	(L. S.)
"	C. J. BRYDGES, Com.,	(L. S.)
"	WILLIAM F. COFFIN, Com.	(L. S.)

Witness,

(Signed,) H. BERNARD,  
D'y Minister of Justice.

[The Contracts and Specifications for Sections Nos. 2, 3, 4, 5, and 6, are not printed, being similar to the above for Section No. 1; there being only the necessary verbal alterations.]

(Copy.)

THIS INDENTURE, made this fourth day of March, in the year of our Lord, one thousand eight hundred and sixty-nine, between George Worthington and James Worthington, both of South Quebec, in the Province of Quebec, Contractors, hereinafter designated as "The Contractors," of the first part; and Her Majesty Queen Victoria, represented herein by Aquila Walsh, Esquire, M.P., The Honorable Edward Barron Chandler, Charles John Brydges, Esquire, and William Foster Coffin, Esquire, Commissioners appointed under and by virtue of an Act of the Parliament of Canada, passed in the Session held in the thirty-first year of Her Majesty's Reign, intituled, "An Act respecting the construction of the Intercolonial Railway," hereinafter designated as "The Commissioners," of the second part.

Whereas the Contractors have, in and by a certain Contract in writing, bearing even date herewith, and executed between them and Her said Majesty, covenanted and agreed for

the consideration therein mentioned, to make, build, construct and complete that portion of the Intercolonial Railway, known as Section No. One, as more fully described in the said Contract, and according to the plans and specifications thereof, therein referred to.

And whereas it has been agreed by and between the Contractors and the Commissioners, that as security for the due observance and fulfilment by the Contractors, of all and every the covenants and agreements specified and contained in the said Contract and Specification, which on the part of Contractors is, are and ought to be observed and fulfilled according to the true intent and meaning of the same, the Contractors shall deliver or transfer to the Commissioners the securities for money hereinafter specified, and the Commissioners may retain the moneys hereafter to be payable to the Contractors, subject to the conditions and upon the trusts hereinafter set forth.

Now this Indenture witnesseth, that the Contractors have transferred and made over, and they do hereby transfer and make over unto the Commissioners, thereof accepting, the following securities for money—that is to say : Twelve bonds or securities of the United States of America, known as five-twentics, of the year one thousand eight hundred and sixty-five, and each for the sum of one thousand dollars of American currency, and payable to bearer, and that the Commissioners shall also retain in their hands out of the first cash payments, which under the said Contract would be payable to the Contractors, and until such first cash payment shall amount to such sum, the sum of ten thousand dollars, the whole of which securities and money and every part of which shall be held by the Commissioners or their successors, upon the conditions and subject to the trusts following, to wit :

I. So long as the Contractors shall not be in any way in default, in respect to any of the work referred to in the said Contract, or of the observance and fulfilment of any of the obligations therein assumed by them, the Commissioners shall pay to them any interest which may be received or payable upon the said securities, or on the money so retained, and at the expiration of two months after the final certificate thereof being granted, as provided in the said Contract, such securities will be surrendered and re-transferred, and such money paid to the Contractors at their expense.

II. In case the Contractors should fail to comply with any of the covenants and agreements in the said Contract contained, which on their part are or ought to be observed and fulfilled, according to the true intent and meaning of the same, or in case the whole or any part of the works should be taken out of the hands of the Contractors, or the Contract should be annulled, the said securities may be sold, and the proceeds thereof, and the moneys so retained as aforesaid, be applied towards finishing the work, or towards the payment of any sum accrued or to accrue under the said Contract, as liquidated damages, or towards both, and the balance, if any, shall be handed over to the Contractors, and it shall not be necessary for the Commissioners to give to the Contractors any notice of such sale.

III. In this agreement the same interpretation shall be given to the words defined in the tenth clause of the said Contract, as are thereby given.

In witness whereof the Contractors have hereunto respectively set their hands and affixed their seals, and the Commissioners, acting herein on behalf of Her Majesty, have respectively set their hands and affixed their seals, the day and year above written, at Hull, in the Province of Quebec.

(Signed,)	GEORGE WORTHINGTON,	(L. S.)
“	JAMES WORTHINGTON,	(L. S.)
“	A. WALSH, Commissioner,	(L. S.)
“	ED. B. CHANDLER, Comr.,	(L. S.)
“	C. J. BRYDGES, Comr.,	(L. S.)
“	WILLIAM F. COFFIN, Comr.,	(L. S.)

Signed, sealed and delivered, in presence of  
(the attested interlineations being first made.)

(Signed,) H. BERNARD,  
Dy. Minister of Justice.

*Copy of Report of the Commissioners to the Privy Council, of date  
11th Feb., 1869.*

INTERCOLONIAL RAILWAY COMMISSIONERS' OFFICE,

Ottawa, 11th February, 1869.

The Commissioners for the construction of the Intercolonial Railway have now to report to His Excellency the Governor General in Council, in regard to Tenders which they have received for the four Sections of the Intercolonial Railway which have been advertised.

The Commissioners advertised, on the 18th Dec., 1868, that they would be prepared to receive Tenders for four Sections of the Railway on the 8th February, 1869.

Plans and profiles, as prepared by the Chief Engineer, were exhibited at Ottawa, St. John, Halifax, Dalhousie, and Rivière du Loup, and printed copies of the General Specifications and terms of contract, as settled by the Commissioners, were given to all parties applying for them.

Tenders were received up to 4 o'clock, p.m., on Monday, 8th February, 1869.

The Commissioners proceeded, at a quarter past 4 o'clock on the 8th inst., to open the Tenders; each Tender as it was opened being consecutively numbered, and the initials of each Commissioner being also annexed to each Tender.

Seven Tenders were rejected as being informal, for reasons which are written on each Tender, and a list of which is appended hereto.

Two hundred and forty-seven Tenders were received, as per list, which is entered in full upon the Minute book of the Commissioners.

The Commissioners then proceeded, on the 9th Feb., 1869, to classify the Tenders for each Section, and a list is appended hereto.

Six Tenders were received on the morning of the 9th February, but being behind time were not opened or considered.

The Commissioners then discussed the merits of the different Tenders for each Section, and determined, after full deliberation, to recommend the acceptance of such tenders as were the lowest in each case, provided they were satisfied, as required by clause 16 of the Intercolonial Railway Act, 31 Vic., cap. 13, that the parties were possessed of sufficient skill, experience and resources to carry on the work.

The Commissioners are of opinion that any other course would render the system of public Tenders useless, and in future prevent that proper competition which is calculated to get large public works constructed at the smallest possible cost.

SECTION No. 1.

The lowest Tender for Section No. 1 is that of Messrs. H. H. Horsey & Co., of Ottawa, being for the sum of \$175,000, or at the rate of \$8,750 per mile.

The Commissioners are of opinion that these parties are possessed of the necessary skill, experience and resources, and therefore recommend that their Tender for Section No. 1 be accepted.

SECTION No. 2.

The lowest Tender for Section No. 2 is that of Mr. George Neilson, of Belleville, it being for the sum of \$255,600, or at the rate of \$12,780 per mile.

The Commissioners had decided to recommend the acceptance of Mr. Neilson's Tender, being satisfied of his ability to carry on the work, but they received from him on 10th inst. the following letter:—

OTTAWA, February 10, 1869.

The Intercolonial Railway Commissioners.

GENTLEMEN,—From the hurried manner in which we had to make out our Tender, we find that so serious a mistake was made in collecting the figures of detail for Section No. 2, as to be under the necessity of withdrawing our Tender for that Section.

You will therefore be kind enough to return our Tender for Section No. 2, and much oblige,

Yours respectfully,  
(Signed,)

GEO. NEILSON & CO.

The Commissioners did not feel justified in attempting, by legal proceedings, to compel Mr. Neilson to sign a contract on the terms of his Tender, and were therefore compelled, in pursuance of the rule they had decided upon, to consider the next lowest Tender, which is that of Messrs. George and James Worthington, of South Quebec, being for the sum of \$299,000, or at the rate of \$14,950 per mile.

The Commissioners being satisfied with the skill, experience and resources of Messrs. Worthington, recommend that their Tender for Section No. 2 be accepted.

#### SECTION NO. 3.

The lowest Tender for Section No. 3 is that of Messrs. John Elliott, R. Grant, and C. Whitehead, of Brantford, for the sum of \$288,000, or at the rate of \$12,000 per mile.

The Commissioners being satisfied with the skill, experience and resources of Messrs. Elliott, Grant and Whitehead, recommend that their Tender for Section No. 3 be accepted.

#### SECTION NO. 4.

The lowest Tender for Section No. 4 is that of Messrs. George and James Worthington, of South Quebec, it being for the sum of \$297,000 or at the rate of \$11,000 per mile.

The Commissioners being satisfied as to the skill, experience and resources of Messrs. Worthington, recommend that their Tender for Section No. 4 be accepted.

(Signed)

A. WALSH,

"

ED. B. CHANDLER.

"

C. J. BRYDGES,

"

W. F. COFFIN,

Commissioners.

#### *Copy of Report to the Privy Council, of date 3rd March, 1869.*

The Commissioners appointed to construct the Intercolonial Railway, have the honor to report for the information of the Governor in Council, that since their Report of date 11th February, 1869, recommending acceptance of the Tender of Messrs. H. H. Horsey & Co., for Section No. 1, for the sum of \$175,000, being at the rate of \$8,750 per mile, they have received the following letter from these gentlemen:—

OTTAWA, 18th February, 1869.

SIR,—On revising our estimate for the construction of No. 1 Section of the Intercolonial Railway, we have discovered an error in adding up the quantities of earth excavation to the amount of one million cubic feet. Of this we can show satisfactory proof. We informed our proposed sureties of this error, and submitted the form of contract to them, to various clauses of which they objected, and declined to be bound. We agree with them that some points in the contract are open to objection. Therefore, as we cannot obtain the sureties named, nor sign the proposed contract as it stands, we have thought it better, and do under the circumstances, abandon our tender.

We have the honor to be, Sir,

Your obedient servants,

(Signed,)

H. H. HORSEY & CO.

A. WALSH, Esq.,

Chairman, Intercolonial Railway Commission, Ottawa.

That upon receipt of this communication, the Commissioners advised Messrs. G. & J. Worthington of the tenor of the same, and were informed by these gentlemen that they were

prepared to adhere to their Tender for Section No. 1, (which was the next lowest to that of Messrs. Horsey & Co.)

The Commissioners being of opinion that Messrs. G. & J. Worthington, of South Quebec, are possessed of the necessary skill, experience and resources to perform their contracts, recommend that their Tender for Section No. 1, being for the sum of \$189,700, or at the rate of \$9,485 per mile, be accepted.

The Commissioners, in recommending that Messrs. Horsey & Co. be permitted to withdraw their Tender, have been influenced by the consideration that litigation, probably of a tedious character, would be necessary to compel these parties to sign the contract, and to perform the obligations undertaken by them in submitting their Tender, whereas it is very desirable that active operations upon the four sections recently advertised, should be commenced with the least possible delay.

And in recommending that the Section should be offered to Messrs. Worthington as the parties who made the next lowest Tender, the Commissioners have been influenced, not only that work should be commenced without delay, but also by the admitted fact that the Tender of Messrs. Worthington is a reasonable one, and that they are amply responsible for the faithful carrying out of their undertaking.

The Commissioners in recommending that Messrs. Horsey & Co. be permitted to withdraw their Tender, and that the Section be awarded to Messrs. Worthington, do not wish to be understood as establishing a rule, either that parties may be permitted to withdraw their tenders, or in the event of parties to whom contracts may be awarded, failing to perform their obligations, that the contract shall be given to the next lowest bidder. On the contrary, it is the opinion of the Commissioners, that in future lettings, parties putting in Tenders should clearly understand that they will be strictly held to the performance of their undertakings, and to the payment of all damages or additional cost incurred by the Commissioners in consequence of the neglect or refusal of parties, whose Tenders may be accepted, to execute the contracts, provide the sureties, and perform the undertakings contained in their respective Tenders.

(Signed,) A. WALSH,  
 " ED. B. CHANDLER,  
 " C. J. BRYDGES,  
 " W. F. COFFIN,  
 Commissioners.

*Copy of Report to Privy Council, of date 4th March, 1869.*

The Commissioners appointed to construct the Intercolonial Railway, have the honor to report, for the information of the Governor in Council, that the contracts for the four Sections, let on the 12th February last, have been signed by the contractors according to the form approved by the Government.

The Commissioners have received a letter from Messrs. Worthington, contractors for No. 4 Section, asking that now owing to the withdrawal of Messrs. Horsey & Co., and No. 1 in addition to No. 2 having been awarded to them, they be allowed to assign No. 4 Section to Messrs. Elliott, Grant & Whitehead.

They ask this on the ground, that having Nos. 1 and 2 Sections, they fear the distance between them and No. 4 is so great, and the means of communication between them so poor, that they could not give that close personal attention to the whole which they desire to do.

Messrs. Elliott, Grant & Whitehead have expressed their readiness to accept the assignment of Section No. 4, as proposed by Messrs. Worthington.

The Commissioners believe that the assignment proposed will be satisfactory, and therefore recommend the Governor in Council to confirm the arrangement.

(Signed,) A. WALSH,  
 " C. J. BRYDGES,  
 " W. F. COFFIN,  
 Commissioners.

Intercolonial Railway Commissioners' Office,  
 Ottawa, 4th March, 1869.

*Copy of a letter from the Secretary to the Intercolonial Railway Commissioners, to the Honorable the Secretary of State, of date 10th March, 1869.*

INTERCOLONIAL RAILWAY COMMISSIONERS' OFFICE,  
Ottawa, 10th March, 1869.

SIR.—I have the honor to transmit herewith copies of revised conditions of contract, general specifications, forms of tender, forms of contract, (separately), bond for sureties.

In order that these documents may be approved by the Governor in Council and filed of record in the Privy Council.

I have the honor to be, Sir,  
Your most obedient servant,  
(Signed,) C. S. ROSS,  
Secretary.

The Honorable the Secretary of State,  
Ottawa.

*Copy of a Report to Privy Council, of date 7th April, 1869.*

INTERCOLONIAL RAILWAY COMMISSIONERS' OFFICE,  
Ottawa, 7th April, 1869.

The Commissioners for the construction of the Intercolonial Railway, have now to report to the Governor in Council, in regard to the Tenders which they have received for Sections Nos. 5, 6 and 7 of the Intercolonial Railway, which were duly advertised.

Tenders were received up to 7 o'clock, p.m., on Monday, 5 April, 1869.

Two hundred and fifty-two Tenders were received as per list herewith, which is entered in full upon the minute book of the Commissioners.

SECTION No. 5.

The lowest Tender for Section No. 5 is that of Messrs. Berlinguet and Huot, of Quebec, being for the sum of \$345,997 or at the rate of \$13,307 per mile.

The Commissioners are of opinion that these parties are possessed of the necessary skill, experience and resources, and therefore recommend that their Tender for Section No. 5 be accepted.

With respect to Sections Nos. 6 and 7, the Commissioners are not yet prepared to report.

(Signed,) A. WALSH,  
“ ED. B. CHANDLER,  
“ C. J. BRYDGES,  
“ W. J. COFFIN,  
Commissioners.

*Copy of Report to Privy Council, of date 17th April, 1869.*

INTERCOLONIAL RAILWAY COMMISSIONERS' OFFICE,  
Ottawa, 17th April, 1869.

The Commissioners appointed to construct the Intercolonial Railway have now to report to the Governor in Council upon the Tenders for Section No. 6 in New Brunswick.

The lowest Tender is that of Mr. A. L. Sinclair, of Moncton, being for the sum of \$237,000, or at the rate of \$11,300 per mile.

The Commissioners having carefully considered this Tender and the sureties offered for the fulfilment of the contract, were compelled to decide that the sureties were insufficient, and they communicated with Mr. Sinclair to that effect.



After several interviews, Mr. Sinclair finally addressed the following letter to the Commissioners:—

OTTAWA, 17th April, 1869.

GENTLEMEN,—I beg to inform you, that having failed to obtain satisfactory sureties for the performance of my contract, I now beg to withdraw my Tender for Section No. 6. In advising you of my decision in this matter, permit me to express my obligations to you for the fairness and courtesy which I have experienced at your hands.

I am, Gentlemen,  
Your obedient servant,  
(Signed,) ANGUS L. SINCLAIR.

The Intercolonial Railway Commissioners.

The next lowest Tender is that of Mr. Jacques Jobin, of Levis, being for the sum of \$241,500, or at the rate of \$11,500 per mile.

The Commissioners having carefully enquired into this Tender, and the sureties offered for its due fulfilment, are of opinion that the party tendering is possessed of the necessary skill, experience and resources, and therefore they recommend that Mr. Jacques Jobin's Tender for Section No. 6 be accepted.

(Signed,) A. WALSH,  
“ ED. B. CHANDLER,  
“ C. J. BRYDGES.  
“ W. F. COFFIN.  
Commissioners.

*Copy of a Report to the Privy Council, of date April 21st, 1869.*

INTERCOLONIAL RAILWAY COMMISSIONERS' OFFICE,  
Ottawa, 21st April, 1869.

The Commissioners appointed to construct the Intercolonial Railway, have now to report to the Governor in Council upon Section No. 7, in Nova Scotia.

The lowest Tender is that of Mr. H. H. Bailey, being for the sum of \$333,600, or at the rate of \$13,980 per mile.

In reference to this Tender, the Commissioners received a letter from Mr. Bailey, of which the following is a copy:—

To the Honorable Commissioners, Intercolonial Railroad,

Having been greatly deceived in earth excavation and structures, I shall be compelled to withdraw Tender. Hoping it will meet your approval,

I have the honor to be, Sirs,  
Your obedient servant,  
(Signed,) H. H. BAILEY.

The second lowest Tender is that of Messrs. Berlinguet & Huot, for the sum of \$351,875, or at the rate of \$14,661 per mile.

In reference to this Tender the Commissioners received a letter from Messrs. Berlinguet & Huot, of which the following is a translation:—

OTTAWA, 10th April, 1869.

To the Commissioners of the Intercolonial Railway.

GENTLEMEN,—We have the honor to inform you that we do not wish to be considered any more as Tenderers for Section No. 7 of the Intercolonial Railway, and we pray accordingly that we be permitted to withdraw our Tender for the said Section, as we have obtained a contract for Section No. 5.

We have the honor to be, Gentlemen,  
Your obedient servant,  
(Signed,) L. H. HUOT,  
“ F. X. BERLINGUET.

The third lowest Tender is that of Messrs. Lowe and Hanson, for the sum of \$358,248, or at the rate of \$14,927 per mile.

The fourth lowest Tender is that of Mr. C. A. Bailey, for the sum of \$396,000, or at the rate of \$16,500 per mile.

The fifth lowest Tender is that of Messrs. Macdonald & Co., for the sum of \$408,000, or at the rate of \$17,000 per mile.

In reference to the Tenders of Messrs. Lowe & Hanson, C. A. Bailey, and Macdonald & Co., the Commissioners have to report, that upon full and careful enquiry, they are not satisfied with the sureties offered in any of the cases, and are convinced that none of the parties possess the necessary skill, experience and resources to enable them successfully to perform the contract for which they have tendered.

The sixth lowest Tender is that of Messrs. H. J. Sutton & Co., of Paris for the sum of \$413,955, or at the rate of \$17,248 per mile.

The Commissioners having carefully enquired into this Tender, and the sureties offered for the due performance of the contract, are of opinion that the parties tendering are possessed of sufficient skill, experience and resources to carry on the work, and they therefore recommend that the Tender of Messrs. H. J. Sutton & Co., for Section No. 7, be accepted.

(Signed,) A. WALSH,  
 “ ED. B. CHANDLER,  
 “ C. J. BRYDGES,  
 “ W. F. COFFIN,  
 Commissioners.

*Copy of Report to Privy Council, of date 22nd April, 1869.*

INTERCOLONIAL RAILWAY COMMISSIONERS' OFFICE,  
 Ottawa, 22nd April, 1869.

The Commissioners appointed to construct the Intercolonial Railway have the honor to report to the Governor in Council, of date 7th April last, recommending that the Tender of Messrs. Berlinguet & Huot for Section No. 5 should be accepted (which Report was adopted by the Governor in Council), they have been in communication with these parties in reference to the execution of the contract in accordance with their Tender; that after much delay the Commissioners received a letter from Messrs. Berlinguet & Huot, of which the following is a translation:—

OTTAWA, 22nd April, 1869.

Messieurs the Commissioners of the Intercolonial Railway.

GENTLEMEN,—Since we had the honor of being informed by the Secretary of the Commission, under date of the 8th inst., that our Tender for Section No. 5 had been accepted, unforeseen circumstances have occurred, which put us under the impossibility of giving to the Government the promised sureties, and accordingly we pray to be permitted to withdraw our Tender.

We have the honor to be, Gentlemen,

Your very obedient servants,

(Signed,) L. H. HUOT,  
 “ F. X. BERLINGUET.

The Commissioners, after full consideration of the legal position of sureties offered for Tenders, when such sureties decline, as in the present case, to execute the contracts, are advised that it would be practically impossible to compel such sureties to execute the necessary deeds, and as the only remaining remedy would be an action for prospective damages, the Commissioners have to recommend that the Order in Council accepting the Tender of Messrs. Berlinguet & Huot for Section 5, be cancelled.

The next lowest Tender is that of Mr. M. Fournier, for the sum of \$360,750, or at the rate of \$13,875 per mile, but for which no sureties are offered.

The fourth lowest Tender is that of Mr. H. H. Bailey, for the sum of \$361,400, or at the rate of \$13,900 per mile, which Tender Mr. Bailey subsequently withdrew.

The Commissioners in consequence of the delay in the completion of the contract by Messrs. Berlinguet & Huot, felt it to be their duty to make enquiries about other Tenders, and having done so the Commissioners are satisfied that the sureties offered by Messrs. Fahey & Co. are not satisfactory, and that that firm do not possess the necessary skill, experience, and resources to enable them successfully to perform the contract.

The next lowest tender is that of Mr. Edward Haycock, being for the sum of \$361,574, or at the rate of \$13,907 per mile. The Commissioners being satisfied that Mr. Haycock is possessed of the necessary skill, experience and resources to carry on the work, recommend that the Tender of Mr. Haycock, for Section No. 5, be accepted.

(Signed,) A. WALSH,  
 " ED. B. CHANDLER,  
 " C. J. BRYDGES,  
 " W. F. COFFIN,  
 Commissioners.

*Copy of Report of Committee of Privy Council, of date 12th February, 1869.*

On the recommendation of the Honorable the acting Minister of Public Works, and for the reasons given in the Report of the Intercolonial Railway Commissioners, the Committee advise that the following Tenders for the construction of Sections of that Railway, Nos. 1, 2, 3, and 4 respectively be accepted, and that contracts in conformity therewith be given accordingly, that is to say:—

Section No. 1 to H. H. Horsey & Co., of Ottawa, for the sum of \$175,000, being at the rate of \$8,750 per mile.

Section No. 2 to Messrs. George and James Worthington, of South Quebec, for the sum of \$299,000, being at the rate of \$14,950 per mile.

Section No. 3 to Messrs. John Elliott, Robert Grant, and Charles Whitehead, of Brantford, for the sum of \$288,000, being at the rate of \$12,000 per mile.

Section No. 4 to Messrs. George and James Worthington, of South Quebec, for the sum of \$297,000, being at the rate of \$11,000 per mile.

Certified.

(Signed,) WM. H. LEE,  
 Clerk P. C.

*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 25th February, 1869.*

On a communication dated 19th February, 1869, from the Intercolonial Railway Commissioners, stating that by letter received from Messrs. H. H. Horsey & Co., under date of same month, that firm submits that having discovered an error of an important nature in the calculations whereon their Tender for Section No. 1 of the Intercolonial Railway were based, their sureties decline to become bound for them, for which, as well as for other reasons, arising from objectionable features in the form of the contract, they are compelled to withdraw their Tender for the construction of that Section.

The Commissioners state, that in consequence of the withdrawal of the Messrs. Horsey, they have now to recommend that the Tender of Messrs. George and James Worthington for Section No. 1, being the next lowest, be accepted, that is to say, for the sum of \$189,700, or at the rate of \$9,485 per mile.

The Committee advise that the Tender of the Messrs. Worthington for the above mentioned Section be accepted accordingly.

Certified.

(Signed,) WM. H. LEE,  
 Clerk, P. C.

*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 5th March, 1869.*

On a communication dated 4th March, 1869, from the Intercolonial Railway Commissioners, reporting that the Contracts for the four Sections let on the 12th February last, have been signed by the contractors, according to the form approved by the Government.

That they, the Commissioners, have received a letter from the Messrs. Worthington, contractors for No. 4 Section, asking that, inasmuch as, owing to the withdrawal of Messrs. Horsey & Co., Section No. 1 has been assigned to them, they be allowed to transfer No. 4 Section to Messrs. Elliott, Grant and Whitehead.

That they ask this on the ground, that having Nos. 1 and 2 Sections they fear the distance between them and No. 4 is so great, and the means of communication between them so poor, that they could not give that close personal attention to the whole which they desire to do.

The Commissioners submit that Messrs. Elliott, Grant and Whitehead have expressed their readiness to accept the assignment of Section No. 4 as proposed.

The Commissioners state their belief that the assignment proposed will be satisfactory, and therefore recommend that the arrangement be confirmed by Your Excellency in Council.

The Committee concur in the recommendation of the Commissioners, and submit the same for your Excellency's sanction.

Certified.

(Signed,) WM. H. LEE,  
Clerk P. C.

*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 12th March, 1869.*

The Committee have had under consideration certain forms submitted by the Intercolonial Railway Commissioners for your Excellency's approval, viz. :—

Conditions of Contract,  
General Specifications,  
Form of Tender,  
Form of Contract,  
Bond of Sureties,

Which forms they recommend for adoption in giving contracts for work on that line of road.

On the recommendation of the Honorable the Minister of Justice, the Committee advise that the forms so submitted and hereunto appended be approved and adopted.

Certified.

(Signed,) WM. H. LEE,  
Clerk P. C.

*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 8th April, 1869.*

On the recommendation of the Honorable the acting Minister of Public Works, and for the reasons given in the Report of the Intercolonial Railway Commissioners, the Committee advise that the Tender of Messrs. Berlinguet & Huot, of Quebec, for the construction of Section No 5 of that Railway, for the sum of \$345,997, being at the rate of \$13,307 per mile, be accepted, and that a contract in conformity therewith be given accordingly.

Certified.

(Signed,) WM. H. LEE,  
Clerk, P. C.

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*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 19th April, 1869.*

On the recommendation of the Honorable the acting Minister of Public Works, and for the reasons given in the Report of the Intercolonial Railway Commissioners, the Committee advise that the Tender of Mr. Jacques Jobin, of Levis, for the construction of Section No. 6 of that Railway, for the sum of \$241,500, or at the rate of \$11,500 per mile, be accepted, and that a contract in conformity therewith be given to Mr. Jobin accordingly.

Certified.

(Signed,)

WM. H. LEE,  
Clerk, P. C.

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*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 23rd April, 1869.*

On the recommendation of the Honorable the Minister of Public Works, and for the reasons given in the Report of the Intercolonial Railway Commissioners, the Committee advise that the Tender of Messrs. Berlinguet & Huot, for the construction of Section No. 5 of that Railway, be cancelled, and that the Tender of Mr. Edward Haycock, for the construction of that Section, for the sum of \$361,574, being at the rate of \$13,907 per mile, be accepted, and that a contract in conformity therewith be given accordingly.

Certified.

(Signed,)

WM. H. LEE,  
Clerk, P. C.

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*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 23rd April, 1869.*

On the recommendation of the Honorable the Minister of Public Works, and for the reasons given in the Report of the Intercolonial Railway Commissioners, the Committee advise that the Tender of Messrs. H. J. Sutton & Co., of Paris, Ont., for the construction of Section No. 7 of that Railway, for the sum of \$413,955, being at the rate of \$17,248 per mile, be accepted, and that a contract in conformity therewith be given accordingly.

Certified.

(Signed,)

WM. H. LEE,  
Clerk, P. C.

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# R E T U R N

To An Address of the House of Commons, of the 19th ultimo, calling for copies of all correspondence relative to the surveys of the several proposed routes for the Intercolonial Railway, with copies of all documents relating to the same; also copies of all Orders in Council relative to the same since the last Return.

HECTOR LANGEVIN,  
*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
Ottawa, 11th May, 1869.

(Copy of No. 112.)

DEPARTMENT PUBLIC WORKS,  
Ottawa, 12th March, 1868.

SIR,—The Government of the Province of New Brunswick having offered to transfer to the Government of Canada, their contract with the International Contract Company for the building of a Railway between Moncton and Sackville, in New Brunswick, in the expectation that the work on this line would be found, as regards location and other conditions, suitable for the Intercolonial Railway; it has been decided to have an examination and survey made of the line in question, in order to enable His Excellency in Council to determine whether the proposition of the Government of New Brunswick can be accepted.

The Hon. the Minister has selected you to make the Survey, and directs me to request you to make your arrangements accordingly.

I am to add further, for your guidance, that assuming the point on the European and North American Railway, at which the line above referred to strikes it, to be suitable for the Intercolonial, you will be pleased to report whether a better alignment than that which has been adopted might not be made from that point to the termination of your recent location survey at or near Amherst, and the reasons for your opinion—if it should be in the affirmative.

You will also report on the actual value of the work done and materials on the ground, under the contract.

I enclose herewith for your information, certain papers and documents under No. 151, having reference to this subject.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

F. BRAUN,

*Secretary.*

Sanford Fleming, Esq.,  
C. E., &c.

[Copy No. 389.]

HALIFAX, May 20th, 1868.

*The Hon. Wm. McDougall, C. B., Minister of Public Works.*

SIR,—I beg to submit the following report on the exploratory surveys now being made in New Brunswick and Quebec under your authority of 12th March.

Towards the end of April, I reported to you verbally what steps had been taken by me to obtain the information desired, and also the progress that had been made. On the 30th

ultimo, I submitted to you an estimate based on the recent exploratory surveys between the Degelé on Lake Temiscouata and Rivière du Loup. You are therefore in possession of the general results of this portion of the survey.

From the Degelé settlement, the survey has since been extended southerly along the valley of the Madawaska, to a point about 3 miles northerly from the New Brunswick boundary, where an opening in the high grounds to the east of the valley presented itself; from this point, an effort is being made to find a practicable line parallel to the River St. John, towards Grand Falls.

The Red Line, as far as the Squalook River, at A., indicates the ground passed over by the surveying party. They have found a practicable line so far, but it takes an extremely awkward, although I fear unavoidable twist out of the straight course. This deviation is owing to high broken ground in the way which cannot be crossed, except on the line shewn on the map. This party continues the exploration as near as possible in the required direction, until it meets with another party similarly engaged from the south, unless some insuperable object is met with.

From the River Tobique, a line has been surveyed by the Valley of the Three Brooks and Salmon River, to Little River, north of Grand Falls. The gradients are rather heavy, but the works of construction comparatively light. The Red Line B. and C., shows the ground passed over by the party, and the dotted Red Line the Section yet to be examined.

It was your wish that a survey should be made between C. and D., in order to ascertain whether or not a line for a Railway could be laid, and direct course between the head waters of the Nashwag or Miramichi Forks, and the River Tobique, about midway between the Kapskihegan and the River St. John. It appears from returns which I have received, that the ground in this district will not admit of a Railway being constructed on a direct course through it, and that the most eligible line yet found is round by the Wapskihegan, on a part of the route of the central line surveyed in 1864. This line also is shewn in red on the accompanying plan.

Between Rivière du Loup and the Metapedia, three surveying parties have been engaged. The country has been thoroughly explored in all directions, from the Metapedia to the Metis, and after a great deal of difficulty and uncertainty a practicable line has been found. Between Metis and Rivière du Loup, the surveying parties are now engaged, and it will be some time yet before I expect to be in a position to report complete success. From Metis to the River Rimouski no difficulties were met with on the line projected, but from the latter point to the Trois Pistoles River, near the Abonbisquash settlement, the ground is unfavorable. We are now looking for an eligible line closer to the River St. Lawrence, with good prospect of success. These parties will continue the exploration until the object is obtained.

I have, in accordance with your verbal directions, visited the Mirimichi River at and above Chatham and Newcastle, and I have instituted a careful survey with soundings of the River, in order to find the most suitable crossing place, having in view the shortening of the Line.

As the object of the survey and examination would be incomplete without reliable information respecting the approaches to the River at the proposed crossing places, I have taken steps to ascertain how the River can best be reached by a Railway Line from the north and from the south.

I have the honor, &c., &c.,

(Signed,)

SANFORD FLEMING.

*COPY of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 3rd July, 1868.*

The Committee having given full consideration to the selection of the line in which the Intercolonial Railway connecting Quebec and Halifax, should be constructed, have the honor to report that, in their opinion, such Railway should be constructed in a line from the Port of Rivière du Loup to the Rivière Trois Pistoles—thence to a point at or near the Bay des Chaleurs, and thence to the Town of Truro.

The Committee further recommend that, if the same line meet with Your Excellency's

sanction, the same be communicated to His Grace the Secretary of State for the Colonies for his approval, pursuant to the terms of the second section of "The Canada Railway Loan Act, 1867."

(Certified) W. M. H. LEE,  
Clerk P. C.

[Copy of 456.]

*Copy of Telegram from C. Schreiber to Hon. Wm. McDougall.*

NEWCASTLE, N. B., July 13th., 1868.

*To Hon. Wm. McDougall.*

Crossing on Miramichi River and approaches very favorable. Line from Rivière du Loup to Metis, very satisfactory.

(Signed,) C. SCHREIBER.

(No. 40475)

HALIFAX, NOVA SCOTIA, July 18, 1868.

*The Honorable William McDougall, C. B., Minister of Public Works, Ottawa,*

SIR,—As requested by Mr. C. Schreiber, I have to-day forwarded to your address the plans and profiles of a survey made between Amherst in this Province, and the European and North American Railway in New Brunswick, showing the proposed route of the Intercolonial Railway, through that section of the country.

I have forwarded three plans and three profiles which may be described as follows, viz :—

Plan No. 1,—Showing position of a proposed line and Line from Amherst to the European and North American Railway at Dorchester Road Station; it shows also by a blue line on plan an alternative line along a portion of the route; this has the advantage of rather better grades and lighter work over a Bridge known as W. W. Watley.

Profile No. 1 refers to the above plan.

Plan No. 2 is from the Junction north of Aboushagan Post Office, or about the 18th mile from Amherst to the eastern extension of the European and North American Railway east of Cook's Brooks Station.

Profile No. 2 refers to the above.

Profile No. 3 refers to a part of Line from Tantramar Marsh, over the summit on a direct line from Amherst to the European and North American Railway.

There is also a general Map on a small scale showing the relative positions of European and North American Railway, and its eastern extension, also the routes proposed and shown on the large plans.

I have placed the parcel in charge of the Express Company.

I have the honor to be, Sir,

Your obedient servant,

(Signed,) W. H. TREMAINE,  
C. E.

*The Honorable the Secretary of State of the Dominion of Canada.*

SIR,—The undersigned in their former communication, having presented reasons why, in their judgment, the Dominion Government should accept the section of railway known as the Eastern Extension of European and North American Railway as part of the Intercolonial Railway, beg to supplement their letter of 29th October with the following observation:—

It is estimated that the junction at its present point would shorten the distance from Quebec to Saint John in comparison with a junction at the Dorchester Road, by four miles. If, however, the intersection of the line North of the European and North American Railway with the latter line is placed at Humphry's Mills (so called), the distance from Quebec and the Northern Ports to St. John would be reduced eleven miles. To this view we wish to call particular attention, it being a most important consideration as placing the "Intercolonial" in a better position for satisfactory competition with "Western Extension."

We would mention that one of the leading objections to the selection of Major Robinson's Line, was, that it greatly increased the length of line over which passengers and freight from Ontario, Quebec and the Northern part of New Brunswick destined for St. John or for



shipment from that Port would have to be carried, as compared with the distance by the other lines proposed, and by the competing line "Western Extension."

To remove, therefore, as far as possible, this objection—to diminish where practicable the competing advantages of a rival line—to increase the facilities of access to the Harbor of St. John, giving to the whole Dominion two Ports open at all seasons of the year instead of one, and to both Provinces an approximation to equal advantages would appear a wise and judicious arrangement on the part of the Dominion Government.

These objects can be attained to a certain extent by the connection from the north with the European and North American Railway, at Humphrey's Mills or Cook's Brook, instead of at Dorchester Road as proposed by Mr. Fleming.

We proceed to state some of the advantages to be claimed for the line now building *via* Sackville and Dorchester, as compared with the line surveyed by Mr. Fleming. The latter passes over an unsettled Country, and what is more objectionable, over land, a great portion of which being swampy and barren, is totally unfit for settlement, while the former, as stated in our previous letter, passes through a densely settled and very fertile Country and in close proximity to the rich, mineral and agricultural County of Albert.

These are considerations, which, in our opinion, should have great weight in the selection of the line, as Railways are everywhere largely dependent for their revenue on local business.

We submit the following statements respecting the trade and business of the County of Albert, the population of which cannot now be less than twelve thousand. In 1866, its exports were valued at \$222,293. The Census returns for 1861 show that in that year the value of Farms and Implements was \$2,167,854. The value of the Manufactures was \$188,739.

The number of Cattle.....	23,700
The quantity of Hay produced.....	20,000 tons.
"    Grain    ".....	135,500 bushels.
"    Vegetables produced.....	226,000 "
"    Butter    ".....	244,300 lbs.
"    Cheese    ".....	7,000 "
"    Wool    ".....	31,000 "
"    Pork slaughtered.....	517,500 "
"    Coal raised.....	15,000 tons.
"    Building Stone exported.....	5,000 "
"    Gypsum    ".....	22,000 "

From these figures some estimate may be formed of the local business the line now being constructed would derive from that County alone.

We would also submit a few statistics, taken from the Census Return, showing the population of the principal parishes through which the line now passes in the County of Westmoreland:—

Population of Dorchester.....	6,000
"    Sackville.....	4,500
"    Moncton's and.....	} 7,500
"    Westmoreland.....	

The Census returns of 1861 show that in Dorchester and Sackville alone:—

The value of the Manufactures was.....	\$894,000
"    "    Farms and Implements.....	2,539,800
The number of Cattle.....	23,000
The quantity of Hay produced.....	19,500 tons.
"    "    Grain    ".....	171,600 bush.
"    "    Vegetables produced.....	213,400 "
"    "    Butter    ".....	197,000 lbs.
"    "    Cheese    ".....	13,000 "
"    "    Wool    ".....	26,600 "
"    "    Pork slaughtered.....	378,200 "
"    "    Building Stone exported.....	7,000 tons.
Total value of Fish taken.....	\$15,000

These two parishes alone with the county of Albert possess a population of over twenty

thousand, very few of whom can be benefitted by the construction of Mr. Fleming's line.

The objections against Mr. Fleming's "Dorchester Road" line may as regard the character of the county through which it passes and the absence of local traffic, be urged quite as strongly against his Cooks Brook line.

It appears to us therefore that keeping in view the diminishing of the distance between Quebec and the Northern Counties of New Brunswick and the Port of St. John, and the accommodation of the inhabitants of the Counties of Westmoreland and Albert, and the securing of the valuable local traffic to the Intercolonial Railway, the arguments in favor of the line recommended are unanswerable, and we therefore leave the question with confidence in the hands of the Government of the Dominion.

We have the honor to be, Sir,

Your obedient servants,

(Signed,)

A. R. WETMORE,

JOHN A. BECKWITH.

Ottawa, 4th November, 1868.

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DOMINION OF CANADA, CUSTOMS DEPARTMENT.

Ottawa, November 19th, 1868.

SIR,—I am directed by the Honorable the Minister of Customs to forward the enclosed memorial from the inhabitants of Dalhousie, Province of New Brunswick, in reference to the location of the Intercolonial Railroad with a request that you will lay the same before His Excellency the Administrator of the Government.

I have the honor to be, Sir,

Your obedient servant,

CHAS. P. BLISS,

*Secretary.*

The Hon. the Secretary of State.

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To His Excellency the Right Honorable Charles Stanley Viscount Monck, of Ballytramon, in the County of Wexford, in the Peerage of Ireland, Baron Monck of Ballytramon, in the County of Wexford, in the Peerage of the United Kingdom of Great Britain and Ireland, Governor General of Canada, &c., &c., &c.

The petition of the inhabitants of the Town of Dalhousie in the County of Restigouche,  
*Most humbly sheweth,—*

That your petitioners learn with surprise and regret that the Intercolonial line of Railroad now being located between Bathurst and Campbellton, passes four miles in the rear of the Town and Harbor of Dalhousie, at the nearest point thereby, excluding from the benefits to be derived by the public, one of the safest, easiest of access, and most important Harbours in British America, accessible at all times by night or day; a Harbour which is spoken of by all the Commanders of Her Majesty's ships-of-war from time to time visiting the Port, as being most safe and commodious for the largest ships of the line to enter, anchor and depart at all times of tide free from any obstructions.

That it is from its position the nearest Port from Britain by the way of the Straits of Belle-Isle to touch the Intercolonial line, and in the event of the great line in contemplation to connect the Atlantic with the Pacific through British Territory, it will be found during the time of open navigation to be the best, nearest and safest deep water terminus in the British Dominion.

That to the inhabitants of the Baie des Chaleurs generally, and especially the Districts of Gaspé and Bonaventure, it will be of the most vital importance for the purpose of the receiving and transmission of Freight, and more particularly the advantage derivable to such as are engaged in prosecuting the Fisheries, not only for immediate and daily transmission of fresh fish to various Markets, but the great quantities of dry and pickled that will likely be discharged from Schooners receiving the catch of various Fish during the fishing season, as affording such the advantage of a ready and speedy despatch and enabling them at once to recommence a second or third trip, thereby saving the time that would be lost in running to a distant Port for a Market or to discharge. That your petitioners are of the belief that Engineering difficulties in bringing the line through Dalhousie are by no means such as to

forbid the undertaking and the extra distance of no great importance as compared with the great advantage and facilities to trade, in having a safe and commodious deep water terminus tapped by the line.

That there will be no convenient place on the line for landing plant and other material required for building the Road, as the proposed line now passes, and the extra expense of Trucking must be resorted to all along the line, which will very materially add to the cost of construction. That by continuing the line the extra distance will not exceed three miles or thereabouts, by making the alteration prayed for.

Your petitioners therefore, humbly pray your Excellency will be pleased to order a survey of the line sought for as hereinwith a view to its final adoption or as to your Excellency may seem meet and proper.

And your petitioners as in duty bound will every pray :

William Hamilton, M. L. C.	W. M. Credwell.	J. C. Barbarie.
Wm. Montgomery, M. P. P.	Alex. Hamilton.	J. W. Cullen.
A. Barbarie.	John Phillips.	Geo. Moffatt.
W. S. Smith, jr.	Joseph Windsor, J. P.	John Hamilton.
Wm. G. Deckson, M. D.	Geo. Haddow.	D. W. Stewart.
David Sadler.	Donald Ross.	H. A. Johnson.
Jas. Harrie.	Ed. Harcoe.	Wm. Jamieson.
Hugh Fredette.	Ach. McKenzie.	Wm. Dempra.
Archibald McKenzie.	Wm. Murphy.	Arch. McEwen.
Robt. McGood.	Jas. Moffatt.	Neil McLean.
Wm. Draper.	J. R. Miller.	Ed. Good.
Angus Fraser.	S. Shaw.	Patrick Maganean.
Ed. Gorder.	E. Hamilton.	James Murray.
Jas. Brown.	Arch. Chisholm.	James Fraser.
Francis Johnston.	Ed. J. Delaney.	Chas. Gokie.
Alex. Load.	John McA. E. Kill.	Wm. McNeish.
Jas. Russell.	Levis Edwards.	John McNeish.
Thos. Murray.	Robert Moffatt.	Wm. H. Rudolf.
Lauchlan McCordy	Daniel Delaney.	E. J. Stewart.
Hugh Cumming.	A. K. Thompson.	Jas. Jurdise.
Alex. McKay.	W. S. Smith, J. P.	A. E. DesBrisay.

(Copy 497—No. 30)

GOVERNMENT HOUSE,

HALIFAX, NOVA SCOTIA, 11th August, 1868.

SIR,—I have the honor to transmit herewith for the information of His Excellency the Governor General, a copy of a minute of Council approved by myself, respecting the location of the line of proposed Railway, between Truro in this Province, and Moncton in New Brunswick.

I have the honor to be, Sir,

Your obedient servant,

(Signed)

HASTINGS DOYLE.

*The Honorable, The Secretary of State for the Provinces &c., &c., &c.*

HALIFAX, N. S.

*Copy of a minute of Council passed on the 3rd day of August, 1868, and approved by His Excellency the Lieutenant Governor.*

In view of the immediate commencement of the Railway between Truro and Moncton, it is incumbent on the Government to see that the engagements and interests of the Province are duly protected in its location and construction.

As regards the Route, the line when commenced in 1866 as a Provincial work, was designed by those who undertook it, to effect the shortest possible communication between Nova Scotia and New Brunswick, and to secure the largest amount of intermediate traffic by giving a new and important developement of the mineral resources of the Province, by connecting the Iron and Coal Districts of Colchester and Cumberland, and these objects should

still be insisted upon to the fullest extent possible. It appears that without any engineering difficulties and at probably less cost and with easier grades than on the Railways at present in the Province, a line can be made, and is already located, passing through the Acadian Iron Mines to Springhill and Amherst, which would give the requisite facilities for extensive mining and manufacturing operations, involving a considerable consumption of coal paying Royalty and thus contributing largely to the Revenue and prosperity of the Province; and this route, the Government is therefore bound, in the interests of the Province, to recommend in preference to an alternative location which would omit such a source of traffic.

(Signed)

H. CROSSKILL,  
*Dep. Provl. Secretary.*Provincial Secretary's Office,  
Halifax, 8th August, 1868.

(Copy of No. 504)

GOVERNMENT HOUSE,  
HALIFAX, NOVA SCOTIA, 17th August, 1868.

SIR,—Referring to my despatch (No. 30) of the 11th instant, enclosing a copy of a minute of my Executive Council concerning the route of the proposed Intercolonial Railway through the Counties of Cumberland and Colchester, Nova Scotia, I have the honor to enclose a copy of a letter addressed by Captain Tyler, Government Inspector of Railways, to John Levesey (together with an illustrated map) bearing on the same subject; and I request that, when the previous despatch is submitted to His Excellency the Governor General, this also, with its enclosures, may be submitted at the same time.

I have the honor to be, Sir,

Your obedient servant,

(Signed)

HASTINGS DOYLE.

HIGH ELMS,  
HAMPTON COURT, 17th July, 1860.

DEAR SIR,—With reference to our various conversations and our interview with Mr. Fleming, and having had an opportunity of seeing the plans and sections, and the careful calculations worked out (partly on a basis suggested by myself) by Mr. Atkinson, I have no longer any doubt as to the relative value of the routes "A" and "F" for the Intercolonial Railway through Nova Scotia.

As regards the engineering part of the question it would appear that line A has an extra elevation of 101 feet over line F, and that certain curves and counter gradients must be allowed for in excess of line F. But it appears also that taking account of the cost of construction on each line and capitalizing at 6 per cent the extra cost of working over the super-elevations, the counter gradients and the curves on the steeper gradients on line A, there still results an economy of £38,000 in favor of line A, and against line F.

As regards the general circumstances of the case, line A would place the Spring Hill Coal field and the Acadian Iron Mine (which I have visited) in direct communication with each other in the best manner. If on the other hand, line F were constructed, a branch would be necessary at a cost of £30,000 to connect it with the Acadia Iron Mine, before the valuable mineral of that mine could be extensively brought into use, and a traffic of perhaps £10,000 a year thus be placed upon the Railway. The extra length of haulage by such a branch and by line F would be considerably more costly than the super-elevation, gradients and curves of line A.

In fine the construction of line F in place of line A would appear to me to be from every point of view, a great mistake. Setting aside the interests of the proprietors, the connection in the best manner of Spring Hill coal field with the Acadian Iron Mine, is probably the object of the greatest industrial importance (with a view to the developement of the resources of the country) upon the whole of the Intercolonial Railway. The quality of the iron is first rate. Its manufacture in a cheap form by the use of the Springfield coal, would be a great advantage to the Intercolonial Railway, and to all the Railways (besides other interests) in Canada

Such an obstruction to the development of such resources, as the construction of Line F, *when line A is available and less costly*, would be nothing less than a general misfortune to the industrial interests of the Dominion.

I remain, Dear Sir,

Yours Truly,

(Signed)

H. W. TYLER.

(Copy of 916.)

*To the Honourable Secretary of State for Canada.*

SIR,—I take the liberty of entrusting to your charge a plan of our Company's Works and Settlement at Londonderry, Nova Scotia, which the Council may wish to inspect. It was originally made in the year 1858, when the Works and Landed Estate were comparatively limited. Since that time a very large expenditure has been made upon the former, and the latter has been increased from 4,000 to upwards of 20,000 acres, covering a mineral range of about 13 miles, with a Government reserve of 20,000 acres of Forest Land. The plan of Works, with the recent additions and extensions, is not quite finished, but is sufficiently complete for present purposes.

Had the time permitted, and the exact particulars been at hand, I could have shown how considerably this enterprise has contributed to the important work of *Immigration*; the chief portion of the skilled labor having been imported, mainly at the Company's expense, from England &c., and constituting an important section of the settlement.

I may just take the opportunity to mention (as there may still exist an idea that line A is very inferior to line F on the score of *curvature*), that a careful analysis has been made, from which it appears that the *aggregate* of curvature on the A line from TRURO to the common point of junction (2) is 24.4 miles, and on the F line 25.9 miles or  $1\frac{1}{2}$  miles in favor of A.

It may also be interesting to know that by a recent study, an abridgement of the A line has been found practicable near the "Little Forks" of about 1700 feet on former estimates, and that a further reduction of 1000 feet has been ascertained to be practicable near the mine, reducing the disparity between the two lines to about  $1\frac{1}{4}$  miles; should a survey now in progress at another part of the line result as is expected, in a further abridgement of about 2,500 feet, the ultimate disparity will be *under one mile*.

These respective studies will be at the service of the Government.

Another copy of the tracings of all the Viaducts and Bridges on the two lines which accompanied my letter of the 26th ult., but which appear to have been mislaid, will be sent in tomorrow, to corroborate our positions as to the respective dimensions and cost of the structures.

I have the honor to be, Sir,

Your obedient servant

JOHN LEVESEY.

Ottawa, November 2nd, 1868.

(Copy No. 552)

September 11, 1868.

DEAR SIR,—The enclosed, addressed to the Minister of Public Works, was copied in this office from a draft submitted by Mr. Schieber, at his request; it should be filed in your office.

Yours truly,

F. Braun, Esq.

(Signed)

WM. H. LEE.

OTTAWA, June 25th, 1868.

*The Honorable Wm. McDougall, C. B., Minister of Public Works.*

SIR,—I have the honor to submit the following report of the progress made during the last five weeks with the exploratory surveys being made in New Brunswick and Quebec for the line of the Intercolonial Railway.

FRONTIER ROUTE.

The Chief Engineer in his Report dated May 20th, has furnished full information of the general results of the surveys up to certain points. I shall therefore confine my remarks to that portion of the survey made subsequent to that date.

From the extremely rough, mountainous features of the country from the Squatook River southward, great difficulty has been found in tracing out a practicable line in the desired direction, or approximating thereto. It is only within the last few days the object has been obtained. The waters of the Green River having been reached, I anticipate no further trouble in forming a junction with the party working northerly from Tobique River.

The surveyed line is very crooked, it being necessary to follow the general contour of the country to secure practicable grades, which even so are heavier than desirable, several miles ranging from 65 to 70 feet per mile from the point of departure.

That from the Madawaska valley to the Beaver brook (waters of the Green River) on the boundary line between New Brunswick and Quebec, a distance of over 20 miles on the explored line, a southing of about one mile only is made.

The Party extending the survey northward from Little River have followed the valley of the Ten Mile Brook; Beaver Brook No. 1; Buck Brook; Beaver Brook No. 2, and Grand River, having reached the Wagaan Brook without encountering any great difficulties, the general direction of the line is good. The grades, however, are heavy, there being several miles of 70 feet to the mile with curves of 1,000 feet radius. Probably by lengthening the line a few miles the mileage of objectionable grades might be slightly reduced. The works of construction on this portion of the survey would not be considered heavy.

The party engaged between the Tobique River and the Miramichi Forks having completed their service, were withdrawn from the field on the 11th June. This section of the survey has been continued a few miles southward on the general route of the central line surveyed in 1864. I therefore have no important information to report at this point.

That portion of the Frontier Route, surveyed subsequent to the 30th May, is shewn on plan accompanying the Chief Engineer's last report by a heavy blue line.

#### NORTHERN ROUTE.

The three surveying parties operating between Rivière du Loup and Metis have been engaged exploring several lines nearer the River than that upon which the Chief Engineer in his last report mentions, the ground have been found unfavorable; all of which are shown on the accompanying plan. That bordering on the River St. Lawrence the surveyors are now at work upon. From Rivière du Loup to Saint Simon, and from Rimouski to several miles east of Father Point the ground has been passed over with most satisfactory results, and from a personal examination of the proposed line, within the last few days, I feel confident a very favorable line may be had to Metapedia; the grades not to exceed 52 feet to the mile with flat curves and a good alignment. The works of construction will not be excessive. The country along this line generally is very similar to that traversed by the Rivière du Loup branch of the Grand Trunk Railway, with the exception of about half a mile of rough ground near Bic. Bridges of considerable size will be necessary to span the six principal rivers flowing into the St. Lawrence, but not of so formidable height as on the rear lines. This (Front) Line will be of greater length by several miles than those passing in the rear.

One of the rear lines surveyed leaves Rivière du Loup passing through the Indian reserve, to the South of Jackson's Lake, crossing Bic River near the Forks, and on very high ground to the Trois Pistoles river, making an awkward but unavoidable twist up stream before crossing the river; thence following the branch of the Metis river, forming a junction with the survey of 1864; the works of construction on this line would be very formidable, both as regards earthwork and bridging; a tunnel of  $2\frac{1}{2}$  miles in length is unavoidable, passing through the high lands between Bic river and Trois Pistoles River, the gradients do not exceed 53 feet to the mile and the curvature is not objectionable.

Several other combination lines may be formed with the Front line with favorable grades and curves (if it should be deemed advisable) all of which appear on the accompanying Plan.

The parties engaged near New Castle, New Brunswick, are making satisfactory progress with the surveys; 17 miles has been explored southward from the Miramichi River shewing a good profile, the party attending the survey northerly from the river has encountered no difficulties, the work of sounding the River is being prosecuted with vigour, but it is not so far advanced as to permit of my furnishing you a plan of the proposed crossing.

I have the honor to be, Sir,

Your obedient servant,

(Signed)

COLLINGWOOD SCHIEBER.

Copy of No. 553.

OTTAWA, 14th September, 1868.

To the Honorable Wm. McDougall, C. B., Minister of Public Works.

SIR,—In accordance with your directions, I now beg to make the following observations on the surveys for the Intercolonial Railway in Nova Scotia, in addition to what I have already submitted in former reports.

The whole question of route is now so far simplified, that the selection is reduced to a choice between a line by the Folly Lake and a line by Maddison Brook, passing near the Acadian Iron Works, and a line projected to combine the northern part of the Folly Lake line with the southern portion of the Maddison Brook Line by a connecting link of about six miles in length. This line I shall hereafter allude to, in the meantime I may proceed to compare the two main lines mentioned.

In order that a just comparison of these lines may be secured, I have had the quantities of work on each, as carefully ascertained as it is possible to do so at the present time, and sufficiently correct I think for the immediate purpose of comparing their probable cost.

The quantities thus ascertained, I have computed at corresponding prices in each case, with this data and making proper allowances for the differences in length, an approximate estimate of the cost of a completed Railway with its full equipments on each line, has been formed.

The curves and gradients on each line, as shown by the plans and profiles deposited in your department last winter have also been carefully tabulated, and I am now prepared to submit a summary of the ruling maximum gradients for comparison.

I should observe that at two points on the Maddison Brook Line, improvements on the original location are, I believe possible, one of which near the Iron Works, by which the length is reduced 1950 feet, I have in the comparison adopted.

The other projected improvement is at a place called Folly Brook, by which an increase of cost, two bad curves may be taken out, and the distance lessened 3,600 feet, but this I have not adopted in the comparison which follows, because it is simply a projection, and no sufficient surveys have been made to enable me to form proper estimates.

The total length of the Folly Lake line from Truro to the New Brunswick Boundary is  $75\frac{20}{100}$  miles.

The total length of the Maddison Brook Line is  $77\frac{70}{100}$  miles, showing a difference in favour of the Folly Lake line of two and a half miles.

The estimated cost of a completely furnished and equipped Railway on the Maddison Brook Line is about \$230,000 dollars more than on the Folly Lake Line.

The maximum gradients on the two lines will be understood by an inspection of the following Table :

CURVES, &c.	FOLLY LAKE LINE.			MADDISON BROOK LINE.		
	Rise on feet per Mile.			Rise on feet per Mile.		
	Miles.			Miles.		
	42 to 48	48 to 52.80	60	42 to 48	48 to 52.80	60
Tangents.....	1.04	13.24	0.00	1.53	16.66	4.99
1° curve, or 5,730 feet radius.....	0.33	2.26	0.00	0.33	2.03	0.11
1½° curves, or 3,820 do .....	0.12	2.02	0.00	0.00	0.00	0.00
Total on curves not sharper than 3,920 feet radius.....	1.49	17.52	0.00	1.86	18.69	5.10
2°—2,865 feet radius.....	1.72	0.00	0.00	1.03	1.42	1.29
2½°—2,292 do .....	0.94	0.00	0.00	0.60	0.69	0.90
3°—1,910 do .....	0.00	0.00	0.00	0.00	1.75	1.22
3½°—1,637 do .....	0.00	0.00	0.00	0.00	0.00	0.00
4—1,433 do .....	0.00	0.00	0.00	0.00	0.73	0.59
5—1,146 do .....	0.00	0.00	0.00	0.00	0.00	0.72
Totals.. .....	4.15	17.52	.....	2.89	23.28	8.92

The above table shows that while there are on the Maddison Brook line 8<sup>22</sup> miles of 60 feet per mile gradients in all, some portions of which are on curves ranging from 1,910 feet radius down to 1,146 feet radius, the highest gradient on the Folly Lake line is 52.80 feet per mile, and that the sharpest curve on this maximum is as much as 3,920 feet radius. It further shows that while the maximum gradients on the Folly Lake line are all on tangents or remarkably flat curves, the Maddison Brook line has 13<sup>41</sup>/<sub>100</sub> miles of gradients of a greater rise per mile or on sharper curves than the miling gradients on the former line.

The projected improvement at Folly Brook would reduce the difference in length between these lines 3,600 feet. It would throw out one or two objectionable curves gradients on the Maddison Brook line, but it would affect the cost. I am not however in a position to speak decidedly on these points without further information.

The Folly Lake line while it crosses and passes near valuable deposits of Iron ore, between Folly River and Dr. Bert River, does not run near enough to the existing Iron works to be of much service to them without a branch. The existing Iron Works may be approached from the Folly Lake line by a branch some 7 miles in length, or by the combination line already alluded to, with a branch of about 3 miles long.

The first cost of the combination line would not be greater than the Folly Lake line, (it would probably be so much less) but it would be at least four miles longer, and would possess an objectionable alignment.

It is of great importance that the Iron Works should have the benefit of Railway Service to aid in their development, and whilst keeping general interests mainly in view, it is most desirable that the Railway should be placed so as to make the connection between the coal and iron districts as easy as possible. The Folly Lake line with a branch would, in my judgement, accomplish this object and serve the general interest of the Dominion best. It is true that the distance from the existing Iron Works to the Coal fields is some 5 miles greater by the Folly Lake line and the branch, than by the Maddison Brook Line, but the Engineering features on the former are so much more favorable for cheap transport than on the latter, that I am satisfied it would prove the most economical route for conveying ore and coal; when the deposits of ore east of Folly River are worked, the Folly Lake line will then without a question, be found the most suitable for mineral transport.

If the cost of a branch to the present Iron Works is added to the Folly Lake line, according to my calculations this line together with the branch, would cost in round figures \$100,000 less than the Maddison Brook line, without adding any charge to the latter for the extra cost of operating it.

As far as I am informed and capable of judging, therefore the Folly Lake line compared with the Maddison Brook line, passes over the Cobequie Mountains on a summit 100 feet lower. It is the shortest of the two; it is the cheapest; it is the best, and therefore with the branch to the mines is entitled to the preference.

Next to the Folly Lake line stands the combination line, and in my opinion, the Maddison Brook line is the least favourable of the three.

I have the honor to be, Sir,

Your obedient servant,

(Signed)

SANDFORD FLEMING,

Chief Engineer.

Copy of No. 567.

STEAMER "SECRET."

RIVER ST. LAWRENCE, 15th September, 1868.

*The Honorable Wm. McDougall, Minister of Public Works, Ottawa.*

SIR,—In the report which I addressed to you yesterday before leaving Ottawa, on the subject of the line of the Intercolonial Railway through Nova Scotia, I omitted owing to press of time, to allude to the two dispatches on the subject from the Lieutenant Governor which you handed to me some days previously, I now hasten to rectify the omission.

The first dispatch is dated August 11th, and it enclosed a minute of the Council of Nova Scotia passed on the 3rd August. The Government of Nova Scotia in the interests of the Province, is anxious that the Railway should be located and built on that line which is



designed "to effect the shortest possible communication between Nova Scotia and New Brunswick, and to secure the largest amount of intermediate traffic by giving a new and important development to the mineral resources of the Province, by connecting the Iron and Coal Districts of Colchester and Cumberland."

The objects desired by the Government of Nova Scotia are most important, and for the reasons given in my report of yesterday, it is clear that they will be fully and best obtained by the adoption of the line by the Folly Lake with a branch for the mineral traffic.

The second dispatch is dated August 17th, and it enclosed a letter dated 17th July from Captain Tyler, England, to Mr. John Livesey.

With respect to this letter I have only to remark that whilst entertaining all due professional respect for the calculations of Mr. Atkinson therein referred to, and for the opinions of Captain Tyler therein expressed, I am perfectly satisfied that those gentlemen were not in possession of all the information which the surveys afforded respecting the several projected lines, and therefore their conclusions based on imperfect data could scarcely be correct.

These gentlemen state "that taking account of the cost of construction on each line, and capitalizing at 6 per cent. the extra cost of working over the super-elevation, the counter gradients and the curves on the steeper gradients on line A (Maddison Brook line) there still results an economy of £38,000 (\$190,000) in favour of line A and against line F (Folly Lake Line). The information which the survey has afforded me, shows that without charging the Maddison Brook line with any portion of the capitalized value of the extra cost of working it, this line would cost \$230,000 more than the Folly Lake Line; that the Folly Lake Line together with a branch to the mines could be built for about \$100,000 less than the Maddison Brook Line, and that the Folly Lake Line is not only the cheapest to construct, but the cheapest to operate, the shortest, and in every respect as far as I can judge the best.

I beg to return the dispatches and other documents which you did me the honor to refer to me.

I have the honor to be, Sir,  
Your obedient Servant.

(Signed) SANDFORD FLEMING,  
Chief Engineer I. R.

(Copy of 590.)

To the Hon. Wm. McDougall, C.B., Minister of Public Works.

HALIFAX, 22d Sept., 1868.

SIR,—I have received a communication from Mr. Purdy, M. P. P., enclosing a copy of a resolution passed by the House of Assembly of Nova Scotia on the 18th inst, on the subject of the location of the Intercolonial Railway through this Province. As this subject is at present under the consideration of the General Government at Ottawa I consider it my duty to forward the communication and the resolution to you.

I have the honor to be, Sir,  
Your obedient servant,

(Signed,) SANDFORD FLEMING,  
Chief Engineer Intercolonial Railway.

HALIFAX, Sept. 21st, 1868.

Sandford Fleming, Esq.,  
Intercolonial Railway, &c., &c.

SIR,—Thinking it desirable to acquaint you with recent events respecting location of Railway in this Province, and wishing you to lay the facts before the proper officials at Ottawa, I beg to state

That on the 15th day of September, a Minute of Council was laid upon the table of the House of Assembly which gave an opinion favorable to the "Iron Mines" route. That Minute of Council was dated on the 3rd day August, and was kept a secret from the House until the 15th inst., which you will perceive was only a day or two previous to the time that parties were heard before Privy Council at Ottawa in support of the adoption of "Acadia Iron

Mines' route. Upon enquiry I at once ascertained that that Minute of Council was obtained at the very urgent request of Mr. Livesey, without reflection on the part of the Government; without any investigation as to the merits of the "Folly Lake" line, without any persons in the interests of that line being aware of such Council being held, or being asked to attend. Most of the Government were surprised and dissatisfied when they became aware of all the facts. The Members of the House were indignant at the action of the Government in thus attempting to hold an investigation on a matter of so much importance to so large a population on the north side of the mountain, who desired the "Folly Lake" line, and to have only heard Mr. Livesey and kept the matter secret from the advocates of the other route. The difficulty which I met was, that the Council having made their Minute the House did not desire to pass a resolution referring so pointedly to the Minute of Council as to involve a vote of want of confidence at this particular time, and therefore, although the accompanying resolution expresses in pretty strong language the opinion of the House in favour "Folly Lake" Route, yet I believe I am perfectly safe in affirming that were it not for the peculiar state of matters as before explained, a much stronger expression of the House would have been made in favour of that route.

You will perceive by the condensed official report that no member of the House or Government spoke in favor of, or attempted to argue in support of Mines route. I am fully justified in stating that had the Government been in possession of the information they now have no such Minute of Council would have been made as was done on the 3rd of August last.

The general public opinion is undoubtedly in favour of "Folly Lake" route, unquestionably it is the one which will best develop the united interests of the county—best accommodate the whole population without doing injustice to any, and I assure you that I am expressing the sentiments of the *whole of my constituents*, and without scarcely a dissenting voice, of a large portion of North Colchester, in thus pressing the adoption of the Folly Lake route.

Respecting the petitions which were signed in Cumberland last year in favor of Amherst Spring Hill, and Mines route, I would beg to state, that the people generally were led to believe by the means of certain parties that if the railway was located by the Folly lake it would of necessity go *viâ* Tidnish and Bay Verte, thus avoiding Amherst, Maccan and Spring Hill. Hence they were induced to sign largely in order to secure the road to themselves, but not really wishing to influence the location from Spring Hill *viâ*, Folly lake to Truro.

I fearlessly assert that no number of respectable signatures could be fairly obtained in Cumberland against the route as located by you *viâ* "Folly lake", Spring Hill and Amherst, as all parties consider it the best.

I have the honor to be,  
Yours respectfully,  
(Signed,)

AMOS PURDY,  
M..P.P for Cumberland.

*Copy of Resolution passed unanimously by House of Assembly on Sept. 18th 1868.*

*Resolved.*—That it is the opinion of the House, from all the information laid before us, that there are strong reasons in favor of the adoption of the "Folly lake" route of Railway from Truro to Spring Hill and Amherst, and that no route should be decided upon without the most careful and close investigation, it being very important that the commercial, agricultural and general interests of the country should be developed, as well as that of mining.

(Copy of No. 597.)

INTERCOLONIAL RAILWAY ENGINEER'S OFFICE,  
Ottawa, 1st October, 1868.

*The Honorable William McDougall, C. B., Minister of Public Works.*

SIR,—I have the honor to submit the following remarks upon Mr. Livesey's printed statement, referred to the Chief Engineer on the 3rd ultimo, for his report thereon.

## COMPARATIVE COST OF LINES A. AND F.

Upon examining Mr. Livesey's figures of the cost of construction of the two lines, I find no provision made for the culvert masonry, nor the permanent way, &c., neither being covered by his estimate, both essentials, in forming a comparison, as will be readily seen upon an examination of the Chief Engineer's estimate of the cost of construction, a copy of which I here submit.

	FOR POLLY LAKE LINE.				A OR MADISON BROOK LINE.					
		\$	cts.	\$	cts.		\$	cts.	\$	cts.
Common excavation, c. yards.....	2,292,300	0	30	687,690	00	1,964,340	0	30	589,302	00
Land Rock excavation, do " ....	98,125	1	00	98,125	00	92,962	1	00	92,962	00
Hard do do .....	182,855	1	50	274,282	50	233,753	1	50	425,629	50
Excavation found, do .....	19,320	0	50	9,660	00	21,650	0	50	10,825	00
Masonry, 1st Class, do .....	18,340	14	00	256,760	00	28,000	14	00	392,000	00
Do 2nd Class, do .....	24,620	8	00	196,960	00	25,050	8	00	200,400	00
Do Paving, do .....	2,400	4	00	9,600	00	2,450	4	00	9,800	00
Iron pipes, per feet.....	3,590	8	00	28,720	00	1,230	8	00	9,840	00
Bridge, Suspension, tons.....	1,260	160	00	201,600	00	1,210	160	00	193,600	00
				1,763,397	50				1,924,358	50
Add 10 per cent for contingencies ...				176,339	70				192,435	80
Permanent Way, Stations, &c.....				1,729,600	00				1,787,100	00
Total. ....				\$ 3,669,337	20				3,903,804	30

The quantities upon which the estimate of cost of construction is made were computed and checked with great care, and are, I maintain, substantially correct.

## LENGTH OF LINES.

The long line at "Polly's Brook" was adopted in the comparison on account of it having been selected and located by Mr. Livesey's Engineer, and in as much as the Chief Engineer did not consider he had sufficient reliable data at hand upon which to base his calculations on the dotted lines shown upon the plan and profile, (a probable improvement suggested by himself, but not laid out on the ground.)

## EXTENT AND CHARACTER OF WORKS.

The difficulties in executing the work in the cutting at Pin's Brook (about 14 miles out of Truro) on the F line are greatly magnified, and Mr. Atkinson's remarks relative to the rock probably not standing at less than  $\frac{2}{3}$  to 1 are all based upon sundry suppositions, and are proved by practice in this country to be erroneous, as in cases where similar rock has been pierced, it is found to stand solidly at the inclination of slope upon which the Chief Engineer's calculations are based and on which his estimate is formed. With regard to snow drifts, I consider a cutting of the depth and in the position of that now in question is not likely to accumulate more snow or form a greater obstruction to the traffic than one of half the depth.

The disparity shown by Mr. Livesey in the quantity of earthwork on the two Lines, on the first 14 miles out of Truro, appears to be greatly exaggerated, but why select this particular point for a comparison, just encompassing the heavy cutting on the F line, and covering only the lighter portion of the A line, should such a comparison be of any importance, which I maintain is not the case, why not choose the Arcadia Mines or 20 miles as the point, and the comparative difference in the quantity of work on each line would not be very great.

## SUMMIT HEIGHTS, GRADES AND CURVES.

The result arrived at by Mr. Livesey under this heading is certainly not supported by practice in this country, the expense of working a traffic over these heights on long, heavy grades and curves would be very much greater than quoted by Mr. Livesey. Should the Government desire further information upon this point, I do not propose to set an array of

figures before them, but I would suggest that Mr. Brunel, late Superintendent of the N. R. C., [a gentleman of undoubted ability, of high professional standing and of considerable experience in railway management, whose opinion on the economy of operating the respective lines would be thoroughly reliable, from his practical knowledge of the subject] should be called to explain his views. I next take up the question of the 4 curves or 60 feet grades I cannot agree with Mr. Livesey that this question may be discarded, to lay down a grade as he states of 52.80 upon the profile of the ground selected by the Chief Engineer, for a 60 foot grade would entail an enormous increase to the quantity of work, and add a very heavy amount to the Chief Engineer's estimate of cost of construction of the A line, and also with regard to the suggested improvement at the head of the two grades at Maddison Brook by substituting a 3rd curve for the now existing 4° curve would lead to a great additional amount of rock work which would necessarily have to be run to spoil, we already having a supply of excavation at this point. Again touching the question of 60 feet grades, Mr. Livesey is clearly wrong in supposing this column would disappear [assuming that the 60 feet grade at the Mines was overcome] there yet exists over  $\frac{3}{4}$  of a mile of a 60 foot grade near Purdy's stables, which I conclude he has inadvertently overlooked. As regards Mr. Livesey's denial of the correctness of the Chief Engineer's statement of there being No. 3 and 4° curves on a grade of from 42 to 48 feet to the mile on the F line, it does appear as if Mr. Livesey was "straw splitting," there are several grades of 42 feet and 3 inches on which 3° curves appear, but I know of no 4° curves on such grades. In presenting grades in a tabular form it is customary to take the nearest foot to which the odd inches may apply, I therefore maintain that the Chief Engineer is practically correct in his statement. Then again reviewing the length, of curveting on the two lines, Mr. Livesey may be quite correct in his figures, yet one line may be greatly inferior to the other, by reason of the curves occurring on maximum grades as instance line A. With respect to curves and grades of greater severity than on line A occurring on the Picton and other railways, as exhibited by Mr. Livesey in tabular form; this is correct; it arises from the fact that the general features of the country in those instances did not admit of easier and better grades and curves being obtained, but in the present case it is difficult. It becomes a matter of choice between a line of comparatively favorably gradients and curvature, and one with more formidable grades and curves.

#### LOCAL STATIONS.

This matter the Chief Engineer has carefully considered and made full provision. I may remark in drawing my report to a close, that the Chief Engineer's estimates shows clearly F line to be the cheaper of the two to construct. The nature of the grades and curvature on this line are evidence that it is the most economical to operate, and Mr. Livesey acknowledges it to be the shortest. Taking all these advantages into consideration, but one conclusion can be arrived at that the F line is the most favorable.

I have the honor to be, Sir,  
Your obedient servant,

COLLINGWOOD SCHRIEBER.

(Copy 842.)

AMHERST, N. S., October 7th, 1868.

SIR,—Since the full report of Mr. Purdy's speech in the Assembly, on the subject of the Railway route between Truro and Amherst was published, I have been urged by many persons to correct some of his mis-statements as to the populations affected by the F and A lines respectively. I do not think it necessary to enter into any controversy with Mr. Amos Purdy, and shall therefore content myself with a brief statement of facts for the information of the Cabinet, to whom pray submit this letter.

The post road from the village of Tatmagouche and the adjacent settlements of New Annon and Waugh's river on the coast to Truro, will intersect the Railway a few miles from the latter place at a point where the conflicting lines A and F are common or nearly so.

Hence in comparison of numbers these three places and Colchester should in all fairness be omitted; and it must be to them matter of little or no account which line is selected. I have no doubt that Mr. Blackwood, the late member of Assembly for Tatmagouche as well as Mr. A. Patterson, the late Legislative Councillor from that district, and now a Dominion

officer, would readily confirm this view. It is quite true that Wentworth or Wallace River, where Mr. Purdy resides has an interest in line F, but against Wentworth with its population of 696, I place Westchester through which line A runs, with its greater population. The comparison therefore rests between Pugwash and Wallace on the one hand with a population of 5,665, and Lower Onslow, (I exclude Upper Onslow) Londonderry, Economy and Five Islands, on the other hand, with a population of 6,167. So that the argument founded on the preponderance of population is wholly against Line F. But even this criterion of comparison is unfair to line A, for this reason, if no other, that no part of these flourishing agricultural districts in Colchester, will I am assured be more than 15 miles from the A line, while the bulk of the population of Wallace and Pugwash and Cumberland will be from 20 to 30 miles distant from the F line. This line in descending the rapid Wallace river necessarily keeps at a high elevation on the mountain side, from which circumstance and the steepness of the gradient, it would not be practicable. I apprehend, to have a station nearer than some five miles west of the Wallace river bridge near Higgins, a point 14 miles from Wallace harbor, and nearly 20 miles from Pugwash, or about 19 and 24 miles respectively, a considerable portion of the population of Pugwash and the great bulk of Wallace are to be found beyond these points, between Malagash, at the mouth of Tatmagouche Bay and River Philip. True it is that line F may be tapped on the River Philip, about twenty miles from Pugwash, but the difference of distance between the two lines whether at Westchester or River Philip is understood not to exceed four miles.

Situated as the mass of the population of Pugwash and Wallace are on the coast, it would be straining matters to an unreasonable extent to bring them all into the category of people immediately interested in the location of a Railway so distant, or tributary in any appreciable degree to its traffic.

Since writing the foregoing, the enclosed letter from Mr. Morrison, M. P., for Colchester, has been placed in my hands by Mr. Jones, to whom it was addressed, and I am happy to find that it amply confirms the view which I have ventured on public grounds thus to express.

In conclusion I beg to express my entire conviction that the people of Colchester are so satisfied of the general benefits resulting from extending operations of the iron mines, that they would almost to a man prefer the A line, while in Cumberland the development of the coal mines would lead to a similar accord among the vast majority of its people.

I am, Sir,

Your very obedient servant,

(Signed,)

R. B. DICKEY.

Hon. H. L. Langevin, C. B.,  
Secretary of State, Ottawa, Ontario.

HALIFAX, October 8th, 1868.

To E. A. Jones, Esq.

DEAR SIR,—In answer to your enquiry as to which of the two lines of Railway would accommodate the people of Colchester best, I beg leave to say that the line by the Maddison Brook would accommodate the people of Lower Onslow, Londonderry, Economy and Five Islands very much better than the line by Folly Lake, while the people on the north side of the mountain comprising the districts of Newannan, Talamaguishe, Haugh's River and Earl-town (with the exception of a few on the west side of Newannan) would be as well accommodated by the one line as the other; their easiest and best place of joining either line being in Onslow or Truro, where the two surveys either join or come very close together. In fact the line by Folly Lake would be no accommodation to the people of Lower Londonderry, Economy or Five Islands, they would prefer joining at Truro, as they now do, rather than to raise the mountain to meet the line at Folly Lake.

I remain, Dear Sir,

Yours truly,

THOMAS F. MORRISON,

M. P. P. for Colchester.

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 INTERCOLONIAL RAILWAY LOCATION.
 

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To the Honorable Secretary of State, Canada,

SIR,—To-day's mail has brought me a copy of a letter addressed to you by Amos Purdy, Esq., M. P. P., on the location of the Railway in Nova Scotia.

As he makes reference to me in this letter, I desire to offer a few explanations, premising that I believe the conclusion to which the local government came on the 3rd of August, will be found correct— as sound as if Mr. Purdy had been specially summoned to attend the meeting. Indeed after Mr. Purdy had been heard at length, and Mr. Fleming had also had interviews with several members of Government, they, on the 13th October, declare that they have seen no reason to abandon their Minute of Council of the 3rd of August.

I can see no condemnation, even "by implication" of the Minute in Council in the Resolution Mr. Purdy submitted to the House; because the official statistics, the census reports and trade returns show that there is by far the largest commercial, agricultural and general interests of the country to be served by the adoption of line "A" forming "stronger reasons," exclusive of the mining interest, for the selection of that line than exists "in favor of Folly Lake Route."

Mr. Purdy, speaking of population, persists in claiming for Folly Lake line, Tatamagouche, New Annon and Waugh's River. Now those Districts are within the County of Colchester. I have for ten years represented them in the Legislature, and can speak from personal knowledge. Mr. Morrison, M. P. P., has represented them as long, and Mr. Blackwood who resides in Tatamagouche, was my colleague for four years, and those gentlemen, as do many leading men in the districts whom I have consulted, agree with me that it is of little consequence to them which line is taken, as they would most certainly connect with the Railway at Truro or Upper Onslow.

Mr. Purdy in giving distances, mentions the nearest points of the Townships to line "F" and the farthest from Truro. I know where the bulk of the inhabitants reside, and I know that their business connections and attractions are altogether at Truro and Halifax, and I repeat that almost every man of them using the Railway will connect at Truro or Upper Onslow. Even if they travelled a few miles further to reach Truro, they have better roads and would save twenty-five miles Railway travel. When the error in the location of Tatamagouche on Mr. Livesey's map is corrected and is placed S. S. East of Wallace it will be seen that the natural Railway connection for travel Eastward from those Districts is at Truro.

In comparing populations, we have better grounds to include for line "A" Parsboro Mills Village and other settlements west of Five Islands, that are about as near Londonderry as to Amherst, and persons from those settlements connecting at Iron Works for the East, would save fifty miles Rail; but I leave those places out of the calculations, and claim for line "A" that it accommodates the population along Cobequid Bay and West Chester, and also brings a railway 20 to 22 miles nearer to Wentworth, Wallace and Pugwash, than they now have, whilst line "F" only brings it 26 miles nearer to them, and practically for traffic no nearer the population along the Cobequid Bay than it is at Truro. That is, line "A" accommodates the south side of the mountain, and is from four to six miles as near Pugwash and Wallace as line "F." In my letter of 21st May, I put it at "about four." Mr. Purdy says "Pugwash can reach line "A" by six miles additional travel, as roads run, and Wallace will have twelve miles to climb the mountain (24 miles each trip)." Now, in a matter of this moment, I did not suppose that we were to be confined in speaking of distances to the "Roads" "as run," but assumed that if line "A" is taken, new roads will be "run" direct from Pugwash and Wallace to the nearest point of connection on the Railway, and to-day I am assured by a person, Mr. Daly, who has resided in the vicinity all his life, that if this is done Pugwash and Wallace will have only four to four and a half miles more to travel than if line "F" had been adopted.

Mr. Purdy concludes his remarks on Mr. Morrison's letter, which recommended line "A." Thus, Mr. "Morrison has more constituents living along the Cobequid Bay than in Tatamagouche." If this means anything, it is a frank and candid admission that it is line "A," and not line "F," which will accommodate the inhabitants "along the Bay." It is true that this admission is made after he has on 3rd page told the inhabitants of Onslow that they must connect at Truro, as they have "an excellent Road," and are "near Truro," (only eight miles,) and also after he has denied the very existence of over one-third the population of London-

derry. He forgets that there are two Polling places in Londonderry, viz : Upper and Lower Londonderry, containing in 1860, 3,705 inhabitants, as correctly stated by Mr Livesey.

The population along the Cobequid Bay to be accommodated by line "A," as admitted by Mr. Purdy, is:

Lower Onslow.....	771
Londonderry, (2 sections).....	3,705
Economy and Five Islands (1 section).....	1,691

Total..... 6,167

But exclude all the population along the Bay except Five Islands and Economy, and in a comparison with Pugwash and Wallace it may be mathematically demonstrated that line A should be adopted. By that line, 1691 inhabitants in Five Islands gain in Railway accomodation 15 to 20 miles, and 5667 in Wallace and Pugwash gain 20 to 22 miles. Whilst by taking line "F", Pugwash and Wallace only gain 4 to 4½ miles more, and Five Islands and Economy lose all; are no better served than they now are at Truro. But how much stronger is the case for A line, when you embrace all the population of the belt of land running forty miles along the Bay shore as described in my letter of 21st May. Mr. Purdy would, if possible, undertake this section of Country. He admits it is eight miles wide near Truro, but at Great Village where I reside, says it is "only five miles from the Village" to the mountain, forgetting that "the Village" is over two miles inland. Let me set this matter of the extent of Agricultural and Commercial interests to be served by the respective lines, at rest. I shall not do so by reference to any "Thriving settlements" on one side or other of the mountain, and there are dozens of them all with distinctive names, within the bounds of Londonderry and Five Islands, but by a comparison of the census and trade returns for Lower Onslow, Londonderry and Five Islands, with those for Wentworth, Wallace and Pugwash.

The Census of 1860 exhibit the following result.

DISTRICTS:	Popula- tion.	Value of cultivated land.	Bushels of Grain, Fruit and Vegetables.	Stock of all kinds.	Tons of Hay cut.	Barrels o. Fish cured.
		\$    cts.				
Onslow, Londonderry, Five Islands and Economy.....	6,167	607,118 00	241,408	17,014	10,754	4,386
Wentworth, Wallace and Pugwash..	6,363					
Excess, in No. of latter.....	196	447,968 00	186,973	15,344	7,542	1,126
Excess of productions by the former.....		159,150 00	54,435	1,670	3,212	3,260

The Trade Returns present a still stronger case in favor of the south side of the Mountain and line A.

FROM TRADE RETURNS OF THREE YEARS.

DISTRICTS.	Exports of three consecutive years.	Exports of three consecutive years.	Value of Vessels built in three consecutive years.
	\$    cts.		\$    cts.
Londonderry and Five Islands.....	239,002 00	332,709	214,390 00
Pugwash and Wallace.....	58,048 00	260,272	170,670 00
Excess in favor of former.....	\$180,954 00	72,437	43,720 00

In addition to this large excess in favor of those Districts accomodated by line A, Londonderry and Onslow send by rail from Truro, large quantities of produce for the supply of

the Halifax Market, and receive in the same way large quantities of imports which do not show on the returns—Mr. Purdy, under the head of “Capital invested” writes as if all the cleared lands, houses, barns, mills and shipyards, and all the contributions to the Dominion revenue on North of the Mountain, and that therefore line F should be adopted—Now I have given plain, positive proof from the Public records that on all these points on which he rests his case, the Districts to be accommodated by “line A” are vastly in advance. In fact I have presented the evidence that “line A” completely meets the acquirements of his own resolution in the Local House—that whilst there may be “strong reasons for the adoption of Folly Lake route” there are much “stronger reasons” for the adoption of Line A. And it being *very important* that the commercial, agricultural and general interests of the country should be developed as well as that of “Mining.” And it having been found that all those interests are strongest in the Districts served by “line A”, therefore its adoption will be in accordance with the expressed wish of the House.

So clear and distinct have the records of the country presented this, that even Mr. Purdy living north of the Mountain cannot fail to admit it if brought to his notice, and feel it is his duty in the general interests of his country to hereafter advocate the adoption of Line A.

I have the honor to be, Sir,  
Your most obedient servant,

A. W. McLELAN,  
M. P. for Colchester.

Londonderry, 3rd November, 1868.

(Copy of No. 385.)

DEPARTMENT OF PUBLIC WORKS,  
Ottawa, October 15th, 1868.

SIR,—The last annual Report of the Department to the Parliament of the Dominion contained a brief history of the initiation, progress and present condition of each of the Public Works of the Dominion,

In his forthcoming Report, the Minister desires to add a similar description of the Intercolonial Railroad.

Will you therefore prepare and forward a brief summary of proceedings with regard to the Intercolonial Railway up to the close of the Financial Year, ending the 30th June, 1868, with a view to its insertion in the Appendix of the Minister's next annual Report.

I have the honor to be, Sir,  
Your obedient Servant,

(Signed,) F. BRAUN,  
Sec'y.

Sandford Fleming, Esq.

(Copy of 636.)

DEPARTMENT OF CROWN LANDS,  
Quebec, 17th Oct., 1868.

SIR,—The survey of certain new Townships projected in the Valley of the Matapedia being about to be effected by this Department for Colonization purposes, under the authority of an order of the Lieut.-Governor in Council, would you have the goodness to inform me whether a copy of Mr. Fleming's plan sections of the actual survey of the line of the Bay Chaleurs route of the Intercolonial Railway of the Valley of the Matapedia, a distance of 70 miles, and deposited in the Department of Public Works, could be obtained for the use of the Department, or even a copy of any carefully reduced trace of it, which would otherwise serve the purpose of indicating the places where the proposed line of Railway intersects the River Matapedia, and where certain reservations might be accordingly made for the purposes of the Intercolonial Railway, to which attention would be specially directed.

I have the honor to be, Sir,  
Your obedient Servant,

JOSEPH BOUCHETTE,  
D. S. Gen.

T. Trudeau, Esq.,  
Asst. Commissioner of Public Works, Ottawa.



(Copy of No. 836)

OTTAWA, Oct. 20, 1868.

SIR,—I have the honor to inclose in a conveniently printed form, a letter on the general features of the Nova Scotia Intercolonial Railway Location, as regards population, traffic, &c., these points having recently been brought under official notice, accompanied by copy of a despatch from the Local Government of the Province in confirmation of its minute of the 3rd August last, and respectfully soliciting the attention of the Council thereto.

I remain, Sir,

Your obedient servant,

To the Hon. H. L. Langevin, C.B.,  
Secretary of State, &c., &c.

JOHN LIVESEY.

### INTERCOLONIAL RAILWAY.

DESPATCH FROM THE LOCAL GOVERNMENT OF NOVA SCOTIA.

*Particulars of Population, Mining and Manufacturing Operations and Traffic.*

*To the Honorable Secretary of State for Canada.*

SIR,—On the 30th ult. I had the honor to enclose a telegram from the Hon. W. Annand, Provincial Treasurer of Nova Scotia, affirming in the most positive terms adherence of the Local Government to its minute of the 3rd August last, on the location of the Intercolonial Railway through that Province, which recommended the Central Line (A) through the Iron and Coal Districts, as most conducive to the interests of the Province. A renewed attempt having been made to interpret an informal approval of certain recommendations in Mr. Fleming's Report by three members of the Government as an official revocation of the minute in question, I have now the pleasure of submitting copy of a resolution unanimously adopted at a meeting of the Council in Halifax, on Tuesday last, the 13th instant.

(Copy.)

HALIFAX, 13th October, 1868.

The Government have seen no reason to abandon their Minute of Council of the 3rd August, and will approve of no location which does not affect the objects therein contemplated.

The alleged approval of another location was by only three members of Council, on representation of Mr. Fleming, in his Report, that, by branch construction or compromise line, these objects would be as effectually and economically secured.

(Signed,)

W. B. VAIL,  
Clerk of Council.

Nothing, Sir, could be more decisive than this. The Local Government, speaking officially, have seen no reason to abandon their minute of the 3rd August, recommending a route which, passing (to quote the words of the Minute) "through the Acadian Iron Mines to Springhill and Amherst, would secure the largest amount of traffic," "giving a new and important development to the mineral resources of the Province," "thus contributing largely to the revenue and prosperity of the Province;" and this route was recommended in preference to an alternative location, which omit such a source of traffic.

To obviate apparently the latter objection as to the loss of so important a traffic by the Folly route, Mr. Fleming's Report recommended the construction of a branch line, or a combination of two routes; and it was not only on the understanding that either of these alternatives would as effectually and economically secure the objects of the Minute of Council, but also under the impression that there would be no difficulty in the way of their adoption, that the three members of Government signified their approval thereof. But the inclusion

and accommodation of the traffic referred to, was by these gentlemen individually, and is by the Local Government officially, still regarded as of paramount importance in the location of the Railway.

One important fact, therefore, has been elicited by this occurrence, viz.: that by common consent the connection of the iron and coal of Nova Scotia by railway is regarded as a most important desideratum, and so long as it can be accomplished with positive advantage to the general features and functions of the Intercolonial Railway, its omission would be generally deplored as a great financial error in reference to the railway itself, a restriction upon the special resources of the Province, and a serious discouragement to capital brought, and offered to be brought, into the country for the prosecution of enterprises which are urgently required for its development.

As specially illustrating this point, the following particulars may be submitted, some of which have already been communicated to Government.

Upwards of \$400,000 capital has been invested at various stages in the enterprise which I represent, and the amount expended on the property, covering a mineral range of about 13 miles plant, machinery, and works, to the 1st January, 1867, was \$311,310, nearly one third of which was expended within a comparatively recent period on fixed extensions and improvements, including about ten miles of new roads, 30 additional houses, and a very large extent of mining adits and drifts. Since the above date a further sum of about \$20,000 has been expended upon machinery, materials and preparations for new branches of iron manufactures and for steel-making, in the completion and development of which an additional capital of \$150,000 is contemplated, in the event of an appropriate location of the railway. Making full allowance for the preliminary waste of experimental expenditure inseparable from mining enterprises in their earth stages, the above figures represent a fixed interest of no mean amount in the mineral and manufacturing resources of the Province.

Upwards of one million dollars' worth of iron, of a remarkably superior quality, has already been made and exported, involving the excavation of about 45,000 tons of ore, with a consumption of about 2½ million bushels of charcoal for smelting, and about 50,000 cords of wood for general purposes; and for some years past several hundred persons have been kept by this industry in employment, at local expenditure of about \$100,000 per annum. If all this has been effected in the absence of the facilities which a railway alone can give, and with only one kind of fuel at command, it is not unreasonable to assume that *with* these facilities, and by a connection with the Great Cumberland coal field, (by which the manufacture of iron on an enlarged scale and in many additional forms may be carried on), these results will be enormously increased, as shown in the various mining and other reports already submitted to Government. Such a conjunction of coal and iron (with the supplementary advantage of extension force, &c., and of neighboring limestone quarries, &c.,) would, in England or the States be regarded as of immense value, and would eagerly be made tributary to the service and traffic of a railway; nor can I apprehend an opposite course here, when it is found that all these advantages may be secured in the location of the Intercolonial Railway, without the expenditure of a single extra dollar of public money for the purpose.

The Government have now ample materials for determining the mode in which this important mineral connexion and development can best be accomplished, and when it is computed that the interchange of mineral movements between the Coal Field and the Iron Works, and the separate export of coal and iron, will together make up a traffic of *several hundred thousand tons per annum*, it becomes doubly important to provide for the same in the most direct, convenient, and economical manner.

Any deviation which interferes with so important an object, ought certainly to be justified by more important reasons than those recently urged in the Local Assembly by a resident representative of the Folly Line, in correction of whose statements I may just observe that the following is the amount of population which would be accommodated by the A and F lines respectively, as nearly as can be calculated:—

## POPULATION ACCOMMODATED BY LINE A.

		Average Distance.
Westchester.....	774.....	3 miles.
Londonderry.....	3,705.....	5 "

		Average Distance.
Lower Onslow.....	771.....	3 miles.
East branch River Philys .....	939 .....	3 "
Economy and Five Islands.....	1,691.....	13 to 18
	7,880	

## POPULATION ACCOMMODATED BY LINE F.

River Philys.....	939.....	8 miles.
Wentworth.....	696.....	9 to 12
Pugwash.....	3,167.....	15 to 18
Wallace.....	2,500.....	13 to 18
	7,302	

Earl Town, New Annan, and Tatamagouche, in Colchester county, will be nearly as well accommodated by one line as by the other, or by Truro, as may be seen by reference to the enclosed map, or to McKinlay's map of Nova Scotia. It is obvious that by far the largest proportion of *adjacent* population is on the A line, which has about 6,000 people pretty close to it, while the bulk of the population said to be accommodated by the Folly Lake Line, is from 13 to 18 miles away.

The above representation of the fact, as regards population, is founded on the census of 1861, since which time the population in Londonderry, around the Iron Works, has increased at a greater ratio than elsewhere. A perusal of the letters of the Hon. R. B. Dickey and A. W. McLellan, Esq., will enable the Council to test the value of Mr. Purdy's statements, and to establish the greater convenience and productiveness of line A, as regards local traffic and accommodation, *irrespective* of the large mineral traffic which it would command. The following is an extract from Mr. Dickey's letter:—

"The post-road from the village of Tatamagouche and the adjacent settlements of New Annan and Waugh's River, on the coast, to Truro, will intersect the railway a few miles from the latter place, at a point where the conflicting lines, A and F, are common, or very nearly so. Hence, in any comparison of numbers, these three places in Colchester should in all fairness be omitted, and it must be to them a matter of little or no account which line is settled. It is quite true that Wentworth or Wallace River District, where Mr. Purdy resides, has an interest in Line F, but against Wentworth, with its population of 696, I place Westchester, through which Line A runs, with its greater population (774).

The comparison, therefore, rests between Pugwash and Wallace on the one hand, with a population of 5,665, and Lower Onslow (I include Upper Onslow), Londonderry, Economy and Five Islands on the other, with a population of 6,167, so that the argument founded on the preponderance of population is wholly against Line F. Situated as the mass of the population of Wallace and Pugwash are on the coast, it would be straining matters to an unreasonable extent to bring them all into the same category of people immediately interested in the location of a railway so distant or tributary in any appreciable degree to its traffic.

Since writing the foregoing, the inclosed letter from Mr. Morrison, M.P.P. for Colchester, has been placed in my hands by Mr. Jones, to whom it was addressed, and I am glad to find that it amply confirms the view which I have ventured on public grounds to express.

In conclusion, I beg to express my entire conviction that the people of Colchester are so satisfied of the general benefits resulting from extended operations of the iron mines, that they would almost to a man prefer the A Line; whilst in Cumberland the development of the coal mines would lead to a similar accord among the vast majority of its people.

I am, &c., &c.

R. B. DICKEY.

(Copy.)

HALIFAX, 8th October, 1868.

DEAR SIR,—In answer to your enquiry as to which of the two lines of railway would accommodate the people of Colchester best, I beg leave to say that the line by the Madison

Brook would accommodate the people of Lower Onslow, Londonderry, Economy and Five Islands very much better than the line by Folly Lake, whilst the people on the North side of the mountain, comprising the districts of New Annan, Tatamagouche, Waugh's River and Earl Town, with the exception of a few on the west side of New Annan, would be as well accommodated by the one line as the other, their easiest and best mode of joining either line being in Onslow or Truro where the two surveys either join or come very close together. In fact, the line by Folly Lake would be no accommodation to the people of Lower Londonderry, Economy or Five Islands. They would prefer joining at Truro, as they now do, rather than to rise the mountain to meet the line by Folly Lake.

I am, dear Sir.

Yours truly

THOMAS F. MORRISON,  
M.P.P. for Colchester.

To E. A. Jones, Esquire,

Referring in another letter to the Superior features of Line A for sources of traffic apart from the mining interest, Mr. Dickey says :

Again, Line A will develop another most important branch of industry and traffic wholly ignored by Line F. I allude to the *Salt works* on the south branch of Back River near Springhill. These works, capable of indefinite expansion, have hitherto been circumscribed by the necessity of hauling a bulky article some 20 miles to Amherst. The brine is abundant and of excellent quality, so that the salt has an excellent character in the market. It might not be amiss to accommodate a rising branch of industry like this, and the traffic would do no harm to the Intercolonial Railway.

The finest Forrest in Nova Scotia borders on line A, through Westchester and East Branch River Philip for some dozen miles, and extends unbroken to the west many miles along the slopes of the Cobequid range. Such an inexhaustible supply of ship timber, scantling, cordwood, and charcoal, within 30 miles of navigation on either side, would in these days of railways be admitted in any other country to form no mean adjunct of revenue.

To any one acquainted with the large production of salt in several English counties, forming a very important item of railway traffic and of export, the prospect of a very considerable development of the Salt Springs referred to by Mr. Dickey, is by no means remote. With the advantage of railway transport to Amherst, this article might not only be produced in large quantities for home consumption, but might be exported to other parts of the Dominion for domestic use, fish-curing, &c. ; and the process of evaporation in its manufacture would involve a considerable consumption of coal.

Mr. McLelan, M.P., in a letter, dated May 21st, makes the following special reference to the question of population, which recent communications to Government render it necessary to dispose of. After giving his opinion that "the *commercial and industrial considerations* in favor of Line A are so strong that a company or Government should not hesitate "to adopt it," he shows how it would accommodate the greatest extent of settled country:—

"The Cobequid range of mountains runs parallel to the Bay, leaving a strip of land along the Bay Shore from Truro to Five Islands, about 40 miles long by 8 wide. This belt of land, being much more fertile and suited to agricultural purposes than the high lands of the mountain range, has, together with the excellent fisheries in the Bay when open in summer, attracted the principal part of the population of the district.

"By reference to the map you will infer that there are settlements only on the rivers emptying into the Bay, as marked at Folly, Great Village, Portanpique, Economy and Five Islands. It is true these places have more important villages than other parts of the district, but it may be called *one continuous settlement* from Truro to Five Islands, the inhabitants of which would gain immensely if traffic accommodation for their various products by the adoption of line A.

"Line F crosses the mountain so much sooner, and commences to gain the height of land almost as it leaves Truro; so that for all practical purposes it gives no accommodation to the people along shore.

"It is, however, claimed that line F accommodates better the settlements of Pugwash and

Wallace, but it will be seen by the map that the traffic of these settlements can reach line A at certain points by only four miles additional trouble; and while this loss is small, the gain to the larger population on the other shore is very great. But although there would be to Pugwash and Wallace this small loss, yet I am quite sure that the inhabitants would eventually gain much more by the construction of line A, by its effect upon the whole surrounding country in developing the mineral and mining interest of Springhill and the Iron district, than if ten lines were built through their settlement. And because line A would infinitely better serve to develop these great resources of Nova Scotia than line F, as well as give increased traffic accommodation to larger sections of country, it is unquestionably the duty of a Government caring for the general interests of the country, and the paying properties of the road, to adopt the former."

With the exception then of a small, scattered, and generally remote population [to which the A line on an average would be within some four or five miles as near as the F line] there is literally nothing to constitute a traffic for the latter, up to the point of its approximation to the coal fields, to which an extra branch of  $1\frac{1}{2}$  miles would be required, making altogether  $7\frac{1}{2}$  miles of construction more than on the A line, to effect, very circuitously and expensively, the same purposes. While for about 20 miles on the east, the A line passes through or near a remarkably well settled and rich agricultural district, the Folly line immediately after crossing the Debert is skirted for nearly 25 miles by a sterile district which is never likely to be settled. With this desolate tract intervening on the northern mountain slope, it is not very likely that any traffic of bulk [*even if such could be found*] from the better settled districts towards the gulf would be transported to and over the railway; and the idea of a "gulf trade" *via* Wallace or Pugwash, some 15 miles distant from the line, when the railway is already brought up to the gulf at Pictou and Shediac, is supremely improbable. No one can suppose that for goods too and from Prince Edward's Island, a route involving a haulage of 15 miles over a common road between the railway and the shore, could ever compete with lines like those to Pictou and Shediac on the gulf; and with such facilities as the latter lines afford, the number of passengers who would prefer an admixture of rail and stage travelling would be ludicrously small.

To a few residents in Wentworth the Folly line might be a convenience; to the people of Wallace and Pugwash it might save a few miles travel by road to the railway; but in the traffic returns of the railway itself, without the mineral connection, it would offer a wretchedly meagre contribution. Its adoption would only add one more to the number of grotesque railway mislocations which in that and other Provinces have furnished the subject of many a grave reproach, and the point for many a sarcasm. No greater service could have been rendered to the line we advocate, in common with the majority of the people of Colchester and Cumberland, than the contrast to which the attention of Government has thus been invited.

I have the honor to remain, Sir,  
Your most obedient servant,

JOHN LIVESEY.

Ottawa, Oct. 20th, 1868.

OTTAWA, Oct. 23rd, 1868.

I have the honor to enclose, in a printed form, copy of further letter on the Nova Scotia Railway Location in *correction* of the Estimates of Cost now under the consideration of the Government; and I remain, Sir,

Your most obedient servant,

JOHN LIVESEY.

The Hon. H. L. Langevin, C. B.,  
Secretary of State,  
&c., &c.

## NOVA SCOTIA INTERCOLONIAL RAILWAY LOCATION.

## CORRECTION OF ESTIMATES.

To the Hon. Secretary of State for Canada.

SIR,—I am now in a position to submit the important information which I intimated in my letter of the 14th inst. would be forthcoming in a few days, in reference to the comparative estimates of the cost of the two projected railway locations in Nova Scotia.

In the Chief Engineer's Estimate the alleged excessive cost of the A line was based, in a great measure, upon a presumed excess of *rock-cutting* on that line, which would render the work so much more expensive—the aggregate amount of rock on the F line (on which tests had been made) being represented as 280,980 cube yards, and that on the A line (on which *no* borings or tests had been made, and which was therefore entirely a matter of conjecture) being *assumed* as no less than 376,715 cube yards.

I had all along an impression, founded upon resident geological observation and professional information gathered during surveys of the lines, that the A line, besides having (as is now admitted) considerably less *general* excavation, would also show a smaller proportion of rock than the F line. But to place the matter beyond doubt when interests so important were involved, I caused tests to be made by sinking shafts, &c., all along the A line on the chief cuttings where rock was alleged to exist, and the results are now submitted for information of the Government.

The following is an exact summary of the results, the particulars of which are at the service of the Government:—

3	cuttings taken partly of rock	70,154	cubic yards really contain	39,340	cubic yards.
4	do do	do 101,450	do	do	contain <i>no</i> rock.
14	do entirely of rock	101,354	do	do	do
3	do do	do 50,836	do	do	really contain 32,500

Total rock charged on these cuttings 323,794, total actual rock 71,840.  
Deduct actual rock..... 71,840

Rock overcharged..... 251,954

Of the 14 cuttings in one group nine were actually tested, it being superfluous to test the remaining five [said to contain 20,353 yards] those adjacent containing no rock whatever. In the other cases shafts were sunk in *every* instance.

Thus of the aggregate 376,715 cubic yards of rock charged against the A line in the Chief Engineer's Estimate, there exist only 124,761, of which 24,601 are charged as common to lines A and F, showing that the real quantity had been *over-estimated* by 250 per cent.

We have thus incontestably established a diminution of 251,954 cubic yards of rock on the A line, which on a calculation of the difference between rock and earth, will, with the customary 10 per cent. contingencies, effect a reduction in Mr. Fleming's estimate of the supposed cost of the A line to the extent of *no less than* \$263,960.

It will be understood that in the above, line A has been considered as estimated by Mr. Fleming on the 60 feet grade at the mines. The 52-80 grade there, as now laid out, would cost some \$62,000 more, but this can be reduced about \$50,000 by an improved location, of which, by recent studies, the line has been proved capable. Without, however, claiming this, and deducting the full \$62,000, there still remains a net deduction of \$201,960. Add to this the \$30,812 erroneously charged to the cost of the A line for rolling stock, &c., and we have a clear reduction of \$232,772 on the cost of the A line with maximum 52.80 grades throughout, or of \$294,772 on the basis of Mr. Fleming's Estimate.

But if, in the spirit of fair and patient investigation, which the Council has hitherto manifested, we are permitted by a detailed comparison of the estimates, to test the comparative cost of the *structures* on the two lines (that being the chief remaining item of difference), I think we shall establish, from the plans and sections as deposited with Government

on which the dimensions of nearly all the structures were prescribed by the Chief Engineer, and upon a fair apportionment of material in the few structures for which no dimensions were given, the further great reduction indicated in the estimates which we have sent in.

Should our position as regards the structures be established, the large advantage now secured to Line A under the head of "Excavations" will be still further increased to about \$190,000 in comparison with Line F, without a branch, or adding the necessary branch to Line F, the total saving to the country by the adoption of Line A, on these corrected estimates, will be \$320,000.

I have the honor to remain Sir,

Your most obedient servant,

JOHN LIVESEY.

Ottawa, October 23, 1868.

(Copy of No. 835)

Wednesday.

DEAR SIR,—Sir John came out of Council shortly after you left, and requested me to hand you the enclosed.

He will be glad if you will kindly return the paper when you have finished with it.

Yours truly,

CHS. DRINKWATER.

Amos Purdy, Esq., M. P.

#### NOVA SCOTIA INTERCOLONIAL RAILWAY LOCATION.

*To the Honorable Secretary of State for the Dominion of Canada.*

SIR,—Since my arrival at Ottawa, I have had the honor to have handed to me for investigation, several documents submitted to the Government by Mr. Livesey. Having the whole subject to review in this paper, and thinking it best, for the sake of ready reference, to review each subject in detail, is my apology for its length. I will take first his paper containing certain resolutions of Nova Scotia Government, and in which also he attempts to rebut my former statements. In the resolution of 13th instant, it is stated that they "see no reason to abandon their Minute of Council of 3rd August last," and that "only three members of the Government approved of Fleming's Report, &c.

The Minute of Council, which was passed on the 3rd of August, was kept a secret, until laid on the table of the House, on the 15th September. Being very much surprised at such a document—knowing that the Local Government had no powers in regard to location, or construction of railways, I at once ascertained, upon enquiry of the members of Government, that that Minute of Council was passed at the very urgent request of Mr. Livesey, without reflection on the part of most of the members of Government, without any investigation whatever, as to the merits of line F, without any person in the interest of that line being aware of such Council being held, or any person, except Mr. Livesey, being present or asked to attend. Allow me also to remark that at the very hour they were holding that meeting, on the 3rd August, it was known to the Government that I was on my way to Halifax, arrived the same evening, remained there during the Session, had several conversations about railway matters, and yet, from some cause, this matter was kept perfectly secret until 15th September, when it suited Mr. Annand's purposes. He personally asked Mr. Dickie (a member for Kings County), to ask the Government to lay on the table of the House the Railway Correspondence, in answer to which that Minute was produced. After consultations with, and explanations made to members of Government, they all, except Mr. Annand, expressed a willingness to allow anything to be done that would not stultify their former acts. After consideration, the following resolution was drafted, which strongly recommends the F line, and although it does not pointedly condemn the Minute of Council, yet it does so by implication, and was considered that as the Government agreed not to oppose its passage in the House, it would and should be considered as tantamount to an abandonment, by the Government, of their former Minute of Council. On these terms I accepted the resolution, which passed without a dissentient voice.

(Copy.)

“Resolved, That it is the opinion of this House, from all the information laid before us, that there are strong reasons in favour of the adoption of the Folly Lake route of Railway, from Truro to Spring Hill and Amherst, and that no route should be decided upon without the most careful and close investigation; it being very important that the commercial, agricultural, and general interests of the country should be developed as well as that of mining.”

Mr. Fleming arrived in Halifax a few days after, and feeling desirous to place all the information I possibly could before the Government, I asked Mr. Fleming, at the request of the Government, if he would meet the Council, and if he was at liberty to give full particulars respecting F line. Next day Mr. Fleming met Government as requested. It is true that only three members of Government discussed the matter fully with Mr. Fleming. Mr. Annand excused himself on some account; Mr. Robertson had, I believe, made previous engagements respecting some business at the Asylum, which is under his Department, the remaining members of Government were not in town, hence the reason of so small a number being present. After full discussion (being present also) they agreed with Mr. Fleming's reports, they felt that however disposed to make a counter minute of Council, they were not in a position to do so, as it would stultify the former act, but freely told Mr. Fleming to state to Dominion Government the result of the interview, that they approved of his reports, and that such being communicated to the Dominion Government, it would have the same effect as a counter Minute of Council. Next day I left Halifax, with the understanding that the Government would not take further action in the matter without notifying me, and although I was in Halifax on the 13th instant, the date of last resolution, and had conversations with every one of the members of Government in town, no mention was made or hint given of such resolution being passed that day, and I knew nothing of its existence, until, to my surprise, I saw it in the correspondence here.

Strictly speaking the Local Government have no authority to make minutes of Council on such a subject. But, when they did propose to take the matter into consideration, why they should adopt such a system of secrecy, and partiality, only seek information on one side, and act as they have done throughout, is to me at present unexplainable, but very strange indeed. Still it would seem after all that a branch or the “combination” line would meet their desires.

On the 3rd of August when the Government made that minute of Council they had not the data, nor did they possess the information, to justify them in arriving at the conclusions they did. They were not personally acquainted with the locations of lines A or F, one or two of them might have travelled along the Post road on the coach, most of them were never in the county at all. They had no correct knowledge of the cost, the length, the grades and curves, nor of the peculiar advantage of the line F. They sought no information from any body, that had the correct information to give, as regards the F line, and hearing only Mr. Livesey they at once leaped at the conclusions they did. Surely no one will pretend to say, that the Nova Scotia Government on the 3rd of August were in a position, or had the information requisite, in order to decide upon the “largest amount of traffic,” the “engineering difficulties” “probably less cost,” “easier grades,” &c., &c. But somehow or other all of those most difficult and intricate questions, they summarily dispose of at one secret meeting, upon the representation of one person, interested only in A line.

I respectfully submit that that Minute of Council should not have the same weight and influence, as though it had been adopted, after all parties had been heard, after very mature and careful investigation. And although the late attempts are designed to cover their former informal abandonment, at most, it is but attempting to maintain former conclusions, unadvisedly adopted, and shows rather a pride to sustain former opinions, no matter under what circumstances expressed, and whether right or wrong.

Connecting Iron Ore with Coal, the advocates of the A line lay very great stress on this argument, and after rising from reading over all their lengthy papers on that subject, the impression is nearly fastened upon the mind that all the iron ore beds are situated only in close proximity to their present located works, and unless the line A be adopted, no connexion will be made between the iron ore and coal, and that no extensive iron manufacturing can be carried on unless line A goes through their works, and that no mine-



ral traffic will be developed unless line A be built. I cannot at all agree to any such conclusions. It will be admitted that the iron ore beds are not confined to the immediate vicinity of the present works, but extend along the south side of the mountain for thirteen miles or more, and that the line F traverses several miles over the iron ore district where it is known to exist, and, in fact, through lands owned by the present company. Iron ore is also known to exist along the north side of the mountain. Therefore, I assert that there is no doubt but that the F line passes over, and in very close proximity to, sufficiently large deposits of iron ore for manufacturing to any extent. Less tons of ore than of coal being used in manufacturing iron with coal, the natural place for manufacturing would be at Spring Hill coal field, and not at the ore beds; therefore giving the additional opportunity of selecting ores from both sides of the mountain on the line F. Unquestionably the F line connects the iron ore with the coal to as full an extent as the manufacturing interests should claim, and develops the mineral traffic so much insisted upon. The F line also opens great facilities for obtaining charcoal, and no doubt new companies would soon set new works in operation for the manufacture of iron by that process.

Capital invested by Company. Considerable importance seems to be attached to the fact that the present Iron Mining Company have invested a large sum in this enterprise, and figures are given to shew the amounts, employment for men, &c., &c. All that is well, but when used as a measure for adopting A line, it assumes another form. I am under the impression that the Company located their works there, without reference to the present railway location, provided and expended capital in order to make money, and probably have done so.

The people of River Philip, Pugwash, Wallace, Tatamagouche and other places, have built their wharves, erected their houses and barns, cleared their lands, built roads and bridged streams, opened, and are now carrying on a number of stone quarries, brick yards, saw mills, grist mills, carding machines, woollen factories, building ships, working copper mills, and have invested infinitely more capital, employing more men, developing interests of more real and lasting benefit to the State, and contribute more to the Dominion revenues; and yet all these agricultural, commercial and general interests are to be as nothing, and 10,000 inhabitants [in 1860, much increased since] are asked to climb up and pass over a mountain 12 miles further [making 24 miles each trip], and all because a certain company have got works in a certain place.

#### EXPORTING COAL.

The coal beds and seams at Spring Hill are *not confined* to the south side of line A as marked on map, but from explorations it is proved that large areas of coal lie close to, and to the north of line F, and that line, in any case, answers all the requirements for exporting coal. Line A may be a little nearer certain parties' coal areas, but line F crosses over about the centre of the coal field.

#### POPULATION AND DISTANCES.

The census returns show the population by polling sections. Being as I am, termed a "resident representative," I presume that I am in a better position, than *foreigners* or *non-residents*, to state correctly the facts regarding population and distances. Taking Mr. Livesey's statements of "accommodation by line A," I exclude *Westchester*, because both A and F lines run through *Westchester* polling section. The spot indicated on the map, is the very south-eastern corner of *Westchester* District, that is on the mountain, and very thinly populated.

*Londonderry* includes the population of the iron mines, and is set down at 2,132 in census report, not 3,705 as in statement. A large part of the population should be excluded from comparative statement; on this principle, take for example, *Great Village*; and although they reach iron works depot at 4 or 5 miles, yet they can reach the F line on their own side of the mountain at no very great distance further, and would be reasonably accommodated by line F. In fact, take the whole population of *Five Islands* and *Economy*, and they reach line F at no very great increased distance.

*Lower Onslow*,—I leave out because they have an excellent road, and are near *Truro*, and also the lines being near each other, and settlers are along between them; either line A or F should suffice.

*East Branch, River Philip.*—I judge Mr. Livesey to be in error. There was not that population there last census, or is there now. The River Philip, polling section, includes a large portion of the main river settlement, and I notice, that in the F table, the same figures are used for River Philip. There is a settlement, however, of four or five miles long, along the A line there, that would require to go down river, on an excellent level and good road, about six miles further to line F, but in adopting that line it comes six miles nearer an immensely more thickly settled portion of the country than lies along line A, at River Philip.

*Oxford*—[Not marked on map], four miles down the river, is quite a thriving village, near the head of the tide. They have just erected a new woolen factory, several saw-mills, grist-mills—mechanics located, stores, &c.; quite a central spot, and improving rapidly. The settlements of Gray's Road, Mount Pleasant, Black River, Little River, Lower Leicester [none of which are marked on map], branching off, and must reach their depôt on River Philip. Of course line F brings the depot six miles nearer by far the greatest number of people, and therefore best for the whole population of River Philip, and adjacent settlements. I observe that Mr. Livesey has not been so particular in marking the villages and settlements lying along and north of the F line as he has south of A line, and therefore I am obliged to make more explicit explanations, and because to those unacquainted, the map would seem to indicate that the inhabitants north of F line, were located entirely along the gulf shore, and that between the shore and line F, all is a wilderness. In fact he states, that "the bulk of the population is from 13 to 18 miles away" from the F line. I may state that, take the country between New Annan and River Philip and Black River, there is not a road that I have not travelled, know most of the people, and been at nearly all their houses. That area of country is traversed by roads, and settlements growing up in almost every direction. There is Wentworth, Greenville, Streets Ridge, Victoria, and a long list of other settlements, all situated in the area designated [but not marked on map]. The land is good, roads are very well opened, and good chances for permanent settlers.

*Earl Town*, I admit, will go to Truro in any case. New Annan, Tatamagouche and Waugh River [not marked], I assert, most certainly, will prefer to reach the F line, at from six to fourteen miles, and will not travel to Truro, which is 28 miles from Tatamagouche, in which distance the mountain is to be crossed. Turning attention now to Mr. Livesey's table, line F.

*River Philip* I leave out, for reasons before given. There is no portion of Wentworth nine miles from line F. Part of *Pugwash*, polling section, is within three or four miles of line F, and the village itself [wrong marked on map], is not over 10 miles distant, 15 to 18 miles in table, is wrong.

*Wallace* [wrong marked on map], is about 13 miles, course due North-east from curve in line F, not north as represented even on the corrected map, and is not on the north but the south side of the harbour. The A line will not accommodate the most population, nor is the "bulk of the population accommodated by F line, 13 to 18 miles away."

Population accommodated by line F—

Wentworth .....	696
Wallace.....	2,500
Pugwash .....	3,165
Tatamagouche .....	1,400
Waugh River.....	1,153
New Annan.....	1,231
	10,145

Unless line F be adopted, 7,000 of that population (all except Pugwash) will be compelled to climb and cross over a mountain 12 miles further to reach their depots, making difference 24 miles each trip. Pugwash will have, as roads run, to go 6 miles further to Westchester. Now, I contend, that A line would be of no practical benefit to 7,000 of population as designated, and very little good to Pugwash. The A line would not develop the agricultural interest or facilitate business. Whereas the F line would do both. At present shipbuilders, lumberers, quarrymen and merchants at Pugwash, Wallace and

Tatamagouche must purchase and have in store, by the 10th November at latest, all the stocks of heavy goods, provisions and merchandise that will be needed until 20th May or 1st June next, because gulf navigation close early, becomes dangerous, and insurance companies will not take risks. A very serious detriment to trade and general prosperity. Line F would remedy that evil.

Line A, from Folly River to River Philip is located, skirting first along the south slope of mountain, then, after winding about in crossing over, keeps the north slope of mountain until it reaches River Philip. The soil is not good, nor will it attract permanent settlers. Line A would give a little better accommodation to Londonderry, Economy and Five Islands population of 3,823, but would do a very serious injustice to over 10,000 inhabitants situated north of line F. Line A would suit the iron mining company best, but would not develop the agricultural interests of the country, nor accommodate the commercial and general manufacturing interests so well.

Line F, therefore, having been shewn to connect the iron ore and coal sufficiently, also sufficient for exporting coal from Spring Hill, thereby securing the mineral traffic so strongly urged. Shewn also to accommodate by far the greatest number of present inhabitants, and most likely to promote the agricultural interests and future settlement of the country, without discommoding the inhabitants of Londonderry very much; shewn to facilitate to a great extent the shipbuilding and general mercantile interests of all those places named, by placing within their reach railway accommodation, so as to obtain continuous supply of provisions, iron, cordage, &c., when needed, and ready means at all times of exporting the productions of the country. Line F is also admitted to be the shortest, therefore, I trust no further evidence will be required to justify its adoption.

#### HON. R. B. DICKEY'S LETTER.

Mr. Dickey is a resident of Amherst, lives over 50 miles from Tatamagouche, very seldom travels, even the most public roads, and yet he is pressed into the service to contradict me. He writes: "The post-road from the village of Tatamagouche, &c., will intersect near Truro." "Hence, population should be omitted in comparison of numbers, &c." "Little or no account which line." From Tatamagouche to Truro is 25 to 28 miles. From Tatamagouche to Line F, by road now travelled, and susceptible of being shortened, is not exceeding 14 miles, and part of Tatamagouche polling section is within six miles of Line F. Waugh's River is about 14 miles, and New Annan five to ten miles from Line F. I judge Mr. Dickey would be some time in convincing those people that they could haul a ton of hay over the mountain to Truro, 28 miles, as easily as to Line F, 5 to 14 miles. His prospects would be about the same as those people would be were they trying to convince Mr. Dickey that really there was no difference between a retainer of from 5 to 14 dollars and one of 28 dollars. Again he says, "It is quite true that Wentworth, where Mr. Purdy resides, has an interest in Line F." That admission establishes my whole case, because every man, besides me, in the 7,000 of population would have to climb over the mountain, 12 miles further [24 miles each trip] to reach Line A. Again he says, "Against Wentworth I place Westchester," &c. He must be ignorant of the facts, or trying to mislead, because Line F also runs through Westchester polling section, and accommodates its population just as well as Line A. Line F might not enhance the value of iron mining shares so much, nor go quite so near certain individuals' coal claims, but it serves Westchester very well indeed, running as it does through the section, and has four miles of one of its settlements lying on the north side of Line F. How easy to write in a letter that the people of Wallace can easily go over a mountain 12 miles to save a few others from travelling two to three miles. Again, he says, "Situated as the mass of the population of Wallace and Pugwash are on the coast, &c., they would not contribute in any appreciable degree to its traffic." The mass of the population are not on the coast, and even if they were they must contribute to the traffic. The farmers of Mr. Dickey's own polling section go 50 to 60 miles to Truro, and he sees almost every day loads of goods coming into Amherst that were railed to Truro, contributing to traffic, and yet in order to contradict me he volunteers to insinuate that because some of the merchants and farmers being 10 or 14 miles away will not contribute to traffic, or care where the road is located—"being little or no account which line is selected." Mr. Dickey having secured a road through Amherst can talk and write with the cool air of indifference respecting

10,000 of other people. Mr. Dickey must pardon me, seeing that I have no mining shares, or coal claims, or land so beautifully wooded, if I do press the claims of my constituents, for personally I really have very little indeed at stake.

#### MR. MORRISON'S LETTER.

The difference to the inhabitants referred to by Mr. Morrison is only from 2 to 5 miles. See map. Having before explained at length the position of Maugh's river, New Annan, and Tatamagouche, I merely re-affirm my former statements, Map although not correct still shews that line F is much best for them. Mr. Morrison has more constituents lying along the Cobequid Bay than in Tatamagouche.

#### ANOTHER LETTER FROM MR. DICKEY.

Referring to salt works. There are also large salt springs, limestones, &c., just below F line on River Philip, and as for such timber as is spoken of, it is also in abundance on line F.

#### MR. McLELAN'S LETTER.

The belt of land he speaks of may be 8 miles wide near Truro, but at Great Village where he lives it is only about 5 miles from the village to the iron works which are situated close into the mountain. As you near Economy the flat land is narrow and of poor quality, the mountain range coming out to the shore, below that the country is rough and broken. The "belt of land" he refers to may be better than the "mountain range" along line A, but it is far below the quality of land lying between line F and the gulf. Mr. McLelan only compares the "belt of land" along the bay with the "mountain range" adjacent, and I know will not dispute my statement. Again he says "It will be seen by the map, that Pugwash and Wallace can reach line A, by only four miles additional trouble." Now I respectfully state, that Mr. Livesey should have been able, with the information he professes to have, and the staff of engineers at his ready command, to have laid before the Government a correct plan, before he attempts to use it himself or allow his friends to say, "it will be seen by the map" in proof of their assertions.

The plan to which I presume Mr. McLelan refers [May 21st] I have not seen here, but saw it at Halifax. Pugwash, Wallace and Tatamagouche were wrong placed upon it, the former were laid down too far to the west and Tatamagouche was about north-east from Wallace in place of about S.S.E., and being so planned was calculated to mislead, looking as if Wallace and Pugwash might reach line A, near Westchester "by four miles additional trouble." That is not correct. I know it from having lived all my life in the district, of course have travelled all the roads frequently, and well conversant with all the points. Wallace should be planned N.E. distant by road 13 miles, from curve in line F. I was present when a line was run by a surveyor in 1866. The distance has been chained on road. Even the last corrected map, is not correct. I state without fear of truthful contradiction that line F serves Pugwash best by about 6 miles, and Wallace best by 12 miles, Tatamagouche best by 12 to 14 miles.

#### MR. LIVESEY'S CONCLUSIONS.

I affirm that population on line F is not "small, scattered, and generally remote." Line A is not "within 4 or 5 miles as near as line F," for the people of Pugwash and Wallace, shewing it on a map does not prove it, the facts are as I have before stated. There is something to "constitute traffic" on line F. It connects the iron ore and coal, but may not raise the value of mining shares so much or go quite so near to certain parties coal areas. It accommodates more population without manifest injustice to any; it is sure to attract more permanent settlers, which will contribute more to Dominion revenues; it is certain to secure more passenger traffic, and give better facilities to the mercantile, agricultural and shipbuilding interests. There is no "desolate tract" "never to be settled" north of line F, and it is the nearest to Charlottetown, P. E. Island. I never advanced the argument of "gulf trade" in reference to goods, I spoke regarding passengers "especially in early spring and fall." This was my argument. The distance along the gulf between Shediac and Pictou, the places where the railways touch the gulf, is something over 100 miles. The whole area of country between these points is excellent farming

land, capable of containing much more population, and would be immediately fully settled were good railway facilities offered. As that portion of country improves the inhabitants will soon require steam communication between some central point such as Wallace to Charlottetown, P. E. Island. Passengers now find their way across by schooners as chances may happen, rather than go so far by coach to reach Shediac or Pictou, in order to cross by steamers. Wallace and Charlottetown lie north-east from the curve in the F line at Wallace River. From that point to Wallace is 13 miles. From Wallace harbor (which is easy of access for large vessels) to St. Peters Island, entrance to Charlottetown Harbour, is only about 25 miles, as near as I can ascertain. So that it is fair to assume, that especially in early spring and fall, supposing a steamer running to Wallace, passengers would prefer crossing the gulf by a route of 25 miles, instead of going to Pictou 50 or 60 miles, and to Shediac much further, even supposing they did require to coach from Wallace to the depot 13 miles, which will be on a level road. The question of steamers touching at Wallace from Charlottetown has been considerably discussed heretofore, and must become a fact at no very distant day, therefore it would be exceedingly desirable to keep the railway as near that place as possible. I still affirm that statement, and will add, the route from point designated to Wallace is exceedingly favorable for constructing a branch railway cheaply, and now in those days of rapid progress and improvement, seeing that branch railways can be cheaply constructed, and are valuable as feeders to main lines, I may be pardoned if I predict, that I shall live to see such prosperity to my native country, as will warrant the expenditure, and when done, will be "the route" across to Charlottetown for both passengers and goods, the shortest water communication across the gulf, with the very material advantage of being able to cross earlier in spring and later in the fall seasons. Therefore looking to the future as well as the present of our country, it is exceedingly desirable to lay the foundation now for a shorter water communication across the gulf.

I have felt that being here alone, and not being aware before I left home, of the nature of the correspondence before me, [for I never saw one of them until I received them here], I was called upon to discharge at once a delicate and important duty. I saw before me assertions which I was sure were wrong, and, therefore, in truth and justice I had no alternative but to express candidly what I believed and knew to be true. It is a singular feature, that not one of those correspondents live in, or are particularly acquainted with the country north of line F, about which they state so much in reference to distances, and positions of settlements. It would have looked better if they could have got residents to have helped them—but they could not. Had I been aware of the nature of the correspondence, before I left home, I would not be laboring under the seeming disadvantage of making this statement alone. Trusting that the explanations made will be *satisfactory* as to which line will accommodate the *most inhabitants*, will best develop the *agricultural, commercial and general interests* of the country, will be nearest Charlottetown, P. E. I., and that *line F* also connects the *iron ore and coal*, and on the whole will *best secure* the objects for which railways are constructed—*developing to the fullest extent the varied interests of the country* and in the end will secure the most passengers and traffic. As to the lengths of the two lines, and the question of cost, not being an Engineer, I give no opinion, but presume the Government have reliable information furnished them through their own official channels.

I have the honor to remain, Sir,

Your most obedient servant,

AMOS PURDY,

M. P. P. for Cumberland.

Ottawa, 26th October, 1868.

DEPARTMENT OF PUBLIC WORKS,

Ottawa, 4th Nov., 1868.

(Copy of 409.)

SIR,—Referring to your report on the various proposed lines between Truro and Amherst, I am directed to enquire whether you are prepared to give an Estimate respecting a combination line which though longer will avoid the heavy work on F line between

Truro and the East branch; and also the heavy work on A line, between the Iron work and Salt Springs,—and to say—

1. What will be the additional length of such combination line?
2. Whether the combination line will cost any and how much more than the Folly line?—
3. What would be the capital which would represent the cost of working the extra mileage on the combination line—making fair allowance for the extra traffic which would probably be obtained from the mines if that line were selected?

You are requested to reply at your earliest convenience.

I have the honor to be,  
Your obedient servant.

(Signed,) S. L. TILLEY,  
Acting Min. P. W.

Sandford Fleming, Esq., C. E.

DEPARTMENT OF PUBLIC WORKS,  
Ottawa, 6th Nov., 1868.

(Copy of 410.)

SIR,—I have to inform you that the Government has finally adopted the line recently located by you from about Amherst southerly to Folly Lake, and thence by the combination line, referred to in your letter of yesterday, onwards to Truro—

You are therefore now authorized and instructed to proceed with a final location survey from Folly Lake to Truro on the line indicated.

I have the honor to be,  
Your obedient servant,

(Signed,) S. L. TILLEY,  
Acting Min. P. W.

Sandford Fleming, Esq., C. E.

DOMINION OF CANADA, CUSTOMS DEPARTMENT,  
Ottawa, November 19, 1868.

SIR,—I am directed by the Honorable the Minister of Customs, to forward to you the enclosed memorial from the inhabitants of the Parish of Addington, County of Ristigouche, Province of New Brunswick, in order that the same may be brought before His Excellency the Administrator of the Government.

I have the honor to be,  
Your obedient servant,

CHAS. P. BLISS,  
*Secretary.*

The Honorable the Secretary of State, Canada.

CAMPBELLTON, 9th November, 1868.

To the Hon Messrs. Tilley and Mitchell,  
Ottawa, C. E.

DEAR SIRS,—Enclosed you will please receive a petition from the inhabitants of this place, praying for a change of present location of Railway, so as to pass through Campbellton. Mr. McMillan, at Fredericton, I presume, has written you fully on the subject, and Mr. Caldwell has promised to do the same thing. Please give the matter your kind attention, and oblige yours,

Very truly,

W. MOTT.

We the undersigned inhabitants of the Parish of Addington, in the County of Ristigouche, respectfully represent to the Government of the Dominion of Canada,—

That your Memorialists are deeply interested in the prosperity of this Parish, and in the success of the Intercolonial Railway, the building of which is about being commenced.

That your Memorialists are fully impressed with the importance of having a Railway Station in the Town of Campbellton, in said Parish, for the following among other reasons:—

That existing Towns and Villages ought to be considered and encouraged:

That greater facilities in point of navigation can be obtained immediately in front of the Town of Campbellton than elsewhere in that neighbourhood:

That your Memorialists consider this to be a matter of great consideration to the public, as well as of financial importance to the Railway:

That the necessity of having the Railway Station in the Town of Campbellton is much increased from the fact that, owing to engineering difficulties, it cannot approach the Port of Dalhousie sufficiently near to make it available as a shipping port, and that consequently vessels of every description, and more particularly those engaged in fishing in the Bay des Chaleurs, would discharge their cargoes and receive their supplies at the Port of Campbellton if the proper facilities are given:

That Campbellton is the first navigable port at which the Railway will touch after leaving the St. Lawrence, and the navigation of the Bay des Chaleurs being made safer in the fall of the year than *via* the St. Lawrence, the risk and difficulties attending the latter route can be avoided by vessels coming to Campbellton, provided that port is made a terminus for the Railway:

That Campbellton will, for all time to come, be the outlet of all the productions of that extensive and productive district of country between the Ristigouche and Tobique:

That Miramichi, one hundred miles from Ristigouche, is the next nearest port the Railway will approach eastwardly:

That vessels drawing twenty-one feet of water can load with safety at Campbellton, and that there are no engineering difficulties to prevent the Railway passing through or immediately in the rear of Campbelltown:

That your Memorialists are satisfied that should the line pass to the southward of the hill in the rear of Campbellton, instead of to the north of it, it will prove to be a great mistake, as it must operate very seriously against the Gulf fisheries and other important interests as well as to the Railway itself, in the event of the Station not being in Campbellton:

Your Memorialists therefore pray that your honors will take the premises into your most favorable consideration and direct the engineer to carry the railway through the Town of Campbellton, and your Memorialists as in duty bound will ever pray:

James Ritchie.	W. A. Smith.	Edward McTanney.
W. Mott.	Wm. Ferguson.	Patrick McTanney.
Chas. Tinning.	Thos. Caldwell.	Isaac W. Doherty.
Thos. Kerr.	David J. Fraser.	William W. Doherty;
W. H. Parker.	Denis Fitzgerald.	Robert Rutterford.
Robert Parker.	John Ferguson.	George J. Baine.
A. W. Kinouik.	Alen Codd.	Donald Smith.
Malcolm Patterson.	Donald MacDonald.	David Connors.
Henry Duncan.	William Daly.	William McRae:
Edwin Botsford.	William West.	John Smith.
Robert Sinclair.	Joseph Doherty.	Peter Smith.

*Telegrams through the Montreal Telegraph Company.*

OTTAWA, 30th September, 1868.

By Telegraph from Halifax to John Livesey:

Government retain views expressed in Council Minute. Resolution unopposed because not contradictory, and passed undiscussed in their House.

JAS. THOMSON.

OTTAWA, 30th September, 1868.

By Telegraph from Halifax to John Livesey :

Government have not revoked Minute of Council ; nor will they. Thomson telegraph<sup>s</sup> fully.

W. ANNAND.

OTTAWA, 24th September, 1868.

By Telegraph from Halifax to Sir John A. McDonald :

Met Provincial Government this afternoon. They request me to inform you that my conclusions respecting the line through Nova Scotia, as presented in my report of 14th and 15th September, are fully concurred in by them.

SANDFORD FLEMING.

OTTAWA, 1st October, 1868.

By Telegraph from Halifax to Collingwood Schrieber :

Members of Local Government present at Council Meeting, twenty-fourth [24th] September, unanimously desired me to communicate as I did to Sir John. Mr. Annand excused himself from attending this meeting. Have seen some of them since. They are now, except him, out of town. Were induced, they said, to pass original Minute on representation of Livesey, and regretting doing so. New Minute was spoken of, but feared stultifying themselves. They finally decided to hold to original Minute as the main objects desired were satisfactorily met by my report on subject, and asked me to communicate their views to General Government. Have just seen Mr. Annand and read the above over to him.

S. FLEMING.

OTTAWA, 30th September, 1868.

By Telegraph from Halifax to Collingwood Schrieber :

Exhaustive surveys were made in all likely directions, including the one you indicate before final location. I fear the only result of further examination there would be substantially the combination line.

SANDFORD FLEMING.

AMHERST, Nova Scotia, October 7th, 1868.

SIR,—Having understood that Mr. Amos Purdy has been insinuating to the Dominion Government that the signatures to the petitions from Cumberland, last winter, on the subject of the Railway route, were obtained by misrepresentation, I, as one concerned in getting them up, beg to be allowed to say to you, for the information of the Cabinet, that the statements are wholly unfounded.

The signatures were intelligent men, most of them men of much influence, and subscribed their names voluntarily. Had time permitted a greater number wanted, hundreds more would have signed similar petitions, and would sign them now. Messrs. Rufus Seaman and others, who assisted in obtaining signatures, and who, like James S. Morse, Esquire, and many others, supported Mr. Purdy at the last election, will feel complimented by Mr. Purdy's insinuations against them. Dr. Tupper knows me, and can vouch for my character and standing, and knowing as he did every name who signed the petition, would not likely to

had there been anything wrong.

I have the honor to be, Sir,

Your obedient servant,

JAMES S. HICKMAN.

To the Hon. H. L. Langevin,  
Secretary of State, Ottawa.



INTERCOLONIAL RAILWAY, OFFICE OF THE ENGINEER IN CHIEF,  
Halifax, December 10th, 1868.

*F. Brawn, Esq., Secretary Public Works, Ottawa.*

SIR,—Referring to your letter to me, dated 23rd October last, relating to the proposal to lay off lands for settlement along the line of the Intercolonial Railway.

As the Railway Surveys are as yet incomplete, and it is impossible in consequence to say what land may be required for railway purposes, I would strongly recommend, that for the present the division of the lands into lots for settlement be deferred. After the line of Railway is finally located, I think it is of importance that the most eligible point for stations should be selected before much is done on the way suggested, so that colonization roads may be designed to intersect at the stations instead of at intermediate points, and thus better accommodate the settlers for all future time.

I have the honor, to be, Sir,  
Your obedient servant,

SANDFORD FLEMING,  
Chief Engineer.

—

*COPY of a Report of a Committee of the Honorable Privy Council, approved by His Excellency the Governor General in Council on the 9th April, 1869.*

On a Report, dated 3rd March, 1869, from the Intercolonial Railway Commissioners stating that in consequence of representations made to them both by Petition and verbally during the recent inspection made by them of the proposed route of the Railway they, on the 2nd January last, adopted the following Resolution, viz :

“Resolved that Mr. Fleming be instructed to make a survey of the country between Monckton and Miramichi, as prayed for in the Memorial laid before the Commissioners “at St. John, on the 30th December, 1868, and to report the result;” and that the Commissioners are about to organize parties to prosecute this Survey.

The Committee recommend that the Survey ordered by the Commissioners be sanctioned, and that on such Survey the Commissioners do fully report on the whole subject of the location of the line between Bathurst and the European and North American Railway.

Certified,

WM. H. LEE,  
Ck. P. C.

—

*COPY of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 26th April, 1869.*

The Committee of Council have given their attentive consideration to the Memorial of certain Senators and Members of the House of Commons from New Brunswick, praying that the General Government may assume the section of Railway between the European and North-American Railway in New Brunswick and the Nova Scotian border, generally known as the Eastern Extension, to form portion of the Intercolonial Line.

The Committee are of opinion, under all the circumstances connected with the construction of that line, that whilst the General Government are in no way bound to accept it as part of the Intercolonial Road, yet as the construction of the latter road parallel to it, in a strip of country thinly populated, and averaging but twenty miles wide, must necessarily, under the Eastern Extension, be almost valueless, and a source of loss and embarrassment to New Brunswick to the extent of their investment in it, it would be advisable to adopt the Eastern Extension as part of the Intercolonial Railway, on the following terms and conditions :—

1st, That the entire line from the European and North-American Railway to the Nova Scotia border, including the western abutment of the bridge over the Missiquash, be finished to the satisfaction of the Intercolonial Railway Commissioners, and a perfect title given therefor, including the lands acquired and held for the purposes of the Railway.

2d, That the price to be paid for it be \$894,000, being at the rate of \$24,000 per mile.

3rd, That the Government of Canada be not held liable for any claim, whether from contractors or others, directly or indirectly connected with the said work, or its contemplated extension to Truro.

4th, That the offer of the above terms be accepted within sixty days from this date, and if not that the Commissioners be authorized to proceed with the construction of the direct line, so as not to impede the completion of the whole road.

Certified,

WM. H. LEE,  
Clerk P. C.

OTTAWA; May 11th, 1869.

SIR,—I have the honor to transmit herewith, in compliance with an Address of the House of Commons dated 19th April, 1869, "Copies of all Correspondence relative to the surveys of the several proposed routes for the Intercolonial Railway, with copies of all documents relating to the same," of record in this Department.

The address is returned herewith.

I have the honor to be, Sir,  
Your obedient Servant.

F. BRAUN, Secretary.

E. Parent, Esq.,  
Under Secretary of State, Ottawa.

# RETURN

To an Order of the HOUSE OF COMMONS, dated 13th May, 1869; For a Statement shewing the names of the Engineers, Assistant Engineers, and others employed on the Intercolonial Railway, the date of their appointment, the Section on which they are employed, their salaries, and the Province they resided in at the period of their appointment.

By Command.

HECTOR L. LANGEVIN,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
Ottawa, 7th June, 1869.

## STATEMENT of Engineers and Assistant Engineers on Intercolonial Railway.

NAMES.	Occupation.	Date of Appointment.	Section where employed.	Salary without Board.	Province in which they resided at the period of their appointment.
Leonard G. Bell .....	Engineer in charge .....	1869. April 17. F.	No. 1.	\$ 1,800 *200 }	Quebec.
G. C. Carman .....	Assistant Engineer .....	do F.	do	1,100	do
W. Murdoch .....	do .....	do F.	do	1,100	do
C. McNab .....	Rodman .....	do F.	do	600	do
David Simms .....	do .....	do	do	600	do
F. Hamel .....	Chainman .....	do F.	do	500	do
John Galbraith .....	do .....	do	do	500	Ontario.
W. H. E. Napier .....	Engineer in charge .....	do F.	No. 2.	1,800 *200 }	Quebec.
Thos. Reynolds, Jr. ....	Assistant Engineer .....	do F.	do	1,100	do
J. R. Macdonald .....	do .....	do F.	do	1,100	do
E. G. Powell .....	Rodman .....	do F.	do	600	do
Henry S. Langton .....	do .....	do F.	do	600	do
R. Higginson .....	Chainman .....	do	do	500	Ontario.
W. McLeod .....	do .....	do F.	do	500	Quebec.
H. A. F. McLeod .....	Engineer in charge .....	do F.	No. 3.	1,800 *200 }	New Brunswick
R. C. Harris .....	Assistant Engineer .....	do F.	do	1,100	do
H. Donkin .....	do .....	do F.	do	1,100	do
C. H. Morse .....	Rodman .....	do F.	do	600	do
J. R. Fellowes .....	do .....	do F.	do	600	do
L. Rheaume .....	Chainman .....	do	do	500	Quebec.
J. W. Needham .....	do .....	do	do	500	New Brunswick
G. H. Henshaw .....	Engineer in charge .....	do	No. 4.	1,800 *200 }	Quebec.
E. H. Keating .....	Assistant Engineer .....	do F.	do	1,100	Nova Scotia.
J. R. Smith .....	do .....	do F.	do	1,100	do
P. W. St. George .....	Rodman .....	do F.	do	600	do
J. W. Dickey .....	do .....	do F.	do	600	do
J. A. Creighton .....	Chainman .....	do	do	500	do
S. Delaney .....	do .....	do	do	500	do

\* Allowance for horse hire.

Those marked F were previously on staff of Mr. Fleming.

STATEMENT of Engineers, &c.—Continued.

NAMES.	Occupation.	Date of Appointment.	Section where employed.	Salary, without Board.	Province in which they resided at the period of their appointment.
R. McLennan .....	Engineer in charge.....	1869. April 17, F.	No. 5.	\$ 1,800 } *200	Quebec.
T. D. Taylor .....	Assitant Engineer.....	do	do	1,100	Ontario.
L. Chandler .....	do .....	do	do	1,100	do
W. McCarthy .....	Rodman .....	do F.	do	600	Quebec.
W. McPhillips .....	do .....	do F.	do	600	do
W. Dickinson .....	Chainman .....	do F.	do	500	do
J. B. Brophy.....	do .....	do	do	500	Ontario.
E. Lawson .....	Engineer in charge.....	do F.	No. 6.	1,800 } *200	New Brunswick.
J. B. Hegan.....	Assistant Engineer .....	do	do	1,100	do
J. W. Roberts .....	do .....	do	do	1,100	Quebec.
D. Sadler, jun .....	Rodman .....	do	do	600	New Brunswick.
H. N. Ruttan .....	do .....	do F.	do	600	do
H. G. Miles .....	Chainman.....	do	do	500	do
F. Allison .....	do .....	do	do	500	do
T. S. Rubidge.....	Engineer in charge.....	do	No. 7.	1,800 } *200	Ontario
W. G. Bellairs.....	Assistant Engineer.....	do	do	1,100	Nova Scotia.
E. W. Jarvis.....	do .....	do F.	do	1,100	do
P. S. Archibald.....	Rodman .....	do F.	do	600	do
G. A. Bayne .....	do .....	do F.	do	600	do
G. F. Logan.....	Chainman.....	do	do	500	do
O. Davidson .....	do .....	do F.	do	500	do
Wm. Hazen.....	Engineer in charge .....	do	N. S.	†1,500	New Brunswick.
P. Woodgate .....	Assistant Engineer.....	do	Survey ...	† 900	do
J. L. P. O'Hanly.....	do .....	do	do	† 900	Ontario.
C. S. McLeod .....	Rodman .....	do F.	do	† 480	Nova Scotia.
M. S. Maynard.....	do .....	do	do	† 480	New Brunswick.
A. Johnston.....	Chainman.....	do F.	do	† 360	Nova Scotia.
A. Schurman .....	do .....	do F.	do	† 360	do
C. E. Perry.....	Draughtsman .....	do	N. S. Office.	720	Ontario.
H. A. Gray.....	do .....	do F.	do	720	do
W. D. Hall.....	do .....	do	Mira'chi.	720	do
R. Stephens.....	do .....	do	do	720	do
A. M. Edmonds.....	do .....	do F.	St. Law. Office.	720	Quebec.
J. Johnston.....	do .....	do F.	do	720	do
H. F. Forest .....	do .....	do F.	do	600	do
F. W. Oatman .....	do .....	do	Resti'chs Office.	720	Ontario.
W. Matthews.....	do .....	do	do	720	do
J. Lindsay .....	Engineer on charge.....	do F.	St. Law. Surveys..	†1,500	Quebec.
W. F. Biggar.....	do .....	May 1.	do	†1,500	do
H. Carro.....	do .....	April 17. F.	do	†1,500	do
John McGee .....	Assistant Engineer.....	do F.	do	† 900	do
D. Noble .....	do .....	do F.	do	† 900	do
A. Bristol.....	do .....	do F.	do	† 900	do
A. B. Ottley .....	do .....	do	do	† 900	do
J. Haycock.....	do .....	do	do	† 900	do
H. C. Symmes.....	do .....	do	do	† 900	do
J. Jellet .....	Rodman.....	May 1. April 17. F.	do	† 480	do
W. Ireland.....	do .....	do F.	do	† 480	do
G. W. Kent.....	do .....	do	do	† 480	Ontario.
V. Steele.....	do .....	do F.	do	† 480	Quebec.
A. Wilson.....	do .....	do	do	† 480	Ontario.
Edward Ottley.....	do .....	do	do	† 480	Nova Scotia.
F. C. Gamble.....	Chainman.....	do	do	† 360	Ontario.
S. Y. Kent .....	do .....	do	do	† 360	do
W. J. Scott .....	do .....	do	do	† 360	do
J. Ryan .....	do .....	do	do	† 360	Quebec.

\* Allowance for horse hire.

† With board.

STATEMENT of Engineers, &c.—Continued.

NAMES.	Duty.	Date of Appointment.	Section where employed.	Salary, without Board.	Province in which they resided at the period of their appointment.
W. Johnson.....	Chainman .....	1869. April 17 .....	St. Law'ce, Surveys.....	\$ + 360	New Brunswick.
M. B. Owen.....	do .....	do	do	+ 360	do
P. A. Peterson.....	Engineer in charge .....	do F.	Restigou'e, Surveys.....	+1,500	do
R. Shanly.....	do .....	do F.	do	+1,500	do
C. Odell .....	do .....	do	do	+1,500	Nova Scotia.
E. A. Harris.....	Assistant Engineer.....	do F.	do	+ 900	New Brunswick.
W. C. Hume.....	do .....	do	do	+ 900	Nova Scotia
B. McConnell .....	do .....	do	do	+ 900	Quebec.
F. Bolger.....	do .....	do	do	+ 900	Ontario.
G. E. McLaughlin.....	do .....	do	do	+ 900	New Brunswick.
C. Blackwell.....	do .....	do	do	+ 900	Quebec.
J. F. McMillan.....	Rodman.....	do	do	+ 480	New Brunswick.
C. F. Twining .....	do .....	do	do	+ 480	Nova Scotia.
Z. Fowler.....	do .....	do F.	do	+ 480	New Brunswick.
W. Fish .....	do .....	do F.	do	+ 480	do
W. McL. Maingy.....	do .....	do	do	+ 480	Ontario.
Wm. Mann.....	do .....	do	do	+ 480	New Brunswick.
E. N. Johnson.....	Chainman.....	do	do	+ 360	do
Geo. Bliss.....	do .....	do	do	+ 360	do
E. J. Hutchison.....	do .....	do	do	+ 360	Ontario.
W. G. Tisdale.....	do .....	do	do	+ 360	do
J. Macdonell.....	do .....	do	do	+ 360	do
W. Mathewson .....	do .....	do	do	+ 360	New Brunswick.
F. Lynch.....	Engineer .....	do	Miramichi Surveys.....	+1,500	Nova Scotia.
W. Buck.....	do .....	do	do	+1,500	New Brunswick.
W. J. Crasdale.....	do .....	do	do	+1,500	do
Thomas Ramsey.....	Assistant Engineer.....	do	do	+ 900	do
J. C. Brown.....	do .....	do	do	+ 900	do
E. A. Wilmot.....	do .....	do	do	+ 900	do
G. W. McCreedy.....	do .....	do	do	+ 900	do
G. H. Garden.....	do .....	do	do	+ 900	do
A. T. Hill.....	do .....	do	do	+ 900	do
J. M. Kinnear.....	Rodman .....	do	do	+ 480	do
V. Nicholson.....	do .....	do	do	+ 480	do
J. E. Curtis.....	do .....	do	do	+ 480	Ontario.
G. Stanton.....	do .....	do	do	+ 480	do
J. Murphy.....	do .....	do	do	+ 480	do
J. F. Wilson.....	do .....	do	do	+ 480	do
L. Desbrisay, Jr.....	Chainman.....	do	do	+ 360	New Brunswick.
W. Nixon.....	do .....	do	do	+ 360	Ontario.
E. Force.....	do .....	do	do	+ 360	do
J. W. Sutton.....	do .....	do	do	+ 360	New Brunswick.
Thos. Maltby.....	do .....	do	do	+ 360	do
Chas. Call.....	do .....	do	do	+ 360	do
W. F. Forest.....	In charge at Ottawa.....	do	Ottawa En. Office.	Not fix'd 800	(England.) Ontario.
R. Davis.....	Assistant Clerk.....	do	do	2,600	Quebec.
S. Hazlewood.....	District Engineer.....	Feby. 12, F.	St. Law'ce, District.	*600	
M. Smith.....	do .....	do F.	Restigou'e District.	2,600 } *600 }	New Brunswick.
A. L. Light.....	do .....	do	Miramichi District.	2,600 } *600 }	Ontario.
W. H. Tremaine.....	do .....	do F.	Nova Sco. District.	2,600 } *600 }	Nova Scotia.
G. N. Doucet.....	Surveyor .....	" 9	Sect. No. 1	per. acct-	Quebec.
Louis d'Autueil.....	do .....	do 2	do 2	do	do
Alfred Hamel.....	Inspector of Masonry.....	April 22.	do 5	do	do
D. Sadler, Senr.....	Surveyor.....	Feby. 11.	do 3	do	New Brunswick
W. H. Stevenson.....	Commissariat Officer.....	April 22.	Div. No. 1	+ 100	Ontario.

\* Allowance for horse hire.

† With Board.

‡ Per month.

## STATEMENT of Engineers, &amp;c.—Continued.

NAME.	Occupation.	Date of Appointment.	Section where employed.	Salary, without Board.	Province in which they resided at the period of their appointment.
		1869.			
H. W. McCann.....	Commissariat Officer.....	April 22 .....	Div. No. 2	‡ 100	Quebec.
A. McDougall ....	do .....	do .....	do 3	‡ 100	Nova Scotia,
C. S. Ross.....	Secretary .....	Dec. 19, 1868..	Ottawa.....	2,000	Ontario,
T. C. Duplessis.....	Assistant Secretary .....	Jan. 27, 1869..	do	1,600	Quebec.
W. Wallace .....	Accountant .....	Dec. 19, 1868..	do	1,600	Ontario.
W. Curran .....	Messenger .....	do	do	300	do
F. E. Verrault.....	Land Valuator .....	June 5, 1869..	Prov. Que.	not fix'd	Quebec.
A. Trepanier .....	Inspector of Masonry.....	May 22, 1869..	Trois Pist.	not fix'd	do
A. B. Routhier.....	Solicitor, Land Titles .....	June 5, 1869..	Secs. 1 & 2	not fix'd	do
F. M. Derome .....	do do .....	do	do 5	not fix'd	do

‡ Per month.

C. S. ROSS,  
*Secretary.*INTERCOLONIAL RAILWAY COMMISSIONERS' OFFICE }  
Ottawa, 5th June, 1869. }

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CORRESPONDENCE.

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SELECTION OF THE LINE OF THE INTER-COLONIAL RAILWAY.

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*Laid before Parliament by command of His Excellency the  
Governor General.*

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JOHN YOUNG,—

The Governor-General transmits for the information of the House of Commons, copy of a Minute in Council, and copies of a correspondence between the Governor General and the Secretary of State for the Colonies, with reference to the selection of the line of the Intercolonial Railway,

GOVERNMENT HOUSE,  
Ottawa, May, 12th, 1869.

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JANUARY 7th, 1868.

(No. 7)

MY LORD DUKE,—I have the honor to transmit three copies of a report to me from the Minister of Justice and Attorney General, on the Act passed in the present Session of the Parliament of the Dominion of Canada, for the purpose of carrying into effect the requirements of the Imperial Statute, intituled "The Canada Railway Loan Act, 1867."

I also transmit three copies of the Provincial Act referred to.

Your Grace will observe that the object of the Canadian Government is to obtain as soon as possible the opinion of Her Majesty's Government, as to whether the Act passed by the Canadian Parliament fulfil the requirements of the Imperial Statute, in order that no unnecessary delay may occur in commencing the construction of the Intercolonial Railway.

I shall feel much obliged if Your Grace will inform me, as soon as convenient, whether in the opinion of Her Majesty's Government this Act is a satisfactory fulfilment of the conditions imposed as the basis for granting the Imperial garrantee by the Canada Railway Loan Act, 1867.

I have, &c.,

(Signed,)

MONCK.

His Grace the Duke of Buckingham & Chandos.

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(Copy.)

The undersigned has the honor to submit for Your Excellency's consideration the expediency of transmitting at an early day, to the Secretary of State for the Colonies, a copy of the Act of the Canadian Parliament, authorizing the construction of the Intercolonial Railway, which was passed on the 21st December last, and an official copy of which I beg leave to send you herewith.

This Act has been framed with the view of fulfilling the requirements of the Imperial Act, known as "The Canada Railway Loan Act, 1867." It provides for the construction of the Railway, and appropriates four millions sterling for the purpose; and by the 26th clause it provides for the use of the Railway at all times for Her Majesty's military and other service.

It will be observed also that the conditions of the third section of the Railway Loan Act are fulfilled by the 27th, 28th, 29th, 30th, 31st, 32nd, 33rd and 34th clauses of the Canadian Statute.

As it is of great consequence that this work should be proceeded with without delay, it is important that the approval of Her Majesty's Government should be obtained with all convenient speed.

The Canadian Parliament will reassemble on the 12th March, and it is exceedingly desirable that it should be informed that the Act in question has been approved of, or that some further legislation is necessary.

The undersigned assumes that the measure will be considered satisfactory, and in such case the only thing remaining to be done before the granting of the guarantee and the commencement of the work, is to obtain the approval of the Secretary of State for the Colonies to the line in which the Railway is to be constructed.

The Canadian Government expect to be able to transmit, for the consideration of His Grace the Secretary of State for the Colonies, before the work can be commenced in the spring, a report of their decision as to the plan of the line of Railway, together with the estimates of the cost of construction, which it is hoped will meet with his approbation.

The undersigned trusts, however, that his Grace will not wait the reception of such report before obtaining the decision of Her Majesty's Government whether the Canadian Act is in other respects satisfactory.

(Signed,) JOHN A. MACDONALD.

Ottawa, January 6th, 1868.

TELEGRAM.

*Lord Monck to the Duke of Buckingham.*

JULY 3RD, 1868.

Bay of Chaleur route has been adopted.

(Signed,) MONCK.

*The Duke of Buckingham to Lord Monck.*

(Copy, Canada, No. 34.)

DOWNING STREET, 17th Feb., 1868.

MY LORD,—I have the honor to acknowledge the receipt of your despatch, No. 7, of the 4th ultimo, forwarding an unauthenticated transcript of an Act of the Canadian Legislature, entitled "An Act respecting the construction of the Interecolonial Railway," which has been passed for the purpose of carrying into effect the requirements of the Imperial Act of last year, intituled "The Canada Railway Loan Act, 1867."

Her Majesty's Government agree generally in the terms of this Act, with the exception of the 32nd Section, which provides for the raising of a Supplemental Loan of £1,000,000 without Imperial guarantee, if such additional expenditure should be necessary for the completion of the works.

There are no data in the possession of Her Majesty's Government other than those supplied at the time of the introduction of the Imperial Act, on which to found an estimate of the probable sum required to ensure the completion of the Railway, but they entertain considerable doubt whether the additional sum contemplated by the present Act will be sufficient for the purpose.

The 7th Article of Section 3 of the Imperial Act was especially inserted to secure the means for the completion of the Railway; and as it is impossible to foresee that lines may not be selected, or unforeseen contingencies arise, which would inevitably exhaust a large additional sum beyond the guaranteed amount of £3,000,000, Her Majesty's Government are of opinion that to secure the completion of the Railway, the extra Loan to be raised by Canada should not be fixed at a less amount than £2,000,000.

I have, &c.,

(Signed,)

BUCKINGHAM & CHANDOS.

The Vicount Monck, &c., &c., &c.



(Copy, No. 96.)

DOWNING STREET, 30TH MAY, 1868.

MY LORD,—I have the honor to transmit to you, for your information and guidance, the enclosed copy of a correspondence with the Treasury upon the Intercolonial Railway. Your Lordship will perceive that for the reasons set forth in that correspondence, Her Majesty's Government will be willing, in case the Line by the Bay Chaleur be adopted, to accept the provision of one million sterling, made in the Act already passed by the Canadian Parliament, in addition to the amount of three millions, upon which a Loan is to be guaranteed by the Imperial Government.

I have, &c.,  
(Signed,)

BUCKINGHAM &amp; CHANDOS.

The Right Honorable Vicount Monck,  
&c., &c., &c.

*Mr. Adderley to the Secretary of the Treasury.*

(Copy.)

DOWNING STREET, 16TH MAY, 1868.

SIR,—I am directed by the Duke of Buckingham & Chandos to refer to the letter from this Department, dated the 5th of February last, and to your answer of the 13th of February, relative to the Act of the Canadian Legislature, 31 Vic., c. 13, respecting the construction of the Intercolonial Railway.

In addition to the sum of £3,000,000 sterling, for which a guaranteed Loan is proposed to be raised in England, that Act provides for raising, if necessary, an additional million without guarantee, in order to complete the Railway.

Their Lordships agreed with the Duke of Buckingham and Chandos, that the provision of this additional amount was less than it might be prudent to require, especially in the uncertainty what line might be selected.

But His Grace has since understood it to be probable that the route by the Bay Chaleur will be selected, which is the one that would best suit Imperial purposes.

Major Robinson, of the Royal Engineers, made a report in 1848 for the Imperial Government, in which he estimated the length of the entire Road from Halifax to Quebec, at 695 miles, and the cost, including 10 per cent for contingencies, at £4,889,500. This gives a cost of £7,700 per mile. The Road has since been constructed from Halifax to Truro, and from Quebec to River du Loup, a distance, taken in Major Robinson's estimate, at 165 miles, so that according to that estimate 470 miles remain to be constructed. At the above rate per mile this would cost £3,619,000, much less than the total sum of £4,000,000 sterling.

Mr. Sandford Fleming was a Civil Engineer appointed in 1863, with the joint opinions in his favor of three Provincial Governments, and of the Duke of Newcastle, who was then Secretary of State. He bears a high reputation for accuracy and caution. Mr. Fleming thought that, allowing for curvature, the distance might exceed Major Robinson's estimate, and he expressed a general opinion that although the actual result might prove more favourable, the total cost should be taken in round numbers at twenty million dollars.

But when Mr. Fleming caused a thorough survey to be made of a portion of the Line, 70 miles in length, described by Major Robinson as the "most formidable" part of the whole, and the result confirmed Major Robinson's account of the distance, whilst the cost was estimated by Mr. Fleming at \$39,786, or about £8,290 per mile.

If this rate of cost, calculated on one of the most difficult portions of the Line, be extended to the whole, the required distance of 470 miles would not cost more than £3,896,300.

Reviewing these circumstances, the Duke of Buckingham and Chandos would be prepared, if the Lords Commissioners of the Treasury concur, to instruct the Governor General that in case the Line by the Bay Chaleur be adopted, Her Majesty's Government will be willing to accept the provision of one million sterling, made in the Act already passed by the Canadian Parliament.

I am, &c.,  
(Signed,)

C. B. ADDERLEY.

*Mr. Hamilton to the Under Secretary of State, Colonial Office.*

(Copy.)

TREASURY CHAMBERS, 22nd May, 1868.

SIR.—The Lords Commissioners of Her Majesty's Treasury have had before them your letter of the 16th inst., stating that the Duke of Buckingham and Chandos has had under consideration the estimates for the Canadian Intercolonial Railway; and that upon a review of the circumstances, His Grace is disposed to consider that, if the route by the Bay of Chaleur is adopted, the provision of £1,000,000 already made in the Act passed by the Canadian Legislature will be sufficient, in addition to the £3,000,000 guaranteed by Her Majesty's Government, and requesting the concurrence of my Lords in this view.

My Lords request that you will inform His Grace that under the circumstances represented they are not prepared to refuse their assent to the proposal of the Secretary of State.

I am, &.,

(Signed,)

GEO. A. HAMILTON.

*COPY of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 3rd July, 1868.*

The Committee having given full consideration to the selection of the line in which the Intercolonial Railway connecting Quebec and Halifax, should be constructed, have the honor to report that in their opinion, such Railway should be constructed in a line from the Port of Rivière du Loup to the Rivière Trois Pistoles—thence to a point at or near the Bay des Chaleurs, and thence to the Town of Truro.

The Committee further recommend that if the said line meet with Your Excellency's sanction, the same be communicated to His Grace the Secretary of State for the Colonies for his approval; pursuant to the terms of the second section of "The Canada Railway Loan Act, 1867."

(Certified)

WM. H. LEE,

Clerk P. C.

*Lord Monck to the Duke of Buckingham & Chandos.*

(Copy, No. 121.)

QUEBEC, 3rd JULY, 1868.

MY LORD DUKE,—I have the honor to transmit to Your Grace a copy of an approved 3rd July, 1868, Minute of the Privy Council of Canada, containing the decision of the Canadian Government on the route to be adopted in the construction of the proposed Intercolonial Railway, to connect River du Loup with Halifax, and I have the honor to request that Your Grace will inform me whether this selection of route meets with your approval.

I have, &.,

(Signed,)

MONCK.

His Grace the Duke of Buckingham & Chandos,

&c.,

&c.,

&c.

*The Duke of Buckingham & Chandos to Lord Monck.*

(Copy—Canada, No. 149.)

DOWNING STREET, 20th July, 1868.

MY LORD,—I have the honor to enclose for your Lordship's information, a copy of a letter in which I have conveyed to the Lords Commissioners of the Treasury my formal assent under the 2nd clause of the Imperial Act styled "The Canada Railway Loan Act, 1867" to the selection, as the line in which the Railway is to be constructed, of the line by the Bay of Chaleur, explored by Major Robinson, of the Royal Engineers, and recommended by him in his report, dated the 31st August, 1848.

I have &c.,

(Signed,)

BUCKINGHAM & CHANDOS.

Governor the Right Honorable

Viscount Monck, &.,

&c.

*The Duke of Buckingham and Chandos to the Lords Commissioners of Her Majesty's Treasury.*

(Copy.)

DOWNING STREET, 16th July, 1868.

MY LORDS.—With reference to the letter from this Department dated the 16th May, and in pursuance of the second clause of the Imperial Act of Parliament styled the Canada "Railway Loan Act, 1867."

I have the honor, as one of Her Majesty's principal Secretaries of State, to convey you my approval of the selection as the line in which the Railway is to be constructed, of the line passing by the Bay of Chaleur, explored by Major Robinson of the Royal Engineers, and recommended in his Report, dated the 31st August, 1848, presented to both Houses of Parliament by command of Her Majesty, in February, 1849, the Line approved by me to be subject to such moderate deviations and modifications as may prove to be necessary or desirable in the progress of the undertaking.

I append to this despatch a copy of the Parliamentary Paper containing Major Robinson's Report, authenticated by my initials, and containing a map which is also authenticated by my initials, showing the direction of the proposed line.

I have, &c.,

(Signed,)

BUCKINGHAM & CHANDOS.

The Lords Commissioners of Her Majesty's Treasury.

*The Duke of Buckingham & Chandos to Lord Monck.*

(Copy—Canada, No. 155)

DOWNING STREET, 22nd July, 1868.

MY LORD,—I have received your Lordship's Telegraphic Message that the route by the Bay of Chaleur has been selected by the Canadian Government as the one to connect Truro with Rivière du Loup, and thus complete the Intercolonial Railway.

I understand three routes to have been under the consideration of the Government of Canada, namely, one crossing the St. John River either at Woodstock or Frederickton, the second in a more central direction through New Brunswick, and the third following the line selected by Major Robinson in 1848.

The route crossing the St. John River either at Woodstock or Frederickton, is one to which the assent of Her Majesty's Government could not have been given. The objections on military grounds to any line on the south side of the St. John River are insuperable.

One of the main advantages sought in granting an Imperial guarantee for constructing the Railway would have been defeated if that line had been selected.

The remaining Lines were the Central Line and that following the general course of the route surveyed by Major Robinson—and Her Majesty's Government have learned with much satisfaction that the latter has been selected by the Canadian Government. The communication which this line affords with the Gulf of St. Lawrence at various points, and its remoteness from the American Frontier, are conclusive considerations in its favor, and there can be no doubt that it is the only one which provides for the national objects involved in the undertaking.

I have &c.,

(Signed)

BUCKINGHAM & CHANDOS.

Governor The Right Honourable Viscount Monck.

# RETURN

TO an ADDRESS OF THE HOUSE OF COMMONS, dated 19th April, 1869 ; For a detailed Statement of all costs and charges connected with the survey and management of the Intercolonial Railway, since the 1st April, 1868.

By Command.

HECTOR L. LANGEVIN,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
Ottawa, 3rd May, 1869.

STATEMENT of Warrants issued on account of costs and charges connected with the Intercolonial Railway, since the 1st April, 1868, as called for by Address of the House of Commons, of 19th instant :—

	\$	cts.
Sandford Fleming, being on account of disbursements in connection with the Survey.....	108,695	44
Warrants in favor of the Commissioners to meet disbursements (See annexed Statement),..	42,000	00
Total.....	\$150,695	44

FINANCE DEPARTMENT,  
Ottawa, 30th April, 1869.

W. DICKINSON,  
*D. I. G.*

STATEMENT of Disbursements by the Commissioners on account of the Intercolonial Railway, from the date of their appointment to the 21st April, 1869.

	\$	cts.
Engineering and Survey .....	18,306	36
Salaries.....	1,542	26
Advertising, (ordered by Secretary of State).....	842	62
Advertising and Newspapers ordered by Commissioners.....	1,259	00
Printing .....	998	24
Travelling expenses of Commissioners and Staff .....	1,067	85
Office Furniture .....	240	95
Stationery .....	210	05
Postages and telegrams .....	352	20
Incidental expenses .....	12	13
Total.....	\$24,831	66

William Wallace, *Accountant.*  
Ottawa, 22nd April, 1869.

E. E. C. S. Ross,  
*Sec'y.*

Amount of Warrants.....	\$42,000	00
Disbursements as above .....	24,831	66
Balance at credit of the Commissioners in Bank of Montreal.....	\$17,168	34

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# RETURN

(In whole) To an ADDRESS OF THE HOUSE OF COMMONS, dated 19th April, 1869;  
For copies of all Correspondence relative to the surveys of the several proposed routes for the Intercolonial Railway, with copies of all documents relating to the same, also copies of all Orders in Council relative to the same since the last Return.

By Command.

HECTOR L. LANGEVIN,  
*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 18th May, 1869.

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[In accordance with the recommendation of the Joint Committee on Printing, the above  
Return is not printed.]

## SUPPLEMENTARY RETURN

To an ADDRESS of the HOUSE OF COMMONS, dated 19th April, 1869; For copies of all Correspondence relative to the Surveys of the several proposed routes for the Intercolonial Railway, with copies of all documents relating to the same; also copies of all Orders in Council relative to the same since the last Return.

By command.

HECTOR L. LANGEVIN,  
Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE,  
Ottawa, 29th May, 1869.

(No. 588. Sub. 964 and 986.)

RAILWAY BRANCH,  
Ottawa, May 28th, 1869.

Copy of 376, rec'd,  
enclosed. SIR,—I have the honor to transmit herewith, copy of a Report of Mr. Sandford Fleming, dated May 15th, 1868, on the Railway between Moncton and Sackville, N.S., which should have been included in the Return to Address of the House of Commons, of the 19th April, 1869.

I have the honor to be, Sir,  
Your obt. servant,

F. BRAUN.

E. Parent, Esq.,  
Under Secretary of State for Canada,  
Ottawa.

HALIFAX, May 15th, 1868.

(Copy of No. 376.)  
To the Hon. Wm. McDougall, C.B.,  
Minister of Public Works.

SIR,—Referring to your instructions, dated 12th March, respecting the offer of the Province of New Brunswick to transfer to the Government of Canada, the contract and Railway works now being carried out by the International Contract Company between Moncton and Sackville, and directing me to make certain examinations.

On the 29th of April, I wrote you on this subject, intimating that in all probability the Railway works were not being constructed on the best location, and that I had instituted an instrumental survey to enable me to report decidedly on the subject.

This Survey is now sufficiently far advanced to enable me to report as follows:—

Two lines have been surveyed, from the railway extending from Moncton to Shediac, running southerly. No. 1 leaves the railway at the same point of junction as the line under construction by the International Contract Company; No. 2 leaves the Railway about six miles nearer Shediac.

The distance from the E. & N. American Railway to a common point at Amherst by these several lines is as follows:

By the line under construction .....	40 miles.
By line No. 1.....	33 “
By line No. 2.....	29½ “

Long sections by the line under construction are extremely level, but about midway of its length, a ridge has to be passed over at maximum grades and with heavy work. This ridge, at the lowest point, is about 240 feet high; it lies between Dorchester and Sackville, two villages some seven miles apart.

On lines Nos. 1 and 2, no such ridge exists; at all events, it appears on a very modified form. According to the returns of the survey which I have received, the highest elevation on lines Nos. 1 and 2 is about 180 feet, these summit levels, in both cases, are reached by long, easy approaches.

These are the essential points of difference between the line under construction, and the trial lines which have recently been surveyed. The gradients and curves on the former are much less favorable than those on either of the latter. The line under construction is twenty-one per cent longer than trial line No. 1, and thirty-five per cent longer than trial line No. 2. I have no hesitation, therefore, in stating that the location which has been selected for this Railway is not by any means the best.

In accordance with your wishes, I have also taken steps to ascertain the actual value of the work done under the contract.

I directed two assistants of long railway experience to make an estimate jointly, of the quantity of work done and its value. I requested them, without going too minutely into details, to make a liberal allowance for all works done, at fair prices.

According to this valuation, it would appear that the whole expenditure incurred on works of all kinds and material delivered (exclusive of iron), is under \$ 0,000, of which about \$20,000 is for timber, &c., furnished, but not placed in the work, and for railway ties or sleepers. Application was made for an inspection of the bills of lading, in order to find the weight of iron rails, &c., imported, but the information has not been obtained. Engineering expenses and management should also be added to the estimate, but I am not aware what these amount to.

The above information will probably be sufficient to enable the Government to come to a decision respecting the transfer of the contract and railway works referred to. I am clearly and decidedly of opinion that in view of the general interests to be served by the Intercolonial Railway, the works now being constructed by the International Contract Company are on the wrong position.

It is of importance that the railway to connect the several Provinces should not unnecessarily be increased in length, or its engineering features be made less favorable than the character of the country will allow. In this case we have the alignment and gradients much less favorable than they need be, and the distance increased from twenty-one to twenty-five per cent, without any sufficient compensatory advantages that I can perceive.

If the Railway works alluded to were now transferred to the general Government, and under its entire control, I believe it would be wise economy to abandon them wholly, utilizing only such material as could be conveniently removed.

I am convinced that a very considerable sum would be saved by constructing an entirely new line, even if it was charged with the whole value of the abandoned works on the old location, and not only would the first cost be diminished by the adoption of the new line instead of the one now under construction, but the cost of operating and maintaining it in the future would be in proportion to its reduced length and its more favorable engineering features.

I have considered it my duty to state the circumstances of the case plainly, and to add my humble opinion, that in the interests of the public and all concerned, it is unwise to expend, or in any way to encourage the further expenditure of money, public or private, on the construction of the works referred to, on the location adopted for them.

The plans and profiles of the explorations and surveys herein alluded to will be completed and forwarded to you at any time you may desire. I herewith return the papers and documents which accompanied my instructions.

I have the honor to be, Sir,

Your obedient servant,

(Signed.)

SANDFORD FLEMING.

# RETURN

To an Address of the HOUSE OF COMMONS, dated 26th May, 1869; For copies of Reports by the Commissioners of the Intercolonial Railway, relative to the settlement of the lands on its route, together with copies of any Correspondence which may have been conducted between the Government of the Dominion and the Provincial Governments relative thereto.

By command.

HECTOR L. LANGEVIN,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
Ottawa, 7th June, 1869.

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*(In accordance with the recommendation of the Joint Committee on Printing, the above Return is not printed).*



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# RETURN

To an Address of the HOUSE OF COMMONS, dated 5th May, 1869 ; For a Return of the appointment and instructions to the Commissioners of the Intercolonial Railway ; also a copy of the appointment and instructions to the Chief Engineer ; copies of all Reports and Communications by Commissioners and Chief Engineer, on the subject of Tenders, and the letting of Contracts for the construction of the said works, or any part thereof ;\* also, Copies of any Orders in Council approving said Reports, or otherwise.

By command.

HECTOR L. LANGEVIN,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,

OTTAWA, 18th June, 1869.

\* Copies of the Orders in Council above asked for formed part of the Return to the House of Commons under date of the 19th May, 1869, called for by an Order of the House of Commons, dated 3rd May 1869, for copies of Tenders for the construction of the Intercolonial Railway, Names of Sureties, &c.

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[In accordance with the recommendation of the Joint Committee on Printing, the above Return is not printed.]

# RETURN

To an Address of the HOUSE OF COMMONS, dated 7th June, 1869; For  
Copies of all Correspondence, Contracts and Tenders, connected with the  
letting of Section No. 7, on the Intercolonial Railway.

By Command.

HECTOR L. LANGEVIN,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE,

Ottawa, 16th June, 1869.

INTERCOLONIAL RAILWAY.

FORM OF TENDER.

Section No. 7.

The undersigned having seen the plans and profiles of Section No. 7, of the Intercolonial Railway, hereby tender to construct said section in accordance with the plans and profiles, and all other detailed plans which may be supplied, and in accordance with the general specifications signed by the Commissioners and dated Ottawa, 11th February, 1869, and to execute the contract, a form of which is printed at the end of the specifications, binding us not to demand any extras of any kind whatever, for the sum of four hundred and eighty thousand dollars, being at the rate of seventeen thousand dollars per mile of Railway.

And we bind ourselves to complete such section for the above named sum, to the satisfaction of the Chief Engineer and the Commissioners, such sum to be the full payment, without extras of any kind, for the entire completion of the section.

And we propose Jeffry McCole and Angus Chisholm as our sureties for the due fulfilment of this tender.

MCDONALD & Co.,  
New Glasgow, N. S.  
26th March, 1869.

DONALD GRANT, Witness.

We, the above named, tendered as sureties, hereby agree to execute such Bond or other Document as may be required by the Commissioners for the due performance of the Contract attached to the Specifications, &c., upon which the above Tender is made.

JEFFRY MCCOLE,  
New Glasgow.  
ANGUS CHISHOLM,  
New Glasgow.

DONALD GRANT, Witness.

And we hereby further supply, solely for the purpose of informing the Commissioners, and as a guide to the Chief Engineer in making up his progress estimates, and not in any way to affect our contract, the following schedule of prices for some of the principal items of construction.

MCDONALD & Co.

SCHEDULE.

	Canadian Currency.
	\$ cts.
1. Clearing, cutting and grubbing, per acre.....	40 00
2. Fencing, per 100 lineal ft.....	7 00
3. Rock Excavation, per cubic yard.....	1 00
4. Earth Excavation, do .....	0 30
5. Drains, per lineal 100 ft.....	6 00
6. Riprap, per cubic yard.....	10 00
7. Plank, Hemlock or Spruce, per 1000 ft. B. M.....	6 00
8. Pine, do .....	10 00
9. Flatted Timber 6 inch thick, per 100 lineal ft.....	2 00
10. do 9 inch thick, do .....	3 50
11. do 12 inch thick do .....	5 00
12. Square Timber 12 inch thick, do .....	6 00

13. Piles not less than 12 inch diameter, driven and measured in work, per 100 lineal ft.....	3 00
14. Cast Iron, per lb.....	0 03½
15. Wrought Iron, including spike, bolts, straps, &c., per lb.....	0 05½
16. Concrete, per cubic yard.....	10 00
17. First class masonry, in cement, do .....	12 00
18. do in common lime, do .....	11 00
19. Second class masonry, in cement, do .....	8 00
20. do in common lime, do .....	7 00
21. do dry work, do .....	5 50
22. Paving, do .....	4 00

McDONALD & Co.,  
New Glasgow,  
26th March, 1869.

DONALD GRANT, Witness.

*Copy of a Report to the Hon. the Privy Council of date 21st April, 1869.*

INTERCOLONIAL RAILWAY COMMISSIONERS OFFICE,  
Ottawa, 21st April, 1869.

The Commissioners appointed to construct the Intercolonial Railway, have now to report to the Governor in Council upon Section No. 7, in Nova Scotia.

The lowest tender is that of Mr. H. H. Bailey, being for the sum of \$333,600, or at the rate of \$13,980 per mile. In reference to this tender, the Commissioners received a letter from Mr. Bailey, of which the following is a copy :

OTTAWA, 15th April, 1869.

*" To the Honorable Commissioners Intercolonial Railway.*

" Having been greatly deceived in earth excavation and structures, I shall be compelled to withdraw tender. Hoping it will meet your approval,

" I have the honor to be, Sirs,

" Your obedient servant,

" (Signed,) H. H. BAILEY."

The second lowest Tender is that of Messrs. Berlinguet and Huot, for the sum of \$351,875, or at the rate of \$14,661 per mile.

In reference to this Tender, the Commissioners received a letter from Messrs. Berlinguet & Huot, of which the following is a translation :

" OTTAWA, 10th April, 1869.

*" To the Honorable Commissioners of the Intercolonial Railway.*

" GENTLEMEN,—We have the honor to inform you, that we do not wish to be considered any more as Tenderers for Section No. 7 of the Intercolonial Railway, and we pray accordingly that we may be permitted to withdraw our Tender for the said Section, as we have obtained a Contract for Section No. 5 (five).

" We have the honor to be, Gentlemen,

" Your obedient servant,

" (Signed,) "

L. H. HUOT,  
J. H. BERLINGUET."

The third lowest Tender is that of Messrs. Lowe and Hanson, for the sum of \$358,248, Enfield, N. S. or at the rate of \$14,927 per mile.

The fourth lowest Tender is that of Mr. C. A. Bailey, for the sum of \$396,000, or at Cookshire, Q. the rate of \$16,500 per mile.

The fifth lowest Tender is that of Messrs. McDonald & Co., for the sum of \$408,000, New Glasgow, N. S. or at the rate of \$17,000 per mile.

In reference to the Tenders of Messrs. Lowe & Hanson, C. A. Bailey, and Macdonald & Co., the Commissioners have to report, that upon full and careful enquiry they are not satisfied with the sureties offered in any of the cases, and are convinced that none of the parties possess the necessary skill, experience and resources to enable them successfully to perform the Contract for which they have tendered,

The sixth lowest Tender is that of Messrs. H. J. Sutton & Co., of Paris, for the sum \$413,955, or at the rate of \$17,248 per mile.

The Commissioners having carefully enquired into this Tender, and the sureties offered for the due performance of the Contract, are of opinion that the parties tendering are possessed of sufficient skill, experience and resources to carry on the work, and they therefore recommend that the Tender of Messrs. H. J. Sutton & Co., for Section No. 7, be accepted.

(Signed),	A. WALSH,
"	ED. B. CHANDLER,
"	C. J. BRYDGES,
"	WILLIAM F. COFFIN,
	Commissioners.

*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 23rd April, 1869.*

On the recommendation of the Honorable the Minister of Public Works, and for the reasons given in the Report of the Intercolonial Railway Commissioners, the Committee advise that the Tender of Messrs. H. J. Sutton & Co., of Paris, Ont., for the construction of Section No. 7 of that Railway, for the sum of \$413,955, being at the rate of \$17,248 per mile, be accepted, and that a Contract in conformity therewith be given accordingly.

Certified.

(Signed),	WM. H. LEE,
	Clerk Privy Council.

To the Intercolonial Railway Commissioners.

## INDENTURE.

**THIS INDENTURE** made this twenty-ninth day of April, in the year of our Lord one thousand eight hundred and sixty-nine, between Hubert James Sutton, of the Town of Paris, in the County of Brant, in the Province of Ontario, Contractor, and George Angus, of the Town of Paris, Contractor, hereinafter designated as "The Contractors," of the first part; and Her Majesty Queen Victoria, represented herein by Aquila Walsh, Esquire, M.P., The Honorable Edward Barron Chandler, Charles John Brydges, Esquire, and William Foster Coffin, Esquire, Commissioners appointed under and by virtue of an Act of the Parliament of Canada, passed in the Session held in the thirty-first year of Her Majesty's Reign, intituled: "An Act respecting the construction of The Intercolonial Railway," hereinafter designated as "The Commissioners," of the second part.

Whereas, it was and is in and by the said cited Act, amongst other things enacted and provided, that there shall be a Railway constructed, connecting the Port of Rivière du Loup, in the Province of Quebec, with the line of Railway leading from the City of Halifax, in the Province of Nova Scotia, at or near the Town of Truro, and that such Railway shall be styled and known as "The Intercolonial Railway;" that such Railway shall be a public work belonging to the Dominion of Canada, and shall be made with a gauge of five feet six inches, and on such grades, in such places, in such manner, with such materials, and on such specifications as the Governor in Council shall determine and appoint as best adapted to the general interests of the Dominion; and further that the construction of the said Railway and its management, until completed, shall be under the charge of four Commissioners, with the powers and duties provided by the said Act; and whereas the said Aquila

Walsh, Edward Barron Chandler, Charles John Brydges, and William Foster Coffin have been duly appointed such Commissioners, and in the discharge of the duties imposed on them by the said Act, have duly advertised for tenders for the construction of certain portions of the said Railway, including the portion hereinafter described and designated as "Section No. Seven," and the tender of the Contractors for the construction of such Section No. Seven, in the manner hereinafter set forth, has been accepted, and the Contractors have in consequence agreed (by and with the sanction of the Governor in Council, as provided by the said Act) with the Commissioners to construct and complete the said Section No. Seven, of the said Railway, and to supply all proper and requisite materials therefor, upon the terms and subject to the conditions, stipulations and agreements hereinafter contained.

NOW THIS INDENTURE witnesseth, that in consideration of the sum of four hundred and thirteen thousand nine hundred and fifty-five dollars, (\$413,955.00) of lawful money of Canada, to be paid to the Contractors, their heirs, executors, administrators and assigns, by, Her Majesty, Her Heirs or Successors, in manner hereinafter mentioned, they the Contractors do and each and every of them doth hereby for themselves and himself and for the heirs, executors, and administrators of themselves and himself respectively, jointly and severally covenant, promise and agree to and with Her Majesty, Her Heirs and Successors, in manner following, that is to say:—

1. They, the Contractors, shall and will well, truly and faithfully make, build, construct, and complete that portion of the Railway known as "Section No. Seven," and more particularly described as follows, to wit: the said Section No. Seven being within the said Province of Nova Scotia, and commencing at a part near the River Philip, and at the South-westerly end of a certain other Section of the said Railway, described and designated as "Section No. Four," and extending thence, to Station numbered Fifty, the said Station being on Folly Lake; the said Section No. Seven being twenty-four miles, or thereabouts, in length, the bridges, culverts and other works appurtenant thereto, to the entire satisfaction of the Commissioners, and according to the Plans and Specifications thereof, signed by the Commissioners and the Contractors, the Plans whereof so signed are deposited in the Office of the Commissioners in the City of Ottawa, and the Specification whereof so signed is hereunto annexed and marked "Schedule A," which Specification is to be construed and read as part hereof and as if embodied in and forming part of this Contract. But nothing herein contained shall be construed to require the Contractors to provide the right of way for the construction of the Railway.

2. The Contractors shall be bound to provide all proper tools, plant and materials for the execution of the works, and shall be responsible for the sufficiency of the same; they shall take upon themselves the entire responsibility of the centring, scaffolding and all other means used for the fulfilment of the contract, whether such means may or may not be approved of or recommended by the Engineer; and the Contractors shall alone suffer loss, and shall indemnify and hold harmless, Her Majesty and the Commissioners from loss arising from, and shall run all risk of accidents or damages, from whatever cause they may arise, until the completion of the contract. The Contractors shall also be responsible for all damages claimable by the owners or occupants of land arising from loss of crops or cattle, or injury thereto respectively, sustained by any cause or thing connected with the construction of the work, or through any of their agents or workmen; and they shall be responsible for all damage which may be done to property or persons through the blasting of rocks or other operations carried on by them; and they shall assume all risks and contingencies that may arise during the progress of the works, and shall make good all defects and failures, whether from negligence on the part of themselves, or their agents, or workmen, or from bad workmanship, or the use of improper materials; and they shall hold harmless and indemnify Her Majesty from all claims, losses or damages in respect thereof. The Contractors shall, subject to the approval of the Engineer as to the same, make all necessary temporary provision during the progress of the works, for the owners or occupants of lands crossing the line of Railway, and shall provide the necessary accommodation for the passage of the public at the intersection of roads or highways; and shall also make such provision, until fences be erected, as may be necessary to prevent the straying of cattle upon the line of Railway. In the event of any bad materials being delivered or worked up or any bad work being executed at any time, the same shall be immediately removed on notice being given by the Engineer, and the work shall be reconstructed at the expense of the Contractors in strict conformity with this Contract and the

said specification, and to the entire satisfaction of the Engineer. The Contractors shall employ as many competent agents and foremen on the whole works as may be considered requisite by the Engineer, and the said agents and foremen shall be regularly and constantly present on the works for the purpose of effectually overseeing the same, and receiving instructions from the Engineer. The Contractors shall respect and preserve, in their true and original position, all bench marks, hubs, all centre, slope, reference, and all other stakes and marks placed or made by the Engineer on or near the line of work; and shall adopt every means in their power to prevent the same being burned in the clearing, or altered, removed or destroyed at any time, and whenever required by the Engineer, they shall furnish the necessary assistance to correct or replace any stake or marks which, through any cause, may have been removed or destroyed. The Contractors shall not encourage, but shall take all lawful means in their power to prevent the sale of spirituous liquors on or in the vicinity of the line of Railway. The Contractors shall perform and execute all the works required to be performed by this Contract and the said specification, in a good, faithful, substantial and workmanlike manner, and in strict accordance with the plans and specifications thereof, and with such instructions as may be from time to time given by the Engineer, and shall be under the direction and constant supervision of such District, Division and Assistant Engineers and Inspectors as may be appointed. Should any work, material, or thing of any description whatsoever, be omitted from the said specification or the Contract, which, in the opinion of the Engineer, is necessary or expedient to be executed or furnished, the Contractors shall, notwithstanding such omission, upon receiving written directions to that effect from the Engineer, perform and furnish the same. All the works are to be executed and materials supplied, to the entire satisfaction of the Commissioners and Engineer; and the Commissioners shall be the sole judges of the work and material, and their decision on all questions in dispute with regard to the works or materials, or as to the meaning or interpretation of the specification or the plans, or upon points not provided for, or not sufficiently explained in the plans or specifications, is to be final and binding on all parties.

3. The Contractors shall commence the works embraced in this Contract within thirty days, from and after the date hereof, and shall diligently and continuously prosecute and continue the same, and the same respectively and every part thereof shall be fully and entirely completed in every particular and given up under final certificate and to the satisfaction of the Commissioners and Engineer, on or before the first day of \_\_\_\_\_, in the year of our Lord one thousand eight hundred and seventy-one, time being declared to be material and of the essence of this Contract, and in default of such completion as aforesaid on or before the last mentioned day, the Contractors shall forfeit all right, claim or demand to the sum of money or percentage hereinafter agreed to be retained by the Commissioners, and any and every part thereof, as also to any moneys whatever which may be, at the time of failure of the completion as aforesaid, due or owing to the Contractors, and the Contractors shall also pay to Her Majesty, as liquidated damages, and not by way of fine or penalty, the sum of two thousand dollars (\$2,000) for each and every week, and the proportionate fractional part of such sum for every part of a week, during which the works embraced within this Contract, or any portion thereof, shall remain incomplete, or for which the certificate of the Engineer, approved by the Commissioners, shall be withheld, and the Commissioners may deduct and retain in their hands such sums as may become due as liquidated damages, from any sum of money then due or payable or to become due or payable thereafter to the Contractors.

4. The Engineer shall be at liberty, at any time before the commencement or during the construction of any portion of the work, to make any changes or alterations which he may deem expedient in the grades, the line of location of the Railway, the width of cuttings or fillings, the dimensions or character of structures or in any other thing connected with the works whether or not such changes increase or diminish the work to be done or the expense of doing the same, and the Contractors shall not be entitled to any allowance by reason of such changes, unless such changes consist in alterations in the grades or the line of location, in which case the Contractors shall be subject to such deductions for any diminution of work, or entitled to such allowance for increased work (as the case may be), as the Commissioners may deem reasonable, their decision being final in the matter. The Engineer shall have full power to dismiss any foreman, workman or other person employed, whom he may deem unfit for the duties assigned him, or who may in the opinion of the Engineer be guilty of slighting the work, or of wilful disobedience of orders, or improper, intemperate or

disorderly conduct, and the Contractors shall forthwith supply the places of all such men so dismissed, and shall not employ them again on the works.

5. The Contractors shall, by themselves, their agents, and workmen, faithfully carry on the works until completion, and shall not sell, assign, or transfer this Contract to any person or persons whomsoever, without the consent of the Commissioners first had and obtained.

6. The Commissioners shall have the right to suspend operations at any particular point or points or upon the whole of the works, and in the event of such right being exercised so as to cause any delay to the Contractors, then an extension of time equal to such delay or detention shall be allowed them to complete the Contract, but any such delay shall not vitiate or avoid this Contract or any part thereof, or the obligation hereby imposed, or any concurrent or other Bond or Security for the performance of this Contract, nor shall the same entitle the Contractors to any claim for damages unless the Commissioners shall otherwise determine, and then only for such sum as they may think just and equitable. If at any time during the progress of the works, it should appear that the force employed, or the rate of progress then being made, or the general character of the work being performed, or the material supplied or furnished are not such as to ensure the completion of the said works within the time stipulated, or in accordance with this Contract, the Commissioners shall be at liberty to take any part or the whole works out of the hands of the Contractors, and employ such means as they may see fit to complete the works at the expense of the Contractors, and they shall be liable for all extra expenditure incurred thereby; or the Commissioners shall have power at their discretion to annul this Contract. Whenever it may become necessary to take any portion or the whole work out of the hands of the Contractors or to annul this Contract, the Commissioners shall give the Contractors seven clear days' notice in writing of their intention to do so, such notice being signed by the Chairman of the Board of Commissioners, or by any other person authorized by the Commissioners, and the Contractors shall thereupon give up quiet and peaceable possession of all the works and materials as they then exist; and without any other or further notice or process or suit at law, or other legal proceedings of any kind whatever, or without its being necessary to place the Contractors *en demeure*, the Commissioners in the event of their annulling the Contract may forthwith, or at their discretion, proceed to re-let the same or any part thereof, or employ additional workmen, tools and materials, as the case may be, and complete the works at the expense of the Contractors, who shall be liable for all extra expenditure which may be incurred thereby, and the Contractors and their assigns or creditors shall forfeit all right to the percentage retained and to all money which may be due on the works, and they shall not molest or hinder the men, agents or officers of the Commissioners from entering upon and completing the said works as the Commissioners may deem expedient. If at any time it shall appear to the Commissioners that the security of the works is endangered, or the peace of the neighborhood is likely to be disturbed, or any other difficulty likely to arise by reason of the men being left unpaid, the Commissioners may pay any arrears of wages so far as they can ascertain the same to be due on the best information they can obtain, and charge the same as a payment on account of this Contract.

7. Any notice or other paper connected with this Contract may be served on the Contractors by being left at his or their usual domicile, or by being directed to them or either of them through the Post Office at their or his last known place of business, and any notice or other paper so left or directed shall to all intents and purposes be considered legally served.

8. It shall be in the power of the Commissioners to make payments or advances on materials, tools or plant of any description procured for the works or used or intended to be used about the same, in such cases and upon such terms and conditions as to the Commissioners may seem proper, and whenever any advance or payment shall be made to the contractors as aforesaid, the materials, tools or plant upon which such advance or payment shall be made shall thenceforth be vested in and held as collateral security by Her Majesty for the due fulfilment by the Contractors of the present Contract, it being however well understood that all such materials, tools or plant shall remain and be at the risk of the Contractors who shall be responsible for the same until finally used and accepted, or given up by the Commissioners; but the Contractors shall not exercise any act of ownership or control whatever over any materials, tools or plant upon which any advance or payment has been so made, without the permission in writing of the Commissioners, and the Commissioners may retain and deduct any such payment from the amount payable to the Contractors upon the next or any succeeding certificate thereafter.



9. It is distinctly understood, intended and agreed, that the said price or consideration of four hundred and thirteen thousand nine hundred and fifty-five dollars (\$413,955) shall be the price of, and be held to be full compensation for all the works embraced in, or contemplated by this Contract, or which may be required in virtue of any of its provisions or by law, and that the Contractors shall not upon any pretext whatever, be entitled by reason of any change, alteration or addition made in or to such works, or in the said plans and specification, or by reason of the exercise of any of the powers vested in the Governor in Council by the said Act, intituled, "An Act respecting the construction of the Intercolonial Railway," or in the Commissioners or Engineer, by this Contract or by law, to claim or demand any further or additional sum, for extra work or as damages or otherwise, the Contractors hereby expressly waiving and abandoning all and any such claim or pretension to all intents and purposes whatsoever, except as provided in the fourth Section of this Contract.

10. In this Contract and in the said specification, the words "Her Majesty" shall mean Her Majesty Queen Victoria, Her Heirs and Successors. The words "The Commissioners" shall mean the Commissioners for the time being, appointed under the herein first cited Act, intituled, "An Act respecting the construction of the Intercolonial Railway." The words "The Contractors" shall mean the hereinbefore mentioned Hubert James Sutton of the Town of Paris, in the County of Brant, in the Province of Ontario, Contractor, and George Angus, of the same Town of Paris, Contractor, and the Heirs, Executors, and Administrators of them and each and every of them jointly and severally. The words "The Work" or "The Works" shall, unless the context require a different meaning, mean the whole of the work and materials, matters and things required to be done, furnished and performed by the Contractors under this Contract. The words "The Engineer" shall mean the Chief Engineer for the time being, appointed under the said act, intituled "An Act respecting the construction of the Intercolonial Railway," and shall extend to and include any of his assistants acting under his instructions, and all instructions or directions given by those acting for the Chief Engineer will be subject to his approval. The word "Railway" shall mean the said Intercolonial Railway.

The construction of the words given in this clause shall not control any more extended signification or construction which may be given to any such words in this contract or the said specification.

11. And it is further mutually agreed upon by the parties hereto, that cash payments, equal to eighty-five per cent. of the value of the work done, approximately made up from returns of progress measurements, will be made monthly on the certificate of the Engineer, that the work for or on account of which the sum shall be certified, has been duly executed, and upon approval of such certificate by the Commissioners. On the completion of the whole work to the satisfaction of the Engineer, a certificate to that effect will be given, but the final and closing certificate including the fifteen per cent retained will not be granted for a period of two months thereafter. The progress certificates shall not in any respect be taken as an acceptance of the work or release of the Contractor from his responsibility in respect thereof, but he shall at the conclusion of the work deliver over the same in good order according to the true intent and meaning of this Contract and of the said specification.

12. This contract and the said specification shall be in all respects subject to the provisions of the herein first cited Act, intituled, "An Act respecting the construction of the Intercolonial Railway," and also in so far as they may be applicable, to the provisions of "The Railway Act, 1868."

IN WITNESS WHEREOF the Contractors have hereunto respectively set their hands and affixed their seals, and the Commissioners, acting herein on behalf of Her Majesty, have hereunto respectively set their hands and affixed their seals the day and year first above written.

*Signed, Sealed and Delivered,*  
In the presence of  
JOHN STUART.

(Signed,)

H. J. SUTTON,  
GEORGE ANGUS,  
A. WALSH, Com.,  
ED. B. CHANDLER, Com.,  
C. J. BRYDGES, Com.,  
WM F. COFFIN, Commissioner.

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SCHEDULE A.

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INTERCOLONIAL RAILWAY.

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GENERAL SPECIFICATION FOR THE CONSTRUCTION OF THE WORK.

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1. This specification refers to all works of construction and materials required in making and building the Railway up to *formation level* and preparing it for the permanent way. It comprises, clearing, close cutting, grubbing, fencing, excavation, draining, ditching, foundation works, bridge and culvert masonry, the superstructure of the bridges, together with all other works connected with the construction and completion of the line of the Railway. The intention being that the contractors shall complete the road-bed of the railway and provide all materials of every kind except the ties or sleepers, iron rails and their fastenings, the ballasting and the laying of the track.

CLEARING, ETC.

2. Where the Railway passes through wooded sections the land must be cleared to the width of fifty feet on each side of the centre line, or such greater or lesser width as the Engineer may direct.

3. The clearing is to be done so that all the brush, logs, and other loose material, within its limits, will be burned. A sufficient quantity of fencing stuff only may be reserved, cut into equal lengths and piled. In no case shall any of the brush or logs be cast back upon the adjacent timber lands; they must invariably be made into piles near the centre of the space to be cleared, and there entirely consumed. All brush or trees accidentally or otherwise thrown into the adjacent woods must be dragged out and burned. The land when cleared must be left in a clean condition.

4. Where embankments are to be formed less than four feet, and more than two feet, in height, all the standing timber and stumps must be chopped close to the ground within the limits of the embankment, and burned.

5. Where excavations will not exceed three feet in depth, or embankments two feet in height, all stumps must be grubbed out, and if possible burnt; those that will not burn, must be carried beyond the limits of the cuttings and embankments, where directed, and there piled. Directions will be given at the proper time, as to the extent of ground required to be cleared, close cut and grubbed.

FENCING.

6. The fencing through cleared and settled sections of the country will be a straight panel fence. Each panel will be 10 feet long and four feet 6 inches high, it will be formed by placing posts in pairs and kept about 4 inches apart by the insertion of a horizontal rail at top. The top rail will lap between the posts not less than 14 inches, and will be secured in its position by a half inch screw bolt passing through both posts. The top rail may either be a spruce board 2 x 6 inches or a cedar pole of corresponding strength, reduced at the ends to two inches, so as to form a proper lap between the posts. The posts will be sunk in the ground half their length, they will be of cedar, 9 feet long and not less than 5 inches diameter at the smallest end, they will be flattened at the top to allow the proper lapping of the top rail and the insertion of the iron bolts to secure the whole firmly. The bolt will be eleven inches long,  $\frac{1}{2}$  inch diameter, with suitable head, screw-nut, and washer. At the option of the Contractor the posts may be made from a single cedar stick not less than 6 inches diameter at the small end, sawn through the middle and with the sawn faces placed on the lap of the top rail.

7. Each panel will be filled in from the ground to the under side of the top rail, with good strong common split fence rails or fence poles, of the most suitable description of timber

found in or near the locality, each rail will rest on the top of its fellow in each alternate panel. All holes or depressions under the lower rail that would admit small animals must be stopped up with earth, stones or blocks of wood.

8. The farm gates will be light and strong, of an approved design, similar to those on the Grand Trunk Railway east of Quebec, or the Nova Scotia Railway east of Truro, they will be furnished complete with proper fastenings, they will receive two coats of white paint or one coat of tar.

9. The fencing to be thoroughly completed through all the cleared lands and wherever else it may be required by the Engineer.

#### GRADING.

10. In woodland the grading will not be commenced until the clearing, close cutting and grubbing required, be completed to the satisfaction of the Engineer, and the Contractor will be held responsible for all damage to crops.

11. The width of embankments at sub-grade or formation level is intended to be 18 feet. The width of through cuttings will, as a general thing, be 22 feet, and of side cuttings 20 feet; but they may vary according to the section of the country and other circumstances as the Engineer may direct. The slopes of earth work will be made one and a half horizontal to one perpendicular. In rock cuttings the slopes will be, as a rule, one horizontal to four perpendicular. In cuttings partly earth and partly rock a berm of 6 feet shall be left on the surface of the rock. The widths, slopes and other dimensions above defined, may be varied by the Engineer at any time to suit circumstances.

12. The material to be placed in the embankments must be approved by the Engineer, and in places where the natural surface of the ground upon which the embankment is to rest, is covered with vegetable matter, which cannot be burned off in clearing, and which would, in the opinion of the Engineer, impair the work, the same must be removed to his entire satisfaction. All sloping ground covered with pasture shall be deeply ploughed over the base of the embankments before the latter are commenced.

13. All side hill ground to be covered by embankments shall first be thoroughly underdrained as the Engineer may see expedient, and all cuttings after being formed, and all slopes likely to be affected by wet must be similarly underdrained longitudinally or transversely, or both, as circumstances may seem to him to require. These drains will be constructed in a similar way to that in which ordinary land drains are sometimes made; a trench will first be dug to a depth of four feet on an average, and barely wide enough for a man to stand. In the bottom of this trench, three or four cedar or spruce poles from 2 to 3 inches diameter, will first be laid by hand, breaking joint, over the poles will then be placed two feet of coarse gravel or broken stone not larger than ordinary road metal, over which will be placed a coating of brush, and then the trench will be filled up to the surface of the ground with such material convenient to the place as the Engineer may approve of. The Contractor must find all the material required in these drains, do all the work described and remove the surplus earth. These drains must always be made with a sufficient longitudinal fall for the easy flow of the water, and therefore they may in level cuttings be deeper at one end than at the other, but the average depth will in all cases be considered 4 feet.

14. On the completion of the cuttings and the under-drains provided for in last clause, ditches for the removal of surface water shall be formed along each side at the bottom of the slopes according to directions to be given. Catch water ditches shall also be formed some distance back from the top of slopes to exclude from the excavation any water flowing from the adjoining lands; the contractor shall also construct all other drains and ditches which the Engineer may deem necessary for the perfect drainage of the Railway and works.

15. All open ditches in cuttings and elsewhere, and all excavations required for turning, making or changing water-courses other than the under-drains above mentioned, the formation of public roads, grading depot grounds, branches or turnouts and foundation pits for masonry and the material deposited as directed by the Engineer, must be executed as may from time to time be directed.

16. The embankments must be made to such sufficient height and width as will allow for the subsidence of the same, and both cuttings and embankments shall be left at the completion of the contract at such heights, levels, widths and forms as directed by the Engineer.

17. The whole of the grading shall be carefully formed to the levels given, and the roadway in cuttings shall invariably be rounded and left from 6 to 8 inches lower at the sides than on the centre line. In rock cuttings it will be sufficient to form a water channel about two feet wide and eight inches deep along each side. All materials found in excavations, whether in road-bed cuttings, ditches, water-channels, road crossings, borrowing pits, or elsewhere, must be deposited in such places as the Engineer may direct. In cases where the road-bed excavations are insufficient to form the embankments, the deficiency shall be supplied by widening the cuttings, or from the sides of the road, or from borrowing pits, but no material shall be so supplied without his concurrence, and not until the cuttings are completed, without his express directions. All borrowing pits shall, if required by the Engineer, be dressed to a good shape and properly drained; where material to make up embankments is taken from the side, a berm of at least 10 feet from bottom of slope of embankment shall remain untouched.

18. Where the excavation in a cutting exceeds what may be required to make the embankments of the specified width, the Engineer may direct that the embankments be increased in width with the surplus material, and when this is done to his satisfaction the remainder, if any, may be wasted: but in every case where either borrowing or wasting is resorted to, the materials must be taken and deposited as he may regulate and direct.

19. In cases where pitching or riprapping will be required for the protection of embankments contiguous to streams, all stone suitable for this work found in excavations may be removed and deposited in some convenient place until required, and all good building stone which may be found in rock excavations may, with the approval of the Engineer, be preserved and used in masonry.

20. Riprap work, wherever required and ordered for the protection of slopes of embankments, must be well and carefully performed, in such manner and of such thickness as may be directed.

21. Roads constructed to and from any point on the line of Railway for the convenience of the Contractor, for the conveyance of material or otherwise, must be at his own risk, cost and charges, but the Contractor will not be required to purchase land for the Railway track, for branches or for borrowing pits.

22. Wherever the line is intersected by public or private roads, the Contractor must keep open at his own cost convenient passing places, and he shall be held responsible for keeping all crossings, during the progress of the works, in such condition as will enable the public to use them with perfect safety, and such as will give rise to no just ground of complaint. Contractors will be held liable for any damages resulting from negligence on their part or that of their men. At all public roads crossed on the level, the Contractor will be required to put in two substantial cattle guards of wood of such dimensions as may be directed by the Engineer, and also provide the notice boards required by law.

23. Whenever any material is met with in the excavations which the engineer shall consider suitable and required for ballast, the same shall at his discretion be reserved for that purpose.

24. When slips occur in cuttings, after they are properly formed, the material must be immediately removed by the Contractor, the slopes reformed and such precautions adopted as the Engineer may deem necessary, the whole work being done at the expense of the Contractor.

25. In forming embankments, great care must be taken to place against the backs of all walls exposed to the action of frost, three feet in thickness or any greater thickness that the Engineer may direct, of Riprap backing, consisting of small stones blinded with spalls or coarse gravel, to prevent the retention of moisture and the action of frost thereon. And in forming embankments between wing walls, against abutments of bridges, viaducts or culverts, and over arches, the earth filling must be carefully packed or punned in thin layers, and a proper quantity of material must be carefully placed equally against each side of and over all bridges, culverts or other work before the embankment approaches it, and in forming embankments the greatest care must be observed and every precaution must be taken to load the masonry of structures evenly.

26. In the event of earth excavation being proceeded with in winter, no snow or ice must be placed in embankments, or allowed to be covered up in them, and all frozen earth must be excluded from the heart of the embankments.

27. The Contractor shall, at his own cost, before the work is finally accepted, finish up cuttings and embankments, dress and drain borrowing pits when required, dress slopes to the required angles, repair all damages by frost or other causes, and complete everything connected with the grading of the road bed, bridging, &c., in a creditable and workmanlike manner, in accordance with the directions and to the satisfaction of the Engineer.

#### FOUNDATIONS.

28. Foundation pits must be sunk to such depths as the Engineer may deem proper, for the safety and permanency of the structure to be erected; they will in all cases be sunk to such depths as will prevent the masonry being acted on by the frost. The material excavated therefrom will be deposited in embankment, unless the Engineer direct otherwise. Wherever timber or other artificial foundations may be found expedient, the pits will be made of sufficient dimensions to admit them without difficulty.

29. No masonry shall be commenced in any foundation pits before they have been inspected and approved by the Engineer, and they must be kept free from water during the progress of the work until the masonry is brought above the level of the surface.

30. Foundation timbers, when required, will be of such dimensions and of such kinds as the Engineer may direct. The timber employed will be Tamarack or Hackmatack, Hemlock, Black Spruce or Pine, in plank, from 3 to 6 inches thick, or timber flatted on two sides only, and ranging from 6 inches to 12 inches thick. The faces of the flatted timber will, at least, measure as much as its thickness, and the bark will be removed from the sides not flattened.

31. All spikes, bolts, straps, or other iron work found necessary to be used in timber foundations, must be of the best quality of iron usually employed for similar purposes.

32. Whenever the Engineer may direct piling to be done, the timber shall be in every respect sound and of such description as he may approve. Where he may think it necessary trial piles shall first be driven.

33. The piles shall be carefully and truly pointed, shod and hooped with iron as may be directed. They shall be driven to any depth the Engineer may deem expedient, and the weight of ram as well as the fall shall be such as he may consider necessary. The greatest care must be taken to drive the piles plumb or battered, in such positions and distances apart as he may direct; any pile that may be damaged or too short or out of proper line when driven shall be taken up and replaced by another; the heads of piles must not be injured in driving.

34. Wherever concrete is employed, it will be composed of hydraulic lime, clean, sharp sand and good gravel of approved quality and proportions. The proportion of sand and lime will be about the same as in mortar, and in making the concrete, a sufficient quantity will be used with the gravel, to fill up every interstice, and render the mass when set perfectly solid and compact.

#### MASONRY.

35. All the masonry must be of a substantial and permanent character, made of durable and suitable materials, and in every respect equal to the best description of masonry in Railway works.

36. The masonry shall not be started at any point before the foundation has been properly prepared; nor until it has been examined and approved by the Engineer, nor until the Contractor has provided a sufficient quantity of proper materials and plant to enable the work to be proceeded with regularly and systematically.

37. Hydraulic lime mortar will be used, unless otherwise directed, in building all masonry from the foundations up to a line two feet above the ordinary level of the stream. It will be used also in turning arches, in laying girder beds, coping, covering of walls generally, in lipping and in pointing. The Hydraulic lime or cement must be fresh ground, of the best brand, and it must be delivered on the ground, and kept till used, in good order. Before being used, satisfactory proof must be afforded the Engineer, of its hydraulic properties, as no inferior cement will be allowed.

38. Lime mortar must be made of the best common lime and will be employed in all masonry (except dry) where cement is not directed to be used.

39. Both cement and lime must be thoroughly incorporated with approved proportions

of clean large grained sharp sand. The general proportions may be one part of lime to two parts of sand, but this may be varied according to the quality of the lime or cement. Mortar will only be made as required, and it must be prepared and used under the immediate direction and to the satisfaction of an Inspector, by the Contractor's men, failing which the Inspector may employ other men to prepare the mortar, and any expense incurred thereby shall be borne by the Contractor. Grout shall be formed by adding a sufficient quantity of water to well tempered and well proportioned mortar.

40. The stone used in all masonry on the line of railway, must be of a durable character, large, well proportioned and well adapted for the construction of substantial and permanent structures; parties tendering must satisfy themselves as to where fitting material for the masonry can be most conveniently procured.

41. The masonry will be classified as follows:—

- |                               |                 |
|-------------------------------|-----------------|
| 1st Class masonry, in cement, |                 |
| Do                            | in common lime, |
| 2nd Class masonry, in cement, |                 |
| Do                            | in common lime, |
| Do                            | Dry.            |

42. *First class masonry* shall be in regular courses, of large well shaped stone, laid in mortar on their natural beds, the beds and vertical joints will be hammer dressed, so as to form quarter inch joints. The vertical joints will be dressed back square 9 inches, the beds will be dressed perfectly parallel throughout. The work will be left with the quarry "face" except the outside arrises, strings, and coping, which will be chisel dressed.

43. The courses of first class masonry will not be less than twelve inches, and they will be arranged in preparing the plans to suit the nature of the quarries, courses may range up to 24 inches and the thinnest courses invariably be placed towards the top of the work.

44. Headers will be built in every course not farther apart than 6 feet, they will have a length in line of wall of not less than 24 inches, and they must run back at least  $2\frac{1}{2}$  times their height, unless when the wall will not allow this proportion, in which case they will pass through from front to back. Stretchers will have a minimum length in line of wall of 30 inches, and their breadth of bed will at least be  $1\frac{1}{2}$  times their height. The vertical joints in each course must be arranged so as to overlap those in the course below 10 inches at least.

45. The quoins of abutments, piers, &c., shall be of the best and largest stones, and have chisel drafts properly tooled on the upright arris, from two to six inches wide, according to the size and character of the structure.

46. Coping stones, string courses and cut-waters shall be neatly dressed in accordance with plans and directions to be furnished during the progress of the work.

47. The bed stones for girders shall be the best description of sound stone, free from dries or flaws of any kind, they must be not less than 12 inches in depth for the smaller bridges, and eight feet superficial area on the bed. The larger bridges will require bed stones of proportionally greater weight; these stones shall be solidly and carefully placed in position, so that the bridge will sit fair on the middle of the stone.

48. The backing will consist of a flat bedded stone, well shaped, having an area of bed equal to four superficial feet or more. Except in high piers or abutments two thicknesses of backing stone but not more will be allowed in each course, and their joints must not exceed that of the face work; in special cases, where deemed necessary by the Engineer to insure stability, the backing shall be in one thickness; the beds must, if necessary be scabbled off, so as to give a solid bearing, no pinning will be admitted. Between the backing and face stones there must be a good square joint, not exceeding one inch in width, and the face stones must be scabbled off to allow this. In walls over three feet in thickness, headers will be built in front and back alternately, and great care must be taken in the arrangement of the joints so as to give perfect bond.

49. Every stone must be set in a full bed of mortar and beaten solid, the vertical joints must be flushed up solid, and every course must be perfectly level and thoroughly grouted.

50. *Second class masonry* shall be built of good, sound, large, flat headed stones laid in horizontal beds. It may be known as Random work or broken coursed rubble. The stones employed in this class of masonry will generally be not less in area of bed than three superficial feet, nor less in thickness than eight inches, and they must be hammer dressed so as to give good beds with half inch joints. In smaller structures and in cases where stones of

good size and thickness cannot be had, they may, if in other respects suitable, be admitted as thin as five inches. All stones must be laid on their natural beds.

51. Headers shall be built in the wall from front and back alternately at least one in every five feet in line of wall and frequently in the rise of wall. In the smallest structures headers shall not be less than twenty-four inches in length and the minimum bed allowed for stretchers shall be twelve inches. In the larger structures all stones must be heavier in proper proportion. Every attention must be paid to produce a perfect bond and to give the whole a strong, neat, workmanlike finish.

52. Wing walls will generally be finished with steps formed of sound durable stone, and not less than from 10 to 12 inches thick, and six feet superficial area; other walls will be covered with coping of a similar thickness, and of seven feet or upwards superficial area. Those coverings will be neatly dressed, when required, and as may be directed. The walls of the box culverts will be finished with stones the full thickness of wall, and the covers will be from 10 to 15 inches thick, according to the span; they must have a bearing of at least twelve inches on each wall, and they must be fitted sufficiently close together to prevent the earth from falling through.

53. In second class masonry each stone, except when dry work is intended, will be laid in full mortar, all joints flushed solid and each course regularly and thoroughly grouted.

54. In all walls built in common lime, the exposed faces will have a four inch lipping of cement.

#### ARCHES.

55. A distinction will be made between arches of 10 feet span and upwards and those of 8 feet span and under. The former will be of first class masonry although they may be constructed on walls of second class work. Arches of 8 feet span and under will be second class masonry. Arches of each class will be semi-circular.

56. First class arches will be constructed of stones cut so that when laid, their beds will radiate truly from the centre of the circle, the depth of stones will of course vary with the span, but will never exceed 30 inches, they must not be less in length than 27 inches and they must break joints ten inches; their thickness on the soffit must be at least 9 inches, and it will be dressed to the circle. All the stones must be dressed to the full depth of bed so as to give truly radiated joints from 3-16 to  $\frac{1}{4}$  inch, they must be set without pinning of any kind and the end joints must be properly squared. Each stone to be full bedded in cement, and each course afterwards thoroughly grouted. The outer ring stones to be neatly worked with a chisel draft around their edges.

57. Second class arches shall be constructed of suitable flat bedded stones ranging according to the span from 16 to 24 inches deep and with a minimum length of from 16 to 24 inches, and 5 to 6 inches in thickness on the soffit, they must invariably extend through the entire thickness of the arch. Each stone to be well and closely fitted so as to give half inch joints and to break joint with its fellow 7 to 9 inches. The whole must be laid in thin mortar and each course must be well grouted immediately after being laid. The outer arch stones to be as nearly uniform in thickness as possible, of large size and neatly incorporated with the perpendicular face of the masonry. The key stones to be 10 or 12 inches on the soffit, to have a chisel draft around their edges, and to project beyond the face of the wall 2 or 3 inches.

58. Arches of each class shall be built in cement, and before being covered with earth, or the centering removed, they must be thoroughly flushed on the back, levelled up and rounded to a moderately even and smooth surface with the same material.

59. Centres of arches must in all cases be well formed, of ample strength, securely placed in position, and in every respect to the satisfaction of the Engineer. The ribs must not be placed farther apart than three feet in any case. The laggings shall be cut to a scantling of three inches square. The supports of centres shall be substantial and well constructed and they must be provided with proper wedges for easing centres when required.

60. Structures having more than one arch shall be provided with as many centres as the Engineer may deem proper, and in no case shall the centres be struck without his sanction.

61. Centering and scaffolding of all kinds shall be provided by the Contractor.

62. All masonry must be neatly and skillfully pointed, but if done out of season, or if from any other cause it may require re-pointing before the expiration of the contract, the

Contractor must make good and complete the same at his own cost. Work left unfinished in the autumn must be properly protected during the winter by the Contractor, at his risk and cost.

#### MISCELLANEOUS WORK.

63. After the masonry of a structure has been completed for a period of four or five weeks, the formation of the embankment around it may be proceeded with. The earth must be carefully punned in thin layers around the walls, and in this manner the filling must be carried up simultaneously on both sides. The Contractor must be extremely careful in forming the embankments around culverts and bridges, as he will be held liable for any damages to the structures that may arise. The punning must be carefully attended to, and the whole filling must invariably be done in uniform courses from the bottom to the top of the embankment, without loading one side of the masonry more than another.

64. The bottoms of culverts will be paved with stones set on edge, to a moderately even face, packed solid, and the interstices filled with grout formed of hydraulic cement. The paving will be from 12 to 16 inches deep.

65. All the works shall be executed in a thoroughly good, substantial and workmanlike manner, to the satisfaction of the Engineer, and upon their completion the contractor shall clear away all rubbish and unnecessary material.

#### BRIDGES.

66. To be of the most approved Howe Truss pattern, built of pine, with white oak keys, cast iron prisms, and wrought iron rods; the whole to be first-class material and workmanship, painted three coats. Detail drawings and specifications will be prepared during the progress of the work by the Engineer, to suit each span on bridge, and to which the Contractor must work.

The foregoing "Schedule A" is the specification of the work referred to in the Contract for the construction of Section number seven (7) of the Intercolonial Railway, made and executed between the Contractors, of the one part, and Her Majesty represented by the Commissioners, of the other part, on the twenty-ninth day of April, in the year of our Lord one thousand eight hundred and sixty-nine, and hereunto annexed.

(Signed.)	H. J. SUTTON,
"	GEO. ANGUS,
"	A. WALSH, Com.,
"	ED. B. CHANDLER, Com.,
"	C. J. BRYDGES, Com.,
"	WILLIAM F. COFFIN,
	Commissioner.

Witness,  
JOHN STUART,

Know all men by these presents, that we Hubert Sutton, of the Town of Paris, in the County of Brant, in the Province of Ontario, Contractor, and George Angus of the same Town of Paris, Contractor (hereinafter styled "The Contractors") William Thirkill, of the Town of Lindsay, in the County of Victoria, in the said Province of Ontario, Druggist, Hugh Finlayson, of the said Town of Paris, Farmer, and David Brown, of the said Town of Paris, Farmer, and David Brown, of the said Town of Lindsay, Stove dealer, are held and firmly bound to Her Majesty, Queen Victoria, Her heirs and successors, in the sum of eight hundred and twenty-seven thousand nine hundred and ten dollars (\$827,910) of lawful money of Canada, to be paid to Her Majesty, Her heirs and successors, or Her or their assigns, for which payment to be well and truly made, we bind ourselves, and each of us binds himself, for the whole and every part thereof, our and each and every of our heirs, executors and administrators, jointly and severally, firmly by these presents, sealed with our seals, and dated the twenty-ninth day of April, in the year of our Lord one thousand eight hundred sixty-nine.

Whereas the Contractors above named, have in and by a certain Contract in writing, bearing even date herewith, and executed between them and Her Majesty, covenanted and



agreed for the consideration therein mentioned, to make, build, construct and complete that portion of the Intercolonial Railway, known as Section Number Seven, as more fully described in the said Contract, and according to the Plans and Specification thereof therein referred to.

Now, the condition of the above obligation is such that if the Contractors or any or either of them, their or any or either of their heirs, executors and administrators, do and shall and well and truly observe, perform, fulfil and keep all and every the covenants, clauses, articles and agreements specified and contained in the said Contract and in the said Specification thereunto annexed, which on the part and behalf of the Contractors, their and each and every of their heirs, executors and administrators, is, are and ought to be observed, performed, fulfilled and kept according to the true intent and meaning of the same, then the above written obligation shall be void and of no effect, or otherwise the same to remain in full force and virtue.

(Signed,)

“

“

“

“

J. SUTTON,

GEO. ANGUS,

W. J. THIRKILL,

HUGH FINLAYSON,

DAVID BROWN.

*Signed, Sealed and Delivered,*

In presence of,

JOHN STUART.

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INTERCOLONIAL RAILWAY.

SCHEDULE OF PRICES.

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INTERCOLONIAL

SECTION

No.	NAMES OF TENDERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Draught, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
2	Wm. Ellis & Co..... J. M. Currier, M. P., T. R. Ferguson, M. P.	528,321 00	20,000 00	* 9 00	1 25	†	20 00	1 00	15 00	
4	Thos. Lowe, and Ira Hanson, } Thos. Lowe, Ira Hanson.	358,248 00	14,927 00	30 00	8 00	0 65	0 13	9 45	0 25	7 20
7	John Parry & Co..... Martin C. Upper, Archibald Galbraith.	506,845 00	20,880 00	40 00	15 00	1 00	0 25	10 00	3 00	10 00
10	Thos. B. Guest..... James W. Guest, Hiram Guest.	649,300 00	27,054 16	50 00	12 00	1 40	0 28	30 00	5 00	16 00
18	J. W. Guest..... J. Moore, A. Nichol.	624,000 00	26,000 00	60 00	12 00	1 25	0 26	30 00	5 00	16 00
18	Sherwood, Campbell & Wood. Turner Koyl, Richard F. Steele.	709,450 00	29,316 11	† 10 00	1 20	0 28	30 00	3 00	25 00	
20	H. J. Sutton & Co..... John Squires, Wm. Thirkill.	415,955 00	17,248 12	30 00	4 50	0 75	0 20	12 00	2 00	18 00
24	A. Sanborn..... Moses Lebourveau, L. Hall.	482,000 00	18,000 00	16 00	4 00	1 00	0 15	.....	.....	.....
26	C. A. Bailey..... W. H. French, J. L. French.	396,000 00	16,500 00	16 00	3 00	0 90	0 14	6 00	1 00	.....
28	R. J. Mitchell (for self & Co.) Messrs. De Wolf & Son, Messrs. D. Starr & Sons.	475,200 00	19,800 00	30 00	10 00	0 95	0 27	10 00	4 00	8 00
30	Alexr. McBean & Co..... Dr. McIntosh, Donald Fraser.	624,000 00	26,000 00	75 00	8 00	1 25	0 30	35 00	1 50	17 00
34	W. E. Maedonald, Donald Robertson, } W. H. Mitchell, Donald McKellar, D. M. Thompson.	570,004 00	23,750 00	35 00	10 00	1 30	0 26	23 00	1 50	14 00

\* \$18, \$25, and \$100 respectively. † Twenty to forty cents, according to haul.  
‡ Clearing, \$24; cutting and grubbing, \$100.

## RAILWAY TENDERS.

No. 7.

## OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
15 00	6 00	9 00	12 00	12 00	35 00	12	0 12	4 00	10 00	9 00	9 00	8 00	7 00	.....
12 00	4 00	4 00	12 00	12 00	* 0 30	06	0 08	6 00	11 00	10 00	8 00	6 00	4 00	1 50
12 00	10 00	12 50	15 00	18 00	20 00	06	0 12	3 00	8 00	7 00	7 00	6 00	4 00	5 00
20 00	9 00	13 00	16 00	18 00	65 00	04	0 09	3 00	15 00	14 00	10 00	9 00	5 00	8 00
20 00	9 00	12 00	16 00	18 00	60 00	04	0 09	3 00	14 00	13 00	9 00	8 00	5 00	8 00
60 00	8 00	15 00	20 00	25 00	25 00	08	0 14	4 00	16 00	15 00	10 00	9 00	8 00	5 00
22 00	9 00	12 00	15 50	16 00	20 00	05	0 10	1 75	12 00	10 00	6 00	5 00	3 00	3 00
.....	.....	.....	.....	.....	.....	04	0 05	.....	6 00	.....	4 00	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	6 50	.....	5 00	.....	.....	.....
22 00	4 50	6 00	7 00	10 00	75 00	05	0 10	4 50	10 00	9 50	9 00	8 50	6 00	5 00
20 00	17 50	22 00	27 00	45 00	45 00	08	0 10	5 00	14 00	13 00	10 00	8 00	6 00	7 00
24 00	10 00	12 00	13 00	15 00	32 00	10	0 12	4 00	12 00	11 00	7 00	6 00	5 00	4 00

\* Per foot. † Rock Tunnelling, \$5 per cubic yard.

INTERCOLONIAL

SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
37	<i>Payette &amp; Wright</i> ..... E. E. Shelton, W. Cross.	562,800 00	23,400 00	38 00	10 00	1 25	0 26	10 00	1 50	10 00
42	<i>John J. McDonald &amp; Co.</i> ..... John McKeown, Thos. Thomson.	525,600 00	21,900 00	50 00	9 00	1 25	0 30	13 00	2 50	15 00
45	<i>A. Brooks &amp; Co.</i> ..... David Hilliard, A. S. Brown.	584,000 00	24,000 00	40 00	12 00	1 00	30 00	40 00	2 00	15 00
46	<i>Chas. C. Gregory</i> ..... E. R. Burpee, A. Brooks.	570,000 00	23,500 00	25 00	7 00	1 40	0 30	20 00	1 00	12 00
51	<i>John Ryan and John Wardrop</i> , } ..... Thos. Webster, John Donnelly.	702,650 00	29,277 00	50 00	9 00	1 20	0 30	24 00	4 00	18 00
54	<i>Alexr. McDonell &amp; Co.</i> ..... David Tisdale, J. E. O'Reilley.	544,800 00	22,700 00	60 00	10 00	1 25	0 30	15 00	2 75	17 00
55	<i>Ryan, Cuvillier &amp; Co.</i> ..... John Donnelly, Wm. McNaughton.	726,650 00	30,276 00	55 00	9 00	1 20	0 31	25 00	4 50	17 00
60	<i>W. J. Johnstone</i> ..... Hon. A. B. Foster, Hon. J. J. C. Abbott, W. Johnstone.	744,000 00	31,000 00	30 00	8 00	1 25	0 30	30 00	3 50	10 00
61	<i>J. Cooke &amp; Dickson</i> ..... H. Abbott, J. B. Rivers.	570,000 00	23,750 00	100 00	8 00	1 40	0 25	30 00	4 00	15 00
65	<i>Elliott, Grant &amp; Whitehead</i> .. James Weyms, W. H. Scott.	612,000 00	25,500 00	160 00	11 00	1 25	0 30	25 00	3 00	17 00
68	<i>John McLachlan and J. Parker Tuck</i> , } ..... Robt. J. Leonard, Thos. M. Reed.	490,145 00	19,605 00	132 00	6 66	1 50	0 34	5 50	1 00	15 00
70	<i>John A. Cameron</i> ..... N. J. McGillivray, C. C. Saunders.	817,845 00	34,076 87½	40 00	10 50	1 00	0 30	20 00	3 00	8 00
75	<i>Stacy, Yorston &amp; Co.</i> ..... E. R. Burpee, Robert Webster.	636,000 00	26,500 00	200 00	9 50	1 25	0 28	12 00	1 50	12 00

RAILWAY TENDERS.

No. 7.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yard.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts. 12 00	\$ cts. 10 00	\$ cts. 13 00	\$ cts. 18 00	\$ cts. 25 00	\$ cts. 20 00	cts. 08	\$ cts. 0 10	\$ cts. 4 00	\$ cts. 12 00	\$ cts. 11 00	\$ cts. 9 00	\$ cts. 8 00	\$ cts. 5 00	\$ cts. 3 00
38 00	13 00	16 00	19 00	30 00	30 00	10	0 13	7 00	13 00	12 50	11 50	11 00	6 00	5 00
25 00	6 00	9 00	12 00	20 00	40 00	08	0 12	5 00	15 00	13 00	12 00	10 00	8 00	4 00
35 00	3 00	6 00	12 00	15 00	35 00	04	0 08	2 25	14 00	13 00	8 00	7 50	7 00	2 00
25 00	13 00	15 00	20 00	28 00	50 00	12	0 15	4 00	15 00	14 00	11 00	10 00	6 00	6 00
38 00	14 00	17 00	19 00	30 00	30 00	09	0 12	6 00	12 50	11 50	11 00	10 25	5 00	5 50
24 00	12 50	14 00	18 00	25 00	45 00	13	0 16	5 00	16 00	14 00	10 50	9 50	5 50	5 50
18 00	8 00	14 00	16 00	22 00	50 00	04	0 08	3 00	16 00	14 00	10 00	8 00	5 00	5 50
20 00	4 00	6 00	10 00	15 00	30 00	10	0 15	5 00	15 00	12 00	10 00	8 00	6 00	4 00
40 00	12 00	14 00	18 00	20 00	40 00	07	0 12	5 00	16 00	15 00	12 00	11 00	9 00	8 00
30 00	10 00	12 50	15 00	12 50	30 00	03½	0 12½	1 50	18 00	17 50	10 00	9 00	7 00	4 00
12 00	12 50	15 00	18 00	20 00	40 00	06	0 12	4 50	14 00	12 00	12 50	10 00	7 00	3 00
46 00	6 00	8 00	10 00	25 00	30 00	05	0 10	3 50	14 00	12 00	12 00	10 00	3 00	3 00

\* Tunnelling, per lineal foot, \$30.

INTERCOLONIAL

SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
				\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.
77	Terence McGovern & Co..... Albert Knight, J. H. Pope.	738,650 00	30,750 00	50 00	9 00	1 15	0 30	30 00	5 00	15 00
80	Angus S. Sinclair..... Alex. Sinclair, John McKay.	504,000 00	21,000 00	20 00	6 00	0 75	0 25	9 00	0 75	20 00
83	Otty, McKenzie & Co..... Hon. Edward Williston, Hon. Bliss Botsford, James Robertson.	544,531 00	22,639 00	25 00	4 10	1 10	0 27	11 30	0 90	10 00
84	Wm. Stewart & Co..... Wm. Fraser, L. J. Croll.	667,655 00	27,532 00	20 00	6 80	1 28	0 31	13 50	2 00	12 00
85	Geo. Reading and } H. B. Prince, } Messrs. Black Bros. & Co.	525,000 00	21,875 00	15 00	13 00	1 05	0 23½	13 00	6 00	12 00
87	H. H. Bailey ..... Caleb Jordan, Joseph Aubry.	333,360 00	13,890 00	15 00	3 60	0 80	0 12½	5 00	1 00	.....
90	James A. Grant & Co..... J. A. S. DeWolf & Son, David Starr & Sons.	.....	21,200 00	80 00	10 50	1 10	0 28	11 00	2 60	9 00
91	Sumner & Somers..... Fraser, Parish & Co., A. Smith.	477,096 00	19,879 00	100 00	9 00	0 97	0 25	15 00	2 00	12 00
96	McDonald & Co..... Jeffrey McCole, Angus Chisholm.	480,000 00	17,000 00	40 00	7 00	1 00	0 30	6 00	10 0	6 00
97	Don. Sutherland & Co. .... S. A. S. DeWolfe & Co., Keeth, McLean & Co.	519,480 00	21,645 00	35 00	10 25	1 00	0 28	9 50	3 25	8 25
100	Martin Murphy (for self & Co.) ..... J. D. Nash, S. D. Oakes.	496,800 00	20,700 00	33 00	10 00	1 00	0 28	9 00	3 00	8 00
105	Collingwood, Schreiber & Co. Black Bros. et Cie., John A. McDonald.	640,491 00	26,412 00	*	8 50	1 25	0 28	13 00	2 50	13 50
108	Simon Peters..... Chas. Sampson, John O'Leary.	539,640 00	22,485 00	100 00	14 00	1 40	0 32	50 00	1 50	10 00

\* \$20; 40, and \$100.

RAILWAY TENDERS.

No 7.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
20 00	6 00	9 00	12 00	25 00	40 00	10	0 15	5 00	17 00	15 00	12 00	10 00	6 00	5 50
30 00	2 20	3 00	9 50	20 00	15 00	10	0 15	4 00	12 00	11 00	11 50	10 25	9 00	4 00
17 00	4 00	6 00	12 00	12 50	20 00	03	0 05	3 50	10 55	10 10	9 15	8 00	7 00	1 50
20 00	15 00	18 00	19 00	20 00	30 00	06	0 12½	5 00	10 00	9 00	8 50	8 00	7 00	3 50
30 00	4 00	8 00	10 00	12 00	12 00	05	0 10	2 50	12 00	11 00	9 00	8 00	5 00	6 00
.....	.....	.....	.....	.....	.....	04	0 05	.....	6 00	.....	4 00	.....	.....	.....
12 00	9 00	12 00	14 00	16 00	0 30	06	0 09	2 50	14 00	9 00	8 50	7 00	4 50	2 25
15 00	5 00	7 00	10 00	15 00	20 00	06	0 10	5 00	13 00	12 00	10 00	9 50	7 00	2 00
10 00	2 00	3 50	5 00	6 00	3 00	03½	0 05½	10 00	12 00	11 00	8 00	7 00	5 50	4 00
23 00	4 00	5 50	6 75	10 50	65 00	06	0 10	5 00	10 50	9 50	9 25	8 50	5 75	6 00
22 00	4 00	5 00	6 50	10 25	63 00	05	0 12½	5 00	10 50	9 50	9 00	8 50	5 50	5 50
18 00	7 00	8 00	9 60	16 00	30 00	06	0 12½	4 50	14 25	12 75	8 50	7 50	6 50	4 00
20 00	8 00	12 00	16 00	20 00	50 00	07	0 10	4 50	15 00	13 50	8 00	6 50	5 00	6 00



INTERCOLONIAL

SECTION

No.	NAMES OF TENDERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting, and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
116	Horatio Jell and Edward Tuck, } Edward Handy, C. J. Ladd,	588,000 00	24,500 00	40 00	12 00	1 40	0 27	25 00	1 40	12 00
118	Thos. Fahey & Co..... Geo. Côté, Patrick Fahey.	467,040 00	19,460 00	38 00	11 00	1 05	0 25	22 00	3 00	11 00
125	Townsend, Walker & Co.... David G. Dickson, Wm. Hickman.	672,762 00	28,032 00	60 00	9 20	1 25	0 25	14 10	0 80	15 00
128	James H. Fraser, and Donald Fraser, } Wm. McKay, Messrs. Albro & Weir.	678,000 00	28,250 00	60 00	9 00	1 00	0 32	10 00	3 00	10 00
130	James McDonald & Co..... John R. Carmichael, Daniel Chisholm.	420,000 00	17,500 00	47 00	10 00	1 18	0 32½	12 50	2 50	8 40
131	J. Fraser & McKenzie..... Wm. McKenzie, Alex. McLeod.	594,000 00	24,750 00	50 00	8 00	0 95	0 35	12 00	4 00	9 00
135	Frankfort, Davis & Co..... Thos. DeWolf & Son, D. Starr & Sons.	564,000 00	23,500 00	95 00	10 00	1 10	0 32	11 00	2 50	10 00
137	T. Bulmer & Lowther..... N. M. Fullerton, Rupert F. Burt.	468,000 00	19,500 00	30 00	8 00	0 80	0 24½	14 00	3 00	8 00
138	Henry Peters..... Wm. Ware, H. H. Fuller.	625,737 42	26,072 47	100 00	12 00	1 25	0 38	12 50	2 50	10 00
139	Ephraim A. Jones..... Joseph Seaton, Robt. B. Seaton.	1,008,000 00	*42,000 00	137 50	26 00	2 00	0 30	27 60	6 25	9 00
142	Duncan Macdonald..... Messrs. Morland, Watson & Co.	700,000 00	29,583 00	30 00	10 00	1 00	0 30	30 00	1 00	15 00
145	Ronald Macdonell and } John Purcell, Donald McMillan, Patrick Purcell.	648,700 00	27,029 00	75 00	10 00	1 00	0 25	25 00	1 50	25 00
146	Berlinguet & Huot..... W. W. Scott, Norbert Germain.	351,875 00	14,661 00	40 00	7 00	0 75	0 30	2 50	1 50	10 00

\* Or I will undertake the same at the rate of thirty-nine thousand dollars (29,000) per mile, if the time extended to 1st July, 1872. (Signed,) EPHRAIM A. JONES.

RAILWAY TENDERS.

No. 7.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
25 00	8 00	11 00	14 00	17 00	35 00	13	0 15	5 00	13 00	12 00	8 00	7 00	6 00	5 00
13 00	9 00	10 00	12 00	18 00	42 00	03	0 10	4 00	11 50	10 50	10 00	9 00	4 00	8 00
17 00	4 50	7 00	13 50	20 00	21 00	04	0 10	3 50	14 25	13 25	10 00	9 00	7 00	7 00
20 00	3 00	4 50	6 00	8 00	20 00	06	0 07	5 00	12 00	11 00	11 00	10 00	8 00	5 00
13 00	5 50	8 50	12 00	13 50	14 00	07	0 12½	3 00	15 00	14 00	12 50	11 60	7 50	3 50
18 00	2 50	3 50	8 00	9 00	18 00	09	0 10	6 00	13 00	12 00	11 00	10 00	9 00	7 00
15 00	8 50	12 50	15 00	16 00	35 00	10	0 10	3 50	13 00	12 00	9 00	8 00	6 00	2 00
20 00	5 50	11 50	19 00	20 00	0 20	05	0 08½	3 00	12 00	11 00	9 00	8 00	6 50	2 50
15 00	4 00	6 00	8 00	12 00	21 00	05	0 10	4 00	13 00	11 50	9 00	7 50	6 50	4 50
20 00	5 00	8 00	8 75	10 00	62 50	06	0 11	12 75	16 00	13 00	13 00	11 25	8 00	8 00
20 00	17 50	22 00	26 00	40 00	45 00	08	0 10	4 00	15 00	13 50	12 00	8 25	6 25	10 00
40 00	0 12	0 15	0 25	0 40	0 50	10	0 15	7 00	12 00	11 00	11 00	10 00	9 00	7 00
15 00	6 00	9 00	12 00	13 00	3 00	04	0 05	2 50	5 00	4 50	4 00	3 50	3 00	3 00

## INTERCOLONIAL

## SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
153	<i>Robert James Reekie</i> ..... Peter Redpath, Geo. A. Drummond.	600,000 00	25,000 00	60 00	8 00	1 20	0 30	35 00	1 50	15 00
155	<i>John O'Donnell</i> ..... Miles Murphy, Francis Sousise.	604,800 00	25,200 00	60 00	7 50	1 00	25 00	21 00	1 00	15 00
158	<i>Robt. H. McGreevy &amp; Co.</i> .... John Heney, M. Kavanagh.	537,600 00	22,400 00	45 00	10 00	1 10	0 27	21 00	4 00	10 00
162	<i>John Fowler</i> ..... W. J. Fowler, S. Fowler.	665,500 00	27,729 00	40 00	6 00	1 50	0 30	10 00	4 00	20 00
167	<i>A. W. Schweriger,</i> } <i>Geo. Randall,</i> } <i>S. H. Randall,</i> <i>Henry Knell.</i>	876,000 00	36,400 00	40 00	9 00	1 25	0 31	10 00	3 00	12 00
171	<i>Manning &amp; Ginty</i> ..... J. D. Merrick, Jas. E. Smith.	580,000 00	24,165 16	100 00	1 25	1 50	0 25	26 00	2 00	18 00
172	<i>John Damp</i> ..... John Davis, Joseph McCausland.	565,480 00	23,561 66	80 00	15 00	0 50	0 25	12 00	4 00	16 00
175	<i>Joseph B. Moore</i> ..... G. S. Marlee, Saml. G. E. Evans.	656,516 61	27,072 85	32 00	7 50	1 25	0 28	13 50	2 00	15 00
179	<i>F. X. Thompson</i> ..... George Couture, Louis Carrier.	487,200 00	26,300 00	80 00	10 00	1 20	27 00	30 00	1 50	15 00
183	<i>Antoine Pampolin</i> ..... George Couture, Louis Carrier.	604,800 00	25,200 00	70 00	11 00	1 30	0 30	55 00	1 75	15 00
185	<i>E. Demers</i> ..... Geo. Couture, Louis Carrier.	576,000 00	24,000 00	65 00	11 00	1 20	0 25	45 00	1 50	15 00
187	<i>P. Dumontier</i> ..... Geo. Couture, Louis Carrier.	468,000 00	19,500 00	50 00	9 00	1 10	0 25	40 00	1 30	9 00
192	<i>Jacques Jobin</i> ..... Geo. Couture, Louis Carrier.	636,000 00	26,500 00	70 00	10 00	1 25	0 30	50 00	1 50	12 00
193	<i>Louis Cloutier</i> ..... Geo. Couture, Louis Carrier.	520,000 00	21,700 00	60 00	10 00	1 15	0 25	45 00	1 50	10 00

RAILWAY TENDERS.

No. 7.—Continued.

OF PRICES.

Plank, pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven in and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, strays, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yard.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
20 00	15 00	20 00	25 00	40 00	40 00	06	0 10	5 00	13 00	12 00	10 00	8 00	6 00	10 00
20 00	22 00	24 00	26 00	40 00	42 50	08	0 10	4 00	14 00	12 00	10 00	9 00	6 00	10 00
12 00	10 00	13 00	15 00	20 00	40 00	04	0 12½	5 00	13 00	12 00	12 00	11 00	5 00	8 00
20 00	5 00	7 00	10 00	20 00	20 00	10	0 12	4 00	10 50	9 50	8 50	7 50	5 00	4 00
14 00	7 00	10 00	15 00	28 00	50 00	05	0 12	6 00	14 00	13 00	9 00	8 00	5 00	4 00
24 00	10 00	12 00	14 00	16 00	35 00	08	0 15	3 00	9 00	7 00	8 00	6 00	5 00	2 00
16 00	8 00	10 00	12 00	14 00	35 00	10	0 15	4 00	12 00	8 00	9 00	8 00	4 00	12 00
20 00	7 50	8 50	10 00	16 00	35 00	06	0 12½	4 00	14 50	13 25	9 50	8 00	6 50	4 00
20 00	10 00	12 00	15 00	18 00	50 00	06	0 11	3 75	12 00	10 00	7 00	5 00	4 00	4 00
22 00	10 00	15 00	19 00	24 00	70 00	07	0 13	5 00	13 00	11 25	8 50	6 75	6 00	5 50
22 00	10 00	15 00	20 00	25 00	65 00	07	0 12½	5 00	12 50	10 75	8 00	6 50	6 00	5 50
18 00	7 50	10 50	15 50	18 00	45 00	05½	0 10½	3 75	11 50	9 75	7 00	5 75	5 00	6 00
22 00	10 00	15 00	20 00	25 00	70 00	07	0 13	5 00	13 50	12 00	9 00	7 75	6 00	5 00
21 00	8 00	12 00	15 00	18 00	60 00	06½	0 12	3 75	11 50	10 00	6 75	5 25	5 00	6 00

INTERCOLONIAL

SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing, per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts.
196	<i>P. Thompson</i> ..... Geo. Couture, Louis Carrier.	559,200 00	23,300 00	60 00	10 00	1 25	0 28	35 00	1 50	15 00
199	<i>Magloire Maranda</i> ..... Geo. Couture, Louis Carrier,	540,000 00	22,500 00	55 00	10 00	1 20	0 25	50 00	1 50	10 00
204	<i>Henry Dunbar, &amp; Co</i> ..... Henry McLean. Donald Fraser.	478,800 00	19,950 00	22 00	10 25	1 25	0 25	10 50	7 25	9 00
206	<i>Walter Kerr</i> ..... John Selliok, Hebron Harris.	821,075 00	34,211 46	55 00	12 00	1 30	0 39	10 00	4 00	12 00
210	<i>Ware &amp; Co</i> ..... E. H. Sewell, Thos. H. Oliver.	830,334 00	35,200 00	30 00	6 50	1 25	0 35	20 00	2 50	22 00
218	<i>Malcolm Cameron</i> ..... Geo. E. Desbarats, P. G. Buck.	48,950 42	20,392 50	25 00	13 00	1 25	0 25	13 00	2 00	12 50
214	<i>Geo. H. Perry</i> ..... Robert Skead, E. McGillivray.	697,517 00	29,063 00	40 00	25 00	1 25	0 30	3 00	2 00	18 00
217	<i>George Neilson</i> ..... Wm. Sutherland, James Gordon.	707,000 00	29,500 00	32 00	10 00	1 20	0 28	35 00	1 25	20 00
222	<i>John Worthington &amp; Co</i> ..... Samuel Platt, Wm. Bush.	567,840 00	23,660 00	20 00	8 00	1 00	0 25	8 00	3 00	15 00
223	<i>John Steacy</i> ..... Joseph Stuart, C. Fletcher.	716,856 00	29,869 00	50 00	9 00	1 30	0 28	10 00	1 75	16 00
228	<i>Andrew Elliott and</i> } ..... <i>Wm. Robinson,</i> } Geo. Stephen, John Shedden.	679,500 00	28,312 00	*	10 80	1 00	0 31	13 00	3 00	15 00
229	<i>A. S. Brown</i> ..... James Glass, A. Sutherland.	843,420 00	35,142 00	44 00	12 00	1 35	0 35	40 00	2 00	36 00
234	<i>Aug. Trépanier</i> ..... François Gingras, Olivier Mathieu.	533,175 00	22,215 00	20 00	10 00	1 20	0 24	15 00	2 00	10 00

\* \$10, \$10, and \$20.

RAILWAY TENDERS.

No. 7.—Continued.

OF PRICES.

Plank, Pine, per 1000 feet, B.M.	Flatted timber, 6 inch thick, per 100 lineal feet.	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spike, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
20 00	12 00	14 00	18 00	20 00	50 00	06	0 12	4 00	12 50	10 75	7 50	6 25	4 50	4 50
21 00	9 00	12 00	16 00	19 00	60 00	06½	0 12	4 2½	11 50	9 75	7 50	6 00	5 00	5 50
16 00	3 75	5 50	7 50	8 00	0 45	10½	0 12½	17 00	18 25	17 50	17 25	16 35	15 75	9 00
17 00	15 00	18 00	20 00	31 00	30 00	08	0 15	3 00	15 00	14 50	12 40	11 00	6 50	6 00
26 00	6 00	9 00	12 00	20 00	30 00	04	0 15	2 50	15 00	14 50	10 00	9 50	6 00	6 50
17 00	5 00	8 00	14 00	19 00	55 00	04½	0 12½	3 50	11 00	10 00	7 00	6 00	5 00	4 00
24 00	6 00	8 00	12 00	15 00	25 00	06	0 12	5 00	12 00	10 00	7 00	5 50	4 50	3 00
40 00	15 00	20 00	30 00	30 00	50 00	08	0 12	5 00	14 00	13 50	10 00	9 00	8 00	5 00
20 00	9 00	12 00	16 00	25 00	30 00	06	0 10	4 00	10 50	10 00	8 00	7 50	6 50	3 00
46 00	4 00	6 00	15 00	25 00	30 00	05	0 10	3 50	15 00	14 00	11 00	10 00	9 50	3 00
25 00	10 00	12 00	15 00	15 00	20 00	10	0 12	5 00	13 00	13 00	10 00	10 00	8 00	5 00
40 00	15 00	20 00	30 00	30 00	50 00	08	0 12	6 00	14 00	14 00	12 00	11 50	10 00	.....
18 00	8-00	10 00	12 00	20 00	55 00	06	0 12	5 00	13 50	11 25	8 00	6 50	5 00	5 00

INTERCOLONIAL  
SECTION

No.	NAMES OF TENDERERS AND SURETIES.	Gross Amount.	Amount per Mile.	SCHEDULE						
				Clearing, cutting and grubbing, per acre.	Fencing per 100 lineal feet.	Rock excavation, per cubic yard.	Earth excavation, per cubic yard.	Drains, per lineal 100 feet.	Riprap, per cubic yard.	Plank, hemlock or spruce, per 1000 feet, B.M.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ c.	\$ cts
235	<i>Nich. Pettin and Et Dussault,</i> } Hugh McHugh, Et. Dussault.	597,600 00	24,900 00	20 00	6 50	0 90	0 25	30 00	1 50	10 00
239	<i>Peter Ross and A. L. McKensie,</i> } Thos. W. Daniel, John Boyd.	615,450 00	25,648 75	162 00	9 00	1 25	0 25	6 00	1 50	10 00
242	<i>L. Maclean</i> ..... Joseph Archer, Archer et Cie.	506,088 00	21,087 00	32 00	25 00	1 20	0 20	6 00	3 00	10 00
246	<i>J. &amp; G. Jackson</i> ..... Thos. W. Walsh, R. F. Livingstone.	595,200 00	26,800 00	130 00	10 00	1 25	0 25	15 00	3 00	18 00
249	<i>Edward Haycock</i> ..... J. W. Ritchie, R. H. Haycock.	422,733 00	17,613 00	50 00	7 00	1 25	0 26	11 00	2 00	15 00
252	<i>A. Hamel &amp; Co</i> ..... J. C. Marcotte, S. O. Brousseau.	483,840 00	20,160 00	40 00	10 00	1 15	0 26	20 00	3 00	9 00

## RAILWAY TENDERS.

No. 7.—*Concluded.*

## OF PRICES.

Plank pine, per 1000 feet, B. M.	Flatted timber, 6 inch thick, per 100 lineal feet	Flatted timber, 9 inch thick, per 100 lineal feet.	Flatted timber, 12 inch thick, per 100 lineal feet.	Square timber, 12 inch thick, per 100 lineal feet.	Piles not less than 12 in. diameter, driven and measured in work, per 100 lin. ft.	Cast iron, per lb.	Wrought iron, including spikes, bolts, straps, &c., per lb.	Concrete, per cubic yard.	First-class masonry in cement, per cubic yard.	First-class masonry in common lime, per cubic yard.	Second-class masonry in cement, per cubic yard.	Second-class masonry in common lime, per cubic yd.	Second-class masonry in dry work, per cubic yard.	Paving, per cubic yard.
\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
15 00	4 09	5 50	7 00	20 00	40 00	05	0 09	2 30	12 00	11 00	8 50	6 00	4 00	5 50
15 00	10 00	11 00	12 00	15 00	50 00	05	0 09	5 00	14 00	13 00	10 00	9 00	8 00	2 00
16 00	7 00	10 50	14 00	15 00	40 00	05	0 10	3 50	15 00	12 50	14 00	12 00	4 00	13 00
25 00	10 00	12 00	17 00	25 00	35 00	05	0 10	5 00	16 00	15 00	12 00	11 00	6 00	7 00
20 00	8 00	12 00	16 00	20 00	30 00	06	0 10	4 80	12 00	11 50	8 00	7 50	6 00	6 00
10 00	11 00	12 00	14 00	21 00	35 00	03½	0 12	4 00	12 00	11 00	11 00	10 00	4 00	8 00



## SCHEDULE.

	Canadian Currency.	
	\$	cts.
1. Clearing, cutting and grubbing, per acre.....	30	00
2. Fencing, per 100 lineal feet.....	4	50
3. Rock Excavation, per cubic yard.....	0	75
4. Earth Excavation, do. ....	0	20
5. Drains, per lineal 100 feet.....	12	00
6. Riprap, per cubic yard.....	2	00
7. Plank, Hemlock or Spruce, per 1000 feet B. M.....	18	00
8. Pine, do. ....	22	00
9. Flatted Timber 6 inch thick, per 100 lineal feet.....	9	00
10. do. 9 inch thick, do. ....	12	00
11. do. 12 inch thick, do. ....	15	00
12. Square Timber 12 inch thick, do. ....	16	00
13. Piles not less than 12 inch diameter, driven and measured in work, per 100 lineal feet.....	20	00
14. Cast Iron, per lb.....	0	05
15. Wrought Iron, including spike, bolts, straps, &c., per lb.....	0	10
16. Concrete, per cubic yard.....	1	75
17. First class masonry, in cement, per cubic yard.....	12	00
18. do. in common lime, do. ....	10	00
19. Second class masonry, in cement, do. ....	6	00
20. do. in common lime, do. ....	5	00
21. do. dry work, do. ....	3	00
22. Paving, do. ....	3	00

The foregoing is a true copy of the Schedule of prices for some of the principal items of construction, annexed to the Tender of the Contractors for Section Number Seven (7) of the Intercolonial Railway, supplied solely for the information of the Commissioners, and as a guide to the Chief Engineer in making up his estimates, and not in any way to affect the Contract for the construction of the said Section of the Railway.

(Signed,)

J. SUTTON,  
GEO. ANGUS.Witness,  
JOHN STUART.

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# CORRESPONDENCE.

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## BANK OF UPPER CANADA.

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*Laid before Parliament by command of His Excellency the  
Governor General.*

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(Copy.)

FINANCE DEPARTMENT,  
Ottawa, 14th March, 1868.

GENTLEMEN,—You will, doubtless, have received before this the official intimation that His Excellency has been pleased to name you Trustees for the Government, under the Act 31st Vic., cap. 17, entitled "An Act for the settlement of the affairs of the Bank of Upper Canada."

It is the wish of the Government that no time should be lost in ascertaining, with as much accuracy as possible, the state of the affairs of that Institution, and that the process of winding up should be prosecuted as expeditiously as compatible with a judicious realization of the assets.

I have, therefore, to request that you will cause to be prepared, as soon as possible, a statement, for the confidential information of the Government, shewing in detail :—

- 1st. What the assets are composed of.
- 2nd. What, in your opinion, is a fair estimate of their value respectively ; and
- 3rd. Within what period they may probably be made available for distribution among the creditors.

I shall feel obliged if you will accompany this statement with such other accounts and statements as may be necessary to a right understanding of the true position of the estate.

I have, &c.,  
(Signed,)

JOHN ROSE,  
Minister of Finance.

Messrs. Peleg Howland, and  
Charles J. Campbell, Esqrs.,  
Government Trustees Bank of Upper Canada,  
Toronto.

(Copy.)

OFFICE OF THE TRUSTEES OF THE BANK OF UPPER CANADA,  
March 24th, 1868.

SIR,—I duly received your communication, of the 14th, addressed to Mr. Howland and myself, asking for a statement of the present position of the affairs of the Bank of Upper Canada. We will have such a statement prepared and forwarded to the Department at the earliest possible moment.

I have, &c.,  
(Signed,)

C. J. CAMPBELL.

The Hon. John Rose,  
Minister of Finance, Ottawa.

(Copy.)

OFFICE OF THE TRUSTEES OF THE BANK OF UPPER CANADA,  
Toronto, 22nd May, 1868.

SIR,—In reply to your letter of the 14th March we have the honor to state, that the assets of the Bank of Upper Canada consist in a great part, of judgments against various parties, as well as other over-due debts, the value of which it is impossible to estimate with exactness at the present time.

Their true value can only be ascertained, in each case, when the debt is finally settled.

We find that the assets of the Bank of Upper Canada on the 16th March, 1868, consisted of the following items, and that they were held in the Bank's books at the figures appended to them, viz. :—

Specie, and balances with other Banks.....	\$7,302 07
Debentures and Road Stock.....	22,162 52
Real Estate.....	1,367,576 69
Mortgages.....	135,402 97
Bills, Judgments, &c.....	1,829,339 35
	\$3,361,783 60

and we have come to the conclusion, that the assets may probably be estimated as of the following value, viz. :—

Specie, and balances with other Banks.....	\$7,302 07
Debentures and Road Stock.....	8,551 67
Real Estate.....	757,665 99
Mortgages.....	105,166 59
Bills, Judgments, &c.....	598,014 94
	\$1,476,701 26

The liabilities at the same date we find to be:—

Bank notes in circulation.....	\$262,619 00
Due to the general public in Canada.....	382,668 40
Due to Glyn & Co., London.....	207,268 09
Due to Government of Canada.....	1,133,430 75
	\$1,985,986 24

In these figures interest has not been added either to the assets or to the liabilities to the date mentioned, 16th March, 1868.

It will, therefore, be seen that we fear a deficiency of \$509,284 98 in the realization of the assets.

We repeat, however, that it is almost impossible to arrive at an estimate of the true position of the Bank's affairs, in consequence of the complicated condition of many of the debts due to it.

Whether there will be any deficiency at all, therefore, or whether there will be a deficiency to a much larger extent than that named above, it is quite impossible to say.

We incline to the belief that the estimate is a correct one. We do not consider that any detailed statement, further than that now given, will assist the Government in the formation of a true opinion with regard to the Bank's position.

The utmost efforts will be used by us for a speedy realization of the assets, but the process is a tedious one, and we cannot, therefore, say when dividends are likely to be payable out of the estate.

We have, &c.,  
(Signed,) P. HOWLAND,  
(Signed,) C. J. CAMPBELL,  
Government Trustees Bank of Upper Canada.

(Copy.)

FINANCE DEPARTMENT,  
Ottawa, 5th Dec., 1868.

GENTLEMEN,—Referring to your report of the 22nd May last, on the subject of the liabilities and assets of the Bank of Upper Canada, I will feel obliged by your informing me what progress has been made since that time towards the realization of those assets; will also thank you to say whether your experience in the interval leads you in any way to modify the opinion you then expressed, that you were afraid that there would be a deficiency of \$509,000 in the realization of the assets. Be good enough also to inform me whether any communication has taken place with the Shareholders on the subject of making good the anticipated deficiency, and what the nature of that communication has been.

I am extremely desirous that the most expeditious steps should be taken to realize the property of the Bank, that in your judgment can be judiciously adopted; and I will thank you to report what you have done towards the accomplishment of that since the date of your last communication.

I have, &c.,  
(Signed,) JOHN ROSE.

C. J. Campbell, Esq.,  
P. Howland, Esq.,  
Trustees of the Bank of Upper Canada,  
Toronto.

BANK OF UPPER CANADA,  
TORONTO, December 9th, 1868.

SIR,—We have the honor to acknowledge the receipt of your communication of the 4th inst., and in reply, beg to say, that a full statement of the affairs of the estate of the Bank of Upper Canada will be made up to the end of the year, and forwarded as soon thereafter as possible, together with a report as to past progress, and future prospects, in realization of the assets.

The shareholders have been informed, that, in our opinion, there would be a large deficiency; but no further steps have been taken in the matter, nor has anything been said to them about being called upon to make good the anticipated deficiency.

We have, &c.,

(Signed,)

P. HOWLAND,  
C. J. CAMPBELL,

The Hon. John Rose,  
Minister of Finance.

(Copy.)

FINANCE DEPARTMENT,

OTTAWA, 16th December, 1868.

GENTLEMEN,—Your communication of the 9th inst., informing me that a full statement of the affairs of the Bank of Upper Canada will be forwarded after the end of the year, together with a report of the past progress, and future prospects, as to the realization of the assets, reached me on my return from Toronto yesterday.

Referring to our conversation, when I had the pleasure of meeting you there, I beg to repeat my desire, That you will be good enough to accompany that report with the following particulars, viz.:

1st. A list of the Shareholders at the present date, shewing the amount of stock they severally hold, their places of residence, &c., and accompanied with synoptical statement from yourselves, distinguishing those from whom you think an assessment might be collected, and those who, in your opinion, would be unable to make any contribution towards making good the deficiency.

2. A statement of the annual cost of the trust, under such appropriate headings, as will exhibit the charges attending the realization as contradistinguished from the taxes, &c., on real estate, and placing the Government fully in possession of your views, whether any, and what, items of such annual cost may not with propriety be reduced, or wholly dispensed with.

3. A statement of the revenue or interest derived from any assets which you may have been able to place at interest, or render productive.

4. How long a period, in your opinion, will be required to realise the assets to the best advantage, stating fully what difficulties, both as respects the real estate and the judgments, and other debts, exist in the way of immediate realization.

5. A statement, under appropriate headings, of the payments made by you, and informing me at the same time, whether any, and what, creditors have been paid in full, or in part, and what course has been adopted regarding the acceptance of the Bank's bills in payment of any sales, or the reduction of its circulation.

You will please add such other information, not only on the points which formed the subject of discussion between us, but on all others which may be calculated to put the Government in possession of the fullest information respecting the affairs of the Bank.

I have, &c.,

(Signed,)

JOHN ROSE,  
Minister of Finance.

P. Howland, Esq.,

C. J. Campbell, Esq.,

&c., &c.,

Toronto, Ont.

(Answers to the Honorable Mr. Rose's Questions as above.)

Question I.—“A list of the Shareholders at the present date, shewing the amount of stock they severally hold, their places of residence, &c., and accompanied with a synoptical statement from yourselves, distinguishing those from whom you think an assessment might be collected, and those who, in your opinion, would be unable to make any contribution towards making good the deficiency?”

*Answer I.*—Without extending our enquiries over a very wide field, which would involve the loss of a very great deal of time (as well as much labor and expense), we cannot pretend to say, with any degree of certainty, what proportion of the Shareholders are in a position to pay an enforced assessment.

The share list may be divided into the following heads, viz. :

Executors, Guardians, and Minors .....	\$129,360
Trustees.....	337,500
Municipalities.....	12,810
Females and Persons living abroad.....	585,165
Residents in Canada not known to us.....	172,220
Residents in Canada believed to be bad.....	139,900
Residents in Canada (including Females) believed to be good.....	562,890

\$1,939,845

We should judge that very serious difficulties would present themselves, in any attempt to collect from any of these classes, except, perhaps, the last.

*Question II.*—“A statement of the annual cost of the trust, under such appropriate headings as will exhibit the charges attending realization as contradistinguished from the taxes, &c., on real estate, and placing the Government fully in possession of your views; whether any, and what, items of such annual cost may not with propriety be reduced, or wholly dispensed with?”

*Answer II.*—In answer to this enquiry, we may state that the estimated expenses for the year 1869, are as follows :

Allowance to Trustees under the Act of Parliament.....	\$4,000
Law Expenses.....	4,000
Salaries.....	4,000
Travelling Expenses.....	800
Printing and Advertising.....	500
Rent and Taxes of Office.....	625
Postages.....	150
Fuel and Light.....	80
Stationery.....	25
Sundry incidental expenses.....	100

\$14,280

Our attention has, from the first, been directed to keeping the expenses as low as practicable, and we cannot see that they can be reduced in any particular at the present time; when an opportunity occurs to effect further reductions, we shall not fail to make them.

*Question III.*—“A statement of the revenue or interest derived from any assets which you may have been able to place at interest, or render productive?”

*Answer III.*—1. The Cash in the Bank carries interest at 4 per cent. As soon as money is received, it is deposited.

2. Mortgages (new account) carry interest at the rate of 7 per cent. per annum.

Our practice has been to take 1s. 3d. or 1s. 4d. cash, for land sales, and mortgages for the balance. The mortgages will increase, therefore, as further sales of real estate are effected.

3. The same remarks apply to bills and securities (new account).

4. The railway and other bonds, as well as bills, judgments, &c. (old account), and mortgages (old account), all carry interest at about 6 per cent. per annum, so that such proportion of them, as can be collected, will bear interest also.

5. The only asset, therefore, which can be looked upon as unproductive, is the real estate, and this asset is being reduced, and placed in a productive shape, as speedily as possible.

*Question IV.*—“How long a period, in your opinion, will be required to realize the assets to the best advantage, stating fully what difficulties, both as respects the real estate and the judgments, and other debts, exist in the way of immediate realization?”

*Answer IV.*—We believe that in about five years, the assets of the Bank will be in such a position, that the trust might then, with advantage, be closed up.

The difficulties which lie in the way of a more speedy realization of the assets, are very great.

As regards the real estate, there cannot be a doubt that forcing sales of such a very large amount of property would be equivalent to sacrificing it, and that any action which would lead the public to expect peremptory sales within a very short period of time, would have the effect, to a considerable extent, of stopping sales in the mean time.

And as regards the bills, judgments, &c., it must be borne in mind that the Bank carried on a large and extended business during a long series of years, and has left a balance of debts due to it of such a character, that it is almost impossible to realize upon them in cash. The greatest caution and judgment are requisite in dealing with them, and efforts are constantly being directed, either to realizing in whole, or in part, or to transforming them into a new and improved shape, or to compromising them. These difficulties are very much enhanced by the present state of the law, for we have found that no sooner is pressure brought to bear upon parties, than an unreasonable compromise is in many instances offered, not unfrequently accompanied by an open or covert threat to take advantage of the "Insolvent Act." Occasionally, also, we are met with an offer to pay us the amount it would cost as expenses to go through insolvency, for a discharge of all claims; and this, too, in instances when we have every reason to believe, the debtor, if he chose, might do better.

*Question V.*—"A statement, under appropriate headings, of the payments made by you, and informing me at the same time, whether any, and what, creditors have been paid in full, or in part, and what course has been adopted regarding the acceptance of the Bank's bills in payment of any sales, or the reduction of its circulation?"

*Answer V.*—No creditor of the Bank has been paid the amount of his claim, either in full, or in part, excepting some trifling sums which could not be otherwise dealt with.

The Act of Parliament, for a settlement of the affairs of the Bank of Upper Canada, ratifies and confirms the Deed of Assignment. According to that Deed, the Trustees are compelled to receive claims against the Bank, at their full value, in payment of debts due to the Bank. The same Act permits the Trustees to dispose of real estate for such claims.

Under the operations of the Act, the following amounts have been paid off since we came into office, viz.:

Bank Notes in circulation.....	\$145,932 00
Due to Depositors.....	30,770 64
	<hr/>
	\$176,702 64
Due to Government.....	10,791 65
	<hr/>
	\$187,494 29

During the same period, Glyn & Co. have been paid off to the extent of \$80,582.66, but this, as we have already shewn, was out of real estate, of which they hold an absolute deed.

We repeat, that, in effecting these resolutions, no creditor has been paid. For old debts, we have received claims against the Bank at par. And as an inducement to purchasers of real estate, we have received such claims from them, at rates varying from 66 to 75 per cent of their par value.

The statement of the various payments asked for, will be found at page 7, being a synopsis of the profit and loss account, from the time we entered the trust.

*Question VI.*—"You will please add any other information, not only on the points which formed the subject of discussion between us, but on all others that may be calculated to put the Government in possession of the fullest information respecting the affairs of the Bank?"

*Answer VI.*—Perhaps the simplest mode of placing the Government in possession of the fullest general information respecting the affairs of the Bank, will be to give you a comparison of the position of the trust, when we took office in March last, and its position at the present time.

According to the respective balance sheets at these dates, the figures stood thus :  
*Comparison of Balance Sheets of 16th March, 1868, and 31st December, 1868.*

ASSETS.	Balances on 16th March, 1868.	Balances on 31st Dec., 1868.	Increase since 16th March, 1868.	Decrease since 16th March, 1868.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1. Cash on hand and in Banks.....	7,302 07	13,622 13	6,320 06	.....
2. Railway and other Bonds.....	22,162 52	12,811 67	.....	9,350 85
3. Bills, Judgments, &c. (old ac.)...	1,829,339 55	1,019,855 25	.....	809,484 10
4. Real Estate.....	771,571 40	583,787 25	.....	187,784 15
5. do ("Trust ac.") (Glyn & Co.'s).....	596,005 29	395,990 83	.....	200,014 46
6. Mortgages (old ac.).....	54,707 83	54,707 83	.....	.....
7. do (new ac.).....	80,695 14	96,896 14	16,201 00	.....
8. Bills and Securities (new ac.)...	.....	17,400 00	17,400 00	.....
<b>Total Assets.....</b>	<b>\$3,361,783 60</b>	<b>2,195,071 10</b>	.....	.....
<b>LIABILITIES.</b>				
1. Bank Notes in circulation.....	262,619 00	116,687 00	.....	145,932 00
2. Due to Depositors on old acc's...	140,193 33	112,751 97	.....	27,441 36
3. do do Trustees Certi- ficates.....	242,475 07	239,145 79	.....	3,329 28
4. Due to Glyn & Co.....	207,268 09	126,685 43	.....	80,582 66
5. do Government.....	1,138,430 75	1,122,639 10	.....	10,791 65
<b>Total Liabilities.....</b>	<b>\$1,985,986 24</b>	<b>1,717,909 29</b>	.....	.....
Balance of Profit and Loss account, being the apparent surplus of Assets over Liabilities.....	\$1,375,797 36	\$477,161 81	.....	\$898,635 55

The following synopsis, which shows the items which make up the reduction in profit and loss account, will further illustrate the working of the trust during the period named:

Charged to Profit and Loss Account—

Debts supposed to be irrecoverable.....	\$623,076 51
Railway Bonds reduced by sum of.....	9,350 85
Losses on Debts compounded, less sundry amounts recovered.....	23,895 60
Losses on Lands sold by Glyn & Co.'s Trustees.....	111,918 87
Expenses and Commission charged by do.....	4,197 97
Losses on Lands sold by the B. U. C. Trustees.....	\$112,911 56
Less gain on B. U. C. funds taken in part payment.....	19,499 73
	<u>93,411 83</u>

Payments to Lady Macaulay under her Bond over certain Real Estate.....	4,600 00
Old claims for Salaries, &c., settled.....	3,548 33
Salaries (including Solicitor).....	10,403 61
Extra Law Expenses.....	2,122 35
Travelling Expenses.....	983 75
Commissions for Rents collected, and Lands sold by Agents.....	598 00
Balance of Interest Account.....	8,047 07
“ of Rent, Taxes, and Insurance.....	1,411 83
Printing and Advertising.....	228 68
Postages and Telegrams.....	163 06
Sundry other expenses.....	677 24
	<u>\$898,635 55</u>

On reference to the first of these two statements, it will be seen that the railway and other bonds, the old judgments, &c., and the real estate, were reduced \$1,206,633.56.

While on the other hand, \$39,921.06 was received in cash, mortgages, and other securi-



ties equal to cash; and reductions to the extent of \$268,076.95 were effected in the circulation, the balances due to Glyn & Co., to depositors, and to the Government, making together \$307,998.01.

The realization of the above sum of \$1,206,633.56, would, therefore, shew an apparent sacrifice of the assets, to the extent of \$898,635.55.

That this sacrifice is altogether exceptional, however, and no indication of the true value of what remains, will be clearly seen by reference to the various items whereof it is composed (see previous page).

Taking these two statements together, it will be found that the operations of the trust, from 16th March, 1868, to 31st December, 1868, may be summed up as follows :

	Dr.	Cr.	Balance.
	\$ cts.	\$ cts.	
1. Railway and other Bonds were reduced.....	9,350 85		
This was charged to Profit and Loss Account.....		9,350 85	
2. Bills, Judgments, &c. (old), were reduced.....	809,484 10		
These were charged to Profit and Loss Account as—			
“Debts believed to be irrecoverable”.....		623,076 51	
Do. losses on debts compounded, less sundry amounts recovered.....		23,895 60	
Leaving a Balance realized of.....	809,484 10	646,972 11	162,511 99
3. Real Estate was reduced.....	187,784 15		
This was charged to Profit and Loss Account, as—			
“Losses on sales,” partly before, but chiefly since 16th March, 1868.....		112,911 56	
As “Payments to Lady Macaulay,” being in reduction of a Bond against Real Estate.....		4,600 00	
And there was credited to Profit and Loss account as gain on B. U. C. funds received in payment of lands, &c.....	19,499 73		
Leaving a Balance realized of.....	207,283 88	117,511 56	89,772 32
4. Real Estate Trust Account was reduced.....	200,014 46		
There were charged to Profit and Loss Account—			
As “Losses on lands” sold <i>since</i> November, 1866.....		111,918 87	
As “Expenses and commissions” charged by Glyn & Co.’s Trustees since March, 1868.....		4,197 97	
And there were handed to the Trustees of the Bank of U. C., old Mortgages for.....		3,314 96	
Leaving a Balance realized of, and applied in reduction of the amount due to Glyn & Co., of.....		80,582 66	
	\$200,014 46	200,014 46	
Balances carried forward to next table.....			\$252,284 31

MEM.—This forms part of the present Balance of Mortgages, and appears in the increase in that item.

	Dr.	Cr.
	\$ cts.	\$ cts.
Brought forward from previous table, sundry amounts to be accounted for..	252,284 31	
1. There was an increase of cash on hand in Bank of.....		6,320 06
2. There was an increase in Mortgages of.....		16,201 00
3. There was an increase in Bills, and other securities, of.....		17,400 00
4. There was a decrease in the circulation of.....		145,932 00
5. There was a decrease in the amount due to depositors of.....		27,441 36
6. There was a decrease of the amount due on new certificates of.....		3,329 28
7. There was a decrease in the balance due to the Government of.....		10,791 65
8. There were various items settled, and charged to Profit and Loss, in addition sums already accounted for, amounting in the aggregate to.....		28,183 92
9. There were Mortgages handed over to the Trustees, by Glyn & Co.’s Trustees, which form part of the above increase of Mortgages.....	*3,314 96	
	\$255,599 27	255,599 27

\*See previous table.

You will observe that we have hitherto confined our remarks to that period of time which is embraced in the dates, 16th March, 1868, and 31st December, 1868, because it was on the former date that we assumed office.

Any opinions formed upon such a partial view of the trust affairs, must necessarily be erroneous to some extent, and we shall, therefore, ask your attention to the following comparison of the Bank's position when the estate was *originally handed over to Trustees*, viz., 9th November, 1866, with its position at the present time.

You will thus be enabled to estimate more correctly what has been done.

We shall not trouble you with any lengthened remarks upon this statement, but shall merely leave the figures to speak for themselves.

ASSETS.	Balances on 9th Nov., 1866.	Balances on 31st Dec., 1868.	Increase since 9th Nov., 1866.	Decrease since 9th Nov., 1866.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1. Cash on hand and in Banks.....	41,943 24	13,622 13	.....	28,321 11
2. Government Debentures.....	17,591 99	.....	.....	17,591 99
3. Railway and other Bonds.....	35,282 52	12,811 67	.....	22,470 85
4. Bills, Judgments, &c. (old account).....	2,225,469 30	1,019,855 25	.....	1,205,614 05
5. Real Estate.....	1,673,623 37	979,778 08	.....	693,845 29
6. Mortgages (old account).....	62,580 85	54,707 83	.....	7,873 02
7. Mortgages (new account).....	.....	96,896 14	96,896 14	.....
8. Bills and Securities (new account).....	.....	17,400 00	17,400 00	.....
Total.....	\$4,056,491 27	2,195,071 10	.....	.....
<b>LIABILITIES.</b>				
1. Circulation.....	722,086 00	116,687 00	.....	605,399 00
2. Due to Depositors (old account).....	395,740 15	112,751 97	.....	282,988 18
3. " on new account Certificates. ....	.....	239,145 79	239,145 79	.....
4. Due to Glyn & Co.....	299,300 00	126,685 43	.....	172,614 57
5. Due to Government.....	1,149,430 75	1,122,639 10	.....	26,791 65
Total.....	\$2,566,556 90	1,717,909 29	.....	.....
Apparent surplus of Assets.....	\$1,489,934 37	477,161 81	.....	1,012,772 56

Balance Sheet of the Trustees of the Bank of Upper Canada, 31st December, 1868.

LIABILITIES.	\$ cts.	\$ cts.
1. Bank Notes in circulation.....	.....	116,687 00
2. Due to Depositors on old accounts.....	.....	112,751 97
3. Do. do. on new Certificates.....	.....	239,145 79
4. Do. Glyn & Co.....	.....	126,685 43
5. Do. Government.....	.....	1,122,639 10
Total Liabilities.....	.....	\$1,717,909 29
Balance available to meet bad and doubtful debts.....	.....	477,161 81
<b>ASSETS.</b>		\$2,195,071 10
1. Cash on hand, and in Bank.....	13,622 13	.....
2. Railway and other Bonds.....	12,811 67	.....
3. Bills, Judgments, &c. (old account).....	1,019,855 25	.....
4. Real Estate.....	583,787 25	.....
5. Do. "Trust account" (Glyn & Co.'s).....	395,990 83	.....
6. Mortgages (old account).....	54,707 83	.....
7. Do. (new account).....	96,896 14	.....
8. Bills, Securities, &c. (new account).....	17,400 00	.....
Total Assets.....	.....	\$2,195,071 10

With regard to this Balance Sheet, we desire to make the following observations :

1. The various amounts therein, represent *principal* only.

The interest has not been added, either in the case of the Assets, or the Liabilities.

2. The Assets are carried forward on the Balance Sheet, at the same valuations at which they were handed over by the Bank to the Trustees.

These figures by no means represent their true values, but after mature consideration, we have come to the conclusion, that it would be inexpedient to affix other figures in place of those here given.

In every instance in which Assets have been finally disposed of, they have, of course, been fully withdrawn from the Balance Sheet. The losses or gains upon them have been passed to Profit and Loss account.

In reference to the various items which compose the Balance Sheet, we would offer the following explanations :

1. As regards the Liabilities :

Items 1, 2, and 3, amounting to \$468,584.76, complete the whole principal sum due to the general public.

It would not be unreasonable to expect that some portion of this sum will never be called for.

Item 4 represents the amount due to Glyn & Co., and is secured by the item No. 5 in the Assets, called, "Real Estate Trust account." The real value of the property made over by the Bank to Glyn & Co., which still remains unsold, is probably \$200,000. They hold an absolute deed of it. There is, however, an agreement between them and the Bank, that any surplus remaining over after payment of their debt, with interest and charges, shall revert to the Bank's estate.

This item, therefore, is practically a debt, fully secured by real estate.

Item 5 represents the amount due to Government, as shewn by the *Bank's* books.

There is a difference between the books of the Bank, and the books of the Receiver General, as respects the amount due, the Government claiming a somewhat larger sum than that which appears on this Balance Sheet.

2. Turning next to the Assets, we would remark as follows :

Items 1, 7, and 8, amounting to \$127,918.27, may be looked upon as cash.

They are either cash or balances due on properties sold by the Trustees of the Bank, on which large payments have been made by the purchasers.

The balances are amply secured.

Item 2 represents a large amount of railway and other bonds, which we believe will realize the sum at which they are held in the Balance Sheet, viz., \$12,811.67.

Item 3. Bills, judgments, &c., constitutes the balance still outstanding out of those originally handed over by the Bank, and is the most difficult of all the Assets on which to venture an estimate. So far as we are able to form any opinion, we should judge that it may possibly be made to yield \$513,000.

Items 4 and 5. All the real estate has been carefully valued by parties resident in the various neighborhoods in which it lies, as well as by an officer in our employment, whose whole time and attention is given to its supervision.

We have ourselves examined all the larger properties, as well as directed personal enquiries, with a view to obtaining a thorough knowledge of their value.

Taking everything into account, we estimate that the whole of the real estate will yield about 60 per cent of the figures at which these items stand in the Balance Sheet, or say \$588,000.

Real estate trust account is that for which Glyn & Co. hold a deed.

Item 6 consists of old mortgages, many of which are valueless, from the existence of prior mortgages on the properties, and other causes.

We expect to realize from these mortgages, about \$8,000.

It will thus be seen, that we anticipate a large deficiency in the final winding up of the estate.

## List of Shareholders of the Bank of Upper Canada, 1st January, 1869.

NAMES.	RESIDENCE.	No. OF SHARES.
[Shares \$30 each.]		
Cynthea Ackerman.....	Picton.....	12
John Adams.....	Gore of Toronto, Castle Moor P.O.	54
Catherine Adams.....	St. Catherines.....	13
Mary Adams.....	do.....	12
Mrs. Susan Adams.....	do.....	20
James Adamson, Wharfinger.....	Toronto.....	196
Major General Sir Richard Airey.....	Care of Glyn & Co., London, Eng.	108
Hon. George Alexander.....	Woodstock.....	100
William Alexander.....	Toronto.....	40
Hon. George W. Allan.....	do.....	70
Hugh Allan.....	Montreal.....	40
Mrs. Mary Ann Ambrose.....	Township of Moore, Sarnia P. O.	23
Mrs. Sarah Amos.....	Hamilton.....	30
Mrs. Sarah Anderson, executrix Mrs. Susan Anderson.....	32 Torrington Place, Plymouth, Eng.	25
Robert Gray Anderson.....	Toronto.....	100
Miss Eliza Garland Anderson.....	Quebec.....	80
Edward Armstrong.....	Township of York.....	8
Mrs. Catherine Arnold, wife of Walter Arnold.....	Woodstock.....	176
Mrs. Monique Askin.....	Sandwich.....	22
Jacques Roy Audy.....	Ottawa.....	30
Mrs. Mary Austin.....	Tecumseth.....	7
Major Gen. Edward Aylmer.....	United Service Club, London, Eng.	50
Anna Maria Baldwin.....	Toronto.....	30
Admiral Hon. Augustus Warren Baldwin, deceased.....	do.....	284
Phebe Maria Baldwin, deceased.....	do.....	1
Robt. and Wm. A. Baldwin.....	do.....	5
Rev. Maurice S. Baldwin.....	Montreal.....	45
Miss Catherine Ball.....	Toronto.....	14
David Barker.....	Picton.....	22
Miss Mary Ann Barker.....	do.....	14
Jane Robinson Barnes.....	Buffalo.....	3
John M. Bartley, M. D.....	Dublin.....	12
Rev. Thos. Henry Marsh Bartlett.....	Montreal.....	27
Major James Barwick, deceased: Executors, Hugh E. Barwick, St. Catherines, and John Barwick, Woodstock.....	.....	47
Mrs. Agnes Barwick.....	Woodstock.....	6
John Barwick.....	do.....	70
John Barwick, Trustee for Mrs. Letitia Phillips Cottle.....	.....	48
Miss Anna Maria Battersby.....	Cayuga.....	31
Mary Battersby.....	Weston.....	37
John Palmer Battersby, Jr.....	Toronto.....	19
John Palmer Battersby.....	Guelph.....	15
Mrs. Elizabeth Bayley.....	London, Ont.....	57
Charles Beard.....	Bury St. Edmonds, England.....	20
John Beard.....	Woodstock.....	21
Beaufort & Sons.....	Montreal.....	14
Rev. Ed. Wm. Beaven.....	Matilda.....	2
George Beebe.....	Riversmont, Finglass Bridge, Dublin, Ireland.....	29
François Belanger (deceased): Pierre Belanger tutor for children.....	.....	8
Rev. William Bell (deceased): James Bell, acting Administrator.....	Perth.....	29
Walter George Bellairs.....	Toronto.....	3
Hon. Sir N. F. Belleau.....	Quebec.....	80
Capt. Wm. J. Bellingham.....	Dundalk, Ireland.....	55
Executors of John Benbon, viz., Hugh Miller, Charles Unwin and Donald McLean.....	.....	20
E. H. Benjamin, Post Office Department.....	Quebec.....	2
William Benjamin, Merchant.....	Montreal.....	2
Henry Edward Bennett.....	.....	20
William Beresz.....	D'Aillebout, C. E.....	42
Robert Berrie.....	6, Inverness Terrace, Bayswater, London, Eng.....	23

List of Shareholders of the Bank of Upper Canada, 1st January, 1869.  
—(Continued.)

NAME.	RESIDENCE.	NO. OF SHARES.
Ven. Alex. N. Bethune, D. D.....	Cobourg .....	66
Angus Bethune, deceased: Dr. Norman Bethune, Executor.....	Edinburgh, Scotland.....	63
Capt. Wm. H. A. Bottesworth.....	Dover, Eng. a.....	39
Julia Ann Veronica Bethune.....	Cobourg .....	80
Laura Biddle.....	Sarnia.....	9
Edward S. Birch, Bank Manager.....	Montreal .....	5
Thomas W. Birchall, Treasurer Kent Testimonial Fund.....	Toronto .....	14
Barbara Bissett.....	Port Hope .....	4
James Black, deceased, Duncan McFarlane, Executor.....	St. Catharines.....	46
William Blackwell.....	Polygon Cottage, Clifton, Bristol, Eng.....	23
Edward Hugh Blakeney, M. D., Asst. Surgeon R. C. R., care of T. C. Street.....	Niagara Falls.....	17
James Blott.....	Dunnville.....	67
Miss Maria Boake.....	Toronto .....	16
Anastasia Bogert.....	Brockville .....	32
William Bond.....	St. Andrews, C. E.....	50
Sir Richard Henry Bonnycastle, deceased, Lady Frances Bonnycastle, Executrix.....	Kingston .....	148
Miss Margaret Boog.....	St. Helier, Jersey.....	55
Peter Colin Campbell.....	Aberdeen, Scotland.....	
Wm. Patrick Allardice.....	Glasgow, Scotland.....	
Col. Arthur Borton, C. B., 9th Regiment.....		120
Richard Godfrey Bosanquet.....	No. 1 Bryanston Place, Bryanston Square, London, Eng.....	200
Joseph G. Bossé, Advocate.....	Quebec .....	33
Sir Chas. H. R. Boughton.....	Ludford Park, Ludlow, Shrop- shire, Eng.....	228
Mrs. Rosalind Boulton.....	Uxbridge, Eng.....	231
Washington Boulton.....	Township of Ancaster, Dundas P. O.....	67
Hon. G. S. Boulton and C. G. Buller.....	Cobourg .....	50
Mrs. Frances Boulton.....	Toronto .....	3
Charles Bowman, deceased.....		2
Wm. Thomas Boyd.....	Toronto .....	22
Geo. John Boyd.....	do .....	62
Henry Bradfield.....	Brockville .....	45
Jas. Foster Bradshaw, deceased.....	Quebec .....	17
Juliana Bramley.....	Richmond, Surrey, Eng.....	17
Thos. Charlesworth Bramley.....	Quebec .....	4
Charles Branch.....	London, Eng.....	30
Ann M. Breakenridge, deceased, Niagara, John G. Stevenson, Executor .....		44
Mary Brennan.....	Toronto.....	7
Miss Jane Bridger.....	Kingston .....	18
Thomas Brightwen.....	Great Yarmouth, Norfolk, Eng.....	50
Brockville Division No. 1 Sons of Temperance, John Grant, Treasurer.....		24
Walter Richard Brown.....	Toronto.....	110
Christopher F. Brown.....	Bellevue Redlands, Bristol, Eng.....	101
G. S. H. Brown.....	Kingsey, C. E.....	32
Judge Wm. Case Brown.....	Ogdensburg, N. Y.....	25
Miss Eliza C. Brown.....	Corwall .....	2
Charlotte Brown.....	Gore Landing, Township of Hamilton .....	28
John Brubacker.....	Berlin .....	32
Mrs. Elizabeth Brydone.....	King .....	28
Mrs. Elizabeth Brydone, parent and guardian of Andrew B. Brydone, a minor.....	do .....	1
Mrs. Mary Agnes Buchanan.....	Hawthorn Point, Hillier, County Prince Edward .....	25
Timothy Henry Buckley.....	London, C. W.....	10
George Buckland.....	Toronto .....	120
George Budden Bunscombe, R. E. Ordnance, Surrey Office.....	Edinburgh, Scotland.....	19

List of Shareholders of the Bank of Upper Canada, 1st January, 1869.  
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NAMES.	RESIDENCE.	No. of SHARES.
Edward Burstall.....	Quebec.....	1,017
George Wm. Burton.....	Barrister, Hamilton.....	50
Richard B. Butland.....	Toronto.....	7
Hon. Zacheus Burnham, deceased, A. A. Burnham, Executor...	Cobourg.....	1
Mrs. Elizabeth Burnham, deceased, A. A. Burnham, Cobourg, and J. G. Rogers, Executors.....	Township of Haldimand.....	24
Wm. F. Burke.....	Quebec.....	30
Miss Arabella F. Burns.....	St. Catharines.....	4
Edward C. Burke.....	Quebec.....	54
Thomas Burns.....	St. Catharines.....	14
Daniel Bryne.....	Toronto.....	12
Angus Cameron, deceased, George Michie, Executor.....	do.....	1
Archibald Cameron and the Rev. P. G. Bartlett, Trustees of S. B. Cameron.....	Kingston.....	45
Hon. J. H. Cameron, Trustee of Ellen Elizabeth Cameron.....	Toronto.....	3
Hon. J. H. Cameron, Trustee for John and Elizabeth Kaye....	do.....	16
Hon. J. H. Cameron, Trustee for Mrs. Elizabeth Clarke.....	do.....	16
A. J. Cambie, Bureau of Statistics and Agriculture.....	Ottawa.....	15
James Campbell.....	Toronto.....	150
Duncan Campbell.....	Simcoe.....	170
Capt. Wm. Campbell, deceased: J. Hastings Ottway, Executor..	86 Leeson street, Dublin, Ireland.	56
Miss Catherine Carmichael.....	Toronto.....	3
Charles Ingersoll Carrol.....	do.....	15
Jane Carroll.....	Ottawa.....	3
G. Carruthers, W. Haslie, and H. C. Hogg, Executors of R. W. Starr.....	.....	16
Thomas Carscadden.....	Pieton.....	2
Edward Carter and Henry G. Rudden, Trustees of Wm. Hepburn	Montreal.....	28
Rev. Conway E. Cartwright.....	Pine Grove.....	4
Executors of J. S. Cartwright, viz., Sarah H. Cruikshank, P. Diehl, T. W. Robison and J. R. Forsyth.....	Kingston.....	32
George E. Castle, Trustee for his minor children, Emily Sarah Castle, and Mary Grace Castle.....	Cobourg.....	1
Mary Magdalen Cartwright, now Mrs. J. D'Arcy Cayley.....	Toronto.....	16
Rev. J. D'Arcy Cayley.....	do.....	20
Hon. William Cayley.....	do.....	7
Edward Cayley.....	do.....	2
Francis M. Cayley.....	East Grinstead, Sussex, England	161
Robert Cellem, Trustee for Mary Cellem and family.....	.....	8
Julien Chabot.....	Quebec.....	20
Miss Jane Chadwick.....	Drummondville.....	15
Benjamin Chaffey.....	Brockville.....	40
John Chapman.....	Bury St. Edmunds, Eng.....	10
William Chapman.....	do.....	30
Mrs. Hannah Charles.....	Toronto.....	13
John Chalmers.....	Quebec.....	125
Lieut. Col. Charles Chichester (deceased); Lady Mary B. Chi- chester, Executrix.....	.....	66
Frederick Childs.....	Hamilton.....	150
Mrs. Harriet Chisholm.....	Esquering.....	3
Robert Christie, deceased.....	Quebec.....	4
Church Society, Diocese of Toronto.....	Toronto.....	22
do Diocese of Huron.....	do.....	48
Church of England, Female Orphan Asylum of.....	Quebec.....	16
John Clanaghan.....	London.....	5
Joseph Dorland Clapp.....	Hillier, County Prince Edward...	14
George Thomas Claris.....	St. Thomas.....	6
Miss Margaret Matilda Claris.....	Buffalo.....	24
Miss Mary Isabella Clarke.....	London, Eng.....	16
Charles Clarke.....	Leamington P. O., Gosfield.....	11
Rev. J. S. Clark.....	Saratoga, N. Y.....	94
Wm. Thompson Clevedon.....	Toronto.....	29
James Cobban, M. D. (deceased): Geo. Brown, J. Harrison and F. McCallum, Executors: F. McCallum, Acting Executor...	.....	80

List of Shareholders of the Bank of Upper Canada, 1st January, 1869.  
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NAMES.	RESIDENCE.	No. OF SHARES.
Rev. Wm. Cochrane; deceased.....	Red River.....	170
Hannah Maria Cochrane.....	Trenton.....	32
Martha Theresa Colman.....	Montreal.....	204
William Colquhoun.....	Dickinson's Landing.....	1
Miss Elizabeth Cook.....	South Cayuga.....	129
William Cook.....	Maple P. O., Vaughan.....	40
John Cook, Banker, and Mrs. Cecilia Cook, Widow, Executor and Executrix of will of Sarah Thyne.....	Alkhart, Goshen Co., Indiana.....	57
Wm. Clamp Cook.....	Toronto.....	67
William Cooper, deceased, Isabella Cooper, Port Colborne, Executrix (Rev. W. E. Cooper, Administrator of I. Cooper).....	Port Colborne.....	50
Mrs. Isabella Cooper, deceased, Rev. W. E. Cooper, Administrator.....	do.....	45
Timothy Cooper.....	Nelson.....	6
Chas. Wm. Cooper.....	Mohawk.....	112
Daniel Cooper.....	Niagara.....	6
James Corbett, R. E. Department.....	Maple Cottage, Old Windsor, Berkshire, Eng.....	18
Mrs. Armanella Corbett.....	Drummondville.....	48
Edward Cornwall.....	Trafalgar.....	40
Matthew Corry, M. D.....	Stamford.....	55
Mary Corwin.....	Fenwick.....	20
John Corwin, deceased, John Kerr, Jacob Garner, Catherine Corwin, of Stamford, and J. R. Henderson, of Petham, Executors.....		21
Mrs. Catherine Corwin (widow).....	Stamford.....	10
Thos. John Cottle.....	Woodstock.....	120
Emile Coulon.....	Toronto.....	9
Alphonse Coulon.....	do.....	4
Caroline Counter.....	Kingston.....	2
George Counter.....	do.....	2
John Counter.....	do.....	1
John Counter, Jr.....	do.....	2
Mary Anne Cowan.....	Quebec.....	2
Wm. and Jane Cowan, parents and guardians of Thos. Cowan, a minor.....	Thorold.....	1
Wm. Orr Cowan.....	Thorold.....	1
Miss Eliza Cox.....	London.....	120
Capt. Adam Williamson Cradock, care of H. A. Wood, Esq., S. G. Constabulary.....	Albeylieux, Queen's County, Ireland.....	49
Rev. Thomas Green.....	Niagara.....	80
William Cream.....	Quebec.....	100
Miss Gertrude Creighton.....	Toronto.....	1
Miss Eleanor Eliza Creighton, Trustee.....	do.....	5
William R. Croil.....	Osnabruock.....	9
Margaret Cross.....	St. Catharines.....	3
Adam Crooks.....	Toronto.....	15
George Cruikshank.....	Montreal.....	30
Major General Chas. Crutchley.....	Chelsea, Eng.....	139
James Cummings.....	Chippawa.....	10
Lenox Cunningham, M. D.....	1, Royal Naval Hospital, Haslar, Gosport, Eng.....	28
David Cunningham, Metre Inspector, Gas Company.....	Montreal.....	21
Col. Robert Alex. Cuthbert, care of Stilwell & Co.....	22, Arundel street, Strand, London, Eng.....	200
Mrs. Mary Jane Curran.....	Ottawa.....	12
James Dakere.....	Montreal.....	28
Mrs. Sarah Charlotte Dalkin.....	Quebec.....	80
Mrs. Mary B. Dampier.....	Bruton, Somersetshire, Eng.....	64
John L. Dampier, in trust for Lawrence Henry and Edward Dampier, minors.....	London, C. W.....	7
Nehemiah Dancy.....	Toronto.....	4
Miss Mary Anne Darley.....	Pictou.....	20

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NAMES.	RESIDENCE.	NO. OF SHARES.
Mrs. Sophia L. Darling.....	Orillia.....	24
Mrs. Jane L. Darrak, widow.....	Maryon Road, Woolwich, Kent Eng.....	282
Rev. Wm. David.....	St. Faquies Rectory, Glamorgan, S. Wales.....	100
Richard Davies.....	Tecumseth.....	68
Mrs. Martha Dawson.....	Quebec.....	16
John Day.....	.....	43
Francis Day.....	.....	28
Thomas Dean.....	.....	58
Robert H. Dee, deceased, Elizabeth Dee, Executrix.....	Stamford.....	12
Edward B. De Fonblanque.....	6, Duke Street, Westminster, Lon- don, Eng.....	80
Antonio Jose De Mariateque, care of Drake, Kleinwort & Co.....	London, Eng.....	50
Elizabeth Sophia Denison.....	Quebec.....	48
A. W. Denmark.....	Seymour.....	22
Miss Eliza Derbishire.....	Quebec.....	40
Mrs. Martha Derbishire, widow.....	Lennoxville.....	5
George E. Desbarats.....	Quebec.....	33
George E. Desbarats, Advocate, and Mrs. Louisa P. Desbarats, widow, executors of will of George Desbarats, deceased.....	Quebec.....	418
John Devlin.....	Montreal.....	9
Plummer Dewar.....	Hamilton.....	50
John Dewe, P. O. Inspector.....	Toronto.....	50
William Dewar.....	Hamilton.....	80
Mrs. Jane Diamond.....	Bowmanville.....	17
William Dickson.....	Galt.....	90
James Dickson, deceased, Mrs. Harriet Dickson, Executrix.....	Three Rivers.....	5
Mrs. Harriet Dickson, widow.....	do.....	40
Benj. Homer Dickson, Trustee for Harriet E. M. Boulton.....	Toronto.....	12
Peter Diehl.....	do.....	68
Peter Diehl, Toronto, and T. W. Robison, Kingston, Trustees for Mrs. Bowen Van Stranbanzee.....	.....	16
John Dingman.....	Pictou.....	8
Jesse Doan.....	East Gwilliambury.....	30
Eliza Dobbins.....	Kingston.....	2
William Dodd.....	Port Hope.....	8
Harriet Dolier.....	Belleville.....	13
John Donald.....	Dalhousie, County Lanark, Mo- Donald's Corners P. O.....	4
Philip A. and Stephen H. Dorland.....	Pictou.....	26
John Dorothy.....	Toronto.....	16
James Dorr.....	Quebec.....	32
William Dougall.....	Hallowell, Prince Edward District, Goderich.....	100
James Douglas.....	.....	3
Rev. John Douse.....	Ottawa.....	30
John P. Downes.....	Pictou.....	168
Miss Priscilla Driscoll.....	Toronto.....	50
John Humphrey Drinkwater.....	Orillia.....	61
John Drinkwater.....	Farnham, Eng.....	4
James Drury, deceased, Thomas Drury and Hannah Henderson, Executor and Executrix.....	West Essa.....	40
John Drummond, farmer.....	Petite Côte.....	136
George Duggan.....	Toronto.....	238
Ed. H. Duggan.....	do.....	6
Miss Eliza Duncan.....	do.....	2
Chas. E. Dunn.....	do.....	6
Chas. E. Dunn, St. Ursule, Three Rivers, and R. Gilmour, Toronto, Trustees for Mrs. E. C. Zimmerman.....	St. Ursule, Three Rivers.....	167
Dr. William Durie.....	Toronto.....	80
Miss Mary Durnford.....	Toronto.....	61
William Eccles.....	Montreal.....	40
Richard P. Edmonds.....	St. Catharines.....	70
Miss Caroline Edwards.....	Tricknell House, Reading.....	82
.....	Pictou.....	3



List of Shareholders of the Bank of Upper Canada, 1st January, 1869.  
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NAMES.	RESIDENCE.	No. OF SHARES.
Rev. Chas. B. Elliott.....	Tattingston, near Ipswich, Eng..	200
Edward G. Elliott, R. N.....	Greenhill, Kinsale.....	32
Major General Poole England, and C. L. England, his wife.....	Dover.....	66
John Emmerson.....	County Victoria, New Brunswick	70
Frances Ermatinger.....	St. Thomas.....	56
Mrs. Achsah Ermatinger.....	do.....	58
E. Ermatinger, Executor of E. Spiers.....	do.....	12
Major John H. Esten.....	Newmarket.....	137
J. Bell Ewart, deceased, Mary Ewart, John Ewart, England, Lieut. Col. D. Ewart, Jas. McIntyre, Hamilton, and Adam Crooks, Executors.....	Toronto.....	11
Robert Fair.....	Victoria Corners P. O., Brock....	12
Miss Mary Falconbridge.....	Drummondville.....	40
Major John S. Farrell.....	.....	20
John Ferris.....	Toronto.....	22
Samuel P. Finch.....	Quebec.....	70
Martha A. Finalay.....	Brockville.....	26
Miss Jane Finkle.....	Kingston.....	5
Lonis Fiset.....	Quebec.....	50
— Fiset, Advocate.....	do.....	5
R. Fitzimmons.....	Brockville.....	3
Henry W. Filton.....	Toronto.....	107
Major W. H. Fitzgerald, 68th Regiment.....	.....	23
Edward Fitzgerald, Prothonotary.....	Toronto.....	22
Miss Mary Flint.....	Woolwich.....	7
Mary Grace Foote.....	Oakville.....	32
Duncan Forbes.....	Niagara.....	3
John R. Forsyth.....	Kingston.....	200
Hetherington Foster.....	Toronto.....	31
Fife Fowler, M. D.....	Kingston.....	27
George Fox.....	Kingsbridge, Devon, Eng.....	20
George Frampton.....	Poole, Eng.....	50
Mrs. Martha S. Fraser.....	Quebec.....	6
James Fraser, Executor of John Jenkins.....	Kingston.....	58
Rev. George Frost.....	28, Kensington Square, London..	49
Rev. P. Frost.....	Brighton, Eng.....	49
Mrs. Cynthia Fuller.....	Toronto.....	172
Rev. T. B. Fuller.....	do.....	29
Daniel Galbraith.....	Scarboro.....	192
Mrs. Martha M. Gale.....	Quebec.....	40
Thomas Galt.....	Toronto.....	1
Clarke Gamble, in trust.....	do.....	3,948
Charles Gardiner.....	Elizabethtown, County Leeds....	9
George Gardiner.....	Yonge.....	8
Joseph Gardiner.....	Toronto Township.....	3
Pierre Garneau.....	Quebec.....	6
Dorothy E. Gaudet.....	do.....	32
Trustee of E. J. George (a minor), viz., Rev. Wm. Cochrane.....	Laprairie.....	40
Robert Gibb.....	Moore.....	23
William Gibson.....	Storrington.....	8
Mrs. Ann Gibson, Wilmington, Illinois, died 7th Nov., 1867; stock bequeathed to Mrs. W. Francis Pope.....	Box 429, Wilmington, Illinois....	12
John Gibson, Storrington, Thos. Kirkpatrick and T. S. F. Kirkpatrick.....	Kingston.....	20
Mrs. E. Gilbert.....	Toronto.....	14
Mrs. Christiana Glass.....	Sarnia.....	26
Charles Glassford.....	Edwardsburgh, C. W.....	12
G. G. Glyn and St. L. R. Glyn.....	67, Lombard St., London, Eng...	500
Miss E. Anne Goldie.....	Jersey.....	40
Barbara Golightly.....	Perth.....	2
William Gooderham.....	Toronto.....	129
Henry R. Goodman.....	St. Catharines.....	80
J. R. Gowan.....	Barrie.....	2
Frederick Graham.....	Rach.....	5

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NAMES.	RESIDENCE.	No. of SHARES.
Mrs. A. Graham, Trustee for Joseph Graham.....	Rach .....	4
Mrs. A. Graham.....	Rach .....	23
Peter Graham.....	Kingston .....	32
Arthur Grantham.....	Toronto .....	94
Rev. Elliott Grasett.....	Simcoe .....	26
Rev. H. J. Grasett.....	Toronto .....	64
Rev. H. J. Grasett, in trust for Henry J. Grasett.....	.....	2
Rev. H. J. Grasett, in trust for Frederick Grasett.....	.....	1
Rev. H. J. Grasett, in trust for George Grasett.....	.....	2
Rev. H. J. Grasett, in trust for Agnes S. Grasett.....	.....	1
Rev. H. J. Grasett, in trust for Henrietta G. Grasett.....	.....	1
Rev. H. J. Grasett and Hon. J. H. Hagerty, Trustees for M. H. Gates .....	.....	8
Rev. H. J. Grasett, in trust for A. W. Grasett.....	.....	2
Rev. H. J. Grasett and Rev. H. Scadding, in trust for Francis J. Baldwin .....	.....	1
Mrs. Martha Graveson.....	Niagara .....	35
William Green .....	Bothworth, County Peel.....	9
Rev. Anson Green, D. D.....	Toronto .....	13
John Greenshields, in trust for E. M. Black, his wife.....	Montreal .....	74
Miss Sophia H. Griffin, care of W. H. Griffin, P. O. Department.	Ottawa .....	67
William H. Griffin, do .....	do .....	11
Henry H. Griffin.....	do .....	12
Henry E. Gunn.....	Kingston .....	1
Hugh W. Gwynne .....	Quebec .....	24
John W. Gwynne.....	Toronto .....	24
C. S. Gzowski.....	do .....	50
John Hacking.....	do .....	294
Ann C. Hagaman.....	Lot 21, Con. IV., Whitechurch.....	85
George Hague.....	Kingston .....	9
Jane C. Haight.....	Toronto .....	10
C. B. Hall, M. D.....	Pictou.....	4
Mary Hall.....	Toronto .....	50
George Hallen, Jr.....	Pictou .....	1
Arabella D. H. Hallen.....	Dundas.....	22
Lieut. Col. W. R. Halliday, care of Cox & Co.....	do .....	22
George Hamilton.....	London .....	70
Robt. H. Hamilton.....	Toronto .....	467
Hon. J. Hamilton, John Paton, T. Kirkpatrick and A. S. Kirkpatrick, Trustees for Jane C. McPherson.....	Montreal .....	20
R. Douglas Hamilton, deceased, J. Williamson, Bosanquet, and C. Neilson, Executors.....	Kingston .....	274
Orton Hancox.....	Widder .....	12
Mrs. Mary Hancox.....	Bath, C. W. .....	323
William Hannington.....	do .....	53
Elizabeth Hardie, now Smith.....	Oakville .....	13
Timothy H. Hardy, deceased, J. L. Hardy, Executor.....	London .....	23
Mrs. Julia L. Hardy.....	Quebec .....	5
John Hariey, deceased, Susanna M. Harley, Administratrix.....	Quebec .....	5
Rev. James Harris .....	Scarboro .....	95
Mrs. Elizabeth Harris.....	Kemptville.....	19
Miss Margt. M. Harris.....	Toronto Township.....	19
Elizabeth Mary Harris.....	do do .....	33
Arthur B. Harris.....	do do .....	40
J. Beveridge Harris.....	do do .....	11
J. Beveridge Harris, Trustee for Lucy L. and Anne S. Harris, minors.....	do do .....	22
Samuel Hart.....	do do .....	36
Jas. A. Harvey, deceased, Barbara and Jas. Harvey and John Marjoribanks Lawder, Executors.....	Cornwall.....	60
Mrs. Esther Harvey.....	Niagara .....	77
Mrs. Jane Harvey.....	St. David's.....	34
Arthur Harvey.....	Quebec .....	10
Miss Augusta Hassard.....	do .....	20
	2, Chattern Terrace, Kingston-on-Thames, England.....	153

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NAMES.	RESIDENCE.	No. of SHARES.
Mary Hatt, deceased.....	Port Hope .....	45
John Harr.....	Scarboro.....	27
Capt. W. H. W. Hawtayne.....	Quebec .....	30
William G. Hayward.....	Bridge street, Reading, Eng.....	30
Rev. Isaac Hellmuth, D. D.....	London.....	106
Jane and Anne F. Henderson .....	Boose's Place, Plymouth, Eng....	25
James A. Henderson.....	Kingston .....	2
Mrs. Ann Henderson.....	Toronto .....	11
Philip Henry.....	Montreal .....	10
Rev. W. M. Herchmer.....	Kingston .....	140
Miss Jane C. Herchmer.....	do .....	12
Andrew Heron.....	Niagara .....	20
Catherine D. Heron.....	do .....	2
Thos. W. Herrick.....	Toronto .....	81
William Hewlett.....	do .....	5
Miss Mary Hicks.....	41, Gray's Inn Road, Upper North Place, London, Eng.....	24
Philip Francis St. Hill.....	Quebec .....	60
Arundel Hill.....	Clear Lake, Dunner.....	14
H. L. Hime.....	Toronto .....	20
Miss Mary Ann Hinds.....	Kingston .....	42
Thomas Richard Hislop.....	Cott's Gate Hill, Ripon, York- shire, Eng.....	24
Capt. Thomas Hodgetts.....	London, C. W.....	7
Henry Hodgson.....	Beaverton .....	27
Miss Isabella Hogg.....	King .....	1
William Hogg.....	York Mills .....	1
Thos. Holcroft.....	West Oxford.....	6
Erastus Holden.....	Belleville.....	20
William Holditch.....	2, Clarendon Terrace, Plymouth, Eng.....	100
Rev. Henry Holland.....	St. Catherine's.....	10
Jane Amelia Holland.....	London, C. W.....	8
Charles Holland, G. W. Railway.....	Hamilton .....	6
J. R. Homtray and Rev. F. W. Edmonds .....	Glamorgan, South Wales.....	30
Alfred Hooker.....	Prescott .....	72
Edward Hooper.....	Toronto .....	250
Mrs. Frances Hopkins.....	Niagara .....	70
J. Holmes Hopkins.....	Lindsay .....	1
Lucy Smith Hore, and Charity Hore.....	10, Bellevue Place, Plymouth, Eng.....	104
James Smith Hore.....	Dartmouth Villa, Canonbury Park, North Islington, London, Eng.....	56
Miss Amelia S. Hosener, care of T. C. Street.....	Niagara Falls.....	75
John Houlston.....	Three Rivers.....	9
James Hoy, Civil Service.....	Ottawa .....	134
Paul Hua.....	Montreal .....	10
Alex. Hubbs.....	Township of Hallowell.....	5
Rev. Joseph Hudson.....	Hexam, Eng.....	63
Nicholas Hugo.....	Kingston .....	25
Roderick Hagonis.....	Halifax, N. S.....	80
Miss Henrietta Hunt.....	Quebec .....	120
Miss Catherine Hunter.....	Port Talbot.....	34
Mrs. Jane Hunter.....	do .....	16
Miss Fanny Talbot Hunter.....	do .....	34
William Hunter.....	do .....	34
Thos. G. Hurd, Adam Crocks, and Edwin Epsworth W. Hurd, Trustees under marriage settlement of Eliza M. Hurd.....	.....	36
Frederick I. Hutchison, 64th Regiment.....	.....	186
Ionic Lodge Free and Accepted Masons.....	Toronto .....	1
Incorporated Synod, Diocese of Ontario, in trust for Mission Fund.....	do .....	71
Incorporated Synod, Diocese of Ontario, in trust for Cornwall Parochial School.....	do .....	1

List of Shareholders of the Bank of Upper Canada, 1st January, 1869.  
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Names:	Residence.	No. of Shares.
Incorporated Synod, Diocese of Ontario, in trust for Cornwall Parochial School Endowment.....	Toronto .....	2
Incorporated Synod, Diocese of Ontario, for Widows' and Orphans' Fund .....	do .....	3
Rev. Chas. L. Ingles .....	Drummondville.....	38
Emily C. Ingles .....	do .....	5
Mrs. Jean Ironsides .....	Dundas.....	10
George Irvine.....	Quebec .....	18
Mrs. Hannah M. Irving.....	Drummondville.....	84
Æmilius Irving .....	Hamilton .....	130
Æmilius Irving and Henry Erskine Irving.....	do .....	30
Henry Erskine Irving.....	do .....	30
Samuel Ivor.....	St. Thomas.....	81
William Jago.....	Montreal .....	4
Mrs. Frances Jameson .....	Quebec.....	30
John Jardine.....	Algonquin .....	10
Geo. Stephen Jarvis.....	Cornwall.....	84
Richard Jeffrey.....	Nissouri.....	12
Edward Jeffs.....	West Gwillimbury.....	21
Rev. Francis Jeune, D. D. ....	Oxford .....	100
Reuben Miller Johns, deceased, Alder Johns, Executor.....	Elizabethtown.....	80
Mrs. Isabella Johnson.....	Cobourg .....	22
Rev. W. A. Johnson.....	Weston .....	9
Robert Johnson.....	Toronto .....	6
Cecilia Johnson, Alice Johnson, and James Johnson, Joseph Wilson, guardian.....	Sault Ste. Marie.....	23
Robert D. G. Jones, deceased, Eliza Jones, Representatrix.....	Ancaster.....	13
Chas. Arthur Jones.....	Toronto .....	5
Miss Catherine Jones.....	Brockville .....	4
Wm. Herbert Jones.....	Quebec.....	65
Edwin Allen Jones.....	do .....	33
Clarkson Jones.....	Toronto .....	10
Abraham Joseph.....	Quebec.....	140
Josiah Jowett.....	Morpeth .....	32
Henry Keevil.....	8, Thomas street, Bath, Eng.....	23
James Keith, in trust.....	Beauharnois .....	13
James Keith.....	do .....	68
Roderick D. Kennedy.....	Bath, C. W.....	6
Rybert Kent.....	Kingston .....	80
Miss Belinda Kent.....	do .....	20
Edward Kent, Registration Office, Great Northern Railway.....	King's Cross, London, Eng.....	51
Jas. Kirkpatrick Kerr.....	Toronto .....	86
Eliza King, Trustee for Evangela King, a minor.....	Orillia.....	8
Brinsley King.....	Quebec .....	2
William Kingsford.....	Toronto .....	50
Rupert E. Kingsford.....	do .....	2
Fred. W. Kingstone.....	do .....	10
Arthur J. Kingstone.....	Elarton, Warkwick, Eng.....	200
Thos. Kirgan, deceased, Margaret McLean, Executrix.....	do .....	15
Thomas Kirby, deceased, Alice Kirby, Executrix.....	do .....	8
Thomas Kirkpatrick and P. Dollard, Trustees.....	Kingston .....	40
Thomas Kirkpatrick, Kingston, Charles Unwin, Toronto, Trustees under marriage settlement of Charles Unwin and Elizabeth, his wife.....	do .....	87
Thomas Kirkpatrick and George Baxter, for Kingston Permanent Building Society.....	Kingston .....	120
Thomas Kirkpatrick.....	do .....	153
William W. Kirkpatrick.....	do .....	4
Miss Marianne Kirkpatrick.....	do .....	3
Mrs. Helen Kirkpatrick.....	do .....	6
Thos. Wm. Kyle.....	Montreal .....	24
La Caisse D'Economie, Notre Dame de Québec, François Vezina Secretary and Treasurer.....	Quebec .....	120
Ladies' Protestant Home.....	do .....	9

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NAMES.	RESIDENCE.	No. OF SHARES.
Thomas Lagalle.....	Quebec.....	100
John Laidley, care of Barron & Smith.....	6, Duke street, Westminster, London, Eng.....	45
Patrick S. Laing, care of Cox & Co.....	London.....	16
Antoine G. Lajoie.....	Quebec.....	64
Edmund S. Lally.....	Barrie.....	200
Samuel L. Lane.....	Montreal.....	20
Gilbert H. La Rueg.....	Quebec.....	5
Priscille Lavasseur.....	do.....	3
Lawrence Lawrason.....	London, C. W.....	205
Mrs. Jane Layton.....	Manatowaning Island.....	19
Wm. Henry Lee, Clerk Executive Council.....	Ottawa.....	63
Arabella Lee.....	Niagara.....	14
Ralph Leeming.....	Dundas.....	17
James Leeming.....	do.....	17
Braithwaite Leeming.....	do.....	33
Robt. Land Leeming.....	Gladford, County Wentworth.....	17
William Leeming.....	do do.....	17
Lieut. Col. John Henry Lefroy, R. A.....	.....	121
Col. Thomas Le Marchant, R. E.....	.....	65
Henry Le Mesurier.....	Quebec.....	24
Andrew Lemon.....	Guelph.....	160
Arthur Lepper.....	Toronto.....	40
Rev. Abraham Le Sueur.....	Rectory, Granville, Jersey.....	45
William Leslie, deceased, Alex. Sinclair Moore, Executor.....	.....	22
Anthony Leslie.....	20, Alfred Place, Brampton, Eng.....	80
Jane Lester.....	Indiana, C. W.....	6
Sarah Lester.....	do.....	4
Margaret Lester (formerly Mussen).....	do.....	9
Mrs. Sarah Levesconte.....	Belleville.....	80
Miss Rose Henrietta Levesconte.....	do.....	29
Alfred Jarvis Lindsay.....	Toronto.....	67
Michael Lindsay, deceased, Phoebe Lindsay, Executrix.....	Hornby, County Halton.....	16
David Lloyd.....	Llwyn, Nautwel, Kingston, Rad- norshire, Wales.....	60
Christopher L. Lloyd.....	Quebec.....	20
James Logie.....	West Flamboro.....	145
Robert Lomas.....	Quebec.....	20
William London, Toronto, John Burgough, Whitby, and Mary A. Wilson, Executors of G. Wilson, deceased.....	.....	4
Alex. Hamilton Loughman.....	Corfu.....	180
Nathaniel Low.....	Nanticoke.....	32
Thomas Lynes, Administrator of estate of Charles Lynes, deceased.....	Township of North Norwich, County Oxford.....	8
Thomas Lynes.....	North Norwich.....	3
Jane Lyons, deceased, Charles Mitchell, Executor.....	Woodburn.....	23
Miss Emily McArthur.....	Dublin.....	160
James McArthur, deceased, James McArthur, Executor.....	London, C. W.....	100
Rev. William Macaulay.....	Pictou.....	81
Mrs. Charlotte S. Macaulay.....	do.....	4
Mrs. Anne Gee Macaulay, deceased, Miss Anne J. Macaulay, Ride Court, Rochester, Kent, Eng., and I. G. Norton Darby, Lincoln's Inn, London, Eng., Executors.....	.....	49
George Macbeth.....	London, C. W.....	562
George Macbeth.....	London or Port Talbot.....	80
Andrew Taylor McCord, Toronto, Trustee for Elizabeth Lepper.....	.....	13
Thomas McCormick.....	Niagara.....	60
Andrew Taylor McCord.....	Toronto.....	10
Rev. Malcolm McDonald.....	Stanslead, C. E.....	140
D. Mitchell McDonald.....	Toronto.....	1
W. John Macdonell.....	do.....	19
Jas. Stock, President, and William J. Macdonell, Manager, Savings' Bank.....	do.....	467
James Macdonell.....	do.....	1

List of Shareholders of the Bank of Upper Canada, 1st January, 1869.

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NAMES.	RESIDENCE.	No. of SHARES.
Daniel McDougall.....	Niagara .....	40
Michael McDowd.....	Toronto .....	6
Alexander McFarlane.....	Etobicoke.....	9
Rev. Robert McGill, deceased.....	Montreal.....	24
William McGivern.....	St. Catharines.....	16
John F. McGlashan.....	Stamford, County Welland.....	50
James G. McGrath.....	South Quebec .....	24
Mrs. Isabella McGreever.....	Glanford.....	17
Thomas McGreevy.....	Quebec .....	360
Thomas McIlwraith.....	Hamilton .....	16
Mrs. Georgianna J. McIndoe, wife of William D. Meikle.....	Quebec.....	40
James McIntyre, Hamilton, and Rev. C. J. S. Bathune, Cobourg, in trust for Jane Frances Bethune, wife of R. H. Bethune .....	Hamilton .....	12
James Clark McKeand.....	do .....	40
Miss Barbara McKeand .....	do .....	25
Arch. V. McKeand.....	do .....	35
Mrs. Philes McKee.....	Sandwich.....	22
Mrs. Isabella McKenzie.....	London, C. W.....	22
Mrs. Sarah Mackenzie.....	Port Hope.....	184
Mrs. Sarah Mackenzie, in trust.....	do .....	40
John G. Mackenzie.....	Montreal .....	16
Mrs. Lucretia Mackenzie.....	Belleville .....	68
Rev. George Mackie, D. D., Vicar of Chilners .....	Coten, Warwickshire, Eng.....	80
Margaret McKirdy, now Haymaker.....	London .....	1
Donald McLean.....	Township of Morris, Huron.....	5
John McLean.....	Montreal .....	60
Mrs. Jane McLeod.....	Kingston .....	114
James McMaster.....	Toronto .....	29
Daniel McMichael.....	do .....	200
Mrs. Maria O. McMicking.....	Chippawa.....	121
Alexander McMillan, deceased, Roderick Matheson, Executor.....	Perth.....	56
Duncan McMillan.....	Grenville.....	10
Mrs. Sarah McNicol.....	Glasgow, Scotland.....	120
Hon. D. L. Macpherson.....	Toronto .....	156
Robert B. McPherson.....	Thorold .....	27
Dr. Calvin McQuesten.....	Hamilton .....	406
Richard Machell.....	Aurora .....	20
Mrs. Ann Macklem.....	Chippawa.....	23
Mary C. Maddison, Trustee for Edward W. R. Maddison, a minor	Toronto .....	1
John Mair.....	Lanark .....	20
William Sheaison Mairs.....	Tecumseth .....	13
Alfred A. Malet.....	.....	108
Edward Malloch, deceased, Mrs. Margaret Malloch, Executrix.....	Ottawa .....	160
Right Hon. Earl of Mansfield.....	.....	540
Frederick Mantovani.....	Pavia, Lombardy.....	80
Jane Bennett Marks.....	Kingston .....	160
Jane Marshall.....	Pictou .....	11
Richard Martin.....	Cayuga.....	13
Edward Martin.....	Hamilton .....	20
J. Herbert Mason.....	Toronto .....	40
J. A. Mathieson.....	Cavignol, Vaudreuil .....	16
William Mathers, deceased.....	Toronto .....	190
William Matthie, deceased, John Ross and Geo. Easton, Executors.....	Brockville .....	31
Joseph Hooper Mead.....	Toronto .....	400
Mrs. Susanna Meik.....	Bath, Eng.....	36
Rev. William Meldrum.....	Harrington P. O., County Ox- ford .....	60
Mrs. Zipporah A. Meneilley.....	Niagara .....	2
Thos. Fraser Meneilley, a minor.....	Kingston .....	1
Charles Merritt.....	St. John, N. B.....	60
James Metcalfe.....	York Township.....	8
John Mewburn, D. D., Trustee for Miss Margaret Davison.....	Stamford .....	5

## List of Shareholders of the Bank of Upper Canada, 1st January, 1869.

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NAMES.	RESIDENCE.	No. OF SHARES.
Edward Mihell.....	London, C. W.....	27
Edward Mihell, Jr.....	do .....	2
Edward M. Miles.....	Toronto .....	8
Mrs. Eliza Miles.....	Sarnia.....	28
Walter M. Mills.....	Woodstock.....	40
Mrs. Anne Miller.....	Toronto .....	60
Rev. John Miller, St. Paul's Parsonage.....	Preston.....	50
Elizabeth Milne and Robert Armstrong, Executors of Peter Milne.....	.....	26
John F. Mittleberger.....	St. Catharines.....	9
Miss Helena C. Mittleberger .....	do .....	22
William Moore.....	Quebec .....	40
George Monro.....	Toronto .....	91
Montreal Fire and Life Assurance Company, W. Murray, Manager.....	.....	339
John J. Morgan, deceased, J. A. Dix, Administrator.....	New York.....	56
John Morgan.....	3, Sussex Place, Hyde Park, London, Eng.....	20
Miss Marie E. Malvina Morley.....	Montreal.....	50
Edward Morris.....	Tecumseth.....	15
Hon. James Morris, deceased, Emily Morris, Perth, W. Sher- wood, Brockville, and J. H. Morris, Executors.....	Toronto .....	18
William Morrow.....	do .....	2
Mary Frances Mortimer.....	do .....	16
Rev. Arthur Mortimer.....	do .....	40
Herbert Mortimer.....	do .....	2
Arthur Lee Mortimer.....	.....	1
Benjamin Morton.....	Toronto .....	77
Henry R. Morton.....	do .....	12
Thomas Mossington.....	Georgina.....	34
Mrs. Mary Ann Mossington.....	do .....	2
Rev. J. J. S. Mountain, Milston Rectory.....	Amesbury, Wiltshire.....	132
Mrs. A. M. Mountain.....	Cornwall.....	34
Samuel Muckleston.....	Kingston.....	103
Municipality of Hillier, County of Prince Edward, W. Young, Treasurer.....	Pictou.....	82
Municipality of Wellington, County Prince Edward.....	.....	27
Municipality of Athol, County Prince Edward, J. S. Cairnduff, Treasurer.....	Pictou.....	57
Municipality of Sophiasburg, County Prince Edward, B. Dun- ning, Treasurer.....	.....	111
Municipality of Hallowell, County Prince Edward, J. Richards, Treasurer.....	Pictou.....	114
Municipality of Dalhousie, Sherbrooke North, and Lavant, County Lanark, Jas. Reid, Treasurer.....	.....	36
B. Humphrey Murphy, Trustee.....	Montreal.....	38
Samuel G. Murray.....	Kingston .....	48
John Murray, Assistant Commissar General.....	.....	558
Mrs. Ellen B. Murray.....	Drummondville.....	80
Col. Robert Muter.....	Toronto .....	81
John Nairne, deceased.....	Murray Bay, County of Charle- voix, C. E.....	45
Francis Neal.....	Erington, Cheltenham.....	56
Esther Nelson.....	Drummondville.....	5
Alfred Nelson.....	Montreal.....	75
Wm. Joseph Newton.....	Quebec.....	40
Wm. Balmer Nicol, M.D.....	Toronto .....	20
A. & S. Nordheimer.....	do .....	23
Samuel Nordheimer.....	do .....	12
Mrs. Henrietta Nowell.....	do .....	12
David Ogilvy.....	Ottawa.....	25
George Ogle.....	Dysart, Delvin, Ireland .....	50
George Oliver, writer.....	Hawick, Scotland.....	50
Mrs. Elizabeth Orkney.....	Quebec.....	22

## List of Shareholders of the Bank of Upper Canada, 1st January, 1869.

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NAMES.	RESIDENCE.	No. OF SHARES.
Mrs. Eliza M. Orkney.....	Quebec.....	4
Mrs. Margaret Orr, parent and guardian of W. Orr, a minor...	County Welland.....	1
Rev. Featherstone L. Osler.....	Dundas.....	29
E. B. Osler.....	Toronto.....	5
John B. Oxley.....	St. Catharines.....	10
Rev. Alexander Shaw Page.....	St. Anne's Parsonage, Lancaster.....	48
Horatio E. Paget.....	Anglesea Barracks, Portsmouth, Eng.....	29
Mrs. Matilda Palmer.....	Glandford.....	17
Mrs. Elizabeth L. A. Pane.....	Farnham, Surrey, Eng.....	27
Charles Parke, deceased, Charles J. Parke, Executor.....	Henley House, Dorset, Eng.....	29
Col. William Parke, 72nd Highlanders.....	Henbury House, Dorset, Eng.....	54
John R. Parke.....	Colchester.....	51
Mrs. Mary Parnall.....	Kingston.....	50
Peter Paterson.....	Toronto.....	80
Charles W. Paterson.....	do.....	30
James F. Paterson.....	do.....	155
Rev. Henry Patton, D. D.....	Cornwall.....	5
Mrs. Georgina Patton.....	do.....	4
Miss Anne C. Patton.....	Prescott.....	52
James Patton, Jr.....	Quebec.....	53
Hugh Patterson.....	Amherst Island.....	8
Elizabeth Patterson.....	London.....	11
Miss Lydia Payne.....	Nermery, near Frome, Somerset, Eng.....	218
Charles A. Payne.....	Prescott.....	40
Elizabeth L. Peade.....	Montreal.....	24
John P. Peavey.....	do.....	2
James Pearce Pearce.....	1430, Spruce street, Philadelphia.....	50
George B. Penfold.....	do.....	10
Charles Pentland, Trustee.....	Quebec.....	6
J. Ham Perry.....	Whitby.....	30
James F. Peto.....	48, Morland Square, Notting Hill, London.....	96
William G. Pettit.....	Trafalgar.....	13
J. Smith Pettit.....	do.....	6
Thomas Piddington.....	Quebec.....	50
Charles Pitt.....	do.....	10
William B. Phipps.....	Toronto.....	2
Charles Plenderleath, deceased, Mrs. Hannah W. Plenderleath, Executrix.....	Clifton, Bristol.....	112
Capt. Thomas Polly.....	Amherst Island.....	20
Thomas Porter.....	Lanskey, P. O., King.....	11
James Porter.....	Ottawa.....	40
Edward Poston.....	Quebec.....	35
William Poston.....	do.....	20
Major Thomas W. Prevost.....	Stammix Hall, Carlisle.....	15
Esau John Price.....	Quebec.....	26
Thomas Priestman.....	Wainfleet.....	5
Miss Eliza M. Prince.....	4, Doddington Place, Kenning- ton, Surrey.....	100
Charles D. Proctor.....	Montreal.....	40
William Proudfoot, J. L. Robinson, and Jas. Henderson.....	Toronto.....	220
Provident and Savings' Bank, Quebec, G. Veasey, Cashier.....	do.....	433*
Abraham V. V. Pruyne, deceased, Louisa M. Pruyne, Adminis- tratrix.....	Pictou.....	100
P., now Fussel Puckridge.....	Paris, C. W.....	63
George Purkiss.....	Montreal.....	8
Miss Margaret Pym.....	38, Upper Harley street, London.....	500
Quebec Marine Assurance Company, W. J. Withall, President, A. Fraser, Secretary.....	do.....	100
Hon. Jules Quesnel, deceased, Josetta Cotte V. Quesnel, Ad- ministratrix.....	Montreal.....	13
Josetta C. V. Quesnel.....	do.....	1
A. C. Qaimley.....	Hamilton.....	50



## List of Shareholders of the Bank of Upper Canada, 1st January, 1869.

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NAMES.	RESIDENCE.	No. OF SHARES.
Walter Raikes.....	Barrie.....	76
Henry Raikes.....	Ryde, Isle of Wight, Eng.....	250
T. M. Radenhurst, deceased, Mrs. E. Radenhurst, Adminis- tratrix.....	Perth.....	101
Francis Ramsay.....	Dunnville.....	100
Capt. Francis Randolph.....	Godden Green, Seven Oaks, Kent, Eng.....	90
John Raynar.....	18, Albion street, Leeds, Eng.....	25
Ann Eliza Read.....	Port Hope.....	20
Rev. Thos. B. Read, in trust for the Episcopal Endowment Fund, Diocese of Toronto.....	Toronto.....	2
Thos. B. Read.....	Thorold.....	20
Joseph Redfern.....	Leeds, County Megantic.....	120
Honorable Receiver General of Canada.....	.....	16
Mary Reilly.....	39, Inspector street, Montreal.....	23
Carew Reynell, deceased, Ann Reynell, Executrix, care of Henry Hones, Adjutant-General's office.....	London, Eng.....	63
W. Rhodes, in trust for Michael Power.....	Quebec.....	8
W. Rhodes, in trust for Godfrey Rhodes.....	do.....	4
W. Rhodes, in trust for Armatage Rhodes.....	do.....	11
W. Rhodes, in trust for William Rhodes.....	do.....	5
W. Rhodes Rhodes, in trust for Godfrey W. Rhodes.....	do.....	3
W. Rhodes, in trust for R. Dunn Rhodes.....	do.....	4
W. Rhodes, in trust for F. B. F. Rhodes.....	do.....	5
W. Rhodes, in trust for Mary E. Rhodes.....	do.....	1
Robert Riddell, Hunter, Blair & Cowan, W. S. ..	7, York Place, Edinburgh.....	354
G. N. Ridley, deceased, Ann S. Ridley, Executrix.....	Belleville.....	16
Joseph D. Ridout.....	Toronto.....	76
J. D. Ridout, President, and J. H. Mason, Treasurer, Canada Permanent Building and Savings' Society.....	do.....	184
George Percival Ridout.....	do.....	2
Robert Rintoul.....	Montreal.....	5
Rev. Wm. Rintoul, deceased, Mrs. Rintoul, Executrix.....	do.....	21
Henry G. Ritchie.....	Hamilton.....	56
James Carr Ritchie.....	do.....	21
Samuel Risley.....	Toronto.....	20
Mrs. Mary Robb.....	Pictou.....	20
Brownslow W. Roberts.....	Windham Club, London, Eng.....	108
Thomas Robertson.....	Ops.....	22
Dr. William Robertson.....	Crail, Fifeshire, Scotland.....	135
John Robertson.....	Vankleek Hill, County Prescott.....	134
Charles Robertson.....	Toronto.....	37
Joseph Roberts, Attorney for the estate of Robert Roberts.....	Quebec.....	40
Richard Roberts.....	Township of London.....	1
George Robson.....	Montreal.....	50
George Rolph.....	Dundas.....	320
Charles Roper, Robert Henry and Sir Henry Roper, Mrs. E. de Blaquiére, Attorney.....	Woodstock.....	49
Alamson Rossh.....	Drummondville.....	5
David Smith Ross.....	Holland Landing.....	12
Hon. John Ross.....	Toronto.....	50
Rev. W. M. Ross.....	Litcham, Norfolk, Eng.....	8
Rev. John Rothwell.....	Amberst Island.....	245
Mrs. Jas. H. Rowan.....	Ottawa.....	28
Sir Joshua Rowe.....	10, Queen Anne street, London, Eng.....	47
Basil R. Rowe.....	Township of Orillia.....	90
Henry Rowsell.....	Toronto.....	5
Mary Jane Russell.....	Stamford.....	21
E. H. Rutherford.....	Toronto.....	80
Rev. George Sadler, Curate of Epworth.....	Lincoln, Eng.....	80
Mrs. Ann Salt.....	Cobourg.....	4
Rev. Geo. J. E. Salter and Alex. Vidal, Executors.....	Sarnia.....	50
do do do.....	do.....	40

List of Shareholders of the Bank of Upper Canada, 1st January, 1869.  
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NAMES.	RESIDENCE.	No. OF SHARES.
Capt. Robt. C. Sawbridge, 11th Hussars.....		41
Charles Scadding.....	Toronto.....	160
Rev. Henry Scadding.....	do.....	298
Jane F. Scoble.....	Penzance, Cornwall.....	67
Mrs. Eliza Scott, Sir W. Cull, Martin & Co., Bankers.....	58, Old Bond street, London, Eng.....	225
Mrs. Marianne Scott.....	Guernsey.....	70
Alva Scott.....	Pictou.....	10
Henry Stewart Scott.....	Quebec.....	50
Gustav Schmidt.....	Toronto.....	1
Abram Searls.....	Wellington, Prince Edward District.....	64
Elizabeth Servos.....	Niagara.....	23
W. Smith Sewell, Sheriff.....	Quebec.....	432
Mrs. Lavinia M. Sewell.....	do.....	16
Rev. H. Doyle Sewell.....	Head, County Kent, Eng.....	92
W. S. Sewell, in trust for children of F. T. Lundy.....	Quebec.....	38
Rev. E. Willoughby Sewell.....	do.....	40
Abraham Sewell.....	Matton, Yorkshire.....	30
Edward Sewell.....	Fitchin, Herts.....	40
Samuel Sewell.....	Toronto.....	72
Rev. Robt. Shanklin.....	Oakville.....	1
James Shaw and T. Kirkpatrick, Trustees.....	Kingston.....	18
Wm. A. Shaw.....	Montreal.....	9
George Shaw.....	Toronto.....	100
Miss Elizabeth Sheehan.....	Township of Dunn.....	10
Frederick Shore.....	Township of Westminster.....	58
Miss Cornelia Sherman, Wyoming, Perry & Co.....	New York.....	120
Rev. Jonathan Shortt.....	Port Hope.....	34
James Stillman, Mary Stillman, Executrix, and J. Allen and J. A. McLoch, Executors.....	Kingston.....	20
Sarah Walker Sims, wife of George Veasey.....	Quebec.....	32
Mrs. Catherine S. Smart.....	Port Hope.....	5
Jas. Lister.....	92, Chancery Lane, London, Eng.....	20
Henry Smith.....	981, Petis Square, Hammersmith, London, Eng.....	64
Larratt W. Smith.....	Toronto.....	76
John Smith.....	Montreal.....	18
Miss Ann Smith.....	Chatham.....	10
Charles Webber Smith, 61, Montague Square, London, Eng., Coutts & Co.....	London.....	164
Jas. W. Smith.....	Toronto.....	4
John Thomas Smith.....	do.....	2
Mrs. Hannah Sole.....	Belleville.....	38
David Soules.....	Innisfil, Simcoe.....	12
William Southall.....	4, Canning Place, Old street, London, Eng.....	44
Archelaus Southard.....	Pictou.....	40
Nicholas Sparks, deceased.....	Ottawa.....	124
William Spragge, C. L. Department.....	do.....	40
William Stanton.....	Kingston.....	27
William Sturk.....	Box 89½, Montreal.....	36
Henry Frederick Stayner.....	Toronto.....	245
T. Allen Stayner.....	do.....	33
T. Sutherland Stayner.....	Richmond.....	161
Lisette Stegman.....	Toronto.....	3
David B. Stevenson, deceased, D. B. Solmes, Executor.....	Pictou.....	12
Phoebe Stevenson.....	do.....	4
Dr. Robert Stewart.....	Belleville.....	4
Mrs. Priscilla Stewart.....	Niagara.....	46
Thos. Grainger Stewart, M. D.....	Edinburgh.....	258
Rev. Alexander Stewart.....	Orillia.....	79
Michael Stevenson and Henry C. Stevenson, Trustees for Amey Kate Stevenson and William Stevenson, minors.....	Quebec.....	25

List of Shareholders of the Bank of Upper Canada, 1st January, 1869.  
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NAMES.	RESIDENCE.	NO. OF SHARES.
Michael Stevenson and Henry G. Forsyth, Trustees for Amey Kate Stevenson and William Stevenson, minors.....	Quebec .....	29
Richard and Isabella Stevenson.....	Toronto .....	107
Michael Stevenson.....	Quebec .....	4
Michael Stevenson, Trustee for Alice Stevenson, minor.....	do .....	3
Michael Stevenson, Trustee for Elizabeth Stevenson, minor.....	do .....	3
Michael Stevenson, Trustee for Mary Stevenson, minor.....	do .....	3
Michael Stevenson, Trustee for child Agnes Stevenson.....	do .....	3
Sarah Stoneman.....	Woodhouse, Torrington, Devon.....	107
Miss Agnes Stoneman.....	do do do .....	13
Maria E. and Mary Stoughton.....	Kingston .....	6
John Stow.....	Pictou.....	8
Thomas C. Street.....	Chippawa.....	2,774
Mrs. Abigail H. Street.....	do .....	150
T. C. Street, Trustee for Mrs. E. Plumb.....	do .....	230
T. C. Street, Trustee for Margaret and Cynthia McNicol.....	do .....	100
Rev. Alexander C. Stewart.....	England .....	35
Caroline Stewart.....	do .....	14
Sir Chas. J. Stuart.....	Quebec.....	40
Thomas Sutherland.....	Moore, C. W.....	4
William Sutherland, M. D.....	Montreal.....	20
Agnes Sutherland.....	West Gwillimbury.....	54
Mrs. Eva S. Sutherland.....	Toronto .....	3
Mrs. Sutherland.....	Southwold, County Elgin.....	16
Richard Sylvester.....	Markham.....	80
George Tait.....	Pickering.....	11
William H. Tapp.....	Quebec.....	73
Hon. Jos. A. Taschereau.....	Kamouraska .....	16
Rev. John Tawse.....	King, C. W.....	28
J. Fleming Taylor.....	Quebec .....	240
Jas. William Taylor.....	Niagara .....	200
Malcolm Taylor.....	Pictou.....	6
Cyrille Tessier.....	Quebec.....	30
William Thompson.....	Frome, Somerset, Eng.....	200
Mrs. Sarah Thomson.....	York Township .....	5
Rev. Chas. E. Thomson.....	Elora.....	7
Donald E. Thomson.....	Quebec.....	50
John Thomson.....	do .....	100
Mary E. Thorp.....	Pictou.....	1
A. Thornton Todd, Toronto, Secker Brough, Toronto, Jas. Mc- Lennan, Toronto, and J. D. McKay.....	Hamilton .....	40
Alfred Todd.....	Ottawa .....	4
Mrs. Catherine Todd.....	do .....	30
Alfred and Alpheus Todd, Executors of the estate of H. C. Todd	do .....	6
John Torrance.....	Scarboro' .....	24
Neil McLean Trew.....	Toronto .....	1
Richard N. Trew, Steyning, Sussex, and Thos. N. Trew.....	Aspley Guise, Woburn, Bedford- shire, Eng.....	114
Trinity College, Bishop Strachan's Jubilee Scholarship.....	Toronto .....	43
Trinity College.....	do .....	48
John Trood.....	The Grove, Lewisham, Kent, Eng.....	35
John Tucker.....	Toronto .....	36
Lucy G. F. Tunney.....	St. Andrew's Parsonage, Lancas- ter.....	50
Enoch Turner.....	Toronto .....	437
Chas. Hampton Turner.....	Booknest Godstone, Surrey, Eng.....	770
John Tuthill.....	13, Oymanton Hall, Parsons- town, Ireland.....	30
Henry Atkinson Tuzo, M. D.....	Victoria, Vancouver's Island.....	14
Trustees for Mary A. Bardson, W. H. Miller.....	Laurel Grove, Brixton, London, Eng.....	343
Trustees for Canada United Odd Fellows, Archibald McLean, J. D. Howard, and Jos. Hodgson.....	Toronto .....	14

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NAMES.	RESIDENCE.	No. OF SHARES.
Trustees for John Claris and family, G. T. Claris and Christopher Claris.....	St. Thomas.....	27
Trustees for Shanty Bay Church, E. W. Walker, E. S. Lally, and W. E. O'Brien.....	Barrie.....	95
Trustee for Harry Cooke, Clarke Gamble.....	Toronto.....	83
Trustee for Mary Crawford and children, W. B. Phipps, Receiver in Chancery.....	do.....	45
Trustee for Jane C. R. and Isabella Crookshank, Robert W. Crookshank.....	St. John, N. B.....	113
Trustees for Elizabeth Dampier, now Lefroy, Somerset, R. F. Woods and J. R. White.....	Burton, Eng.....	60
Trustees for Hon. John Macaulay, Rev. W. Macaulay, Picton, John Macpherson, and John R. Forsyth.....	Kingston.....	160
Trustee for Mrs. Mary C. Mackay, R. Riddell, deceased.....	.....	100
Trustee for Mary A. Miles, Thos. Lister.....	Grand River, Indiana, C. W.....	6
Trustees for Charlotte E. Moore, W. B. Vallean and Thos. Dean.....	Quebec.....	10
Trustees for Sophia Moore, wife of F. Perkins.....	Toronto.....	63
Trustees for Margaret J. O'Meara, Thos. Dallas and F. Dallas, W. Ross, Orillia, and Rev. H. J. Grassett.....	do.....	57
Trustees for Francis Ramsay, W. Eccles, St. Catherines, Cuthbert Eccles.....	do.....	160
Trustees for Richmond Hill County School.....	.....	8
Trustees for Lennox Rudyard and wife, C. L. Coleman, Very Rev. Peter McDonald, and Capt. J. Coleman.....	.....	166
Trustee for Elizabeth Stanson, Rev. H. J. Grassett.....	Toronto.....	1
Trustees for Edmund Seager, E. G. O'Brien and R. C. Gupper.....	Barrie.....	33
Trustees for Mary Sewell, wife of C. Jones, Edward L. Sewell and Stephen C. Sewell.....	Ottawa.....	62
Trustees for St. Andrew's Church Benevolent Society.....	Toronto.....	12
Trustees for Emma Delatre, wife of R. S. Delatre, Thomas Hector.....	Quebec.....	135
Trustees for Mrs. Mary Dickinson, M. R. Vankoughnet, Toronto, and G. S. Jarvis.....	Cornwall.....	64
Trustees for Mrs. Ann Diehl, T. W. Birchall.....	.....	154
Trustees for Charlotte B. Dowling, William H. Millar and G. E. Blenkins.....	London, Eng.....	300
Trustees for Sophia L. Dunn, W. H. Miller, London, Eng., and T. C. Street.....	Niagara Falls.....	3
Trustees for R. P. and Arnold F. C. Edwards, Ed. Deedes, Simcoe, and W. Arnold.....	St. Catharines.....	254
Trustee for Isabella M. Fauquier, Rev. J. D. Fauquier.....	Woodstock.....	54
Trustee for R. N. Ferris and wife, Margaret, Henry W. Nelles.....	St. Catharines.....	15
Trustees for R. S. Gale, D. Fowler and J. J. Burrows.....	Kingston.....	80
Trustees for Charlotte Ann Hawke, Adam Wilson, R. G. Dalton, and Jas. Beatty, Jr.....	.....	8
Trustees for W. D. B. Jarvis and wife, J. B. Robinson, Toronto, Æmilius Irving.....	Hamilton.....	18
Trustee for Ann Mary Jarvis, M. R. Vankoughnet.....	Toronto.....	36
Trustees for J. S. and Mary J. Lyons, T. Buckley, John Edward, Geo. Lyon, and Isaac Bayley, Guelph, T. C. Street, agent.....	Niagara Falls.....	123
Trustee for Peter Vannistine, a lunatic, Aaron D. Dougall.....	Picton.....	11
Trustees for Mrs. Charlotte P. Vidal, Lewis Kennedy, Emeric C. Vidal, and John C. Kennedy.....	Sarnia.....	70
Trustees for the estate of William Weeks, Right Rev. John Strachan and Hon. H. J. Boulton.....	Toronto.....	109
Trustee for the Wesleyan Annuitant Fund, Rev. Dr. Anson Green.....	do.....	56
Trustees for George E. Wilson and Elizabeth Hooper, Herbert Mortimer, Toronto, Adam Patterson and Jas. Dallas.....	Orillia.....	32
University of Toronto.....	Toronto.....	25
William Valentine.....	Picton.....	6
Alexander Vidal.....	Sarnia.....	40
Rev. Jas. Henry Vidal.....	Chiddingly, Sussex, Eng.....	135
Beaufort Henry Vidal, 2nd West India Regiment.....	.....	88

List of Shareholders of the Bank of Upper Canada, 1st January, 1869.  
—(Continued.)

NAMES.	RESIDENCE.	No. OF SHARES.
Richard Emeric Vidal, Alex. Vidal, Executor.....	Sarnia.....	143
Hon. Alexander Vidal and Arthur C. Pousett, Trustees.....	Moore.....	22
Henry Charles Voight.....	Kingston.....	60
Henry Charles Voight and Thomas Kirkpatrick, Executors E. W. W. Roche.....	do.....	40
Henry Waite.....	68, Old Bond street, London.....	120
Daniel Wadsworth.....	Queenstown Township, Niagara.....	6
Hon. Lewis Wallbridge.....	Belleville.....	72
John Walker.....	Township of Hope.....	40
James Walker.....	Orillia.....	19
Walker & Sons.....	Toronto.....	9
Miss Matilda Ward.....	Quebec.....	7
Mrs. Jane Ward.....	Markham.....	45
Letitia Ward.....	Burford.....	40
Major W. H. Wardell, late Paymaster R. C. R.....	.....	64
Joseph Waring.....	County Oxford, Norwich P. O.....	24
Thomas Waring.....	Township of Hallowell.....	35
G. W. Warner & Son.....	Montreal.....	55
William Warner.....	Thorold.....	1
Thos. Orr Warner.....	do.....	1
William Warren.....	London, C. W.....	77
John Watkins.....	Kingston.....	244
Mrs. Ellen Watley.....	Toronto.....	3
Thomas Watson.....	29, Fitzroy Square, London, Eng.....	22
Thomas Watson.....	Seymour.....	8
Mrs. Janet Watson.....	Oro.....	6
James Watson.....	Hamilton.....	50
Daniel Weaver.....	Montreal.....	50
Henry Webster, deceased, P. C. Young, Managing Executor.....	Vittoria.....	15
John Weir.....	West Flamboro.....	43
Thos. Christie Weir.....	.....	68
James Wheeler.....	London.....	40
Mrs. Mary White.....	Bass Lake, Orillia.....	22
Thomas White.....	Toronto.....	244
Rev. George Whitaker.....	do.....	240
Miss Clara Whitmore.....	Quebec.....	40
Daniel Whitley.....	Catslough, Winsford, Cheshire, Eng.....	334
William Whitley.....	do do do.....	106
Miss Elizabeth Whitley.....	do do do.....	84
J. W. Gamble Whitney.....	Toronto.....	3
Elizabeth White.....	do.....	3
Hannah Marice Widner, now Clark.....	do.....	40
John Wilkinson.....	Royal Horse Infirmary, Woolwich, Eng.....	78
John Platt Williams.....	Hallowell, Prince Edward District.....	6
Miss Ann Williams.....	Chillington, Devon.....	8
Charles Reynolds Williams.....	62, Lincoln Inn Fields, London, Eng.....	200
Alfred Willett.....	Fontbill, County Welland.....	4
Miss Elizabeth Wills.....	Belleville.....	2
Thomas Wills.....	Thurlow.....	2
Miss Hannah E. Willson.....	Niagara.....	8
Mrs. Isabella Willson, formerly Warner, wife of James Willson.....	Illinois, U. S.....	1
William Willson.....	Penetanguishene.....	39
Rev. John Wilson.....	Grafton.....	50
Miss Christiana Wilson.....	Stamford.....	56
Miss Julia Wilson.....	Amherstburg.....	8
Lieut. George Wilson, R. N.....	Medonte.....	2
George Wilson, Jr.....	Ingersoll.....	16
Joseph Wilson.....	Sault Ste. Marie.....	28
William Wilson.....	Mariaboro', Medonte.....	20
Effingham Wilson.....	11, Royal Exchange, London, Eng.....	50

List of Shareholders of the Bank of Upper Canada, 1st January, 1869.  
(Continued.)

NAMES.	RESIDENCE.	No. of SHARES.
Andrew Wilson.....	Toronto .....	4
William Wilson.....	11, Royal Exchange, London Eng.....	30
John Wilson.....	Quebec .....	50
Wm. John Withall.....	do .....	364
Rev. Phillip Wolf.....	Montreal .....	103
Ambrose Woods.....	Picton .....	2
Francis V. Woodhouse.....	Albury, near Guildford, Surrey, Eng.....	27
Thomas Woodside, in trust.....	Toronto .....	50
Richard Woodruff.....	St. Davids.....	648
William Woodruff, deceased, R. Woodruff, Executor.....	do .....	80
Joseph C. Woodruff.....	Drummondville.....	105
Joseph A. Woodruff, Niagara, and Wm. Purvis, Rochford street, London, Trustees of T. Shepard Smyth and Harriet Smyth, his wife.....	.....	77
John Worthington.....	Toronto .....	10
William Wreggitt.....	Yerk Township.....	16
Lieut. Col. John Ros Wright, R. E., Mrs. Sarah Wright, Widow and Executrix of the late Col. Wright.....	2, Upper Mill Terrace, Reche- ter, Kent, Eng.....	90
James Wright.....	Penetanguishene.....	9
James Wright.....	Kingston .....	8
W. G. Wurtele.....	Quebec .....	12
Richard H. Wurtele, in trust for Brenda Wurtele, a minor....	do .....	2
Richard H. Wurtele, in trust for Henry Newton Wurtele, a minor	do .....	3
Christian Wurtele.....	do .....	6
Frederick C. Wurtele.....	do .....	2
R. H. Wurtele.....	do .....	41
James Wycott.....	Picton .....	20
Mary Wylie.....	Ramsay, C. E.....	16
James Young.....	Goderich .....	36
James Young, deceased, John Wilson, Executor.....	London .....	13
Henry Young.....	Woodstock .....	15
James Young.....	Quebec .....	20
David Douglas Young.....	do .....	85
Rev. Geo. Paxton Young.....	Toronto .....	42
Jane Young.....	Kingston .....	2

(Copy.)

FINANCE DEPARTMENT,  
Ottawa, 10th March, 1869.

GENTLEMEN,—I have the honor to send herewith, for your guidance, a copy of an Order in Council respecting the affairs of the Bank of Upper Canada.

You will perceive that the Government is of opinion that the time has arrived when some definite arrangements with the Shareholders should be made.

You will be good enough to inform me what you think the earliest day would be on which it would be convenient to call the Shareholders together, giving them, of course, reasonable notice and full opportunity of considering their position.

I have, &amp;c.,

C. J. Campbell, Esq.

(Signed,)

JOHN ROSE,

Peleg Howland, Esq.,

Minister of Finance.

Trustees of the Bank of Upper Canada,  
Toronto.

*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 9th March, 1869.*

The Committee have had before them the annexed report from the Hon. the Minister of Finance having reference to the amount due to the Government by the Bank of Upper Canada, and the expediency of requiring an early settlement of the same, and suggesting that the Shareholders should be called upon to consider certain propositions specified in his report, with the view of attaining that object.

The Committee concur in the views expressed by the Minister of Finance on the above subject, and advise that he be authorized to communicate the same to the Trustees of the Bank of Upper Canada, for the immediate consideration of the Shareholders.

(Certified,)

WM. H. LEE,  
Clerk, P. C.

To the Honorable

The Minister of Finance,  
&c., &c.

The undersigned has the honor to bring under the consideration of His Excellency in Council, the position of the Bank of Upper Canada, and the Correspondence which has taken place between him and the Trustees of that institution.

The amount due by the Bank to the Government, exclusive of interest is \$1,122,639, and the liability of the Bank to other parties exclusive of Messrs. Glyn & Co., who hold security to cover their debt, is, including circulation, about \$460,000 more.

It will be remembered that, after the failure of the Bank in 1866, a Deed of Assignment was executed to five Trustees, and that by an Act of last Session (cap. 17.) that Deed was confirmed and the Government was empowered to name two Trustees on its own behalf and that of the creditors generally, the Shareholders naming the third.

The Government Trustees were named in the month of March, 1868, and the Shareholders have also chosen theirs.

From the last report of the Trustees it would appear that they anticipate that the assets and property of the Bank will be insufficient to meet what it owes, and that there will be a deficiency exceeding \$500,000.

They further report that the assets cannot be judiciously realized in a shorter period than five years.

From the explanations afforded by the Trustees in the personal communication which the undersigned had with them, he is of opinion that the time required to realize the assets to the best advantage will not be less than the period named, and that the ultimate deficit will not fall short of, (if it does not considerably exceed), the aforesaid sum of \$500,000.

He is, however, of opinion that the steps taken by the Trustees since their appointment have been marked with judgment and discretion.

Under the existing circumstances it becomes necessary to consider what course ought to be taken in the public interest.

The undersigned is of opinion that communication should be had at an early day with the Shareholders, and that they should be afforded the option, either : first, of paying off the Government and taking the whole assets into their hands; or, secondly, of making payment of a sum of money to the Government to be relieved of their liability, allowing the estate to be realized under the present Trust, or otherwise as the Government may see fit; or, thirdly, of suggesting any other course which they may think expedient, either as respects the present method of liquidation, or touching the ultimate payment of the debt due to the Government.

It is obviously desirable that some definite arrangement should be come to now, rather than it should be postponed until the ultimate realization of the assets. Unless the Government bring the property of the Bank to sale under a Writ of Extent, and thus anticipate the time which the Trustees are of opinion will be occupied in realizing the estate to the best advantage, upwards of five years will elapse before the creditors can, (according to the best legal opinion,) enforce by law any contribution from the Shareholders under the double liability clause.

It is impossible to anticipate what changes in the *personnel* of the shareholders may take place before that time, whereby their capacity to make good their respective contributions might be affected.

Delay obviously increases the probability that the loss will ultimately be borne less equally than if an adjustment now took place, and that the sources to which the Government might look for payment will every year be of less worth.

The subscribed capital of the Bank was originally about \$3,100,000, divided into shares of \$50 each, but it has since been reduced, and is now only \$1,930,000, divided into shares of \$80 each, which is held by upwards of 1000 persons. Estimating the deficiency at \$600,000, a contribution of about \$9.33 per share would be required. But it will be seen by the Report of the Trustees that the means of enforcing payment from a considerable number of the nominal shareholders is at the least doubtful.

The Shareholders are classified under the following seven heads :—

1st. Executors, Guardians, Minors.....	\$129,360 00
2nd. Trustees.....	337,500 00
3rd. Municipalities.....	12,800 00
4th. Female persons living abroad .....	585,165 00
5th. Residents in Canada, not known to Trustees.....	172,220 00
6th. Residents in Canada, believed to be bad.....	139,900 00
7th. Residents in Canada (including Females), believed to be good.....	562,890 00

The course which the Government may deem it its duty in the public interest to adopt, whether to await the gradual realization of the assets, or to enforce its remedy at once, will doubtless be influenced by the action of the shareholders, and the proposals they may make to the Government after due consideration of the actual situation, and when apprised that the Government deems it fitting that a definite arrangement should now take place.

In conclusion the undersigned would observe, that until the shareholders have had an opportunity of electing, either to pay off the Government, or to make an offer on some terms to make good the anticipated deficiency, or of suggesting some different course of action from that now followed, it would be premature to consider whether any and what means might be taken to deal with the other creditors, or to prosecute the liquidation of the Estate by less expensive means than those which are now adopted.

(Signed,)

JOHN ROSE,  
Minister of Finance.

OTTAWA, 9th March, 1869.



STATEMENT of the affairs of the Montreal City and District Savings Bank, for the year ending 31st December, 1868.

Act Provincial Legislature, 25 Vic. Chap. 66.

LIABILITIES.		\$	cts.	\$	cts.
Amount due Depositors, Capital and Interest credited.....				1,861,574	55
do on Real Estate, to Minors and others on purchase of Bank Property .....				5,337	94
Miscellaneous .....				36,247	48
<b>Total Liabilities .....</b>				<b>1,903,159</b>	<b>97</b>
ASSETS.					
Securities held, par value :—					
Government 6 per cent.....		105,822	00	105,822	00
Debentures of Municipal Corporations :—					
Montreal City Bonds .....		149,533	33		
do Water Works.....		120,000	00		
do 7 per cent. Stock.....		12,000	00		
				281,533	33
Railway Bonds :—					
Champlain and St. Lawrence Railroad first Mortgage .....				66,186	66
Stocks of Banks, as follows :—					
City Bank, Montreal .....		17,040	00		
Bank of Montreal .....		14,800	00		
La Banque du Peuple .....		32,000	00		
Ontario Bank.....		10,000	00		
Merchants Bank .....		35,800	00		
				109,640	00
Mortgages on Real Estate, special Loan to Nuns Hotel-Dieu and for privileges granted to Bank in Building.....				20,281	24
Notes of individuals, secured by collaterals.....				690,405	90
Deposited at interest in Banks (no cash on hand) .....				745,373	97
Interest charge and Sundries (Interest due, not received, none).....				6,912	03
Real Estate occupied by the Bank, Office Furniture and other Assets.....				25,227	43
<b>Total Assets.....</b>				<b>2,051,382</b>	<b>58</b>
MISCELLANEOUS STATEMENTS.					
Annual Interest on the Securities, &c., held :—					
1st Interest fallen due during the year .....				116,083	34
2nd do received do .....		109,171	31		
3rd do accrued but not due.....				6,912	03
4th do due but not paid (none).					
Expenses of the Bank during the year .....				13,217	86
Surplus profits of the year.....				20,781	62
Amount paid over to Charitable Institutions; this year \$6,035 in all.....				56,575	00
Rate of Interest paid to Depositors,—five per cent.					
Number of Depositors under \$200 .....	3,663				
Above \$200 and under 400 .....	797				
do 400 do 800 .....	663				
do 800 do 1,200 .....	257				
do 1,200 do 1,600 .....	107				
do 1,600 .....	227				
	5,714				
Greatest amount of Deposits held 31st December.....		1,861,574	55		
Least do do 2nd January.....		1,532,495	72		
Total do deposited within the year.....		2,975,808	12		
do do withdrawn do .....		2,720,439	13		
Interest credited and paid Depositors within the year.....				80,270	76

We, the undersigned, Actuary and Managing Directors of the Montreal City and District Savings Bank, make oath that the above Statement is correct to the best of our knowledge and belief.

E. J. BARBEAU, Actuary,  
A. M. DELISLE,  
WILLIAM WORKMAN,  
HY. STARNES,  
HENRY MULHOLLAND,  
EDW. MURPHY,  
A. L. RASGNY,  
J. A. BERTHELOT,  
L. H. HOLTON,  
EDWIN ATWATER.

Sworn before me, at Montreal,  
this 7th April, 1869.

A. M. DELISLE, J. P.

WILLIAM WORKMAN, Mayor.

ANNUAL STATEMENT of the Northumberland and Durham Savings Bank, for the year ending 1st December, 1868.

	\$	cts.
Amount of Deposits received from 1st December, 1867 to 1st December, 1868—including Interest at 5 per cent.....	198,778	94
Amount withdrawn during same period.....	165,230	47
Increase in year.....	33,548	47
Amount of Deposits at 1st December, 1867 .....	212,482	07
Total Deposits due, 970 Depositors, 1st December, 1868.....	246,030	54
ASSETS.		
Cash deposited in Bank of Toronto, Agency in Cobourg.....	24,345	25
Stock, Bank of Toronto, Par Value.....	30,100	00
do Dominion, do .....	5,000	00
do Ontario Bank, do .....	34,220	00
do Quebec Bank, do .....	25,000	00
do Bank of Commerce, do .....	32,000	00
do do New do .....	10,000	00
do Merchants Bank, do .....	48,000	00
do City Bank, do .....	10,000	00
do Royal Canadian Bank, do .....	10,000	00
do Gore Bank, do .....	10,000	00
do Niagara District Bank, do .....	4,400	00
Debentures Cobourg Harbour.....	3,000	00
Dividends accrued on Stocks 1st December, 1868, all paid 1st January, 1869 .....	5,563	47
Total Assets.....	251,728	72
Total Liability as above.....	246,030	54
Surplus held as Sinking Fund.....	5,698	18
Total accrued Interest on Investments during year 1868 all paid.....	\$15,263	93
Total Expenses for Bank, for year 1868 .....	\$ 1,731	84

DAVID BURN, *Treasurer.*

Cobourg, Ontario, 7th April, 1869.

I, David Burn, Treasurer of the Northumberland and Durham Savings Bank, do swear that the foregoing Statement is true and correct to the best of my knowledge and belief.

DAVID BURN.

Sworn before me, at Cobourg,  
this Seventh day of April, 1869.  
P. McCALLUM, J. P.

I, the Hon. Asa A. Burnham, President of the Northumberland and Durham Savings Bank, do swear that the foregoing Statement is true and correct to the best of my knowledge and belief.

ASA A. BURNHAM, *President.*

Sworn before me, at Cobourg,  
this tenth day of April, 1869.  
B. McCALLUM, J. P.

STATEMENT of the operations of the Caisse d'Economie de Notre-Dame de Québec, for the year expired 31st May, 1868.

RECEIPTS.		DISBURSEMENTS.	
	\$ cts.		\$ cts.
To balance in the bank on the 31st May, 1867.....	61,840 70	By withdrawals.....	1,153,265 88
" deposits.....	1,231,140 93	" investments.....	73,722 85
" interest.....	59,965 86	" interest.....	43,857 20
" investments.....	18,804 57	" current expenses, salaries, &c., indemnity to directors.....	7,470 80
" rents.....	316 40	" gifts to charitable institutions.....	2,000 00
	1,310,227 76	" maintenance of the building.....	346 29
		" furniture.....	2 25
		By cash in bank.....	1,280,665 27
Total.....	\$ 1,372,068 46	Total.....	\$ 1,372,068 46

We, the undersigned directors of the Caisse d'Economie de Notre-Dame de Québec, declare that to the best of our knowledge and judgment the foregoing statement is correct and in accordance with the books of the institution.

- OL. ROBITAILLE, President,
- A. B. SIROIS, Vice-President,
- E. CHINIC,
- CHARLES CINQ-MARS,
- DAVID DUSSAULT,
- GR. MATTE.

Sworn before me,  
 Quebec, 13th May, 1869.  
 GEORGE HALL, J. P.

Quebec, 18th May, 1869.

STATEMENT of the operations of the Caisse d'Economie de Notre-Dame de Québec for the year expired, 31st May, 1868.

LIABILITIES.		ASSETS.	
	\$ cts.		\$ cts.
Due to depositors.....	943,246 69	By securities of the Dominion and public incorporated bodies, viz :—	
Reserve Fund.....	75,000 00	Provincial Government.....	170,553 97
Profit and Loss.....	4,545 59	Quebec Turnpike Trust.....	23,600 00
		Quebec Harbor Commissioners.....	65,000 00
		Corporation of Quebec.....	265,190 00
		“ Montreal.....	122,000 00
		Montreal Harbor Commissioners.....	30,800 00
		Shares in banks, viz :—	
		Banque Nationale.....	\$75,500
		Quebec Bank.....	40,200
		Banque du Peuple.....	23,150
		Union Bank.....	20,000
		Bank of B. N. A.....	10,220
		“ Toronto.....	10,000
		Banque Jacques-Cartier.....	9,250
		City Bank.....	8,000
			195,820 00
		Shares in the Quebec Insurance Company.....	4,290 00
		Loans on collateral securities, consisting of debentures, Bank shares, and shares in Building and Insurance Companies.....	5,471 88
		Deposit in the Banque Nationale.....	91,403 19
		Interest due and not received.....	20,594 62
		Estate.....	18,000 00
		Other assets.....	3,255 08
		Furniture.....	813 52
Total.....	\$ 1,024,792 28	Total.....	\$ 1,024,792 28

CLASSIFICATION OF DEPOSITORS.

From \$1	to \$200.....	2,662
“	200 to 400.....	434
“	400 to 800.....	412
“	800 to 1,200.....	210
“	1,200 to 1,600.....	62
“	1,600 to 2,000.....	35
“	2,000 and over.....	42
Total.....		3,857

We, the undersigned, officers of the Caisse d'Economie de Notre-Dame de Québec, certify that the foregoing statement is correct, and conformable in every respect with the books of the institution.

F. VEZINA, Managing Cashier,  
SAML. BENOIT, Secretary-Treasurer.

Sworn before me,  
Quebec, 18th May, 1869.  
GEORGE HALL, J. P.

Quebec, 18th May, 1869.  
We, the undersigned auditors of the Caisse d'Economie de Notre-Dame de Québec, certify that the foregoing statements are correct in every particular, as also the books and vouchers of the institution up to 31st May, 1868.

Sworn before me,  
Quebec, 18th May, 1869.  
GEORGE HALL, J. P.

LOUIS BILODEAU, Auditor,  
ISAIÉ GAUDRY, Auditor,  
F. R. A. VEZINA, Accountant.

Quebec, 18th May, 1869.

STATEMENT of the operations of the Caisse d'Economie de Notre-Dame de Québec, for the year expired 31st May, 1869.

RECEIPTS.		DISBURSEMENTS.	
	\$ cts.		\$ cts.
To balance in bank on 31st May, 1869.	91,403 19	By withdrawals.....	1,227,788 21
" deposits.....	1,398,895 14	" investments.....	162,717 10
" interest.....	10,319 82	" interest.....	50,909 60
" investments.....	19,563 27	" current expenses, including indemnity to directors.....	8,585 77
" rents.....	269 65	" gifts to charitable institutions.....	2,100 00
	1,489,047 78	" estate.....	864 34
		" furniture.....	138 40
		" balance at the Banque Nationale.....	127,347 65
Total.....	1,580,450 97	Total.....	1,580,450 97

We, the undersigned directors of the Caisse d'Economie de Notre-Dame de Québec, declare that to the best of our knowledge and judgment the foregoing statement is correct, and in accordance with the books of the Institution up to 31st May, 1869.

- OL. ROBITAILLE, President,
- A. B. SIROIS, Vice-President,
- DAVID DUSSAULT,
- GREGOIRE MATTE,
- LOUIS AMIOT,
- E. CHINIC,
- I. THIBAUDEAU,
- CHS. CINQ-MARS.

Sworn before me at  
 Quebec, 12th June, 1869.  
 GEORGE HALL, J. P.  
 Quebec, 15th June, 1869.

STATEMENT of the operations of the Caisse d'Economie de Notre-Dame de Québec, for the year expired 31st May, 1869.

LIABILITIES.		ASSETS.	
	\$ cts.		\$ cts.
Deposits.....	1,123,353 62	Securities of the Dominion and of public incorporated bodies, viz:—	
Reserve Fund.....	75,000 00	Government bonds.....	240,387 12
Profits and Loss.....	15,391 02	Corporation of Quebec.....	265,190 00
		“ Montreal.....	153,000 00
		Bank shares:—	
		Banque Nationale.....	\$15,000
		Quebec Bank.....	43,100
		Banque du Peuple.....	23,150
		Union Bank.....	20,000
		Bank of B. N. A.....	12,220
		Bank of Toronto.....	10,000
		Banque Jacques-Cartier.....	9,250
		City Bank.....	8,000
			198,720 00
		Quebec Harbor Commissioners.....	68,000 00
		Montreal “.....	28,800 00
		Quebec Turnpike Trust.....	28,600 00
		Interest due and not received.....	22,960 00
		Estate.....	17,500 00
		Quebec Insurance Co.....	4,290 00
		Loans on collateral security.....	4,830 06
		Other Assets.....	3,219 81
		Furniture.....	900 00
		Special deposit at the Banque Nationale bearing interest.....	\$50,000 00
		Deposit do do.....	127,347 65
			177,347 65
Total.....\$	1,213,744 64	Total.....\$	1,213,744 64

CLASSIFICATION OF DEPOSITORS.

From \$ 1 to \$ 200.....	3,092
“ 200 to 400.....	523
“ 400 to 800.....	415
“ 800 to 1,200.....	207
“ 1,200 to 1,600.....	70
“ 1,600 to 2,000.....	42
“ 2,000 and over.....	79
Total.....	4,428

We, the undersigned officers of the Caisse d'Economie de Notre-Dame de Québec, certify that the foregoing statements are correct, and in accordance in all respects with the books of the Institution.

F. VEZINA, Managing Cashier,  
SAML. BENOIT, Secretary-Treasurer.

Sworn before me at  
Quebec, 12th June, 1869.

GEORGE HALL, J. P.

Quebec, 12th June, 1869.

We, the undersigned auditors of the Caisse d'Economie de Notre-Dame de Québec, certify that the foregoing statements are correct in every particular, as also the books, vouchers and securities of the institution up to 31st May, 1869.

LOUIS BILODEAU, Auditor,  
F. B. A. VEZINA, Pro-Auditor.

Quebec, 12th June, 1869.

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# CORRESPONDENCE.

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## GREAT WESTERN RAILWAY.

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*Laid before Parliament by command of His Excellency the  
Governor General.*

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### I N D E X .

1. Order in Council, 28th May, 1868.
2. Mr. Swinyard to Mr. Rose, 1st June.
3. Mr. Rose to Mr. Swinyard, 9th do. (With Extracts.)
4. Mr. Swinyard to Mr. Rose, 11th do.
5. Mr. Dakin to Mr. Rose, 17th do.
6. Mr. Langevin to Mr. Swinyard, 3rd September.
7. Do. do. 16th do.
8. Mr. Swinyard to Mr. Langevin, 21st do.
9. Mr. Rose to Mr. Swinyard, 5th November.
10. Mr. Swinyard to Mr. Rose, 9th do., and enclosure.
11. Mr. Rose to Mr. Swinyard, 17th do.
12. Mr. Swinyard to Mr. Rose, 23rd do.
13. Mr. Rose to Mr. Swinyard, 30th do.
14. Statement of Accounts.
15. Do. do.
16. Do. do.
- 16½. Memorandum to the Auditor General.
17. Memorandum of Claim against Company.
18. Telegrams (various).
19. Mr. McMaster to Mr. Rose, 14th December.
20. Mr. Rose to Mr. McMaster 14th do.
21. Report to Council, 18th do.
22. Order in Council, 21st do.
23. Mr. Langevin to Mr. Swinyard, 23rd December.

24. Mr. McMaster to Mr. Rose, 27th January.
25. Mr. Rose to Mr. McMaster, 27th do.
26. Mr. McMaster to Mr. Rose, 27th do.
27. Mr. Rose to Mr. McMaster, 30th do.
28. Telegram from Mr. McMaster to Mr. Rose, 9th February.
29. Mr. Rose to Mr. Swinyard, 19th February.
30. Mr. Swinyard to Mr. Rose, 22nd do.
31. Mr. Rose to Sir John A. Macdonald.

*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 28th May, 1868.*

The Committee have had under their consideration the statement of the Great Western Railway Company, in support of their application for a remission of interest on the Government debt, and have carefully weighed the arguments urged by their Counsel on their behalf.

While the Committee regret that the circumstances of the Great Western Railway Company appear to be such as to make them unable at once to pay the full amount now in arrear, they cannot, with a due regard to the public interests, recommend the acceptance of either of the propositions made by the Company for its final settlement.

The Committee are likewise of opinion, that no further accumulation of interest ought to take place, and they recommend that the Company be required to pay the accruing interest regularly every half year, from the 1st January last.

The Committee further desire to express their earnest hope, that the Company may be able to make some satisfactory provision at an early day, for the settlement of the arrears of interest, now amounting to the large sum of \$1,419,729.

(Certified.)

WM. H. LEE,  
Clerk, P.C.

To the Honorable  
The Minister of Finance, &c.

(Copy.)

GREAT WESTERN RAILWAY,  
HAMILTON, ONTARIO, JUNE 1st, 1868.

DEAR MR. ROSE,—Our President, Mr. Alderman Dakin, Mr. Faulconer, a Director, and Mr. Brackstone Baker, our Secretary, are expected here within the next fourteen days. They purposed to leave Liverpool, in the "China," on Saturday last; they will doubtless desire to see you as soon after their arrival as possible, in regard to the Government loan.

On what day after Monday, 15th June, would it be convenient for you to see them, and where?

I am sure, after all the anxious labor during the past Session, you will be glad to get repose; but as one of the main objects of my Directors in coming to this country, is to see the Government in regard to the matter between it and the Company, I hope you may be able to make an appointment to see them.

They will gladly meet you anywhere most convenient to you.

Yours very truly,  
(Signed.)

The Hon. John Rose,  
Ottawa.

THOMAS SWINYARD.

(Copy.)

MONTREAL, 9th June, 1868.

DEAR SIR,—My attention has been called within the last few days, to the proceedings at the half-yearly meeting of the Great Western Railway Company in London, and to the observations of the Chairman, as reported in the public press. In view of the anticipated interview with him, with which you have informed me, I should probably have the honor of



being favored before my departure for England, on the subject of the Government claim, I shall be glad to know whether the statements ascribed to the Chairman are correctly reported, and if so, whether any explanations can be offered respecting them.

I subjoin some of the extracts from the printed report, by which you will see that a direct charge of bad faith, and the violation of public legislative promises towards the Company, are imputed to Canada, and that an allusion is made in terms of an unmistakably menacing character, that it will be better for Canada to acquiesce in the wishes of the Great Western Company, with reference to this debt, before proposing any further loans in England.

I should be greatly wanting in my duty, both towards the people of this country, and to my own sense of self-respect, if I allowed negotiations between the Government and the Company to proceed, either on the basis of accusation or menace.

The good faith and honor of Canada, and of its people, have hitherto been unquestioned, and its course of action towards the Great Western Railway, in this instance, will be vindicated at the proper time.

It is one thing to ask for favorable consideration at the hands of the Government, another to demand it in reparation for an alleged wrong, and under a threat of injury to its credit.

I should deeply regret to seem wanting in courtesy towards the representatives of a respectable body of shareholders, or personally towards the gentlemen who are on their way to Canada, but I should be justly censurable if I overlooked the very serious statements reported to have been officially made against a people and Government who are sensitive to retaining in their future a name as unsullied by any charge of dishonor, or disregard of national obligations, as it has been in the past.

Apart from the graver charge to which I have alluded, I regret to perceive certain statements, which I can hardly regard as debateable, put before the shareholders at the same meeting, calculated to raise a sense of injury in their minds towards Canada. It cannot, surely, be unknown to the shareholders, that for many years after the loan was advanced, the Great Western Company made no charge of violated conditions; it continued to pay the interest and sinking fund; it expressed its grateful acknowledgments to the Government for assenting subsequently to a modified arrangement, proposed by the Company itself, under which the original loan was to be repaid, on terms more advantageous to the Company; it voluntarily, and before it came due, repaid a part of that loan long after the now alleged cause of injury had arisen, it repeated its acknowledgments to the Government, in 1859, when its request to defer the payment of interest for three years, was acceded to; but now, when the Government having acquiesced in an extension, not of three years only, but of eight years, the return for their consideration is an imputation of bad faith and injustice!

It cannot have been forgotten, that the Company employed a large amount of its capital in enterprizes wholly beyond the limits for which it was originally chartered; its accounts shew that about a million and a quarter of dollars were spent in the United States on the Detroit and Milwaukee Railway; other branches were, if I mistake not, begun after the Grand Trunk was in course of construction, to Sarnia, and to compete with that line; a large sum, exceeding, I believe, \$600,000, was invested in steamers; and if the examination of the accounts, which I formerly directed to be made, be not inaccurate in its results, these and other items of a like character, absorbed upwards of \$4,000,000 of the Company's capital.

I perceive that the Chairman now ascribes the falling off of dividends in the nine years, commencing in 1859, to the construction of the Grand Trunk Railway, and I cannot but regret that he should have sought to strengthen the claim he desired to support, by assigning so erroneous a cause for the decline.

The Grand Trunk was only opened in 1860, two years after that decline had begun. The circumstances under which the Great Western began to declare large dividends at the outset of its career, are perfectly well understood in Canada, and the causes which subsequently led to the reduction, are equally so.

The Directors themselves, in their reports, issued to the shareholders at the time, in no instance attribute the falling off to other than the well understood commercial cause—bad harvests, declining traffic, and the monetary derangements caused by public events in Europe.

The injury to business, occasioned by the American war, and the direct loss on the con-

version of American currency, which, during the last half-year, amounted to upwards of \$300,000, and which, if I am not in error, amounts in the aggregate to over \$3,000,000, are not taken into account, nor is the fact, that the Company, without any sanction of Parliament, built its blue or narrow gauge line from Windsor to Sarnia, chiefly out of the \$1,079,000, which in the course of the eight years it retained from the Government, thus, without any call on its proprietors, increasing its capital to that extent.

It would have been more ingenuous had some prominence to these, the true causes of loss, and this employment of funds, so notorious in Canada, been given at the meeting in London, instead of ascribing the diminished dividends to the unjust action of the Canadian Legislation.

I do not, however, at the present moment, propose to discuss the merits of these statements in detail, though it may be my duty hereafter to do so.

The imputation, that, Canada, in connection with the Great Western and other Companies, kindred enterprises, has been indifferent to the return made on the foreign capital invested, cannot be admitted as true.

If the circumstances attending the origin and promotion of the various works which have been undertaken in Canada, the extent to which Canada participated in their management, or controlled the expenditure of the capital, the conditions on which the advances were originally agreed to be made by the Province, and the subsequent concessions extended by it, are considered, Canada has nothing to fear from the review as it may affect either her honor, her good faith, or her liberality.

I have thought it right frankly to communicate to you at the earliest moment, the impressions left on my mind by a perusal of the printed report.

You will readily see, that unexplained, it cannot but affect the character of the interview, which I have no desire should be otherwise than of the most friendly nature.

Yours truly,

(Signed,)

JOHN ROSE,

Minister of Finance.

Thomas Swinyard, Esq.,

St. Lawrence Hall, Montreal.

(Extracts.)

*The Government Loan.*

"There is another matter to which I desire to call your attention, and it is a very important matter, I allude to the Government Loan.

"As you are aware, we borrowed the sum of £583,000. We likewise owe them an accumulation of interest thereon, since 1860, which amounts to £220,000 more. It is called a Government Loan, but I prefer calling it Government aid.

"But for the aid the Government gave in the early construction of this line, and the promises they made before it was constructed, they would not have had British capital to form this important element in the advancement and civilization of the Province.

"Now gentlemen, if the matter had rested as it stood at first, we should have been able readily and cheerfully to have paid our interest punctually, that is, if the Government had abided by the conditions which were made when the loan was advanced, and when British capital was subscribed to make the Railway.

"In direct violation of Government faith, I say on the faith of which our capital was advanced, and the Government aid was granted.

"The rival line is within twenty miles, average distance, from our own.

"From that time to the present, our line has been a struggling and losing line, and we say by reason of this action of the Legislature.

"I have a return which shows the condition of things prior to the extension of the Grand Trunk west of Toronto, and subsequent to that extension.

"From the year 1854 to 1858, the dividend of this Company averaged six per cent. per annum. After the extension of the Grand Trunk Line to Sarnia had been opened, the dividend fell off to 3 per cent., in January, 1859, to *nil* for the three following half years; and the average dividend for the next nine years, to July, 1867, is only at the rate of two

per cent. per annum for division among the shareholders, the average previously being six per cent.

"Now, when the Government so far broke faith with those who advanced their capital on the strength of that faith, as to reduce the means of earning the Government interest, they thereby, I think, very much diminished the force of their claim for that interest.

"The inhabitants of Canada have had all the advantages of our line; our railway has added to the value of real estate; it has added to their well-being and prosperity in every way. They have had the advantages, and they have deprived us the shareholders of the advantages which we ought to derive from our interests in a colony so far distant; I cannot help feeling, therefore, that we have a strong claim for the consideration of the Government, not only not to press for the repayment of this interest, but even to give us some substantial compensation for the disadvantageous position in which they have placed this Company.

"The Government of the New Dominion of Canada will have to come to this country for capital to construct the Intercolonial Railway.

"I must say it would, in my opinion, have been much better in every point of view, if they had shewn a due regard, an equitable regard for the position of this Company, before they came again for British capital to form an extension of their railway system."

(Copy.)

MONTREAL, 11th June, 1868.

DEAR SIR,—Your letter of the 9th instant has been received by me this morning on my arrival from New York, with some members of our English Direction, who reached there yesterday, and are now here with me. Among these gentlemen is Mr. Alderman Dakin, the President of our Company. Extracts from whose reported remarks accompany your letter.

It is not my intention in this communication to enter upon the consideration of any of the points which you put forward, except those that relate to the remarks of the President. The others I shall be prepared to discuss whenever time and opportunity are afforded; but on behalf of the President, and with his sanction, I beg leave to disclaim any intention to urge anything against the good faith of the Government of the Dominion, or to hold out any menace, if the Government did not consent to that which he considered to be a fair requirement by the Great Western.

The remarks of Mr. Dakin were based upon the correspondence which had taken place between us, and upon the arguments that had been used before the Privy Council on our behalf; and neither in one case nor the other was any fault found by the Government or yourself, with the tone or tenor of our correspondence or argument.

There can be no doubt that the Great Western Railway was commenced on the faith of being a part of the "Main Trunk Line," and that Government aid was given to it as such,—the very word "faith" being used in reference to it by the Canadian Legislature; and there can be equally little doubt that there was then no intention of building a rival line from Toronto, westward; and it is certainly a fair matter for argument that that faith was departed from when that rival line was built, and Government aid extended to it.

The Great Western Company, as far back as 1861, presented that view in a memorial to the Legislature, and it always has been, and must still continue to be, a part of the case for the relief they seek; and in no other sense and in no other way was it intended to be presented by the President to the Shareholders.

Nor were his remarks to the Shareholders about the Intercolonial loan offered as a menace. They were simply the reiteration of the view presented by the correspondence and case before the Privy Council: to neither of which was any exception taken either at the time, or since.

The Great Western Company have no desire whatever to question the "good faith and honor" of the Canadian Government in their dealings with them,—indeed it is upon that good faith and honor that they rely for the relief for which they are now asking; and in the statements that were made at their shareholders' meetings nothing was said, nor intended to be said, which was not based in the belief of the President upon a state of facts which had been urged upon the Legislature by memorial from the Company years before, and been made the subject of much correspondence and discussion with the Provincial Government without exception to its use, as an unfair or improper ground of argument in the interests of

the Company. As I know that your time must necessarily be much engaged, will you be good enough to name such an hour this afternoon, or to-morrow morning, as will best suit you for an interview with our English Deputation.

I remain, dear Sir, yours truly,  
(Signed,) THOMAS SWINYARD.

The Honorable John Rose,  
Minister of Finance, Montreal,

(Copy.)

GREAT WESTERN RAILWAY,  
HAMILTON, C. W., June 17th, 1868.

MY DEAR SIR JOHN,—Referring to our conversation when I had the pleasure of meeting you on Monday, the 15th instant, and pursuant to your request that I should acquaint you with the substance of my interviews with Mr. Rose, prior to his departure for England, I beg to say that I gathered from him that the Government could not recommend the acceptance of the sum already offered by the Company; nor did he feel himself warranted in making a proposition to me for the adjustment of the matters between us. He, however, suggested that it would be a step gained if the Government had before it such an offer as they could adopt, and he also promised to speak to his Colleagues upon the subject.

In approaching you upon this matter I did not feel that it was necessary for me to enter at length upon the claims of the Company for consideration, which had been already urged in the course of correspondence, namely, the encouragement given to the Company by Parliament by means of loan, to secure the construction of its line; the guarantee afterwards given by Act of Parliament that it should form part of the "Main Trunk Line," the subsequent adverse legislation authorizing the extension of the Grand Trunk Railway, west of Toronto and Guelph, contrary to the protests of the Great Western, and to the Act of Guarantee referred to; the injurious effects on the traffic of the Great Western Company by such Western extension; the pecuniary assistance given by the Government for such purpose, although previous legislation expressly declared no such assistance should be given; the substitution of the more costly Broad Gauge for the Narrow Gauge originally contemplated, and the consequent injury to the through traffic; the Petition for relief the Company presented in 1861; the very small return to the shareholders already mentioned; the vast permanent advantages and daily benefit the Railway is to the country in securing its development and progress; and the constant employment it affords to several thousands of workmen.

I rather endeavoured to explain to you, as I had done to Mr. Rose, the insuperable difficulty of raising further funds in England for Railway purposes, under existing circumstances of Railway distrust; but that if some substantial concession was made to us by the Government, and an advantage to our Corporation be apparent, our own shareholders might then be induced to subscribe the funds necessary to effect the settlement.

It has already been pointed out that since the year 1859, our shareholders have received an average dividend, on their investments, of only 2 per cent; on the other hand they have contributed in respect of calls made upon shares during the same period no less than \$1,916,464, which has been expended on the road; and now in addition, our capital account (being overdrawn) will require to be replenished for our own purposes, to the extent of, at least, \$1,000,000. Indeed I may say that such is the exigency of our financial position, that shortly before leaving England, I arranged for a temporary loan of \$300,000, to provide for the last dividend on our shares. I would also mention that the money we have earned for Postal and Military Service, but which the Government has retained in its hands, amounts to an annual interest on the principal due to the Government, at almost the same rate our shareholders have received for dividend, viz.: 2 per cent. per annum.

With regard to the expenditure of large sums of money to promote through traffic in transit across the Province, I beg to say that it is an established fact that the efficiency of our Local Train Service could not have been maintained if it had not been for this provision for through traffic.

In making this communication I am urged by the necessity which has arisen for at once obtaining funds for the current demands of the Company, and as the Honorable the Finance Minister stated that although the Government was disposed to deal favorably with a Company

which had rendered great service to the country, the sum proposed to be paid was not such as could be adopted by the Government, (this sum was £306,525 stg, and was intended to have been paid in cash,) I am induced to suggest that a larger sum of £400,000 stg., might be provided by the Company, in full of all demands by the Government, (if some time were allowed for its payment,) by means of a financial operation amongst our own proprietors; which, while discharging the debt due to the Government, might be made available for raising the necessary amount to provide for the pressing wants of the Company.

Soliciting your kind consideration, and asking the favor of a communication in reply, or of any appointment it may be convenient for you to make.

I am, dear Sir John,

Yours very truly,

THOMAS DAKIN,

President Great Western Railway Co.

The Honorable

Sir John A. Macdonald, K. C. B.,  
Ottawa.

(Copy.)

OTTAWA, 3rd September, 1868.

SIR,—I have to call your attention to the former communications which were made to the Great Western Railway Company on the subject of the amount due to the Department of Finance.

It appears that no arrangement has yet been made by you with the Finance Department for the payment of the current interest on the principal sum due by the Company, and I have it in command to say that it will be necessary such payment, from the 1st January last, should be made regularly every half year. You will be good enough to make provision to that effect with the Minister of Finance.

I am likewise to request that in accordance with the decision of His Excellency the Governor General in Council, arrangements may be made for the settlement of the arrears which have hitherto formed the subject of communication between yourself and the Government.

I have, &c.,

(Signed.) HECTOR L. LANGEVIN,

Secretary of State.

Thos. Swinyard, Esq.,

General Manager, Great Western Railway Co.,  
Hamilton, Ont.

OTTAWA, 16th Sept., 1868.

SIR,—I beg to call your attention to my communication of the 3rd instant, on the subject of the interest payable to the Government by the Great Western Railway Company, and to remind you that no reply has been received to that letter.

I have, accordingly, to repeat that it is indispensably necessary that the current interest should be punctually met, and to request that you will make arrangements with the Minister of Finance, accordingly.

I have, &c.,

(Signed.) HECTOR L. LANGEVIN,

Secretary of State.

Thos. Swinyard, Esq.,

General Manager Great Western Railway Co.,  
Hamilton.

GREAT WESTERN RAILWAY,  
HAMILTON, ONTARIO, 21st September, 1868.

SIR,—I have the honor to inform you, that your letter of the 3rd instant was, on Friday last, laid before the Directors of this Company, who then met for the first time after its receipt.

As you make no reference to the interviews which occurred a short time ago between the President of this Company, Mr. Alderman Dakin, and Mr. Faulconer (the deputation appointed by my English Board, to wait upon the Government), and Sir John A. Macdonald, and the Honorable John Rose, nor to the correspondence which took place between those gentlemen, my Board here presume that you are not aware of the position in which the matter was left, that is to say, of the proposition that was then made by the Company to the Government.

To this proposition, my Directors have been most anxiously waiting a reply.

I am to assure you, that they are extremely desirous that an early arrangement may be made with the Government, not only because of the injurious effects which, unfortunately, the knowledge of the demand made by the Government has had upon the market value of the Company's securities, but also because, as explained by our President, Mr. Dakin, our capital account being overdrawn, will have to be replenished for our own purposes, to the extent of at least \$1,000,000.

In order to effect this, and at the same time to raise a sum of money necessary to finally adjust the amount with the Government, a special appeal will have to be made by the Board to the proprietors of the Company, as it is to them only, under existing circumstances of railway depression in England, that the Directors can look for the needful supply of funds.

If a personal interview with you, or the Honorable the Minister of Finance, would facilitate an early adjustment of this, to my Company, most important matter, I beg you to immediately acquaint me, and I will make it my first duty to attend to your wishes.

I have, &c.,

(Signed,)

THOMAS SWINYARD.

Hon. Hector L. Langevin,  
Secretary of State, Ottawa.

(Copy.)

FINANCE DEPARTMENT,

OTTAWA, 5th November, 1868.

DEAR SIR,—The correspondence which has taken place through the Secretary of State with you, on the subject of the Government claim, has been referred to this Department.

I must beg to call your serious and immediate attention to this matter, and to say that it is absolutely necessary, arrangements should be made to meet the current interest.

Waiting your reply,

I remain, &c.,

(Signed,)

JOHN ROSE.

Thomas Swinyard, Esq.,  
General Manager,  
Great Western Railway Company,  
Hamilton, Ont.

GREAT WESTERN RAILWAY.

HAMILTON, ONTARIO, 9th November, 1868.

DEAR SIR,—I am favored with your letter of the 5th instant, and beg to forward you a copy of the reply I have made to the last letter received by me from the office of the Secretary of State, as we, here, cannot meet the requirement of the Government, I have forwarded the correspondence to my Board in England.

Pending the efforts made by the Company to come to some satisfactory arrangement with the Government, in regard to its entire loan, and looking to the onerous position in which the enforcement of the demand would place the Company, I was in strong hopes that after my recent explanations, it would not be continued.

I remain,

Yours very faithfully,

(Signed)

THOMAS SWINYARD.

The Honorable John Rose,  
Minister of Finance, Ottawa.

GREAT WESTERN RAILWAY,  
HAMILTON, ONT., 9th November, 1868.

SIR,—I have been absent in the West for some days past. On my return, your letter of the 28th ultimo has been placed before me, and while I will at once forward your communications to my Board in England, whose instructions I am, of course, compelled to obtain, I cannot refrain from again expressing my regret that in the present depressed state of the Company's finances, and under the very special circumstances already explained, the Government should require the payment of the current interest upon its loan; and especially as it has retained during the past half year, for postal and military services performed by the Company, a sum which, in the loan, equals the per centage which the Company has been able to declare to its proprietors for the same period.

In addition to this, the country has been, and is, daily deriving other direct and important advantages in the development of its resources, by the great accommodation afforded by the Railway.

Our financial exigencies are serious, and I much fear that under the circumstances in which we are placed—our capital account being considerably overdrawn—my Board in England will find the pressure now brought to bear upon them very onerous, and difficult to meet, pending a settlement of the whole question, which the Company are so anxiously desirous of effecting with the Government.

I have the honor to be, Sir,

E. Parent, Esquire,  
Under Secretary of State,  
Ottawa, Canada.

Your most obedient servant,  
(Signed,) THOMAS SWINYARD.

(Copy.)

FINANCE DEPARTMENT,  
OTTAWA, 17th November, 1868.

SIR,—It would serve no good purpose to continue a discussion of the propriety, or otherwise, of the Government enforcing payment of the current interest on the Great Western Railway Company's debt, but I cannot help saying, that while every other creditor is paid in full, it is rather hard that the Government only should be left unpaid.

You speak of the Government receiving in postal services, a sum nearly equal to the dividend paid to your proprietors, but you seem to forget that the Government is not a shareholder, but a creditor, and the first creditor also, and that your proprietors are really the debtors to, and not co-partners with, the Government.

You allude to the efforts made, to come to a satisfactory arrangement respecting the entire loan, but I must remind you, that while the Government have apprised you, that they cannot, with a due regard to the public interest accept the only offer you have put before them, and have invited you both verbally and otherwise to make another offer which they might consider; no further proposition whatever has emanated from you.

I repeat that I am anxious to receive, and shall be prepared to consider, as favorably as my sense of public duty will permit, any reasonable offer for a complete settlement. But pending that, the current interest, which is included in our estimates for the year, must be paid.

I must beg, therefore, that you will take the necessary steps to obtain a credit on your English Board to make that payment, if you have not the means in this country.

I have the honor to be, Sir,

Thos. Swinyard Esq.,  
General Manager,  
Great Western Railway Co.,  
Hamilton, Ont.

Your obedient servant,  
(Signed,) JOHN ROSE,  
Minister of Finance.

(Copy.)

GREAT WESTERN RAILWAY,  
HAMILTON, ONT., 23rd Nov., 1868.

DEAR SIR,—I have the honor to acknowledge the receipt of your letter of the 17th instant. I regret very much that you should be under the impression that only one offer

has been put before the Government, and that any misunderstanding should exist upon that point, as a second offer was made on the 17th June last, by Mr. Dakin, the President of our Company, to Sir John A. Macdonald, of a payment of £400,000 sterling, if time were granted for it, and to that offer, no answer has ever been received, although Sir John, on the 24th June, wrote to Mr. Dakin in reply, that he would take an early opportunity of bringing up the question before the Council; and I have ever since anxiously awaited a further communication upon the subject; you will of course understand why, under these circumstances, I expressed a hope that the Government would defer the claim made for the payment of current interest, as a separate and independent part of the subject matter; supposing that the whole was under the consideration of the Executive, and that if it should be finally settled on the basis proposed by our President, there would be no separate payment of interest to be made now.

I deem it unnecessary again to go at length into the arguments which I have already addressed to you why the Government should deal gently with the Great Western in this matter. I think, and my Board think, that they are cogent, and such as may be fairly entertained by the Executive, and would be supported by the Legislature; but I would advert briefly to the points principally urged in the letter of the Under Secretary of State, of the 28th ult., and your own letter of the 17th inst. In these letters I am informed that the claim of the Government which legally takes precedence of all other claims, should, as to accruing interest, be put upon the same footing as that of the least favored creditor, that the Company has earned enough to pay interest on all classes of its debts, and has retained the requisite amount to defray the current interest due to the Government, and that our proprietors are really the debtors to, and not the co-partners of the Government. I am unable to gainsay either of these propositions as mere matters of fact; but I do not admit that they lead to the conclusion which the Government seem to consider inevitable. We claim that the precedence of the Government as a creditor, may, though strictly legal, in this case, be fairly considered as exceptional, and that it could hardly be justly enforced, to our manifest injury, while the other Railways of the country, which have enjoyed similar advantages, have been exonerated almost absolutely from all payments to the Government; and that although the interest on the Government debt is formally credited in our half-yearly accounts (and is represented by the excess of the capital account) it has all been expended in actual and necessary outlay on the road, and has been so expended in the belief that the same indulgence would be extended, at least in a measure, to the Great Western, that has been so freely given by the Legislature and the Government to the Grand Trunk and Western Railways. I knew that the Government are not our co-partners in a mercantile sense, but they are our co-partners in the benefits which our railway has conferred upon this country.

I trust I am warranted in hoping that the Executive will deal with us in this spirit, and that they will accede to our proposal of £400,000 sterling, which amount the Directors have been anxiously endeavouring to provide for, and are now prepared to arrange to pay if the Government, by their early acceptance, will enable them to take advantage of the present more favorable state of the money market.

I have, as intimated in previous letters, forwarded copies of the recent correspondence to England, and I shall again communicate with my London Board by this day's mail, and as soon as their answer is received shall have the honor of again addressing you, if I have no communication from you to answer in the meantime.

I am, dear Sir,

Very faithfully yours,

(Signed,) THOS. SWINYARD.

The Hon. John Rose,  
Minister of Finance,  
Ottawa.

(Copy.)

The Great Western Railway Co. propose to the Government of Canada, the settlement of accounts arising out of the Government loan, on the following terms, viz.:

1. The Company to pay the balance of the loan, amounting to £573,687 15s. 0d.
2. The Government to retain the postal and military service accounts earned by the



Great Western Company, up to 30th June, 1868, the Government paying from 1st July, 1868, the postal and military earnings.

3. The Company to pay to the Government in full settlement of all arrears of interest up to 31st December, 1868, a sum of \$400,000, or, £82,135 10s. 5d., making the total sum to be paid to the Government, £655,823 5s. 5d.

4. That sum to be paid to the Government as follows, viz. :—£100,000 in cash, on or before the 10th February, 1869. The balance of £555,823 5s. 5d. to be paid in four equal instalments, in 1, 2, 3 and 4 years from 1st February, 1869, at 4 per cent. per annum, interest. Bonds to be given for these instalments, giving the Government the same lien as at present.

This settlement is recommended by the undersigned, for the adoption of the Board of Directors in England, and the recommendation is concurred in by the Executive Committee of the Board in Canada.

(Signed,) WM. McMASTER,  
Chairman of the Executive Committee  
of the Board of Directors.

Toronto, 14th December, 1868.

(Copy,)

FINANCE DEPARTMENT,  
OTTAWA, 30th Nov. 1868.

DEAR SIR,—After the personal communications which have taken place between us on the subject of your letter of the 23rd inst., since it was written, it is perhaps unnecessary for me to make any formal acknowledgment of its receipt.

It may be well, however, to state, with reference to the unofficial correspondence between Sir John A. Macdonald and your President, that the substance of it was at the time brought informally under the notice of the other members of the Government, and as they did not feel they could in any way modify the conclusions embodied in the minute of Council of the 28th of May last, of which the Company had been apprized, the subsequent application for a settlement in accordance with that Minute was deemed a sufficient reply to Mr. Dakin's letter.

To avoid any misconception, however, either with reference to what has taken place in the past, and needless discussion in the future, let me repeat what I verbally endeavoured to convey to you, that with every desire to deal as considerately with the Company as a sense of public duty will permit, I do not think it possible to depart from the following conditions as the basis of negotiation, viz. :—

- 1st. Payment of the current interest half-yearly.
- 2nd. Payment in full of the capital within such time as may be agreed on; and
- 3rd. That the negotiations for any concession must be confined to the arrears accrued previous to January, 1868.

If you have any objections to make, either to the principle on which the account rendered to you for these arrears is made up, or any items of detail in it, or if you have any proposal looking to a modification of the total sum claimed, to convey, I will be glad to give your objections or proposals my earliest and best consideration.

You will, however, understand that any proposal you may make will have to be submitted for the consideration of Council, and if approved, to be then subject to the action of Parliament.

Awaiting the favor of your reply,

Thomas Swinyard, Esq.,  
General Manager,  
Great Western Railway Co.,  
Hamilton, Ont.

I have, &c.,  
(Signed,) JOHN ROSE.

THE GREAT WESTERN RAILWAY COMPANY in account current, and Interest Account to 31st January, 1868, with the Dominion of Canada.

		\$	cts.	\$	cts.	\$	cts.
1855	Jan'y 31.	By Conveyance of Mails.....	19,768	09			
		“ Interest from Feb'y 1st to April 30th.....	289	20			289 20
	April 30.	To Cash from Postmaster General.....	20,057	29			
		By Balance Credit.....	8,000	00			
		“ Interest from April 30th to June 30th, 1856.....	12,057	29			
	July 31.	“ Conveyance of Mails.....	549	00			549 00
		“ Interest from July 31st to January 31st, 1856.....	12,138	00			
1856	Jan'y 31.	“ Conveyance of Mails.....	369	12			369 12
		“ Conveyance of Mails.....	12,904	04			
		“ Conveyance of Mails.....	38,017	45			
	Jan'y 31.	To Cash from Postmaster General.....	8,000	00			
		By Balance Credit.....	30,017	45			
		“ Interest from February 1st, 1856, to January 1st, 1857.....	1,652	98			1,652 98
	July 31.	“ Conveyance of Mails.....	14,200	00			
		“ Interest from July 31st, 1856 to January 1st, 1857.....	359	47			359 47
		“ Conveyance of Mails.....	46,229	90			
1857	Jan'y 1.	To Interest Commission, &c., on £770,000 stg.....	114,581	13			
		“ Balance Debit.....	68,351	23			
		“ Interest from January 2nd to January 31st.....	337	06			337 06
	Jan'y 31.	By Conveyance of Mails.....	68,688	29			
		To Balance Debit.....	14,528	00			
		“ Interest from February 1st to July 31st.....	54,160	29			
	March 31.	“ Paid Bank of Upper Canada cash.....	1,611	43			1,611 43
		“ Interest from March 31st to July 31st.....	642	83			
	May 31.	“ Cash from Postmaster General.....	12	99			12 99
		“ Cash from Postmaster General.....	16,000	00			

July 1.	“ Interest from May 31st to July 31st.....	62	163 07	163 07
	“ Interest, Commission &c., on £770,000 stg.....	31	114,881 13	583 83
	“ Interest from July 1st to July 31st.....		583 83	
July 31.	By Conveyance of Mails.....		187,755 57	
	To Balance Debit.....		14,364 00	
	“ Interest from August 1st to September 11th.....	42	173,391 57	1,197 10
Sept. 11.	By Cash from W. Stephens.....		1,197 10	
	To Balance Debit.....		174,388 67	
	“ Interest from August 1st to September 11th.....		114,581 13	
1858	By Cash from W. Stephens.....		60,007 54	
	To Balance Debit.....	142	1,400 71	1,400 71
	“ Interest from September 12th, 1857 to January 31st, 1858.....		1,400 71	
Jan 1.	“ Interest on £770,000 stg.....	31	115,618 07	589 11
	“ Interest from January 1st to January 31st.....		589 11	
Jan 31.	By Conveyance of Mails.....		177,615 43	
	To Balance Debit.....		14,850 48	
	“ Interest from February 1st to February 15th.....	15	162,764 95	401 33
Feb 15.	By Cash from W. Stephens.....		401 33	
	To Balance Debit.....		163,166 28	
	“ Interest from February 1st to February 15th.....		113,544 20	
July 1.	To Balance Debit.....		49,622 08	
	“ Interest from February 6th to June 30th.....	135	1,101 19	1,101 19
	“ Interest, Commission &c., on £770,000.....		113,544 20	
July 1.	By Amount received from London Agents.....		164,267 47	
	To Balance Debit.....		113,544 20	
	“ Interest from July 1st to July 31st.....	31	50,723 27	258 49
July 31.	By Conveyance of Mails.....		258 49	
	To Balance Debit.....		50,981 76	
	“ Interest from July 1st to July 31st.....		14,857 00	
	Carried over.....			\$7,656 31
				\$3,219 77

The Great Western Railway Company in account current, and Interest Account to 31st January, 1868, with the Dominion of Canada.—Continued.

		\$	cts	\$	cts.
1858.	<i>Brought over.</i>				3,219 77
July 31.	To Balance Debit.				7,656 31
	“ Interest from August 1st to January 30th.	36,124	76		
1859		1,086	68		1,086 68
Jan'y 1.	“ Interest, Commission, &c., on £577,500 stg.	85,158	15		
	“ Interest from January 1st to January 30th.	419	95		419 95
Jan'y 31.	By Conveyance of Mails.	122,789	54		
		15,379	67		
	To Balance Debit.	107,409	87		
	“ Interest from January 31st to March 2nd.	547	33		547 33
March 3.	By Cash from Bank of Upper Canada.	107,957	20		
		85,168	15		
	To Balance Debit.	22,799	05		
	“ Interest from March 3rd to July 30th.	562	17		562 17
July 1.	To Interest on £577,500 stg.	23,361	22		
	“ Interest from July 1st to July 30th.	85,352	57		
		420	90		420 90
July 31.	By Conveyance of Mails.	109,134	69		
		17,837	50		
	To Balance Debit.	91,297	19		
	“ Interest from July 31st to October 28.	1,350	68		1,350 68
Oct. 29.	By Cash from W. Stephens.	92,647	87		
		69,171	38		
	To Balance Debit.	33,476	49		
	“ Interest from October 29th to December 9th.	231	12		231 12
Dec'r 10.	By Cash from W. Stephens.	33,707	61		
		25,986	77		

1860	To Balance Debit.....	7,720 84	65 84	
Jan'y 1.	“ Interest from December 10th to January 30th, 1860.....	65 84		65 84
	“ Interest, Commission, &c., on £577,500.....	85,352 57		
	“ Interest from January 1st to January 30th.....	420 90		420 90
Jan'y 31.	By Conveyance of Mails.....	93,560 15 •		
		17,837 50		
	To Balance Debit.....	75,722 65		
July 1.	“ Interest from January 31st to July 30th.....	2,265 44		2,265 44
	“ Interest, Commission, &c., on £577,500 stg.....	85,158 14		
	“ Interest from July 1st to July 30th.....	419 95		419 95
July 31.	By Conveyance of Mails.....	163,566 18		
		17,837 50		
	To Balance Debit.....	145,728 68		
Jan'y 1.	“ Interest from July 31st to January 30th, 1861.....	4,407 74		4,407 74
	“ Interest, Commission, &c., on £577,500.....	85,158 15		
	“ Interest from January 1st to January 30th.....	419 95		419 95
Jan'y 31.	By Conveyance.....	235,714 52		
		17,837 50		
	To Balance Debit.....	217,877 02		
July 1.	“ Interest from January 31st to July 30th.....	6,482 56		6,482 56
	“ Interest, Commission, &c., on £577,500 stg.....	85,158 15		
	“ Interest from July 1st to July 30th.....	419 95		419 95
July 31.	By Conveyance of Mails.....	309,937 68		
		17,837 50		
	To Balance Debit.....	292,100 18		
Jan'y 1.	“ Interest from July 31st to January 30th, 1862.....	8,835 01		8,835 01
	“ Interest, Commission, &c., on £577,500 stg.....	85,158 15		
	“ Interest from January 1st to 30th.....	419 95		419 95
Jan'y 31.	By Conveyance of Mails.....	386,513 29		
		\$386,513 29		
	<i>Carried over</i> .....			\$30,432 43
				\$3,219 77



July 1.	To Balance Debit.....	698,383 62			
	" Interest from January 31st to July 30th.....	20,894 12	182		20,894 12
	" Interest, Commission, &c., on £577,500.....	85,158 15			
	" Interest from July 1st to July 30th.....	419 95	30		419 95
July 31.	By Conveyance of Mails.....	804,865 74			
		17,837 50			
	To Balance Debit.....	787,018 24			
1865.	" Interest from July 31st, 1864, to January 30th, 1865.....	23,804 57	184		23,804 57
Jan'y 1.	" Interest, Commission, &c., on £577,500 stg.....	85,158 15			
	" Interest from January 1st to January 30th.....	419 95	30		419 95
Jan'y 31.	By Conveyance of Mails.....	896,400 91			
		18,313 50			
	To Balance Debit.....	878,087 41			
July 1.	" Interest from January 31st to July 30th.....	26,126 10	181		26,126 10
	" Interest, Commission, &c., on £577,500.....	85,158 15			
	" Interest from July 1st to July 30th.....	419 95	30		419 95
July 31.	By Conveyance of Mails.....	989,791 61			
		17,919 50			
	To Balance Debit.....	971,872 11			
Nov. 14.	" Interest from July 31st to 13th November.....	16,934 51	106		16,934 51
	By Cash from Deputy Adjutant General.....	988,806 62			
		7,494 46			
	To Balance Debit.....	981,312 16			
	" Interest from November 14th to November 16th.....	483 94	3		483 94
Nov. 17.	By Cash from Deputy Adjutant General.....	981,796 10			
		1,514 46			
	To Balance Debit.....	980,281 64			
	" Interest from November 17th to December 12th.....	4,189 70	26		4,189 70
	<i>Carried over</i> .....	\$984,471 34			\$190,550 35
					\$3,219 77

The Great Western Railway Company in Account Current, and Interest Account to 31st January, 1868, with the Dominion of Canada.—Continued.

		\$	cts.	\$	cts.	\$	cts.
1865.	<i>Brought over</i> .....	984,471	34	190,550	35	3,219	77
Dec'r 13.	By Cash from Deputy Adjutant General.....	673	95				
	To Balance Debit.....	983,797	39				
	“ Interest from December 13th to January 30th, 1866.....	7,924	28	7,924	28		
1866.							
Jan'y 1.	“ Interest, Commission, &c., on £577,500.....	85,158	15				
	“ Interest from January 1st to January 30th.....	419	94	419	95		
Jan'y 31.	By Conveyance of Mails.....	1,077,399	77				
	To Balance Debit.....	21,591	92				
	“ Interest from January 31st to February 2nd.....	1,055,707	75				
		520	66	520	66		
Feb'y 3.	By Cash from Deputy Adjutant General.....	1,056,228	51				
	To Balance Debit.....	202	60				
	“ Interest from February 3rd to May 22nd.....	1,056,025	91				
		18,921	66	18,921	66		
May 23.	By Cash from Deputy Adjutant General.....	1,074,947	57				
	To Balance Debit.....	1,291	66				
	“ Interest from May 23rd to June 29th.....	1,073,655	91				
		6,706	68	6,706	68		
June 30.	By Conveyance of Mails.....	1,080,362	59				
	To Balance Debit.....	18,432	08				
	“ Interest from June 30th to September 29th.....	1,061,930	51				
	“ Interest, Commission, &c., on £577,500.....	16,059	89	16,059	89		
July 1.	“ Interest from July 1st to September 29th.....	85,158	16				
		1,273	86	1,273	86		



Sept.	30. By Conveyance of Mails.....			1,164,422 41 11,059 25		
	To Balance Debit.....			1,153,363 16		
	“ Interest from September 30th to November 28th.....	60		11,375 61		11,375 61
Nov.	29. By Cash from T. D. Harington.....			1,164,738 77 30,555 63		
	To Balance Debit.....			1,134,183 14		
	“ Interest from November 29th to December 19th.....	21		3,915 30		3,915 30
Dec'r	20. By Cash from T. D. Harington.....			1,138,098 44 409 18		
	To Balance Debit.....			1,137,689 26		
	“ Interest from December 20th to December 30th.....	11		2,057 16		2,057 16
Dec'r	31. By Conveyance of Mails.....			1,139,746 42 11,059 25		
	To Balance Debit.....			1,128,687 17		
	“ Interest from December 31st to January 21st, 1867.....	22		4,081 78		4,081 78
1867.	Jan'y 1. “ Interest, Commission, &c., on £577,500.....			85,158 15		
	“ Interest from January 1st to January 21st.....	21		293,96		293 96
Jan'y	22. By Cash from Deputy Adjutant General.....			1,218,221 06 151 21		
	To Balance Debit.....			1,218,079 85		
	“ Interest from January 22nd to February 27th.....	37		7,408 52		7,408 52
Feb'y	28. By Cash from Deputy Adjutant General.....			1,225,478 37 138 80		
	To Balance Debit.....			1,225,349 57		
	“ Interest from February 28th to March 30th.....	31		6,244 19		6,244 19
March	31. By Conveyance of Mails.....			1,231,583 76 11,059 25		
	Carried over.....					\$277,753 85

\$3,219 77

The Great Western Railway Company in Account Current, and Interest Account to 31st January, 1868, with the Dominion of Canada.—Continued.

			\$	cts.	\$	cts.	\$	cts.
1867.	<i>Brought over</i> .....						3,219	77
March 31.	To Balance Debit.....		1,220,524	51	277,753	85		
	“ Interest from March 31st to April 5th.....	6	1,203	81				
April 6.	By Cash from Deputy Adjutant General.....		1,221,728	32				
			44	11				
	To Balance Debit.....		1,221,681	21				
	“ Interest from April 6th to May 2nd.....	27	5,422	27	5,422	27		
May 3.	By Cash from Deputy Adjutant General.....		1,227,106	48				
			178	05				
	To Balance Debit.....		1,226,928	43				
	“ Interest from May 3rd to May 28th.....	26	5,243	90	5,243	90		
May 29.	By Cash from Deputy Adjutant General.....		1,232,172	33				
			157	40				
	To Balance Debit.....		1,232,014	93				
	“ Interest from May 29th to June 27th.....	30	6,075	63	6,075	63		
June 28.	By Cash from Deputy Adjutant General.....		1,238,090	56				
			46	84				
	To Balance Debit.....		1,238,043	72				
	“ Interest from June 28th to June 29th.....	2	407	04	407	04		
June 30.	By Conveyance of Mails.....		1,238,450	76				
			11,059	25				
	To Balance Debit.....		1,227,391	51				
	“ Interest from June 30th to September 2nd.....	65	13,114	68	13,114	68		
July 1.	“ Interest, Commission, &c., on £577,500.....		85,133	15				
	“ Interest from July 1st to September 2nd.....	64	895	91	895	91		

Sept.	3.	By Cash from Deputy Adjutant General.....	1,326,560 15		
		To Balance Debit.....	135 13		
		" Interest from September 3rd to September 20th.....	1,326,425 02	18	3,924 70
			3,924 70		
Sept.	21.	By Cash from Deputy Adjutant General.....	1,330,349 72		
		To Balance Debit.....	4 38		
		" Interest from September 21st to September 29th.....	1,330,345 34	9	1,968 20
			1,968 20		
Sept.	30.	By Conveyance of Mails.....	1,832,313 54		
		To Balance Debit.....	11,059 25		
		" Interest from September 30th to October 7th.....	1,821,254 29	8	1,737 54
			1,737 54		
Oct.	8.	By Cash from Deputy Adjutant General.....	1,322,991 83		
		To Balance Debit.....	21 42		
		" Interest from October 8th to November 11th.....	1,322,967 41	35	7,611 56
			7,611 56		
Nov.	12.	By Cash from Deputy Adjutant General.....	1,330,578 97		
		To Balance Debit.....	140 49		
		" Interest from November 12th to December 9th.....	1,330,438 48	28	6,123 61
			6,123 61		
Dec.	10.	By Cash from Deputy Adjutant General.....	1,336,562 09		
		To Balance Debit.....	117 35		
		" Interest from December 10th to December 30th.....	1,336,444 74	21	4,613 54
			4,613 54		
Dec.	31.	By Conveyance of Mails.....	1,341,053 28		
		To Balance Debit.....	11,059 25		
		" Interest from December 31st to January 14th, 1868.....	1,329,999 03	15	3,279 45
			3,279 45		
		<i>Brought over.</i>	\$1,333,278 48		\$3,219 77
					\$339,375 59

The Great Western Railway Company in Account Current, and Interest Account to 31st January, 1868, with the Dominion of Canada.—Continued.

		\$	cts.	\$	cts.	\$	cts.
1868.	<i>Brought over</i> .....	1,333,	278 48	339,	375 59	3,	219 77
Jan'y 1.	To Interest, Commission, &c., on £577,500.....	85,	158 15				
	" Interest from January 1st to January 14th.....	195	98	195	98		
		14					
Jan'y 15.	By Cash from T. D. Harrington.....	1,418,	632 61				
	To Balance Debit.....	2,	800 00				
	" Interest from January 15th to January 26th.....	1,415,	832 61				
		12		2,792	90		
Jan'y 27.	By Cash from Deputy Adjutant General.....	1,418,	625 51				
	To Balance Debit.....	62	26				
	" Interest from January 27th to January 31st.....	1,418,	563 25				
		5		1,165	93		
				\$ 1,419,	729 18		
						\$343,	530 40
							\$3,219 77

RECAPITULATION.

Debits Principal.....	\$2,100,861 04
Credits Principal.....	1,029,942 49
Balance.....	1,079,418 55
Debit Interest.....	343,530 40
Credit Interest.....	3,219 77
Balance.....	340,310 63
	<u>\$1,419,729 18</u>

The Great Western Railway Company. in account with the Dominion Government of Canada.—Interest at 5 per cent.

	Dr.	\$	cts.		Ca.	\$	cts.
1857. Jan. 1..	To interest, commission and exchange due this day on £770,000 sterling, amount of Debentures payable at Messrs. Glyn, Mills & Co., and Messrs. Baring Bros. & Co., of London.....		114,581 13		By conveyance of mails.....		19,768 09
March 31..	To paid Bank of Upper Canada for expenses incurred by that institution.....		642 93		do		12,138 00
July 1..	To interest, commission and exchange due this day on £770,000 sterling, amount of Debentures payable at Messrs. Glyn, Mills, Currie & Co., and Messrs. Baring Bros. & Co., of London.....		114,581 13		do		12,904 04
1858. Jan. 1..	do				do		14,528 00
July 1..	do				do		14,364 00
Sept. 11..	do				By cash per W. C. Stephens, Secretary G. W. R. R. Company.....		114,581 13
1858. Jan. 31..	do				By conveyance of mails.....		14,850 48
Feb. 15..	By cash from W. C. Stephens, &c.....		115,618 07		By cash from W. C. Stephens, &c.....		113,544 20
July 31..	do		113,544 20		By conveyance of mails.....		14,857 00
1859. Jan. 1..	To do		85,168 15		By amount received through London agents.....		113,544 20
1859. Jan. 31..	do				By conveyance of mails.....		15,379 67
March 31..	do				By cash per Bank of Upper Canada.....		85,168 15
July 31..	do		170,705 14		By conveyance of mails.....		17,887 50
1861. Jan. 1..	To do				By cash per W. C. Stephens, Secretary, &c.....		59,171 38
Jan. 1..	do				do		25,986 77
1862. Jan. 1..	To do		159,310 02		By conveyance of mails.....		17,837 50
Jan. 1..	do				do		17,837 50
1863. Jan. 1..	To do		159,310 02		do		17,837 50
1864. Jan. 1..	To do		159,310 02		do		17,837 50
1865. Jan. 1..	To do		159,310 02		do		17,837 50
1866. Jan. 1..	To do		159,310 02		do		17,837 50
	Carried forward.....		\$1,670,690 77		Carried forward.....		\$841,487 61

The Great Western Railway Company, &c.—(Continued.)

		Dr.		Cr.	
		<i>Brought forward</i> .....	\$	<i>Brought forward</i> .....	cts.
1867.	Jan. 1..	To interest, commission and exchange due this day on £577,000 sterling, amount of Debentures payable at Messrs. Glyn, Mills, Currie & Co., and Messrs. Baring Bros. & Co., of London.....	1,670,690 77		841,187 61
				By conveyance of mails.....	17,837 50
				do do .....	17,837 50
1868.	Jan. 1..	To do .....	159,310 02		18,313 50
				do do .....	17,919 50
				By cash from Deputy Adjutant General for transport service.....	7,494 46
				do do do .....	1,514 46
				do do do .....	673 95
					21,591 92
				By conveyance of mails.....	202 60
				By cash from Deputy Adjutant General for transport service.....	1,291 66
				do do do .....	18,432 08
				By conveyance of mails.....	11,059 25
				do do do .....	
				By cash from T. D. H., for Militia transport service.....	30,555 63
				do do do .....	499 18
				By conveyance of mails.....	11,059 25
					151 21
				By cash from Deputy Adjutant General, for transport service.....	188 80
				do do do .....	11,059 25
				By conveyance of mails.....	44 11
				By cash from Deputy Adjutant General, for transport service.....	178 05
				do do do .....	157 40
				do do do .....	46 84
				By conveyance of mails.....	11,059 25
				do do do .....	11,059 25
				By balance.....	962,652 25
				Total.....	\$1,989,310 81
					\$962,652 25
				To balance.....	

The Great Western Railway Company in account with the Dominion of Canada.

		Principal.	Interest.
		\$	cts.
1860.			
Jan.	31.. To Balance.....	7,786	68
"	31.. By conveyance of mails.....	17,837	50
July	31.. By balance at credit.....	10,050	82
	By conveyance of mails.....	17,837	50
1861.			
Jan.	31.. By balance at credit....	27,888	32
	By conveyance of mails.....	17,837	50
	To dividend at 3.076 per cent.....	45,725	82
		86,450	96
July	31.. To balance at debit.....	40,725	14
	By conveyance of mails.....	17,837	50
1862.			
Jan.	31.. To balance at debit.....	22,887	64
	By conveyance of mails.....	17,837	50
	To dividend at 2.547 per cent.....	5,050	14
		71,583	43
July	31.. To balance at debit.....	76,633	57
	To dividend at 1.272 per cent.....	35,749	56
		112,383	13
	By conveyance of mails.....	17,837	50
1863.			
Jan.	31.. To balance at debit.....	94,545	63
	To dividend at 2.022 per cent.....	56,828	31
		151,373	94
	By conveyance of mails.....	17,837	50
July	31.. To balance at debit.....	133,536	44
	By conveyance of mails.....	17,837	50
		115,698	94
1864.			
Jan.	31.. To dividend at 1.792 per cent.....	50,364	16
		166,063	10
	By conveyance of mails.....	17,837	50
July	31.. To balance at debit.....	148,225	60
	By conveyance of mails.....	17,837	50
		130,388	10
1865.			
Jan.	31.. To dividend at 2.042 per cent.....	57,390	40
		187,778	50
	By conveyance of mails.....	19,313	50
	To balance at debit.....	169,465	00
	To dividend at 1.521 per cent.....	42,747	70
		212,212	70
	By conveyance of mails.....	17,919	50
	To balance at debit.....	194,293	20
	<i>Carried forward</i> .....		
		\$194,293	20
			\$27,211 49

The Great Western Railway Company, &c.—(Continued.)

		Principal.	Interest.
		\$ cts.	\$ cts.
<i>Brought forward</i> .....		194,293 20	27,211 49
Nov. 14..	By cash from Adjutant General.....\$7,494 46		
" 17..	do do ..... 1,514 46		
	\$9,008 92		
Dec. 13..	do do ..... 673 95		
1866.			
Jan. 31..	By conveyance of mails..... 21,591 92	31,274 79	
		163,018 41	
	To dividend at 3.011 per cent.....	84,624 77	
	To balance at debit.....	247,643 18	6,191 08
Feb. 3..	By cash from Adjutant General..... \$202 60		
May 23..	do do ..... 1,291 66		
	\$1,494 26		
June 30..	By conveyance of mails..... 18,432 08	19,926 34	
July 31..	To dividend at 3.009 per cent.....	227,716 84	
	To balance at debit.....	84,567 90	
Sept. 30..	By conveyance of mails.....\$11,059 25	312,284 74	7,807 12
Nov. 29..	By cash from T. D. Harington..... 30,555 63		
Dec. 20..	do do ..... 409 18		
" 31..	By conveyance of mails..... 11,059 25		
1867.			
Jan. 22..	By cash from Deputy Adjutant General..... 151 21	53,234 52	
" 31..	To dividend at 2.247 per cent.....	259,050 22	
	To balance at debit.....	63,151 97	
		322,202 19	8,055 05
Feb. 28..	By cash from Deputy Adjutant General..... \$138 80		
March 31..	By conveyance of mails..... 11,059 25		
April 6..	By cash from Deputy Adjutant General ..... 44 11		
May 3..	do do ..... 178 05		
" 29..	do do ..... 157 40		
June 28..	do do ..... 46 84		
" 30..	By conveyance of mails..... 11,059 25	22,683 70	
		299,518 49	
July 31..	To dividend at 2.495 per cent.....	70,122 00	
	To balance at debit.....	369,640 49	9,241 01
Sept. 3..	By cash from Deputy Adjutant General..... \$135 13		
" 21..	do do ..... 4 38		
" 30..	By conveyance of mails..... 11,059 25		
Oct. 8..	By cash from Deputy Adjutant General..... 24 42		
Nov. 12..	do do ..... 140 49		
Dec. 10..	do do ..... 117 35		
" 31..	By conveyance of mails..... 11,059 25		
1868.			
Jan. 15..	By cash from T. D. Harington..... 2,800 00		
" 27..	do Deputy Adjutant General..... 62 26	25,402 53	
		344,237 96	
" 31..	To dividend at 2.741 per cent.....	77,035 79	
	To balance at debit.....	421,273 75	10,531 84
July 31..	To dividend at 1.491 per cent.....	41,904 55	
	To balance at debit.....	463,178 30	11,579 46
	Balance of interest.....	80,617 05	
	Total.....	\$543,795 35	\$80,617 05



## MEMORANDUM.

The Minister of Finance requests that the Auditor General will have the accounts between the Great Western Railway Company and the Government made out on the following footing:

- 1.—What is the exact amount of Capital due?
- 2.—What dividend per cent. has actually been paid by the Company since 1859 up to 1st January, 1868, on its *real Capital issued to its shareholders*?
- 3.—What additional per centage would it have given if the amount retained from the Government since 1859, (taken at the figure in the account as rendered) had been added to the dividend actually paid?
4. What amount during the same interval has been *earned* and added by the Company to capital, and which, but for being so applied, would have been available for dividend; and what additional per centage of dividend would such amount have given?
- 5.—What would the arrears of interest amount to on the capital due from 1859 (crediting the Company with the postal and military earnings, &c., and no interest being taken into account on either side) be on each of the three foregoing cases, viz.:
  - 1st. The same per centage, as the actual dividend paid?
  - 2nd. The same per centage, as it would have been with the Government arrears added? and
  - 3rd. And adding any other earnings withheld from dividend and added to capital?
- 6.—Same statement as No. 5, adding interest at 5 per cent. from dates at which dividends were actually paid to shareholders, on the amounts actually paid, but without charging any other interest on either side of the account.
- 7.—Same statement as No. 5, charging and allowing interest at 6 per cent. on both sides of the account.
- 8.—Calculate the interest at the same rate as paid by the Government since the consolidation of its debt in 1860.

*Memorandum upon the claim of Canada against the Great Western Railway Company*

1. The amount of Capital due is \$2,810,500.
  2. There is a Sinking Fund Account which on June 30th, 1867, stood at \$67,828 66 at the credit of the Company. Upon this, 6 per cent. was allowed up to that date, but if any other rate of interest is determined upon for other accounts at the debit of the Company, a similar alteration should be made in this account. At any rate it will be more convenient to keep this as a separate account, until the principle upon which the other accounts are to be dealt with is decided.
  3. There is a balance of \$886 47 due to the Company upon an old account current. Upon this no interest has been allowed, and it should also be kept distinct from the General Account for the present.
  4. The main account to be settled is that for arrears of interest. As it stands in the Statement of Affairs on June 30th, 1867, it is \$1,130,747 50, being composed of the annual interest at 6 per cent. on the capital, due with the commission on the interest payable in London—credit being given for the sums paid in by the Post Office, &c., for the earnings of the Road. It does not appear, however, that the whole of the earnings were paid in according to the revised tariff for Post Office Service. If the account were revised to this extent, and brought down to January 31st, 1868, it would amount to \$1,079,418 55, or, calculating interest on arrears, at 6 per cent., to \$1,419,729 18.
- Up to January 31st, 1860, the Company paid their interest, and at that date, the balance against them was \$7,786 68. Leaving this balance to be dealt with afterwards, it will be more convenient to take the debt which accrued after that date, according to different

modes of arriving at it, observing that the balance appearing against them on January 31st, 1860, was entirely owing to interest on arrears, and that if interest had not been counted, a balance of \$1,234 53 would have been due to them. We may say, therefore, that the debt accrued since January, 1860, was, on January 31st, 1868, according to different modes of calculation, as follows:

A. Charging 6 per cent. interest on the capital, but without combining interest on arrears, \$1,078,184 02.

B. Counting interest on arrears at 6 per cent., \$1,410,707 97.

C. Charging interest on the capital at the rate we were paying, after the conversion of our 6 per cent. Debentures into 5 per cents., viz:— per cent and without counting interest on arrears, the balance due, January, 1868, would be \$962,652 25.

D. If we charge them interest since 1860 at the rate at which dividends have been paid to the shareholders since that date, or 16:5 in all, they would owe us \$95,610 00.

E. If we count what dividend might have been given to the shareholders if the sum charged, but not paid, as interest to Canada had been added to the amount available for dividend, and charge interest at that rate, the balance due to us on January 31st, 1868—irrespective of the dividend of that date—would have been \$344,237 96.

F. If we add the capital due to Canada to the average capital of the Company from 1860 to 1867 inclusive, and calculate what per centage of dividend the amount declared available with the interest payable to Canada would have been on that average capital, and if we charge the same rate, viz: 21:428 on our proportion, the amount due to us would have been \$234,070.

G. If we count interest on the half-yearly balances at 5 per cent. on the supposition E. it would add to the amount \$58,505 75, or at 6 per cent., \$70,206 87.

H. If we count interest on the half-yearly balances on the supposition D, it would be approximately \$11,910 at 5 per cent, and \$20,300 at 6 per cent.

I. If we count interest as above on the supposition F, it would be approximately \$41,390 at 5 per cent., and \$50,000 at 6 per cent.

*Abstract of the different ways in which the account would have stood on January 31st, 1868, (not including the interest falling due on that day) :—*

	Without interest.	With Int. at 6 %.
A. Charging 6 per cent on capital.....	\$1,078,184 00	\$1,410,707 00
C. do at the rate we pay.....	962,652 00	
D. do at the rate of dividends since 1860 .....	95,610 00	115,910 00
E. do at the rate at which dividends might have been .....	344,237 96	414,444 86
F. Counting our capital with share capital.....	234,070 00	284,070 00

*Thomas Swinyard, Esq., Hamilton, to Hon. John Rose, Ottawa.*

Telegram, Dec. 2nd, 1868. Letters received. I am ready to meet you as early as may be convenient to you. Say when and where?

*Hon. John Rose, Ottawa, to Thomas Swinyard, Esq., Hamilton.*

Answer, 4th Dec. 1868. I hope to be able to say in a few days, but cannot yet.

*Thomas Swinyard, Esq., Hamilton, to Hon. John Rose, Ottawa.*

Dec. 8th, 1868.

Yes; end of present week would be very convenient to me; please let me know which day will best suit you.

*Thomas Swinyard, Esq., Toronto, to Hon. John Rose, Ottawa.*

21st Dec., 1868.

I purpose being at Montreal on Tuesday morning; please say what day you will be there, and I will arrange to meet you.

*Thomas Swinyard, Esq., Hamilton, to Hon. John Rose, Montreal.*

Telegram, Dec.  
29th, 1868.

Thanks for your telegram; the letter has been received. I write you, unofficially, at Montreal.

*Hon. Wm. McMaster, Toronto, to Hon. John Rose, Montreal.*

Dec. 30th, 1868.

Telegram to hand; letter referred to received by Mr. Swinyard, who has already acknowledged it.

*Hon. Wm. McMaster, Toronto, to Hon. John Rose, Ottawa.*

Jan. 21st, 1869.

Yours received, for which accept thanks. Mr. Price and I shall leave for Ottawa on Saturday evening, and hope to have the pleasure of seeing you on Monday, immediately after the first train arrives.

(Copy.)

TORONTO, December 14th, 1868.

GENTLEMEN,—I am willing to submit the offer made by you, for the settlement of the Great Western debt, for the consideration of my Colleagues, subject to the following considerations, viz.:

1st. That it is understood to be simply a proposal, which if not accepted by the Government, is to be considered as having never been made; and that, if accepted, it is to be subject to the approval of Parliament.

2nd. That if the conditions are not literally and punctually performed by the Company, the claim of the Government shall stand for the full amount, and be in no way affected or impaired by the negotiations which have taken place, or by the arrangement, even if partially fulfilled.

3rd. That nothing whatever shall affect the lien and privilege of the Government for the full amount of the debt, until the action of Parliament is had.

4. The bonds to be in such form as the Attorney General may approve of.

5. The figures stated by you as the amount of the debt, are to be subject to verification.

I have the honor to be, Gentlemen,

Your very obedient servant,

(Signed,)

JOHN ROSE,

Minister of Finance.

Messrs. the Honorable Wm. McMaster,  
and Executive Committee of the  
Great Western Railway Co., Toronto.

The undersigned has the honor to submit the Correspondence which has taken place between him and the Great Western Railway Company since the last Order in Council,

dated 28th May last, together with the propositions which, after much discussion on several occasions with the Chairman of the Executive Committee, and the Managing Director, were made by the Company, and the reply of the undersigned thereto.

Various plans for the adjustment of the arrears of interest were discussed. The account already before Council, made up by charging interest at 6 per cent on the debt of \$2,810,500, and all the commissions paid by the Government, as well as interest at 6 per cent. on the half yearly payments made by the Government from the dates of payment, shews as due on the 31st January, 1868, according to statement A, a balance of...	\$1,419,729	\$1,631,529
<i>B.</i> —The amount due, charging 6 per cent. on the Capital as well as the above commissions, but without adding interest on the half-yearly payments, shews a balance of.	1,079,418	1,204,734
<i>C.</i> —The amount due, charging interest at the rate which the Government paid on its 6 per cent. Debentures converted in 1859, viz: $5\frac{6}{10}$ per cent. and the Agent's Commissions as before, but without interest, on arrears, is...	962,625	1,076,587
<i>D.</i> —The amount due, assuming the interest to be according to the rate of dividend paid by the Company to its Shareholders since 1860, is.....	95,610	106,820
<i>E.</i> —The amount due, according to the rate of dividend paid since 1860, adding the half-yearly amounts retained from the Government and assuming these to have been available for dividend calculated at 6 per cent. on the capital of the debt, is .....	344,237	418,178
<i>F.</i> —If interest at 5 per cent. on the half-yearly dividends from the various dates at which they were paid to the shareholders be added, the amount would be on Hypothesis D .....	107,510	119,000
<i>G.</i> —If interest at 5 per cent. from the same dates be added to the gross dividends, estimated according to Statement E, the amount would be .....	402,742	487,545

These are the balances after crediting the Company with the postal and military earnings up to January, 1868. These earnings amount to the sum of \$368,129, which the Government would therefore receive in addition to the amount stated on the foregoing several Hypotheses by way of interest on the capital.

The proposition is as follows :

1st.—That the principal shall be paid in full, \$2,810,500.		
2nd.—That the Company will pay in discharge of its arrears of interest .....	\$400,000	
In addition to the postal and military earnings retained.	368,129	add \$45,000
Making.....	\$768,129	

by way of interest, between January, 1860, and January, 1869, the interval during which it suspended payments of interest to the Government.

3rd.—Until the full re-payment of the capital it will continue to pay interest at 4 per cent; estimated to be equal to, if not in excess of the annual dividend it is likely to pay to its shareholders during that period.

It is to be observed that by the proposal, the Company will receive the benefit of the interest from January, 1868, to January, 1869, less one half the postal and military service of the year 1868, estimated at about \$23,000.

After all the discussions and correspondence which have taken place on the subject of the debt, the Minister of Finance deems it altogether unnecessary to offer any observations to Council on the expediency or otherwise of accepting this proposition, or such modification of it as may be thought proper. If it is accepted, he believes that there is no reasonable doubt but that the Government will receive the amount which it may agree to accept within the time specified.

A considerable payment is made on account. The Bonded Debt of the Company is about £1,250,000 stg., while the rest of their capital, about £3,350,000 stg., is made up of stock. The delivery of Bonds payable to Bearer, bearing a first charge on the entire assets of the Company, and which may find their way into the hands of the general public, is a sufficient guarantee that the debt will be punctually met at the times specified. The entire claim of the Government is merely kept in suspense until the exact and full payment of the stipulated composition. Should it not be entirely met, the Company would not have the benefit of the remission.

In conclusion the undersigned would bring under the attention of Council the propriety of an early decision, as the Company have to provide £100,000 stg. by the 10th February, which it is understood will be returned to the Company, in case Parliament does not approve of the settlement.

JOHN ROSE,  
Minister of Finance.

Ottawa, 18th December, 1868.

*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 21st December, 1868, on the subject of the debt due to the Government by the Great Western Railway Company.*

The Committee agree to submit the arrangements for the consideration of Parliament, subject to the conditions stated by the Minister of Finance, and to such others as it may be thought necessary to impose; on the understanding, however, that the Company will make arrangements for the adjustment of the current year's interest up to January, 1869, on the same principle as that applied to former years, viz.; on the Hypotheses stated under letter G, the Company receiving credit for the postal earnings of the current year, the amount so adjusted to be included in the settlement, but may be added to the last payment, all instalments to bear interest from the 1st January, 1869.

(Certified.)

(Signed,)

W. H. LEE,  
Clk. P. C.

To the Honourable  
The Minister of Finance, &c., &c.

(Copy.)

OTTAWA, 23rd December, 1868,

SIR,—I have been commanded to inform you that the Government of Canada have had under consideration the communications which have taken place between the Great Western Railway Company and the Minister of Finance, together with the Report of the Minister thereon; and with reference to your propositions I am to state as follows:

The Government is willing to submit for the consideration of Parliament a settlement on the following terms:

1st.—The payment in full of the capital in 1, 2, 3 and 4 years (with interest at 4 per cent. per annum) from the 1st January, 1869.

2nd.—The payment of the sum of \$487,545 (in addition to the postal and military earnings retained and credited, including those of the current year up to 31st instant) which sum is fixed as equivalent to placing the Government, as regards interest, on an equal footing with the Shareholders of the Company, since the Company ceased, in 1860, to make its half-yearly payments to the Government.

3rd.—That £100,000 sterling shall be paid to the Government on or before the 10th February next, the balance of capital and interest as stated under conditions No. 1.

4th.—If Parliament do not assent to the settlement, the £100,000 sterling will be returned to the Company.

5th.—All details as to the forms and conditions of Bonds to be delivered by the Company to the Government to be settled between the Minister of Finance and the Company, and to be subject to his approval.

6th.—Until the full and complete payment of the above sum the lien of the Government to be in no way impaired.

Thomas Swinyard, Esq.,  
General Manager,  
Great Western Railway,  
Hamilton, Ont.

I have, &c.,  
(Signed,) HECTOR L. LANGEVIN,  
Secretary of State.

OTTAWA, January 27th, 1869.

SIR,—Referring to the letter from the Hon. Mr. Langevin, Secretary of State, to Mr. Swinyard, the General Manager of the Great Western Railway, and in regard to which I had an interview with you yesterday, I now beg to ask your consideration of the following statement.

In discussing with Mr. Langton the details of the figures by which he arrived at the sum of \$487,545, stated in Mr. Langevin's letter, it appeared that the calculations were made upon a different basis from the second clause of that letter, which states that the sum of \$487,545 was "fixed as equivalent to placing the Government, as regards interest, on an equal footing with the shareholders of the Company, since the Company ceased in 1860 to "make its half-yearly payments to the Government."

In attempting to arrive at the figure named, it appears that the calculations have been based on allowing the Government an average rate of interest during the nine and a half years that interest has ceased to be paid, at the rate of  $3\frac{1}{2}$  per cent., whilst the actual interest paid to the Shareholders of the Company was  $2\frac{1}{2}$  per cent.

It appears that the  $3\frac{1}{2}$  per cent. has been arrived at by taking the actual amount divided amongst the shareholders for dividend, and adding to it the amount due to the Government, but not paid for interest upon its loan, and then applying such amount to the share capital of the Company, but without including the amount of the Government loan.

It will thus, at once, be seen that this mode of calculation places the Government in a much better position, as regards interest, than the Shareholders of the Company.

Mr. Langevin's letter stated that the intention of the Government was to place both upon an equal footing.

I beg to enclose a statement showing the amount which would be due to the Government under the arrangement that we understood by the letter from Mr. Langevin when it was received, which was placing the Shareholders and the Government upon an equal footing, as regards interest, by adding the amount of money actually divided in dividends to the interest due to the Government, and calculating the rate per cent. that would be upon the aggregate amount of money supplied by the shareholders and the Government.

I need not remind you that the Government will be repaid the entire amount of their advances in full, and that the country has derived very great indirect advantages from the construction and working of the Great Western Railway, whilst to the shareholders, the only advantage has been the payment of the actual dividends made to them.

I trust you will be able, under these circumstances, to give such directions as will allow of the accounts being made up in accordance with the statement made in the second paragraph of Mr. Langevin's letter.

To the Hon. John Rose,  
Minister of Finance,  
Ottawa.

I have, &c.,  
(Signed,) W. M. McMASTER,  
Chairman Executive Committee.

GREAT WESTERN RAILWAY COMPANY.

STATEMENT shewing the amount due to the Government for Interest on the balance of Loan to the Great Western Railway, placing the Government on exactly the same footing as the Great Western Railway Shareholders—(assuming the Government Loan at £577,500.)

Date. (From 1st July, 1869.)	Share Capital.	Gov- ern- ment Loan.	Total Share Capital and Gov- ern- ment Loan.	paid to Share- holders	Retained as Inter- est on Loan.	Total paid to Share- holders and retain- ed for In- terest.	Rate per annum, per annum.	Proportion to Gov- ern- ment.	Interest from dates G. W. R. Dividends were paid to 31st Dec., 1868.	Postal and Military Service.	Interest from dates G. W. R. Dividends were paid to 31st Dec., 1868.	Total.	Amount payable to Gov- ernment, 31st Dec., 1868.
1st Jan., '60	£ 3,258,679	£ 577,500	£ 3,836,179	.....	£ 17,498	£ 17,498	.912	£ 1,369	£ 3,665	.....	£ 1,905	£ 4,002	£ 1,568
July, '60	3,302,432	577,500	3,879,932	.....	17,498	17,498	.902	1,276	3,665	.....	1,796	3,881	1,580
Jan., '61	3,320,268	577,500	3,897,768	49,949	17,498	67,447	3,400	9,991	3,665	.....	1,886	14,587	1,351
July, '61	3,340,609	577,500	3,918,109	.....	17,498	17,498	.892	1,107	3,665	.....	1,576	3,683	9,236
Jan., '62	3,347,312	577,500	3,924,812	50,142	17,498	67,640	3,446	9,950	3,665	.....	1,446	13,876	1,598
July, '62	3,350,167	577,500	3,927,667	25,118	17,498	42,616	2,170	6,266	3,665	.....	1,354	5,111	8,765
Jan., '63	3,353,607	577,500	3,931,107	41,893	17,498	59,391	3,020	8,720	3,665	.....	1,339	3,662	3,662
July, '63	3,360,548	577,500	3,938,048	.....	17,498	17,498	.888	2,564	3,665	.....	1,136	4,801	6,742
Jan., '64	3,362,069	577,500	3,939,569	25,191	17,498	42,689	2,166	6,254	3,665	.....	1,225	4,690	3,313
July, '64	3,362,088	577,500	3,939,588	.....	17,498	17,498	.883	2,564	3,665	.....	916	4,581	1,376
Jan., '65	3,362,762	577,500	3,940,262	33,598	17,498	51,096	2,592	7,684	3,665	.....	927	4,590	1,376
July, '65	3,370,143	577,500	3,947,643	33,604	17,498	51,102	2,592	7,484	3,665	.....	916	4,590	1,376
Jan., '66	3,385,093	577,500	3,962,593	85,026	17,498	103,124	5,222	15,979	3,665	.....	699	4,390	4,539
July, '66	3,385,093	577,500	3,962,593	85,959	17,498	103,457	5,222	15,979	3,665	.....	699	4,390	4,539
Jan., '67	3,458,795	577,500	4,036,295	81,553	17,498	79,051	3,916	11,307	3,665	.....	632	7,515	10,004
July, '67	3,472,498	577,500	4,049,998	70,726	17,498	88,224	4,356	12,376	3,665	.....	632	7,515	10,004
Jan., '68	3,476,920	577,500	4,054,420	80,211	17,498	97,709	4,818	13,912	3,665	.....	338	8,097	8,375
July, '68	3,477,241	577,500	4,054,741	35,649	17,498	53,147	2,62	7,565	3,665	.....	187	4,874	9,594
31st Dec.,	3,477,241	577,500	4,054,741	*37,734	17,498	52,232	2,724	7,966	3,665	.....	44	4,727	2,909
Average	£3,379,020	£577,500	£3,956,520	.....	.....	.....	2,779	.....	.....	.....	.....	.....	.....
per annum.	\$16,444,564	\$2,810,500	\$19,255,064	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals...	.....	.....	.....	£716,953	£332,462	£1,049,415	.....	£152,471	£30,856	£84,587	£19,948	£183,327	£79,792
	.....	.....	.....	\$3,439,171	\$1,617,981	\$5,107,152	.....	\$742,028	\$150,166	\$41,656	\$92,213	\$563,879	\$388,325

\*Average of last 9 years.

(Copy.)

FINANCE DEPARTMENT,

OTTAWA, 27th January, 1869.

SIR,—I have had the honor to receive your letter of this day's date, calling my attention to certain points which you think entitle the Great Western Company to a deduction in the amount fixed in the Order of Council of the 21st December, as that which the Government recommends should be accepted in settlement of the debt.

In reply I beg to inform you that after consulting with my colleagues, we are indisposed to re-open a discussion of this long pending matter, and I trust your Company will readily acquiesce in the conclusions which are set forth in the Report communicated to you.

I have received from the Auditor General the enclosed statement of the account, up to the 1st instant, which I trust you will find correct, and of which I shall be glad to have a confirmation from you.

The Hon. Wm. McMaster,  
&c., &c.,  
Toronto.

(Signed,)

I have, &c.,

JOHN ROSE,  
Minister of Finance.

(Copy.)

THE GREAT WESTERN RAILWAY,

In account with the Dominion of Canada.

1869.		DR.	
Jan. 1	To balance due on Capital Account .....		\$2,810,500 00
"	To Interest, per Order in Council. ....		487,545 00
			<hr/>
			\$3,298,045 00
1869.		Cr.	
Jan. 1	By Sinking Fund.....	\$36,061 09	
"	By old balance .....	886 47	
"	By Interest per agreement .....	6,196 07	43,143 63
		<hr/>	<hr/>
	Balance due Dominion Government in cash, Jan. 1, 1869, payable with interest at 4 per cent. per annum, viz: £100,000 stg. on 10th Feb., 1869, and the balance in four equal annual instalments .....		\$3,254,901 37

AUDIT OFFICE,

Ottawa, 27th Jan., 1869.

(Copy.)

OTTAWA, January 27th, 1869.

SIR,—I have the honor to acknowledge the receipt of your letter, of this day's date, in reply to the one which I had the honor of addressing to you this morning, and in which you state that your Colleagues are indisposed to re-open the discussion as to the accounts between the Government and the Great Western Railway Company.

Your letter encloses me a statement of the account made up by the Auditor General, in accordance with the Order in Council, passed on the 21st of December. 1868.

I understand from your letter, and also from our discussion to-day, that the Government will not vary the Order in Council referred to, or depart in any way from the accounts as made up in accordance with that order.

I cannot but regret on the part of this Company, that what appeared to me to be very strong reasons for a reconsideration of the question have not met with the concurrence of the Government; but, as you state distinctly that consent cannot be given for a re-opening of the question, I have now, on the part of the Great Western Company, to accept the arrangement which the Government has decided upon, and to express the readiness of the Company to carry it out.

The arrangement is, that the final amount due to the Government from the Great



Western Company, on the 1st of January, 1869, is fixed at \$3,254,901 37, or £668,816 13s. This sum to be paid as follows, viz: £100,000 sterling on the 10th of February, 1869, and the balance of £568,816 13s. in four (4) equal annual instalments of £142,204 3s. 3d., the first of such instalments being payable on the 1st of January, 1870. These four instalments amounting in all to £568,816 13s., to carry interest at four (4) per cent.

The £100,000 will be paid by the Company on the 10th of February, 1869, and the Company will be prepared to enter into such bonds for the payment of the balance, securing Government for the amounts unpaid, as a first lien upon the road, in such form as the Government may desire.

I have, &c.,  
 The Hon. John Rose, (Signed,) Wm. McMASTER,  
 Minister of Finance, Chairman, Executive Committee,  
 Ottawa. Great Western Railway.

(Copy.)

FINANCE DEPARTMENT,

30th January, 1869.

SIR,—In acknowledging the receipt of your letter written in reply to mine enclosing a statement of the account against the Great Western Company, I have to inform you that my attention has been called to an interpretation you give to it, which would absolve the Company from the payment of interest on the £100,000, payable on the 10th proximo, for the interval between the 1st inst., and the date of payment.

You will see by reference to the Order in Council fixing the terms, that the interest at four per cent. is to run on the whole amount, from the 1st January. inst., and I think it well to call your attention to this, to avoid future misconception.

I have, &c.,  
 The Hon. Wm. McMaster, (Signed,) JOHN ROSE,  
 Chairman, of the Executive Committee, Minister of Finance,  
 Great Western Railway Company,  
 Hamilton.

*Telegram from the Hon. Wm. McMaster, Toronto, to The Hon. John Rose, Ottawa.*

9th February, 1869.

I paid the amount to credit of Receiver General, in Bank of Montreal, yesterday, and Mr. Price sends you the voucher by to-day's mail.

FINANCE DEPARTMENT,

OTTAWA, 19th Feb., 1869.

(Copy.)

DEAR SIR,—I beg to call your attention to that condition of the arrangement between the Government and the Great Western Railway Company, which requires the issue and delivery to the Government of Bonds, bearing a first charge on the concern, and to enquire whether the Company now possesses, under its several Acts of Incorporation, the requisite power, or whether Legislative authority will not be necessary.

I will thank you to be good enough to request your legal adviser to place himself in communication with the Minister of Justice on this subject. If an Act of Parliament is necessary, it ought to be drafted, so as to be submitted at the earliest day possible after Parliament assembles.

If it is not necessary, then the forms of Bonds should be settled under the direction of the Minister of Justice, in order that they may be issued as soon as the assent of Parliament is obtained.

I remain, &c.,  
 Thos. Swinyard, Esq., (Signed,) JOHN ROSE,  
 General Manager,  
 Great Western Railway Co.,  
 Hamilton.

GREAT WESTERN RAILWAY,  
HAMILTON, ONT., Feb. 22nd, 1869.

(Copy.)

DEAR SIR,—I have the honor to acknowledge the receipt, this morning, of your letter of the 19th inst., upon the subject of the bonds to be delivered by the Great Western to the Government, in accordance with the arrangement lately made,—and to state, in answer to your enquiry, that I am advised that no Legislative authority is required to enable the Company to make such Bonds a first charge on the Railway, ample power to that effect being already contained in their Acts of Incorporation.

The legal Adviser of the Company will be prepared at any time to submit for the approval of the Minister of Justice, such form of Bonds as may be deemed requisite to be delivered to the Government.

I have requested our Solicitor to ascertain from the Minister of Justice what day will be most convenient to him for the interview.

I remain, dear Sir,

Yours faithfully,

THOS. SWINYARD,

Hon. John Rose,  
Minister of Finance,  
Ottawa.

(Copy.)

FINANCE DEPARTMENT,  
OTTAWA, 3rd March, 1869.

SIR,—Referring to the arrangements which have taken place for the settlement of the debt due by the Great Western Railway Company, I have the honor to enclose you a letter from the Managing Director of that Company respecting the legal powers of the Company to issue Bonds to the Government as directed by the recent Order in Council.

The two points to which I would specially call your attention are:—first,—That the Bonds should be a first charge on the entire assets of the Company; and, secondly,—they should be payable to bearer.

I have, &c.,

(Signed,)

JOHN ROSE,  
Minister of Finance.

The Hon. Sir John A. Macdonald,  
Attorney-General,  
Ottawa.

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# GENERAL REPORT

OF THE

# Minister of Public Works

FOR THE YEAR ENDING 30TH JUNE,

# 1868.

FURNISHED IN COMPLIANCE WITH THE PROVISIONS OF THE ACT THIRTY-FIRST  
VICTORIA, CHAPTER TWELVE, SECTION NINETEEN.

.....  
**Printed by Order of the House of Commons.**  
.....



Ottawa :  
PRINTED BY HUNTER, ROSE & CO.  
1869.



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# REPORT

OF THE

## MINISTER OF PUBLIC WORKS,

FOR THE YEAR ENDING 30th JUNE, 1868.

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*To His Excellency the Right Honorable Sir JOHN YOUNG, Baronet, one of Her Majesty's Most Honorable Privy Council, Knight Grand Cross of the Most Honorable Order of the Bath, Knight Grand Cross of the Most distinguished Order of St. Michael and St. George, Governor of Canada, &c., &c., &c.*

MAY IT PLEASE YOUR EXCELLENCY :

The 19th Section, 12th Chapter of the 31st Vic., (1867) provides that the Minister of Public Works shall make and submit to the Governor an Annual Report on all the works under his control, to be laid before both Houses of Parliament within twenty-one days from the commencement of each session, showing the state of each work and the amounts received and expended in respect thereof, with such further information as may be requisite.

The following report is presented in compliance with the above cited Act, and contains a record of the transactions and a statement of the expenditure by this Department during the fiscal year commencing the 1st of July, 1867, and ending the 30th of June, 1868.\*

The details of the expenditure during this period will be found in the "Statement of the expenditure by the Department of Public Works of the Dominion of Canada during the fiscal year ending 30th June, 1868," given in Appendix No. 1, at page 3.

Previous to the 1st of July, 1867, the Public Works of Nova Scotia, New Brunswick and of the United Provinces of Upper and Lower Canada were placed under the charge of Commissioners.

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\* **NOTE**—It will be found that several transactions which have occurred since the close of the fiscal year (30th June, 1868) have been noticed in this Report, though they may have to be treated of again in the report of next year.

Those in charge of the Commissioner of Public Works for Canada will be found in his report for the fiscal year ending 30th June, 1867, to have consisted of :

THE CANALS.  
 THE WORKS ON NAVIGABLE RIVERS.  
 THE HARBORS.  
 THE LIGHT-HOUSES, BEACONS AND BUOYS.  
 THE SLIDES AND BOOMS.  
 THE ROADS AND BRIDGES.  
 THE PUBLIC BUILDINGS, and  
 THE PROVINCIAL VESSELS.

Those for New Brunswick, as shown in the report of the Chief Commissioner of Public Works for that Province for the year ending 31st of October, 1867, consisted of :

ROADS AND BRIDGES.  
 INTERNAL NAVIGATION.  
 GOVERNMENT HOUSE AND LEGISLATIVE BUILDINGS.  
 HALLS AND ROOMS OF THE SUPREME COURT, GOVERNMENT OFFICES  
 AND RESIDENCE OF THE GOVERNOR, AT FREDERICTON.  
 LUNATIC ASYLUM AND PROVINCIAL PENITENTIARY, ST. JOHN.  
 LIGHT HOUSES.  
 HARBORS AND LANDINGS.

For list of roads in New Brunswick—see Appendix No. 23, at page 194.

The Works belonging to Nova Scotia as per report of the Commissioner of Public Works for that Province, for the year ending September, 1866, consisted of :

ST. PETER CANAL—CAPE BRETON.  
 HOSPITAL FOR INSANE—HALIFAX.  
 PROVINCIAL BUILDING— “  
 PROVINCIAL PENITENTIARY— “  
 GOVERNMENT HOUSE— “  
 HUMANE ESTABLISHMENT—SABLE ISLAND.  
 LIGHT HOUSES.  
 SCHOONER “DARING” USED IN CONVEYING STORES TO LIGHT  
 HOUSES.  
 STEAMER “DRUID” FOR PROTECTING FISHERIES.  
 QUARANTINE.  
 DRILL SHED.  
 FOG TRUMPETS.

On the 1st of July 1867 "The British North America Act" came into force, the name of Upper Canada was changed to "Ontario" and that of Lower Canada to "Quebec," and the four Provinces of "Ontario," "Quebec," "Nova Scotia" and "New Brunswick" were united under the name of the "Dominion of Canada" with a General Government for the Dominion, at Ottawa, and Local Governments for each of the Provinces at Toronto, Quebec, Fredericton and Halifax.

For some months and until new laws could be enacted, the Public Departments were managed under the Acts in force in the several Provinces previous to the Confederation, and by the officers then in the employ of the said Provinces.

The Public Works of the Dominion were therefore, during the first portion of the fiscal year commencing July 1st, 1867, under the care of the authorities as constituted before the Union, but on the 21st of December, 1867, an Act of the Dominion Parliament, entitled "An Act respecting the Public Works of Canada" was passed, organizing a Department of Public Works for the Dominion under the direction of a Minister of Public Works.

Under this Act and the general provisions of the British North America Act, and also other acts relating to the Public Service, the works formerly in charge of the Commissioners of Public Works are disposed of as follows :

1. The canals and works on navigable rivers constructed by the Provincial Government previous to the 1st of July, 1867, are placed under the care of the Department of Public Works.

2. The construction of such harbors and piers as the general Parliament may authorize, is entrusted to the Department of Public Works.

3. The construction of Light Houses, is confided to the Department of Public Works, whilst the duty of enforcing the regulations for their lighting and management and obtaining their supplies is transferred to the Department of Marine and Fisheries.

4. The slides and booms constructed by government for bringing timber into navigable waters are under the Department of Public Works.

5. The charge of the greater portion of the roads and bridges is transferred to the Local Governments, but the construction of Military and Interprovincial highways is reserved for the Department of Public Works.

6. Certain public buildings have been transferred to the Local Governments, but others remaining with the Dominion are in charge of the Department of Public Works.

7. The management of the Provincial Vessels is transferred to the Department of Marine and Fisheries.

---

## CANALS

The canals of Canada were designed for the purpose of overcoming the natural obstructions found on the following routes of Inland Navigation, viz :

- 1.—The St. Lawrence navigation.
- 2.—The Montreal and Kingston, *viâ* the Ottawa.
- 3.—The Richelieu and Lake Champlain navigation.
- 4.—St. Peter Canal—Nova Scotia.

## ST. LAWRENCE NAVIGATION.

The St. Lawrence navigation extends from the Straits of Belle-Ile to Fond du Lac, at the head of Lake Superior, a distance of 2,384 statute miles.

The Canadian canals on this route are the Lachine, the Beauharnois, the Cornwall, the Farran's Point, the Rapide Plat, the Galops and the Welland. Their united length is  $70\frac{8}{10}$  miles, and the total lockage is  $536\frac{1}{2}$  feet, through 54 locks.

The Farran's Point, Rapide Plat and Galops canals, are also known under the name of the "Williamsburgh Canals."

The Sault Ste. Marie canal,  $1\frac{1}{7}$  miles in length and 18 feet lockage, avoiding the Sault Ste. Marie, and uniting Lake Huron and Lake Superior, was constructed by a Company with the aid of the United States Congress. It lies on the American side of the river. Lake Superior is about 600 feet above the highest tidal flow of the St. Lawrence, at Three Rivers.

TABLE OF DISTANCES.

SECTIONS OF NAVIGATION.	STATUTE MILES.	
	Intermediate Distances.	Total Distance from Belle-Ile.
From the Straits of Belle-Ile to the head of tide water (Three Rivers)...	900	.....
From head of tide water (Three Rivers) to the Lachine Canal.....	86	986
The Lachine Canal .....	$8\frac{1}{2}$	$994\frac{1}{2}$
From Lachine Canal to Beauharnois Canal.....	$15\frac{1}{2}$	$1009\frac{1}{2}$
The Beauharnois Canal.....	$11\frac{1}{2}$	1021
From the Beauharnois Canal to the Cornwall Canal.....	$32\frac{1}{2}$	$1053\frac{1}{2}$
The Cornwall Canal.....	$11\frac{1}{2}$	$1065\frac{1}{2}$
From the Cornwall Canal to Farran's Point Canal.....	5	$1070\frac{1}{2}$
The Farran's Point Canal.....	$\frac{1}{2}$	1071
From Farran's Point Canal to Rapide Plat Canal.....	$10\frac{1}{2}$	$1081\frac{1}{2}$
The Rapide Plat Canal .....	4	$1085\frac{1}{2}$
From Rapide Plat Canal to the Iroquois and Galops Canal.....	$4\frac{1}{2}$	1090
The Iroquois and Galops Canal.....	$7\frac{1}{2}$	$1097\frac{1}{2}$
From Iroquois and Galops Canal to the Welland Canal.....	$236\frac{3}{4}$	1334
The Welland Canal.....	27	1361
From the Welland Canal to Sault Ste. Marie Canal.....	625	1986
The Sault Ste. Marie Canal.....	1	1987
From Sault Ste. Marie Canal to Fond du Lac, head of Lake Superior...	397	<b>2384</b>

For details of intermediate distances between places on this route, and of the distances from Quebec and the head of Lake Superior to Liverpool—see Appendix No. 2, page 6.

Date of opening and closing of navigation on the St. Lawrence line, for the year 1867 and the date of opening for 1868:—

Name of Canal.	1867.			1868.
	Opened.	Closed.	No. of days open.	Opened.
Lachine Canal .....	1st May. ....	2nd Decemb'r	216	27th April.
Beauharnois Canal .....	29th April....	do ...	218	27th do
Cornwall Canal .....	1st May.....	1st do ...	215	27th do
Farran's Point Canal.....	30th April....	6th do ...	221	26th do
Rapide Plat Canal.....	do ...	6th do ...	221	26th do
Galops Canal.....	do ...	6th do ...	221	26th do
Welland Canal.....	23 do ...	7th do ...	229	15th do

LACHINE CANAL.

Length of Canal.....	8½ statute miles
Number of locks.....	5.
Dimensions of locks.....	200 feet × 45 feet.
Total rise of lockage.....	44¾ feet.
Depth of water on sills.....	} at 2 locks..... 16 " at 3 " ..... 9 "
Breadth of Canal at bottom.....	
Breadth of Canal at water surface.....	120 "

The Lachine Canal avoids the St. Louis rapids.

There have been no works chargeable to construction this year, and the navigation has been uninterrupted.

The following works of repair were executed on the canal during the past year, viz:—the renewal of the superstructure of the timber docking and wharf below St. Gabriel lock; the rebuilding of a portion of the tail race leading from the waste weir at Grant and Hall's mill;—the renewal of the wharf at the end of basin No. 1,—the renewal of the road bridge over the old canal at Lachine and several minor repairs.

The canal was thoroughly cleansed throughout its entire length.

Between September 1867 and March 1868, the waters of the St. Lawrence were lower than had been known for many years.

Whenever the water in this canal falls below 12 feet on the upper sill of the guard lock at Lachine, the present raceway and sluices for the supply of water to the canal are inadequate to the task of admitting water enough to supply the mills, and at the same time, to maintain the canal at a full navigable height. Some means should therefore be provided for the admission of a larger supply during the season of low water. The Engineers of the department recommend an additional raceway and sluices at Lachine—(see report by Chief Engineer, Appendix No. 3, at page 17.)

During last autumn the Hon. A. T. Galt applied for permission to excavate a basin on his own property situated on the south side of the Lachine Canal, and was authorised to do so by an Order in Council of date 14th October, 1867.

In the month of May, 1845, and November, 1853, certain lands were acquired by the Government from the Seminary of St. Sulpice, Montreal, for canal purposes, one of the conditions of the deed of sale being that Government should construct a road from Wellington street to the line of the Gregory farm. After a portion of this work had been executed, the Seminary offered to release the Government from their obligation to complete the road for the sum of \$2,000, which sum, being within the Engineer's estimated cost of completion, was accepted by the Government, the Seminary undertaking to complete the road themselves, on condition that they might use earth and stone from the spoil banks of the canal.

For a description of the works and repairs executed during the year—see Appendix No. 3, at page 8.

#### BEAUHARNOIS CANAL.

Length of Canal.....	11 $\frac{1}{4}$ statute miles.
Number of locks.....	9.
Dimensions of locks.....	200 feet $\times$ 45 feet.
Total rise of lockage.....	82 $\frac{1}{2}$ “
Depth of water on sills.....	9 “
Breadth of Canal at bottom.....	80 “
Breadth of Canal at water surface.....	120 “

The Beauharnois Canal carries navigation round the Cascades, the Cedars and Côtéau du Lac rapids.

The bridge over the head race at the end of the dam was rebuilt.

The new lock-gates, lock-houses, swing bridges, slope-walls, foot-bridges and the south pier at the lower entrance were repaired.

Navigation was uninterrupted through the season. There were no works chargeable to construction.

For further details—see Appendix No. 3, at page 9.

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 CORNWALL CANAL.

Length of Canal.....	11½ statute miles.
Number of locks.....	7.
Dimensions of locks.....	200 feet × 55 feet.
Total rise of lockage.....	48 “
Depth of water on sills.....	9 “
Breadth of Canal at bottom.....	100 “
Breadth at water surface.....	150 “

The Cornwall Canal avoids the Long Sault rapids.

Navigation was uninterrupted through the season.

No works chargeable to construction were executed during the fiscal year ending 30th June, 1868.

There is generally only a slight variation observable in the water level of this part of the river St. Lawrence from season to season and from year to year, but of late years, the water has been so low that much difficulty has been experienced in supplying this canal with sufficient water to maintain the requisite height on the mitre sills of the locks.

After considering various modes of remedying this evil, the Engineers of the department have proposed to extend a pier from the head of the canal out into the current, with a view of embracing a larger volume of water, and conducting it into the canal.

Under this suggestion, a contract was signed on the 28th December, 1868, for the construction of a pier 350 feet in length, which it is expected, will not only give an increased supply of water, but will afford a greater protection to vessels entering the canal.

Experience having shown that a waste-weir was necessary at the lower end of the canal near lock No. 17, a contract for the construction of a substantial work in cut stone, was signed on the 28th December, 1868.

The repairs were new sluice gates and new bridges to the supply-weirs; planting new land marks at lock No. 18;—raising the embankment and slope-walls, and repairing lock master's dwelling.

For a report by the Chief Engineer of the department on the best mode of increasing the supply of water to this canal, and the necessity of a weir at lock No. 17—see Appendix No. 4, page 18.

For description of works and repairs executed during the year—see also Appendix No. 4, page 18.



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 THE FARRAN'S POINT CANAL.

Length of Canal.....	$\frac{3}{4}$ mile.
Number of locks.....	1.
Dimensions of locks.....	200 feet $\times$ 45 feet.
Total rise of lockage.....	4 "
Depth of water on sills.....	9 "
Breadth of Canal at bottom.....	50 "
Breadth of Canal at water surface .....	90 "

This canal avoids the Farran's Point rapids.

No works of construction were undertaken here during the year.

In the month of September, 1867, the ice breaker at the head of this canal was burnt to the waters edge and rebuilt in the following spring.

The repairs commenced last year to the break-water pier, at the lower entrance to the canal, have been completed.

There was no impediment to navigation during the season.

For further details—see Appendix No. 5, page 21.

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 THE "RAPIDE PLAT" CANAL.

Length of Canal.....	4 miles.
Number of locks.....	2
Dimensions of locks.....	200 feet $\times$ 45 feet
Total rise of lockage.....	$11\frac{1}{2}$ "
Depth of water on sills.....	9 "
Breadth of Canal at bottom.....	50 "
Breadth at surface of water.. ..	90 "

This canal overcomes the "Rapide Plat" rapids.

No works of construction here during the past year.

Navigation was uninterrupted.

The canal was dredged, and the usual general repairs effected.

For further details—see Appendix No. 5, page 21.

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 THE GALOFS CANAL.

Length of Canal.....	$7\frac{5}{8}$ miles.
Number of locks.....	3.
Dimensions of locks.....	200 feet $\times$ 45 feet.
Total rise of lockage.....	$15\frac{3}{4}$ "
Depth of water on sills.....	9 "
Breadth of Canal at bottom.....	50 "
Breadth of Canal at surface of water.....	90 "

This canal avoids the Iroquois, the Cardinal and the Galops rapids.

There was no impediment to navigation during the season—The canal was dredged.

A new swing-bridge was completed over lock No. 25—Repairs were made to the canal banks, lock-gates, &c.

For further details—see Appendix No. 5, page 21.

## WELLAND CANAL.

### MAIN LINE FROM LAKE ONTARIO TO LAKE ERIE.

Length of Canal.....	27 miles and 1,099 feet.				
Pairs of guard gates.....	3				
Number of lift locks.....	27				
Dimensions of locks.....	<table style="display: inline-table; vertical-align: middle;"> <tr> <td rowspan="3" style="font-size: 3em; vertical-align: middle;">}</td> <td>2 locks of 200 feet × 45 feet.</td> </tr> <tr> <td>24 “ “ 150 “ “ 26½ “</td> </tr> <tr> <td>1 lock of 230 “ “ 45 “</td> </tr> </table>	}	2 locks of 200 feet × 45 feet.	24 “ “ 150 “ “ 26½ “	1 lock of 230 “ “ 45 “
}	2 locks of 200 feet × 45 feet.				
	24 “ “ 150 “ “ 26½ “				
	1 lock of 230 “ “ 45 “				
Total rise of lockage . . . . .	330 feet.				
Depth of water on sills.....	10¼ “				

### WELLAND RIVER BRANCHES.

Length of Canal—Port Robinson Cut to Welland River....	2,622 feet.
“ from Welland Canal to Welland River, viâ lock at Aqueduct.....	300 “
“ —Chippewa Cut to Niagara River.....	1,020 “
Number of locks, 1 at aqueduct and 1 at Port Robinson. . . . .	2
Dimensions of locks.....	150 ft. × 26½
Total lockage, from Welland Canal down to Welland River....	17 feet.
Depth of water on sills.....	9 ft. 10 in.

### GRAND RIVER FEEDER.

Length of Canal.....	21 miles.			
Number of locks.....	2			
Dimensions of locks.....	<table style="display: inline-table; vertical-align: middle;"> <tr> <td rowspan="2" style="font-size: 3em; vertical-align: middle;">}</td> <td>1 of 150 × 26½</td> </tr> <tr> <td>1 of 200 × 45</td> </tr> </table>	}	1 of 150 × 26½	1 of 200 × 45
}	1 of 150 × 26½			
	1 of 200 × 45			
Total rise of lockage.....	7 to 8 feet.			
Depth of water on sills.....	10¼ feet.			

### PORT MAITLAND BRANCH.

Length of Canal.....	1¾ miles.
Number of locks.....	1
Dimensions of lock.....	185 × 45 feet.
Total rise of lockage.....	8½ feet.
Depth of water on sills.....	11 “

This canal connects Lake Ontario with Lake Erie, separated by the Falls of Niagara and the rapids above and below the Falls.

There were seven cases of damage to the canal by vessels during the past year. Fifteen lock-gates and two swing-bridges were carried away; the interruption to navigation amounted on the whole to eleven days.

At the end of the fiscal year ending 30th of June, 1867, the works of construction in progress on this canal, were confined to those connected with the deepening of the summit reach for the admission of a larger supply of water from Lake Erie.

These works have been represented in former reports as embracing the following:

1. The removal of a strip of solid rock, containing about 1,000 cubic yards.
2. Removal of loose rock in rock cutting.
3. Removal of some 18 inches of material in other portions of the canal between Ramey's bend and the lock at Port Colborne.
4. Strengthening the embankment along the old canal on section No. 22.
5. Removal of the piles projecting above canal bottom.
6. Removal of rock below Ramey's bend.
7. Deepening the channel between the lock at Port Robinson and the main line.
8. Construction of a regulating weir and channel at the point where the Grand River feeder enters the canal.
9. Construction of booms to protect vessels in rock cut. Facing the slopes of the banks with gravel; securing the towing path at the floating bridges above and below Port Robinson.

On the 24th of March, 1868, a contract was entered into by the Department with Mr. John Brown, of Thorold, for the execution of a portion of the above works, viz:—

1. The construction of a waste weir at the Junction.
2. Deepening the channel from the lock at Port Robinson to the main canal
3. The removal of rock on section No. 26, north of Ramey's bend.
4. Deepening the canal from the lock at Port Colborne to Ramey's bend.
5. The excavation and dredging of land slides in canal.

The channel leading from the canal to the lock at Port Robinson has been completed, and the remainder of the works are making reasonable progress.

The land slide which occurred in the Deep Cut during the latter part of the winter of 1866, and which was stated in the preceding report to have been sufficiently opened to admit of navigation at the beginning of the season, has during the past year, been almost entirely removed.

Repairs.—The repairs consisted of the maintenance of the canal, replacing the lock-gates and bridges carried away by vessels, raising and repairing the embankments and facing the same with gravel, placing fenders in the rock cut to protect vessels from injury, rebuilding bridges over the Dunnville dam and Sulphur creek.

In 1855, the Government granted to the Welland Loan Company a lease of the surplus water passing through the canal between locks 11 and 22. The Company not possessing any land adjoining the canal, have experienced much difficulty in using or leasing the water power they obtained from the Government, and have applied to the Department for lands

on the bank or in the neighborhood of the canal. This request has not yet been granted. (For a report on this subject by the Chief Engineer of the department—see Appendix No. 6, at page 27.)

NOTE.—Since the 1st of July, 1868, the following works on this canal have been authorized:

1. Works for the protection of the embankment on section No. 22.
2. Removal of piles projecting above the bottom of the canal.
3. Dredging between piers at Port Dalhousie, (contract with John Brown—August 10, 1868.)
4. Rebuilding superstructure of west pier at Port Dalhousie, (contract with Angus McDonald, August 17, 1868.)
5. Enlarging basin at Port Colborne, (contract with John Brown, August 10, 1868.)
6. Office for collectors at Port Robinson, (contract with William Henry, August 5, 1868.)
7. Office for collector at Dunnville, (contract with David Irwin, August 21, 1868.)

The superstructure of the east pier at Port Dalhousie, was burnt to the waters edge on the 8th of August, 1868—Estimated cost of reconstruction, \$21,000.00.

TABLE showing the size of the smallest locks on the canals of the St. Lawrence line of navigation, also the dimensions of the largest vessel which may pass through them.

Name of Canal	Dimensions of Locks, in feet.			Dimensions of Vessel, in feet.			
	Length.	Breadth.	Depth of water on sill.	Length.	Breadth.	Draught of water when loaded.	Tonnage of Vessels.
St. Lawrence Canals.....	200	45	9	136	44½	9	600
Welland Canal.....	150	26½	10½	142½	26½	10	400
Sault Ste. Marie Canal.....	} 350	70 top	} 12	.....	.....	.....	2000
		61 bottom					

For description of works and repairs executed during the year—see Appendix No. 6, page 22.

BURLINGTON BAY CANAL.

- Length of Canal..... ½ mile.
- No locks on this Canal.
- Average breadth between piers.....138 feet.
- Narrowest .....108 "
- Navigable for vessels drawing 10 feet of water.

This canal is simply a cutting through a piece of low land which separates Lake Ontario from Burlington Bay, and may be considered a branch of the main line of the St. Lawrence navigation.

It enables vessels to reach the city of Hamilton and the Desjardins canal, a work belonging to a private company, and which leads to the town of Dundas.

The only work performed on this canal during the past year, was the repairing some damage done to one of the piers by the collision of a vessel.

Navigation was unimpeded during the season.

For further details—see Appendix No. 7, at page 28.

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## PROJECTED WORKS.

### MURRAY CANAL (LAKE ONTARIO.)

The object of the proposed Murray Canal is to unite the waters at the head of the Bay of Quinté with those of Weller's Bay, by a short cut through the isthmus which joins the peninsula of Prince Edward to the main land.

The report of last year contained a summary description of this project, and stated that a survey in connection with this proposed work was in progress—The survey has been completed, and a report on the subject by the Chief Engineer will be found in the Appendix No. 8, at page 29.

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## TUG SERVICE.

With the exception of 1852 the Government has, since the year 1849, granted an annual subsidy to maintain an efficient line of Tug Steamers on those intervening navigable reaches which connect one canal with the other between Montreal and Kingston, on the river St. Lawrence.

During the past year this contract has been performed by Messrs. Calvin & Breck, of Kingston, at certain fixed rates payable by the owners of the vessels towed, with the annual subsidy paid by the Government of \$12,000.

The following statement shows the number of towages and the amounts received from ship-owners by Messrs. Calvin & Breck, from 1st July, 1866, to the 1st of July, 1868.

	1st July to end of navigation 1866.		Opening of navigation in 1867, to 30th June of same year.		1st July to end of navigation, 1867.		Opening of navigation in 1868, to 30th June of same year.	
	No. of Crafts.	Amount received.	No. of Crafts.	Amount received.	No. of Crafts.	Amount received.	No. of Crafts.	Amount received.
UPWARDS.								
Lachine to foot of Beauharnois Canal.....	400	2,777 27	196	1,355 08	510	3,769 03	173	1,307 47
Head of Beauharnois Canal to foot of Cornwall Canal.....	312	6,632 37	177	2,474 91	363	5,120 83	154	1,984 98
Head of Cornwall Canal to Kingston	219	7,759 49	143	4,284 89	216	7,712 14	166	5,005 17
Total.....	931	17,169 13	516	8,114 88	1,089	16,602 00	493	8,297 62
DOWNWARDS.								
Kingston to head of Cornwall Canal.	140	3,285 51	94	2,186 26	176	4,059 90	90	1,869 02
Foot of Cornwall Canal to head of Beauharnois Canal.....	222	1,996 94	119	1,146 73	337	3,020 58	144	1,198 12
Foot of Beauharnois Canal to Lachine.....	331	2,297 12	143	849 50	390	2,194 93	182	996 12
Total.....	693	7,579 57	356	4,182 49	903	9,275 41	416	4,063 26

ABSTRACT.	Year ending 30th June, 1867.	Year ending 30th June, 1868.	Total for 1867 & 1868.
Total number of crafts .....	2,496	2,901	5,397
Amount received.....	\$37,046 07	\$38,238 29	\$75,284 36

## MONTREAL AND KINGSTON *viâ* OTTAWA.

This second line of navigation extends from Montreal to Kingston, passing up the Ottawa river as far as Ottawa city. The distance between Montreal and Kingston by this line is 246½ miles.

The canals on this route, after leaving the Lachine Canal, are as follows :—

- The Ste. Anne,—(known as the Ste. Anne lock) ;
- The Carillon ;
- The Chute à Blondeau ;
- The Grenville ;
- The Rideau.

Their united length is 142¾ miles, including the Lachine Canal, and in going from Montreal to Kingston the total lockage is 578½ feet, viz :—401½ rise and 177 feet fall, during seasons of high water.

The Carillon, the Chute à Blondeau, the Grenville and Rideau Canals were designed as military works.

TABLE OF DISTANCES IN STATUTE MILES.

SECTIONS OF NAVIGATION.	Intermediate Distances.	Total Distances from Montreal.
The Lachine Canal.....	8½	.....
From Lachine Canal to Ste. Anne Lock.....	15	23½
Ste. Anne Lock and Piers.....	½	23¾
From Ste. Anne Lock to Carillon Canal.....	27	50¾
The Carillon Canal.....	2½	52½
From the Carillon Canal to Chute à Blondeau .....	4	56½
Chute à Blondeau Canal .....	½	56¾
From Chute à Blondeau Canal to Grenville Canal.....	1¾	58½
The Grenville Canal.....	5¾	64
From the Grenville Canal to the Rideau Canal.....	56	120
Rideau Canal, ending at Kingston.....	126½	246½

Date of opening and closing of navigation on this line for the year 1867, and the date of opening for 1868.

Name of Canal.	1867.			1868.
	Opened.	Closed.	No. of days open.	Opened.
Ste. Anne Lock.....	1st May.....	3rd Decemb'r	217	18th April.
Carillon Canal.....	7th do .....	30th Nov.....	208	2rd May.
Chute à Blondeau Canal .....	7th do .....	30th do .....	208	2nd do
Grenville Canal.....	7th do .....	30th do .....	208	2nd do
Rideau Canal.....	4th do ...	15th do .....	196	1st May.

STE. ANNE LOCK.

Length of Canal.....	¼ mile.
Number of locks.....	1.
Dimensions of lock.....	190 feet × 45 feet.
Total rise of lockage .....	3 "
Depth of water on the sills.....	{ 6 " at low water. 7 " at ordinary high water.

The Ste. Anne lock enables vessels to pass the Ste. Anne rapids.

No works chargeable to construction have been executed here during the past year.

Repairs were made here during the year to the guide piers, bed plates, friction rollers and quoin posts.

In the fall of the year the water is usually very low here, and the vessels frequently ground, to remedy this evil as much as possible, the department has ordered the removal of some of the boulders which lie in the channel.

For further details—see Ste. Anne lock in Appendix No. 3, at page 11.

### THE "CARILLON" CANAL.

Length of Canal.....	2 $\frac{1}{8}$ miles.
Number of locks.....	3 (two rising—one falling.)
Dimensions of locks:—lift lock, No. 1.....	128 feet × 32 $\frac{1}{2}$ feet.
do No. 2.....	126 $\frac{1}{2}$ " × 32 $\frac{1}{2}$ "
Guard Lock, No. 3.....	126 $\frac{1}{2}$ " × 32 $\frac{1}{4}$ "
Total lockage.....	34 $\frac{3}{4}$ " { 21 $\frac{3}{4}$ upwards. 13 downwards.
Depth of water on sills.....	6 $\frac{1}{2}$ "
Breadth of Canal at bottom.....	30 "
Breadth of Canal at surface.....	50 "

This canal clears the Carillon rapids. It is supplied with water from the North River by a feeder  $\frac{3}{4}$  of a mile in length.

In the month of March, 1867, tenders were received for works necessary to increase the water in the "Carillon," "Chute à Blondeau" and the "Grenville" Canals to a depth of 6 $\frac{1}{2}$  feet, to improve the upper entrance to the North river feeder of the Carillon, and to form new passing places in the narrow portion of the Grenville Canal.

The works were commenced on the 20th of March, 1867, but as they were still incomplete on the first of May ensuing, and it being necessary to open the canal for navigation, they were necessarily suspended until the following year.

On the Grenville Canal the increased depth of water was afforded by raising its banks, and this was completed within the present fiscal year.

The repairs during the year consist of the removal of the driftings from the mouth of the feeder, renewing the bulk head in the regulating weir on the feeder, covering the road bridge and partially repairing locks Nos. 2 and 3.

A resolution was adopted by the House of Commons during the session of this year, to close the Carillon and Grenville Canals on sundays.

For further details—see Carillon Canal in Appendix No. 3, page 11.



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 THE "CHUTE À BLONDEAU" CANAL.
 

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Length of Canal.....	$\frac{1}{8}$ of a mile.
Number of locks.....	1.
Dimensions of lock.....	$130\frac{5}{8}$ feet $\times$ $32\frac{5}{8}$ feet at upper end, and $36\frac{1}{3}$ feet at lower end.
Total rise of lockage.....	$3\frac{3}{4}$ feet.
Depth of water on sills.....	6 "
Breadth of Canal at bottom.....	30 "
Breadth of Canal at surface.....	30 "

This canal carries navigation round the Chute à Blondeau rapids.

Repairs—The lock here was supplied with a new pair of gates.

For further details—see Chute à Blondeau canal in Appendix No. 3, at page 12.

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 THE GRENVILLE CANAL.
 

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Length of Canal.....	$5\frac{3}{4}$ miles.
Number of locks.....	7.
Dimensions of locks:—Lift lock, No. 5	} Combined..... { $130\frac{2}{3}$ feet $\times$ $32\frac{1}{6}$ feet.
"    "    No. 6	
"    "    No. 7	} do ..... { $128\frac{1}{3}$ " " $31\frac{5}{8}$ "
"    "    No. 8	
"    "    No. 9	$107\frac{2}{3}$ " " 19 "
"    "    No. 10	$106\frac{5}{6}$ " " $19\frac{1}{4}$ "
Guard lock, No. 11	$107\frac{5}{12}$ " " $19\frac{1}{12}$ "
Total rise of lockage.....	$45\frac{3}{4}$ "
Depth of water on sills.....	$6\frac{1}{2}$ "
Breadth of Canal at bottom.....	20 to 30 feet.
Breadth of Canal at surface of water.....	25 to 60 "

The works undertaken on this canal to increase its depth of water to  $6\frac{1}{2}$  feet, as described under the head of the "Carillon" canal, were completed during the present year, and consisted principally of raising the banks, clearing the bottom and widening the canal at intervals for passing places.

The repairs consisted of making new bridges over locks Nos. 9 and 11, and minor repairs to locks, lock-gates, sluices and bridges.

For further details—see Appendix No. 3, pages 11 and 12.

RIDEAU CANAL.

Length of Canal.....	126 $\frac{1}{4}$ miles.
Number of locks.....	{ In going from Ottawa to Kingston, 33 ascend, 14 descend.
Total lockage.....	446 $\frac{1}{4}$ feet. { 282 $\frac{1}{4}$ rise, and } at high water. 164 fall.
Dimensions of locks.....	.134 " × 33 feet.
Depth of water on sills.....	5 " (Navigable depth through canal, 4 $\frac{1}{2}$ ft.)
Breadth of canal at bottom... {	60 " in earth.
do at surface of water... {	54 " in rock.
	80 " in earth.

This canal connects the Ottawa river with the lower end of Lake Ontario, and extends from Ottawa city to Kingston.

Three new swing bridges have been added to the works of construction on this canal during the past two years, viz : one at Beckett's landing and one at the Narrows during the fiscal year ending 30th June, 1867, and one at Manotick during the fiscal year ending 30th June, 1868.

The repairs executed during the year, comprised the rebuilding of two swing bridges and eight pairs of lock-gates, and the general repairs of wear and tear at the several stations. Navigation was uninterrupted through the season.

For further details—see Appendix No. 9, page 38.

TABLE showing the size of the smallest locks on the canals of the Montreal and Kingston line of navigation, *via* Ottawa; also the dimensions of the largest vessel which may pass through them.

Name of Canal.	DIMENSIONS OF LOCK.			DIMENSIONS OF VESSEL.			
	Length.	Breadth.	Depth of water on sills.	Length.	Breadth.	Draught of water when loaded.	Tonnage.
Carillon and Grenville....	106 $\frac{3}{4}$	19 $\frac{1}{4}$	5 $\frac{1}{4}$	95	18 $\frac{1}{4}$	5	100
Rideau .....	134	32	5	110	31 $\frac{1}{4}$	4 $\frac{1}{2}$	250

THE RICHELIEU & LAKE CHAMPLAIN NAVIGATION.

This third line of navigation extends from Sorel, at the mouth of the Richelieu river, a point 46 miles below Montreal and 114 above Quebec, and extends to Lake Champlain; thence through American canals and the Hudson river to New-York.

The Canadian canals on this route are the St. Ours and the Chambly; the American

canals between Lake Champlain and the Hudson are the Champlain and a portion of the Erie.

The total length of canal navigation between Montreal and New York, on this route, is 85 miles, and the total lockage upwards and downwards is 283 feet.

TABLE OF DISTANCES IN STATUTE MILES.

SECTIONS OF NAVIGATION.	Intermediate Distances.	Total Distances from Montreal.
Montreal to Sorel.....	46	.....
Sorel to St. Ours Lock.....	14	60
St. Ours Lock.....		60
St. Ours Lock to Chambly Canal.....	32	92
Chambly Canal.....	12	104
Chambly Canal to Province Line.....	23	127
Boundary Line to Champlain Canal.....	111	238
Champlain Canal to Junction with Erie Canal.....	64	302
Erie Canal from Junction to Albany.....	9	311
Albany to New York.....	145	456

Date of opening and closing of navigation on the Richelieu and Lake Champlain navigation for the year 1867, and the date of opening for 1868.

Name of Canal.	1867.			1868.
	Opened.	Closed.	No. of days open.	Opened.
St. Ours Lock.....	16th April.....	2nd Dec.....	231	30th March.
Chambly Canal.....	1st May.....	5th do.....	219	5th May.

## ST. OURS LOCK AND DAM.

Length of Canal.....	$\frac{1}{5}$ mile.
Number of locks.....	1.
Dimensions of lock.....	200 feet $\times$ 45 feet
Total rise of lockage.....	5 "
Depth of water on sills.....	7 " at low water.

The lock and dam at St. Ours retain the waters of the Richelieu river, and give a navigable depth of 7 feet as far as the lower entrance into the Chambly canal.

No works of construction. Navigation uninterrupted.

Some general repairs were executed, and the dam and the banks to the entrance of the lock were strengthened.

For further details—see St. Ours Lock and Dam in Appendix No. 3, page 10.

### CHAMBLY CANAL.

Length of Canal.....	12 miles.
Number of locks.....	9
Dimensions of locks :—	
Guard lock, No. 1, at St. John.....	122 feet × 23½ feet.
Lift “ No. 2.....	124 “ × 23⅞ “
Lift “ Nos. 3, 4, 5, 6.....	118 “ × 23 to 23⅞ feet.
Lift “ Nos. 7, 8, 9, combined.....	125 “ × 23¾ feet.
Total rise of lockage.....	74 “
Depth of water on the sills.....	7 “
Breadth of Canal at bottom.....	36 “
do surface.....	60 “

The Chambly canal overcomes a succession of rapids on the Richelieu river.

No works of construction have been added here.

The depth of water on the lock sills of this canal is seven feet, but from the silt deposited in the bed of the canal, no vessel drawing more than six feet can pass through; the obstruction is in progress of removal by dredging.

The other repairs consist of two new gates, lining the banks with stone, clearing ditches, repairing towing path and bridges on Ste. Therèse Island and the main road, repairing wharves at St. Johns and Chambly, repairing sluice gates, locks and bridges.

An interruption to the navigation of 12 hours was caused here by some slight breaches in the banks.

For further details—see Chambly canal in Appendix No. 3, at page 10.

TABLE showing the size of the smallest locks on the canals of the Richelieu and Lake Champlain line of navigation to New York, also the dimensions of the largest vessel which may pass through them.

Name of Canal.	Dimensions of Lock, in feet.			Dimensions of Vessel, in feet.			
	Length.	Breadth.	Depth of water on sills.	Length.	Breadth.	Draught of water when loaded.	Tonnage.
U. S.—Erie Canal.....	110	18	7	102	17½	6	210
U. S.—Champlain Canal...	97	14	4	89	15½	3¾	70
Chambly Canal....	115	23½	7	114	23	6½	230

### ST. PETER CANAL.

On looking at the map of Nova Scotia, it will be seen that the Island of Cape Breton consists of two peninsulas which are connected at the southern extremity of the Island by a neck of land about  $\frac{1}{2}$  a mile wide, and known as the Isthmus of St. Peter. These peninsulas enclose a bay which widens out into two large sheets of water, called the "Great Bras d'Or" and "Little Bras d'Or" lakes, with a natural outlet into the Atlantic towards the North.

The cutting of a canal across this Isthmus of St. Peter, so as to admit of the passage of small vessels from the open sea to the south of the island into the Bras d'Or lakes, has been advocated for several years in Nova Scotia.

The work was commenced by the Nova Scotia Government in 1854, was suspended in 1856, and resumed in 1866.

The expenditure by the Government of Nova Scotia up to November, 1867, on this work, was \$160,811 75 and this exhausted the appropriation which had been made for the purpose by the Legislature of that Province.

The length of the canal is about 2,400 feet.

Breadth " " at bottom 26 feet.

Number of locks, one (tidal lock, 4 pairs of gates.)

Dimensions " 26 feet  $\times$  122 feet.

Depth of water on sills, 13 feet at lowest water.

Extreme rise and fall of tide in St. Peter Bay, about 9 feet.

For the early history of the work and its estimated cost—see reports by Alexr. McNab, C. E., in Appendix No. 10, at page 41.

For condition of works at date of Confederation—see report by J. Page, in Appendix No. 10, at page 47.

### THE RIVER TRENT NAVIGATION.

For a description of the works connected with river Trent navigation—see slides and booms, river Trent district, at page 30.

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## WORKS ON NAVIGABLE RIVERS.

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### RIVER ST. LAWRENCE AND LAKE ST. PETER.

The river St. Lawrence, between Quebec and Montreal, has been dredged by the Montreal Harbor Commissioners.

It was stated in last year's report that the subject of the navigation of the St. Lawrence and Lake St. Peter had been referred to the Chief Engineer of the department. His report on the matter will be found in Appendix No. 11, at page 50.

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### WATER POWER ON THE OTTAWA RIVER.

In the years 1853-56-57 and 59 the Government granted leases of water power at the Chaudière Falls, on the Ottawa river.

The lessees represented to the department that during the seasons of low water, the Government works did not supply them with a sufficient quantity of water for their manufactories, and they petitioned that the Government would construct an additional dam or allow them to do so, deducting the cost of the same from their water rents.

A question having arisen as to the propriety of granting this demand, and also as to the effect the proposed works might have on the properties situated above the Falls, the matter was referred to the Chief Engineer, who reported fully on the subject in June, 1867—see report in Appendix No. 13, at page 79.

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### WATER POWER AT THE ST. LOUIS RAPIDS.

The St. Louis rapids, on the St. Lawrence river, are between Montreal and Lachine.

It has been proposed to organize a Company for the purpose of bringing into use a portion of the water power at the St. Louis rapids by the construction of dams and other works, and for leasing or selling the same. With this view an Act was passed by the Local Legislature of Quebec in the session of 1868, entitled "An Act to incorporate the St. Louis Hydraulic Company" but that act was reserved by the Lieutenant Governor for the sanction of His Excellency the Governor General.

The subject having been referred to the Minister of Justice, he requested a report by the Chief Engineer of this department. The Minister of Justice basing his opinion on the Engineer's report, recommended that His Excellency's sanction should be withheld from this act.

The Engineer's report will be found in Appendix No. 12, page 73.

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## HARBORS AND PIERS.

### PORT DOVER HARBOR.

This harbor lies at the mouth of the Patterson Creek, on the north shore of Lake Erie, 49 miles above the upper entrance of the Welland Canal at Port Colborne.

The works consist of two parallel piers 75 feet apart and projecting into the Lake about 1,000 feet. The channel between them is about 10 feet deep at low water.

Repairs to the superstructure of the piers were commenced in the spring of 1868, and on the 30th of June of the same year, were approaching completion.

The Engineer in charge reports that a bar is forming across the entrance which has already reduced the depth of the channel to 9 feet.

For further details—see Appendix No. 14, page 84.

### PORT STANLEY.

The swing bridge over Kettle Creek was abandoned by order in Council, dated 28th December, 1867, and proclamation was made through the Official Gazette on the 27th of February, 1868.

### KINCARDINE AND SOUTHAMPTON HARBORS.

The appropriation which was granted in 1865 for harbors on Lake Huron, was apportioned as follows :

Owen Sound harbor.....	\$3,000
Kincardine harbor.....	4,500
Southampton harbor.....	3,500

As already reported, the portion allotted to Owen Sound was paid to that municipality in 1866.

The municipalities of Kincardine and Southampton having shown that they had executed the works for which the above grant was made, have also been paid the sums allotted them by order in Council.

Reports on the following places by the Chief Engineer of the department, will be found in the Appendix :

at page 86—	On	Cow-Bay or Morien Harbor, Cape Breton, N. S.
at page 88—	“	Bathurst Harbor, N. B.
at page 89—	“	Neil's Harbor, Cape Breton, N. S.
at page 90—	“	Amherst and House Harbors, Magdalen Islands.
at page 93—	“	Herring Cove Harbor.
at page 96—	“	on the channel of Ste. Croix River, N. B.
at page 98—	“	Mabou Harbor, Cape Breton, N. S.
at page 104—	“	Richibucto Harbor, N. B.

## LIGHT HOUSES.

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The duty of erecting and maintaining the light houses of the Dominion has been assigned to this department, while the lighting, management and furnishing supplies to them has been assigned to the Minister of Marine and Fisheries.

On the 7th of January, 1867, the light house at the entrance of the harbor of St. John, N. B., was destroyed by fire.

The Engineers of the department being of opinion that this light-house should be rebuilt in more durable materials than the old one, and having ascertained that the work would consume much time, were authorized to erect a temporary light house.

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### CAPE TORMENTINE AND CAPE JOURIMAIN.

On the 29th June, 1868, an order in Council was passed at the instance of the Minister of Marine and Fisheries, recommending that Cape Tormentine, Nova Scotia, and the neighboring sea coast should be examined by an Engineer of this department, with a view of ascertaining the best position for a light house for the use of the shipping passing through Northumberland straits.

The chief Engineer who visited this portion of the coast during the past summer of 1868, recommends that the proposed light house should be erected, not on Cape Tormentine but on Cape Jourimain, a few miles west of Cape Tormentine.

For a detailed report—see Appendix No. 15, at page 85.

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### POINTE ST. LAURENT, (ILE D'ORLÉANS.)

The pier upon which the light house stands, proving too light to resist the shove of the ice, it has been found necessary to add to its weight and unite it to the shore.

The works consisting of a pier and light house were completed in 1868, and remitted to the Marine department in March, 1869.

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### NEW LIGHT HOUSES ON LAKES HURON AND SUPERIOR.

Contracts were entered into on the 6th of June, 1866, for the erection of six new light houses on the line of navigation followed by vessels running from Collingwood to the head of Lake Superior, and under this contract, the following light houses were erected and completed in the summer of 1867, viz :

Two at Killarney, Georgian Bay.

Two at Little Current, Manitoulin Island, Lake Huron.

One at Clapperton Island, Lake Huron.

One at St. Ignace Island, Lake Superior.



## SLIDES AND BOOMS.

The slides and booms are works designed for the passage of timber to the sea-ports, and have been divided into four districts, as follows :

- 1.—The Saguenay District.
- 2.—The St. Maurice District.
- 3.—The Ottawa District.
- 4.—The River Trent District.

### THE SAGUENAY DISTRICT.

The Saguenay river flows from the north into the St. Lawrence, 122 miles below Quebec.

The Government improvements are situated on one of its branches called the "Little Discharge."—These works are about 105 miles above the mouth of the Saguenay, and were constructed for the purpose of passing timber from Lake St. John to the Saguenay river.

The works consist of :

1 slide.....	5,840 feet.
1 boom.....	1,344 " with dams, piers and bulkheads.

It has been already reported that a freshet in the spring of 1867, carried away 130 feet of the slide and damaged 100 feet more, which has since been repaired.

A dam 145 feet long and 14 feet in height, which was also carried away by the freshet, has been rebuilt.

Two piers and 260 feet of new boom had also to be renewed.—For further details—see Appendix No. 16, at page 109.

### THE ST. MAURICE DISTRICT.

#### ST. MAURICE RIVER.

The St. Maurice discharges into the St. Lawrence at Three Rivers, 74 miles above Quebec. This river flows from the north, and its length is about 300 miles.

The Government slides and booms in this district are on the St. Maurice river, and on one of its tributaries, the Vermilion.

LIST OF THE NAMES OF THE SLIDE AND BOOM STATIONS ON THE ST. MAURICE RIVER,  
IN THE ORDER IN WHICH THEY ARE MET ON ASCENDING THE RIVER.

	Distance from Mouth of River.
1. Mouth of River.....	0 miles.
2. Grès Falls.....	16 "
3. Shawenegan Falls.....	20 "
4. Grand Mère Falls.....	29 "
5. Little Piles Falls.....	31½ "
6. La Tuque Falls.....	100 "
7. Plamondon's Eddy .....	106 "

The works at these seven stations consist of:—

43,181 lineal feet of booms ;  
1,000 " slides ;  
3,316 " dams and side piers ;  
73 mooring piers ;  
64 anchor piers ;  
3 dwelling houses for slide keepers ; and  
6 store houses.

No new works of construction have been executed during the year, but the ordinary repairs have been made.

No accident occurred here during the past year ; the water was very low.

The Superintendent draws attention to the fact that the sand bar formed at the mouth of this river impedes the passage of lumber during the season of low water, and also interferes with the sorting of the timber on the rafting ground.

### THE VERMILION RIVER.

This river discharges into the St. Maurice from the north-west, at a point about 116 miles above the mouth of the St Maurice. Its length is about 90 miles.

The works on the Vermilion extend from about one mile above its mouth to the Iroquois Falls, five miles farther up.

The works consist of:—

2,677 lineal feet of booms.  
550 " slide.  
682 " dams and side piers.  
2 mooring piers.  
1 anchor pier.  
1 dwelling house for slide keeper.  
1 storehouse.

No new works of construction here—ordinary repairs executed.

For further details—see Appendix No. 17 at page 110.

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## THE OTTAWA DISTRICT.

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The Government works connected with the descent of timber in this district are on the following rivers:—

On the Ottawa, main river.....	11 stations.
“ Gatineau .....	1 “
“ Madawaska.....	15 “
“ Coulonge... ..	1 “
“ Black.....	1 “
“ Petewawa.....	31 “
“ Rivière du Moine.....	11 “

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### OTTAWA RIVER.

#### LIST OF SLIDE AND BOOM STATIONS ON THE OTTAWA RIVER.

The distances given are measured on the latest maps, following the channel through which lumber is floated down the river.

Names of stations.	Distance from mouth of Ottawa, at Ste. Anne.
1. Carillon.....	27 miles.
2. Chaudière. { north side, Hull. } { south side, Ottawa. }	98 “
3. Chaudière (little).....	100 “
4. Remous .....	102 “
5. Deschènes rapids.....	104 $\frac{3}{4}$ “
6. Chats station.....	131 “
7. Head of Chats.....	134 “
8. Chenaux .....	152 “
9. Portage du Fort.....	156 “
10. Mountain.....	161 “
11. Calumet.....	163 “
12. Joachim rapids. ....	249 “

The works at these twelve stations consist of:—

2,000	lineal feet of canal ;
3,835	“ slides ;
29,855	“ booms ;
8,656	“ dams ;
346	“ bulkheads ;
1,981	“ bridges ;
52 piers.	
3 slide keepers' houses ; and	
3 store houses.	

No accident occurred on the works of this district during the past year. The ordinary repairs of wear and tear were made good.

For further details, see Appendix No. 18, at page 112.

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### DESCHÈNES RAPIDS.

The lumbermen have for some years past been urging the Government to put in a slide and dam at the Deschènes rapids. Formerly the lumber descended earlier in the season when the water was still high, but as lumber operations are extended that which comes from greater distances only arrives at the Deschènes when the river is low, and hence the necessity of these works.

There is an island standing in these rapids dividing the river into two channels, the one being about 300 feet wide and the other 1,800.

The works consist of a moveable dam formed by a bulkhead and stop-logs, with a slide. For further details—see Appendix No. 18, at page 112.

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### GATINEAU RIVER.

In ascending the Ottawa, the Gatineau is the first tributary possessing Government works. The Gatineau flows from the north, and discharges into the Ottawa, at a point about 96 miles from the mouth of the Ottawa, at Ste. Anne. Its length is about 400 miles, and it drains an area of about 9,000 square miles.

The Government works are all at one station, about one mile from the mouth of the river.

These works consist of:—

3,071	lineal feet of canal;
4,138	“ booms;
52	“ bridge;
10	piers: and
1	slide keeper's house.

The bridge over the artificial canal leading to the Gatineau Point has been rebuilt.

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### MADAWASKA RIVER.

In ascending the Ottawa, the Madawaska is the second tributary on which the Government have provided works for the descent of lumber.

The length of the Madawaska is about 240 miles, and it drains an area of about 4,100 squares miles. It flows from the south, and discharges into the Ottawa at some 136 miles above Ste. Anne.

LIST of the names of slide and boom stations on the Madawaska, numbered from the mouth of the river upwards:—

- |                     |                      |
|---------------------|----------------------|
| 1. Mouth of River;  | 9. High Falls;       |
| 2. Arnprior;        | 10. Ragged Chute;    |
| 3. Flat Rapids;     | 11. Boniface Rapids; |
| 4. Balmer's Island; | 12. Duck's Islands;  |
| 5. Burnstown;       | 13. Bailey's Chute;  |
| 6. Long Rapids;     | 14. Chain Rapids;    |
| 7. Springtown;      | 15. Opeongo Creek.   |
| 8. Calabogie Lake;  |                      |

The works at these stations consist of:—

1,750	lineal feet of slides ;
18,179	“ booms ;
4,080	“ dams :
182	“ bridges ;
43	piers ;
1	slide keeper's house ; and
1	work shop.

### THE COULONGE RIVER.

The Coulonge is the third tributary in ascending the Ottawa on which the Government have placed slides and booms.

This river drains an area of about 1,800 square miles, and its length is about 160 miles. It flows from the north and discharges into the Ottawa, 184 miles above the mouth of that river, at Ste. Anne.

The only works built by Government on this river are a single-stick timber slide, of 2,956 feet in length, completed in May, 1865, a dam 173 feet long at the head of the chute, and a house for the slide-keeper. Certain old works built by private parties, and necessary to the working of the new slide, were purchased by Government (under an award dated 20th Feb., 1867) for a sum of \$4,342.18. Above the Government slides there are some other works belonging to private parties.

Booms and piers were renewed.

### THE BLACK RIVER.

Ascending the Ottawa, the Black river is the fourth tributary upon which works have been placed.

This river flows from the north and empties into the Ottawa at a point about 193 miles above Ste. Anne.

Its length is about 128 miles, and the area drained by it, is about 1,120 square miles.

The slides here were constructed by private parties about thirty years ago, and were renewed by them at various times.

These works were purchased by the Government in 1867, at a price (fixed upon by arbitration) of \$12,500.

They consist of:—

1,139	lineal feet of single-stick booms ;
873	“ slide ;
346	“ glance pier ;
135	“ flat dam.

Repairs were made on the slide and booms.

### THE PETEWAWA.

This is the fifth tributary, in ascending the Ottawa, upon which Government slides and booms have been made.

The length of the Petewawa is about 138 miles, and the area of the territory drained by it is some 2,200 square miles.

It flows from the south and discharges into the Ottawa, 218 miles above Ste. Anne; one mile from its mouth the Petewawa separates into two branches, but, on this one mile there are five stations; then, on the north branch there are eighteen more stations, and on the south branch eight stations.

LIST of the slides and booms on this river, in the order in which they occur, reckoning from the mouth upwards:—

- |                        |                 |
|------------------------|-----------------|
| 1. Mouth of the river, | 4. Third Chute. |
| 2. First Chute,        | 5. Bois dur.    |
| 3. Second Chute,       |                 |

NORTH BRANCH.

- |  |  |
|--|--|
| 1. Half mile Rapid;                      | 11. Devil's Chute;                                   |
| 2. Crooked Chute;                        | 12. Elbow of Rapids;                                 |
| 3. Between High Falls and Lake Traverse; | 13. Foot of Long Sault;                              |
| 4. Thompson's Rapids;                    | 14. Middle of Long Sault;                            |
| 5. Sawyer's Rapids;                      | 15. Head of Long Sault;                              |
| 6. Meno Rapids;                          | 16. Between Long Sault and Cedar Lake (south shore); |
| 7. Below Trout Lake;                     | 17. Between Long Sault and Cedar Lake (north shore); |
| 8. Strong Eddy;                          | 18. Cedar Lake.                                      |
| 9. Cedar Islands;                        |  |
| 10. Foot of Devil's Chute,               |  |

SOUTH BRANCH.

- |                  |                   |
|------------------|-------------------|
| 1. First slide;  | 5. Fifth slide;   |
| 2. Second slide; | 6. Sixth slide;   |
| 3. Third slide;  | 7. Seventh slide; |
| 4. Fourth slide; | 8. Eighth slide.  |

The works at these 31 stations are as follows;—

ON THE MAIN RIVER.

2,963 lineal feet of slides;  
 8,469 " booms;  
 2,077 " dams; and  
 7 piers.

ON THE NORTH BRANCH.

480 lineal feet of slides:  
 2,671 " booms;  
 1,131 " dams; and  
 23 piers.

ON THE SOUTH BRANCH.

2,134 lineal feet of slides;  
 388 " dams.

The ordinary repairs of wear and tear were good.

### RIVIÈRE DU MOINE.

The sixth and last tributary of the Ottawa upon which Government works have been executed is the "Du Moine."

The length of this river is about 120 miles, and it drains an area of about 1,600 square miles.

It flows into the Ottawa from the north, and empties into it at a point about 256 miles above Ste. Anne.

The works on this river consist of a pier and retaining boom at its mouth, a single stick slide, and a series of flat dams from the mouth upward; they may be detailed as follows, viz:—

300	lineal feet of slide;
800	" booms;
1,324	" dams; and
6	piers.

The booms here were lengthened.

For further details in reference to the works connected with the descent of timber on the Ottawa river and its tributaries—see Appendix No. 18, at page 112.

### RIVER TRENT AND NEWCASTLE DISTRICT.

The river Trent flows from the north-west and discharges into the Bay of Quinté, Lake Ontario, at Trenton, a small town about sixty-seven miles above Kingston. In ascending from Lake Ontario to Lake Scugog, the chain of rivers and lakes which communicate with each other, occur in the following order:

The Bay of Quinté, river Trent, Rice Lake, Otonabee river, Clear Lake, Buckhorn Lake, Pigeon Lake, Sturgeon Lake, river Scugog and Lake Scugog.

The distance from the mouth of the Trent to Port Perry at the head of Lake Scugog is 190 miles.

The works on these waters are principally connected with the descent of timber. The difference of level between lake Ontario at the mouth of the Trent and the head of Lake Scugog is  $570\frac{1}{4}$  feet, and of the whole distance between the two points only  $152\frac{1}{4}$  miles are navigable while  $37\frac{3}{4}$  miles are not practicable for boats.

Government has works at the following places:—

	Distance in miles above the mouth of River Trent.
On the River Trent, at Nine mile Rapids (Widow Harris').....	9
"    Chisholm's Rapids.....	$15\frac{1}{2}$
"    Raney's Falls.....	$33\frac{1}{2}$
"    Campbellford.....	$34\frac{3}{4}$
"    Fiddler's Island.....	36
"    Middle Falls.....	$37\frac{1}{2}$
"    Crow Bay.....	38
"    Heely's Falls.....	$42\frac{3}{4}$
"    Crook's Rapids.....	$54\frac{1}{2}$
On the River Otonabee—Whitlas Rapids.....	93
"    Little Lake.....	94
At the foot of Buckhorn Lake—Buckhorn Rapids.....	125
At the foot of Sturgeon Lake—Bobcaygean Rapids.....	$140\frac{3}{4}$
On the River Scugog—Lindsay.....	$161\frac{1}{4}$

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### THE NINE MILE RAPIDS.

The works here consist of a stone dam 1,265 feet in length, with a base of 10 feet and average of six feet in height.

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### CHISHOLM'S RAPIDS.

At Chisholm's rapids the works are a dam 715 feet long, averaging six feet in height, a slide for the passage of lumber 100 feet long by 50 feet wide, and a navigable canal a little more than half a mile long with a stone lock  $133\frac{1}{8}$  feet long by  $32\frac{1}{2}$  feet wide and  $4\frac{1}{4}$  feet water on the sills.

The dam and slides are in a serviceable condition, but the gates and woodwork of the lock are much decayed; they are not repaired because the canal is never used.

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### RANNEY'S FALLS.

At Ranney's falls the works consist of a dam 414 feet in length and averaging 12 feet in height, a slide 2,202 feet long by 33 feet wide, guide booms and piers above the dam extending 1,352 feet, all in working order.

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### CAMPBELLFORD.

At Campbellford there are guide booms.

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### FIDDLER'S ISLAND.

At Fiddler's island there is a cross dam and a wing dam—the united length of which is about 400 feet.

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### MIDDLE FALLS.

At Middle falls the works consist of a lower dam 97 feet long with a slide 455 feet long by 33 feet wide.

An upper dam consisting of two short dams of 48 feet in length each, with a slide 60 feet in length and 33 feet in breadth.

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### CROW BAY.

At the foot of Crow Bay and in connection with the Middle Falls slide, there is a retaining boom to collect timber and logs and guide them to the slide.

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### HEELY'S FALLS.

At Heely's falls there is a dam 488 feet long and averaging eight feet in height, also two slides, the lower one being 713 feet long and the upper one 300 feet long, 33 feet in breadth, and a guide boom conducting the timber from one slide to the other.



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### CROOKS' RAPIDS.

The works consist of a dam 253 feet long, with a slide 79 feet long and 33 feet wide—booms and piers above the slides to conduct the timber, a short canal with cut stone locks 134 feet long by 33 feet wide and six feet water on the mitre sill and a swing bridge over the canal.

During the past year the dam was repaired and piers were made to support the boom above the lock.

---

### WHITLAS RAPIDS.

At Whitlas rapids the works consist of a wing and cross dam, the united length of which is 483 feet with a cut stone lock  $133\frac{2}{3}$  feet long by 33 feet wide, and four feet water on the sills.

Since the construction of the Port Hope and Peterboro' railroad these works have fallen out of use and have not been kept in repair.

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### LITTLE LAKE.

At Little Lake there are three piers and a boom  $\frac{3}{4}$  of a mile long.

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### BUCKHORN RAPIDS.

At Buckhorn rapids the works consist of a wooden dam 387 feet long with stone work extensions on each side 173 feet long—a slide sixty-five feet long by 33 feet wide, 900 feet of boom and a bridge 600 feet long.

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### BOBCAYGEAN RAPIDS.

At Bobcaygean rapids the works consist of two dams the united length of which is 1262 feet and averaging six feet in height, two slides, one for the passage of the round logs and the other for the passage of square timber—a cut stone lock 134 feet long by 33 feet wide, and with a depth of water on the sills of  $4\frac{3}{4}$  feet, a swing bridge.

The pier or guard to lower entrance was extended, and the lock-gates and canal banks were repaired.

Navigation was interrupted for two days owing to an obstruction to the working of the lock-gates.

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### LINDSAY.

At Lindsay the works comprise a dam 280 feet long averaging 9 feet in height, a slide 54 feet long by 33 feet wide, and a bridge 172 feet long.

The lock originally constructed at this place was converted into a slide in 1859.

For further details—see Appendix No. 19, at page 114.

## ROADS AND BRIDGES.

### THE METAPÉDIAC ROAD.

The Métapédiac road leaves the St. Lawrence at Ste. Flavie, 201 miles below Quebec, and extends to the Ristigouche river at a point  $10\frac{1}{5}$  miles above its mouth.

This road was commenced in 1857 and completed in 1868.

In the spring of 1868 the flooding of the Métapédiac caused much damage which had to be repaired, and a bridge 89 feet in length, which had been destroyed by fire in the month of June, 1867, was rebuilt.

As the Métapédiac is one of the military roads of the country, it was considered desirable to take such measures as should ensure its being kept in a proper state of repair until the completion of the Intercolonial Railroad, and in order to effect this object as economically as possible, it was deemed advisable to transfer to the several municipalities through which they passed those portions of the road which traverse settled districts, namely from the St. Lawrence to the residence of Pierre Ouellet, on the 14th mile, and from the residence of Daniel Fraser on the 96th mile, to Cross Point Ferry at the  $110\frac{1}{2}$  mile.

And in order to keep up the intervening 82 miles, a contract was entered into with Mr. D. Fraser [who had already a contract for the conveyance of the mails on this road and therefore a direct interest in its maintenance] to keep the road in repair for five years at a yearly rate of \$800.

This arrangement was authorized by an Order in Council of date 4th of May, 1868.—For a description of the works executed during the year on this road—see Appendix No. 20, at page 118.

### THE RISTIGOUCHE ROAD.

The Ristigouche road is a continuation of the Métapédiac road—It follows the north shore of the Ristigouche river from Sillars to Cross Point at the mouth of the river, a distance of  $10\frac{1}{5}$  miles.

Two bridges over streams which cross this road were completed in the summer of 1868. For a description of the works executed during the year on this road—see Appendix No. 20, at page 118.

### THE TEMISCOUATA ROAD.

The Témiscouata road is the main line of communication between Canada and New Brunswick.

Its length from Rivière du Loup to the boundary line between Canada and New Brunswick is 67 miles.

The present road was made to replace an older one. It follows the same general direction as the old one, but with many improvements in location.

The new road was commenced in 1856, and although opened in September, 1861, was not completed till the summer of 1866.

The rebuilding of the bridge over Rivière du Loup commenced last year, has been completed.

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### THE BATISCAN BRIDGE.

This bridge was so much decayed that it was considered unsafe, and being regarded as a local work, it was abandoned by order in Council of date 27th of May, 1868.

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### HUNTINGDON AND PORT LOUIS ROAD.

Eight miles of this road were repaired on the recommendation of the Minister of Militia.

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### THE TORONTO ROADS.

The Toronto Roads consist of:—

- |   |                    |
|---|--------------------|
| 1. Lake Shore Road from Toronto westward to River Humber...             | 4 miles.           |
| 2. West York or Dundas, from Toronto westward to Springfield..          | 16 $\frac{1}{4}$ " |
| 3. East York or Kingston Road, from Toronto eastward to Rouge Mill..... | 17 "               |
| 4. Yonge street, from Toronto northward to Holland Landing.....         | 33 $\frac{1}{2}$ " |

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70 $\frac{3}{4}$  miles.

On the 4th of April, 1865, they were sold to the Municipal Corporation of the united counties of York and Peel for the sum of \$72,500, collaterally secured by debentures payable in 20 years, with interest at the rate of 6 per cent, payable half yearly.

The materials, tools and plant connected with the York roads, were sold to the united counties of York and Peel for the sum of \$7,167 by deed of sale dated 14th October, 1867.

### UNION SUSPENSION BRIDGE (between Ottawa and Hull.)

An outside footpath was built along the northern approach to the Union Bridge. The bridge and its approaches were kept in repair.

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### RIVIERE ROUGE BRIDGE.

The bridge was repaired.

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### LAKE SUPERIOR AND RED RIVER ROAD.

There are no roads between the valley of the St. Lawrence and the British possessions in the North-West Territory.

At about five hundred miles to the north-west of Lake Superior is found lake Winnipeg one of the largest lakes to be met with on the continent of America—to which are tributary the three considerable rivers called the Saskatchewan, the Assinaboine and the Red River forming together an immense extent of navigable water which is discharged into Hudson Bay through Nelson River.

Anticipating a future union with this territory, the Government of the United Provinces of Upper and Lower Canada, ordered an exploration to be made a few years since with the view of ascertaining the best mode of establishing a direct line of communication between Lake Superior and these northern waters, and during the past year the same engineer who had conducted the first survey was instructed by the Dominion Government to continue his explorations.

Several reports giving the results of these surveys have already been received by the Government and printed for general information, but a complete report of the last examination is not yet in the hands of the department.

These examinations have led to the selection of a line of road and navigable water communication extending from Fort William on Lake Superior, to Fort Garry on the Red River.

The engineer proposes to improve the navigable portion of the route by the erection of dams and other works so as to diminish as far as practicable, the distance to be travelled by land without launching into very expensive works, and also without deviating too widely from a direct line; and he states that if the improvements he has suggested in his report are carried out, the following would be a table of distances :—

	Land carriage.		Navigable water.
	Miles.	Chains.	Miles.
From the Depôt at Thunder Bay to Shebandowan Lake.....	40		
Shebandowan and Kashaboiwekamak Lakes.....			25
Height of land portage.....		50	
Lac des Mille Lacs.....			25
Baril Portage.....		16	
Baril Lake.....			8½
Brulé Portage.....		21	
Windegoostegon Lakelets.....			12
French Portage.....	2		
Kagassikok Lake.....			15
Dieux Rivières Portage.....	2		
Sturgeon Lake and River.....			27
Island Portage.....		13	
Nequaquon Lake.....			17
Nequaquon Portage.....	2		
Namenkan Lake.....			10
Bare Portage.....		11	
Rainy Lake.....			46
Fort Francis Portage.....		10	
Rainy River and Lake of Woods.....			120
North-west angle of Lake of Woods to Fort Garry.....	90		
	137	41	305½
			137½
			443 miles.

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An analysis of the foregoing table shows that the main features of the proposed route consist of: First, a road of 40 miles long at the Lake Superior end of the line, and second, a road ninety miles long at the Red River end, with an intermediate section of navigable water 305½ miles long, interrupted only by nine short portages, six of which have an aggregate length of only one mile and a half, while three others have a length of two miles each.

The engineer estimates that the total lockage required to overcome these interruptions would be about four hundred and twenty-five feet being something less than that of the Rideau Canal which has a lockage of four hundred and forty-six feet a distance of only 126 miles.

It is not necessary that these locks should be among the first works executed. The roads and dams would be sufficient to commence with, and would form a basis for works of a more comprehensive character.



# RAILWAYS.

## NOVA SCOTIA.

### LINES WORKED BY THE GOVERNMENT.

When the provinces were confederated and united as a Dominion on the 1st July, 1867, the Province of Nova Scotia owned as public property the following railways :

Halifax to Truro,.....	61 miles.
Truro to Pictou,.....	52 “
Windsor Branch,.....	32 “
	145 “

The Windsor branch leaves the main line at 13½ miles from Halifax.

These railways were under the care and management of a railway commissioner and were worked on Government account.

The Halifax and Truro line with branch to Windsor was commenced in 1854 and completed in 1858, while the Truro and Pictou, or Pictou extension, was commenced in 1864 and although sufficiently advanced to admit of its being used for public traffic in May 1867, the works were only completed after the 1st July, 1867. The accounts connected with the construction of this line are in course of settlement by this department.

Mr. A. Longley with a staff of officers had charge of these railways before confederation, and have since that date continued to act for the Dominion Government.

Mr. Longley's report, as given in the Appendix No. 21, at page 138, shows that up to the 30th June, 1867, the railway commissioner had received from the Government of Nova Scotia :

For the Halifax, Truro and Windsor lines.....	\$4,310,891.15
Truro and Pictou.....	2,072,075.64
	\$6,382,966.79

and the cost of construction up to same time, namely, up to 30th June, 1867, was :

For the Halifax, Truro and Windsor lines... ..	\$4,345,136.04
Truro and Pictou.....	1,946,892.54
	6,292,028.58

leaving an unexpended balance on Capital account of..... \$90,938.21

The same report also shows that during the fiscal year ending the 30th June 1868, the amount received by Mr. Longley to be applied to construction was as follows :

Balance on hand 30th June, 1867,.....	\$90,938.21
From the Receiver General for Nova Scotia, for the Truro and Pictou line .....	\$159,000.00
From the Minister of Public Works of the Dominion Government :	
For the Truro and Pictou line.....	\$167,000.00
“ “ Halifax, Truro and Windsor.....	60,509.53
	\$227,509.53
	386,509.53
	\$477,447.74

<i>Brought over</i> .....		\$477,447.74
And that the disbursement for construction, during the year (fiscal year ending 30th June, 1868,) was as follows:		
For work done by contractor, Pictou extension,		
Engineering.....	\$ 6,310.80	
Roadway and works.....	172,321.20	
Permanent way .....	95,941.07	
Station and water service .....	15,080.00	
Wharf and ferry service.....	25,444.00	315,097.07
<hr/>		
For works done by Department		
Engineering.....	\$ 3,842.49	
New sidings.....	8,026.19	
Wharf extension, Richmond.....	18,285.16	
Pier at Parrsboro.....	3,073.50	
Stations.....	5,226.59	
Carriage of materials.....	6,319.15	
Sundry services.....	4,823.09	49,596.17
<hr/>		
For rolling stock.		
Engines.....	21,551.71	
Coal cars.....	16,194.45	
First class cars .....	3,250.91	
Snow ploughs and freight cars.....	1,928.70	42,925.77
		<hr/>
		407,619.01

Leaving on the 30th June, 1868, an unexpended balance on capital account of.....\$69,828.73

NOTE.—Previous to Confederation, under the rules in force in Nova Scotia, the railway working expenses were paid out of the revenue derived from the use of the road, and the balance, if any, was placed to the credit of the Receiver General, but since the 16th of January 1868, the rules in force under the Dominion Government have been observed and the total receipts have been deposited to the credit of the Receiver General of the Dominion and the working expenses have been paid out of appropriations made by Parliament for that purpose.

Mr. Longley's report also shows that for the fiscal year ending 30th June, 1868, the receipts for traffic, &c., on the line, were.. \$253,994.16

And the working expenses.....\$255,530.51

Leaving a deficit of..... \$1,536.35

The general balance sheet presented by Mr. Longley, (see Appendix No. 21, at page 137) shows how these balances in favor of and against the line are disposed of, and gives a statement of the assets and liabilities of the administration.

Questions having arisen as to the practicability of reducing the working expenses on these lines, or of increasing the receipts, the undersigned instituted an inquiry into the system of management, tariff, rates, etc. Certain changes have been made in consequence of the enquiry. For details—see Appendix No. 21, page 155.

### SUBSIDIZED LINES (NOVA SCOTIA).

An Act of the Legislature of Nova Scotia (12 Vict., Cap. 13) passed in 1865, authorized on certain conditions, the payment of a grant to aid in the construction of the following railways within Nova Scotia :

1st. A Railway from Truro to the border of New Brunswick.

2nd. A Railway from Windsor to Annapolis.

It was enacted that the grant in favor of the Truro and New Brunswick railway should be 4 per cent per annum for 20 years on \$40,000 per mile of the whole length of road, while the grant in favor of the Windsor and Annapolis railway was to be 4 per cent per annum for 20 years on \$24,000 per mile of road. The same Act also enacted that the bridge on the Avon river, on the Windsor and Annapolis line, should be built wholly at the expense of the Government.

In 1865, delegates from Nova Scotia and New Brunswick negotiated a contract in London, in England, with the International Contract Company for the construction of the line extending from Truro to the boundary line between Nova Scotia and New Brunswick, connecting with the New Brunswick lines; but no work appears to have been executed under this contract on the Nova Scotia portion of the line.

The Windsor and Annapolis line was undertaken by the Windsor and Annapolis Railway Company, incorporated under the Act 27 Vict., Cap. 1, (1866), and on the 22nd November, 1866, it was agreed between the Government and the Company that the grant specified in the Act 28 Vict., Cap. 13, should be capitalized into a sum of £188,600 sterling, payable partly during the progress of the work and partly on its completion, and also that the company should construct the bridge over the river Avon for the sum of £32,000.

Line.	Length of line in miles.	Subsidy capitalized	Payments by Nova Scotia Government previous to Confederation, 1st July, 1867.	Payments on subsidy by Dominion, during year, ending 30th June, 1868.
Windsor and Annapolis.	85	\$1,103,000	123,500	398,423.25

## NEW BRUNSWICK.

### LINE WORKED BY GOVERNMENT.

On the 1st day of July, 1867, when the Provinces were united under the Act of Confederation, the Government of New Brunswick owned and operated on its own account a line of railway extending from St. John to Shediac, 108 miles.

The construction of this line was commenced in 1853, suspended in 1854, resumed in 1856, and completed in 1860.

Previous to the Confederation the affairs of the road were administered by a Board of Commissioners, but the Dominion, on assuming the direct control of the line, placed it under Mr. Lewis Carvell as general manager.

The report of Mr. Carvell, given in appendix No. 22, at page 178, shows that up to the 30th June, 1867, the railway commissioners had received from the Government of New



Brunswick.....		\$4,761,979.90
and that this sum had been expended in the following manner :		
1. Cost of road and water terminus.....	\$4,642,484	39
2. General stores on hand.....	88,585	80
3. Outstanding accounts and cash in Banks.....	3,202	62
4. { St. Stephen Railway.....	\$7,516	58
{ Woodstock " .....	2,646	87
		10,163 45
5. Construction of Apohaqui bridges, and other works not connected with the railway.....		17,543 64
		<u>\$4,761,979 90</u>

By the same report it appears also that during the fiscal year ending the 30th June, 1868, the items of expenditure chargeable to construction on this line, were :

For new buildings .....	\$1,665	23
" 10 platform cars .....	6,750	00
" sundry other services given in detail in appendix No. 22 page 179...	1,079	68
		<u>\$9,494 91</u>

During the fiscal year various articles of plant, valued at \$7,095 10, were sold.

The revenue for the year, ending 30th June, 1868, is shown to have been.	\$166,758	42
And the working expenses.....	131,684	97

Net revenue.....	<u>\$35,073 45</u>
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NOTE.—Previous to Confederation the same system of paying the working expenses out of the revenue collected from the use of the road, and carrying the balance to the credit of the Receiver general prevailed in this Province as in Nova Scotia, but since the 16th January, 1868, the practice of the Dominion Government has been followed ; that is to say, the whole receipts earned by the road are deposited to the credit of the Receiver General of the Dominion and the working expenses are paid from Parliamentary grants.

### SUBSIDIZED LINES (NEW BRUNSWICK.)

The Government of New Brunswick having adopted the policy of assisting in the construction of certain railways within its territory, passed an Act in 1864, (27 Vic., Cap. 3), granting a subsidy to the following lines :

- 1st. To a main line from St. John to the state of Maine, by Douglas valley.
- 2nd. To a line from a point on the European and North American Railway towards the boundary of Nova Scotia.
- 3rd. To an extension of the European and North American Railway to Miramichi.
- 4th. To a branch to connect the European and North American Railway with Fredericton.
- 5th. To a branch from Woodstock to connect with the present St. Andrew's line.
- 6th. To a branch from St. Stephen to connect with St. Andrew's line.
- 7th. To a branch to connect the European and North American Railway with Hillsborough, (or with Hopewell, as subsequently authorized by the Act 30 Vic., Cap. 13, of 1867), in the county of Albert.

It was enacted that the subsidy above referred to should be at the rate of \$10,000 per mile, payable to any company which would construct any of the said lines. The conditions of

payment were, that so soon as any such company should have expended \$100,000 in actual work on the road, the Government would pay \$25,000, and so on from time to time *pro rata* for every \$100,000, until the completion of the road, when the balance of the aid of \$10,000 per mile and no more would be paid to the said Company; these sums to be payable in debentures at 30 years either in New Brunswick currency or sterling money, bearing interest at six per cent per year.

Under the general provisions of this Act the following companies were formed for the purpose of constructing and working the lines hereinafter named, viz. :

Name of Company.	Acts incorporating these Companies.	Designation of Road to be built, as given in the Acts.	Name under which these roads are known.
European & North American Railway Company... }	27 Vic., c. 43, (1864)..	Extension from St. John westward to boundary of United States. }	Western Extension
St. Stephen's Branch Railroad Company..... }	27 Vic., c. 56, (1864)..	From St. John to St. Andrew's line of the New Brunswick and Canada Railway and Land Company }	St. Stephen's Branch.
Woodstock Railway Comp'y.	27 Vic., c. 57, (1864)..	From Woodstock to boundary line of United States to connect with or terminate at the present St. Andrew's and Quebec Railway, or a prolongation thereof, (a)...	Woodstock Branch.
Albert Railway Company.....	27 Vic., c. 58, (1864)...	From present line of the European & North American Railway to Hillsborough (or to Hopewell, as per Act 30 Vic. c. 13 of 1867) in the County of Albert..... }	Albert Co. Branch.
Fredericton Railway Comp'y	29 Vic., c. 14, (1863), entitled to subsidy by 30 Vic. c. 64, (1867.)	From a point on the line leading from St. John to the State of Maine, by Douglas Valley, to the city of Fredericton..... }	Fredericton Branch.
Miramichi, Richibucto and Shediac Railway Comp'y }	30 Vic., c. 32, (1867)..	From the European & North American Railway to the Miramichi River..... }	Miramichi and Shediac line.
Houlton Branch Railway Company..... }	30 Vic., c. 54, (1867)...	From the intersection of Woodstock Railway, with the New Brunswick and Canada Railway & Land Company, at Mr. Blanchard's, in Richmond, to the boundary of the State of Maine..... }	

The Miramichi and Shediac line, and the Albert County branch have not been commenced.

The other works, namely: The Western Extension, The Fredericton, the St. Stephen's and the Woodstock branches are in progress.

A contract was negotiated in London, on the 15th of August, 1865, by delegates from New Brunswick and Nova Scotia, with the International Contract Company, for the construction of a line of railway from Moncton on the European and North American Railway to the boundary line between New Brunswick and Nova Scotia, (known under the short name of the

(a) A subsidy of \$10,000 per mile was granted by the Act 27, Vic., Cap. 3, (1864) for the road commencing at Woodstock and terminating at the St. Andrew's line, while by the Act 30 Vic., Cap. 6, (1867), only \$5,000 per mile, and not more in the whole than \$17,500 was granted for the extension of the Woodstock branch from its intersection with the St. Andrew's line to the United States frontier.

“Eastern Extension”) connecting with the Nova Scotia Railway to Truro. This Internal Contract Company having become bankrupt, the portion of the road extending from Moncton to Sackville in New Brunswick, was transferred by their assignees to Messrs. Edwin Clark and Thomas Brassey. This firm is now carrying on the works.

LIST OF SUBSIDIZED LINES COMMENCED AND IN COURSE OF CONSTRUCTION IN NEW BRUNSWICK :

Lines.	Length of line in miles.	Total subsidy granted. Rate : \$10,000 per mile.	Payments on subsidy by New Brunswick Government previous to Confederation, 1st July, 1867.	Payment on subsidy by Dominion, during the year, ending 30th June, 1868.	Loan authorized by Act 30 Vic., c. 6, (1867)	Payments on Loan during year, ending 30th June, 1868.
Western Extension...	87	\$ 870,000		150,000 00	300,000	180,000
Eastern Extension....	36½	365,000		110,000 00		
Fredericton Branch....	21½	215,000				
Woodstock Branch....	11	110,000		20,000 00		
St. Stephen's Branch.	19	190,000	184,000	5,764 57		
	175	1,750,000	184,000	285,764 57		

# INTERCOLONIAL RAILWAY.

The first step in reference to this railway was taken by the Imperial Government, who ordered Major Robinson, R. E., to survey a line which should connect Quebec with an eastern port in Nova Scotia.

The result of this survey was embodied in a report by Major Robinson, dated August 31st, 1848, a copy of which was despatched by the Imperial Government to the Governor General of Canada, and by him transmitted to the Canadian Legislature on the 30th January, 1849.

Major Robinson reported on five lines between Nova Scotia and Quebec, but recommended that the one which, starting from the City of Halifax, proceeds thence by Truro to Shediac, thence across the River Richibucto and Miramichi above the head of tide water, thence by the valley of the north-western Miramichi to Bathurst on the "Baie des Chaleurs", thence along the coast of said bay to the Ristigouche River, thence by the valleys of this river and the Métapédiac to the St. Lawrence, and along the bank of the St. Lawrence to Quebec, should be adopted.

The length of this route was stated to be 635 miles, and the estimated cost £5,000,000 sterling, or \$38,110 per mile.

Since Major Robinson's survey was made, the Grand Trunk Railway has been built, and that portion of it between Quebec and Rivière du Loup may be considered as a portion of the route recommended by Major Robinson.

A railway has also been built between Halifax and Truro, at the head of the Bay of Fundy.

In the year 1864 the Government of Canada appointed an engineer to examine and report on the most eligible route for a railway which would fill up the intervening distance between Rivière du Loup and Truro.

The engineer entrusted with this examination reported on the 9th February, 1865.

He suggested several lines and stated that he had surveyed the following route; viz :

From Rivière du Loup by way of the river Toledi, Green River and Guanamitz valley, thence by Two Brooks, Wapskehegan, the upper waters of the Miramichi and Nashawuak, by the Kesswick valley and St. John river opposite Frederickton, thence by the head of Grand Lake to Apohaqui, thence by existing railway to Moncton, thence by Truro to Halifax.

He also states that if this line were adopted the length of the railway from Quebec to Halifax would be 687 miles, the portion to be built would be 452 miles, and its probable cost \$46,000 per mile.

On the formation of the Confederation Government, instructions were immediately issued (8th July, 1867,) for the location of that portion of the Intercolonial Railway lying between Truro and Amherst in the Province of Nova Scotia, and further instructions were afterwards given for surveys to be made from Rivière du Loup in easterly and southerly directions, and these surveys were in progress at the close of the fiscal year ending 30th June, 1868.

The route recommended by Major Robinson was subsequently adopted, and the construction and management of the railway, until completed, were placed in the hands of a com-

mission by order in Council, of date 11 December, 1868, under authority of an Act intituled : "An Act respecting the construction of the Intercolonial Railway" (31 Victoria, chapter 13, section 3.)

## PUBLIC BUILDINGS.

The Public Buildings of the Dominion are not all under the care of the Department of Public Works. Those enumerated below were under the Public Works Department of the late Province of Canada, previous to the Union.

It is probable that under "The British North America Act" some of these buildings will in due course be transferred to the Local Governments. Up to the 30th of June, 1868, only two of them have been formally transferred by Order in Council.

### HOUSES OF PARLIAMENT.

#### OTTAWA.

No works of importance have been undertaken on these buildings during the past year.

An Order in Council, dated 29th February, 1868, directed that the construction of the Parliament library building should not be proceeded with.

Some progress has been made with the levelling of the grounds preparatory to their being laid out and fenced.

The furniture of the Government departments generally, as well as that of both Houses of Parliament, has for some years past been allowed to fall out of repair in prospect of the thorough renewal which would be required after settling down in the new buildings at Ottawa, and new furniture is now in course of being supplied.

It should also be remarked, that the occupation of new buildings on such a scale as those at Ottawa, reveals by degrees the necessity of many alterations and small works of completion which are not properly repairs but a portion of the permanent structure.

Since the removal of the Government to Ottawa, the department has been called upon to incur another class of expenditure which may be described as maintenance and cleansing, but as this item includes the employment of persons engaged to effect the removals which have been made of departments from block to block, and of individuals from office to office, this item will necessarily diminish.

The expenditure under these last mentioned heads, for the year ending 30th June, 1868, has been as follows ;

1st. For furniture.....	\$7,670 97
2nd. " alterations, additions and permanent improvements to the buildings.....	19,969 63
3rd. " repairs, maintenance and cleansing.....	3,698 00
	\$31,338 60

The gas used for lighting the three blocks of the Parliament Buildings is supplied by "The Ottawa Gas Company."

The firewood consumed in the Senate, the House of Commons and the Departmental offices has hitherto been purchased under three separate contracts.

During the fiscal year ending 30th June, 1868, the firewood was supplied by John Heenev, under three contracts containing the same conditions, signed by the clerk of the

Senate, the Sergeant-at-arms of the House of Commons and the Minister of Public Works for the Departments.

An Act 31 Victoria, chapter 35, intituled, "An Act to regulate and restrict the contingent expenses of the departments of the public service, &c.," has since been passed, the second section of which provides: "that the Department of Public Works shall be charged "with the heating, maintenance and keeping in repair of the Government buildings at the "seat of Government, the supply of furniture, fitting &c., and further that no change in "respect thereof shall be made against or paid out of the vote for contingencies, but that an "estimate shall be annually laid before Parliament, of sums required for such purposes respectively and any expenditure therefore shall be defrayed out of such sums as may be "especially appropriated therefor."

The three contracts with Mr. Henry Heeny having expired on the 27th October, 1868, tenders were invited and received for the supply of firewood required for three years next ensuing, and a new contract was entered into with Mr. Heeny for the supply of firewood for the remainder of the year 1868 and for the years 1869, 70, and up to October of 1871.

### TORONTO AND QUEBEC.

The Houses of Parliament at Toronto and Quebec are now in the occupation of the Local Governments, but up to the 30th June, 1868, they had not been formally transferred by Order in Council from the Dominion Government.

### GOVERNMENT HOUSES.

#### OTTAWA.

*Rideau Hall.*—The residence provided for the use of the Governor General is situated in the village of New Edinburgh, about two miles from the Parliament Buildings.

On the 7th of August, 1865, the land forming the estate attached to this residence was leased by the Government from Thomas and Ann McKay at an annual rent of \$4,000 for a period of 12 years, with power to purchase said lot at any time within 3 years from the date of the lease at the price of \$70,000, or at any time during the remaining nine years at a price to be determined by arbitration. An additional lot on the river front, and known in the locality as "the Bay," was leased on the 1st September, 1867, from the same parties at an annual rent of \$720 with the right to the Government to purchase at a price to be ascertained, in case of dispute, by arbitration.

In the spring of 1868 the Government decided on purchasing the whole property, comprising the following lots, viz :

	Acres.	Roods.	Perches,
The "Rideau Hall Domaine".....	77	..... 1	..... 0
"The Bay".....	9	..... 1	..... 25
"The Triangle".....	1	..... 0	..... 19 <sup>96</sup> / <sub>100</sub>
Making in all.....	87	..... 3	..... 4 <sup>96</sup> / <sub>100</sub>

at the total price of \$82,000, and on the 28th of July, 1868, the deed of sale was executed.

There was on the estate a stone dwelling, which was enlarged and converted into a commodious mansion. The grounds were fenced and laid out with ornamental walks

and gravelled roads, and planted with young trees and shrubs. A conservatory, vinery, flower garden, kitchen garden, cottage residence, stabling, coach house, guard house, lodge and iron gates were also added.

The mansion was suitably furnished. At the end of the fiscal year ending June, 1868, the greater portion of these works were completed. For further details, see Appendix No. 24, at page 198.

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### QUEBEC.

*Spencer Wood.*—Is under the care of the Dominion Government.

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### MONTREAL.

*Government House.*—This building is at present occupied as a Normal School, but has not been formally transferred to the Local Government of Quebec.

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### TORONTO.

*Government House.*—This property has not yet been formally transferred to the Local Government of Ontario.

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### OBSERVATORIES.

There are two of these establishments, the one at Quebec and the other at Toronto; they are now under the surveillance of the Department of Marine and Fisheries.

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## CUSTOM HOUSES.

The Custom Houses throughout Canada are in charge of the Dominion Government.

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### MONTREAL CUSTOM HOUSE.

In 1868 the Minister of Customs brought under the notice of Government the fact that the Custom House at Montreal was too small for the proper and convenient dispatch of the growing business of the Port, and that it required extensive repairs.

This department was in consequence called upon to enquire into the subject.

The ground on which the present building stands is 165 feet in length, by about 64 feet in breadth, the latter being the width of the harbor frontage on Commissioners street; the rear of the lot is bounded by St. Paul street, and its two sides are bounded by streets of about 34 feet in width, leading from St. Paul to Commissioners street.

The site is favorably situated for the convenience of the mercantile community, but is too limited to admit of the erection of a building suitable to the present or prospective requirements of the Port.

This fact having been established, an Order in Council was passed authorizing the purchase (subject to the approval of Parliament) of a suitable site on which a new building could be erected, and for this purpose a lot has been obtained at the south east corner of McGill street, with an extensive frontage on Common street facing the harbor, and with space enough not only for the erection of a Custom House, but also for the erection of a

examining Warehouse, a building which the Custom House officers say is much required.

The price to be paid for this property is eight shillings per superficial foot. The final measurement of the lot has not yet been made, but may be stated at 49,277 feet.

The other Custom House buildings formerly the property of the United Provinces of Upper and Lower Canada, but now in charge of the Dominion are :

Seven Islands;	Dundee ;	Port Dalhousie ;
Quebec ;	Kingston ;	Rondeau.
Montreal ;	Toronto ;	
St. Regis ;	Hamilton ;	

#### POST OFFICES.

All the Post Offices of Canada are in charge of the Dominion Government.

The following is the list of the Post Office buildings now in charge of this department.

Quebec ;	Kingston ;	Hamilton ;
Montreal ;	Toronto ;	London ;

MONTREAL.—The Post Office lot here has been diminished by an area of 420 feet on Notre Dame street, and by an area of 412 feet on St. Francois Xavier street, and a mitoyen wall costing \$912.74 has been built between this lot and the property of Mr. Jenkins, of which the Government paid half.

#### HOSPITALS AND ASYLUMS.

These consist of :

- The Grosse Ile Quarantine station ;
- Immigrant Shed, Quebec ;
- Marine Hospital, Quebec ;

They are the property of the Dominion Government and are placed in charge of the Minister of Agriculture and Emigration. The repairs are executed under the supervision of this department.

#### COURT HOUSES.

- The Old District Court House, Quebec ;
- Sherbrooke Court House, Dis. of St Francis ;
- District Court House, Three Rivers ;
- The New District Court House, Montreal.

These four buildings have not yet been formally transferred to the Government of Quebec.

#### JAILS AND PRISONS.

- The New District Jail, Quebec ;
- Sherbrooke New Jail, District of St. Francis ;
- District Jail, Three Rivers ;
- The New District Jail, Montreal ;
- Sherbrooke Old Jail, District of St. Francis ;
- The Reformatory Prison for Lower Canada, at St. Vincent de Paul.

The Sherbrooke Jail and Reformatory Prison at St. Vincent de Paul were transferred to the Government of Quebec by order in Council, dated 6th April, 1868. The remainder have not yet been formally transferred.



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**DISTRICT COURT HOUSES AND JAILS COMBINED.**

- |                         |                     |                   |
|-------------------------|---------------------|-------------------|
| 1. Magdalen Islands ;   | 8. Montmagny ;      | 15. Iberville ;   |
| 2. Percé (Gaspé) ;      | 9. Beauce ,         | 16. Beauharnois ; |
| 3. New Carlisle (Gaspé) | 10. Arthabaska ;    | 27. Terrebonne ;  |
| 4. Rimouski ;           | 11. Richelieu ;     | 18. Aylmer ;      |
| 5. Chicoutimi ;         | 12. Bedford ;       | 19. Algoma.       |
| 6. Saguenay (Malbaie) ; | 13. St. Hyacinthe ; |                   |
| 7. Kamouraska ;         | 14. Joliette ;      |                   |

None of the buildings above specified have yet been formally transferred.

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**NORMAL SCHOOLS.**

The Old Château St. Louis, Quebec, has not yet been formally transferred to the Government of Quebec.

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**DRILL SHEDS, GUN SHEDS AND BARRACKS.**

These have all been taken charge of by the Militia Department.

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**MISCELLANEOUS BUILDINGS.**

The Sewell property, Quebec, (formerly Nautical School) ;

The Old Custom House, Quebec ;

The Geological Museum, Montreal.

The buildings at the corner of Notre Dame street and Jacques Cartier square, Montreal,

The above are still retained by the Dominion Government.

All of which is respectfully submitted.

WM. McDOUGALL,  
*Minister of Public Works.*

DEPARTMENT OF PUBLIC WORKS, OTTAWA.

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APPENDIX TO THE REPORT

OF THE

MINISTER OF PUBLIC WORKS,

FOR THE YEAR ENDING 30<sup>TH</sup> JUNE, 1868.

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## APPENDIX No. 1.

## EXPENDITURE.

STATEMENT showing the amount expended by Department of Public Works, Dominion of Canada, during the fiscal year ending 30th June, 1868.

NAME OF WORK.	Construction.	Repairs.	Staff and maintenance.	Rents, and Insurance.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Canals.</i>				
Lachine.....	1,852 70	13,550 11	14,357 81	.....
Beauharnois.....	7,008 00	5,599 15	10,087 31	.....
Cornwall.....	2,786 00	4,700 17	10,318 48	.....
Williamsburgh.....	.....	8,758 56	5,799 97	.....
Welland.....	12,007 84	38,852 96	38,399 05	.....
Burlington.....	.....	57 32	.....	.....
Tug Service, Upper St. Lawrence.....	.....	.....	12,000 00	.....
Ste. Anne's (Lock).....	.....	374 57	836 06	.....
Carillon and Grenville.....	19,817 22	8,769 72	6,157 45	.....
Rideau.....	7,593 67	15,637 56	18,939 38	.....
St. Ours (Lock).....	.....	753 74	1,532 75	.....
Chambly.....	.....	9,878 18	8,451 43	.....
St. Peters.....	\$22,109 30 N.S. Cy.	21,519 72	.....	.....
<i>Slides and Booms</i>				
Saguenay District.....	.....	3,297 01	838 16	.....
St. Maurice ".....	.....	6,351 81	9,914 15	.....
Ottawa ".....	4,144 00	11,888 64	14,094 35	.....
Newcastle ".....	324 85	4,207 61	944 61	.....
<i>Harbors and Piers.</i>				
Kincardine.....	4,500 00	.....	.....	.....
Southampton.....	3,500 00	.....	.....	.....
Port Dover.....	.....	573 05	.....	.....
Berthier.....	.....	4 00	.....	.....
Rivière du Loup.....	.....	73 50	.....	.....
Grosse Ile.....	2,536 85	.....	.....	.....
<i>Light Houses.</i>				
Cape Ste. Mary's.....	\$4,795 44	.....	.....	.....
Moser's Island.....	3,482 72	.....	.....	.....
Peggy's Point.....	3,093 32	.....	.....	.....
Caribou Island.....	3,309 26	.....	.....	.....
Pomket Island.....	1,634 00	.....	.....	.....
Black Rock Point.....	2,843 85	.....	.....	.....
Boarshead.....	142 10	.....	.....	.....
Barrington.....	300 00	.....	.....	.....
Parsboro'.....	1,288 82	.....	.....	.....
Devil's Island.....	318 64	.....	.....	.....
Bird Island.....	125 00	.....	.....	.....
Cape St. George.....	40 20	.....	.....	.....
Amet Island.....	224 00	.....	.....	.....
Meagher's Point.....	499 75	.....	.....	.....
Lunenburg.....	29 60	.....	.....	.....
Pubnico.....	25 18	.....	.....	.....
Port Hood.....	48 85	.....	.....	.....
Port Medway.....	70 00	.....	.....	.....
Egg Island.....	333 50	.....	.....	.....
Ram Rock beacon.....	41 06	.....	.....	.....
N.S. Cy. \$22,645 29	.....	22,041 42	.....	.....

## STATEMENT, &amp;c.—Continued.

NAME OF WORK.	Construction.	Repairs.	Staff and maintenance.	Rents, and Insurance.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Light Houses.—Continued.</i>				
St. John.....	50 00			
Cape Rosier.....	80 00			
Pointe St. Laurent.....	7,208 86			
Point Pleasant.....	357 72			
Gull Island.....	192 80			
Gibraltar Point.....	55 00			
Killarney (leading lights).....	660 20			
Little Current do.....	660 20			
Clapperton Island.....	605 20			
St. Ignace.....	605 03			
<i>Roads and Bridges.</i>				
Témiscouata.....		652 87		
Métapédia and Ristigouche.....	14,847 13			
Petite Nation Bridge.....	300 66			
Gatineau Bridge.....	272 10			
Port Louis and Huntingdon Road.....	8,850 00			
Fort William and Red River Road.....	1,000 00			
Dunnville Bridge.....		2,573 65		
Apoquai Bridge.....	2,368 34			
<i>Public Buildings.</i>				
Ottawa, Parliament and Depart. mental Buildings.....	\$40,642 34			
“ do do.....	17,060 20	57,702 54	3,698 15	
“ Rideau Hall.....	51,029 10			4,000 00
Toronto, Parliament Buildings.....	26,254 02			
“ Old Bank of Upper Canada.....	16,000 00			
“ Attorney General's Office.....		586 70		
“ Government House Grounds.....			200 00	48 75
Hamilton Custom House.....		404 30		
Kingston do.....		52 31		
Algoma Court House and Gaol.....	6,311 38			
Montreal, Old Government House.....	686 00	68 10		30 00
“ Post Office.....	456 37			
“ Court House.....		198 00		
“ Governor General's Secretary's Office.....		7 55		80 00
Quebec, Parliament Buildings.....		410 50	605 12	1,272 41
“ Spencer Wood.....			2,185 28	240 00
“ Old Château.....		75 00		
“ Bonner property.....				40 00
“ Post Office.....		34 99		
“ Post Office Department, St. Lewis Street.....				146 67
“ Observatory.....		353 69		
“ Durham Terrace.....		148 00		
“ Custom House.....	1,331 60			
“ New Gaol.....	2,687 25			
Sherbrooke, New Gaol.....	4,257 20			
St. Vincent de Paul Reformatory.....	16,337 55			
Kamouraska Court House and Gaol.....				83 67
Malbaie Court House and Gaol.....	228 50			
Nicolet County Court House.....	72 00			
Bagot do.....	720 00			
Argenteuil do.....	600 00			
Industrie Court House and Gaol.....		146 45		
Sorel do.....		78 34		
Court Houses and Gaols.....		30 00		

## STATEMENT, &amp;c.—Continued.

NAME OF WORK.	Construction.	Repairs.	Staff and maintenance.	Rents, and Insurance.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Surveys, &amp;c.</i>				
Murray Canal.....	400 00			
Surveys generally .....	6,305 66			
Intercolonial Railway.....	50,000 00			
Arbitrations.....			2,416 66	
Removal to Ottawa.....			293 27	
Removal Crowa Lands Department .....			522 46	
<i>Railways.</i>				
European and North American.....	15,514 11		131,684 97	
Halifax, Truro and Pictou.....	396,749 17		248,716 36	
	£801,477 96	142,846 26	539,295 08	5,941 50
Expenditure, shown in preceding columns.....				1,489,560 80
do Provincial Steamers	} Transferred to Marine and Fisheries Department. {			38,580 00
do Maintenance Light Houses.				26,648 01
Total expenditure by Department of Public Works.....				1,554,788 81

DEPARTMENT OF PUBLIC WORKS,  
30th June, 1868.

J. BAINE,  
*Accountant.*

## APPENDIX No. 2.

## ST. LAWRENCE NAVIGATION—TABLE OF DISTANCES.

FROM STRAITS OF BELLE-ILE TO FOND DU LAC, AT HEAD OF LAKE SUPERIOR.

From	To	Sections of Navigation.	Statute miles.	
			Interme- diate.	Total to Straits of Belle-Ile.
Straits of Belle-Ile .....	Quebec .....	River & Gulf of St. Lawrence	826	826
Quebec .....	Three Rivers.....	Riv. St. Law'ce to Tide-water	74	900
Three Rivers.....	Montreal.....	do do	86.	986
Montreal.....	Lachine.....	Lachine Canal.....	8½	994½
Lachine.....	Beauharnois.....	Lake St. Louis.....	15½	1,009½
Beauharnois.....	Ste. Cécile.....	Beauharnois Canal .....	11½	1,021
Ste. Cécile.....	Cornwall .....	Lake St. Francis.....	32½	1,053½
Cornwall.....	Dickinson's Landing.....	Cornwall Canal.....	11½	1,065½
Dickinson's Landing.....	Farran's Point.....	River St. Lawrence.....	5	1,070½
Farran's Point.....	Upper end of Croyle's Island	Farran's Point Canal.....	¾	1,071
Upper end of Croyle's Island	Williamsburgh or Morrisb'gh	River St. Lawrence.....	10½	1,081½
Williamsburgh .....	Rapide Plat.....	Rapide Plat Canal.....	4	1,085½
Rapide Plat.....	Point Iroquois Village .....	River St. Lawrence.....	4½	1,090
Point Iroquois Village.....	Upper end Presqu'île.....	Point Iroquois Canal.....	3	1,093
Presqu'île.....	Point Cardinal, Edwardsb'gh	Junction Canal .....	2½	1,095½
Point Cardinal .....	Head of Galops Rapids .....	Galops Canal.....	2	1,097½
Galops Rapids .....	Prescott.....	River St. Lawrence.....	7½	1,105
Prescott.....	Kingston.....	do .....	59	1,164
Kingston.....	Port Dalhousie.....	Lake Ontario.....	170	1,334
Port Dalhousie.....	Port Colborne.....	Welland Canal.....	27	1,361
Port Colborne.....	Amherstburgh.....	Lake Erie.....	232	1,593
Amherstburgh.....	Windsor .....	Detroit River.....	18	1,611
Windsor.....	Foot of Ste. Mary's Island...	Lake Ste. Claire.....	25	1,636
Lake Ste. Claire.....	Sarnia .....	Ste. Claire River.....	33	1,669
Sarnia.....	Foot of St. Joseph's Island...	Lake Huron.....	270	1,939
Foot of St. Joseph's Island...	do Sault Ste. Marie.....	St. Mary's River.....	47	1,986
Sault Ste. Marie.....	Head of do .....	Sault Ste. Marie Canal.....	1	1,987
Head of Sault Ste. Marie.....	Poite aux Pins.....	St. Mary's River.....	7	1,994
Poite aux Pins.....	Fond du Lac.....	Lake Superior.....	390	2,384

Out of the 2,384 miles, from the Straits of Belle-Ile to the Head of Lake Superior, 71½ miles are artificial navigation and 2,312½ open navigation.

Straits of Belle-Ile, to Liverpool, 1,942 geographical, or 2,234 statute miles.

The total ascent from Tide-water to Lake Superior is about 600 feet.

QUEBEC TO LIVERPOOL, *viâ* STRAITS OF BELLE-ILE, AND MALIN HEAD, NORTH OF IRELAND.

From	To	Sections of Navigation.	Geographical miles.	Statute miles.
Quebec.....	Saguenay.....	River St. Lawrence.....	106	122
Saguenay.....	Father Point.....	do	53	61
Father Point.....	Light house, west end Anticosti..	do	176	202
West end of Anticosti.....	Cape Whittle, Labrador Coast.....	Gulf of St. Lawrence..	175	201
Cape Whittle.....	Belle-Ile Light-house, east en- trance of Straits .....	do	209	240
Belle-Ile.....	Malin Head, North of Ireland...	Atlantic Ocean .....	1,750	2,013
Malin Head.....	Liverpool.....	do and Irish Sea	192	221
Total from Quebec to Liverpool, <i>viâ</i> Belle-Ile and Malin Head, North of Ireland.....			2,661	3,060

HEAD OF LAKE SUPERIOR TO LIVERPOOL, *viâ* STRAITS OF BELLE-ILE AND NORTH OF IRELAND.

Sections of Navigation.	Geographical miles.	Statute miles.
Head of Lake Superior at Fond du Lac, to Quebec .....	1,355	1,558
Quebec to Liverpool, <i>viâ</i> Straits of Belle-Ile and North of Ireland.....	2,661	3,060
Total from head of Lake Superior to Liverpool, <i>viâ</i> Belle-Ile, and Malin Head, North of Ireland.....	4,016	4,618
N.B.—Route <i>viâ</i> Straits of Belle-Ile shorter than <i>viâ</i> Cape Race.....	158	182

Straits of Belle-Ile, 80 miles long by 14 average breadth.

QUEBEC TO LIVERPOOL, *viâ* CAPE RACE AND MALIN HEAD, NORTH OF IRELAND.

From	To	Sections of Navigation.	Geographical miles.	Statute miles.
Quebec.....	Saguenay .....	River St. Lawrence...	106	122
Saguenay .....	Father Point.....	do .....	53	61
Father Point.....	Métis Point.....	do .....	22	25
Métis.....	Cape Ste. Anne des Monts.....	do .....	71	82
Cape Ste. Anne des Monts....	Cap de la Madeleine.....	do .....	46	53
Cap de la Madeleine.....	Fame Point.....	do .....	29	33
Fame Point.....	Cap des Rosiers.....	do .....	25	29
Cap des Rosiers.....	Cap St. Pierre de Miquelon.....	Gulf of St. Lawrence..	343	394
Cap St. Pierre de Miquelon...	Cape Race.....	Atlantic Ocean.....	132	152
Cape Race .....	Malin Head.....	do .....	1,800	2,070
Malin Head.....	Liverpool.....	do and Irish Sea.	192	221
Total from Quebec to Liverpool, <i>viâ</i> Cape Race and Malin Head, North of Ireland...			2,819	3,242

HEAD OF LAKE SUPERIOR TO LIVERPOOL, *viâ* CAPE RACE AND NORTH OF IRELAND.

Sections of Navigation.	Geographical miles.	Statute miles.
Head of Lake Superior, at Fond du Lac, to Quebec.....	1,355	1,558
Quebec to Liverpool, <i>viâ</i> Cape Race and North of Ireland.....	2,819	3,242
Total from head of Lake Superior to Liverpool, <i>viâ</i> Cape Race and Malin Head, North of Ireland.....	4,174	4,800
N.B.—Route <i>viâ</i> Cape Race longer than <i>viâ</i> Straits of Belle-Ile .....	158	182



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## APPENDIX No. 3.

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### LACHINE, BEAUHARNOIS, ST. OURS, CHAMBLY, ST. ANNE'S, CARILLON, CHUTE-A-BLONDEAU, AND GRENVILLE CANALS.

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*Description of the works and repairs executed on these Canals during the fiscal year ending 30th June, 1868, by J. G. Sippell, Engineer.*

(No. 4,997.)

LACHINE CANAL OFFICE,  
Montreal, July, 1868.

F. BRAUN, Esquire,  
Secretary Public Works, Ottawa.

SIR,—I beg to submit the following Report on the works under my charge for the fiscal year ending the 30th day of June, 1868.

#### LACHINE CANAL.

This Canal forms the eastern section of the St. Lawrence Canals terminating at Montreal, where the basins, wharves, and flour sheds form a very important portion of the harbor accommodation. It also forms the connecting link between the lower St. Lawrence and Ottawa River Navigation, and supplies water for driving extensive flouring mills and manufacturing establishments located at locks Nos. 3 and 4, and at basin No. 2, Montreal.

From September to March, the water in the St. Lawrence was lower than it had been for many years. During this time the supply of water for driving the mills was short, when a large portion of them were obliged to suspend operations. The present openings for admitting water into the Canal at Lachine are not sufficient to keep the Canal at navigable height, and supply water to the above mentioned mills, after it falls below twelve feet on the upper sill of the guard lock. Means for admitting a larger quantity during seasons of low water should therefore be provided. Additional basin and wharfage accommodation is also required at Montreal.

During the season of navigation the water was kept at the required height of nine feet on the sills of the locks, without any serious interruptions to the trade.

The banks and slope-walls with the various and extensive mechanical structures, have been kept in good repair throughout the year.

The superstructure of the timber docking and wharf below St. Gabriel lock, was rebuilt, the centre pier at Brewster's Bridge repaired, a portion of the north side of the tail-race leading from the waste-weir at Messrs. Grant and Hall's mill, rebuilt, the wharf at the west end of basin No. 1 renewed, and the wharves generally repaired during the months of July and August. The road bridge over the old Canal at Lachine was renewed, the bridge at the Hudson's Bay store repaired, the pier above the guard-lock repaired on both sides and the bumping-posts at locks Nos. 3, 4 and 5 partially renewed. The timber docking below Brewster's Bridge, the gates at locks Nos. 1 and 2 and the store house were also repaired during the months of September, October, and November.

The pivot beam and heel portion of the swing-bridge at Lachine, the foot-bridges and knee-quoins for the gates at locks Nos. 1, 2, 3 and 4, were rebuilt during the winter.

While the water was shut out of the Canal in April, the friction rollers, bed-plates and segment plates were renewed and repaired on the upper gates at lock No. 2, the upper and lower gates, at locks Nos. 3 and 4, and the lower gates at lock No. 5, the chambers of the locks cleaned, and the walls of locks Nos. 3 and 4 pointed and grouted. The walls in front of the mills at basin No. 2 were also pointed and repaired.

The Canal throughout its entire length was thoroughly cleaned and a large portion of the slope-walls repaired.

The earth at the upper end of the pier above Côte St. Paul lock was removed to allow a larger flow of water to the weir, and the lower opening through the pier closed up. This has thrown the current round the end of the pier and greatly relieved vessels approaching the upper entrance of the lock.

The water-way under the permanent bridges at Wellington street, Brewster's road and Côte St. Paul, was cleaned and deepened, which has to some extent reduced the current so much complained of at these bridges.

After the navigation was opened in May, the wharves and flour sheds were generally repaired, the plank on Wellington bridge renewed, the superstructure of the pier below the lock at Lachine rebuilt, and the planking of several small bridges renewed.

During the year there have been \$10,890 expended in ordinary repairs, and \$3,314.09 for working the steam dredge to the close of navigation in 1867.

The Canal was virtually closed by ice on the second day of December, 1867; but vessels continued to move until the tenth. The water was let into the Canal on the 25th, and navigation fully opened on the 27th day of April, 1868.

A statement of the amount collected for fines and damages by order of the local Superintendent, will be forwarded herewith.

The following amounts have been collected during the year besides regular tolls, water rents, &c., viz. :—

Fines and damages by order of the Superintendent.....	\$210 00
Due on firewood at Lachine.....	179 01
Do on timber in basin at do.....	1,109 43
Do for use of Canal grounds for repairing vessels .....	244 00
Do do graving dock at Montreal.....	286 50
Do on vessels from Lower Ports.....	2,070 01
Do on firewood discharged on Canal banks.....	1,964 71
Storage in flour sheds.....	699 57
Wintering vessels in Canal.....	713 50
	\$7,476 73
Amounting to a total of.....	
The tolls collected for the year amount to.....	\$62,148 98
as per annexed statement.	

#### BEAUHARNOIS CANAL.

This Canal is situated on the south side of the river and forms the second section of the St. Lawrence Canals, passing the Cascade, Cedar, and Côteau Rapids.

The water in the river was low during the months of September, October and November, when the larger passenger steamers that usually run the rapids were obliged to pass through the Canal. This low water, however, did not affect the Canal, which was uninterruptedly maintained throughout the season of navigation, with nine feet depth of water on the sills of the locks.

The Canal and mechanical structures have been kept in an efficient state of repair, except the piers at the lower entrance which were damaged by a shove of ice in March last; they will be repaired on the recurrence of low water in August and September.

The repairs have been confined to such works as were necessary for the preservation and stability of the works.

The ditches and culverts were thoroughly cleaned in July and August. The south pier at the lower entrance of the Canal and the foot-bridges, railings and lifting screws for working the valves on locks Nos. 6 to 14 received more or less repairs, and the approaches to all the swing-bridges repaired and improved during the summer and fall of 1867.

The expense of maintaining the dykes, dams and mill-races, at Valleyfield, has been unusually small, owing in a great measure to the low water in the St. Lawrence.

The work was generally suspended after the close of navigation, in December, and resumed in April after the water was shut out of the Canal for repairs, when the slope

and protection walls were repaired, the bottom of the Canal and locks cleaned, where required, and the lock-gates and fixtures put in working order.

The walls, gates and races of the regulating weirs were repaired as required.

During the months of May and June, the lower gates at locks Nos. 6 and 10 were removed and hauled out for repairs. The timber in the swing-bridge at lock No. 13 renewed, and the bridge over the head-race at east end of dam, rebuilt.

Several of the lock-houses were also repaired, and the Canal banks put in good order.

The expenditure for repairs was kept within the authorized estimates and amounts to \$6,834.88.

The Canal was closed by ice on the second day of December, 1867, and opened on the 27th day of April, 1868.

#### ST. OURS LOCK AND DAM.

These works are situated on the Richelieu River, fourteen miles above Sorel, and one and a half miles above the village of St. Ours. They raise the water four feet, which creates a navigable channel for vessels drawing six feet water, to the lower entrance of the Chambly Canal, a distance of thirty-two miles.

The mooring piers above and below the lock are old and decayed—they are now being repaired. The bank on each side of the lock has been raised and new friction rollers placed under the lower gates.

The water, last spring, did not reach its usual height and passed off without damaging the works.

The repairing and ferry scows have been repaired and fifty-four toises of stone used in strengthening and protecting the dam and banks of the island.

There has been \$803.75 expended for repairs during the year.

The navigation closed on the second day of December, 1867, and opened on the 30th day of March, 1868.

#### CHAMBLY CANAL.

The trade through this Canal continues to increase, the past year being one of the most successful on record. Notwithstanding the dry season, the water has been maintained at the full height of seven feet on the sills of the locks, but the prism of the Canal at several points has become so much contracted and filled up that the draft of water is practically reduced to six feet. This difficulty is now being overcome by dredging. The worst portions, viz.: between locks Nos. 3 and 4 and near Fryer's and Wood's By-washes, have already been cleaned by the dredge which commenced work in April.

The mechanical structures are very light, and require constant attention and repairs to keep them in working order.

From July to the close of navigation in December the repairs consisted principally in walling and protecting the banks, cleaning ditches, repairing towing path and bridges on Ste. Thérèse Island and on main road, repairing farm roads on west side of Canal, renewing and refitting the sluices and repairing gates at locks Nos. 1 to 6, inclusive, and repairing bridges Nos. 1, 2, 3, 4 and 5.

The repairs to the wharf at St. Johns were completed, and the superstructure of the wharf at Chambly repaired, strengthened, and raised two courses of timber.

During the winter two new pairs of gates were built for locks Nos. 8 and 9; the gates at locks Nos. 2 and 6 repaired, and the timber in bridge No. 7 renewed. This work was principally done by the lock and bridge tenders.

Previous to opening the Canal, in May, the lock-walls were all pointed and repaired, and a new sill fitted at the lower recess of lock No. 8, the gates refitted and the Canal cleaned where most required.

During the months of May and June, the operations were confined to working the steam dredge, repairing and raising the banks, and in keeping the Canal in working order.

The repairs for the year, which include the two new pairs of lock gates and one new bridge, amount to. ....	\$8,457.38
Working steam dredge, cleaning Canal bottom.....	1,717.44

Making a total expenditure of..... \$10,174.82

There was \$92.85 collected for fines, damages and wharfage dues, as per annexed statement.

The Canal was closed on the fifth day of December, 1867, and opened on the fifth day of May, 1868.

On two occasions the water was lowered to repair slight breaches in the banks which caused a total delay of twelve hours to navigation.

The total sum collected from all sources during the year amounts to \$34,842.82.

STE. ANNE'S LOCK AND DAM.

These works are situated at the upper end of the Island of Montreal, and were constructed to overcome the rapid at Ste. Anne, on the Ottawa River.

The repairs for the summer and fall of 1867, consisted in placing new friction rollers and bed-plates on the lock-gates, repairing and strengthening the knee-quin posts, and repairing the guide piers. These quin-posts were renewed in April and May, and the works generally put in working order. The cost of repairs for the year amounted to \$538.23.

Preparations are now being made for repairing the guide and mooring piers.

Increased accommodation should be provided for mooring vessels at the upper entrance of the lock during season of low water, by extending the pier on the north side of the channel about 250 feet, where vessels could lay to while waiting for the lock, without blocking up the entrance, as they are now obliged to do, or lay at anchor in the channel above.

During the months of October and November, there was unusually low water when vessels frequently grounded on the shoals above and below the lock. By the removal of a few boulders at these points vessels of ordinary draft would pass in the channel without striking.

The navigation closed on the third day of December, 1867, and opened on the 18th day of April, 1868.

CARILLON AND GRENVILLE CANALS.

These Canals have been greatly improved during the past year by cleaning, lowering and widening the bottom and raising the banks so as to admit a uniform depth of six feet and six inches water on the sills of the locks. With this increased depth of water the cargoes of lumber, since the Canals were opened in May, have increased from seventy or eighty thousand feet to one hundred and twenty or thirty thousand, which was very satisfactory ; but that depth of water cannot be maintained during the dry season, when cargoes must necessarily be reduced.

A large portion of the above mentioned repairs and improvements were made by contract ; they were commenced in March, 1867, and completed in May, 1868.

These Canals are small, irregular in size, and the lock-walls generally in a ruinous condition, especially the combined locks Nos. 5, 6, 7 and 8, on the Grenville Canal, and the upper wing walls of lock No. 3, Carillon Canal. A large expenditure must therefore soon be incurred in rebuilding these locks, lowering and widening the upper reach at Grenville, and lowering the sills and bottom of locks 10 and 11 ; or a new Canal built to accommodate the trade that is annually increasing on this important route.

During the months of October and November, the Ottawa River was very low, which affected the Grenville Canal above lock No. 10, when vessels of ordinary draft had more or less trouble in passing.

CARILLON CANAL.

The contractor completed the work of raising the banks and repairing the towing path in August, when the water was raised to six feet on the sills of the locks, and since the

first of May, to six feet six inches, except when drawn down by constant locking at each end of the Canal.

The spring repairs consisted in removing a large amount of silt and sand that had accumulated at the mouth of the feeder, renewing the bulk head in the regulating weir on the feeder, re-covering the road-bridge, grouting and repairing the sill and paving in lock No. 2, and the walls of lock No. 3. The lower or river wing walls of this lock leak badly—many of the face stones are loose and are held in place by wedges; they should be rebuilt before opening the Canal next season.

#### CHUTE À BLONDEAU.

A new pair of upper gates have been built for this lock; but not brought into use. Materials have also been provided for fencing the grounds connected with this Canal, which has been maintained in good order throughout the year.

#### GRENVILLE CANAL.

The contractor for repairing and improving this Canal completed raising the banks in October, when he suspended operations, leaving a large amount of work, viz.: cleaning the bottom of Canal and completing the passing places still unfinished. The work was resumed in February, when the passing places that had been commenced were completed, and a large portion of the bottom well cleaned before the navigation was opened, in May, when the Canal was considered in good order.

Before opening the Canal, the walls of locks Nos. 5, 6, 7 and 8, at Greece's Point, were repaired, the sills grouted, portions of the paving re-set and the gates repaired. The walls of these locks are very shaky, and require special attention to keep them in working order.

The upper sill at lock No. 9 was renewed and a portion of the breast wall rebuilt, and the gates and bridge repaired.

The gates, sluices and walls of lock No. 10 were repaired and a new swing bridge built over the lower entrance of lock No. 11, at Grenville.

The repairs and improvements made by contract between March, 1867, and May, 1868, amounted to \$26,966.27, and the cost of ordinary repairs for the year was \$9,287.78, which included one new pair of gates, for lock No. 4, at Chute à Blondeau, and the new swing bridge at Grenville.

These Canals were closed on the 30th day of November, 1867, and opened on the 2nd day of May, 1868.

#### STEAM DREDGE.

This dredge was employed in cleaning the bottom of the Canal above St. Gabriel lock and above the permanent portion of Wellington street bridge, and in the removal of silt and sediment from the bottom in basins Nos. 2, 3 and 4, Lachine Canal, until the end of October, when she was taken to Chambly and laid up for the season. Since the opening of Navigation in May, she has been employed on the Chambly Canal, in the removal of deposits between locks Nos. 3 and 4, and near the by-washes at Fryer's and at Wood's Creek.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

JOHN G. SIPPPELL,

*Resident Engineer.*

## LACHINE CANAL.

STATEMENT of Fines and Damages, collected by order of the Superintendent, for the year ending 30th June, 1868.

Date.	Name of Vessel.	Owner.	Amount.	Remarks.
1867.			\$ cts.	
July 5.....	Barge Major.....	Pilon .....	10 00	Damage to St. Gabriel Bridge.
Sept. 23.....	do St. Francis.....	Portelance.....	20 00	
Oct. 3.....	Steamer M. K. D.....	O. & R. F. Co.....	5 00	
Nov. 2.....	Propeller St. Lawrence.....	Jacques & Co.....	10 00	
" ".....	Steamer Ottawa.....	do .....	10 00	
Oct. 12.....	Barge Portland.....	Chaffey & Co .....	6 00	Damage to St. Gabriel Bridge.
" 17.....	do June .....	Evans & Co.....	5 00	do Brewster's do
" 23.....	do Gem.....	Smith.....	10 00	do St. Gabriel do
" 24.....	do Titi .....	St. Louis.....	5 00	do do do
Nov. 15.....	Raft of Timber.....	Tucker & Co.....	4 00	Abandoned, and obstructing navig.
1868.				
May 20.....	Barge Tiger.....	Henderson & Co.....	75 00	Damage to Upper Gates, Lock 2.
" ".....	do do .....	do .....	10 00	Violation of Canal Regulations.
" 27.....	do Providence.....	Gignac .....	4 00	do do
June 4.....	do Express .....	Graham.....	4 00	do do
" 9.....	do Queen Victoria.....	Paquette.....	4 00	do do
" 16.....	do Nile .....	Smith .....	20 00	do do
" 17.....	Crib of timber.....	Henderson.....	4 00	Abandoned and obstructing navig.
" 23.....	Steamer Magnet.....	I. S. N. Co.....	4 00	Damage to Lock No. 1.
Total.....			\$210 00	

(Signed,)

LACHINE CANAL OFFICE,  
Montreal, July, 1868.

ALEX. BISSETT,  
*Superintendent.*

LACHINE CANAL.

STATEMENT showing the number of Vessels and amount of Tolls collected for the year ending 30th day of June, 1868, as furnished by Collector's Office, Montreal.

Months.		No of Vessels.	Amount of Tolls collected.
			\$ cts.
July,	1867.....	1,753	8,253 22
August,	" .....	1,622	7,989 97
September,	" .....	1,545	7,143 22
October,	" .....	1,957	11,490 27
November,	" .....	1,348	8,658 60
April,	1868.....	102	559 61
May,	" .....	1,497	8,307 65
June,	" .....	1,916	9,746 44
Total .....		11,740	\$62,148 98

LACHINE CANAL OFFICE,  
15th September, 1868.

BEAUHARNOIS CANAL.

STATEMENT of Fines and Damages collected by order of the Superintendent, for the year ending 30th June, 1868.

Date.	Name of Vessel.	Owner.	Amount.	Remarks.
			\$ cts.	
1866				
Oct. 1....	Schooner Ireland .....	Chaffey & Co.....	6 00	Damage to St. Timothy Pier
1867				
Aug. 7 .....	Barge Prince Albert.....	Elie .....	5 00	Damage machinery Look No. 8.
Sept. 2.....	Steamer L. Renaud.....	St. Lawrence N. Co....	4 40	do upper gate do 10.
Oct. 27 .....	Barge Westport.....	Chaffey & Co.....	6 40	do do do 11.
" 31.....	Schooner Prince Edward...	Wilson & Co.....	10 00	do south wall do 6.
1868				
April 28.....	Propeller Georgian .....	Henderson & Co.....	10 00	Fine.
" " .....	Schooner Royal Oak.....	Hume .....	1 88	Damage to Look No. 11.
May .....	Propeller Brantford.....	Henderson & Co.....	35 95	do do No. 8.
June .....	Barge Kate.....	St. Denis.....	6 70	do do No. 12.
Total.....			\$86 33	

(Signed,)

PIERRE LAURENCEL,  
*Superintendent.*

BEAUHARNOIS CANAL OFFICE,  
Melocheville, July, 1868.

## ST. OURS LOCK AND DAM.

STATEMENT of Fines and Damages collected by order of the Superintendent for the year ending 30th day of June, 1868.

Date.	Name of Vessel.	Master or Owner.	Amount.	Remarks.
			\$ cts.	
1867				
July 20.....	Boat Rudolf.....	Champagne .....	46	Damage to pier below lock.
Sept. 7.....	Steamer Relief .....	Brunet .....	6 16	do lower lock gate.
Nov. 26.....	do Fawn .....	Smith .....	2 00	do upper do
1868				
June 1.....	Boat Walter Scott.....	Cook.....	75	Damage to lower pier.
" 5.....	Barge Register .....	D. Swift.....	75	do do
" 14.....	do Gem.....	Tessier.....	75	do do
" 17.....	Boat Louisiana.....	Fishlet.....	1 50	do pier above lock.
Total.....			\$12 37	

(Signed,)

LEVI LARUE,  
Superintendent.

ST. OURS LOCK AND DAM, 1st July, 1868.

## CHAMBLY CANAL.

STATEMENT of amounts collected for Fines and Damages, and for Wharfage dues for year ending 30th day of June, 1868.

Date.	Name of Vessel.	Owner.	Amount.	Remarks.
			\$ cts.	
1867				
July 1.....	Barge St. Edward.....	V. Pepin.....	4 00	Damage to Bridge No. 3.
" ".....	do St. Laurent.....	N. Forest.....	2 00	do Lock No. 8.
" 6.....	do Victoria.....	T. Rock.....	5 00	do do
Sept. 7.....	do Burlington.....	H. Lumber & Co.....	1 90	do No. 6.
Oct. 18.....	do St. Jule.....	P. Rook .....	1 00	do No. 7.
1868				
May 30.....	Barge Una.....	G. Smith.....	2 00	Damage to Lock No. 3.
June 6.....	do St. Edward.....	A. Laforest.....	2 00	do do
			17 90	
Amount collected for Wharfage for year.....			74 95	
Total.....			\$92 85	

[(Signed,)

C. PREFONTAINE,  
Superintendent.

CHAMBLY CANAL OFFICE, Chambly, 4th July 1868.



STE. ANNE'S LOCK AND DAM.

STATEMENT showing the number of Vessels that passed through the Ste. Anne's Lock, and amount of Tolls collected during the season of 1867, as furnished by the collector.

Months.	No. of Vessels.	Amount of Tolls Collected.
April.....	9	\$ cts 3 34
May.....	832	900 24
June.....	975	1,095 46
July.....	1,054	1,155 75
August.....	1,065	1,265 15
September.....	1,046	1,188 84
October.....	984	1,125 69
November.....	593	807 87
Totals.....	\$6,558	\$7,542 34
For Season of 1866.....	6,334	6,927 88
Increase for 1867.....	224	\$614 46

STE. ANNE'S LOCK, December, 1867.

CARILLON AND GRENVILLE CANALS.

STATEMENT of amounts collected for Fines and Damages by order of the Superintendent, and for ground rent on cordwood, for the year ending 30th June. 1868.

Date.	Name of Vessel.	Owner.	Amounts	Remarks.
			\$ cts.	
1867				
July 12.....	Scow Leander.....	O. & R. Company.....	5 00	Damage to Lock No. 3.
" ".....	Barge Ranger.....	do.....	5 00	do do
" 13.....	Scow Dominion.....	Labelle.....	2 00	Violation of Canal Regulations.
" 16.....	Barge Determination.....	Couvrette.....	1 00	do do
" ".....	do Confidence.....	do.....	1 00	do do
" 20.....	do No. 24.....	Sincennes & McN.....	2 00	do do
Sept. 1.....	do D.....	Tranchemontagne & Co	2 00	do do
" 2.....	do B.....	do	5 00	do do
1868				
May 1.....	Steamer Matilda.....	J. B. Auger.....	8 00	Wintering in Canal.
" ".....	Barge Rose.....	Sincennes & McN.....	4 00	do
" ".....	do No. 2.....	M. & O. F. Company..	4 00	do
Amount of Ground Rent on Cordwood for year, 4176 cords at 2c.			\$39 00	
Total.....			83 52	
			\$122 52	

(Signed,)

WM. B. FORBES,  
Superintendent.

CARILLON & GRENVILLE CANALS,  
Carillon, 6th July, 1868.

APPENDIX No. 3—*Continued.*REPORT ON SUPPLY OF WATER TO THE LACHINE CANAL,  
J. PAGE, CHIEF ENGINEER.

(No. 3,808.)

OTTAWA, 20th June, 1868.

*The Secretary of Public Works :*

SIR,—Having recently visited the Lachine Canal with a view of examining the works at the upper entrance, for the purpose of enabling me to advise the Department in reference to the proposed mode of admitting a greater supply to the Canal during periods of low water.

I have repeatedly reported on the question of the water power leased and the quantity of water used for this purpose; so that it is deemed unnecessary to say more at present on these matters, than that, in order to keep up the supply, the depth of water on the lower mitre sill of the guard lock has to be maintained at from 9' 8" to 9' 10", whilst there is at the same time, only 9 feet of water on the upper mitre sill of Côte St. Paul lock.

When these relative levels cannot be maintained at the foot of the guard lock and head of Côte St. Paul lock, the mills have to be restricted as to the quantity of water they draw from the Canal.

For some years past, the River St. Lawrence has been extremely low, so that during the fall months there has not been a sufficient head of water above the guard lock to force through the race-way and head-gates, the necessary volume of water to keep the level below the guard lock at the height above mentioned; that is to say, the raceway and sluices through the breast wall of the weir have so much less sectional area than that of the Canal, that when there is a less depth than 12 feet on the upper mitre sill of the guard lock the head is insufficient to force in a supply to maintain the level of say 9' 9" on the lower mitre sill.

To meet this it is proposed by Mr. Sippell to construct another raceway and weir on the north side of the guard lock, so that the area of all the inlets will, in the aggregate, approximate more closely to the sectional area of the Canal.

If this were effected, the supply would doubtless be less dependent upon the head.

Having considered the matter generally, I am of opinion that the plan proposed would in a great measure obviate the difficulty, so long as the depth of water on the upper mitre sill exceeds 10 feet.

The following table will show the depths of lowest water on the upper mitre sill of the guard lock, for the last five months of each year since 1864:—

Year.	August.	September.	October.	November.	December.
	Feet. Inches.	Feet. Inches.	Feet. Inches.	Feet. Inches.	Feet. Inches.
1864	10 9	10 4	10 6	10 11	11 4
1865	10 10	10 2	9 4	9 6	9 6
1866	10 9	10 9	10 6	10 9	11 5
1867	11 1	10 5	9 11	9 8	8 9

It will thus be seen that the water above the guard lock is sometimes as low as the level on the Canal immediately below the guard lock is required to be in order to furnish the full supply. It is, however, proper to state that these are exceptional cases, and are the only records of the water having been known to be at so low a stage during these periods of the year; the latter end of January, or February, being the period when the water is at its lowest, but at this time there is a less volume of water required.

With a view to the construction of the proposed raceway and weir, I have, after discussing the matter fully with Mr. Sippell, requested him to prepare and submit detailed plans, &c., so that the work can be placed under contract whenever the Department may grant or obtain the necessary authority.

I have the honor to be, &c.,  
(Signed,) "JOHN PAGE,  
C. E. P. Works."

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**APPENDIX No. 4.**


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**CORNWALL CANAL.**


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(No. 4,801.)

*Description of the works and repairs executed during the fiscal year ending  
30th of June, 1868, D. A. McDonnell, Superintendent.*

CORNWALL, 1st October, 1868.

F. BRAUN, ESQ., SECRETARY,  
*Department of Public Works, Ottawa :*

SIR,—I beg to submit the following report on the works connected with the Cornwall Canal, from the 30th June, 1867, to 30th June, 1868.

The navigation continued without interruption until the 1st December 1867, when it was closed by ice. It was opened for navigation on the 27th April, 1868, and continued in good working order until the present time.

The principal works undertaken within the year consist in raising embankments, slopewalls, cleaning side ditches, drains and culverts, repairing lock gates, making and placing twelve new sluice gates in supply weirs at locks Nos. 18, 19 and 20, and rebuilding new bridges over said weirs, roofing and flooring lockmaster's dwelling at guard lock, making and planting two new land-marks at lock No. 18. Pumping water out of chambers of locks 18 and 19, taking up and relaying new segment sills in lower recesses.

The entire amounting to \$4,699.37.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

D. A. McDONELL,

*Superintendent.*

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**REPORT ON THIS CANAL, BY JOHN PAGE, CHIEF ENGINEER.**

(No. 2,358.)

OTTAWA, 29th January, 1868.

*The Secretary of Public Works :*

SIR,—Having recently visited the Cornwall Canal with a view of obtaining such information as would enable me to advise the Department as to the best mode of carrying out the improvements authorized by your letter, No. 1552, relative to work connected with the supply and regulation of the water, I now beg respectfully to submit the following remarks on the subject:—

At low stages of the St. Lawrence, the upper reaches of this Canal, and that portion of it above the guard lock, are on the same level as the river, so that there is no head of water on the guard lock—consequently the volume of water required for lockage and milling purposes can only be obtained by drawing down the level of the long reach at its lower end. This results in the Canal level at lock 20 being so low during periods of extreme low water, as to seriously interfere with the navigation.

To obviate this it has been proposed to construct a wide supply weir in the vicinity of the guard lock. This would be a work of considerable magnitude and expense, both from its nature and the very high bank to be removed on the north side of the Canal.

It is, however, quite evident that at periods when the river and Canal are on the same level, little or no benefit could be derived from this work even if constructed, as it would merely increase the space through which the water could pass at the guard lock, and would not affect the level of the reach.

Having given this subject a good deal of consideration from time to time, I am of opinion that the most beneficial and useful work that could be undertaken at this place would be to extend the south or river pier at the upper entrance to the Canal for a distance of from 300 to 350 feet, in nearly the same line as the bank below the Light House. By following this course, the three following objects will be gained, viz. :—

1st. The water above the guard lock would be raised at all stages of the river, and thus a head would be created above the guard gates.

2nd. This extension would carry the upper entrance to a point where vessels could more easily get into the Canal, and be less likely to be carried out into the rapids by the force of the current.

3rd. By increasing the depth above the guard lock, so much would be accomplished towards the proposed increase of draught in the St. Lawrence Canals.

In regard to the first, it is believed that a head of 3 inches (or perhaps more) may be obtained at the guard lock, which would have far more effect on the supply of water than any increased width which could be given by means of a supply weir.

With reference to the second and third points, they are so obvious that it is deemed unnecessary to say anything further on the matter.

The pier proposed should be about 30 feet in width, with an ice-breaker at its upper end, sloping about 3 to 1. About 100 feet from the outer end it would be advisable to commence a series of openings or sluice-ways through the cribs. These should be made about 4 feet square, commencing on the third or fourth round of timber from the bottom, and be made through the centre of each of the inner cribs. There would be from 6 to 8 sluiceways. The sides of these openings to be formed of timbers dove-tailed at the angles, in the same manner as the outer ends of the cribs themselves. The top and bottom formed of 4-inch plank. The top of the opening should be at least 2 feet below low water line. The cribs and superstructure should be in other respects made in the usual manner, but it is not necessary to plank the top—the stone filling being simply levelled off smoothly.

These sluice-ways are intended, by creating an in-draught, to facilitate the entrance of vessels to the Canal; and it is considered that they will also probably have the effect of diminishing the inconvenience hitherto experienced from anchor ice.

The cost of a pier, constructed as described above, of about 350 feet in length, would be about \$13,000. This would leave a balance applicable to a supply weir if still required, but it is believed that when the pier is built, it will be found that the supply will be so much augmented as may possibly render the construction of a large weir unnecessary.

For many years, great difficulty has been experienced in regulating the level of the reach of this Canal, opposite the town of Cornwall, from the fact of there being no waste weir upon it, whilst the whole of the mills, when in operation, sometimes shut down suddenly, and the surplus water has then to be discharged through the lock gates. This difficulty will be still further increased now that the water power on the north side of the Canal has been brought into use. It is therefore deemed indispensable that a waste weir should be constructed as soon as practicable, that is to say, during the ensuing summer.

It has been suggested that this weir might be constructed in connection with the head and tail-race of the water-power on the north side of the Canal. This mode of carrying out the object, although apparently less expensive, it is to be feared would not be so in reality, besides it would have the disadvantage of interfering to some extent with the water power now in use, and would not admit of fully emptying the level.

I therefore advise that the weir should be constructed on the south side of the Canal a short distance above the head of lock No. 17. By this means the weir will be solely under the control of the Department. Moreover, the bottom of the sluice gates can be placed so low (that is to say 11½ feet below the surface water level) that they will fully empty the reach even when the proposed deepening of the Canal shall have been carried out.

A weir in this position would not cost more than one on the north side of the Canal, whilst it would possess the advantages above mentioned.

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This weir should be made at least 50 feet wide, and have 4 sluice-gates; the openings for which through the masonry should be 4 feet square, and furnished with revolving gates. The breast wall to be six inches below surface level of the reach, and the upper wings and centre pier should be extended so as to form bearings for a bridge. The weir must necessarily have a high fall. It would therefore be advisable that it should be divided into two falls: the upper one falling into a depth of from 3 to 4 feet back water, so as to break the force of the issuing water and prevent its damaging the foundation.

The top of the second breast should be say 12 inches lower than the bottom of the sluices, and the well between the two breasts should be lined with planking to prevent the action of the water injuring the walls. The details or height of the weir cannot well be given until the exact configuration of the ground is fully ascertained. I may, however, state that the tail-race from the weir must pass through property which it will be necessary to acquire before undertaking the work.

I therefore advise that, as soon as practicable, a correct survey of the proposed site of the weir be made, and plans of the structure prepared in accordance with the above general description.

The plan for the pier at the upper entrance can also be prepared from the description above given.

I have the honor to be, Sir,  
Your obedient servant,  
(Signed,) JOHN PAGE,  
Chief Engineer Public Works.

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## APPENDIX No. 5.

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### WILLIAMSBURGH, RAPIDE PLAT AND GALOPS CANALS.

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*Description of the works and repairs executed on these Canals during the fiscal year ending 30th June 1868, by Isaac N. Rose, Superintendent.*

(No. 4,826.)

MORRISBURGH, 30th September, 1868.

SIR,—I have the honor to submit my annual Report on the Williamsburgh Canals, as requested by your letter No. 3,285, dated 29th September, 1868.

Navigation continued without interruption from 1st of July to 6th of December, 1867, when it was closed for the winter. Being again opened on the 26th April, 1868, it remained in satisfactory condition to the 30th of June, up to which time no detention had occurred to vessels passing through them.

The works which have been in progress during the past year may be classed under the head of ordinary repairs.

1. *Protection of Canal Banks.*—The force employed for this purpose consisted of a scow and horse for towing, with a foreman and four or five laborers. The work was confined to the Junction, Point Iroquois, and Rapide Plat Canals, extending from 1st July to 20th November, 1867, and from 1st April to 30th June, 1868. About 200 cords of stone were used for repairs to the inside and also to portions of the outside of the Canals. This work should be continued for the proper condition and safety of the Canals.

2. *New Swing Bridge.*—The new bridge over lock No. 25, Point Iroquois Canal, was completed in June last, and is in efficient working order.

3. *Lock Gates, &c.*—Repairs have also been done to lock gates, wharves, bridges, scows; snubbing posts and booms in connection with the several Canals.

4. *Ice-breakers.*—The ice-breakers at the upper and lower entrance of Farran's Point Canal, were completed in April last and are now in an efficient state of repair.

5. *Buoy Service.*—This was performed in the months of May and June last, and extended from Dickinson's Landing to Prescott.

6. *Dredging.*—The steam-dredge continued working in the Rapide Plat Canal until the close of the season, during which time 525 scow-loads of material were removed from the prism of the Canal and deposited in deep bays adjoining. She was then laid up for the winter. Having received the necessary repairs in the months of April and May, 1868, she was towed to the lower entrance of Point Iroquois Canal where she dredged up to the 30th June, 1868, and removed 168 scow-loads of material, which were deposited in a deep bay below the lock.

The aggregate of pay-lists and accounts for the steam-dredge from 1st July 1867, to 30th June, 1868, is \$3,059.73.

The aggregate of pay-lists and accounts for buoy service, and ordinary repairs, from 1st July, 1867, to 30th June, 1868, is \$5,306.06.

The aggregate of pay-lists and accounts of staff certified, from 1st July, 1867, to 30th June, 1868, is \$5,547.59.

All of which I respectfully submit, and

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

ISAAC N. ROSE,

*Superintendent Williamsburgh Canals.*

F. BRAUN, Esq.,

Secretary Public Works, Ottawa, Ontario.

## APPENDIX No. 6.

### WELLAND CANAL.

*Description of the Works and repairs executed during the fiscal year ending  
30th June, 1868, by S. D. Woodruff, Superintendent.*

(No. 3,950.)

WELLAND CANAL OFFICE,

St. Catharines, 4th July, 1868.

F. BRAUN, Esq.,  
Secretary of Public Works, Ottawa.

SIR,—In compliance with the instructions conveyed to me in your letter No. 54,222, I have the honor to submit my annual Report, of the works on this Canal, under my charge, during the fiscal year ending 30th June, 1868.

The Canal was opened on the 15th of April, and closed by the severity of the weather on the 7th of December last. No detention having occurred except those arising from casualties, by vessels carrying away the gates of several locks and two bridges.

These casualties have caused seven interruptions in the navigation, and consist of 15 lock-gates having been so carried away, and 2 swing-bridges, viz.:—3 gates at lock No. 2, 3 do at lock No. 6, 4 do at lock No. 15, 1 do at lock No. 19, and 4 do at lock No. 22, with the swing-bridges at Port Dalhousie and Burgess, thereby causing detentions in the navigation of eleven days, in the aggregate. The gates were replaced from those in hand, and others have been constructed to replace those used in making these repairs. The cost of making them has been collected from the vessels, after making due allowance for deterioration of materials.

It is also necessary to have a further supply of gates constructed, to replace some that show weakness, provision is made for these in the estimate submitted.

#### *Construction.*

The works of construction comprise these works necessary for the completion of the Canal. The maintenance of it is afterwards by repairs, which consist of making any necessary repairs, of such of the works, as have become dilapidated, or renewal of the structures, as required.

The progress made towards the completion of the summit level, is satisfactory. The contractor has completed the channel leading from the main trunk of the Canal to the lock at Port Robinson. His dredges are now employed in cleaning out the channel between Ramey's Bend and the lock at Port Colborne. He has also a large force employed in quarrying and preparing the stone for a waste weir at the junction, and providing materials for the foundation of it.

To complete this level, it is necessary to remove a number of pieces of timber, standing on end from 12 to 18 inches above the Canal bottom, which had been driven from 10 to 20 feet below the Canal bottom, to support a breach in the embankment along the old Canal. These timbers stand in the channel, and could not be removed when the dredging of it was done. During severe frost of last winter I was able to have near 100 of these pieces taken out, and propose to have the remainder removed next winter. The process of taking them out when the ice is formed, with screws, chains and levers, is quite a tedious one; but it is the least expensive mode of accomplishing it, in so great a depth of water as 16 to 17 feet.

Arrangement is also made to remove the rock standing above the Canal bottom, North of Ramey's Bend during the suspension of navigation next winter.

The works recently authorized by your letter, No. 2,560, viz.:—rebuilding the outer part of the west pier, and deepening the channel of Port Dalhousie harbor, enlarging the basin or inner harbor at Port Colborne, and building offices for the accommodation of the

Collectors at Port Robinson and Dunnville, will be proceeded with so soon as the arrangements are made as instructed in your letter above referred to.

*Repairs.*

The repairs consist of the maintenance of the Canal, in replacing the lock-gates and bridges carried away by vessels, and rebuilding the gates and bridges and other works of the Canal, in part, or the renewal of those which have become worn-out or gone into decay from long use. Raising and repairs of the embankments, facing the same with stone and gravel, to protect them from wash by the action of the water; and placing boom timbers in the rock cut to protect vessels from injury. Comprised in these repairs, is the cost of the construction of the Dunnville Toll Bridge, consisting of the rebuilding of bridges over the Dunnville Dam and Sulphur Creek. This bridge was originally built as a separate work from the Canal, and is so considered in the public accounts. It should either be in connection with this Canal and the revenue received from it credited to the Canal revenue or the cost of its maintenance should not be defrayed from the Canal revenue.

The cost of making the Canal and these repairs for the fiscal year has been.....	\$41,426 61
There has been collected from vessels for damages, &c., done to the works.	\$6,900 00
And expended for repairs on Dunnville Toll Bridge.....	2,573 65
Making for ordinary Canal repairs.....	31,952 96
Total .....	\$41,426 61

The principal slide in the "deep cut," referred to in my last report, has been removed, the cost of its removal is \$8,506.50—of this sum \$5,006.50 has been executed within the fiscal year. The other slides then referred to are not of so great an extent and do not interfere with the navigation, but as they continue to settle into the channel, it may be necessary to remove a portion of them at an early day.

*Rents.*

The annual rental of the water power and other property leased on this Canal is.....	\$8,799 10
The amount collected during the fiscal year is.....	\$6,435 36
The amount remitted in consequence of low water last year is...	\$1,078 63
The amount remaining due on the 1st of July is.....	\$15,943 26

Schedule No. 1, appended, gives a list of the several holdings, with the yearly rents, payments, remissions, and amounts standing due. A large portion of the amount unpaid only became due on the 30th of June, and will be shortly collected. Upon other holdings, the premises of which have been either burned or abandoned, but a small part of them will be realised.

*Lands sold.*

The purchase of the "Great Cranberry Marsh lands Tract," situate in the Townships of Humberstone and Wainfleet, of 12,912 acres, at the price of one dollar per acre, by the Municipality of the County of Welland, remains unsettled—upon this purchase there remains due \$10,329.60 with interest at the rate of six per cent. per annum from the 2nd day of May, 1854.

*Damages, &c., collected.*

Schedule No. 2, appended, gives a list of the vessels, &c., upon which penalties have been imposed and collected for damages done to the works, and for breaches of the Canal regulations.

The amount collected is \$6,901.

The foregoing is respectfully submitted.

I have the honor to be, Sir,  
Your obedient servant,  
(Signed,) S. D. WOODRUFF.  
*Superintendent.*



WELLAND CANAL.

SCHEDULE No. 1.—Statement showing the Annual Rents of Water Power leased, and the Rents of other property situate on the Welland Canal, with Yearly Rents, together with arrears of Rent, the payments made and remission during the Fiscal Year ending 30th June, 1868, with the balances due.

Where Situated.	Name of Lessee.	Machinery, &c.	Yearly Rent.	Arrears to 30th June, 1868.	Payments to 30th June, 1868.	6 months rent remitted from 1st July 1867 to 1st Jan. 1868, as per letter of authority No. 2107, 13th March, 1868.	Balance due to 1st July, 1868.	Remarks.
			\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
Port Dalhousie.....	Robert Laurie.....	Grist mill.....	187 30	280 95	187 30	93 65		
Do	R. J. & W. Laurie.....	Flouring mill.....	240 00	360 00	240 00	120 00		
Do	R. & J. Laurie.....	Lot & acre.....	20 00	30 00	20 00	10 00		
Do	R. Morrison.....	Saw mill.....	121 00	242 00	131 50	60 50		
Do	Alexander Muir.....	2 Dock lots.....	176 00	204 00	176 00	88 00		
Do	George A. Clark.....	2 Wharf lots.....	100 00	200 00	160 00	40 00		
Do	Donaldson & Andrews.....	Dry dock.....	100 00	200 00	100 00	100 00		
Do	James Mavor.....	Lot.....	20 00	60 00		60 00		
Do	Michael Kerrins.....	do.....	10 00	25 00	15 00	10 00		
Do	John L. Ranney.....	Flouring mill.....	260 00	730 00		(a) 780 00		
Locks 3 to 11.....	St. Catharines Water Power Company	Surplus water.....	500 00	750 00	500 00	250 00		
St. Catharines.....	Calvin Phelps.....	Flouring mill.....	150 00	225 00	150 00	75 00		
Lock No. 4.....	Calvin Phelps.....	Wharf lot.....	40 00	60 00	40 00	20 00		
Do	Richard Collier.....	Saw mill.....	167 60	335 32	251 49	83 83		
Do	Thomas Bowers.....	Grist mill.....	140 00	230 00		(a) 280 00		
Locks 11 to 22.....	Welland Canal Loan Co.....	Surplus water.....	480 00	720 00	480 00	240 00		
Do 12, 13 & 14.....	Gordon & McKay.....	Cotton factory.....	240 00	600 00	480 00	120 00		
Do 16.....	John Brown.....	Cement mill.....	160 00	320 00	160 00	160 00		
Do 20.....	Wm. B. Hendershot.....	Saw mill.....	181 00	362 00		(b) 362 00		
Do 21.....	Wm. Beatty.....	do.....	216 00	324 00		324 00		
Do 22.....	Wm. Beatty.....	Tannery.....	63 60	93 40		95 40		
Do 23.....	Wm. H. Ward.....	Machine shop.....	50 00	50 00		50 00		
Do 24.....	Wm. H. Ward.....	Saw mill.....	146 00	292 00	146 00	146 00		
Do 25.....	John Brown.....	Wharf.....	40 00	80 00	40 00	40 00		
Do 26.....	Jacob Keefer.....	Flouring mill.....	222 00	385 00	222 00	111 00		
Do 27.....	Brown & Ross.....	do.....	130 00	260 00	195 00	65 00		
Do 28.....	Park & Cowan.....	do.....	160 00	1,200 00		(a) 1200 00		
Do 29.....	John Brown.....	Cement mill.....	80 00	160 00		80 00		
Do 30.....	Alexander Christie.....	Flouring mill.....	160 00	1,368 37	80 00	(b) 1368 37		
Thorold.....	{ Nutty & Woodward } { now William Wart }	Cotton factory.....	100 00	remitted, no water used.				
Allanburgh.....	{ Wright & Duncan..... }	Flouring mill.....	270 67	1,353 38		(b) 1353 38		

Allenburgh	Wm. H. Merrit, Jr.	Saw mill.	87 10	348 40	.....	(b) 348 40
Do	J. & H. Bowman	Peil factory	66 00	231 00	.....	(b) 231 00
Do	Trucker & Rennie	Saw mill.	300 00	450 00	300 00	150 00
Do	Wm. Fenarwell	Shingle factory	66 00	264 00	50 00	214 00
Do	Philip S. Mussen	Lot & acre.	20 00	20 00	20 00	.....
Do	J. & J. Abbey	Dry dock.	150 00	300 00	150 00	150 00
Port Robinson	Abbey & McFarland	do	79 20	821 20	.....	(b) 821 20
Do	Donaldson & McFarland	Grist mill	86 00	215 00	129 00	43 00
Do	R. Band & Co.	do	206 00	309 00	113 00	43 00
Do	John Donaldson	Wharf lot.	8 00	16 00	14 00	103 00
Do	Killins & Dostader	Saw mill.	156 00	312 00	156 00	2 00
Weland	Dunlap & Seely	Grist mill.	216 00	324 00	108 00	78 00
Do	Dunlap & Seely	Saw mill.	214 00	1,177 00	108 00	108 00
Do	E. Seely	Old aqueduct.	20 00	20 00	.....	(b) 1177 00
Do	M. Cook	Grist mill.	192 00	288 00	96 00	30 00
Do	E. Mead	Wharf lot.	25 00	141 15	.....	96 00
Do	A. Sherwood	do	25 00	138 80	.....	(b) 141 15
Do	John A. Hellems	do	112 00	240 00	.....	(b) 138 80
Junction	John Graybiel	Grist & Saw mill.	160 00	429 00	180 00	(b) 112 00
Marshville	L. McCullum	Saw mill.	143 00	429 00	270 00	37 50
Broad Creek	Imlach & Hicks	Grist mill.	138 00	828 00	90 00	(a) 828 00
Port Maitland	Jacob Turner	do	180 00	450 00	130 00	90 00
Dunnville	do	do	86 67	173 84	43 34	26 67
Do	Samuel Darling	do	53 34	106 68	53 34	26 67
Do	L. J. Weatherly	Carding mill	77 34	432 02	166 25	227 10
Do	H. Mittheberget	Saw mill	138 67	208 02	69 34	69 34
Do	Chisholm & Minor	do	126 00	960 00	169 50	(a) 960 00
Do	H. S. St. John	Grist mill.	113 00	282 50	56 50	56 50
Do	Brown & Merritt	Plaster mill	237 34	1,318 87	.....	(a) 1318 87
Do	Oldfield & Noxa	Saw mill.	66 67	166 74	100 03	33 34
Do	J. Clark & Brothers	do	153 34	383 35	230 01	33 33
Do	J. C. & R. H. Kirkpatrick	Grist mill.	149 20	223 80	74 60	76 67
Do	Beatty & Band	do	25 00	50 00	25 00	74 60
Do	A. N. Schofield	Wharf lot.	25 00	25 00	.....	50 00
Do	John Gordon	Woodyard	20 00	20 00	.....	25 00
Dunnville	C. J. Brydges	Water pipes.	20 00	40 00	40 00	20 00
W'd Railway Co.	J. W. Bosanquet	2d Elevator Pt. Colborne	20 00	20 00	20 00	.....
Ground Rent	John Fenning	Lot	20 00	20 00	20 00	.....
			\$8,799 10	\$23,465 25	\$6,443 36	\$1,078 63
						\$15,943 26

The privileges in arrears marked (a) and (b) the buildings have been either burnt or abandoned. Amount ..... \$11,420 17  
 The premises burnt and marked (a) amount to ..... \$5,366 87  
 And those marked (b) either abandoned or not in use, from which the water has been shut off for a time ..... 6,053 30  
 \$11,420 17

The remaining balance will be shortly collected ; it accrued on 30th June. A portion of these arrears may be collected on rebuilding the premises, or by enforcing the issue from the Lessees who are responsible parties.

WELLAND CANAL OFFICE,  
 St. Catharines, July 4th, 1869.  
 (Signed,) S. D. WOODRUFF, Superintendent.  
 (Signed,) THOMAS ADAMS, Paymaster & Clerk.

## WELLAND CANAL.

SCHEDULE No. 2.—Statement showing the amounts collected from Vessels, &c., for damages done to the Works, and committing breaches of the Canal Regulations, during the fiscal year ending 30th June, 1868.

Date.	Name of Vessels, &c.	Amount.	REMARKS.
1867			
Aug. 3.....	Schooner Montauk.....	1,205 00	Carried away 3 Gates Lock No. 6.
" 12.....	do Niagara.....	1,600 00	do 4 do 15.
" 19.....	do Olive Branch.....	10 00	Broke 2 anchors Lock No. 8.
" 26.....	do Hastings.....	8 00	do needle beam Hurt's Bridge.
" 31.....	do John Breden.....	20 00	Damage to Port Robinson Bridge.
Sept. 19.....	do N. C. Johnson.....	5 00	do to Bridge, Lock No. 24.
" 24.....	do Malta.....	10 00	do do Burgess.
Oct. 1.....	do Lydia Case.....	10 00	do to collar of Gate, Lock No. 20.
" 5.....	do Montmerency.....	20 00	do to cap on piles Port Robinson Bridge.
" 14.....	Barque Arabia.....	30 00	do do do
" 14.....	Brig Saxon.....	30 00	do do do
" 17.....	Schooner Cortes.....	15 00	Broke pile, Burgess Bridge
" 17.....	do Knight Templar.....	5 00	do approach of Burgess Bridge.
" 19.....	do Lassie Congler.....	20 00	do foot beards, Gates Lock No. 8.
" 19.....	do A. Ford.....	10 00	do balance beam, Lock No 19.
" 21.....	do D. M. Foster.....	5 00	do collar and anchor of Gate, Lock No. 20.
" 24.....	Brig Lafayette Cook.....	8 00	do do do
" 28.....	Schooner Pilgrim.....	5 00	Damages to Port Robinson Bridge.
Nov. 5.....	do Eagle Wing.....	25 00	Broke suspension rod Port Robinson Bridge.
" 8.....	do Merrimac.....	1,048 00	do 4 Gates Lock No. 22.
" 8.....	do Czar.....	20 00	do to piles Quaker Bridge
" 8.....	Propeller Georgian.....	70 00	do Lock No. 19.
" 25.....	Schooner Plymouth Rock.....	7 00	Damaged Gates Port Colborne Lock.
1868			
April 17.....	do Annie Falconer.....	15 60	Broke needle beam, Gates Lock No. 4.
" 17.....	do D. M. Foster.....	25 00	Damaged West Pier Port Dalhousie.
" 20.....	do Acontias.....	5 00	do stanchion, Guard Lock Allanburgh
" 24.....	Propeller Congress.....	2,065 00	Carrying away Lock No. 2.
May 1.....	Schooner Geo. C. Fanny.....	300 00	Broke—at Port Dalhousie
" 15.....	Seow John Harmey.....	100 00	do Port Robinson Bridge.
" 20.....	Schooner G. H. Mass.....	15 00	Damaged Quaker Bridge.
June 3.....	Propeller Brune.....	50 00	do Burgess do
" 6.....	do City of London.....	50 00	do do do
" 25.....	Schooner Leader.....	80 00	do pier at Port Dalhousie.
1867			
Oct. 30.....	do Victor.....	10 00	Violating Canal Regulations.
	Total.....	\$8,901 00	

(Signed,)

THOMAS ADAMS,

Paymaster &amp; Clerk.

(Signed,)

S. D. WOODRUFF,

Superintendent

WELLAND CANAL OFFICE,  
St. Catharines, July 4th, 1868.

## APPENDIX No. 6.—Continued.

## REPORT BY JOHN PAGE, CHIEF ENGINEER,

(No. 3,602.)

OTTAWA, 30th May, 1868.

*The Secretary of Public Works :*

SIR,—I have examined the lease of water power granted to the *Welland Canal Loan Company*, and from this document it appears that (with some exceptions) they have leased all the surplus water passing through the Welland Canal between locks Nos. 11 and 22 ; but it appears that they have not leased, nor are they the owners of the land immediately adjoining the Canal, or at such places as are suited for the erection of mills.

The lease commenced in January 1855, and is renewable every 21 years. At the present time, about 13 years of the first period have elapsed—so that the Company can now only deal with the unexpired 8 years—whilst they are not in a position to grant proper leases for lands on which mills can be erected.

This has been found in several cases to interfere so much with the operations of the Company, that in 1861, or 1862, the Department permitted them to relinquish the water power at locks Nos. 12, 13 and 14, so as to allow of its being conveyed directly by the Government to a firm which then proposed to erect—and has since built—a large cotton factory.

A large paper mill has been recently erected on a lot leased from the Company, adjoining the basin above lock No. 16. But the owner of this mill having had occasion to obtain a legal opinion relative to the lease, he was informed that the Company had leased him property to which they had no title ; a matter which has caused him some embarrassment.

With a view to having this state of things remedied, if possible, the Company now bring the subject of the original lease under the notice of the Department, and request that such lands may be granted to them alongside the Canal, as will enable them to bring into use the water power for which they hold a lease ; and that the lease itself should be so altered as to be renewable at the end of periods of 21 years, in perpetuity, without any increase of rental. In this way, they consider that they would be in a position to deal directly, and satisfactorily with parties to whom they might sub-lease.

From what has been stated in reference to the lease, it will be seen that some change is necessary—a principle admitted by the Department in letter No. 32,538, addressed to the Secretary of the Company.

It appears to me indispensable that the owner of the paper mill referred to should at once obtain a proper title to the land upon which it stands, in order to enable him to carry on his business. This can be done in a similar way as was done in the case of Messrs. Gordon & McKay, at locks Nos. 12, 13 and 14.

It is doubtless desirable to encourage manufacturing interests, but it is not very clear that this would be better effected by granting the Company's request, than if the entire control were retained by the Government. In short, I think it would be injudicious to grant them all the land (between the points stated) not now in use for Canal purposes, as the future operations of the Department might become trammelled, should an enlargement of the Canal or other changes be considered necessary.

I would, therefore, advise that some agreement be entered into with the Welland Canal Loan Company to surrender the water power embraced in their lease, so that in future any lease made should come directly from the Department.

There are good reasons to believe, from the offer made by the Company in 1864, that such an arrangement could be readily effected.

It is very desirable that this matter should be settled, as in the present state of affairs the Government has leased the water power to the Company, whilst the latter are not in possession of such lands as would enable it to be utilized.

I have the honor to be, Sir,

Your obedient servant,

JOHN PAGE,  
*C. E. P. Works.*

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**APPENDIX No. 7.**

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**BURLINGTON BAY CANAL.**

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*Description of the works and repairs executed during the fiscal year ending 30th June, 1868, S. D. Woodruff, Superintendent.*

(No. 3,952.)

WELLAND CANAL OFFICE,  
St. Catherines, July 4th, 1868.

F. BRAUN, Esquire,  
Secretary of Public Works, Ottawa.

SIR,—In accordance with the instructions conveyed to me in your letter No. 54,222, I have the honor to submit my Report of the works connected with the Burlington Bay Canal, for the fiscal year ending the 30th June.

The only repairs, made upon the piers, has been the making repair of some damage done by collision of a vessel. The cost of making this repair, has been defrayed by the sum levied upon the vessel.

In the maintenance of the ferry, \$57.32 has been laid out in making repairs upon the ferry scow, &c.

The ferry recesses, referred to in my last Report, will require to be reconstructed when the water lowers.

I have the honor to be, Sir,  
Your obedient servant,

(Signed,)

S. D. WOODRUFF,  
*Superintendent.*

## APPENDIX No. 8.

### MURRAY CANAL.—(*Projected.*)

#### REPORT ON THIS CANAL BY JOHN PAGE, CHIEF ENGINEER,

(No. 2,123.)

OTTAWA, 18th December, 1867.

The Secretary of Public Works.

SIR.—Agreeably to instructions conveyed in letter No. 60,311 (and enclosures), relative to a survey of the neck of land lying between Lake Ontario and the head of the Bay of Quinté, “for the purpose of ascertaining the cost and feasibility” of constructing a navigable Canal to connect these waters; I have the honor to submit the following Report.

This project seems to have been entertained at an early period in the history of the Province, as an Address in the Journals of the Legislative Assembly of Upper Canada, for 1837, refers to its having been suggested by Lieut.-Governor Hunter, as far back as the year 1800, and in the original survey of the Township of Murray, in the Newcastle District, about 3,000 acres of land were set apart for that purpose. These lands were, however for the most part, subsequently disposed of to settlers.

In 1825, the Commissioners of Internal Navigation set forth the advantages to be derived from this line of communication, as consisting principally in the avoidance of the dangerous navigation of the vicinity of Long Point, Lake Ontario, during periods of stormy weather.

The route they proposed was between Presqu'île Harbor and the Bay of Quinté, a distance of upwards of 5 miles. The Canal to be 30 feet wide at bottom, 9 feet deep—estimated by them to cost £18,615 11s. 5d. sterling.

In 1833, N. H. Baird, Esq., C.E., reported on the Murray Canal, and strongly recommended that a connection should be made with Weller's Bay, instead of Presqu'île Harbor. This, he stated, would reduce its length to 2½ miles.

The Canal to have 100 feet width at bottom, 8 feet draught of water, with a wooden regulating lock placed near the centre of the route. A channel to be cut through Weller's beach to form a passage into Lake Ontario. The cost of these works was estimated at £42,845 12s. 6d. sterling.

He further stated that a Canal could afterwards be made, if desired, from Weller's Bay to Presqu'île Harbor, a distance of 2½ miles.

A separate estimate was also given of the cost of a line from the Bay of Quinté to Presqu'île Harbor direct. This was set down at £78,000 sterling.

In 1840, Lieut. Col. Phillpotts, R.E., estimated Mr. Baird's route into Weller's Bay (if deepened to 10 feet water), at £50,000 stg., and if a similar draught were adopted for the route into Presqu'île Harbor direct, he estimated its costs at £90,000 stg.

In 1846, Mr. Lyons made a survey for the Murray Canal from the mouth of Dead Creek on the Bay of Quinté to Weese's Creek at Presqu'île Harbour, a distance of nearly 5 miles. The Canal which he proposed was to have 100 feet width at bottom, 10 feet depth of water, with side slopes of 2 to 1, and was estimated to cost £126,861 6s. 10d. without taking into consideration any outlay for land damages or superintendence. No regulating lock appears by him to have been considered necessary.

Since 1864, various applications and memorials have been presented to the Government on the subject of the Murray Canal, and during the Session of 1866, a special Committee of the Legislative Assembly had this subject under consideration, and recommended that a survey of the isthmus should be made. This having been authorised, the duty was (as intimated in your letter No. 60,543) intrusted to Mr. J. H. Rowan, who, in July last, handed to me the following documents, viz. :—

*Plan marked No. 1.*—Showing Presqu'île Harbor, Weller's Bay, and the head of the Bay of Quinté, with the several routes surveyed, soundings taken, &c.

*No. 2.*—Profiles of the routes showing the classes of material to be removed on each.

*No. 3.*—Plan showing a portion of the Bay of Quinté at Nigger Island, 9 miles above Belleville.

*No. 4.*—Plan showing a portion of the Bay of Quinté at Telegraph Island, 4 miles above Mill Point.

*No. 5.*—Mr. Rowan's Report upon his survey.

In order to lay the subject clearly before the Department, it is considered necessary to give a brief description of the leading geographical features of that section of the Province which forms the north-east part of the shore of Lake Ontario.

On reference to the map, it will be seen, that the County of Prince Edward Island is a peninsula of a very irregular shape, containing an area of about 360 square miles. On its southern or lake boundary, it is indented by many deep bays, and has numerous large pools along shore. Near the centre of the peninsula Point Peter (or Long Point) stands out prominently for a considerable distance into the lake; and towards its south-east end there is another salient Point (Point Traverse), off which is a group of islands called "The Ducks." These islands extend across towards Sackett's Harbour, and render the navigation of this portion of the lake somewhat hazardous during the boisterous weather of the fall of the year.

The northern boundary of this County is formed by the Bay of Quinté, a long crooked arm of the lake, which stretches for about 50 miles in a general westerly direction, from what is termed the "Upper Gap" (23 miles from the city of Kingston), to its head about  $2\frac{1}{2}$  miles above the Village of Trenton, near which point its waters are only  $1\frac{1}{2}$  miles distant (*viâ* the "Carrying Place" road), from those of Weller's Bay on Lake Ontario.

The Trent, a river of considerable magnitude, which drains a large area of country, discharges into the Bay near its upper end. It also receives the waters of the Moira, Salmon and Napance rivers. On these are respectively situated the Village of Trenton, the large town of Belleville, and the Villages of Shannonville and Napanee.

In descending from Trenton the channel has an easterly direction for a distance of about 33 miles to Mill Point where it turns sharply to the south, and continues in that course to the foot of what is called the Long Reach. Thence it resumes an easterly direction.

The water-way is at some parts narrow, alternating with expanses of considerable extent, but the greater portion of the Bay is, from its inland position, sheltered from winds, and forms a comparatively safe line of navigation during the stormiest seasons.

The level of the Bay fluctuates, but so far as ascertained it appears that at the shallowest parts, below the mouth of the Trent, there is a channel of 11 feet at extreme low water.

#### WELLER'S BAY.

The sheet of water known by this name is situated inside of a deep indent or bay of Lake Ontario, off which is the entrance into Presqu'île Harbor. It was formerly separated from the Lake by a continuous range of narrow sand banks, through which there was only a small outlet for a creek. About twelve years ago the upper part of a large portion of the north-west end of this dividing ridge was washed off and an opening made between Lake Ontario and Weller's Bay. This opening is now fully  $\frac{3}{4}$  of a mile in width, but for the greater part of the distance it is shoal. About its centre there was, however, found to exist (in October last), a channel way of fully 300 feet in width, and 14 feet in depth.

In 1857, this opening is represented to have been 100 rods wide, with a channel 150 feet wide and 14 feet in depth, and in 1861, the channel appears to have been about 200 feet in width, and of a depth of fully 14 feet.

It will thus be seen that from the time when the opening was first made, the channel has continued to increase in width.

From what could be ascertained as to the original line of the beach and ridge, it appears that the action of the Lake has been such as to carry the sand, of which it is composed, from its original position and deposit it in such a manner as to increase the width of the bank without materially encroaching upon the area of the Bay.

The fact that the sand has not so far been deposited to any extent in the Bay is evident, from the material in the bottom consisting of clay with no stratum of sand over it.

The area of Weller's Bay proper is about  $2\frac{1}{2}$  square miles, one-half of which has a depth, at ordinary water level, of from 14 to 30 feet, shoaling gradually towards the shore. It is connected with what may be termed Consecon Bay, by a narrow channel, with about 9 feet water, between Pine Point and Bald Head. The latter is a spit of sand projecting northwards from Weller's beach, and cuts off communication between the two bays, except by the entrance above mentioned.

Consecon Bay is larger than Weller's Bay, and schooners entering the channel at Pine Point have ample depth of water to the wharf at Consecon Village. The dividing ridge between this bay and the Lake is comparatively narrow, and was some years ago broken through in two places. It is stated that at one time there was about 2 feet depth of water in one of these openings, but they were subsequently filled up by the action of the Lake, so that now no channel, even for boats, is found there at ordinary low water.

#### PRESQU'ILE HARBOR.

This harbor is formed by a ridge of land extending in a South-easterly direction from the main shore, for a distance of over 3 miles, and embracing an irregularly shaped area of water surface of about 4 square miles. On the eastern extremity of the ridge the principal light is situated, and between this and the main land there is an opening of about a mile in width, on the north-east side of which is the channel into the harbour.

The ridge is principally of sand, but the point upon which the main light stands (Presqu'ile Point) is a rocky formation with but a slight inclination towards the Lake, and forming a flat beach for about 500 yards outwards.

East and North from the light-house is an extensive shoal called the "Middle Ground," which bars the direct entrance to the harbour for vessels of a large class, and causes the channel at this place to be all but on the north side.

About  $\frac{3}{4}$  of a mile inside the main light, at what may be termed the neck of the harbor, is Salt Point light, which is erected on a bar of shingle thrown up by the action of the Lake, and extending outwards about  $\frac{1}{4}$  of a mile from the shore of Presqu'ile ridge.

This light when built was placed near the end of the spit, but the shingle has now formed outwards about 300 feet beyond it, and to that extent contracted the channel, which is at this place not much over 200 feet in width, the north side being occupied by "Shoal Point Shoal."

About 1,000 feet west-south-west from Salt Point there is another small light built on the north side of the ridge. These two lights form a range which serves to guide vessels entering the harbor, clear of the outer end of the "Middle Ground."

A large area of the northern part of this shoal was found to have a depth of 9 feet of water over it at the time (last October), when there was only 10 feet in the channel, at a place immediately north of the shoal.

A vessel approaching Presqu'ile must before getting in range of the inner lights, with a view to entering the harbor, change its course fully 270 *degrees*, which, in certain winds, it is barely possible to do.

When up with Salt Point the course must again be changed to north-westerly, so as to clear "Calf Pasture Shoal," and enter the wider portion of the harbor; in fact the direction of the entrance, crookedness, and insufficient width of the channel are found by masters of vessels to prove serious obstacles to its being used either as a harbor of refuge or for commercial purposes.

Still, it is in a great measure land-locked, and inside there is an area of  $1\frac{1}{2}$  square miles of water, from 10 to 15 feet deep, with good anchorage.

Upon the Admiralty Chart of Lake Ontario, published in 1838, and corrected to 1851, two shoals are shown as lying off Weller's beach, the northernmost of which is represented as being about 2 miles east-south-east from the main light, and having three feet of water upon it; these shoals are also shown on a chart of the Lake, published in 1866 in Toronto.

As shoals in the position represented would have seriously interfered with any of the proposed improvements in this locality, it became necessary to ascertain their extent and exact bearings. For that purpose a thorough examination of this portion of the lake was



made under my directions in October last, by Messrs. Rowan and Monro (whose Report is hereunto appended), the result of which was, that at the place indicated (*viz.* :—2 miles east-south-east from the main light there was found to be from 28 to over 45 feet of water, and that a depth of at least 33 feet was maintained for a considerable area in the vicinity. In fact, it was fully ascertained, that no shoal existed in the position of the northernmost one shown on the Admiralty Chart referred to, and which was represented as lying opposite the entrance to Weller's Bay.

At a place 3 miles south-east by east from the main light, and about 1½ miles off shore, from the beach opposite the foot of Consecun Bay, there is, however, a rocky shoal on which there was found, in October last, only 10 feet water for a considerable area. This corresponds nearly with the position of the southernmost shoal indicated on the Admiralty Chart.

With a view to this matter being clearly understood, the plan marked No. 6 has been prepared. It shows in red the position of the shoals represented on the Admiralty Chart, and the Chart of Lake Ontario published in Toronto; and the actual position of the shoal marked A in black, as fixed by careful triangulation from the shores, and by numerous soundings taken over the whole area of the bay, at a time when the weather was favorable for accomplishing this object in a satisfactory manner.

It will be seen from the plan that the shoal as it actually exists, is in the track of vessels coming from the East that pass near Nicholson's Island, for the purpose of making either Weller's Bay or Presqu'île Harbor. It must, however, be borne in mind that this course is seldom taken unless during easterly or light off-shore winds. The shoal lies entirely out of the ordinary course of vessels approaching Presqu'île or Weller's Bay, either from the West or South. This will be evident, from the fact, that it is 3 miles from Presqu'île Point, and that vessels can pass within 500 yards to the east of the main light, thus leaving a deep unobstructed water-way of fully 2¾ miles wide.

No record having been kept of the fluctuations of Lake Ontario or the Bay of Quinté in this vicinity, it became necessary to endeavour to collect every available information on the subject; which under the circumstances could only be done by enquiring from old residents on the shores of the Lake or Bay. These were chiefly captains of vessels, fishermen and persons whose occupation led them to observe the variations of the water-levels. The information thus obtained was principally from marks pointed out on the wharves, rocky beaches, &c. These were subsequently compared by being referred to a common datum line.

From all that could be learned from the above sources, it appears that the extreme fluctuation of the Lake in calm weather, observed in a long period of years is about *five feet*; but that by continued gales from the South-west, the water in Weller's Bay is raised sometimes as much as 2 feet, and in Presqu'île Harbor about 18 inches within a very short time; while the same wind has the effect of lowering the water in the Bay of Quinté.

Satisfactory information was obtained as to the level of the water during the year 1848, at which period it was said to have been lower than it has ever been since. This was found to be 1 foot 6 inches lower than the water in the month of October last; highest water-mark being 3 feet over the level at that time, thus showing the difference between these extremes to have been 4 feet 6 inches.

But it was stated by several of the oldest residents, that a lower level even than this had occurred about the years 1818-20, when certain shoals (which had in October last about 2 feet of water upon them) were said to have been dry. Thus the lowest water-level at the above period appears to have been 6 inches lower than it was in 1848, and seems to establish the greatest fluctuation at 5 feet as above stated. This extreme variation is corroborated by the records kept at Port Dalhousie and Oswego.

During periods of continuous calm weather (after the spring floods of the Trent and other tributaries have passed off) the waters of the Bay of Quinté are on a level with those of Lake Ontario, but a strong south-westerly gale will, as before stated, raise the water in Weller's Bay about 2 feet above the normal level, whilst it will lower that in the Bay of Quinté about 1 foot 3 inches, thus creating a difference for the time being of about 3 feet 3 inches. It is not probable that so great a difference will be likely to exist between the levels of Presqu'île Harbor and Bay of Quinté, inasmuch as the wind which would raise

the water most in the former would not have the effect of lowering it to that extent in the Bay.

A strong easterly gale, will, on the contrary, raise the water at the head of the Bay of Quinté about 15 inches, whilst at the same time it will lower the level of Weller's Bay, and along the adjacent shore of the Lake about 6 inches, thus making the level of the Bay of Quinté for the time being, about 1 foot 9 inches higher than the lake in this vicinity.

The changes thus described as owing to the direction and force of the wind, may, of course occur at any stage of the normal levels of the Lake and Bay; and have therefore to be considered in addition to those due to the periodical fluctuations. That is to say: an easterly gale may lower the water 6 inches at its lowest stage, whilst at the highest level observed, during periods of calm weather, it may be raised 2 feet by a south-westerly gale; thus making the extreme variation to be 7 feet 6 inches in Weller's Bay. In the Bay of Quinté the variation of the water-level is also found to be 5 feet; but as a strong south-west gale lowers the head of the Bay about 15 inches, whilst an easterly one raises it 15 inches, the extreme fluctuation may also be assumed at 7 feet 6 inches. These variations, although only occurring in a long series of years, have, nevertheless an important bearing on the subject under consideration.

From the information obtained and the examinations made, it appears that at certain places in the Bay of Quinté, the channel is comparatively shoal. The first of these is at Indian or Fighting Island, near the head of the Bay, where, for a considerable distance, there was found to be (in April last) only from 12½ to 13½ feet water, with a bottom of soft mud. At a point a short distance below Belleville, there was also 13½ feet in the channel, the bottom being mud.

At Telegraph Island, 4 miles above Mill Point, the bottom is of rock, and there was for a short distance only 13 to 13½ feet water in the channel at the time the soundings were taken.

It was further ascertained, that at several points and headlands along the Bay, shoals extend outwards, contracting the width of the channel, and rendering its line somewhat tortuous.

From these facts, taken in connection with the disturbing influences of the winds, and the reduction in depth which occurs at periods of extreme low water, it appears that a depth of about 10 feet is all that could be judiciously calculated upon, when the water is at its lowest stage, without incurring considerable outlay in improving the channel at several places in the Bay.

It is, however, proper to state, that the low water referred to, is that of 1818-20, which was nearly 2½ feet lower than the surface level at the time the soundings were taken; so that at periods of ordinary low water, there would, doubtless, be an available depth of at least 11 feet, except for a short time at the head of the Bay during a gale from the south-west.

At the entrance to Presqu'île Harbor there was, in October last, for a short distance, a depth of only 10 feet, which at extreme low water would be reduced to 8 feet. Thence along the circuitous line of the channel leading towards the mouth of Weese's Creek, the soundings were as follows, viz.:—

Depth of water in March, 1867—reduced to lowest water, 1818-20		
For a distance of 7,000 feet,	12 to 12½	9½ to 10
“ 3,000 “	13 to 13½	10½ to 11
“ 3,000 “	10 to 12½	7½ to 10
“ 2,000 “	12 to 14	9½ to 11½
“ 5,000 “	12 to 5	9½ to 2½

It will thus be seen that the channel would require to be deepened for a considerable distance to adapt it to a draught of 10 feet at lowest water, irrespective of the additional depth at the entrance necessary for vessels in a heavy seaway.

In the channel into Weller's Bay there was found to be 14 feet water which on being reduced would give 12 feet at the lowest normal stage of the lake, and there is, as already stated, from 20 to 25 feet depth through the centre of the Bay.

The principal reason urged in favor of a Canal connection between Lake Ontario and the Bay of Quinté, is the advantage which it would confer on commerce, by enabling ves-

sels of the class which navigate the Lake to avoid the dangers in the vicinity of Long Point during the stormy seasons of the year, by passing through the comparatively sheltered waters of the Bay of Quinté.

In order to secure this, the draught of water should be at least equal to that of the Welland Canal, through which, vessels drawing 10½ feet can pass. This would render it necessary to take advantage of the full available depth of the Bay of Quinté, which, as before stated, would be 10 feet at the very lowest water, and fully 11 feet at ordinary low stages of the Bay and Lake.

In view, however, of its being considered desirable at a future time to increase the draught of water, by the removal of some of the obstructions described as existing in the Bay, I would advise that the bottom of the Canal be sunk to 11 feet below lowest water.

On reference to plan No. 1, it will be seen, that of the three routes surveyed, one terminates in Presqu'île Harbor, and two in Weller's Bay.

Route No. 1 starts from the north-west angle of the head of the Bay of Quinté, near the mouth of Dead Creek, and follows along the northern side of a marsh for about a mile and a half. It then takes a more westerly course, and runs into the head of Weese's Creek, which is a long, narrow, and shoal branch of Presqu'île Harbor.

A divergence from the route at the Bay of Quinté end has been suggested, by which the entrance would be near Twelve-o'clock Point, where the slope of the beach is shown by the soundings to be more favorable.

This line is nearly in the position of that estimated by Mr. Baird, and by Col. Phillpotts, and subsequently surveyed by Mr. Lyons in 1846.

It is the longest of the three routes examined, being fully 4½ miles in length. It is represented by Mr. Lyons that a depth of 10 feet below his assumed low-water line could be obtained without rock excavation, except at one point near the bay of Quinté end, and that even this could be avoided by a slight divergence of his line. But upon boring at numerous places, it was found that at the Presqu'île end there was rock for nearly two-thirds of a mile, standing 3½ feet above the bottom line represented for his Canal. At a high point near the centre of the route, a ridge of rock was also found within about 5 feet of the surface of the ground, dipping away at about 400 feet on each side.

It further appears that Mr. Lyons was not in possession of correct information relative to the fluctuation of the Lake levels, as he represented the difference between high and low water to be 2 feet instead of 5 feet. Moreover he assumed a bottom line, which at periods of extreme low water would have given barely 8½ feet of draught instead of the 10 feet which he calculated upon.

Mr. Baird does not appear to have made any provision in his estimates for rock excavation upon this line, and Col. Phillpotts' increase of value seems to have been based solely upon Mr. Baird's survey. It therefore seems that none of these estimates can be accepted as representing the actual value of the work even at that time, for the scales of navigation then proposed; and of course would be wholly inapplicable at the present period, when the value of all kinds of labour has been so much increased.

The depth of water now proposed for the Canal is 11 feet at *lowest water*, with a bottom width of at least 100 feet, so that a much larger amount of excavation will be necessary than on any of the scales previously projected, and a greatly increased quantity of dredging will be rendered indispensable, both in Presqu'île Harbor and the Bay of Quinté.

Route No. 2 leaves the Bay of Quinté near Twelve-o'clock Point, and runs in a westerly direction along the southern edge of Dead Creek Marsh, it then curves to the southward and enters Weller's Bay at a place called Stoneburgh's Cove. The length of this route is about 2 miles 5,040 feet. Fully one-half of this distance at the Bay of Quinté end is through sand, and the remaining half next Weller's Bay is chiefly in rock, with a stratum of sand and loam overlying it.

At the Bay of Quinté the length of dredging, out to 10 feet at lowest water, will be about 3,000 feet, of an average depth, for 1,200 feet from the shore, of 6 feet 3 inches, and for the remaining distance of 1,800 feet, an average of 1 foot 3 inches.

Should the divergence to Twelve-o'clock Point be made from the line leading to Presqu'île Harbor, the above extent of dredging will be the same for routes Nos. 1 and 2.

At the Weller's Bay entrance there would be 2,000 feet excavation with an average

depth of 7 feet. Of this 1,600 feet is of rock of an average depth of 6 feet; the other portion being principally blue clay and sand.

Route No. 3 starts from the south-west angle of the head of the Bay of Quinté, and runs in a south-westerly direction towards Mud Creek, thence along the mouth of that Creek to Weller's Bay, south of Pine Point; a distance of 2 miles 1,880 feet.

About 1 mile of this route, near the Bay of Quinté end, is through rock, one-half of which would be from 25 to 30 feet deep, and the other half of an average of  $12\frac{1}{2}$  feet deep. The other  $1\frac{1}{2}$  mile is chiefly sand and clay.

At the outlet at the Bay of Quinté, about the same extent of dredging will be required, as at that of route No. 2. At the Weller's Bay end, about 3,520 feet of dredging (averaging 4 feet 6 inches in depth) would have to be done to attain a depth of 10 feet at extreme low water.

This line would lead in a slanting direction across the entrance into Consecon Bay.

From the above brief description of the several lines surveyed, it will be seen that route No. 1 is about  $1\frac{1}{4}$  mile longer than No. 2; that No. 3 is nearly  $\frac{2}{3}$  of a mile shorter than route No. 2, and that at all the entrances a considerable amount of work will be necessary to obtain and secure the proper depth of water.

At Presqu'île Harbor (the entrance to route No. 1), a very large quantity of dredging must be done to obtain the proposed depth—the channel being intricate it would require to have a width of at least from 250 to 300 feet, and at the outer end should have additional depth to allow for the plunging of vessels in a heavy sea. At Stoneburgh's Cove (route No. 2), there would be, as above stated, a considerable amount of rock excavation under water surface; and at the Weller's Bay end of route No. 3, there would be about  $\frac{2}{3}$  of a mile of dredging through mud and sand of an average depth of  $4\frac{1}{2}$  feet.

A comparison of distances from a point in the Lake which may be taken as common to the navigation into Presqu'île Harbor and Weller's Bay, shows that the length from this point, *viâ* the Harbor and route No. 1 to the Bay of Quinté would be fully twice that *viâ* Weller's Bay to the outlets of either routes No. 2 or No. 3.

Weller's Bay, however, lies in the direct line of the proposed navigation, and has now the full depth required; whereas the entrance to route No. 1 lies entirely out of that line and can only be approached by a circuitous channel to be dredged through Presqu'île Harbor. It therefore appears that the distance from the mouth of the latter to the Bay of Quinté in route No. 1, should be compared with that from the Weller's Bay entrances to routes Nos. 2 and 3 to the Bay of Quinté. This would show the length *viâ* the former route to be about 3 times greater than that by either of the other two.

Were the channel through Presqu'île Harbor made, the unavoidable difficulties to be encountered in navigating it would still present an insuperable objection to the adoption of route No. 1.

In this view of the case, it appears that the selection lies between routes Nos. 2 and 3, or some modification of them.

As already stated, the expense of forming an entrance at the Bay of Quinté end, would be about the same on both these routes, and there is reason to believe that the one would be equally as accessible as the other.

On Weller's Bay, route No. 2 presents a good line of approach and entrance, but it has the objectionable feature that a large quantity of rock excavation under water will be necessary.

Although the dredging of the entrance of route No. 3, would be through mud, the channel would unavoidably be crooked, and at its immediate entrance would be nearly parallel with the shoal at Bald Head; thus rendering access to it in some measure uncertain, whilst it is questionable whether the deeper channel would remain open unless protected by pier-work. If this became necessary it would doubtless interfere with the only channel into Consecon Bay.

It is however proper to state that on an intermediate line between routes Nos. 2 and 3 there would probably be a much greater extent of rock excavation under water than at route No. 2, inasmuch as the water continues shoal for a considerable distance from the shore along the head of the Bay.

It will be evident from what has been said, in relation to the fluctuation of the water levels, that to ensure the full advantages of the Canal at all times, a Lock must be con-

structed. This should, of course, be placed at some point within the rock-cutting on the line, and be of sufficient width and length to admit the largest class of vessels likely to pass through this route.

If this rock was found to be sound, the sides of the cut might be made nearly vertical at the site chosen for the Lock, and quoins and recesses built for gates placed from 250 to 300 feet apart. The sides of the chamber could subsequently be carried up to the proper height with masonry.

It is believed the Canal should be of a clear width of at least 100 feet at bottom, and in rock-cutting the sides might have a slope of a quarter to one. Through sand, the material being of a very loose description, it must be removed to such a slope as may be found practicable, and to a sufficient width beyond the absolute line of the Canal to admit of the sides being lined with such stone as the rock-cutting may supply. The necessity of this will be apparent from the fact that the sudden variation of water-level will produce at times such a current in the Canal as would destroy the banks unless they were properly protected.

The depth of Canal has been assumed at 11 feet, for the reason that a considerable portion of either route will be through rock, where stones or any other hard substance accidentally getting into it would prove a serious obstruction. Besides this will obviate the necessity of deepening, should it be found that a greater draught than the 10 feet calculated upon at lowest water can be obtained in the Bay of Quinté.

It has already been shown that the extreme fluctuation (due to influences of all kinds) may be  $7\frac{1}{2}$  feet. Five feet of this is due to the variation of the normal levels of the Lake, and 2 feet to the effect of S.W. winds in raising the waters in Weller's Bay. The other 6 inches represents the lowering of water by easterly winds. This may occur at the lowest stage, but as it is a contingency which can only arise at rare intervals, no serious, or at least continued, inconvenience can be experienced from it.

The height to which it is probable the water may rise over the Canal bottom will therefore be about 18 feet, and the banks should be at least 3 feet over this, or 21 feet high to prevent the adjoining land from being overflowed.

In order to protect the entrance from being silted up, it will in all cases be necessary to carry lines of pier-work out from the shore. To effect this at the Bay of Quinté end, on either of the routes, there would probably be required 1,000 lineal feet of pier on each side, of at least 16 feet in width. This would reach to a depth of about 7 feet at lowest water on the shoal. These piers should be placed about 150 feet apart, and the dredging extended beyond them with at least that width to 10 feet at lowest water.

To attain a depth of 7 feet on the shoal at the Weller's Bay end of route No. 3 would require fully 2,500 feet of pier-work, placed either in curved or angular lines, both of which are objectionable as admitting of deposits taking place alongside of them. Moreover, a line of pier, this length, would contract the entrance into Consecon Bay: whilst the channel outside runs all but parallel with the shoal. It would therefore be difficult of access and liable to fill up. As a whole, this entrance is unfavourable.

The entrance to route No. 2, at Stoneburgh's Cove, would be easy of access, being nearly on the direct line of the channel into the Bay, and deep water on this side is found nearer the shore than at any other place. The greatest objection being that the beach, as already stated, is of rock.

The Cove reaches inland about 1,400 feet from the general line of the beach, and has an average width of about a  $\frac{1}{4}$  of a mile: 1,000 feet from the shore there is at present a depth of about 6 feet of water. For this distance a permanent water-tight dam might be constructed on the stratum of clay overlying the rock, and between this and the beach to the eastward, a portion of the surplus material from the excavation might be deposited.

For about 700 feet further (or fully to the end of the rock excavation) a double line of narrow crib-work, forming a coffer-dam, would require to be constructed. From the end of this a dam should be carried across the channel until it joined another line on the opposite side of the proposed entrance.

The area enclosed by the dams could then be unwatered, and the rock removed. Of course this would entail considerable expense, but it appears to be the only mode of obtaining the necessary depth of water at this place.

There is however an advantage in rock being found at other points near the western end of this line, as it admits of the lock being placed where the greatest fluctuations would doubtless be experienced; whereas, on route No. 3, the lock would have to be built within about a mile of the Bay of Quinté, leaving the Weller's Bay end open to the effects of the sudden variation of the Lake levels.

As a whole, route No. 2 appears to be preferable to No. 3 in regard to ease of access, general direction and economy of construction.

From the foregoing descriptions taken in connection with the accompanying plans and profiles, it is believed that a tolerably clear idea can be formed of the nature and extent of the work to be done on either of the routes surveyed.

Their estimated cost is respectively as follows:—

Route No. 1.....	\$1,290,000
“ No. 2.....	860,000
“ No. 3.....	940,000

These sums represent the total value of the various classes of work, the quantities having been extended at fair and reasonable rates—due allowance being of course made for such contingencies as are likely to arise during the execution of works of this nature and extent.

It will be observed that the reasons referred to as having been urged in support of this undertaking are entirely of a commercial nature, and although evidently of considerable importance, it may be questioned whether the advantages which the work (if executed) would confer upon the general navigation would warrant so large an expenditure.

Several competent Naval and Military authorities have, however, at various times expressed their views regarding the desirability of establishing a Naval Station at some point on the Bay of Quinté, with such easy access from the West to its waters as would doubtless be afforded by the proposed Murray Canal, so that there may be reasons of this nature which would outweigh ordinary considerations of economy, and prove strong arguments in favor of the project.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

JOHN PAGE,

*Chief Engineer Public Works.*

## APPENDIX No. 9

### RIDEAU CANAL.

*Description of the works and repairs executed during the fiscal year ending 30th June, 1868, J. D. Stater, Superintendent.*

(No. 4,885.)

OTTAWA, 7th October, 1868-

SIR,—I have the honor to acknowledge the receipt of your circular No. 3,289, dated September 29th, requesting me to send a Report describing the new works that have been constructed as well as the repairs which have been made on the works under my charge; in accordance therewith the following is respectfully submitted.

#### NEW WORKS.

The only work which may be classed under this head, is the new wooden bridge at Manotic; it is 331' 5" in length, and is composed of 5 spans of 40 feet, over each of which is a king post truss, and one span of 37 feet, over which is placed a swing bridge. This work was finally completed the 23rd of April, by Mr. John O'Connor, contractor, at a cost of \$6,354.

#### REPAIRS.

Under this head are classed extensive repairs, such as the removal of the wood work of lock-gates and swing bridges, and these repairs extend over the year, the timber plank and other materials have to be procured before the navigation closes for the winter and the repairs extend over the winter and after the navigation opens in the spring. During the past year eight pairs of lock-gates have been rebuilt and two swing-bridges at Kingstou Mills and Smith's Falls, respectively. The principal repairs made at the different stations are as follows:—

##### *Kingston Mills.*

Swing-bridge entirely renewed; cut stone approaches taken down and rebuilt, new foundation of stone for turn-table, approaches improved, new steps, fences, &c.

Long bridge on the macadamized road over the creek, has been re-sheeted with ash plank, other repairs to the same, 350 cubic yards of gravel to face and repair the long embankment, two pairs of lock-gates renewed, together with sundry repairs to machinery, &c.

##### *Brewers' Mills.*

The lower lock-gates at this station have been renewed, with repairs to machinery, and the dam faced with gravel.

##### *Brewer's Upper Mills.*

Preparations have been made and materials furnished to rebuild the bridge at this station, in a similar manner to that at Kingston Mills.

##### *Jones' Falls.*

At this station two pairs of lock-gates have been renewed, requiring the usual repairs to the machinery and iron works. The lower lock-gates had to be lowered for repairs, the lock was pumped to clean it out, and perform sundry repairs to sill and machinery; several minor repairs were required here.

*Davis.*

Coffer dam, pumping lock, repairs to sill, iron work, lock-master's quarters, &c.

*Chaffeys.*

New mitre post for gate, man hole grating, &c.

*Newboro'.*

At this station there is a crooked rock cut about a mile in length, uniting the waters at the summit level, this cut had become somewhat obstructed by stones and deposit, a coffer dam was made and the cut cleaned out.

*Narrows.*

Coffer dam and repairs to waste weir. On the 12th July, the lower lock gate could not be worked, the steamer *City of Ottawa* was detained, had to send the steamer "*Swan*" to Kingston for the carpenter and rigging to hoist the gate, the truck wheel was out of order, the repairs were made, and the lock opened on the 15th, at 3 p.m.

*Poonamalie.*

Sundry small repairs to sluices and machinery.

*Smith's Falls, (detached lock).*

New mitre posts, two new pairs swing bars, repairs and sheeting gates, &c.

*Smith's Falls, (combined lock).*

The swing-bridge at this station was renewed, requiring a temporary bridge, the lower lock-gates were renewed, new sluice frames, new grating for man holes, oak delivered for three pairs of lock gates.

*Old Slys.*

The water at this station had formed a large breach in the bottom of the upper lock, about 15 feet square on top, and 8 feet deep in the loose shaly rock, making a large leakage under the easterly wall, this was filled with crib work and stones and a new wooden floor was put in the lock, sheeting upper gates and sundries.

*Edmonds.*

Sheeting upper gates and sundry repairs.

*Maitlands.*

At this station the water found its way through some low grounds about one and a half miles east of the lock, called the break ground, this was always the first place in low water that the navigation was interrupted, several attempts to put in works there have proved failures; last spring bundles of brush and stones were put to stop a portion of the water, this has been a success, as during all this dry season the water has been over navigable level.

*Merrickville.*

New wharf and repairs to old, new fence and sundry small repairs.

*Burritts.*

Planking and repairs to top of dam.



*Long Island.*

Considerable repairs to lock-masters' quarters, viz.:—new windows and frames, shingling roof and other small repairs.

At Manotic, the upper portions of the bulk head were renewed, new sheeted and sundry other small repairs.

*Hogsback.*

At the opening of navigation, in the beginning of May last, the chamber wall on the westerly side of the lower lock exhibited symptoms of failure, the wall has been bulged out for many years, and was now moving at every lockage. The Chief Engineer visited the station, and it was decided to secure it with iron straps and rods fastened to long timbers sunk in the earth behind the wall, this was done and the wall has not perceptibly moved since; it will most likely have soon to be taken down and rebuilt. The navigation was stopped at this point from the 5th to the 17th of May.

*Ottawa.*

Two pairs of lock-gates were renewed at this station, lock-master's quarters repaired and many smaller repairs to iron works and machinery, &c.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

JAMES D. SLATER.

Superintendent, R. C.

F. BRAUN, Esquire,

Secretary Department Public Works, Ottawa.

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**APPENDIX No. 10.**


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**ST. PETER'S CANAL, NOVA SCOTIA.**


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*Description of the work.—Alex. McNab, Engineer.*

(No. 5,191.)

HALIFAX, N. S., 27th October, 1868.

SIR,—Agreeably to the instructions conveyed in a letter addressed to me on the 28th ultimo, by the Secretary of the Department of Public Works, I have the honor to submit the following report embodying a detailed history of the works on the St. Peter's Canal, Cape Breton, from their inception to the 30th June, 1867:

From the most reliable information that can be obtained, I learn that in former years much importance was attached to the construction of this Canal by parties whose position and influence in the community was an index of their desire to promote the general advancement of the Island of Cape Breton through the aid of Public Works, and the first action which was taken in connection with the works appears to have been about the year 1826, when a report was submitted by Francis Hall, who estimated the cost of a Canal 2,400 feet long, 22 feet wide at the bottom with a depth of water of 12 feet, at \$68,600. Upon this report no definite action was taken and the project was left in abeyance until the year 1850, when it was brought into notice by Charles Fairbanks, who visited the locality and submitted some statements supporting the feasibility and importance of the undertaking, and considered that \$40,000 should defray all the expenses of building a Canal.

In the summer of 1853, P. J. S. Barry, Captain of Royal Engineers, proceeded to St. Peter's at the instance of the Government, and made a survey of the ground preparatory to a report being made, with a view to the commencement of the work at an early day. The necessary examinations and measurements having been completed, Captain Barry submitted his views upon the subject on the 31st August, 1853, and estimated the required outlay at \$71,000.

This amount provided for a width of 22 feet at the bottom and 13 feet depth of water.

After the lapse of more than a year, operations were commenced on the 7th September, 1854, under the direction of three Commissioners, who were to receive five per cent. on the amount expended, and the work was carried on by day's labor until the end of the following month when it was deemed expedient to suspend it for that season.

During this time 12,266 cubic yards of earth were removed, and the expenditure which was incurred, amounted to \$6,033.83.

The work was renewed the following year (the exact period does not appear in the official reports) and the earth excavation was placed under contract to John McLeod at one shilling and a penny, or about 22 cents per cubic yard; C. W. Folsom having previously been appointed Engineer in charge. Up to 31st December, 1855, 39,600 cubic yards were removed at a cost of \$10,841.60.

In January, 1856, operations were commenced under the same management, but were immediately suspended until the following May on account of the severity of the weather; they were then again undertaken and were continued until the end of September when the work ceased.

During the season 20,014 cubic yards of earth were excavated at a cost of \$6,735.33. The total quantity which had been removed from the commencement of the work to the latter date, amounted to 71,880 cubic yards at an aggregate expenditure of \$23,610.76, including commissions and all additional expenses incidental to the work.

At a meeting of the Executive Council held at Government House on the 14th day of August, 1856, the following minute was passed:—

“The attention of the Board having been called to the St. Peter's Canal and to executive steps necessary to be taken in relation thereto:

“Ordered, that the Attorney General do confer with Mr. Talcott, the Civil Engineer who lately examined the Inland Navigation Company Canal, and invite him to come to Cape Breton in September next, and report on the works first above mentioned.”

Upon the authority given in the above resolution, a letter detailing the information which the government desired to obtain in connection with the Canal, was addressed to Mr. W. H. Talcott, by the Attorney General on the 30th August, 1856, and the concluding paragraph stated that "the Government who have given you their full confidence, will look anxiously for your report on a work which has excited large expectations, and is universally regarded as of great importance."

On the receipt of his instructions, Mr. Talcott proceeded immediately to St. Peter's, and made such measurements and observations as enabled him to submit his report upon the feasibility of the work, and the probable expense which would be entailed in its final completion. The dimensions assumed by him in framing his estimates provided for a width of 22 feet at the bottom of the Canal, and 13 feet depth of water, and the amount specified by him as being necessary for the work was \$136,000.

Mr. Talcott's opinion was requested as to whether a Canal was the best method of opening a communication across the isthmus of St. Peter's, and his reply stated that the only other system that could be adopted was that of a marine railway or an inclined plane, and that while such a method would be *applicable* to the case in point, and *might* be successfully used, its great objection was the continual expense that would be incurred in operating it, as steam power would have to be employed, which, with the maintenance and renewal of the machinery, would far exceed the interest upon any saving of outlay in the construction of such a work as compared with a Canal; the latter, therefore, was recommended as the most desirable method.

No direct action was taken upon this report, and in the month of June, 1858, Mr. James Laurie, then Chief Railway Engineer of the Province, was instructed by a succeeding Government, to examine the work with a view to determine the probable cost of its completion. A report was submitted in the following month and the estimated expense based upon the dimensions assumed by Mr. Talcott, was \$208,560.

The cost of marine railway was also given and was stated at \$25,280, but instead of steam being the motive power, Mr. Laurie suggested that either horses, or oxen, should be employed to convey the boats across the portage; this method would have restricted the transportation to small boats ranging from 2 to 5 tons only, and would, therefore, have been practically useless for the purposes for which the work was originally designed, viz.:—that of giving a direct communication between the Atlantic and Bras d'Or lake, at the isthmus of St. Peter's, to the vessels engaged in the coal and coasting trade of the Province, many of which were of large tonnage.

The work seemed to have remained in suspense for some time, as a reference to the journals of the House of Assembly shows that a petition was submitted on the 3rd of March, 1863, praying for the completion of the Canal, and on the 21st March of the following year another petition, of a similar tenor, was presented.

In July, 1864, the work was again resumed and was placed in the hands of Commissioners, with Mr. H. F. Perley, as Engineer in charge, who carried on operations by day's labor until the following December.

The material which had been removed during this period consisted of 29,612 cubic yards of earth and 1,277 cubic yards of rock, and the total expenditure in connection therewith, amounted to \$11,941.30½.

In February, 1865, Mr. Perley reported for the information of the Government upon the state of the work, and estimated the cost of its final completion at \$125,943.62, this amount having been based upon the dimensions assumed by Messrs. Talcott and Laurie. The great discrepancy which exists in these estimates, six in number, is accounted for by the very wide difference in the prices allowed in estimating the value of the work; Mr. Hall, estimated the cost of excavation at 25 cents per cubic yard; Mr. Fairbanks at 8 cents; Captain Barry at 15 cents; Mr. Talcott allowed 35 cents for earth and \$1 for rock; Mr. Laurie 40 cents for earth, and for rock \$1 to \$1½, according to its position, whether above or under the level of the water, and Mr. Perley, an average of 37 cents for earth, and 95 cents for rock. Acting upon the latter report and estimate, a Bill was passed by the House of Assembly, on the 2nd of May, 1865, authorizing the expenditure of \$125,000, and placing the construction of the work under the direction and control of the Board of Works, with power to carry it on either by day's labor or by contract. In the following month a specified amount of work was laid out by Mr. Perley, embracing about 90,000

cubic yards of excavation, and a contract was awarded, with the approval of the Government, to Messrs. Brooks, Foster & Co., who completed their engagements in December, 1866.

The total quantity removed under their contract was 93,223 yards of earth and 1,677 yards of rock, embracing an expenditure of \$31,458.05.

In July, 1865, Mr. Perley resigned his position, and was succeeded by the undersigned as Provincial Engineer.

To expedite the work to the fullest possible extent, tenders for the various services outside of Brooks, Foster & Co.'s contract, required for the final completion of the Canal, were called for in May, 1866, and that of Mr. Patrick Purcell being considered by the Government as the most desirable one submitted, it was accepted and operations commenced immediately.

The plan thus adopted placed the work in a favorable position, for by it two contracts were in existence, each so arranged as to offer not the slightest interference with the other, thus materially hastening the progress of the work.

It soon became apparent that an addition of 4 feet was required to the original width to afford the accommodation necessary for that class of vessels which would most need the use of the Canal.

This extra width was ordered by the Government and forms part of the contract now in existence, and awarded in May, 1866.

This contract is based upon a schedule of prices which bind the Contractor to perform, irrespective of quantity, the whole of the work required for the full and final completion of the Canal, and the amount which was expended in connection with the same to the 30th June, 1867, including the 10 per cent. retained from the monthly certificates, was \$67,060.08.

In addition to this, the sum of \$4,020.51 was paid between April, 1865, and the latter date for engineering, land damages and other incidental expenses connected with the work.

From the foregoing remarks it will be seen that an aggregate expenditure of \$138,090.70½ was incurred from the commencement of the work, in September, 1854, to June 30th, 1867, the date of the Union of the Provinces.

The length of the Canal is within a fraction of half a mile, and the deepest cutting from the original surface of the ground to the bottom level, 74 feet, or an average of from 50 to 55 feet throughout the whole distance.

The material in excavation consists of an exceedingly hard and tenacious clay, and eyenite rock through the seams of which a large body of water flows into the cutting and necessitates the continuous use of two steam pumps.

The water in the Bras d'Or lake may be assumed as a constant level, as it is affected only by a high wind blowing for several hours in succession from the east and west; it is 3 feet above neap tides, and four feet below springs in St. Peter's Bay, making a rise in the tide, at this place, of 7 feet.

A lock having a total length of 275 feet, including a chamber 120 feet long, with a clear width of 26 feet between the piers, has been built of masonry; and in the course of a month the gates, four in number, with cast iron valves, 5½ feet by 2½ feet, secured to a wrought iron shaft, 2 inches in diameter, and worked from the foot bridge, framed to the top of the gate, will be completed.

At the bottom, and near the toe of these gates, will be placed a cast iron roller 4 inches wide and 15 inches diameter, the axle of which will be of wrought iron revolving in a cast iron box fitted with brass bearings.

This box will be connected with an adjusting plate of the same metal and so arranged as to be capable of being raised or depressed, at pleasure, by means of a wrought iron regulating rod worked from the foot bridge, and the roller will traverse a cast iron segment secured to the flooring of the lock.

The gates will be composed of a series of layers or leaves, of black spruce, each 8 inches thick, 15 inches wide at the ends and eighteen inches at the centre; and vertical posts or fenders of hard wood will extend the whole height of, and will be securely bolted to the ends of the gate. The gates will be worked by means of a crab placed upon, and firmly secured to the coping of the lock and connected by a chain,  $\frac{9}{16}$  of an inch in diameter, passing down through a well hole in the masonry to the toe of the gate.

It has been necessary to build a dry stone retaining wall in several places throughout

the line of the Canal—to uphold the great height of slope where the clay excavation extends to the bottom of the Canal.

The main post road from Halifax to Sydney, C.B., crosses the Canal a short distance from, and 25 feet above the level of Bras d'Or lake; a swing-bridge has, in consequence, been built, the design of which is that known as the "Howe" truss.

The bridge rests upon a pier and abutments of masonry, and has a total length of 87 feet, and a width of 14 feet.

With the addition of about 20,000 cubic yards of dredging, at the Atlantic entrance, in the foregoing are comprised the whole of the works required in the construction of the St. Peter's Canal.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

ALEX. McNAB,  
Chief Engineer.

Honorable Wm. McDougall, C.B.,

Minister of Public Works, &c., &c., Ottawa.

*Description of the works executed during the fiscal year ending 30th June, 1868, by Alex. McNab, Engineer.*

(No. 5,192.)

HALIFAX, N. S., 24th October, 1868.

SIR,—In compliance with the directions contained in the letter of the Secretary of the Department of Public Works, dated 28th ultimo, I have the honor to submit herewith a report on the progress of the works on the St. Peter's Canal, Cape Breton, for the fiscal year ended 30th June, 1868.

Operations for the above period were confined principally to the removal of rock and the building of lock masonry, the former amounting to 26,562 cubic yards, and the latter to 2,032 cubic yards, embracing an outlay of \$59,147, which, with that in connection with a few additional services, such as pumping, earth excavation and retaining wall masonry, specified in detail in the monthly certificates, comprise an aggregate expenditure of \$74,552.52.

From this sum ten per cent. is retained as security for the due fulfilment of the contract.

Two steam pumps were employed continuously day and night in freeing the pits from the accumulation of water from the numerous springs which exist throughout the line of the Canal, and the efficient manner in which this service was performed, contributed largely to the advancement of the work.

From borings which were made in the lake at the Bras d'Or end of the Canal, ledges of rock were found at several points above the proposed level of the excavation for one hundred and fifty feet from the shore, and it, therefore, became necessary to construct an embankment of sufficient strength to resist a pressure of about eighteen feet head of water, and to drain the interior space for the removal of the rock. This embankment was completed early in the summer, and the excavation of earth and rock is progressing rapidly.

The hollow quoins and coping of the lock will consist of free stone brought from Boularderie Island, situated at the extreme eastern end of Bras d'Or lake, a distance of forty miles from the Canal, and the balance of the masonry will be composed of limestone and syenite quarried in blocks of a large superficial area.

A force averaging about one hundred and fifty laborers and mechanics, and twenty-five teams, was steadily employed upon the work throughout the year, and should no unforeseen contingency arise, it is believed that by the end of December next, the work will be in condition to admit of the water being let into the Canal.

It is highly desirable that this should, if possible, be effected, as the dredging for the

channel at the St. Peter's bay, or Atlantic entrance, can then be undertaken during the winter months, and be entirely completed in sufficient time to admit of the passage of vessels through the Canal on the opening of navigation next year.

I have the honor to be, Sir,  
Your obedient servant,

(Signed,)

ALEX. McNAB,  
Chief Engineer.

Honorable Wm. McDougall, C. B.,  
Minister of Public Works, &c., &c., Ottawa.

*Report on the cost of completion, by Alex. McNab, Engineer.*

(No. 2,857.)

HALIFAX, N. S., 16th March, 1868.

SIR,—In compliance with the request of Mr. Page, Chief Engineer of the Department of Public Works, I visited, in company with him, the works under progress on the St. Peter's Canal, C.B., and while there I made a careful survey of the ground for the purpose of ascertaining the amount required for the final completion of the work, exclusive of the expenditure incurred to the 30th November, 1867, the date of the last certificate issued.

Having entered fully into the question of cost, I now beg to submit the accompanying detailed estimates, which represent the amount of \$121,775.76, still to be provided for this work.

On the 14th January last I prepared, at the request of the Hon. A. G. Archibald, Secretary of State for the Provinces, a report showing the expenditure which had been incurred from the commencement of the work, in September, 1854, to 30th November, 1867, and I mentioned that to complete the Canal a further sum of at least \$75,000 would be required.

As the time afforded me for the preparation of this report was limited (Mr. Archibald being about to leave for Ottawa), I was obliged to make a hurried estimate, and to base the same upon such data as I then had in my possession, as the amounts of the various descriptions of work embraced in the construction of the Canal, could not properly be ascertained without a minute inspection of the ground, owing to the peculiar formation of the soil, and the difficulty that existed in obtaining reliable information of the proportions of earth and rock.

The state in which the work now stands, however, shows clearly the nature of the material yet to be excavated, and I am, therefore, enabled to arrive at an accurate conclusion of this, the most costly portion of the Canal. As will be seen by the statement hereto appended, the balance of excavation consists of rock, with the exception of a small quantity of earth, and it is the difference in the value of these two classes of work which assists in causing the increase and accounts for the discrepancy in the two estimates.

I also find from the soundings which have recently been taken that the amount of dredging at the entrance to the Canal will be largely in excess of that shown in the estimates prepared for the Government in 1865, by Mr. H. Perley, he having placed the quantity at 3,500 cubic yards, which I accepted as correct in my late report, whereas 20,000 cubic yards will require removal to afford a safe and easy approach to the Canal; this latter amount has been provided for in the estimate herewith submitted.

Since the contract now in force was undertaken, it was deemed advisable to increase the width of the Canal 4 feet, to provide for a larger class of vessels than that originally contemplated, as the former dimensions would have accommodated only the smallest class of coasters, and would have rendered the heavy expenditure which is being made on this work of no possible use to the majority of vessels engaged in the fishing and coal trade of this Province.

This increase of width was authorized by the Government, and the Contractor is bound by his agreement to perform such additional work as may be required of him, the whole of which is embraced in the accompanying estimate.

To show the diversity of opinion which existed as to the value of the work, and the

probable difficulties which would be encountered in the performance of the same, I might here state that the prices upon which the present contract is based, effect a saving of \$72,719.07, or upwards of 33 per cent., over those specified in the tender submitted by Messrs. Brooks, Foster & Co.

I have the honor to be, Sir,  
Your obedient servant,

(Signed,)

ALEX. McNAB,

*Chief Engineer, N. S. Railways.*

F. BRAUN, Esq.,

Secretary Department of Public Works, Ottawa.

ST. PETER'S CANAL, C.B.

STATEMENT of total work performed to 30th November, 1867, (date of last certificate issued,) by Patrick Purcell, contractor—under his contract with the Government of Nova Scotia, for the completion of the Canal, dated June, 1866.

48,200 cubic yards earth excavation.....	a \$ 60cts.	\$28,968.00
30,150 " rock ".....	a 1.50	45,225.00
395 " bridge masonry in lime.....	a 7.00	2,765.00
22½ " coping and arch in cement.....	a 10.00	225.00
1,523 " dry masonry in retaining wall.....	a 5.00	7,615.00
111,288 feet B.M. timber in foundation of lock, including puddling and punned backing.....	a 25.00	2,782.20
2,000 lbs. wrought spike do do.....	a 0.12½	250.00
1,167 cubic yards masonry in lock walls.....	a 9.50	11,086.50
520 " stone delivered for do.....	a 4.00	2,080.00
Allowance for pumping, &c.....		4,500.00
16,540 feet B.M. timber in bridge.....	a 15.00	248.10
1,759 " white oak do.....	a 26.50	46.61
10,087 lbs. cast iron in turn table of bridge.....	a 5	504.35
1,247 " wrought do do do.....	a 12½	155.87
2,333 " " iron in suspension rods and bolts.....	a 12½	291.62
1,024 " " rollers for lock gates.....	a 12½	128.00
2,928 " cast iron do do.....	a 5	146.40
		\$107,017.65
10 per cent. retained.....		10,701.76
Actual amount paid on contract.....		\$96,315.89

(Signed,)

ALEX. McNAB.

HALIFAX, N. S.,  
16th March, 1868.

ST. PETER'S CANAL.—*Continued.*

STATEMENT of total work to be performed and expenditure required for the completion of the Canal, under Patrick Purcell's contract, dated 20th June, 1866, including the increase in width of 4 feet, as authorized by the Government of Nova Scotia.

53,280 cubic yards earth excavation. ....	a \$ 60cts.	\$31,968.00
62,050 " rock " .....	a 1.50	93,075.00
395 " bridge masonry in lime. ....	a 7.00	2,765.00
22½ " coping and arch in cement. ....	a 10.00	225.00
3,713 " dry masonry in retaining wall. ....	a 5.00	18,565.00
111,288 feet B.M. timber in foundation of lock, including puddling and punned backing. ....	a 25.00	2,782.20
2,000 lbs. wrought spike do do. ....	a 0.12½	250.00
3,367 cubic yards masonry in lock walls. ....	a 9.50	31,986.50
Allowance for pumping, &c. ....		10,000.00
16,540 feet B.M. timber in bridge. ....	a 15.00	248.10
1,759 " white oak " .....	a 26.50	46.61
10,087 lbs. cast iron in turn table of bridge. ....	a 5	504.35
1,217 " wrought do do do .....	a 12½	155.87
2,333 " " iron in suspension rods and bolts. ....	a 12½	291.62
1,024 " " rollers for lock gates. ....	a 12½	128.00
2,928 " cast do do .....	a 5	146.40
20,000 cubic yards dredging at entrance to Canal. ....	a 60	12,000.00
4 pairs of lock gates. ....	a 1,408.00	5,632.00
Lockmaster's house. ....		1,027.00
295 lineal rods fencing. ....	a 1.00	295.00
Contingencies, including superintendence, &c. ....		6,000.00
		<b>\$218,091.65</b>
Amount paid to 30th November, 1867. ....		96,315.89
Balance required for completion of work. ....		<b>\$121,775.76</b>

(Signed,)

ALEX. McNAB.

HALIFAX, N. S.,  
16th March, 1868.

*General Report on the work, by John Page, Chief Engineer.*

(No. 3,195.)

OTTAWA, 24th April, 1868.

*The Secretary of Public Works.*

SIR,—In compliance with instructions conveyed in your letter No. 1,605, I recently visited St. Peter's, on the island of Cape Breton, where a Canal is in progress of construction, intended to connect the waters of Bras d'Or lake with those of St. Peter's bay.

This lake is a sheet of water fully 400 square miles area, and on its easterly side it is connected with the Atlantic by two inlets separated by Boularderie island, which is narrow and upwards of 20 miles long.

The northern channel (called the Great Bras d'Or) is narrow but deep. The southern (called the Little Bras d'Or) is said to be obstructed at the entrance by a rocky bar which prevents other than small vessels entering.

The influence of tides is felt up to Barra Strait, a distance of 30 miles from the eastern entrance. This strait is about a mile long and only half a mile wide, and westward of it is Great Bras d'Or lake, in which there is said to be no perceptible tide.



These waters nearly divide the island of Cape Breton into two parts—there being only a narrow isthmus, barely half a mile in width, separating Bras d'Or lake from St. Peter's Bay.

The lake is said to be subject to but little variation, its level being generally a mean between high and low tide in St. Peter's bay, where the extreme rise and fall is represented to be nearly 9 feet.

The construction of a Canal at this place was commenced in 1854, and continued up to the close of 1856; when the works were suspended—the sum of \$25,044.33 having been spent. Operations were not resumed until 1864, when an expenditure of \$11,941.30½ was incurred under Commissioners. In 1865, a further sum of \$31,458.05 was expended under contract.

There appears also to have been paid \$3,418.67½ for land damages: making the total outlay to that date, \$71,862.36.

In May, 1866, tenders were invited for all the works necessary for the opening and completion of a line of navigation through the isthmus, agreeably to a specification then exhibited. This described the Canal to be 22 feet in width at bottom, 13 feet in depth at lowest water; side slopes in clay excavation to be 1½ to 1, and in rock cutting one quarter to one. The sides of the cutting, where no rock was found, to be protected by retaining walls, carried to over high water line.

A lift lock 22 feet wide and 122 feet long, of masonry, to be built, also tide and guard gates, swing-bridge, &c.

On the 28th day of June, a contract was entered into for the execution of the works above referred to, at a fixed schedule of rates. It appears, however, to have been subsequently decided to make both the Canal and lock 26 feet wide—or 4 feet wider than was provided for in the contract.

Under this arrangement the works are now in progress, and the Contractor has been paid previous to November, 1867, the sum of \$88,949.39, which makes the total expenditure up to that time, \$160,811.75. This seems to have exhausted the appropriations made for the work by the Government of Nova Scotia.

By an order of the Privy Council of Canada, dated the 11th January, 1868, authority was granted to pay the Contractor an estimate amounting to \$7,366.50, for work done previous to the 30th November, 1867.

In the latter end of February last, an examination was made of the locality and of the works, with a view of ascertaining, as nearly as circumstances would permit, the probable amount required for their completion on the plan contemplated in the contract, and on that in which they had so far been proceeded with.

The isthmus is about 2,400 feet wide, and is composed of a hard description of clay, intermixed with gravel, stones, and boulders, generally overlying a hard class of rock, apparently of syenitic character. At a point distant 700 feet along the line of the Canal from Bras d'Or lake, the cutting is about 74 feet in depth; at 1,700 feet, it is 55 feet, and at 2,000 it is 30 feet; thence gradually diminishing to the shore line of St. Peter's Bay.

Of this excavation a considerable portion is in rock, there being at 100 feet from the margin of Bras d'Or lake 16 feet cutting, and at 350 feet 16 feet—but at 400 feet, the rock disappears; at 600 feet it again rises suddenly to a height of 26 feet over bottom line; at 1,050 feet there is 22 feet rock cutting, at 2,000 feet, 17 feet—and at this point the rock cutting terminates.

It is however proper to remark that at some places the line of the highest rock runs obliquely to the line of Canal, so that there is frequently considerably more cutting on one side of the prism than on the other.

When I visited the works the great bulk of the earth excavation was done, but about one half the rock had still to be removed, and channels to be dredged out at both entrances.

A tide lock, 26 feet wide, and 122 feet within the inner-gates, has been carried up to fully 7 feet over the foundation. It is intended to have four pairs of gates, two of them heading towards Bras d'Or lake, and two towards St. Peter's Bay. They are so arranged that when the water in the latter is lower, than in the lake—the distance between the gates then brought into use will be about 180 feet—but when the water of St. Peter's

bay is higher than the level of Bras d'Or lake, the gates then in use will only be 122 feet apart.

The bottom of the lock is of timber, resting on a clay foundation. The walls are of coursed masonry, and have been, so far, built of rock-faced work.

A considerable extent of slope walling of a good heavy class of dry masonry, has been built at the end of the lock next Bras d'Or lake.

The public road crosses the line of Canal, about 200 feet from the lake, by means of a swing-bridge, which is supported on masonry abutments. This structure is of a good class of workmanship, and, as a whole, is of a substantial character.

The lock gates are described in the specification, and embraced in the contract at a fixed sum per pair. They are to be solid, fitted up, and worked with chains and crabs, in a similar manner to those now in use on the St. Lawrence Canals.

Whilst on the spot, soundings were taken at the different entrances for the purpose of ascertaining the amount of work required to secure the necessary depth, and an estimate was subsequently made of the probable cost of completing the whole of the works embraced in the contract.

This amounts in the aggregate to about..... \$218,100 00

Of this there was paid by the Government of Nova Scotia

for work done previous to November, 1867..... \$88,949 3½

By order of the Privy Council of Canada, there was paid

for work done up to the 30 November, 1867..... 7,365 50

96,315 89

Leaving the sum of..... \$121,784 11  
still to be provided for.

The scale of navigation adopted for this Canal has doubtless been fixed after due consideration of the requirements of traffic, and the works are now well advanced towards completion on the plan contemplated in the contract. The great depth of the cutting, the nature of the material, and the distance to which it has to be hauled, renders the work somewhat expensive. The contractor has also experienced a good deal of difficulty in obtaining at all season a suitable class of workmen—still operations appear to have been carried on at a moderately fair rate since the contract was entered into.

The St. Peter's Canal is, I believe, the first work of this kind which has been undertaken in Nova Scotia, and it could scarcely be expected that its construction would be carried out with a like knowledge of details as in a country where extensive works of this nature had been executed.

During my examination several points connected with the works were observed where the proposed objects might doubtless have been accomplished in a more economical manner, and others where an improvement could have been made without involving additional expenditure.

Whilst on the spot, I gave such directions to the officer in charge, and to the contractor, in reference to the carrying out of several important portions of the works then remaining to be done, as would, in my opinion, be beneficial—and at the same time avoid interfering with the conditions of the contracts.

I have the honor to be, Sir,

Your obedient servant,

JOHN PAGE,

C. E. P. Works.

## APPENDIX No. 11.

### ST. LAWRENCE AND LAKE ST. PETER.

*Report on the condition of the channel between Quebec and Montreal, by John Page,  
Chief Engineer.*

(No. 46,624.)

DEPARTMENT OF PUBLIC WORKS,  
Quebec, September 1st, 1863.

SIR,—I have the honor to enclose herewith a copy of a minute of the Hon. the Executive Council, dated the 27th ult., in reference to the works on lake St. Peter.

The Hon. the Commissioner requests that you will undertake the duty of obtaining the information thus called for, and report thereon as early as circumstances will admit.

The Montreal Harbor Trust has been this day written to on the subject, a copy of which letter together with all the papers of record in this office on the subject are herewith enclosed.

I have, &c.,  
(Signed,)

T. TRUDEAU,  
*Secretary.*

John Page, Esq.,  
Chief Engineer, Quebec.

COPY of a Report of a Committee of the Honorable the Executive Council approved by His Excellency the Governor General in Council on the 27th August, 1863.

On a memorandum dated 27th August, 1863, from the Honorable the Commissioner of Public Works, stating that, on the 21st July, 1862, an Order in Council was passed placing the sum of \$30,000 at the disposal of that Department for the further improvement of lake St. Peter—to be paid to the Montreal Harbor Commissioners on certain conditions, and that on the 1st May, 1863, a further order was passed authorizing a full examination of the river St. Lawrence and lake St. Peter, as well as an investigation into all matters connected with these works, and the improvements in the harbor of Montreal within the last 12 years.

That in view of the comparatively small expenditure at present sanctioned, and the probable cost of an examination and enquiry of the extent referred to, he requests authority to limit his instructions on this subject to the Engineer, to the following points, viz. :

“ To examine in detail into the manner in which the dredging operations have been, and are now carried on ; to ascertain how the accounts are kept, and the check there is upon them ; where the dredges have been generally employed, and if at places other than the river St. Lawrence or lake St. Peter ; to ascertain how their maintenance and working expenses have been apportioned,” and, if necessary, to make a cursory examination of the channel between Quebec and Montreal.

He also requests authority to direct the Harbor Commissioners to give to the said Engineer the fullest information on all matters connected with these works, and free access to all the books and accounts kept by the Trust.

The Committee advise that the authority requested by the Commissioner be granted

Certified,  
(Signed,)

WM. H. LEE,  
*C. E. C.*

The Honorable the Commissioner of Public Works,  
&c., &c., &c.,

(No. 85,656)

OTTAWA, 16th May, 1867.

*The Secretary of Public Works :*

SIR,—I have the honor to acknowledge the receipt of your letter (No. 62,792), requesting that my report on matters connected with Lake St. Peter should be completed as soon as the press of other business would permit.

In reply it may be stated that from the length of time ( $3\frac{1}{2}$  years) since this subject to any extent engaged my attention, I do not now feel warranted in attempting to report even up to the date at which my investigation closed (December 1863) moreover even if this could be done, it could scarcely at so remote a period be of much practical utility.

If therefore the Department wishes me to report fully on the subject, it is indispensable that time should be allowed for a re-examination, and otherwise obtaining the necessary information.

It would also be necessary to inform me whether the matter is to be proceeded with under the letter of instructions sent me in 1863, or if any other class of information is now required than called for by that letter.

I have the honor to be, Sir,  
Your very obedient servant,

(Signed) JOHN PAGE,  
*Chief Engineer Public Works.*

(No. 62,792.)

DEPARTMENT OF PUBLIC WORKS.

Ottawa, June 5th, 1867.

SIR,—With reference to your letter of the 16th ult., in relation to the report which you had been requested to make on matters connected with Lake St. Peter, and in which you have pointed out the necessity of a re-examination of the case.

The Commissioner requests that you will be pleased to visit the works in question, and that while being guided by the instructions given you in 1863, you will at the same time take into consideration all the agreements entered into from time to time between the Government and the Montreal Harbor Commissioners (memorandums of which are herewith enclosed) and to ascertain whether the latter have fulfilled their engagements according to such agreements.

The Harbor Commissioners will be requested to give you access to all books and documents as will help to facilitate your enquiries.

I have the honor to be, Sir,  
Your obedient servant,

(Signed) F. BRAUN,  
*Secretary*

John Page Esq.,  
Chief Engineer, Dept. Public Works, Ottawa.

(No. 5,938.)

OTTAWA, 25th January, 1868.

*The Secretary of Public Works :*

SIR,—Agreeably to instructions conveyed in your letter No. 46,624, and an order of the Honorable the Executive Council (copies prefixed), I proceeded to Montreal in September, 1863, for the purpose of making the examinations and enquiries called for by these documents.

The Harbor Commissioners having been previously advised of the object of my visit, readily entered into any explanations desired, and seemed anxious to court investigation into the business of the Trust.

But verbal statements and explanations being considered unsatisfactory, it was decided to address a series of questions in writing to the Trust and to several of its principal officers.

This correspondence closed in January, 1864, and a memorandum bearing on the leading points, together with such deductions and remarks as the statement seemed to

warrant, was prepared in March following, (a copy of which is hereunto attached). Circumstances having prevented these papers being submitted at the time, the conclusions arrived at were subsequently given in several "ad interim" reports, addressed to the Department, relative to payments under the arrangement made with the Harbor Trust for the completion of the works.

In order to be able to comply with the instructions contained in your letter No. 62,792, it was considered necessary to make a close hydrographic survey of several portions of the river, so that both the width, depth, and alignment of the channel might be correctly ascertained.

A party was therefore detailed for this service in August last, (1868,) and from the result of their surveys, the Admiralty Charts, and plans made of other portions of the river, together with a general examination made by myself, an attempt will be made to place the subject fairly before the Department.

Previous, however, to entering upon a description of the channel as it now exists, it is deemed proper to give a brief sketch of the action taken in respect to these improvements from their commencement to the present time.

The great expense for lighterage of sea-going vessels passing between Quebec and Montreal, drew, at an early period, the attention of merchants, and other interested parties, to the desirability of rendering the St. Lawrence navigable between these cities, for vessels of greater tonnage capacity.

This project was frequently brought under the notice of the Legislature, but no direct action was taken in regard to it, until after the Union of the Provinces, when an appropriation of £65,000 was (by the Act 4, 5, Vic., Cap. 28) granted "for the improvement of the navigation of Lake St. Peter;" the expenditure of which sum was intrusted to the then recently incorporated Board of Works.

An examination of the river having been made, the principal obstruction to the obtaining of a channel of 14 feet draught of water, (the depth then contemplated,) at its lowest stages, was found to exist in lake St. Peter; the head of which is about 50 miles below Montreal. Immediately above this point a group of low flat islands divide the river, into numerous channels, which, after being joined by several tributaries, widen out into a lake about 20 miles long, and fully 6 miles wide. Throughout a large portion of the area of this lake, the depth was not more than 11 feet at low water, but near the upper and lower ends, two pools were found, the first fully one mile and a quarter in length, with a width of about 800 feet; and the second nearly two and a half miles long, and a quarter of a mile wide; in both of which the water was over 20 feet in depth. These pools formed part of the old ship channel, but were separated by a bank of soft argillaceous deposit, fully  $8\frac{1}{2}$  miles long, and known as the "Flats of lake St. Peter."

The line adopted by the Board of Works did not, however, bring into use the upper pool, but starting from a point common to both channels, and opposite the end of a shoal formed by the continuation of Monk Island, passed through the St. Francis bank in a straight direction towards the head of the lower pool.

This being the most direct route, was considered the most advantageous, especially as it was believed that the current would be more likely to keep the cut open, than if the older and more circuitous channel were followed.

The necessary outfit having been obtained, operations were commenced in the year 1844, and continued during the working seasons until they were suspended by order of the Provincial Secretary, on the 8th June, 1846. They were, however, resumed towards the close of that season, and carried on until the 16th September, 1847, when all the works on the new line were finally stopped.

The expenditure under the Board of Works was as follows:—

Expenses connected with survey .....	£1,843	6s.	8d.
Cost of dredges, steamboat, and other plant. £37,937	6s.	5d.	
Proceeds of sale of steamboats.....	2,771	10	0
	<hr/>		
	35,165	16	5
<i>Carried over</i> .....	37,009	3	1

	<i>Brought over</i> .....	£37,009	3	1
Working expenses to close of 1846.....	£28,512	2s.	3d.	
Do during 1847.....	6,314	13	1	
	£34,826	15s.	4d.	
Proceeds of sale of coal.....	1,408	15	1	
		33,418	0	3
Subsequent payments made to close of 1855.....		1,480	4	6
		£71,907	7s.	10d.

Although the practicability of opening a deeper channel than previously existed through lake St. Peter, had thus been fully tested; still many conflicting opinions were entertained in regard to the most advantageous line for the continuance of the improvement. These led to enquiries by the Legislature, and to examination by various competent authorities; still the question remained in the opinion of many undecided. This state of uncertainty appears to have deterred the Government from taking further action in the matter; but the Montreal Board of Trade, and others interested, continued to exert themselves to have the undertaking resumed.

No positive action was, however, taken until 1850, when the Hon. John Young proposed a scheme by which the object could be accomplished through the Harbor Commissioners of Montreal.

This plan consisted principally in the Harbor Trust being authorized to borrow money to carry on the works; the interest on which, together with a sinking fund of two per cent. per annum, was to be raised by a tonnage duty not exceeding one shilling per ton register, on all vessels drawing 10 feet of water, and upwards, for each time they passed through the lake; and provided the funds obtained from this source were found insufficient for the purpose, the surplus revenues of the harbor of Montreal were to be applied to make up the deficiency.

This scheme having been approved of, an Act (13 and 14 Vic., Cap. 97) was passed transferring the control of the improvement to the Harbor Commissioners, and authorizing them to borrow £30,000 for the purpose of proceeding with the works "in such a manner, direction and place as the Commissioners should deem best."

On obtaining this authority, the Trust without delay, appointed a Board of Engineers, consisting of Messrs. McNeil, Childe and Gzowski, to examine fully into the whole matter, and report upon the best means of opening a 16 feet channel at low water, between Montreal and Quebec, as well as the cost of the same when efficiently and permanently secured.

In effecting the improvements under the new management it was, of course, desirable (if consistent with economy) to take advantage of the previous expenditure in lake St. Peter; but after a careful examination of the river, these gentlemen, in a comprehensive review of the whole subject, advised the entire abandonment of the straight channel which had been partially excavated.

The principal reason given for this recommendation, being that the expenditure necessary to deepen the old channel (where no work had yet been done) would be very much less than that required to complete the new one to a similar depth. Moreover, that with a view to the future wants of trade, it would be better to adopt the plan of assisting nature by joining the two deep water pools above mentioned, instead of continuing a project where every additional increase of dimensions would entail a greater future outlay than that necessary to effect a like extent of improvement upon the old route.

These views, embodied in an able report, convinced the Commissioners that their efforts should be directed to the deepening of the old channel; and accordingly, having provided an outfit, in addition to that conveyed to them by the Government, operations were commenced in lake St. Peter on the 12th June, 1851.

In the same year a dredge was taken from the harbor of Montreal for the purpose of cutting a channel through a shoal between Lavaltrie and Ile Plate, where the depth of water is nearly the same as on the Flats of lake St. Peter.

It appears that by means of a harrow and one dredge, the first season's operations resulted in the establishment of a channel through the lake of about 75 feet wide, and 2 feet greater depth than on the flats.

In the year 1852 the width of this channel was increased to 150 feet, and pronounced available for vessels drawing four feet more water than that found on the highest part of the flats. The shoal at Ile Plate was further deepened, and the channel there made 250 feet wide.

At Ile Delorier, a bar was removed to a depth of 16 feet at low water, and a width of 250 feet.

This year the trust was authorized by the Act 16 Vic., Cap. 24, to raise a further sum of £40,000 for the purpose of continuing the improvements.

At the close of the season of 1853, the channel through the lake was deepened to 16½ feet, and its width further increased.

In the latter end of August in that year, a vessel passed from Montreal downwards, drawing 4 feet more water than was on the flats.

The success which had thus far attended the exertions of the trust, induced them to cause an examination to be made for the purpose of determining the practicability of obtaining a channel 20 feet in depth at low water, between Montreal and Quebec.

Instructions to that effect were accordingly issued to T. C. Keefer, Esq., Engineer to the Trust, who, in October, 1853, reported that no insuperable obstructions existed to deepening the channel so as to afford the draught above mentioned; but that considerable dredging would have to be done at several places in the river other than lake St. Peter.

The Harbor Commissioners, Board of Trade, and citizens of Montreal having decided on the adoption of a deep water navigation throughout, arrangements were at once made for carrying out the scheme. For this purpose, an ice survey of lake St. Peter was made in the winter and spring of 1853-4.

This, together with information previously obtained in regard to the different channels, enabled a full report to be subsequently prepared by Mr. Keefer on the whole subject, in which he clearly points out that at several places the pilots did not follow the line of the deepest water, and that the test had shown that there were numerous obstacles to be removed in order to obtain a greater depth of water. It was also stated that the channel south of the Verchères islands was capable of being improved at a much less cost than that at the north side, and that in other respects it presented superior advantages to the navigation. The south channel below Three Rivers was likewise recommended in preference to the north one.

As a whole this report confirmed the opinion previously given as to the practicability of accomplishing the object by a comparatively moderate expenditure. The benefits anticipated to trade from this enlargement having been clearly and fully placed before the Government, authority was granted by the Act 18 Vic., Cap. 143 to borrow a further sum of £100,000 for the purpose of carrying it out. This enabled the Commissioners to proceed energetically with the river works; and at the same time warranted their providing accommodation for a larger class of vessels in the harbor of Montreal.

These two improvements, although separate undertakings, are mutually dependent on each other for success, it being equally as necessary to provide a commodious deep water harbor, as to increase the capacity of the channel.

It soon became apparent, however, that instead of being able to form a sinking fund from the lake tonnage dues, as required by the Act, that the amount collected was inadequate to meet the interest on the money borrowed, and the deficiency, which was considerable, had to be made up from the harbor revenue.

This was found to interfere so much with the harbor works, that the trust were induced to press upon the Government, the necessity of the lake and river improvements being recognized as a Provincial undertaking, urging as a reason for this, that the benefits which they conferred were not confined to Montreal, but extended to the whole of the Province lying to the westward of that city.

These views having been repeatedly brought before the Government, after a full discussion of the question, it was decided, in 1860, that the river improvements should henceforth be considered as public works.

An arrangement to that effect in writing appears (from the records of this Department) to have been prepared, but never executed, and from the subsequent action of the Government and correspondence of the harbor trust, it is believed that this memorandum gives

a correct view of the basis of the understanding arrived at. It is therefore deemed proper to quote it in full:

" 1st. That the tonnage dues on vessels passing lake St. Peter, are to be abolished " from and after the 19th May, 1860; and that the Secretary of the Harbor Commissioners " do intimate to the Collector of Customs at Montreal, that while he continues to collect " such tolls until further instructions, and pending an order in Council which will shortly " be issued, he will inform parties that payment made from, and subsequent to, the above " named date, will be refunded to them."

" 2nd. The interest on the amount of debentures, £170,000, issued for the lake St. " Peter debt, will be provided for by the Government on timely notice being given to the " Receiver General by the Secretary of the Harbor Commissioners."

" 3rd. The works of deepening the ship channel now appertain to the Department " of Public Works, and are to be executed under a contract with that Department by the " Harbor Commissioners, who shall conduct the operations and oblige themselves to com- " plete the channel to a depth of 20 feet throughout, to the satisfaction of the Department " of Public Works."

" 4th. The Provincial Government will furnish the trust with funds to the extent of " £40,000, to complete the works, about £17,000 of this amount will be furnished this " year, on timely notice being given by the Secretary of the Harbor Commissioners to the " Receiver General, when such may be required, accompanied by a proper certificate of " the rate of the progress, showing that that amount has actually been expended on the " works."

" 5th. All the Harbor Commissioners plant heretofore conveyed to the Government, " will be re-conveyed and handed back to the harbor trust, by deed to be arranged by the " Honorable the Commissioner of Public Works, on behalf of the Government."

" 6th. The sum of £15,000 paid to the harbor trust last year by the Government, on " sale to them of the above mentioned plant, does not form any part whatever of the sum " of £40,000, which the Government, as above stated, agree to pay to the Commissioners, " for completing the lake and river works."

" 7th. The Government will redeem the lake St. Peter debentures as they fall due."

At this period the improvements had been so far advanced, that in October 1859, a ves- sel is stated to have passed from Montreal downwards, drawing 18 feet 8 inches of water, at a time when there was only a depth of 11 feet 9 inches on the flats of Lake St. Peter.

The same year a survey of the river between Montreal and Quebec was completed by Commander Orlebar, Hydrographer to the Admiralty, who reported on the 29th February, 1860, to His Excellency the Governor General, the existence of a channel of 18 feet in depth at low water.

But some misunderstanding appears to have subsequently arisen in reference to mat- ters connected with the undertaking, for in April, 1862, the Department of Public Works addressed letters to the Harbor Commissioners to the effect that they were not to proceed with the dredging operations until further notice. The trust remonstrated against this decision, and at a later period authorized the Hon. John Young to visit Quebec for the purpose of endeavouring to get this order rescinded.

The Government, however, would not consent to allow the works to be resumed until the trust furnished a copy of the report and plans of a recent survey of Lake St. Peter, made by the Harbor Engineer. This having been complied with, authority was granted in July following to proceed with the deepening of the channel.

It is proper to state here, that although this action may have been unpleasant to the trust, it led to no actual delay in the prosecution of the works, as a freshet which occurred in the Richelieu river in the spring of 1862, so seriously damaged some of the dredges, and other vessels, as prevented their efficient use until August of that year.

From the foregoing memorandum it will be seen that the Government is to assume:—

The debenture debt of.....	£170,000
Give up the lien on plant of.....	15,000
Advance towards the completion of a channel 20 feet in depth....	40,000

Making a total of..... £225,000

Or \$900,000, irrespective of the plant originally handed over to the Trust.



The debentures were assumed in 1860, and all the interest after January of that year was paid by the Government.

In the spring of 1864, the Commissioners being desirous of hastening the completion of the 20 feet channel, transferred two dredges from the harbor of Montreal to Lavaltrie for the purpose of facilitating operations there.

In 1855, the harbor dredges were also employed on the lake and river improvements, as well as the two lake dredges, and part of the work at Lavaltrie was let by contract, so that for a portion of this season there were seven dredges employed.

This year the Commissioners were empowered by the Act 29 Vic., Cap. 56 to borrow the sum of £25,000 sterling, to enable them to carry out the agreement entered into with the Government. This money together with interest to be repaid out of the harbor revenue.

On the 16th November of the same year, the harbor Commissioners, accompanied by a number of other gentlemen, proceeded downwards from Sorel with a vessel called the "Ocean," drawing 19 feet 8 inches water when there was a depth of 10 feet 6 inches on the flats.

The ship "Ocean" was towed by two steamers, and passed from Sorel downwards without obstruction until near Light-ship No. 1, where it grounded on a shoal which had been overlooked. The vessel was then lightened and taken into deep water in the pool adjoining, where the cargo removed was again put on board, and the voyage proceeded with, without further interruption.

On the 28th November, 1865, the Hon. John Young sent a telegram to the Secretary of Public Works, stating that "The channel of 20 feet with 11 feet on the flats is completed, will you please authorize Mr. Sippell to accompany the Commissioners on a test trip, as before, from this (Montreal) to Sorel?"

On the 5th December, 1865, Mr. Sippell reported that on the 1st instant, a spar extending 20 feet below surface water was lashed to the side of the steamer "Lawrence," and that the vessel left Montreal, and passed down through the dredged channel to Sorel without meeting any obstruction. At this time the water stood at 17 feet on the lower mitre sill, at the outlet lock of the Lachine Canal.

At a meeting of the Harbor Commissioners, in January, 1866, the following resolution was moved by the Chairman, and adopted by the Board:—

"That in consequence of the completion of the works for improving the navigation of the river between Montreal and Quebec, and after careful consideration of the policy which should be pursued for the further improvement of the harbor, it is deemed advisable to sell, by public auction, or otherwise, the following vessels, &c."

Then follows a list with upset prices fixed upon each item, and suggestions as to what should be retained for the harbor works, &c.

In February following public notice was given by the trust that certain vessels, dredges, &c., &c., were for sale.

Some of the vessels were subsequently sold at prices exceeding the valuation placed upon them, and other portions of the plant were exchanged for a class of machinery considered by the Commissioners as better suited for the harbor improvements.

In the summer of 1866, the shoal on which the vessel "Ocean" grounded the previous fall, was deepened, and a bank removed near the turn at No. 1 Light-ship, which greatly increased the width, and doubtless improved this portion of the channel.

On the deepening of the shoal and bank just alluded to, the Harbor Commissioners appear from subsequent letters, to consider that they have carried out in full the arrangement entered into with the Government.

In October last they, however, verbally expressed to me their willingness to do more if on examination of the width and depth of the channel it was found to be of less capacity than that contemplated when the agreement was made.

**STATEMENT showing the sources whence the Harbor Trust obtained funds for the prosecution of the lake St. Peter and river St. Lawrence improvements.**

**Debentures issued under authority of act**

13 and 14 Vic., Cap. 97.....	£30,000	0s.	0d.	
Do 16 Vic., Cap. 24.....	40,000	0	0	
Do 18 Vic., Cap. 143.....	100,000	0	0	
				£170,000 0s. 0d.
1852—Received for tonnage dues.....	£1,798	6s.	6d.	
1853 “ “ .....	2,441	5	6	
1854 “ “ .....	2,385	19	6	
1855 “ “ .....	1,576	14	6	
1856 “ “ .....	3,841	11	6	
1857 “ “ .....	3,669	15	0	
1858 “ “ .....	4,133	15	6	
1859 “ “ .....	4,954	9	3	
1860 “ “ balance.....	89	0	6	
				24,881 0 0
				£194,881 0 0

Or..... \$779,524 00

1859—Advance on plant (since cancelled).....	60,000	00
1860 Do on work done, as per agreement.....	32,000	00
1861 “ “ “ .....	32,000	00
1862—Received from Trinity House and other sources for articles sold.....	5,179	28
1863—Advance on work done, as per agreement.....	17,948	89
1864 “ “ “ .....	12,051	11
1864-65 “ “ “ .....	59,000	00
1865-66 “ “ “ .....	7,000	00
	\$1,004,703	28

1851—Plant valued by the Government Engineer at \$40,000 delivered to the Commissioners, and sub- sequently valued by them at.....	36,000	00
	\$1,040,703	28

**STATEMENT showing the expenditure under the Harbor Trust on lake St. Peter and river St. Lawrence improvements.**

1851—Expended in outfit and dredging operations...	£19,381	14s.	10d.
1852 “ “ “ ...	23,170	14	8
1853 “ “ “ ...	14,414	12	9
1854 “ “ “ ...	17,054	1	6
1855 “ “ “ ...	41,209	17	1
1856 “ “ “ ...	23,801	13	4
1857 “ “ “ ...	23,492	4	1
1858 “ “ “ ...	17,051	9	8
1859 “ “ “ ...	18,129	4	5
1860 “ “ “ ...	13,153	16	4
1861 “ “ “ ...	5,335	11	1
1862 “ “ “ ...	11,411	11	1
1863 “ “ “ ...	8,871	3	2
1864 “ “ “ ...	18,598	9	9
1865 “ “ “ ...	22,272	10	5
1866 “ “ “ ...	2,734	19	0

Carried over..... £280,083 13s. 2d.

Brought over.....			£280,083 13s. 2d
1851—Paid for interest on debentures and loans.....	£825	2s. 5d.	
1852 “ “ “ .....	1,696	13 8	
1853 “ “ “ .....	2,824	16 10	
1854 “ “ “ .....	3,652	13 10	
1855 “ “ “ .....	5,236	16 10	
1856 “ “ “ .....	6,659	0 4	
1857 “ “ “ .....	9,486	16 1	
1858 “ “ “ .....	10,960	13 10	
1859 “ “ “ .....	12,482	0 11	
1860 “ “ “ .....	6,608	13 1	
			60,433 7 10
			£340,517 1s. 0d.
Or.....			\$1,362,068 20
1851—Plant supplied by the Government.....			36,000 00
			\$1,398,068 20
1866—Steamboats, &c., sold by Trust.....	\$22,050	00	
Dredges and plant on hand, valued at.....	30,000	00	
			\$52,050 00
Less amount paid by Trust when exchanging plant.....	1,000	00	
			51,050 00
Total expenditure.....			\$1,347,018 20
Amount assumed and paid by Government.....			1,040,703 28
Amount expended out of harbor revenue.....			\$306,314 92

About two thirds of the expenditure was connected with the deepening of lake St. Peter—one quarter of the whole on the works at Lavaltrie—and one twelfth at other parts of the river where improvements were made.

Having thus given a sketch of the action relative to the improvements, together with such statements regarding the expenditure as are considered necessary to a full understanding of the matter, it is now proposed to describe the present condition of the channel.

This, it is proper to state, is based upon a close hydrographic survey of:—

2 miles of the river at Pointe aux Trembles.

$\frac{3}{4}$  “ “ between Cap St. Michel and Bellegarde Island.

6 “ “ at and below Lavaltrie.

Soundings through the whole of the dredged channel in lake St. Peter.

The depths of water at these places has reference to a datum line of 17 feet on the lower mitre sill of the lock at the Montreal terminus of the Lachine Canal, and 11 feet on the flats of lake St. Peter.

A close survey has been made of the river in the vicinity of Cape Charles, and cursory examinations at Cap à la Roche, Cape Levrard, Bécancour, &c., &c.; soundings reduced to low water ordinary spring tides.

The depths of water given in other reaches of the river than those above referred to, are taken from the Admiralty Charts published in 1860—on which the datum line is assumed as “answering to 17 feet at the entrance of the Lachine Canal, and 10 feet 3 inches on the flats of lake St. Peter.”

From the foot of the current St. Mary, at Montreal, to opposite a church about half a mile below, there is a wide expanse of water from 27 to 39 feet in depth, except on a “poulier” a little above the church where there is only 19 feet water. Thence to Long

Point the channel is fully a quarter of a mile from the north-westerly bank of the river, and varies from 24 to 49 feet in depth. Its width is, however, contracted by a shoal which extends out from the south shore opposite Longueuil.

From Long Point it trends more to the north until near Pointe aux Trembles, where it is nearly in a north-easterly direction, and the water quite close to the shore varies from 23 to 39 feet in depth, except at a point about a quarter of a mile above the upper Light-house where there is only 21 feet water.

Opposite the village of Pointe aux Trembles (10 miles below the foot of the Lachine Canal), a series of small detached shoals or "pouliers" occupy a considerable portion of the river bed, extending in an oblique direction from the shoal lying on the north-westerly side of the Boucherville islands, to some distance below the village.

The largest of these shoals (including contiguous "pouliers") is situated opposite to and below the church, and occupies a space of fully 1,200 feet, parallel with the stream, and 400 feet in width; the depth of water varying from 16.2 feet to 19.6 feet—but with an average of 18.8 feet. For about one-fifth of this space, the water varies from 20 to 23, feet in depth; but outlying "pouliers" and projections will fully make up for the area of deep water.

Between this shoal and the north westerly bank of the river, there is for a considerable distance, a line of water varying from 20 to 25 feet, and 27 feet in depth, but immediately below the village it is obstructed by a number of small detached shoals on which the depth is from 18 to 19.8 feet.

The old channel, and the one for the most part still used, leads off in a south-easterly direction above the head of the large shoal previously referred to, and for a short distance at this place passes in a space of about 200 feet in width, between 19 feet water on the one side and 19.7 feet on the other. In this space are two patches, on one of which is 19.3 feet, and on the other 19.9 feet water; and about 500 feet up stream there is a patch with 19.7 feet water over it. This line passes to the south of the large shoal.

In October and November 1865, a new channel was formed which runs towards the south-east at a point about  $\frac{5}{12}$  of a mile higher up than the old line, or nearly opposite the upper Light house on Pointe aux Trembles. It is of a good width and has generally a depth of from 20.2 feet to 22 feet, with the exception of three small detached places, on two of which there is 19.7 feet and on the other 19.8 feet water. These patches are so situated that a ship loaded down to a full capacity of a channel 20 feet (below datum) might pass through without touching either of them, whilst another vessel of like draught might touch at one or all of the three places.

This line leads into deep water south of all the other "pouliers," and also passes to the south of the large shoal above mentioned.

It will be seen on reference to the chart or plan, made to a large scale from the details of our recent surveys, that this channel has a greater available water-way, and is, as regards line, at least equal to the one generally used.

Both these channels are however liable to the same objections, namely, that of leading ships too far to the south, where an oblique cross current is apt to force them (especially long vessels) on to some small patches lying north of the shoals which extend out from the head of Ile à l'Aigle and renders it extremely difficult to get properly on to the line of the range lights which lead through the channel below.

These objections, it is believed, would in a great measure be obviated by removing the northern half of the large shoal before mentioned, together with deepening a few detached places on that side, and thus form a northern and more direct line leading into the lower part of the channel. This would be less subject to the effects of cross currents, and comparatively free from the difficulties connected with the other lines in this vicinity.

To accomplish this, about 20,000 cubic yards of material, partly consisting of boulders, would have to be removed.

Below Pointe aux Trembles the river is divided, by Ile Ste. Therèse and Ile à l'Aigle, into three branches; in the centre one of these is the main navigable channel which is well marked out by range lights placed on Pointe aux Trembles.

A shoal which previously existed near the upper end of this line has been cut away so as to give a depth of from 20½ to 22 feet for the full width of 300 feet. To effect this 30,920 cubic yards, scow measurement, were removed.

Below this point the channel is from 24 to 42 feet in depth, and winds slightly round Ile Ste. Therèse till on the line of the range lights placed on the easterly side of that Island, where the course suddenly changes from north to north-east. At this place the turn is rendered difficult by a shoal extending out from the south shore, the extreme point of which (marked out by a buoy) it is desirable to have removed. In line of these lights the traverse towards Cap St. Michel is made, with a depth of water varying from 21 to 36 feet, to obtain which several shoals had to be removed.

During the early operations of the Trust, about 68 days dredging was done in the vicinity of Ile Delorier towards improving the old or north channel.

But all further expenditure on that line was discontinued after the commissioners concluded to adopt the south or Verchères channel, a decision in many respects beneficial to the navigation, and one which has generally been considered judicious.

From Cap St. Michel (16 miles below the foot of the Lachine Canal) to opposite Bellegarde Island the depth of water varies from 20.5 feet to 33 feet, but the channel at several places is barely at the full width, and at one place a short distance below the upper buoy on the south side there is only 270 feet between 19.3 feet water on the one side and 19.1 feet on the other. There is also a bend in the line which causes some difficulty to be experienced in taking long vessels through this portion of the route. This might be remedied by cutting off a slightly projecting point, and the removal of a strip along the south bank where the water ranges from  $14\frac{1}{2}$  to  $19\frac{1}{2}$  feet. To do this, about 2,000 cubic yards of dredging would be necessary.

From Bellegarde Island to the line of the range lights at the traverse above Contre-cœur, the depth of water varies from 25 to 50 feet, and the channel for the greater part of this distance is of a good width; but in order to render it safely navigable during the night it will be necessary to remove two "pouliers"—one above Marie Point, on which there is from 7 to 16 feet water, and another below Plum Island having a depth of 18 feet over it; and also to erect a light (if not range lights) on Plum Island.

From Cap St. Michel, or what is called the Verchères channel, there has been 62,440 cubic yards of dredging done, besides considerable quantities of boulder stone and other impediments to navigation removed.

In line of the traverse range lights above Contre-cœur until opposite the foot of Lavaltrie Island (34 miles below the foot of the Lachine Canal) the depth of water varies from 27 to 20.4 feet, and the channel is of the full width.

Immediately at the latter place there is a small patch on the north side of the channel with 18 feet water over it, and at about 1200 feet below the foot of the island two small shoals, on which there is a depth of from 18 to 19 feet, stand out from 50 to 60 feet within the line of the buoys on the south side.

These are on the curve which leads on to the line of the range lights, and on the side where a projection of that extent beyond the buoys is objectionable.

It is believed, even although the water way is of considerable width, that a better purpose would be served by removing the smallest of these shoals, and cutting off say 30 feet of the inner point of the other, than to mark out their extreme ends by a buoy.

At a few places further down this cut, the channel is scarcely of the full width, and towards the lower end there are some patches with only a depth of from 19.4 feet to 19.8 feet over them.

These small shoals are spread over a considerable distance with from 20.2 feet to 21 feet water alongside of them, and are in such positions that a ship loaded down to the full practical draught of the channel, might be taken through without touching either of them, whilst to other vessels of a light draught, not exactly on the same line, but still in the channel, they would be found obstructions.

From Lavaltrie Island downwards to where the broad natural channel of the river is entered, there is, with the exceptions above referred to, a depth of from 20.1 feet to 21 feet below datum.

This cut of itself was a formidable undertaking, there having been removed 548,288 cubic yards of material, or upwards of 800,000 yards as measured on the dumping scows.

From this point downwards the channel trends in a north-easterly direction, until opposite Hay Island, where it gradually winds round into a course nearly due east, and continues (past Sorel on the south) in this direction until up with the south-east point of

Ile de Grace, thence it follows a circuitous course between Boat Island and Stone Island until up with a light-house placed on the lower end of the latter.

The depth of water for this stretch of the river varies from 25 to 50 feet, except a point above Boat Island where for a short distance there is from 22 to 24 feet water.

Rain opposite the light on Stone Island until up with the line of the range lights, on Raisin Island, the depth of water varies from 22 to 31 feet.

This Island is situated at the head of Lake St. Peter, and the line of the lights upon it leads through the channel which has been dredged for a distance of 7300 feet across what is called the "upper bar" towards the "upper pool" where the Western or No. 1 Light-ship is moored during the season of navigation.

In this portion of the channel there is a depth of from 21 to 20.2 feet, and the width is generally 300 feet. A difference of opinion hitherto existed relative to the best position for a Light-ship in this vicinity, but the removal in 1866 of a large portion of a projecting bank on the north side of the channel has made so great a change at this place as to have rendered the arguments in favor of altering the position of this light of less importance than formerly.

Through the "upper pool," for a distance of 6700 feet, the depth of water varies from 20.4 feet to 26 feet. Thence through the dredged channel to opposite Light-ship No. 2, a distance of 8600 feet, there is a depth of from 20.2 feet to 21.2 feet with a width of fully 300 feet.

From this light to where an angle in the line is marked out by a large white buoy, distance 23,000 feet, there is from 20.4 feet to 21 feet water, and the channel is of a good width.

This buoy no doubt serves as an excellent guide for day navigation, but it scarcely marks out sufficiently to a person in charge of a ship at night, the point where a change of course is necessary. For this purpose either a floating light, or high beacon has been, I believe, judiciously recommended.

Immediately below the iron buoy, next in descending order to the large white one, there is a stretch of from 400 to 500 feet in length, and for two-thirds of the width of the channel where the depth of water is from 19.2 feet to 19.9 feet, but a few places within that area there is a depth of 20.4 feet.

From this shoal to the next buoy are occasional ridges on which the depth is from 19.4 feet to 19.8 feet.

Thence downwards to the head of the "lower pool" there is from 20.2 feet to 21.2 feet water; distance from white buoy 14,000 feet. This pool is 13,000 feet long in line of channel, and has a depth of from 21 to 26 feet.

The cut across the "lower bar" is about 6000 feet long, with a depth of from 20.2 feet to 21 feet, except two small patches on which there is from 18.3 feet to 19.9 feet water.

The lower part of this channel is well marked out by a light on Pointe du Lac, and Light-ship No. 3. Beyond the latter it winds round and continues in a south-easterly course in the natural channel until opposite the eastern outlet of Nicolet River, and in line with the range lights at Port St. Francis, the water varying from 21 to 30 feet in depth.

In Lake St. Peter the improved channel, is, in the aggregate, about  $11\frac{1}{2}$  miles long.

From the reports of the officers who have been at different times in charge of the works, it appears that 6,470,357 cubic yards of material, as measured on the dumping scows, have been removed. This quantity when reduced to measurement in the solid bank may be assumed as equal to about 4,313,572 cubic yards;—forming a mass of material equal to the quantity of excavation on about 250 miles of ordinary railway.

In the vicinity of Port St. Francis there are a series of shoals between which are passages of deep water, and the main channel, although comparatively narrow, has a depth of from 20 to 30 feet. Thence to Cape Madeleine below Three Rivers the wide natural channel varies from 30 to 60 feet in depth.

On the north side of the river, between the place above mentioned and Bigot Island there are several extensive shoals, between which is a narrow and crooked channel with from 19 to 24 feet water.

This line is well marked out with range lights, but those in charge of large deep laden vessels generally prefer to make a traverse towards Bécancour Point, on the south

side of the river, where the channel is wide and deep, although the current is greater.

To render this line available at night, it is, however, important that range lights should be erected on Cap Madeleine, and one or more lights be placed on Bécancour Point; these, with leading lights in the vicinity of Champlain church, it is believed, would guide vessels past the shoals to be avoided on this part of the route.

In September 1863, Captain Armstrong, the officer in charge of the dredging fleet, together with an experienced pilot accompanied me along the river, and pointed out on the spot several shoals or "pouliers" at and below this place which it would be desirable to have removed. Some of these are not shown in the Admiralty Charts, but their positions were so well known to these gentlemen by land marks and otherwise, that they readily found the respective places.

Opposite the mouth of the Bécancour River, are two of these shoals, the southern one (not shown on the Admiralty Chart) is about 120 feet long and 100 feet wide, with from 17 to 18 feet of water over it at low water. Alongside, the depth varies from 22 to 24 feet. It is considered important that at least one third of the upper end of this shoal should be removed to a suitable depth.

On the traverse from Cap Madeleine to Bécancour Point the water is from 28 to 40 feet deep. Thence on the line leading towards Champlain there is from 26 to 40 feet water, except on the "poulier" referred to.

The "Dubord Shoal" near Champlain church, although in the middle of the channel, presents no serious difficulty to the passage of vessels, there being a wide stretch of deep water on both sides of it.

From the latter place the channel follows an all but easterly course, until opposite the mouth of the Champlain River, where it gradually trends to the north until on line of the range lights on Batiscan, On this stretch of the river the water varies from 24 to 40 feet in depth.

The traverse made on line of the range lights at Batiscan leads towards Cap Levrard on the south side of the river, in order to avoid the extensive shoals adjacent to Ste. Anne de la Pérade. On this line the water varies in depth from 24 to 33 feet, except opposite the ice piers formerly constructed on the shoal, where the depth is 21 feet.

The channel at this place is contracted by the angular point of a shoal on the outer end of which there is only 16 feet of water, and at 150 feet north the depth is 13.5 feet.

A buoy marks out the southern end of this shoal, and the point where a change of course becomes necessary. Still from the line and narrowness of the channel immediately below, considerable difficulty is experienced in taking large deep laden vessels through.

A short distance below this, in line of the lights on Grondines, and opposite a small stream called the Levrard, there is a "poulier" from 30 to 40 feet in diameter, on which there is barely 18 feet at low water.

From this "poulier" (not shown on the Admiralty Charts) and the point of the shoal above referred to, together with the bearings of the lines above and below, and the contracted width of the channel, it is barely possible for two large ships to pass each other with safety at this place.

In 1859 the Harbor Trust did considerable work in this vicinity and on the traverse to Batiscan, having removed about 20,650 cubic yards of material, (scow measurement) beside a large quantity of boulder stone.

It is, however, highly important that at least 150 feet of the projecting point of the Ste. Anne shoal should be deepened and that the top of the "poulier" referred to, should be taken off, which would require about 8000 cubic yards of material to be removed.

There is also a little below Cap Levrard and in line of the lights on Grondines a "poulier" of about 60 feet diameter, on which there is from 17 to 18 feet at extreme low water.

Above Cap à la Roche, in line with the west end of the clergyman's house and a chimney on the top of St. John's Church, and on line of the range lights on Grondines, there is a "poulier" of about 50 feet diameter, on which there is a depth of from  $17\frac{1}{2}$  to 18 feet water.

Except at the places above mentioned there is a depth of from 22 to 30 feet on this stretch of the river.

Thence along the line of the lights on Cape Charles, to where the course is deflected

towards the east by range beacons on the shore, there is from 22 to 30 feet of water, except on a small "poulier" which lies a little south of the line.

Opposite Cape Charles the Grondines shoal extends nearly across the river, leaving only a narrow unnavigable channel near the south shore.

The centre portion of this shoal is about 800 feet wide, between 21·3 feet above it to 30 feet immediately below: for this distance the depth is from 16·3 feet to 19·3 feet at ordinary low water. On the line generally followed by vessels, the depth varies from 17 to 20 feet for a distance of fully 1,300 feet.

This bar consists principally of boulder stone mixed with hard clay, and consequently would be difficult and expensive to remove; nevertheless, it presents so formidable an obstruction to the passage of large deep laden ships, except during the short period of full tide, that the line of navigation must be considered as incomplete whilst this shoal is allowed to remain in its present state.

Commander Orlebar states that at Cap à la Roche:—

Ordinary neap tides rise, 4 feet.

Ordinary spring tides rise, 6 feet.

Current opposite Cape Charles, 4 knots an hour.

From the foregoing description of the channel it will be evident that, with the exception of a few patches, and small isolated shoals, there is from Montreal to the foot of lake St. Peter, a depth of fully 20 feet below the assumed datum, and at ordinary tides there is at least that depth between Cap Levrard and Cape Charles.

The contemplated width has been generally maintained in the improved portions of the route, and the alignment is such as would present no serious difficulty to the passage of vessels of the class in use at the time when the arrangements were made.

Being personally acquainted with the manner in which the operations have been conducted since 1863, and having made a rigid enquiry into matters previous to that date, I feel warranted in stating that the Harbor Commissioners have throughout shown a laudable desire to render the channel available to its fullest capacity at the earliest possible period, and to carry out the terms of their agreement with the Government. This view of the matter is fully borne out by the statement of the expenditure incurred on the improvements since January, 1860—which, it will be seen, amounts to \$329,512.16, or more than double the sum provided for that purpose by the Government.

As already stated, there are, however, several small shoals to be removed, and certain improvements have to be effected in order that the large class of vessels now in use may be enabled to navigate the route without difficulty. These may again be briefly brought under notice in order following:—

1st. That both the old and new channels, at Pointe aux Trembles, are liable to objections, which a northern line would in a great measure be free from, and that it is therefore advisable the latter should be improved and brought into use.

2nd. That between Cap St. Michel and Bellegarde Island, it is desirable that the line should be improved by the removal of a portion of the south bank of the channel, and that it is necessary to deepen the shoal lying on the north side below the southern upper buoys.

3rd. The patches on the south side of the channel, below Lavaltrie Island, might with advantage be deepened, and such projections removed as are within the side lines at other places. The small shoals lying near the foot of the cut should also be deepened.

4th. The shoal about half a mile below the large white buoy at the angle between Light-ships Nos. 2 and 3 in lake St. Peter, should be made of the same depth as other portions of the channel.

From the disposition evinced at all times by the trust to carry out the improvements in an efficient manner, it is reasonable to conclude that on attention being drawn to the four places above mentioned, measures will be taken, as early as possible, to have the works referred to satisfactorily completed.

5th. That the point of the shoal opposite Ste. Anne and above Cap Levrard, should be deepened so as to increase the width of the water way. The tops of the pouliers absolutely in line of the channel in this vicinity, should also be removed; and the shoal at Cape Charles deepened.

The improvements made in 1859 below Batiscan, having rendered available a channel



way 20 feet in depth at and below Cap Levrard, at ordinary high water, it is questionable whether any further works in that vicinity can be considered as coming under the agreement entered into by the Harbor Trust in 1860. Nevertheless, it is important to the interests of navigation that those enumerated should be carried out.

Besides the works above alluded to, improvements at certain other places have been recommended as essential—such as the removal of shoals and the erection of lights on the Verchères channel, and at Bécancour, &c., &c. These are not, however, understood as forming any part of the agreement entered into by the Harbor Trust.

An attempt having been made in the preceding pages to describe the present condition of the channel, and point out the nature and extents of the improvements still required; it is now proposed to draw attention to the datum line to which the depth of water has been invariably referred by the Harbor Trust.

Under ordinary circumstances this would have been unnecessary—as a datum line is generally merely an assumed (or imaginary) plane to which all heights or depths are referred for purposes of comparison—whereas in this instance it is understood to represent the actual surface of the river when the water is 17 feet on the mitre sill of the outlet lock at Montreal and 11 feet on the flats of lake St. Peter.

This being the case, it seemed so inseparably connected with the agreement entered into by the harbor Commissioners, that all the soundings taken (above tide water) on our recent surveys were, as previously stated, referred to this line.

It was, however, found that it was only at short and rare intervals that this datum represented the surface water line of the river, or the relation between the water at the foot of the Lachine Canal, and that in lake St. Peter; whilst at other periods during the season of navigation it neither corresponds with the lowest, or any other surface water line.

The depths given in the foregoing description of the channel do not therefore show the *actual depths* of water found at the different places during the progress of the respective surveys, inasmuch as at certain times it was necessary to *deduct from* the soundings, and at others to *add to* them.

The following tables show that the fluctuations of the water levels which take place at Montreal, and Lake St. Peter, have no definite degree of relation to each other, and that it would therefore be incorrect to assume that with a certain known depth of water on the mitre sill of the lock at Montreal, it would be possible to arrive at the correct depth on the flats of lake St. Peter.

TABLE showing the depth of water on the Lower Mitre Sill of Lock at foot of Lachine Canal, and the depth on the Flats of Lake St. Peter.

Day of Month.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
1867.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	Ft. in.	
<i>August.</i>																																
Lock sill, L. C .....											19.2	19	19	19.1	19	19	19.1	18.10	18.10	18.9	18.9	18.8	18.8	18.7	18.6	18.6	18.5	18.5	18.6	18.7	18.6	
Gauge, Flats Lake St. Peter .....											12.6	12.6	12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12	12	12	12	12	12	12	12.6	
<i>September.</i>																																
Lock sill, L. C .....	18.6	18.5	18.5	18.4	18.4	18.2	18.3	18.2	18	18.1	18	18	17.10	18	17.11	17.9	17.10	17.10	18	18	18	17.10	17.11	17.9	17.8	17.9	17.9	17.7	17.8	17.8	17.8	
Gauge, Flats Lake St. Peter .....	12.6	12.6	12	12	12	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	12	12	11.6	11.6	11.6	11.6	11	11.6	11.6	11.6	11.6	11.6	11.6	11.6	12	12.6
<i>October.</i>																																
Lock Sill, L. C .....	17.7	17.6	17.7	17.6	17.6	17.7	17.7	17.7	17.6	17.6	17.8	17.8	17.10	17.8	17.8	17.9	17.8	17.8	17.9	17.7	17.7	17.7	17.8	17.6	17.5	17.5	17.5	17.4	17.4	17.4	17.3	
Gauge, Flats Lake St. Peter .....	12	11.6	11.6	11	11	11.6	11.6	11.6	11	11	11.6	12	12.6	12	12	12	12	12	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	12	12
<i>November.</i>																																
Lock sill, L. C .....	17.1	17	17.1	17	17	17.1	17	16.10	16.9	16.9	16.10	17	17	16.11	16.10	16.10	16.11	16.10	16.10	16.6	16.6	16.5	16.6	16.6	16.6	16.6	16.7	16.7	16.6	16.9	16.10	
Gauge, Flats Lake St. Peter .....	12	11.6	11	11	10.6	10.6	10.6	10.6	11	11	11	10.6	11	11	12	12	11.6	11.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
1868.																																
<i>May.</i>																																
Lock sill, L.C .....	19.1	19.2	19.4	19.7	19.11	20	20.2	20.2	20.2	20.3	20.4	20.4	20.3	20.2	20.4	20.4	20.6	20.8	20.10	21.4	21.8	22.10	23	22.11	22.8	22.4	22.2	22	22	22	21.10	
Gauge, Flats Lake St. Peter .....	14	14	14	14.6	14.6	14.6	15.6	16	16	16	16	16	16	16	16.6	16.6	16.6	17	17.6	17.6	18	18.6	19	19	19	18.6	18	18	18	17.6	17.6	
<i>June.</i>																																
Lock sill, L. C .....	21.10	21.7	21.4	21.2	21.10	20.10	21	20.10	20.9	20.8	20.5	20.4	20.2	20	19.10	19.8	19.6	19.6	19.4	19.3	19.13	19.	19.2	19.1	19.1	19	19	18.10	18.11	18.8	.....	
Gauge, Flats Lake St. Peter .....	17.6	17	17	16.6	16.6	16	16	16	15.6	15.6	15.6	15	15	14.6	14.6	14.6	14	14	14	14	14	14.6	14.6	14.6	14	14	13.6	13.6	13.6	13	.....	
<i>July.</i>																																
Lock sill, L. C .....	18.8	18.7	18.7	18.4	18.5	18.5	18.5	18.4	18.3	18.3	18.2	18.1	18	18	18	18	17.10	17.10	17.10	17.9	17.9	17.8	17.8	17.8	17.7	17.7	17.7	17.6	17.6	17.7	17.7	
Gauge, Flats Lake St. Peter .....	13	12.6	12.6	12	12	12.6	13	13	13	12.6	12.6	12	12	12	11.6	12	12	12	12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12	12	11.6	11.6	11.6	
<i>August.</i>																																
Lock sill, L. C .....	17.7	17.7	17.7	17.8	17.7	17.5	17.5	17.4	17.3	17.4	17.4	17.4	17.2	17	17	17.2	17.2	17.1	17	17.3	17.3	17.2	17.1	17	17	17	17	16.10	16.8	16.8	16.9	
Gauge, Flats Lake St. Peter .....	12	12	12	12	12	12	12	12	11.6	11.6	11.6	11.6	11	11	11	11.6	11.6	11.6	11.6	12	12	12	12	11.6	11.6	11.6	11.6	11	11	11	10.6	
<i>September.</i>																																
Lock sill, L. C .....	16.8	16.9	16.9	16.8	16.9	16.9	16.9	16.10	16.9	16.11	17	17	17	17	17	16.11	17.1	17	17	17	17.2	17	16.11	16.10	16.11	16.11	16.9	16.7	16.9	16.10	.....	
Gauge, Flats Lake St. Peter .....	11	11	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	12	12	12	12	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	
<i>October.</i>																																
Lock sill, L. C .....	16.11	16.11	16.9	16.7	16.6	16.8	16.8	16.4	16.6	16.7	16.6	16.8	16.6	16.5	16.5	16.5	16.3	16.4	16.4	16.5	16.5	16.7	16.5	16.3	16.1	16.2	16.2	16.1	16.3	16.3	16	
Gauge, Flats Lake St. Peter .....	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11	11	11	11	11	11.6	11.6	11.6	11.6	11.6	11.6	11	11	11	11	11	10.6	10.6	10.6	10.6	10.6	10.6	11	
<i>November.</i>																																
Lock sill, L. C .....	16.4	16.10	16.10	16.8	16.9	16.9	16.8	16.7	16.8	16.9	17.7	17.7	17.9	17.10	17.7	17.5	17.3	17.3	17.3	17.3	17.4	17.2	17.1	16.11	16.10	17	17.1	17.1	17.1	17.1	.....	
Gauge, Flats Lake St. Peter .....	11	11.6	12	12.6	12.6	12.6	12	11.6	11.6	12	12.6	12.6	13	13	13	13	13	13	13	12.6	12.6	12	12	11.6	11.6	12	12	12	12	12	12	

These tables (p. 64½) are copies of the daily records kept by the lock-master (in feet and inches) of the rise and fall of the water at the foot of the Lachine Canal; and of the daily records kept (in feet and half-feet) of the rise and fall of water on the flats of lake St. Peter. At the latter place the gauge is divided into quarters of a foot, (or three-inch spaces) and the register is kept by assuming the nearest half-foot as the depth. Thus the record may show the depth to be from one to three inches different from what it actually is at the time the observation is made.

This was the utmost range of difference observed from the more accurate record kept for a portion of the time during the survey.

By the table for 1867, it will be seen that from the 11th August to the 23rd November, there were only 4 days when there was 17 feet on the lock mitre sill and 11 feet on the flats, or when the depths corresponded with the datum line; whilst there were 8 days on which the water was 11 feet on the flats, and from 16 feet 9 inches to 18 feet 1 inch on the mitre sill. On four days there was 17 feet on the mitre sill, and 10 feet 6 inches on the flats; and 2 days, 16 feet 10 inches on the mitre sill, with 12 feet on the flats.

During 1868, from the 11th August to the 26th November, there were also only 4 days when there was 17 feet on the mitre sill, and 11 feet on the flats; whilst there were 7 days when there was 17 feet on the mitre sill, and 12 feet on the flats; and 8 days with 17 feet on the mitre sill, and 11 feet 6 inches on the flats—26 days with from 16 feet 4 inches to 16 feet 10 inches on the mitre sill, and 11 feet 6 inches on the flats, and 3 days with from 16 feet 8 inches to 16 feet 9 inches on the mitre sill, and 12 feet 6 inches on the flats.

It is believed that the above is sufficient to show that the height of the water at Montreal is not a safe guide by which to infer that at lake St. Peter: nor indeed could it reasonably be expected that in this portion of the St. Lawrence, where the width and sectional area are so irregular, and into which so many large streams flow, that corresponding fluctuations would take place at points so far apart and so differently situated.

At the commencement of the surveys, gauges were established at the respective places, corresponding as nearly as possible to the datum adopted by the Harbor Trust—and the soundings were in all cases corrected by the observations made on these gauges.

It will therefore be evident from the water-tables, and the above statements, that in order to represent the depth of water which there would be in the channel, when the surface corresponded to the datum line of the harbor trust, it was necessary in some cases to add to the soundings *actually found*, whilst at other times *deductions* from them had to be made.

With a view to this matter being clearly understood, these deductions, and especially the additions will be referred to in order following:—

*At Pointe aux Trembles.*

There were 7 days when from *half an inch to two inches and a half* had to be deducted from the soundings, the surface of the river being then *above datum*. The greatest deduction (2½ inches) was on the 21st September, at a time when there was 17 feet 2 inches on the mitre sill of the lock, and 12 feet on the flats of lake St. Peter.

From the 28th August to the 9th September, inclusive, there were 13 days on which additions had to be made of from *one to four inches*, the water surface being then *below datum*. The greatest addition (4 inches) was made on the 29th August, at a time when there was 16 feet 8 inches on the mitre sill of the lock, and 11 feet on the flats of lake St. Peter.

At this period, (29th August, 1868,) the actual depth at this place was as follows:—

On the large shoal previously referred, as lying opposite to and below the church at Pointe aux Trembles, there was from 15.9 feet to 19.3 feet, with an average of about 18.5 feet.

At the head of this shoal, the old channel crosses with a width of only 200 feet between 18.7 feet water on one side, and 19.4 feet on the other. In this space are two patches, on one of which was 19 feet, and on the other was 19.5 feet water—and about 500 feet up stream on this line a patch had 19.4 feet water over it.

In the channel made in 1865, which leads to the southward, nearly opposite the upper light-house at Pointe aux Trembles, there was found to be from 19.0 feet to 21.7 feet

water, with the exception of three small detached places, on two of which there was 19·4 feet, and on the other 19·5 feet of water.

*Between Cap St. Michel and Bellegarde Island.*

There were three days when from 5 to 7 inches had to be added to the soundings, the water surface being below datum. This addition of 7 inches was on the 19th October, on which date there was 16 feet 4 inches on the mitre sill of the lock, and 11 feet 6 inches on the flats.

In this part of the channel the actual depth was from 20 to 32·5 feet ; and at one place between 18·8 feet on one side, and 18·6 feet on the other, the width is barely 270 feet.

*At Lavaltrie.*

On the 2nd, 3rd and 4th October, there was from 16 feet 11 inches to 16 feet 7 inches of water on the lock mitre sill, with 11 feet 6 inches on the flats of lake St. Peter. The water line was then *one* inch over datum (at this place).

Between the 5th and 16th October, there were 10 days on which the water was from *one* to *five* inches below datum.

The greatest addition (5 inches) made to the soundings was on the 12th and 13th October, when the water was 16 feet 8 inches and 16 feet 6 inches on the lock mitre sill and 11 feet on the flats.

At the latter date, there was found 17·6 feet water on a small patch on the north side of the channel, and near the foot of the island, and on two small shoals within line of the buoys on the south side, there was from 18·4 feet to 18·6 feet water. On the patches previously mentioned as being near the lower end of this line, the depth was from 19 feet to 19·4 feet, with from 19·8 feet to 20·6 feet alongside of them.

From Lavaltrie island downwards, except on the patches above referred to, there was on the 12th and 13th October, from 19·7 feet to 20·6 feet water in the channel.

The soundings through lake St. Peter were taken in November, when the depth on the flats ranged from 11½ to 13 feet, so that the surface level was from 6 to 24 inches above datum, consequently deductions to that extent were made.

During this time there was from 16 feet 10 inches to 17 feet 10 inches water on the lock mitre sill at Montreal.

It has been considered necessary to submit the above facts, relative to the actual depth of water found in the channel during the surveys, inasmuch as they show that although there is no definite relation between the water levels at Montreal and lake St. Peter, still the variations at Montreal have a more direct influence on some intermediate portions of the river.

They further show that at certain times a vessel may find 11 feet water on the flats, whilst on proceeding upwards there may be at several places in the channel a few inches less than 20 feet.

The deepening and enlargement of the channel through the shoals of the river to a capacity suited to the navigation of a much larger class of vessels than in former times could reach the Port of Montreal, has evidently been productive of vast benefit to the trade of the Province.

Goods can now be brought 180 miles further into the interior by the vessels in which they are shipped, and the surplus products of the country can be exported directly from the terminus of inland navigation. This has led to a reduction of the rates on Ocean borne freights, and, no doubt, in some degree, to the establishment during the open season of the superior line of Atlantic steamers engaged on the route.

These advantages, it is believed, are not confined to any particular locality, but are more or less participated in by every branch of business throughout the country. They have been so far appreciated by those directly interested that the desirability of a still further enlargement of the ship channel has recently been brought under the notice of the Government.

In April, 1868, a number of merchants, and ship owners, presented a memorial stating that the competition in the carrying trade to and from Europe, renders it necessary to employ a larger class of vessels than that contemplated when the improvement of the river was commenced, and praying that the works should be resumed "and continued till a channel of a uniform depth of not less than twenty-four feet, and four hundred feet wide, is obtained throughout the whole distance between Quebec and Montreal." This document was printed as a Return to an address of the Senate.

On the 16th November last, Hugh, Allan, Esq., one of the memorialists, addressed me an able and important letter on this and other matters connected with the river communication. A copy of which, together with a statement of the dimensions, draught of water, tonnage, &c., of the vessels belonging to the "Montreal Ocean Steamship Company," is herunto appended.

From this and other information it appears that a part of the cargoes of a large number of ships engaged on this route, has, during periods of low water, to be lightered, entailing additional expense on the trade.

It is quite evident that a ship loaded down to the full depth of a channel, could not be expected to pass through with the towage-power ordinarily applied, inasmuch as her keel would be touching bottom, although she might even then be dragged through by means of powerful tugs. In order, however, that a vessel may float freely, there should be at least from 6 to 9 inches of water under it.

Mr. Allan states in his letter: "We have been able to pass our sailing ships this season at about 19 feet, and our steamships at about 17 feet 6 inches draught of water," and that "while a sailing ship can pass through the narrow deepened channel loaded to within a few inches of the depth of water, a steamship propelled by her own power, and going at full speed, requires to have two feet or more in addition to the water she draws;" "we find that if she draws 17 feet with 19 feet in the channel, she will, when going at full speed, be grazing the bottom, while if the engine is stopped she is quite afloat."

The draught of eleven of the ships of the Allan line varies from 18 to 23 feet when loaded, without coal, so that it appears from the above statements that it would require a channel of 25 feet deep to enable the largest of them to pass.

These vessels are from 290 to 350 feet long. Nine of them being longer than the channel is wide, it is to be feared that in case of a sudden squall, or such accident as would result in one of them being swung across it, serious detention to navigation would ensue.

The probability of such an occurrence taking place has been urged as one of the reasons why the width of the channel should be increased.

It is obvious that to adopt the scale of navigation prayed for by the memorialists, would be an undertaking of great magnitude, inasmuch as to carry it out in Lake St. Peter alone, would involve the removal of even a larger mass of material than has been excavated there up to the present time; whilst the projected work would of course embrace all those portions of the river where improvements have already been made, together with many others at which no work was necessary for a 20 feet channel.

From the knowledge already possessed of the river, there is reason to believe that a greater depth than at present exists, could be obtained. But before a reliable opinion could be formed as to whether the full depth of 24 feet is practicable, borings would have to be made, and various other kinds of information collected.

It is however proper to state that no examinations have been made for this purpose, as the question was not brought under my notice until near the close of the season, when the surveys had to be discontinued.

Nevertheless it may be stated that in any further enlargement of the channel in Lake St. Peter, a similar class of materials to that previously dredged would in all probability be met with, whilst it is quite likely that the character of the excavation at other places be at least as difficult as that hitherto removed. Several boulder shoals and numerous "polliers" would also have to be deepened, and it is quite possible that at some point solid rock might be encountered.

Still assuming that the depths shown on the Admiralty Charts give a fair idea of the channel way at places neither embraced in our surveys or examinations, the following approximate estimates are submitted.

1st. For a channel way 300 feet wide and 2 feet deeper than at present.

Dredging in Lake St. Peter, say,.....	1,500,000	cubic yards.
do at other places on the river.....	1,250,000	“ “
	<u>2,750,000</u>	cubic yards.

The probable cost of this would be approximately..... \$800,000.

2nd. For a channel 400 feet wide, and 24 feet deep.—

Dredging in Lake St. Peter, say,.....	5,000,000	cubic yards.
do at other places in the river.....	3,500,000	“ “
	<u>8,500,000</u>	cubic yards.

The probable cost of this work would be approximately..... \$2,500,000.

These estimates having been made in the absence of correct data, are partly of a conjectural nature, and are submitted merely for the purpose of giving some idea of the extent of the proposed undertaking.

It is however indispensable before giving any decided opinion as to the practicability or otherwise of carrying out the scheme, that close surveys should be made at all those places where the depth is less than 24 feet, and that such information be obtained in regard to the nature of the river bed as would enable the subject to be placed fairly and fully before the Department.

I have the honor to be, Sir,  
 Your obedient servant,  
 (Signed,) JOHN PAGE,  
*Chief Engineer Public Works.*

MEMORANDUM FOR THE INFORMATION OF THE SECRETARY OF  
 PUBLIC WORKS.

QUEBEC, March, 1864.

In carrying out the instructions contained in the order of the Hon. the Executive Council, enclosed with your letter No. 46,626, it was found that within the past few years the Harbor Commissioners of Montreal had experienced much difficulty from a diversity of opinion among some of their chief officers.

These difficulties having unfortunately acquired a degree of notoriety which threatened seriously to interfere with the satisfactory prosecution of the works, were officially brought under my notice by the documents which accompanied your letter, and afterwards more prominently by the Trust.

But from the conflicting statements and opinions of the different parties, and the inconclusive results of verbal enquiries, it was considered proper to address a series of questions to the Trust and to such of its officers as from their position might be expected to supply reliable information.

In following this course an attempt was made to embrace all known leading points on which issues have been raised, and such others as from their nature would be likely to aid in placing the subject fairly before the Department.

It is, however, proposed to refer to these matters here, only in so far as they bear upon the interests of the Government in the economical execution of the work: without entering upon the minor questions, or mutual recriminations of the officers, which although a source of much embarrassment to the Commissioners, it is believed their further discussion could lead to no beneficial result.

From the terms of the agreement of Mr. Robert Forsyth, Engineer to the Trust, as quoted by himself, it seems that his duties were understood to relate wholly to works connected with the harbor of Montreal. His attention to the lake St. Peter and River im-

provements below the city being confined to occasion when the Trust deemed it advisable to call upon him specially for such services. The entire management of the dredging operations in the lake and river having been confided to the Superintendent, Capt. C. L. Armstrong.

It, however, appears that from occasional visits to the latter works, the Harbor Engineer formed an idea that the system of buoying out the channel for dredging was such as did not ensure the requisite accuracy of line, and as he conceived that the interests of the Trust would have been neglected by his failing to draw attention to these matters, he repeatedly brought them verbally under the notice of the Commissioners; and on the 30th November, 1859, addressed them a letter on the subject.

These representations on the part of Mr. Forsyth resulted in his obtaining authority to make a survey of lake St. Peter on the ice; which he had strenuously advocated as the best means of enabling the proper line of channel to be marked out, and of avoiding the probability of unnecessary cutting.

This survey was made in the winter and spring of 1862, and the report upon it submitted in April of that year. From the explanations given in regard to the mode of conducting the survey and taking the soundings, it appears that many precautions were taken to ensure accuracy, and render the results such as could be depended upon for future reference.

With this object in view a minute horizontal projection of the whole ship channel through lake St. Peter was made, the position of the light-houses and permanent buoys laid down, and cross sections of the bottom prepared, from which the quantity of cutting done and that remaining to be done, could be estimated.

Upon the plans and sections the respective lines of the channel, as understood by him, were drawn, and all the material moved outside of a mean width of 300 feet (except at certain angles or bends), was calculated as "surplus cutting" or loss in carrying out the works which, it was alleged, might have been avoided.

These results were adduced as proofs of "mismanagement" in conducting the operations; and it was endeavoured to be shown that certain changes were necessary to ensure greater economy for the future. In regard to the survey itself there is every reason to believe that the class of information above referred to, was accurately obtained and that it is of great value; still it appears questionable whether the exact depths of the channel at the summer level of the lake could have been so correctly arrived at as when the river is clear of ice.

If the same surface inclination or a like relative level of surface and bottom existed at all periods of the year, it would doubtless be safe to accept reduced ice soundings arrived at on the system of correction, which appears to have been adopted. But it has been ascertained by close observation that the river frequently freezes in those portions which expand into Lakes at different relative levels to those which they assume in the open seasons, and that the surface water line is often quite irregular in winter in parts of the river where it is nearly a horizontal or slightly inclined plane in summer.

It may be said that by comparing a similar number of simultaneous soundings taken through the ice, with others made at the same points during the period of low water, would (together with lines of levels) enable all intermediate soundings to be correctly reduced.

This no doubt would hold good if the relative surface inclination between the test soundings were the same at both seasons; still even then such checks would involve chances of error, which could not be supposed to exist if the whole of the soundings were taken at the time when the water is known to be at its natural levels.

The corrected chart of the River St. Lawrence, recently published by the Admiralty from a survey made during the open season by Commander Orlebar differs slightly in the depths of water shown, from those represented by Mr. Forsyth.

It also appears from the annexed correspondence (*not printed*) between these two gentlemen, that the first impressions of the former were against ice surveys, but that he was subsequently satisfied with the explanation of the latter as to the practicability of reducing the soundings to low water level.

There is every reason to believe, that great care was taken to obtain the necessary information for the preparation of the Harbor Engineer's plan, and that for the purpose of

fixing the exact lines of the channel, the position of the light-ships and buoys, it is no doubt very valuable.

Referring to the "Surplus cutting" stated to have been done in carrying out the works, it appears from the accompanying correspondence, that Mr. Forsyth was under the impression that the channel was to be of a *mean width* of 300 feet, whereas the Commissioners stated that the intention was to make it 300 feet wide *at bottom*.

It will also be observed that Mr. Forsyth states that he was not aware of authority having been given to make the channel of a greater width than 300 feet at any place, whilst it appears that the Trust instructed the Superintendent to increase the width at several places. It therefore seems that as Mr. Forsyth was not in possession of correct information relative to the width of a channel contemplated by the Trust, the conclusions arrived at by him on this subject can scarcely be accepted.

As regards the alleged "unevenness" of the sides of the channel it may be said that in a cut excavated in an open Lake, and at several miles from shore, exact uniformity of the side lines could scarcely be expected. At a few places there are points which project slightly into the channel, but these, it is stated, are to be removed as the dredging advances.

In works of this nature it would be extremely difficult (even if it were possible) to adhere to rigid mathematical lines, and it is questionable whether the requirements of navigation demand such a degree of accuracy. It is however, nevertheless, true that a better system of marking out the channel might have been beneficially introduced.

Comparisons have been made between the cost of effecting repairs to the Harbor fleet in the spring of 1862 and 1863, respectively, and as the amount expended in the former year considerably exceeded that of the latter, this circumstance has been cited as an evidence of "mismanagement." But it appears from the statement of the Trust, and the correspondence appended, that many of the vessels which wintered at Sorel were seriously damaged by the great freshet which occurred in the spring of 1862, and that the demand for labor to prepare them for early service, greatly increased the cost of the necessary repairs to the harbor and lake dredging fleets; whereas in 1863 the repairs were of an ordinary nature, and executed under more favorable circumstances.

These being, from concurrent testimony, believed to be the facts, it is much to be regretted that mistaken zeal for the interest of the Trust should have led one of its officers to make comparisons to the detriment of another, by contrasting the repairs of an ordinary season with those of an unusual one.

Still it is proper to observe that this charge principally relates to what was conceived to be an improper division of the cost of winter repairs—that is the harbor fleet is alleged to have been debited with more than its due proportion of the outlay at Sorel; thus increasing the apparent cost of dredging in the harbor, over which Mr. Forsyth had immediate control.

During the course of my enquiries, attention was also directed to certain accounts connected with the dredging fleet between December, 1861, and May, 1863.

It appears that Mr. Kelly, a merchant in Sorel, had agreed to supply the Commissioners at Montreal prices, and that, for one or more years, he had given satisfaction. But when the accounts for the above period (amounting to \$11,087.36) were sent in for payment, the prices charged were found to be so high, that the Trust saw fit to deduct from them the sum of \$1,881.20.

This was the more remarkable from all the 109 accounts having been previously certified to by the Superintendent; and from the different views entertained by some of the principal officers as to the degree of responsibility attached to them in this matter.

The Superintendent seems to have considered that the verification of the weights and quantities was all that could be expected of him, giving as a reason that Montreal prices were liable to fluctuations with which he could not be supposed to be conversant at Sorel. He therefore left this check to the Secretary.

In support of this view he makes a number of quotations from official letters addressed to him, one of which, dated 4th December, 1860, is as follows:—

"I presume Mr. Kelly is making out his accounts to close of season, and that they



“ will be pretty heavy. He may rely on it that if you will only look sharply after quantities; that the receipts correspond with the orders, that we shall as closely compare the prices he charges, with the rates here.”

On the other hand the then Secretary denies all responsibility in connection with accounts further than checking the calculations, and of this he informed the Superintendent in a letter dated the 29th January 1863, and he also wrote to the Trust in December last to the same effect. It appears, however, that in some cases the rates were freely criticised, after the accounts had been certified by the Superintendent.

On my applying to the Trust for a definition of the duties of its principal officers, the following answer in reply to query No. 6 was received.

“ It is the duty of the store and book keeper to check all invoices and goods received, and the prices and weights charged for the same. They are again checked by the Superintendent, who in his turn, sends them to the Secretary, and, if found correct, are placed before the Commissioners.” From the foregoing, it does not appear that this system was either understood or carried out by the officers themselves. Otherwise, such serious discrepancies could not have occurred, as are evidenced by the Commissioners' deductions from Kelly's accounts.

But it is questionable whether even the proper working of this system of checks could altogether exonerate an officer holding a high and responsible position, who attached an unqualified certificate to erroneous accounts. Experience seems to have convinced the Commissioners of this, as they subsequently passed a resolution to the effect that all articles required in future for the lake and river service, should be purchased at Montreal, and paid for directly through the Secretary. The strict carrying out of this order, it is believed, will prevent a recurrence of similar unsatisfactory results.

The books of record kept by the Superintendent were specially brought under my notice and were as follows, viz. :—

“ *Wages Book*” (No. 6)—Showing the monthly payments made to persons employed in connection with the respective steamers, dredges, &c., from January, 1857, generally to the 31st October, 1862.

“ *Outfit Book*” (No. 1)—Showing amount paid weekly or monthly for wages when making the winter and spring repairs.

“ *Store Book*” (No. 1)—Containing statements of the provisions and other articles delivered to the crews of the different vessels.

“ *Coal Book*” (No. 1)—Showing dates and quantities of coals received, and its subsequent delivery to the respective vessels.

“ *Iron Book*” (No. 1)—Containing miscellaneous accounts for iron and wood work.

“ *Inventory Book*” (No. 1)—Showing plant, stores, furnitures, &c., on hand at the close of each year.

“ *Cash Book*” (No. 1)—Showing amounts received and paid by the Superintendent from September, 1862, to the 29th January, 1863. (The cash book previous to the above date is stated to have been stolen along with some other property in November, 1862,—see correspondence.)

“ *Books*” (No. 2)—Containing copies of detailed and general statements, pay-lists, accounts, &c.

From information furnished by the Superintendent and Secretary, it seems that these fourteen books are principally duplicates of documents which have been sent to the Commissioners, and which are still in their possession.

In the spring of last year they were brought from Sorel to Montreal, and subsequently examined by the Secretary of the Trust, who reported on the 1st October following, that he found them satisfactory in point of correctness, and states that according to the system in use, they are well kept; at the same time he is of opinion that a better system might be adopted.

After having in a general way carefully looked over all the books, and in some cases compared them with documents in the office of the Trust, it appears to me that although it is necessary such books should be kept by the Superintendent as records of the business

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done, and for the purpose of supplying information readily in a collected form, that no other important interest is really dependent on them.

In fact they are simply memorandum books, such as local officers on all large works are expected to keep for their own guidance.

The proper books showing the receipts, disbursements, and all money transactions are of course kept at the head office of the Trust in Montreal.

Having thus touched upon the prominent points of the several matters effecting the efficient and economical management of the works, it is not considered necessary for the purpose of this enquiry to enter into further particulars. If, however, more detailed information on these questions be desired, it will be found in an extended form in the replies to the queries addressed to the respective parties, the explanations of the Trust, and other correspondence hereunto appended (*not printed*).

All of which is respectfully submitted.

(Signed)

JOHN PAGE,  
*Chief Engineer Public Works.*

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**APPENDIX No. 12.**


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**RIVER ST. LAWRENCE.**


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*Report on the application of the St. Louis Hydraulic Company, by John Page, Chief Engineer.*

(No. 5,431.)

OTTAWA, 7th December, 1868.

*The Secretary of Public Works :*

SIR,—I have the honor to acknowledge the receipt of your letter (No. 2,864) drawing attention to certain enquiries, made by the Honorable the Minister of Justice relative to the probable effects of the works proposed to be constructed by a Company, at or near the Lachine rapids in the river St. Lawrence.

With a view of placing the matter fully before the Department, it is deemed proper first, to give a brief statement of the leading points contained in the documents which have been submitted both for and against the scheme, together with references to other papers bearing on the subject.

It appears that a number of gentlemen, residents of Montreal, and other parts of the Province of Quebec, are desirous of being incorporated under the name of the "St. Louis Hydraulic Company," "for the purpose of carrying on the business of creating water power for driving of mills and machinery by the construction of dams, sluices and other mechanical appliances, and of leasing or selling the same."

The place where they purpose engaging in this business is at, or near, that part of the river St. Lawrence known as the Lachine rapids and in the vicinity of Montreal.

They represent having made an arrangement for the "undivided half or moiety of that certain fief, in the district of Montreal, known as l'Île-au-Héron, in the river St. Lawrence, "near the St. Louis or Lachine rapids," &c.

In confirmation of this, a copy of a notarial document dated 4th December, 1866, is submitted, from which it appears that the transfer of the "undivided half" of Île-au-Héron has been made conditionally; that is to say, in case the company be not incorporated and chartered, or of its failing to carry out the terms of the arrangement, then re-assignment of the property is to be made to the original owner or person who made the transfer.

On a memorial setting forth the object proposed to be effected by the Company, an Act of incorporation was passed at the last Session of the Legislature of Quebec, authorizing a joint stock company to be formed, with power to take possession of part of the bed and beach of the St. Lawrence, to purchase, acquire, and hold lands for canals, roads, ditches, &c., and construct a dam between Île-au-Héron and the north shore of the river.

The several clauses of chapter 66 of the Consolidated Statutes of Canada, under the several heads of Powers, Plans and Survey Lands, and their valuation, and fences shall be incorporated with this Act, &c., &c.

The company to have a capital stock of two millions of dollars with power to increase that amount, if deemed proper. The charter to be forfeited if the company does not go into actual operation within three years. The construction of the works not to be commenced until one million of dollars of the capital stock is subscribed nor until one hundred thousand dollars shall have been paid up.

This Act or Bill was however reserved for the Royal assent.

Since the Bill was passed before the Legislature of Quebec, several memorials have been presented to His Excellency the Governor General praying for various reasons therein stated, that it be disallowed, viz. :—

1st. From W. J. Knox and Robert Knox (18th March, 1868), owners of mills at the Lachine rapids, representing that by the Bill, the St. Louis Hydraulic Company would

have the power of constructing works which would destroy the water-power owned by them, the memorialists.

That the Company would have the right of acquiring a large amount of property that would prevent the carrying out of a scheme, which had been in contemplation for the last thirty years, for the further development of the water-powers, &c.

2nd. From F. B. Mathews (21st March, 1868), owner of the undivided half of Ile-au-Héron, praying that his property may not be taken possession of, against his will, for the benefit of a private Company, &c.

3rd. From Hugh Frazer, and eighteen other proprietors of land lying on the north shore of the river St. Lawrence, between Montreal and Lachine (23rd March, 1868), praying that assent to the Bill be withheld, inasmuch "as the passage of a law giving private individuals and speculators the right to take the property of their neighbors, at their own valuation, would tend to destroy the security hitherto enjoyed by the inhabitants of the country, in their titles to lands," &c.

The petitioners also state that they believe the Bill "in its present shape to be unconstitutional for various reasons and amongst others, those recapitulated in the *exposé* or *factum* hereunto annexed, and respectfully submitted," &c.

The document thus referred to is headed "Statement of the grounds on which it is contended that the Bill to incorporate the St. Louis Hydraulic Company, passed by the Parliament of the Province of Quebec, but reserved for the Royal assent, should not be passed."

In this paper the principal features of the Bill are discussed and reasons assigned why it should be disallowed. This document seems to have been ably and carefully prepared and as a whole is well worthy of consideration.

There is also a memorial (dated 17th March, 1868), signed by 231 persons chiefly residents of Montreal, to His Excellency the Governor General, praying that the Bill may be assented to, inasmuch as the carrying out of the proposed undertaking would secure to Montreal an unfailing supply of pure water, and create an immense amount of invaluable water-power for general use, &c.

In this connection it may be stated that an Act was passed in 1861, (24 Vic. cap. 96) intituled: "An Act to incorporate the Montreal Hydraulic and Dock Company." By the third section of this Act the Company are empowered to make a canal and conduct water from some point on the river St. Lawrence, within seven miles from the city of Montreal, for the use and supply of the said Docks or for Hydraulic or manufacturing purposes.

By the fifth section, the Company has the power to lease or sell water-power for mills, manufactories, &c., &c., "but none of the provisions in this Act mentioned as to taking possession of and entering upon lands, shall apply to lands to be purchased along the canal, applying the said water-power, which land shall only be acquired by voluntary contract and agreement."

By the 45th section, the powers of the Company are to cease if their works are not commenced within three years, or are not finished or put in operation within ten years from the passing of this Act.

The Act shows that the scheme was looked upon as consisting of two distinct parts; the principal one, or that connected with navigation, being considered as essentially a public work, whilst that relating to water-power was viewed and treated as a private undertaking.

It is believed that the proposed canal was to have been supplied with water from a point above the Lachine rapids, where the river is naturally of a height suited to the purposes contemplated.

It appears from the Acts passed previous to 1859 that the Public Works Department had no power to acquire land as a site for water-powers, or other hydraulic purposes, except in the usual manner of voluntary agreement with the owners, although invested with full power to take possession of all such lands as were necessary for works essentially of a public nature.

But in 1859 an Act was passed (22 Vic. cap. 3), intituled: "An Act to amend and consolidate the several Acts respecting the Public Works." By the 31st section "the Commissioner may at all times acquire and take possession of all lands or real estate, streams, water and water-courses the appropriation of which for the use, construction and main-

"tenance of hydraulic privileges made or created, by, from or at such public works, is, in his judgment, necessary," &c.

In "An Act respecting the public works of Canada," passed in 1867 (31 Vic. cap. 12), the powers relating to acquirement of land are similar to those described in the Act of 1859.

It therefore appears that previous to 1859, the Department of Public Works was not invested with the power of taking possession of lands for the water-powers which even the construction of the Provincial Canals had created.

The exception then made in favor of the Department was not, however, in 1861, extended to the "Montreal Hydraulic and Dock Company," in so far as related to that portion of their project which had for its object the formation of mill privileges.

Notwithstanding the magnitude of the scheme now under consideration and its great public importance, if it could be successfully carried out, its chief aim is similar to that part of the Montreal Hydraulic and Dock Company's project from which the power of expropriation was withheld.

It may therefore fairly be questioned whether such powers could judiciously be conceded to the St. Louis Hydraulic Company.

The 231 memorialists in favor of the projected undertaking give as their principal reason for supporting it, that it would have the effect of "permanently securing for the City of Montreal an unfailing supply of pure and wholesome water."

On examining the plan submitted by the Company it appears that the water above the proposed dam is intended to be raised 18 feet, and kept at a height of about 30 feet over ordinary low watermark, in the harbor of Montreal, and in this way it is alleged the desired object will be effected.

A memorandum, explanatory of the design, shows that "during a portion of last winter (1867), a natural dam of ice was actually formed across the lower end of this channel and "raised the water above it to about the level which will be attained when the permanent dam is constructed," &c., &c.

A record of the water levels kept by the superintendent of the Montreal waterworks shows that during the period alluded to, viz.: the 16th and 18th January, 1867, the water at the site of the proposed dam stood at a height of 30.37 feet above datum or fully 4 inches higher than the level to which it is intended to raise the water above the dam.

During the remaining portion of the month of January, it varied from 29.74 to 27.97 and averaged 28.76 feet above datum, giving for this time a mean fall of 1.24 feet at the site of the dam, when the level above is maintained at 30 feet as proposed.

In the month of February it ranged from 28.97 to 24.63 feet, averaging 26.58 feet over datum and giving for this period a mean fall of 3.42 feet at the dam.

From the 1st to the 21st March, the average level was 25.61 feet over datum giving a mean fall at the dam of 4.39 feet.

The general average of the daily levels from the 16th January to the 21st March, 1867, gives a mean fall of 3.31 feet.

Although the water was backed up in 1867 to a greater height at this point on the St. Lawrence than is usually the case, the phenomenon is more or less of annual recurrence, so that in ordinary seasons, during the greater part of the months of January, February and March, there is not a fall of more than 4 to 6 feet, under the assumed level, at the place where the dam is proposed to be built.

Any opinion given as to the probable effects which the construction of a permanent dam would have on the ice jam below, must of necessity be mere conjecture, it being quite as likely that the height of the back water, hitherto experienced, might be augmented as that it would be diminished. In fact the result is something which cannot be foreseen or calculated upon with the slightest degree of certainty.

From the facts above stated it appears that for a considerable portion of every winter, (ice jams and back water continuing as heretofore) there would practically be no available pumping power to effect the object for which the memorialists mainly recommend the scheme, nor indeed a sufficient head of water to drive machinery suitable for manufacturing or milling purposes.

In the memoranda submitted by the Company it is stated "that the erection of this dam

“ will be followed by the packing back of the water to the lake above, &c., &c., and the probable rising of the lake level with its tributary streams.”

This view of the matter is doubtless correct. By closing up the north branch of the river, all the water would be forced into the south channel where it would have to pass in a space of much less width than that at present occupied by the river, which would of course cause an elevation of the surface level above.

This increased height of the surface would doubtless bear some proportionate relation to the section of river closed and would be such as to give the water a fall sufficient to produce a velocity which would carry off the whole natural flow of the river. The height or distance up stream to which this rise would be experienced it would be all but impossible under any circumstances to determine correctly in advance, but from the class of information submitted on the part of the Company no data whatever are afforded, on which to base any opinion relating to these important points.

Indeed when the magnitude of the river, the set of the rapids, and the irregularity of the channel at this place are considered, it seems doubtful whether such details and formulæ as are applicable to ordinary streams, would be any thing like a safe guide in attempting to form an opinion of the results likely to ensue from the construction of the proposed works.

The banks of the river below Lachine on the north side and below Caughnawaga on the south side are understood to be so high that they are unlikely to be flooded to any great extent.

There is reason however to apprehend that a permanent rise in lake St. Louis, would, during periods of high water, result in considerable damage to several low islands in the lake and to tracts of low-lands along its shores.

The streams which now drain the surrounding country might also form channels for conveying water into the interior. Thus the property of a large number of persons, in no way connected with the enterprise, would in all probability be injuriously affected, and possibly to an extent which, when fully ascertained, might prove to be a serious if not unexpected drain on the means of the Company.

There is no doubt that could the proposed undertaking be successfully accomplished it would greatly advance the manufacturing interests of Montreal and prove to be a source of immense benefit to the whole community.

Nevertheless a project where so many individual interests are at stake and which is open to such serious objections should not be entertained unless it can be clearly shown that it is the best, if not the only way of effecting the object.

An enterprise of this kind to be really successful should be so situated that the power is as little as possible liable to variation or interruption. This it has been shown is unlikely to be the case with water powers found in the vicinity of Ile-au-Héron.

It is however quite evident that the river St. Lawrence between Montreal and Lachine can supply a very large amount of “unfailing” water-power, but in order to secure this, the water must be drawn from the river at a point considerably higher than the place selected by the St. Louis Hydraulic Company. That is to say, if from some point within a few miles of Lachine, a canal of large dimensions were constructed at such a distance from the margin of the river as circumstances required, an almost unlimited number of unfailing water-powers might be formed.

In this way the probable extent of damages could be foreseen and provided for, the risk of flooding of lands avoided, and the hazardous experiment of blocking up a large section of a river of such magnitude as the St. Lawrence rendered unnecessary.

I have the honor to be Sir,

Your obedient servant,  
(Signed) JOHN PAGE,  
*Chief Engineer Public Works*

P. S. A copy of my letter on this subject, dated 21st November 1867, is hereunto appended.

All papers bearing on this matter which have been sent or obtained from the Office of the Honorable the Minister of Justice are herewith returned.

(Signed)

J. PAGE.

OTTAWA, 21st November, 1867.

*The Secretary of Public Works.*

SIR,—I have carefully read over the accompanying report of Mr. Sippell, and the explanatory statements of Mr. Legge, but have failed to obtain from them any other information bearing on the main question, than that the river-banks between Lachine and the proposed dam (on the north-side) and below Caughnawaga on the south-side, are so high that the raising of the water would be unlikely to cause much damage between these points.

No water levels are given, except for a short distance above the site of the proposed dam; so that the effect at Lachine cannot be even approximately ascertained:—but both Mr. Sippell and Mr. Legge agree that the water in lake St. Louis will be raised. Mr. Sippell states that the extent of this cannot be determined until after the dam is built, and Mr. Legge remarks that the precise amount of the “pack” cannot be definitely ascertained at present except at great labor and expense. He therefore proposes to establish bench-marks along the margin of the river and lake for the purpose of estimating the amount of damage that may be caused at a future period. Mr. Sippell further remarks that although there will not be “much drowned land below the villages of Lachine and Caughnawaga, there are however large tracts of low-land on the shores of the lake and several large islands which would probably be rendered worthless.”

The works and improvements proposed are doubtless of great importance and if executed would create very extensive water-power irrespective of the other advantages claimed for them by the applicants.

The scheme, however, is of such a nature that a large number of land owners (in no way connected with it) would in all probability be injuriously affected, and no attempt seems to have been made to arrive even at an approximate estimate of what these damages would amount to.

In this view of the matter it appears to me that the interest of the Company would not be consulted, should they embark in an undertaking of such magnitude without some knowledge of the liabilities which they would be inevitably called on to meet, while at the same time, it is open to question whether it would be fair to place the land-owners in a position where the only compensation they could obtain would be from the funds of a limited liability Company.

It is presumed that the General Government has the control of all main navigable rivers, and can proceed with such undertakings as may be fairly considered of national importance, by allowing reasonable compensation to all parties suffering damage by the construction of the works.

Somewhat analogous powers are given to Railway Companies; but the amount of land required for their purposes is usually determined beforehand with sufficient accuracy, and the extent to which they will interfere with the rights of private parties is generally foreseen and provided for. It does not however follow that powers of a similar nature could with equal propriety be granted to the St. Louis Hydraulic Company, inasmuch as the extent of the damage, for which they might be liable, is not stated, and, when ascertained, might prove to be of such magnitude as to be wholly beyond their means. Besides in the absence of this necessary information, confidence in the scheme would doubtless be lessened by those likely to sustain damage from it.

It must also be borne in mind, that the effect of shutting off so large a sectional area of the river would not be confined simply to throwing into the south channel, the volume of water, which has hitherto flowed through the north channel; but will establish a permanent rise at all stages of the normal levels of the river above the dam, and this rise will be proportionally greater during periods of high water.

In the absence of proper data, it is of course impossible to even approximately estimate what the rise of the water would be; but it is probable that it would not be only the low-lands on the margin of the lake St. Louis or its islands that would be affected, but it would

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also back up into the rivulets and streams which drain the surrounding country. It therefore appears to me that, although this undertaking would doubtless be greatly beneficial to the manufacturing interests of the community, it would, at the same time, be likely to affect injuriously those of a large number of individual land-owners in the Province of Quebec, which might eventually lead to serious complications. If this view of the case be correct, it would be scarcely judicious for the Department to treat the application of the St. Louis Hydraulic Company as coming within the scope of the general Act respecting Joint-Stock Companies.

(Signed)

I have, etc.,

J. PAGE,

*Chief Engineer Public Works.*



## APPENDIX No. 13.

### WATER POWER—OTTAWA.

*Report on Water Power Chaudière Falls, by John Page, Chief Engineer.*

(No. 86,019,)

OTTAWA, 12th June, 1867.

*The Secretary of Public Works :*

SIR,—I have the honor to acknowledge the receipt of your letter of the 16th ultimo (No. 62,559), requesting my opinion regarding the “liability of the Government to furnish a further supply of water to the mills at Chaudière Falls;” and “to send in a report in reference to the dam which the mill owners apply for in order to obtain a further supply.”

Presuming from the date of this letter that it supersedes all previous communications addressed to me on the subject, I beg respectfully to report on the questions submitted in order following :—

From the documents sent me and from other sources, I find that in the years 1853, '56, '57 and '59, there were sold at the Chaudière Falls 25 hydraulic lots, and that water power equivalent to the driving of 10 runs of ordinary mill stones was apportioned to and leased with each lot.

The patent or lease gives the right of using “so much of the surplus water of the river Ottawa, passing and to pass ....., as should be sufficient to drive and propel 10 runs of ordinary mill-stones,” at “the yearly rent of two hundred dollars”—being at the rate “of twenty dollars for the water which would supply each run of stones.” It is also provided that in the event of the lessee not requiring water sufficient to drive ten runs of stones a proportionate reduction shall be made from the rent, “but in no case should the rent be less than eighty dollars per annum.”

It is further stated, “that in the event of the temporary stoppage of the flow or supply of water by any unavoidable reason, or by reason of repairs, improvements or alterations, being by the Commissioner of Public Works deemed necessary or advisable to be made, and being made, or for the purpose of preventing any damage by means of extreme high water or frost or ice or other uncontrollable cause, accident or act of God, no abatement of rent shall be claimed or allowed,” &c.

These quotations are understood to embrace all the conditions contained in the patent relating to the supply of water for milling purposes, except those referring to the construction and maintenance of certain flumes, payments, &c.

The information furnished at the time of sale states that, “water power equivalent to the driving of from 4 to 10 runs of stones will be apportioned to, and leased for 21 years along with each of the hydraulic lots now proposed to be sold; the amount of power leased within these limits, to be at the option of the lessee, who shall have the right from time to time to increase the power beyond that decided on by him in the first instance—paying in proportion.”

“The head of water at the Chaudière Falls varies from 20 to 30 feet, according to the state of the flood in the river; but it is not less at any time than 20 feet, and the several lessees will be required to place their wheels so as to take advantage of the full fall.”

The plan exhibited at the time of sale shows the position of the respective lots, the flumes which the lessees would be called upon to make, also the line and position of certain dams which the Government proposed to construct for the purpose of furnishing the supply of water.

The main dam, or that separating the entrance to the mills from the falls, has been built by the Department of Public Works fully one hundred feet longer than shown on the original plan; and from the outer end of this main dam there has been built a flat dam extending out about 590 feet further to an island.

It may therefore be said that the Government has constructed more works, for the purpose of keeping the water at a height beneficial to the mills, than is shown on the plan dated 6th May, 1852.

But although this plan was exhibited at the time of sale, there is no evidence (so far as I have been able to ascertain) of the lessees having accepted or of their having been asked to accept the water-power on the condition of its being furnished solely by or through the means of the works represented on the plan dated 6th May, 1852; or indeed upon any other conditions than those above quoted.

It appears to me that when the plan and conditions of sale were prepared, as well as for a considerable time afterwards, it was considered that there was then—and likely to continue—an abundance of “surplus water” in the Ottawa river, and that the lessees could be furnished with it, to the extent leased, by or through the means of the works then contemplated.

The peculiar circumstances seem however to have been overlooked, that is to say, a very large body of water was required at certain fixed points where the river is shoal, and where the water, from its surface inclination, has a natural tendency to flow in an oblique direction to that in which it is required for milling purposes.

During seasons when the river is at its ordinary height, although the place surrounding the entrance to the mill flumes is even there comparatively shoal, the natural course of the river being to some extent changed by the construction of the dams above mentioned, admits of sufficient water being drawn off for the supply of the present mills. But during dry seasons the river falls much lower than usual, and at these times the main channel, from its relation to the rapids and falls, is even lower in proportion than the bay on the south side, which increases the extent and draught of the outward current from the bay; so that the quantity of water entering the mill flumes is diminished in even a greater ratio than is due to the lesser volume of water in the river.

The insufficient supply of water complained of by the lessees occurs generally in September and the early part of October, during the dry seasons above referred to.

The accumulation of ice or the formation of “anchor ice” in the rapids also, sometimes in the months of February or March, prevents the ingress of water to the flumes connected with the mills; it is, however, believed that a diminution in the flow or supply of water from these causes has been anticipated and provided for in the conditions embodied in the patent or lease.

But unless either of the clauses referring to “the temporary stoppage of the flow or supply of water by any unavoidable reasons, uncontrollable cause, accident, or act of God,” can be so applied or understood as to mean the actual diminution of the volume of water in the river for a time, or the lowering of its surface level after the continuance of a long dry season, such as frequently occurs in the months of August and September, no other provision seems to have been made for such a contingency.

The variation of the water level may possibly come under the last of these headings; but so far as the water supply to the mills is concerned, it may be questioned whether the falling of the river below a fixed point is really an “unavoidable reason” or “uncontrollable cause,” if it could be shown that such an occurrence could be obviated by reasonable means.

When the scheme of utilizing a portion of the water of the river for milling purposes was first contemplated, it was foreseen that certain dams would have to be constructed in order to secure a supply. These dams were, as already stated, represented on the plan exhibited at the time of sale, and would doubtless have answered the purpose if the demand had been limited to the means of supply. But the quantity of water required seems to have been so much greater than anticipated that it was found necessary to extend the dam a considerable distance further into the river. This having been done before much of the water-power was brought into use, seems to lead to the conclusion either that the works first proposed were inadequate, or that more water had been granted, or that it was intended to grant more than was originally contemplated.

By the leases there has been granted in connection with each lot “so much of the sur

“plus water of the Ottawa river passing and to pass,” as should be sufficient to drive and propel “from four to ten runs of ordinary mill stones” without other reservations than those above referred to.

The conditions of the sale, however, describe how the water is to be used, *i.e.*, “the several lessees will be required to place their wheels so as to take advantage of the full fall,” which varies from 20 to 30 feet, but is not at any time less than 20 feet; and that their wheels must be of approved modern principle and construction, &c.

At the time when the river is lowest the fall is greatest, so that if advantage at such times was taken of the full fall, there would be a head of 30 feet on the water wheels; but assuming, for the present consideration of the matter, that the minimum fall only should be taken advantage of, there should be a head of 20 feet on the water wheels.

Under the head of remarks on the plan, it is stated “a head of water of at least 20 feet can be made use of at any privilege shown on this plan at any season of the year (excepting the lot marked Q).”

“At all the privileges, by sinking the wheel 8 or 10 feet in the rock, the building of a lower story will be saved, and the wheel will be kept free from frost and ice.”

The variable nature of the Ottawa river is also shown by a section on the plan (dated 6th May, 1852,) exhibited at the time of sale, from which, and the remarks on plan, it could readily be seen that the fall of 20 feet mentioned in the conditions is not the height above extreme low water line above the Mill sites, and extreme high water below them; consequently purchasers must have foreseen that their driving wheels would at certain times work in back water, unless arrangements were made to avoid such a result, otherwise they would not “be free from frost and ice.”

I find, however, that the lessees have placed their water wheels from 16 to 18 feet (generally at 16½ feet) below what may be termed mean water level of the river above the falls, except in one case where the wheels are 19 feet below that level, that is to say: the depth of water in the mill flumes is so regulated by the bulk heads above them that it is uniformly kept at 8 feet in depth so long as the height of the river will permit. During this time there is from 16 to 18 feet head on the water wheels as above stated, but in extreme low stages of the river, the water diminishes to 5 feet depth in the flumes, which reduces the head on the wheels generally to from 13½ to 15 feet.

Still it is proper to state that the difference of levels between the flumes when there is 8 feet water in them, and extreme high water at the outlet from the mills, is generally 16 feet, except at the lots adjoining the falls, where it is only 13½ feet. That is to say: that during the period of extreme high water there is from 6 inches to 2 feet of back water on the wheels; but at the lots adjoining the falls there is about 3 feet of back water. All the measurements of head and of back water above given, have reference to the bottoms of the water wheels.

The arrangements made are doubtless beneficial to the mill owners during the comparatively short periods of high water, but it is questionable whether they would avail themselves of such benefits if they were limited to a definite supply; at all events it will be evident that a different state of matters has arisen than appears to have been anticipated at the time of sale.

If a volume of water issuing under a head of 20 feet will produce a certain effective amount of horse power, it requires about 20 per cent more water to produce the same effect under a head of 16½ feet; and fully 40 per cent more water under a head of 13½ feet.

That there is a deficiency of water under existing circumstances at periods of extreme low stages of the river is, an admitted fact; but at the very time when this occurs there is required on an average at least 30 per cent more water to produce the same effective power than would be necessary if the driving wheels were placed “so as to take advantage” even of the minimum fall (20 feet) stated in the conditions of sale.

It would doubtless be attended with inconvenience and disadvantage to the lessees, if they were called upon to have their wheels so arranged that advantage could be taken of the full fall of 30 feet; but it does not follow that a temporary inconvenience should exempt them from using the minimum fall of 20 feet.

It is deemed unnecessary for the present, to say more on the question of the water wheels themselves, than that Mr. Merrill (who has much experience and has given considerable attention to the subject) states that they “for economy in the discharge of

water, and for the per centage of power yielded, are the best that can be obtained at the "present day."

Having thus drawn attention to the information supplied, and plan exhibited at the time the lots were sold, also to the condition relating to the "temporary stoppage of the flow or supply of water" as contained in the patent, it will be seen that the Government has done considerably more work towards keeping the water at a proper height, than shown on the plan dated 6th May 1852, still at certain seasons the supply is insufficient.

The mill owners on the other hand, have not placed their driving wheels so as to take advantage of the full fall, consequently they require a greater volume of water than would have been necessary if their wheels had been lower.

To this there is no objection when the river is high, but the supply at low water being limited, it will be evident that this greater consumption seriously affects the question of insufficiency of water complained of by the lessees.

In the year 1865 there is said to have been mills and machinery in operation which required a power equal to 81 runs of mill stones. If for this purpose there was required 30 per cent more water, it is quite probable that if the wheels had been lower there might have been but comparatively little (if any) deficiency experienced. But since that time new mills have been built and other arrangements made, which it is stated, will require water equal to 37 runs of stones more. This will make the consumption of water, when all are in operation, equal to what is required for 118 runs of stones.

Presuming that water equivalent to the driving of 10 runs of ordinary mill stones has been leased with each lot; the whole power leased would be equal to 250 runs of stones.

If the purchasers of lots were led to understand that such a large quantity of water could be made available, they would naturally expect to have abundance when only a portion of it was used.

This sense of security may have led to the idea of its being considered of less importance to economize the water, than for the lessees to consult their own interests and convenience; but it is questionable whether any reason can exist which would justify them in placing their wheels at a different height from that stated in the conditions of sale, and at the same time warrant them in urging unfair treatment if they did not get a sufficient supply of water at extreme low stages of the river, when they would in reality have been using a greater quantity than if advantage had been taken of the fall represented.

Looking at the matter from every point of view in which it presents itself, the main facts seem to be as follows:—

1st. The Government has leased more water power than can be supplied by or through the means of, the works which have been constructed.

2nd. The lessees do not use the water, at the time when economy is required, in the manner set forth in the conditions of sale.

In this connection it may very properly be asked, if advantage was taken of the full fall, would the works constructed by the Government then enable the full quantity of water leased to be supplied? To this it may be answered without hesitation, that during the period of extreme low water they would not enable the volume of water leased to be supplied. But it is questionable whether the maximum quantity of water leased (sufficient for 250 runs of stones) could under any circumstances be used upon the comparatively small quantity of land at present sold for the erection of mills.

It is quite probable that not more than one-half, or at most two-thirds, of the water leased can be brought into use, whilst it continues as at present to be applied principally to the manufacture of sawn lumber.

From what has been said it will be seen that I have failed to observe wherein any special or direct provision has been made in the patent to meet such cases of deficiency of water as may be caused by the low state of the river. If this is correct, there can scarcely be a doubt but that every reasonable effort should be made to increase the supply of water at such times, especially as they occur at a season when those engaged in the manufacture of sawn lumber are generally prepared to carry on their business advantageously.

To effect this object, Mr. Merrill in 1864 suggested the construction of a dam commencing at the upper end of the present works, and extending outwards nearly at right angles to the direction of the river.

This dam would be about 566 feet long, 410 feet of which would be over a shoal whose

surface is from 12 to 30 inches under the apex of the wing dam which at present connects the main dam and an island situated above the entrances to the mill flumes. The outer end of it for a distance of 156 feet, would be constructed in the main channel of the river, and would consist of a "flat dam" of a sectional area of 767 feet.

This partial blocking up of the channel being permanent, it is proposed to remove a small flat island situated on the shoal and in line of the dam, so as to allow a sectional area of water to pass equal to the obstruction caused by the new "flat dam." To admit of this it is proposed that the dam over the shoal shall consist of a series of stop logs secured between timbers laid parallel to the current; and that the stop logs shall be arranged so that they can be readily removed at the time when the river from natural causes begins to rise.

The cost of the dam proposed by Mr. Merrill is estimated at.....	\$3,192.00
To which should be added for contingencies at least.....	308.00

To remove Russell Island to the depth proposed, would require,	3,500 00
say 4553 cubic yards of rock excavation, but as the lower stratum may necessitate its removal to a greater depth, the quantity may be assumed at 5000 cubic yards, which, at a moderate valuation would cost.....	5,000.00

Or \$8,500.00

There is no doubt that the carrying out of this plan would have the effect of raising the river, but I am not in possession of sufficient information to enable me to say at what height it would enable the mill ponds to be maintained.

It however seems that the blocking up of a portion of the main channel, where the current is strong, and where the depth of the water varies from 1½ to 8 feet, would scarcely be compensated for by giving an equal sectional area at the surface of high water, at a place out of the direct line of the current.

In other words the removal of Russell Island down to the top of the shoal, although its sectional area may be 767 feet, would not admit of a like volume of water passing at high stages of the river as could pass through that portion of the main channel which would be obstructed by the flat dam. The discharge in the one case, although at the surface, is out of the line of the current, whilst the obstructions in the latter would be in the current, and at a height which would influence the flow.

If therefore the provision made for discharge is insufficient to counterbalance the obstruction, the river must rise higher than formerly, but to what extent it is difficult to determine. Still there being rapids at a short distance above the site of the proposed dam, it is unlikely that the rise of water could be felt to any great extent.

In the absence of correct information as to levels, shoals, and currents in the river in this vicinity, it is deemed injudicious to advise either the adoption or rejection of the plan proposed, inasmuch as a better knowledge of the locality may either show that it is the best which the circumstances admit of adopting, or lead to the selection of a different site for a dam:—or possibly another mode of accomplishing the object.

Still it is believed that in case another plan for augmenting the supply of water to the mills at periods when the river is low can be suggested, its execution is unlikely to exceed the cost of the works applied for by the lessees.

I would therefore advise that the sum of \$8,500.00 be considered and treated as the probable cost of the improvements required, until an opportunity occurs of fully examining the various channels, positions of shoals, and other matters having a distinct bearing on the subject.

I have the honor to be, &c.,  
 (Signed) JOHN PAGE,  
 Chief Engineer Public Works.

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**APPENDIX No. 14.**


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**PORT DOVER HARBOR.**


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*Description of the works and repairs executed during the fiscal year ending 30th June, 1868,  
by S. D. Woodruff, Superintendent.*

(No. 3,951)

F. BRAUN, Esq., Secretary,  
Public Works, Ottawa.

WELLAND CANAL OFFICE

ST. CATHERINES, July 4th, 1868.

SIR,—I have the honor to submit the following report for the fiscal year ending the 30th June, in compliance with your letter No. 54,222, of the works connected with the harbor at Port Dover.

The work referred to in my last report, as necessary to complete the inner part of the west pier, was authorised by your letter to me of the 15th April, No. 2232. I placed it in hands as soon as satisfactory arrangements could be made. It is now in a forward state, I hope to have it completed in a few days.

On my last visit there, I examined the state of the channel between the piers, found a good depth of water, upwards of 10 feet, at low water. But at the entrance between 100 and 200 feet from the piers, a bar has formed across the channel; upon this bar there is but 9 feet depth of water.

This harbor is constructed at the mouth of Patterson's Creek, and the flood water caused by the spring freshets, has a tendency to scour out the channel, but the silt from it is deposited near the entrance, and the bar there is thus formed as the current is not sufficiently strong to carry it further out into the bay.

The principal cost to be incurred in the removal of this bar, will be the great expense of taking a dredge there. With one upon the spot, I consider that \$500 is an ample sum to clear out the bar to 11 feet depth of water to sufficient distance on either side of the piers.

With the limited trade to be done there this fall, unless the water within the lake lowers considerably, its removal may not be necessary.

I have the honor to be, Sir,

Your obedient servant,  
(Signed) S. D. WOODRUFF,  
Superintendent

## APPENDIX No. 15.

### CAPE TORMENTINE & JOURIMAIN.

*Report on projected Light-house, by John Page, Chief Engineer.*

(No. 5,970.)

OTTAWA, 26th February, 1869.

*The Secretary of Public Works :*

SIR,—Agreeably to instructions conveyed in your letter No. 2,868, and an Order of the Hon. the Privy Council, I proceeded to the Gulf of St. Lawrence in August last with a view of obtaining information relative to certain localities where light-houses are proposed to be erected; and now beg to report in reference to Cape Tormentine, on Northumberland Straits, as follows:—

This strait is described by Admiral Bayfield to be “a confined navigation 160 miles in length, and which at Cape Tormentine, the narrowest part, is but 7 miles wide from shore to shore, and only  $5\frac{1}{2}$  miles wide if only the navigable breadth is reckoned between “the shoals.”

Towards the eastern end of the strait, the width is  $11\frac{1}{2}$  miles between the coast of Nova Scotia and that of Prince Edward Island, but at about  $3\frac{1}{2}$  miles eastwards, Pictou Island contracts it to 8 miles.

To the westward, opposite Cape Bald on the New Brunswick coast, and Cape Egmont on Prince Edward Island, the width is  $10\frac{1}{2}$  miles, and opposite Richibucto Head it is about  $12\frac{1}{2}$  miles wide.

The general widths are however considerably greater than those above stated.

These comparatively narrow places, the trend of the coast, and the shoals which lie off them, together with the peculiarities of the tidal currents, render it indispensable that those in charge of large vessels should have an accurate knowledge of the various localities. This can readily be obtained from the minute charts, and descriptive sailing directions prepared by Admiral Bayfield. But for the guidance of vessels at night, it is believed that a light-house is required to indicate the position of the dangerous Tormentine reefs and Jourimain shoals, which lie in the narrowest part of the strait.

Cape Tormentine is the eastern extremity of New Brunswick in the Gulf, and is generally understood to embrace the whole of the projecting headland, which contracts the navigable channel of the strait; but locally this name is applied to the central portion only.

The easterly end of the promontory is known as Indian Point, and immediately east of this is the entrance to Baie Verte, 9 miles wide to Cold Spring head, in Nova Scotia; which is liable by vessels bound westward to be mistaken for the main channel. Its westerly end, (fully 3 miles distant,) being the north extreme of the Jourimain Islands, which are connected with the main land by low sand bars and marshes, is called *Cape Jourimain*. To the west of this, in a line with Cape Bruin, is a bay in which there is said to be good anchorage with five fathoms water. Indian Point, Cape Tormentine and Cape Jourimain, were each examined with a view to the selection of the most advantageous site for the proposed light-house.

On the first-mentioned place, a light would doubtless be serviceable to vessels entering Baie Verte; still it would be fully 3 miles distant from the outer end of the Tormentine reefs, which extends out in that direction, whilst it would be 2 miles to the southwards of the track of any vessel passing through the strait, and be to the landward of the outer Jourimain Islands, to eastward bound vessels.

*Cape Tormentine*, as a light station, is liable to similar objections to those above stated, although they would be less in degree.

*Cape Jourimain*, it is believed after full consideration, both in connection with the charts and on the spot, offers the most eligible position for a light-house, of any place that could be selected in this vicinity, it being the extreme point of land to vessels passing in either direction through the strait; whilst those in the ordinary track from the eastwards by bearing directly for it, would fully clear the dangerous Tormentine reefs, and could

proceed westwards, within a mile and a half of the light with safety. The site fixed upon for the necessary buildings is on the north-east extreme of the Cape, 18 feet over the level of the sea, and 25 feet back from the vertical face of the rock, and about 400 feet from the shore line.

This portion of the coast is of red sandstone, and large detached masses of it are strewn along the beach. On top, the Cape is covered to a depth of from 12 to 24 inches with sand, on which is a growth of dwarf trees.

The rock is considerably weather and water worn, but there is every reason to believe that an abundance of moderately good building stone could be obtained in the vicinity.

A light placed in the position recommended, although on the most prominent and salient point of the coast, would be from  $1\frac{1}{2}$  to 2 miles south of the course of vessels passing through the strait, and  $6\frac{1}{2}$  miles to the westwards of the outer end of the Tormentine reefs.

It is therefore important that the light should be distinctly seen from the deck of a vessel at a distance of from 12 to 14 miles. To ensure this, it is proposed to use one of the 3rd order Lens apparatus now in store at Montreal, and to place it at an elevation of about 60 feet over the level of the sea, which will require the tower to be about 40 feet in height (270 degrees of the horizon should be illuminated).

In erections of this kind it is desirable, as a matter of precaution, that the light tower and keeper's dwelling should be separate structures, placed at least 50 feet apart.

It is also judicious when circumstances warrant the expenditure, to have light towers constructed of non-combustible materials, as their destruction and consequent extinction of the lights, might prove fatal to vessels depending upon them for guidance.

In the case under consideration the tower may either be constructed of timber, or built of random coursed masonry of the class of stone which can be obtained in the locality. The latter would however be the most secure and durable.

To construct a light tower 40 feet high of wooden frame work, and fit up the lighting apparatus complete; together with building a framed dwelling house for the keeper, of say  $30 \times 22$  feet, would cost about \$3,500.

To build a light tower 40 feet high of random coursed masonry, and fit up the lighting apparatus complete; together with constructing a framed dwelling house for the keeper, would cost about \$8,500.

First cost of lighting apparatus not included in either of the above estimates.

The establishment of a light station at this place would doubtless be of great benefit to the passenger steamers which run between Quebec, Shédiac and Pictou; as well as to the general navigation of the strait.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

JOHN PAGE.

Chief Engineer Public Works.

### COW (OR MORIEN) BAY.

*Report on projected Asylum Harbor, by J. Page, Chief Engineer.*

(No. 6011)

OTTAWA, 3rd March 1869.

*The Secretary of Public Works :*

SIR,—In compliance with instructions contained in your letter (No. 2867,) and an order of the Honorable the Privy Council which accompanied it, I beg respectfully to submit the following report relative to a cursory examination made of Cow or Morien Bay, on the east coast of Cape Breton.

This Bay lies about 18 miles southeast of Sydney, and has within the past few years become a place of considerable importance from the extensive coal fields in its immediate vicinity—the number of persons employed at and in connection with the mines, and the large quantities of coal which are annually shipped there.



A sufficiently minute description of the bay and adjoining coasts being given in the sailing directions given by the Admiralty, it is quoted with a view of conveying a general idea of the locality. "Morien or Cow Bay is  $2\frac{1}{2}$  miles wide at its entrance between Capes Percy and Morien. On its north side, just within Cape Percy, lies Cow Reef, dry in part at low water, and extending to half a mile from shore. The head of the bay is occupied by flats of sand and mud, partly dry at low water, and through which a narrow and shallow channel leads to False Bay beach on the north side of Mira Bay. Being completely open to easterly winds, Morien Bay affords no safe anchorage."

"Cape Morien is a bold headland, the shoal water extending only  $1\frac{1}{2}$  cables from its sandstone cliffs which abound in coal, and rise on its south side 150 feet above the sea."

"Cape Percy is a precipitous headland, where the cliffs of coal bearing sandstone rise 110 feet above the sea."

"Flint Island bearing east by south  $1\frac{1}{10}$  miles from Cape Percy, is of sandstone, broken by the waves, precipitous, 60 feet high, and 3 cables long in an E. by N. direction." \* \*

"Shallow water extends only a third of a mile from it in any direction \* \* \* \* Between these dangers and the Cape, there is a clear channel a mile in breadth, through which an irregular tidal stream runs at times 2 knots."

On the north east end of Flint Island, a flashing light placed at 65 feet over high water, is visible in clear weather from a distance of twelve miles.

The Bay is comparatively easy of access, and is sheltered on three of its sides, but is quite open to seawards. It extends about 5 miles inland, but fully 2 miles at its head is occupied by sand banks and mud shoals. There is however an area of about 5 square miles with a depth of water sufficient in moderate weather for the largest class of vessels engaged in the coal trade, but during easterly gales there is naturally no safe anchorage within it.

From the risks to which vessels were thus exposed, and the losses sustained from wrecks, it was found, shortly after the mines were opened, that the trade under such circumstances could not be successfully carried on.

This led the proprietor of what is called the Gowrie Mines, (T. D. Archibald Esq.,) to decide upon the construction of a breakwater, so as to afford shelter for vessels in case of storms. But this being a work of considerable magnitude and having to be executed chiefly with private means during a period when the trade was in a depressed state, it was unavoidably proceeded with slowly. The Government of Nova Scotia, however, subsequently granted towards the improvements, appropriations amounting in the aggregate to about one fifth of the outlay.

At the time of my visit the breakwater was carried out to a depth of 20 feet at low water, or about 1380 feet from the shore line.

It is formed of crib-work 50 feet in width, well tied together, and secured with wrought iron bolts—the interior is filled with stone, and on the inner face are vertical fenders from 3 to 6 feet apart, bolted to the side timbers. On the outer side are also vertical timbers, between which is a close sheeting of plank—stone and other ballast from ships has been placed for a considerable distance along the outer side of the pier work fully up to the height of low water. The top has an inclination outward of from 4 to 5 feet, and is covered with plank.

The outside filling has been judiciously placed there for the purpose of breaking the shock of heavy seas, and as the breakwater is not intended in any way for a landing wharf, the top has been made considerably lower outside than inside, so that the waves in a storm can roll freely over it, which there is reason to believe, has a tendency to make smoother water in the basin.

The loading wharf connected with the Gowrie Mines is 1133 feet in length, and is to the westward of the breakwater. The position of the respective piers, and trend of the coasts on which they abut being such that a line from the head of, and at right angles to the loading wharf, would strike fully 750 feet within the outer end of the breakwater. Between these structures a basin of an irregular shape is formed measuring 950 feet obliquely along the shore line, and nearly 400 feet at the outer end—the east side being 1380 feet, and the west side 1133 feet, containing an area of fully 17 acres.

The inclination of the bottom is such, that at 300 feet from the shore there is a depth of about 8 feet water at ebb tide, beyond this the depth gradually increases to  $16\frac{1}{2}$  feet at

the head of the loading wharf, and 20 feet at the outer end of the breakwater.

The area of the basin outside this 8 feet line is about  $10\frac{1}{2}$  acres, and between it and the shore there is an area of about  $6\frac{1}{2}$  acres.

The main features of the design seem to have been the extension of the breakwater to such a distance from the shore as would secure an ample space in the basin, and at the same time to some extent shut in the land on the north side of the bay. These objects have been so far accomplished, that all the vessels seeking shelter within the breakwater are said to have been accommodated, and that no wrecks have occurred for the past two years, whilst formerly there were lost from 4 to 6 vessels annually.

It may be stated that there are four coal mines on the bay, two on each side; those on the north side are in effective operation, but on the south side comparatively little mining has as yet been done.

At each of these places a wharf of more or less extent has been built, but there is no shelter for vessels in easterly gales except that above described.

During my visit in August last, there were thirty large vessels in the bay, but as the wind was then off shore, not more than half of them were inside the breakwater, and of these there were only five intended to receive cargoes from the Gowrie Mine.

From what has been said it will be seen that the benefits experienced from the construction of the works, are not confined to vessels trading to this mine; but are participated in, as occasion requires, by all vessels frequenting the bay; it therefore appears that the improvement although started as a private enterprise, has acquired a degree of importance to the trade, which fairly entitles it to be viewed as a work of general utility.

The area of shelter now afforded is no doubt considerable, still it might with advantage be increased by a farther extension of the breakwater of say 250 or 300 feet.

This, it is believed, is a desirable provision to make for the accommodation of the larger number of vessels, which the development of the extensive coal fields in the vicinity will be likely to employ; and at the same time provide space for fishing craft requiring an asylum Harbor.

I have the honor to be, Sir,

Your obedient servant,

(Signed)

JOHN PAGE,  
Chief Engineer Public Works.

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### BATHURST HARBOR, N. B.

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*Report on projected Harbor, by John Page, Chief Engineer.*

(No. 6130)

OTTAWA, 18th March 1869.

*The Secretary of Public Works.*

SIR,—As directed by your letter (No. 2867,) I recently made a cursory examination of the Harbor at Bathurst, in New Brunswick, and now beg to submit the following report relative thereto :—

This harbor has its outlet on the Baie des Chaleurs, and like most others on the western shores of the Gulf of St. Lawrence, is obstructed by bars at its entrance. The outer bar is fully 3 miles to seawards, it is about 250 feet across—with a channel 120 feet wide, in which is a depth of  $11\frac{1}{2}$  to 12 feet at low water. The second or shore bar is about  $1\frac{1}{2}$  miles beyond the outer line of the harbor at Alston and Carron Points—it is about 180 feet across, with a channel from 90 to 100 feet wide, in which the depth at extreme low water is said to be 7 feet, but at the time of my visit there was a depth of 8 feet.

From the second bar inward there is a depth of 12 feet, but the channel is comparatively narrow and passes between extensive shoals on which there is very little water at ebb tide. Spring tides rise 7 feet; neap tides 4 feet.

The inner basin is fully  $2\frac{1}{2}$  miles long, and  $1\frac{1}{2}$  miles wide, but there is only a narrow navigable channel in the middle, and the beds of some streams which empty into it, which are not dry at low water.

The town of Bathurst is situated at the head of the basin, and on its easterly side is a large river called the Nepisiguit, which is navigable for fully  $1\frac{1}{2}$  miles above the harbor. To the westward of the town and about a mile above it, the Middle and Little rivers unite forming quite a large basin, which is crossed by a substantial well constructed bridge nearly half a mile long. This bridge forms part of the road between Miramichi and Dalhousie. The Tête-à-gouche, a small unnavigable stream, enters on the north west side of the basin.

The trade of the place is generally connected with ship building and lumbering operations. The latter are carried on chiefly by one firm, who have extensive saw-mills at the head of the basin, on the westerly side and adjoining the channel.

At the time of my first visit, there were four new ships on the stocks, in different stages of advancement by three separate builders, but I was informed that there was little or no demand for vessels.

From what could be learned from the Honorable Mr. Ferguson, and other gentlemen who were kind enough to accompany and assist me during the examination, it appears that the bars at the entrance are not considered so objectionable as two shoals, which exist in what is termed the "main channel" of the basin.

The innermost of these is called *Seal bar*, on which was found a depth of 5 feet 9 inches, and from  $8\frac{1}{2}$  feet water above it to the same depth below, the distance is about 800 feet.

To deepen this bar to  $8\frac{1}{2}$  feet, and for a width of say 100 feet would require the removal of about 4000 cubic yards of material.

There was found on the *Ballast bar* a depth of 7 feet, and between  $8\frac{1}{2}$  feet water above and below it, the distance is 150 feet. The probable quantity of dredging required to deepen this bar to  $8\frac{1}{2}$  feet would be about 600 cubic yards.

Thus the total dredging at these two places would be about 4600 cubic yards.

If this was done, any vessel that could pass the outer bar might proceed upwards to the wharf at the head of the basin.

At present small vessels frequently load inside of the entrance and large ones occasionally take in part of their cargo there, and afterwards complete their loading outside of the bar where there is good anchorage.

The basin being well sheltered, and the shoals consisting principally of sand, they could readily be removed, if proper means of executing the work were at the place. There is however no dredging equipment belonging to the Government on the western coast of the Gulf, consequently if it is decided to do this, and other works of a similar nature, it is indispensable before they can be undertaken, that the necessary plant should be provided.

I have the honor to be, Sir,

Your obedient servant,

(Signed)

JOHN PAGE,  
Chief Engineer Public Works.

### NEILS' HARBOR, C. B.

*Report on projected Harbor, by John Page, Chief Engineer.*

(No. 6,139.)

Ottawa, 9th March, 1869.

*The Secretary of Public Works:*

SIR,—With a view of supplying the information called for by an Order of the Honorable the Privy Council, dated 11th May, 1868, relative to what is termed Neils' Harbor, I beg to submit the following report based on a cursory examination of the locality made in August last.

This place is on the east coast of the Island of Cape Breton—about  $2\frac{1}{2}$  miles S. S. E. of Cape Egmont, and 34 miles to the northwards of St. Ann's Harbor. It is generally known as *Neils' Cove* and is described in the sailing directions prepared by Admiral Bayfield "as a good landing for boats."

It lies on the north side of a bay, or indent in the shore, which extends fully 2 miles inland from the general coast line.

The cove is of a semicircular form, measuring about 550 feet wide at the entrance, and 350 feet transversely at the centre, containing an area of nearly  $3\frac{1}{2}$  acres. Across the entrance the soundings vary from  $5\frac{1}{2}$  to  $25\frac{1}{2}$  feet at low water, the greatest depth being on the westerly or inland side about 60 feet from low water line inside, the depth is from  $2\frac{1}{2}$  to  $3\frac{1}{2}$  feet, along the shore are a number of small houses and huts, which at certain seasons are fully occupied by fishermen and their families, numbering in the aggregate, it is said, 150 persons, but at the time of my visit several of the houses were empty.

The pier is on the seaward side of the entrance; it is 53 feet long, 18 feet wide, and 13 feet high at the outer end. The inner end is 12 feet high, where for a distance of 19 feet the width has been increased to 26 feet by a subsequent addition of 8 feet. It is built of small round timbers, roughly put together and secured by vertical binders, bolted to the side timbers; the top is also covered with small round trees, not very well fastened, some of them having been already washed off, and part of the stone ballast removed.

Between the inner end of the pier and a building used as a fish house, there is a space of  $23\frac{1}{2}$  feet through which the sea washes, as well as under part of the building.

From a statement furnished by the Audit office, it appears that the expenditure at this place up to the 31st December 1867, by the Government of Nova Scotia, amounted to \$756.68, but whether this sum embraces the whole cost of the work or otherwise, there seems to be no means of determining.

The pier as above stated being only 53 feet in length, with a large open space at the shore end, through which the sea in moderate weather must pass freely, it can scarcely be expected to afford much, if any shelter to boats or other craft during a gale.

To be of any practical utility, it appears to me that the opening next the shore should be closed, and the pier extended at least 100 feet in the same direction as the present structure.

The cost of this would probably be about \$3,000.

If these improvements were made there is reason to believe that although the cove is comparatively small, it would at times be found serviceable to boats, and of considerable advantage to those engaged in the fisheries on this part of the coast.

I have the honor to be, Sir,  
Your obedient servant,  
(Signed) JOHN PAGE,  
Chief Engineer Public Works.

## AMHERST AND HOUSE HARBORS, MAGDALEN ISLANDS.

*Report on projected Harbor, by John Page, Chief Engineer.*

(No. 6131.)

OTTAWA, 15th March 1869.

*The Secretary of Public Works :*

SIR,—In compliance with instructions contained in your letter (No. 2866), I recently examined Amherst and House Harbors in the Magdalen Islands, and now beg to submit the following report in reference thereto :—

The Magdalens strictly embrace all that group of islands lying near the middle of the Gulf of St. Lawrence, but the name is also applied specially to those known respectively as Amherst, Grindstone, Alright, Wolf, Grosse Ile and Coffin Islands. This chain is for the most part connected by double lines of sand bars and beaches, enclosing extensive water spaces or lagoons with only narrow openings at distant intervals through which the tide ebbs and flows. They measure in the aggregate between the north-easterly and south-westerly extremes about 42 statute miles, with a width, including the lagoons, varying from  $1\frac{1}{2}$  to 11 miles.

There is probably from  $\frac{1}{4}$  to  $\frac{1}{3}$  of the land on these islands suited for cultivation and pasturage; but agriculture is only followed to a very limited extent by the inhabitants; their chief occupation being connected with the fisheries.

Seal hunting on the ice in March and April is generally attended with success, whilst herring, mackerel, and codfish are, at certain seasons, so abundant in the vicinity as not only to afford full employment to the residents, but to attract large numbers of fishermen from distant places, and even vessels from foreign countries.

It is said by those competent to form a correct opinion on the subject, that there are few places if any, in North America which offer so many advantages for fisheries on a large scale as the Magdalen Islands. There are however no harbors for ships in them, and but three for small vessels; named respectively Amherst, House, and Grand Entry Harbors, and one for boats called Basque Harbor.

The two latter were not examined, as the application which accompanied your letter states that they, "from their position and their distance from the settlement, are not used, and will probably never be used, except the first as a winter harbor for laying up the schooners that fit out for the seal fishing in the Gulf of St. Lawrence, and the second as a place of resort for herring fishing vessels." It is therefore proposed to confine the following remarks to those places which were specially brought under my notice.

*Amherst Harbor* lies on the north-easterly side of Amherst Island, and opens into Pleasant Bay which is described as the best roadstead in the Magdalen Islands. It is small in comparison to the area of the basin in which it lies, a large portion along the shores especially on the landward sides being occupied by sand and mud shoals. This harbor is however of considerable importance as a place of shelter to vessels engaged in the fisheries, as well as to small coasters connected with that trade. But it is said that within the past few years, sand banks have accumulated in such positions within it as threaten to destroy its usefulness as a place of shelter or resort for vessels.

Admiral Bayfield gives the following description of this harbor as it existed 30 years ago:—

"Amherst Harbor is formed by a peninsula presenting cliffs of grey sandstone to seaward, in the south-west corner of Pleasant Bay. Its entrance between this Peninsula and the sands to the southward is  $2\frac{1}{2}$  miles, within, or to the westward of the extremity of Sandy Hook, which is a long and narrow sandy point with sand hills."

"This harbor is the easiest of access and egress of any in the Magdalen Islands, and has moreover the advantage of an excellent roadstead outside, where vessels may wait their opportunity of running in. Nevertheless its entrance is extremely narrow and rather crooked, so that without a pilot it would be necessary to buoy, or stake the channel. The depth over the bar which is rocky, is 7 feet at low, and from 9 to 10 feet at high water, according as it may be neap or spring tides. Within the harbor there are from 12 to 17 feet over a bottom of soft, black and fetid mud, well sheltered from every wind."

The bar appears to be of a like class of grey sandstone as the cliffs on the north side of the entrance, the strata of which have a dip of from 40 to 45 degrees. There are three patches which stand from 12 to 18 inches higher than the general bottom; one of these is apparently on the north side of the channel, and measures about 50X20 feet:—the other two are on the south side, but further to the eastward, and are each about 15 feet square. On the large patch 9 feet water was found, and on the other two the depth was 9 feet 3 inches, but marks were pointed out to me which shewed that these soundings had to be reduced two feet to arrive at extreme low water; this would give 7 feet water on the large patch, and 7 feet 3 inches on the two smaller ones.

A vessel in making the harbor, passes to the north of the outer patches of rock, until nearly up with a small buoy placed in the vicinity of the large patch, where the course suddenly changes to the north; and within a short distance again turns to the westward between another buoy and a wharf connected with a fishing station. These buoys are barely 130 feet apart, whilst their position is such as to fully warrant the remark that the entrance "is extremely narrow and rather crooked."

In the basin there is an area of between 18 and 20 acres with from 12 to 16 feet water—the area of water varying from 9 to 16 feet in depth is however between 24 and 26 acres.

None of the soundings found exceeded a depth of 16 feet when reduced to low water. It therefore seems that the deepest parts of the basin have become shoaler, hence there is a probability that the former extent of anchorage for schooners has also been diminished.

There is however no reason to believe that any great change has taken place at the

entrance, inasmuch as the bar is of rock, and the depth on it is about the same now as it was found to be 30 years ago by the Admiralty.

A cursory examination of the place leads to the impression that the harbor would be easier of access and egress, were the rocky patches at the entrance removed. This might be effected, although from the nature of the rock, dip of the strata, and the difficulty of working in a seaway it would very likely be found an expensive undertaking; still there are persons well acquainted with the locality who are of opinion that the removal of the rocks might lead to even a greater bar being formed in their stead, or to the accumulation of more extensive banks in the basin.

In the absence of correct information relating to the action of the sea during storms, on the immense sand banks in the vicinity, it would doubtless be wrong wholly to disregard such opinions although they may not be fully sustained by reasons of an absolutely convincing nature. Especially as a mistake made in such a matter might possibly be attended with such serious consequences.

Another mode of effecting the object would be to dredge a channel into the basin on a line to the south of the rocky patches, still it is questionable whether such a channel would remain open, whilst its effects on the formation of banks in the basin itself cannot be foreseen, or even approximated.

In short, the whole of the south and easterly sides of the entrance being of sand more or less liable to be moved by heavy north easterly storms, it is to be feared that by increasing the width, altering the course, or indeed attempting any other extensive interference with the natural channel might be found productive of injury, instead of a benefit to the harbor.

The area of the basin might however with advantage be increased by dredging, but as the same causes which form the banks would still exist, the dredging operations would of necessity have to be from time to time continued.

*House Harbor* lies between Alright and Grindstone Islands, and has its entrance from the Gulf on the south-easterly side of the Magdalens. It is said to be a safe harbor for such vessels as can clear the bar at the entrance; and the outer bay in certain winds affords good shelter for fishing craft. The inner harbor, or lagoon extends from Grindstone Island in a north-easterly direction until it connects with the lagoon from Grand Entry; forming altogether at full tide, an inland water communication for ordinary sized boats of about 24 miles in length.

The sailing directions published by the Admiralty briefly refer to it as "distant  $2\frac{3}{4}$  miles to the north-west from Cape Alright; its entrance is a narrow crooked channel, carrying only 6 feet at low water."

The channel appears to be partially filling up as there are now several places with only 5 feet at low water, and it is stated to be of less width, with sharper turns than formerly. The area of deep water in the basin is also said to have diminished considerably within the past 20 years.

All the beaches in the vicinity, and the bars which obstruct the channel, are of sand. The latter are a short distance apart, but so situated that they overlap each other, leaving only a narrow crooked passage between them for vessels.

To enable a moderate sized schooner to pass during neap tides which rise only 2 feet, there should be a depth of at least 8 feet in the channel at ebb tide.

On the deepest and most favorable line, the distance between 8 feet water outside and to a like depth inside, is about 1300 feet; between these points the average cutting would be two feet. Thus for a channel of say 200 feet wide at bottom, would make the quantity of material to be removed, nearly 20,000 cubic yards.

The removal of a large mussel bed, &c. inside of the harbor, would probably amount to 8,000 cubic yards. Thus the approximate quantity of dredging to be done would be 28,000 cubic yards. This harbor forming one of the openings to the large lagoon, and through which the tide finds access and egress, there is always a strong inward current when the water is rising, and an equally strong outward one when the tide is receding.

These currents, it is believed by some, would have the effect of keeping a channel open, after it was once made, especially if the material dredged out was placed so as to close up the present crooked line.

This view of the matter would no doubt in some measure be correct if the current

were confined to the channel, but as they are in reality spread over a large bay, it is to be feared their beneficial effects would scarcely be appreciable.

If it is decided to improve the channel into *House Harbor*, or to enlarge the basin at *Amherst* it will of course be necessary to provide a proper dredging equipment for that purpose, as none is at present owned by the Government.

These places being at a considerable distance from any point on the western coast of the Gulf, and for the greater part of the season difficult of access it will be evident that a dredging machine applicable to this service should be of such a construction as would enable it to stand a moderately heavy sea. The lighters and tug boat connected with the outfit would also require to be of a seaworthy class.

I have the honor to be, Sir,  
Your obedient servant,  
(Signed) JOHN PAGE,  
*Chief Engineer Public Works.*

### HERRING COVE HARBOR.

*Report on projected harbor, by J. Page, Chief Engineer.*

(No. 6,315)

OTTAWA, 6th April, 1869.

*The Secretary of Public Works :*

SIR,—Agreeably to instructions in your letter (No. 2867,) I visited Herring Cove in September last, and now beg respectfully to report the result of the enquiries and examination then made.

This cove lies on the north coast of what is called the Chignecto Channel, or north-eastern arm of the Bay of Fundy, and is about  $11\frac{1}{2}$  miles to the westward of Cap Enragé light-house, and 40 miles to the eastward of the light situated in the vicinity of Quaco Head.

It is in the Township of Alma, Albert County, and about 6 miles from the south-east extremity of the County of St. John, New Brunswick. For a considerable distance on either side of it, the country is rugged, mountainous and intersected by deep ravines, the roads hilly and extremely circuitous. The high land, however, appears at many places to be good, but for the most part it is sparsely settled.

From the harbor of St. John eastward for a distance of fully 100 miles, there is said to be no good roadstead, or place of shelter for vessels at low water, on the north coast of the Bay of Fundy.

Black River, about 17 miles west of Quaco light, is however stated to be a safe inlet for a small vessel, but at half tide it is all but dry.

The extraordinary high tides which sweep through this bay, produce at all times strong and frequently perplexing currents, either inward or outward according as they may be ebbing or flowing. It is nearly of an uniform breadth of about 36 miles, from opposite St. John eastward, to where its waters are divided by a peninsula forming part of the County of Cumberland in Nova Scotia—the western point of which is called Cape Chignecto. The southern arm leads to the Basin of Minas, and the northern one forms the Chignecto Channel.

The latter, at about 17 miles to the north eastward of Cap Enragé, is divided into two branches, one leading to Cumberland Basin, between which, and Baie Verte on the Northumberland Strait, is a small river called the Missiquash, understood to be the boundary between the Provinces of Nova Scotia and New Brunswick, the other branch forms what is termed Shepody Bay. This bay, at a distance of 12 miles to the northwards, also divides into two channels, one of which called Petitcodiac River leads northwesterly between the Counties of Albert and Westmoreland, the other and smaller, called the Memramcook river, has a northerly course through the county of Dorchester.

At low tide the narrow channels of these rivers wind for miles through soft dry mud flats, on both sides and along the wider parts extensive banks and shoals are at many places visible, whilst others are barely covered, showing for the time the reverse of any indication of a navigable route. These, on the return of the tide, are soon deeply submerged

by brown muddy water, which continues to rush inland with great rapidity for a time, then as rapidly retreats, leaving the brown mud banks and flats again dry.

In some parts of these rivers and arms of the bay, it is said that the water runs at the rate of fully *six miles* an hour, and that the vertical rise of the tide is at times upwards of *sixty feet*.

It will thus be evident that in navigating the eastern part of the Bay of Fundy, narrow channels, strong currents, and perplexing difficulties of no ordinary nature have to be encountered.

No sailing vessel bound westward can pursue its course when the tide is making, unless during a strong favorable breeze; and no eastward bound one can make headway when the tide is ebbing. In general about the turn of the tide, vessels have to seek a suitable place to anchor, which, from the nature of the coast, it is frequently difficult to obtain, whilst in certain winds no safe or sheltered anchorage can be found.

This leads captains of vessels, even on slight indications of a storm, to hesitate leaving port, knowing that they may probably have to sail 100 miles before another place of safety can be reached. These uncertainties, together with the prevalence of fogs on the bay, are stated to result in such delay and risk to coasting and other vessels, as to render the construction of a place of shelter all but indispensable.

With this object in view, several of the Honorable members of the Senate, and members of the House of Commons (19 in all) recommend Herring Cove as the most suitable, if not the only place on the coast that can be selected.

This cove, although difficult of approach by land, appears to be easy of access from the sea, being only an angular indent in the shore with the outer end open to the eastwards. It however possesses the peculiarity of being quite an extensive cove, capable of containing a large number of vessels at high water, but at the ebb tide it seems to cease being a cove at all, the shore line at low water lying nearly as far out as the reef which is understood to form its natural shelter.

On its southwest side is a high, almost perpendicular cliff of red sandstone, extending 584 feet beyond high water line. Outside of this cape a reef runs out 250 feet, all of which is dry at low water, as well as the whole beach to within 15 or 20 feet of the same point. The top of this reef has an irregular broken inclination of about 25 feet from the outer end to where it connects with the cape. At 210 feet beyond the end of the reef there is a depth of 12 feet at ebb tide.

The beach consists of sand, mud, and shingle, and within a distance of 150 feet out from high water line, it has a descent of from 16 to 18 feet to a flat, the land-ward side of which is dry at from one half to one third tide.

This flat has a gradual descent outwards for 660 feet to low water mark, and is about 800 feet long in line of the shore.

From the above it will be evident that at ebb tide there is naturally little or no shelter at this place, other than what is afforded by the trend of the coast; consequently its future benefits as an asylum harbor for vessels, especially for those that are loaded, must depend principally upon the extent of the breakwater formed for its protection, as it is unlikely that a loaded vessel, except from dire necessity, would seek shelter at a place where it would inevitably be left on a dry beach when the water recedes.

At this place ordinary neap tides rise.....	30 feet
"        "        spring        "        .....	37 "

But it is said they occasionally rise from 35 to 41 feet.

A breakwater, if built in this locality, should in my opinion be carried from 6 to 7 feet over high water line, on the inner side, but the outer side might with advantage be from 4 to 5 feet lower than the front. This would to some extent prevent the shock of the waves from injuring the superstructure, and admit of the sea rolling over it in case of a storm, which might have a tendency to make smoother water inside.

It should be nearly as wide as it is high, and be firmly bound together with cross and longitudinal ties, and well filled with ballast. On the sides, vertical fenders, or binders should be bolted, from the top down to lowest water, and the top should consist either of flatted timbers or a heavy class of scantling.

From the great height of the structure, and its exposed position, the workmanship throughout must necessarily be of the strongest and most substantial class.



The probable cost of carrying out the respective portions of which would be as follows :

To construct breakwater on reef, 250 feet long $\times$ $46\frac{1}{2}^{30}$ wide $\times$ $46\frac{1}{2}^{21}$ high.....	\$ 9,000
For extension of 200 feet beyond end of reef $56\frac{1}{2}^{46}$ wide $\times$ $56\frac{1}{2}^{46}$ high.....	16,000
For extension of 50 feet further out (or to a point 250 feet beyond end of reef) $60\frac{1}{2}^{56}$ wide $\times$ $60\frac{1}{2}^{56}$ high.....	5,000
Total.....	<u>\$30,000</u>

It is proper to state that this estimate is made in the absence of correct information as to the absolute value of materials in the locality, and consequently is merely approximate.

The construction of a breakwater on the reef only, would form a partial shelter at about half tide, but none at low water.

If a breakwater was extended 200 feet beyond the end of the reef, there would be an area of fully one acre of water inside of it at ebb tide, with a depth varying from about 3 to 11 feet.

An extension of 250 feet beyond the end of the reef would give an area of one acre and a half of water inside, with a depth varying from 3 to 14 feet at ebb tide.

I have the honor, &c.,  
(Signed) JOHN PAGE,  
*Chief Engineer Public Works.*

P. S. Appended is a statement (supplied by the Hon. Mr. McClelan) of the vessels and tonnage cleared from Ports at the head of the Bay of Fundy, during the season of 1866, together with the estimated value of the exports and imports.

(Signed,) J. PAGE.

Statement of vessels and tonnage cleared at the under mentioned ports at the extreme head of the Bay of Fundy in 1866.

	Vessels.	Tons.	
Dorchester.....	44	6,797	}
N. Joggins.....	8	659	
Sackville.....	8	1,331	
Moncton.....	4	515	
Hillsboro.....	108	11,624	
Harvey.....	33	2,078	
	<u>205</u>	<u>23,001</u>	

Cleared for foreign ports only, and not including coasting vessels, and fishing do.

Value of Imports and Exports, per Custom House Returns, in 1866.

	Imports.	Exports.	
Dorchester... \$23,131	.....	43,494	}
N. Joggins.. 5,365	.....	5,975	
Sackville.... 40,097	.....	10,936	
Moncton..... 75,600	.....	5,716	
Hillsboro.... 6,397	.....	211,708	
Harvey..... 2,721	.....	10,582	
	<u>\$153,311</u>	<u>\$288,511</u>	

Not including goods from St. John, or lumber or produce shipped there, which forms a large portion of the trade of the Ports.

From 30 to 40 vessels, averaging 350 tons or thereabouts, are annually built at above Ports, and at St. Martin's and other places along N. B. shore, say 15 or 20 more of larger average.

The above data are prepared from Returns for 1866, a year when the exporting of gypsum was entirely suspended, and the stone quarrying business in a stagnant state, in consequence of the restrictive tariff of the United States.

The gypsum business is now again revived.

APPENDIX No. 15—*Continued*.

## STE. CROIX RIVER.

*Report on the condition of the channel of the upper navigable part of the river,  
by John Page, Chief Engineer.*

(No. 6,292)

OTTAWA, 5th April, 1869.

*The Secretary of Public Works :*

SIR,—Agreeably to instructions contained in your letter No. 3,174, I visited, in September last, the upper navigable part of the Ste. Croix river, and now beg to report on the examination and enquiries made, as follows :—

This river forms, for a considerable distance, the boundary line between the Province of New Brunswick and the United States. It is navigable for a distance of about 25 miles above Eastport, which is situated in the State of Maine, opposite the island of Campo Bello, and near the south-western end of the bay of Fundy.

At St. Andrews, in New Brunswick, (about 11 miles above Eastport,) the river enters the extensive bay of Passamaquoddy to which there are three entrances, one between Campo Bello and the western main land, another between Campo Bello and Deer Island, and the third, to the eastward of both these islands, is preferred from its depth of water and ease of access. This bay affords good anchorage and shelter for vessels.

From St. Andrews upwards for a distance of 10 miles to what is called the "Ledge," the channel of the river is of a good width and depth, and for about 2 miles above this, vessels drawing 12 feet can pass at low water.

From this point, however, the depth begins gradually to diminish so that at a wharf, about half a mile above, there is at ebb tide barely sufficient water for vessels drawing 4½ feet.

The towns of St. Stephens on the New Brunswick side, and Calais on the American side of the river, are situated about a mile and a half higher up, as well as the principal wharves connected with these places, but which at low water are inaccessible to vessels.

This being the terminus of inland navigation, a permanent bridge has been built across the river, and railways on both sides connect with the wharves, and have stations within a short distance of the bridge. The business relations of the inhabitants being so close that it is no uncommon thing for the same person to have an office or store on both sides of the river. A short distance above the bridge, dams have been constructed for the purpose of creating water power for a number of mills erected in the vicinity, and at a place called Milltown, about two miles higher up the stream, there are several dams at short distances apart, at each of which there are a number of mills. These mills are principally for the manufacture of sawn lumber, and it is said that there are a greater number of them owned on the New Brunswick side, than on the American side of the river.

Several of the mills have been in operation for many years, and from there having been no positive enactments to prevent waste from them being thrown into the river, the low water channel, for a considerable distance below the bridge, has become completely obstructed.

The rise and fall of the tide at this place is from 20 to 25 feet, but at the ebb there is now only a narrow, crooked and shoal channel, through which no vessel can pass, although it is said that 30 years ago, vessels drawing 12 feet or more, could then ascend to St. Stephens and Calais at low water.

An examination of the bed of the river shows that the obstructions are principally accumulations of saw dust, slabs and edgings, which have carelessly or otherwise escaped from the mills situated on the upper part of the stream.

It being neap tides at the time of my visit only part of the shoals could be seen, but from the soundings taken it was quite evident that they jut out at intervals from both sides of the river into the narrow and crooked channel, the largest, however, being on the American side.

The desirability of clearing out this portion of the channel having been represented to the American Government, an appropriation was granted by Congress, and approved on the 2nd March, 1867, which reads as follows :—

"For the purpose of improving the navigation of the Ste. Croix river, Maine, above the Ledge, fifteen thousand dollars; provided the Province of New Brunswick shall

“ contribute and pay to the proper disbursing officer a *like sum* for said purpose, said payment being made on condition that in no event shall the Province of New Brunswick be called upon for more than half the sum actually expended for said purpose.”

In a report on this subject to the United States Secretary of War, George Thom, Lieutenant Colonel of Engineers, after giving the details of an examination made by him, remarks that no action having been taken by the Province of New Brunswick.....  
 “ to give effect to the proviso of the law of Congress above referred to, operations in this river have, therefore, been necessarily suspended until the provisions of the law, making the appropriation, can be complied with.”

For an accurate estimate of “ the amount that is required for the entire and permanent completion of this works, a careful survey will be necessary. The examination made by me showed that to open a channel one hundred feet wide and ten feet deep at low water, would require the removal of not less than 100,000 cubic yards of slabs, edging and saw dust, which,

“ At 80 cents a yard, would amount to.....	\$80,000
“ Add 10 per cent for contingencies.....	8,000
“ Total.....	\$88,000
“ Deducting one-half if paid by the Province of New Brunswick.....	\$44,000
“ Amount appropriated by Act of Congress, approved March 2nd, 1867.....	15,000
	<u>\$59,000</u>
“ Additional amount required.....	<u>\$29,000</u>

From what could be seen and learned of the obstructions which have accumulated in the river, I am led to believe that to form a channel 100 feet in width, and 10 feet in depth at low water, would require the removal of even a larger mass of material than that stated by Col. Thom.

In fact, it seems as if the removal of fully 100,000 cubic yards would be necessary to form a channel 8 feet in depth, which, so far as could be learned, is all that the residents desire, or the navigation really requires.

The material would doubtless be of a difficult class to excavate, still with a proper equipment it might possibly be done at a less rate per yard than that stated in the above estimate.

As to the probability of a channel when formed, remaining open, Col. Thom in his report very properly remarks :

“ While the causes of these obstructions to the navigation are still in operation, it would not appear advisable to expend the appropriation in removing them, until a sufficient protection is given to the channel by adequate state laws, or else by such laws of Congress as may be necessary to prevent obstructions, or other injury to the channel of its navigable water, I would therefore respectfully recommend that the attention of Congress be asked to this matter, at as early a day as practicable.”

I am unable to say whether the above recommendation has been acted upon, but if not, it would be evident that to attempt clearing out the channel, without there being adequate power to prevent others from obstructing it, would scarcely be a judicious course to pursue.

In New Brunswick, an Act was passed in 1853, for the purpose of preventing mill-owners and others throwing slabs and refuse into the Ste. Croix river. This Act was not, however, to come into operation until the Lieutenant Governor was satisfied that a law with similar provisions had been passed in the United States.

The residents on both sides of the river are deeply interested in the improvement, and urge, as a reason for its being proceeded with as early as practicable, that the appropriation made by Congress will be written off in June next, unless some decided action is taken before that time.

I was informed that in the course of a year 1,200 vessels had been known to clear

from the ports of St. Stephens and Calais, averaging about 100 tons burden each, and that from one-third to one-fourth of them were owned in New Brunswick.

In conclusion, it may be stated that in my opinion, it would be unsafe to anticipate obtaining a channel of greater capacity than 100 feet wide, and 8 feet in depth at low water, for the amount of the estimate above referred to, \$88,000.

Still the period of extreme low water is so short that this, or even a less depth, would of itself be found of considerable advantage to the trade of the respective localities; besides enabling a steamer to reach the wharves opposite the town with passengers and goods at all states of the tide.

If the proposed arrangement continues to be based on the information which has been already laid before the United States Congress, it will be evident from the foregoing quotations that whatever sum may now be granted by Parliament, the full amount of \$44,000 will ultimately be required to defray half the expense of the undertaking.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

JOHN PAGE,

*Chief Engineer Public Works.*

#### MABOU HARBOR.

*Report on projected Harbor, by John Page, Chief Engineer.*

(No. 6,329.)

OTTAWA, 8th April, 1869.

*The Secretary of Public Works:*

SIR,—Agreeably to instructions contained in your letter No. 2,867, I visited in September last, Mabou river, on the northwestern coast of Cape Breton, and now beg to report the result of the enquiries and examinations then made, as follows:—

This river drains a considerable extent of country in the county of Inverness, and, for about 3 miles inland (from a mile within its outlet), forms a fine wide sheet of water with a depth varying from 12 to 48 feet; but like most other rivers on the western shore of the Gulf of St. Lawrence, its navigation is impeded by a bar at the entrance. This bar is, however, immediately connected with the beach, instead of being at some distance outwards, as in many other cases.

On the north of the entrance a mountain rises fully 400 feet high, which has a gradual descent to the water, and on the opposite side of the entrance, (1,600 feet distant) the bank is 36 feet high.

Between these points there is along the south side of the basin a flat fully half a mile long and 1,000 feet wide, dry at low water, outside, sand banks and sand hills occupy a space of 1,400 feet transversely and fully 1,000 feet in line of the outlet.

The channel leading to the basin inside, lies between the flat above mentioned and the north shore, for a distance of 2,400 feet, in which there is a depth of from 9 to 11 feet. Within the sand hills it suddenly takes a south easterly course, and continues in that direction 1,100 feet to the south shore, with a depth of from 5 to 9 feet, when for a distance of 1,300 feet, it takes a winding westerly course near the foot of the south bank with a depth of from 9 to 16 feet, then follows in a north westerly direction over the bar a distance of about 1,200 feet, carrying a depth of from 3 to 5 feet at low water.

For the distances above stated the inside channel is narrow and extremely crooked, with shoals on one or both sides, whilst the water space is, at many places, barely 200 feet wide.

From a depth of 12 feet water in the channel at a point opposite the high land on the south side to a depth of 13 feet beyond the bar outside, in any direction from west to northwest, the distance is fully 2,400 feet. And from 9 feet water inside to a like depth outside on the same lines, the distance is about 1,900 feet. But neither of these depths, nor even 8 feet could be carried through the existing channel into the main basin without

a considerable amount of dredging, irrespective of what would be necessary to deepen the "bar."

The small bay in which the outlet lies is partially sheltered on the north by Green Point, and the sweep of the sea from the southwest is in some measure broken by the trend of the coast, still it is open to all northwest and westerly storms.

The observations made on the spot, and generally the soundings taken, tend to verify the correctness of the detailed plan of the harbor published by the Admiralty, except that at the time of my visit, the outlet over the bar was more to the northward than shown on that plan.

Admiral Bayfield states that at this place "the rise of ordinary spring (tides) is 4 feet, and neaps, 2 feet. North-east winds often cause high tides, south-west wind the contrary."

An examination of the plan above referred to shows that the line of five fathom water runs considerably outside of Green Point, and that the three fathom line (1,000 feet inwards), opposite the entrance, is very little, if any within the point; thus the whole area of the inlet is comparatively shoal.

There is reason to believe that these shoals are caused principally by the action of the waves on the sand and shingle of the bottom during storms, and probably to some extent by the grounding of ice on the shores in winter.

The shallow channel through them being formed on the ebbing of the tide, by the combined power of the river current, and egress of the tidal water which previously entered the basin.

This outgoing stream continuing from time to time to scour out a passage of sufficient capacity for itself through the weakest part of the shoal, and on a line where least opposed by the sea outside.

If this view of the subject is correct it may reasonably be concluded that although it would be hopeless to attempt extending the immediate entrance beyond the line of moveable sand, still by carrying it out at a moderate depth the probability of an extensive bar being formed would be diminished, whilst by confining the outgoing current by pier work, the scouring power would be increased and carried forward for the removal of what might accumulate.

This would doubtless prevent the formation of such a bar as at present obstructs the channel, and might probably be the means of keeping the entrance comparatively clear.

Still it is proper to state that the actual causes which lead to the formation of shoals and bars at the outlets of tidal rivers, are not sufficiently understood to enable even the most experienced to say that the cutting and protecting of a passage on a particular line through a bar in an exposed position, will result in the maintenance of an unobstructed channel.

All that can be done in fixing on the entrance to this, or indeed any other harbor similarly situated, is to select the most favorable line for improvement.

This, at the mouth of the Mabou river, is believed to be near the north side of the inlet, in the position recommended by H. F. Perley, Esquire.

From the foregoing general description of this harbor, and the shoals by which its entrance is obstructed, it will be evident that the carrying out of any plan of improvement at all likely to be successful must be a work of such magnitude as will in a great measure permanently alter the natural state of matters.

This must doubtless be the case, whether an attempt is made to continue the use of the present crooked line inside, or, to form, as has been proposed, a straight channel through the sand bank on the north side.

In either case a channel of considerable width will have to be formed by dredging, and protected on both sides by pier work carried out to a depth of say 13 feet at low water.

To accomplish this from a point opposite the high land on the south side, the probable cost would be as follows :—

Dredging channel to 12 feet at low water, through bar and shoal, on a straight line outwards, 215 feet wide including site for piers, 110,000 cubic yards. The material although consisting principally of sand, it is believed, from the exposed nature of the place, will cost at least from 25 to 30 cents per cubic yard—say 27 cents.....	\$29,700 00
Pier work from opposite high land on south side of basin out to 13 feet water, both sides included, 4,800 feet from 18 to 20 feet in width, would cost \$11 per lineal foot.....	52,800 00
Dredging to obtain a depth of 9 feet water inside, 10,000 cubic yards, at 18 cents.....	1,800 00
	\$84,300 00
Contingencies.....	7,700 00
	\$92,000 00

It will be observed that in the above estimate no provision is made for improving the present crooked line inside, or for deepening it to 12 feet at low water, which, if done, would probably cost about \$8,000.

In a report (hereunto appended) dated 20th March, 1865, addressed to the Provincial Secretary of Nova Scotia by H. F. Perley, Esq., Civil Engineer, it is stated: "To open this harbor and render it accessible at all times (except when closed during the winter months), I propose to cut a channel 175 feet in width through the spit at the points shown on plans A and B," that is to say: continue a straight channel on the north side of the basin, "and to dredge the bottom out to 12 feet below low water mark. To prevent this channel from being filled up, and rendered inoperative by the shifting sand outside, I further propose to carry out on either side of the new channel to 13 feet water at low tide, timber piers well framed and bolted, secured by piles, and well filled with stone ballast, and at the same time to close up the present channel by piles, brush, and ballast, and thus force all the water through the new channel."

This gentleman after pointing out that there would be a considerable outward current, on the ebbing of the tide, draws the conclusion that: "If then this velocity of current (which is greatly increased every spring and fall) is kept confined, and carried with an even depth though the accumulation of sand outside to the line of deep water, it may fairly be assumed that a channel constructed as proposed will *keep itself clear*."

Although I do not quite agree with some of the arguments adduced by Mr. Perley in favor of his plan, it nevertheless appears to me to be the best, if not the only way, which can with any prospect of success be adopted, for the improvement of the harbor.

A serious mistake, however, seems to have been made in the estimate submitted by him. The dredging required to form a channel 12 feet in depth, and of the width stated, instead of being 75,557 cubic yards should be about 185,000 cubic yards, and 30,000 yards more would be required to extend a channel 12 feet in depth to the inner basin.

The inside dredging might be done at even less than his price, but the outside work would greatly exceed the rate set upon it by Mr. Perley.

Moreover, his wharfing is barely  $\frac{2}{3}$  of the price the work could be done for under the most favorable circumstances; whilst he seems to have made no provision at all for the protection of the channel through the spit.

To give a fair idea of the probable cost of carrying out the work described in Mr. Perley's report, the estimate should be as follows:—

For a depth of 12 feet water—

30,000 cubic yards of excavation in sand hill. @	15cts....	\$1,500 00
185,000 " " of dredging, average price. @	25 ....	46,250 00
2,800 lineal feet of wharfing.....	@ \$11 00 ....	30,800 00
1,800 feet protection of banks.....	@ 6 00 ....	10,800 00
700 lineal feet stopping old channel.....	@ 3 00 ....	2,100 00
		\$94,450 00
Contingencies.....		7,550 00
		\$102,000 00

Mr. Perley's estimate for a channel 9 feet depth of water should be proportionately increased.

If the improvements above referred to were carried out, a capacious harbor for vessels of moderate size would be rendered available, which would doubtless be of great advantage on a coast where there are so few places of shelter.

Besides admitting of the ready export of the agricultural products of the surrounding country, the tendency would probably be to develop the mineral resources of the locality, which are understood to consist of extensive coal fields, marble, plaster, freestone, &c.

The opening of this river, it is also said, would shorten the land travel between Pictou and Sydney, as a stage road only 16 miles in length, connects the head of the basin with Wagamatcook, on Bras d'Or lake.

Moreover, a safe and accessible harbor would be of great service to the fishing interests on this part of the coast.

I have the honor, &c.

(Signed,) JOHN PAGE,  
*Chief Engineer Public Works.*

## REPORT ON MABOU HARBOR, BY H. F. PERLEY, C. E.

HALIFAX, N. S., March 20th, 1865.

*Hon. the Provincial Secretary :*

SIR,—In accordance with instructions received, that I should make an examination of the harbor of Mabou, with a view of ascertaining the cost of opening and maintaining the same, I beg leave to offer the following report:—

Mabou harbor, situated on the western coast of Cape Breton, is almost rendered useless as a harbor, by a "bar" which completely extends across its mouth, or entrance from the sea. This bar is composed wholly of sand, and changes annually, varying the course of the small channel which crosses it, thus rendering the entrance of vessels a matter of some difficulty in moderate weather, and an impossibility during a smart blow from the westward.

A glance at plan B shows that a "spit," covered for a portion of its length by a "sand-dune," extends from the high land forming the northern shore of the harbor, southwardly; and that the present channel follows on its eastern side southwardly to the extremity of the spit, thence turns at right angles to the westward to the sea. This channel, from the point above McKeen's wharf to the sea, varies from 200 to 300 feet in width, with the depths of water as shown.

To open this harbor, and render it accessible at all times (except when closed during the winter months), I propose to cut a channel 175 feet in width through the spit at the point shown on plans A and B, and to dredge the bottom out to 12 feet below low water mark. To prevent this channel from being filled up and rendered inoperative by the shifting sand outside, I further propose to carry out on either side of the new channel to 13 feet of water at low tide, timber piers, well framed and bolted, secured by piles, and filled with stone ballast; and at the same time to close up the present channel by piles, brush and ballast, and thus force all the water through the new channel.

An objection may be made to this scheme, that it will not answer the purpose intended; that the sand outside, shifting with every heavy sea, will, in a very little while, close up the opening between the piers, and thus renders the work performed nugatory. With this opinion I cannot and do not coincide, and for these reasons: an examination of plan B shows that a regular defined channel exists from "Q" to this point marked "R," and that from this last point seaward, the channel shoals, and becomes, as it were, lost. The reason for this is plain: the waters of the gulf gathering into the bay between "Green Point" and the "Hog's Back" during the flood tides, rush into the channel with a velocity of four knots (nearly five miles) per hour; this velocity, gradually decreasing as a broader expanse and greater depth, is reached into the harbor to two and one and one-half knots per hour. On the ebb tide the reverse takes place, the current gradually grows stronger as the outlet is approached, but in this case its velocity is augmented by the force of the pent up fresh water, which is continually flowing into the harbor from the main river, and the S.W. and N. E. branches; this adds a notable increase to the velocity of the current, and the channel to the sea is maintained to its full depth. The moment this current meets with a broader expanse, its velocity decreases, and in a little while is entirely lost or merged in that of the prevailing current, which almost continually sets up the coast to the northward. With a loss of velocity ensues a loss of power, the specific gravity of the sand obtains a preponderance over the velocity, and of course remains undisturbed.

If, then, this velocity of current (which is greatly increased every spring and fall) is kept confined and carried with an even depth through the accumulation of sand outside to the line of deep water, it may fairly be assumed that a channel constructed as proposed will *keep itself clear*. Four knots are equivalent to 24,320 feet or 4.6 miles; at this rate the velocity per second will be 6.75 feet.

The results of investigations which have been made respecting the velocity of currents, show that a velocity of 3 feet per second is in joint equilibrium with *gravel* and *stones*, which form the bottom of the stream, or the force of the velocity equals the specific gravity of the materials mentioned. At Mabou the velocity of the current is strong enough to move and carry away small rocks. Assuming, however, that during the months of summer, when the force of the current will be the weakest, that a quantity of silt and sand lodges in the channel it must of necessity be swept away with an increase of velocity caused by the spring and fall rains. I would compare this channel to a large sewer in a city, which occasionally is flushed or cleared out by an influx of water, having a certain velocity—as for instance the water of a heavy and sudden rain fall, or that supplied from the fire plugs during a conflagration.

The piers will require to be substantial, built of sound, durable timber, well framed, bolted and ballasted, and further secured by piles driven into the bottom and secured to the structure. In this manner they can be constructed to withstand the sea caused by the gales, which blows sometimes furiously from the westward on this coast. Gales from this quarter are the only ones to be guarded against; whilst those from the south-west loose somewhat of their force in breaking over the shoal ground to the southward of Mabou.

I do not anticipate any ill effect from the ice which comes from the north, and jams into the coves and bays of the west coast of Cape Breton. I am informed that the shore ice makes sufficiently strong between Green Point and the shore to the southward of the mouth of the harbor, to prevent the heavy ice from coming in. As the present channel never freezes, being kept open from the point above McKeen's wharf to the point R, (plan B,) the same will take place in the proposed new channel.

That the opening of this harbor would be a benefit to Cape Breton, cannot be doubted. Once open, it ranks next in importance, (as regards size, &c.,) after that of Sydney, and in a few years would vie with it in shipments. Coal seams have been opened at Coal Mine Point and at Broad Cove, and to work these seams vigorously and to their full extent, it will be almost necessary to ship from Mabou harbor. Cattle and farm produce are now either taken to Port Hood or Broad Cove, and shipped from thence, being placed on board of vessels by means of boats or scows. The delay, danger and increased expense attendant on this mode of shipment, has a tendency to repress and retard, instead of (as should be the case) stimulating the producer to more extended operations, instead of there being only one small vessel owned in Mabou, the



number would increase with the facilities offered to trade. Mabou harbor offers the nearest route from Halifax to Sydney, by the way of the Nova Scotia Railway to Pictou; the distance of land travel by stage being only 16 miles over a moderately level road, between the head of the harbor and Wagamatcook, on the Bras d'Or.

The material to be removed in *excavation* will be pure sand; in *dredging* it will be mud and sand. In estimating the price of the latter I have been guided by what I consider the actual value (including contractor's profits) of the work to be done, without any reference to what has been paid for dredging in other parts of the Province during the past few years. I am aware that a large discrepancy exists between the two prices, but am of opinion that the dredging can be done for the amount named in my estimates of cost. In New Brunswick a dredging machine is owned by the Province, and is annually employed in the harbor and river St. John and its branches. The material removed varies in localities, from clay to sand; steam power is hired for towing the scows, and a loss of time, and consequently an increase of expense takes place, in shifting the machine from place to place. I have compiled the following statement from the reports of the Commissioner of the Board of Works for New Brunswick, showing the cost per yard for dredging in the years mentioned:—

Year.	Material removed.	Cost in cents per cubic yard.	Remarks.
1856	Sand, yellow clay.....	7	
1857	Sand, stiff red clay.....	14 <sup>2</sup> / <sub>10</sub>	Heavy repairs to dredge during the year.
1858	Sand.....	9	
1859	Sand, silt, clay.....	8 <sup>5</sup> / <sub>10</sub>	
1860	Sand, silt.....	13	Heavy repairs to hull and machinery. Do do
1861	Sand, silt.....	12 <sup>7</sup> / <sub>10</sub>	
1862	Loam, clay.....	18 <sup>9</sup> / <sub>10</sub>	{ Price paid to Province for use of dredge, by the contractor for Grimross Canal.
	Mean for eight years...	11 <sup>9</sup> / <sub>10</sub>	

I have prepared and submit two estimates, one for channel having a depth of water of 12 feet, and the other a depth of 9 feet of water at low tide.

APPROXIMATE ESTIMATE—DEPTH OF WATER 12 FEET.

29,170 cubic yards excavation.....	@ \$0 15 ...	\$4,375 00
75,557 " dredging.....	@ 0 20 ...	15,111 40
2,800 lineal feet wharfing.....	@ 7 00 ...	19,600 00
700 " stopping old channel.....	@ 1 50 ...	1,050 00
		<u>\$40,136 40</u>
Superintendence, &c., 10 per cent.....		4,013 64
Total.....		<u>\$44,150 04</u>

## APPROXIMATE ESTIMATE—DEPTH OF WATER 9 FEET.

26,980 cubic yards excavation.....	@ \$0 15 ...	\$4,047 00
48,830 " dredging.....	@ 0 20 ...	9,766 00
2,600 lineal feet wharfing.....	@ 7 00 ...	18,200 00
700 " stopping old channel.....	@ 1 50 ...	1,050 00
		\$33,063 00
Superintendence, &c., 10 per cent.....		3,306 30
		\$36,369 30
		\$36,369 30

In event of a prosecution of this work, proper working plans, specifications, &c., will be supplied.

I am, Sir,

Your obedient servant,

(Signed,)

H. F. PERLEY,

*Civil Engineer.*

Hon. the Provincial Secretary.

### RICHIBUCTO HARBOR AND RIVER.

*Report on the projected Harbor, and on the condition of the channel of the river, by John Page, Chief Engineer.*

(6,352)

OTTAWA, 12th April 1869.

*The Secretary of Public Works :*

SIR,—I have the honor to submit for the information of the Department, the following report relative to a cursory examination, made in September last, of the entrance to Richibucto river.

This river is one of the largest on the eastern coast of New Brunswick, and is said to be navigable, for any vessel that can pass the bar at its mouth for upwards of 13 miles, and for small craft nearly 20 miles inland.

On the main stream and its tributaries, are a number of extensive steam and water power saw-mills, and several shipyards, which, together with the lumbering operations carried on in the interior, give employment to a considerable number of persons.

For many years large quantities of lumber have been annually shipped at this Port, still the supply for future manufacture is said to be abundant. But those engaged latterly in this business have had to contend with such high rates of freight and insurance as threatens to render it unremunerative. This is caused chiefly by the exposed nature of the outside anchorage, where vessels are obliged to take in the bulk of their cargo, the bar at the entrance preventing them from loading inside of the harbor.

It is said that nearly one half of the lumber shipped has to be lightered over the bar, and that it frequently takes many weeks for a vessel's cargo to be completed outside, whereas a few days would be sufficient for this purpose in the harbor.

These delays make the owners of vessels reluctant to charter them for this service, unless at high rates, whilst the losses sustained from shipwrecks in the vicinity render the underwriters unwilling to take risks on ordinary terms.

A few days before my visit, a large ship and a brig were driven on the shoal, and so much damaged, that both vessels and cargoes were sold on behalf of the underwriters at a very low rate.

Casualties of this nature, together with unavoidable delays, are found so detrimental to the export of lumber, that persons directly interested in the trade state that it will have to be abandoned unless the harbor is rendered more accessible.

The outlet of the river, it may be stated, is near the northwestern end of Northumber

land strait, and lies fully open to northeasterly storms, which at times sweep through the Gulf with great violence, rendering it extremely hazardous for a vessel to anchor in the vicinity, except during the summer months. But when once inside there is ample depth of water, and abundant space for a large number of vessels.

The immediate entrance to the harbor is about 1800 feet wide, and extends outwards in an easterly direction for fully  $1\frac{1}{2}$  miles, between two sand bars and shoals called the north and south beaches.

Opposite the inner end of the north beach the channel is on the north side of the entrance. It then winds round in a southeasterly course until about midway between the beaches, where it takes and continues in, an easterly direction to the point above stated with a depth varying from 17 to 30 feet. Thence it takes a winding course, bearing generally in a north easterly direction over the bar on which there was, at the time of my visit, a depth of about 13 feet.

It is proper to state that so far as could be learned from the gentlemen I met at Richibucto, it is customary in speaking or writing of the depth of the water on the bar, to have reference solely to that at ordinary spring tides. This datum line has therefore been adopted for the remarks herein made, unless otherwise mentioned at the time.

On the subject of tides at this place, Admiral Bayfield states :—

“ At the north beach, within the entrance of the Richibucto river, ordinary springs rise 4 feet, and neaps  $2\frac{1}{2}$  feet. On the day of the full moon in July 1839, there was only one high water at 3h. 20m. A. M., and one low water at 4 P. M. But towards the time of neap tides, two high waters in 24 hours became apparent for a few days. There would seem to be two interfering tides, presenting phenomena which it would require accurate and long continued observations to explain. The rate of the tides in the river is from  $1\frac{1}{2}$  to 2 knots.”

He also states that : “ The bar extends from the north beach for 2 miles to the E. S. E. parallel to the south beach..... In all cases the assistance of a pilot is necessary since the bar is subject to occasional changes from the effect of heavy gales..... No part of this bar extends to seaward so much as a mile from the shore.”

After describing the positions of the beacons, he states : “ These beacons in line always lead in over the bar, being shifted as required almost every spring, in consequence of changes in the channel effected by heavy northeast gales.”

“ The depth of water over the bar is  $13\frac{1}{2}$  feet at low water, or  $17\frac{1}{2}$  feet at high ordinary spring tides ; and there is not continuously a greater depth for the first mile in from the black buoy, the channel being from 100 to 180 yards wide, from 2 fathoms to 2 fathoms,” &c.

Many changes, however, appear to have taken place since that time, (1839) even the position of the channel is now (if I mistake not) further to the south, whilst the depth of water in it is  $4\frac{1}{2}$  feet less, there being only 13 instead of  $17\frac{1}{2}$  feet.

On the Admiralty chart only two channels are shown, but there are now three, known respectively as the South channel, which is the navigable one, the North channel, and the Boat channel. The latter is within about 1600 feet of the north beacon, which stands on a sand hill at the southwest extremity of the north beach, and seems to be a comparatively new opening as it is not shown on a plan made, from a minute survey of the entrance, in 1854, by John Grant, Esq., for the Government of New Brunswick.

At this date there appears to have been  $9\frac{1}{2}$  feet on the bar, presumed to be at low water, which would make  $13\frac{1}{2}$  feet at ordinary spring tides.

From a survey made on the ice in the winter of 1855, the same gentleman shows a depth on the bar of from 7 to 10 feet, and at one place on the outer edge of the bar, barely 5 feet. These depths have reference to low water line.

In a report, dated 30th October, 1854, to the Provincial Secretary of New Brunswick, T. C. Keefer, Esquire, C. E., states : “ From old pilots I learn that from 1807 to 1810, and previous to these dates, vessels drawing 13 feet, went out of Richibucto with common spring tides. Between 1815 and 1826 the channel over the bar was deepened so that during a period of 15 years, vessels drawing  $17\frac{1}{2}$  feet could go out at common spring tides..... From the pilots I also learned that after a long continued gale of great severity, the position of the channel was changed, and the depth of water on the bar

‘ increased. In ordinary seasons, the depth of water found in the spring on the bar remains “ unchanged during that year.”

The Honorable D. Wark, of New Brunswick, forwarded through the Honorable Mr. Tilley, a short time ago, an interesting description of the changes which take place in the channel through the bar at Richibucto, a brief synopsis of which is as follows: That the water which flows in and out of the harbor is sufficient to keep a deep channel open, until it meets the water of the Gulf at the coast line, when the cross current interferes with its action, and forms a sand bank. But the current from the harbor is always sufficient to keep one or two channels open through it.

The tendency of the channel is to work southwards annually, and when it reaches a certain point, a new one between it and the north beach begins to open. Whilst the new channel is enlarging, the old one gradually diminishes until it has to be abandoned.

The new channel having remained stationary for a few years (probably till the old one is completely filled up) begins again to deepen, and continues until another one to the northward opens, when the enlargement and diminishing of the respective channels again proceeds as above stated.

From information received, Mr. Wark concludes that these changes occupy periods of 25 years, and that they will continue until a remedy is applied. (See copy of his memorandum appended.)

Another theory relative to the filling up of the old channels, and the formation of new ones may be thus described.

In the fall of the year the sweep of long continued northeasterly gales generates such waves as act on the outlying shoals, carrying with them the sand on the outer edge of the existing bar. Subsequently ice is driven on the shoals, the deepest part receiving the largest masses, thus the channel through the bar becomes completely blocked up.

The entering and receding tides find a passage at the place where the ice is weakest, or where it may be broken by the bar, and the scour being confined to this passage a channel is formed through the sand shoal of sufficient capacity to admit the current flowing in either direction.

This may occur at a place distant from the deepest channel, in which the heavier masses of ice may possibly be retained by the diminished depth on the outer edge of the bar.

It is now proposed to submit a short sketch of the different modes which have been suggested for the improvement of the entrance to this harbor.

1st. To dredge a channel through the bar.

In favor of this proposition it is said that the changes which take place in the position and depth of the channels are neither so frequent nor extensive as to discourage the proposed mode of relief; and it is not probable that, once opened, the channel would fill up rapidly.

2nd. To construct a breakwater from the south beach to the north shoal, in such a position as to close the “ North” and “ South” channels, and force the current through the “ Boat” channel.

In favor of this plan it is said that the current would soon scour out a channel of sufficient capacity for the navigation, and in the event of it not doing so it might be assisted by means of dredging.

3rd. To construct a breakwater from the south beach to a point between the “ North” and “ South” channels, on the outside of which it is stated that sand would soon accumulate to an extent which would form a protection from both storms and ice, whilst the water being confined to one channel would always keep a sufficient depth.

This scheme also contemplates the driving of two rows of piles, and placing brush between them. These are to extend from the south end of the north beach along the highest parts of the shoal, to the side of the channel.

4th. To block up the north channel and force the current through the south one, and dredge out a shoal which lies on the south side of the channel inside of where the turn is made in order to cross the bar.

5th. To block up a channel (known as the “ Little Gully”) through the south beach, about 2 miles to the eastward, and dredge out a shoal lying on the south side of the channel, inside of where the turn is made in order to cross the bar.

From the foregoing extracts and remarks relative to the shifting nature of the channel, it will be evident that to deepen it by means of dredging alone, could only at most afford temporary relief.

Each of the other four propositions appear to contemplate, in addition to dredging, the construction of such works as would tend in a greater or less degree, to make a permanent change in the natural state of the entrance.

The probable cost of carrying out these different propositions would respectively vary from 40 to 60,000 dollars.

The matter officially brought under my notice, was, however, a memorial (dated 29th May 1868) addressed to the Government by certain magistrates, merchants, ship-owners, pilots and others (in all 56 persons) interested in the trade of the Port of Richibucto.

In which after pointing out the difficulties and delays experienced by vessels, loading at this place, and the consequent losses sustained by the trade, the memorialists pray that a subsidy of *Two thousand dollars* be granted towards procuring the services of a steam tug for the purpose of towing vessels, when ready, in and out of the harbor.

This, they appear to consider, would in a great measure afford the relief required, and obviate such detention as is otherwise unavoidable.

Having visited the place, (as before stated) chiefly with a view of obtaining such information as would enable me to advise the Department relative to this application, I am of opinion that the main statements contained in the memorial are correct, and that at certain seasons, the services of a tug boat would be a great advantage to the shipping interests of this Port.

In fact there is a good reason to believe that this is 'the readiest and probably the most judicious way in which relief could be afforded. It might therefore be tried for a period of say one, or two years, during which time the physical peculiarities of the entrance to the harbor could be more correctly ascertained.

This would materially assist in arriving at a proper decision as to which, if any, of the proposed modes of improvement (above adverted to) could reasonably be adopted, or might enable another plan based upon a correct knowledge of the locality, to be matured and recommended.

I have the honor, &c.,  
(Signed) JOHN PAGE,  
Chief Engineer Public Works.

#### REMARKS ON THE RICHIBUCTO HARBOR, AND THE BAR AT ITS ENTRANCE.

I understand that Mr. Page has seen the north and south beaches, and understands their relative position to the bar. From the accompanying sketch taken from Captain Bayfield's chart of the harbor, it will be seen that nearly the whole of the water which flows into and out of the harbor and river, and which causes a rise of between three and four feet, above twenty miles from the entrance, passes between these beaches. There is therefore sufficient current to keep a deep channel open till it meets the water of the Gulf at the coast line, where the cross currents interfere with its action. The tendency of these currents appears to be, to form a sand bank from A at the point of the north beach in the direction of the dotted line to B, at the side of the south beach, but the current to and from the harbor is always sufficient to keep one or two channels open through it, and experience shows that it is the opening of a second channel which injures the main one.

From enquiries I have made at some of the early settlers, I learn that about fifty years ago there were only thirteen feet of water on the bar. When Captain Bayfield made his survey in 1839, it had deepened to eighteen feet, but the tendency of the channel appears to be to work further south every year, and when it reaches a certain point, a new one begins to open between it and the north beach. It will be seen by the sketch that one had commenced when his survey was made. This new channel kept making south, and widening, and deepening, from 6 inches to a foot annually, till it had reached a depth of thirteen feet, at which it remained stationary for several years.

While it kept enlarging, the Bayfield ship channel was gradually filling up, till, at the point above referred to, it became impracticable and was abandoned. The new channel after remaining stationary for some years, (probably till the old one had completely filled up) began again to deepen and continued till it had reached a depth of about seventeen feet, when I believe it had got as far south as Captain Bayfield's. Meantime another new channel had begun to open, and has now, I believe, reached a depth of about ten feet, and its growth appears to cause the gradual closing up of the old one. These facts have led me to the conclusion that the harbor has undergone these changes in periods of about twenty five years, and that they will continue till some remedy is applied. I believe the proper remedy would be, by some permanent structure to arrest the channel in its southward progress, at a point before where the new channel begins to form. This might be accomplished by erecting a substantial breakwater about in the position of the line on the sketch from 2 to 5. From the known tendency of the sand to accumulate around any object of this kind, it is believed that a bank of sand would soon form along the whole lower, or outside of such a structure, which would prove a protection from both storms and ice, while the water being confined to one channel, would always keep it of a sufficient depth.

I think another great improvement would be effected by driving two rows of piles along the highest part of the sand bank, which extends from the point of the north beach to the Boat channel, marked "nearly dry at low water," from the point at 6 to 7, the heads of the piles to be driven about a foot below high water, and a quantity of brush placed between the rows, which would soon sand over. A considerable portion of the tide now flows over this flat, but the piles and brush would arrest it, and confine it to a passage of the same width as that between the north and south beaches, which would no doubt have a very beneficial effect.

(Signed,)

D. WARK.

## APPENDIX No. 16.

### SLIDES AND BOOMS—SAGUENAY DISTRICT.

*Description of the works and repairs executed during the fiscal year ending 30th June, 1868, by D. Boulanger, Superintendent.*

(No. 4,001.)

LITTLE DISCHARGE SLIDE,  
Saguenay, 30th June, 1868.

To F. Braun, Esq., Sec. Public Works:—

SIR,—I have the honor to present for the information of the Hon. the Minister of Public Works a report of the condition of the works under my charge on the river Saguenay, with a statement of the works of construction and repairs executed during the fiscal year ending 30th June, 1868.

The works executed are:—

1. The rebuilding of the dam No. 1, at the mouth of one of the channel of lake St. John. This dam is 145 feet long with an average height of 14 feet.

2. At the second station at the head of the slide, the building of two piers with snubbing posts, having 12×12×12 feet, and the construction of a boom 260 feet long above the conducting jetty, at the head of the slide, to prevent the recurrence of similar accidents to those which took place here last spring; and lastly some slight repairs to the slide, boom and conducting jetty.

The repairs were done by virtue of an order directed to me by the Department bearing date the 31st January, (No. 1,741,) authorizing me to expend a sum of \$1,762—the actual cost of the works was \$1,774.65, which sum the Department has paid in full.

As to the necessary repairs executed in the months of June and July of last year, I cannot report the precise cost of them as a part of the amount was paid to Mr. William Price by Mr. Horace Merrill, Superintendent of the Ottawa River Works.

The works are now all in good order, except the slide which will require some slight repairs next spring.

I shall have the honor in my next report to give you some details on the inclined dams Nos. 2, 3 and 4, of the lake St. John.

Mr. Merrill told me at the time of his visit last spring that they would not require any repairs for some years to come.

I have the honor to transmit the following statement of the number of logs which have passed down the slide:—

1867—July—White pine—12 feet.....	40,887
“ “ Spruce “ .....	4,000
“ “ Red pine “ .....	727
	45,614
1868—June 30—White pine—12 feet.....	24,200
	69,814

I have the honor, &c.,  
(Signed,) D. BOULANGER,  
*Superintendent,*  
Saguenay District.

## APPENDIX No. 17.

### SLIDES AND BOOMS—ST. MAURICE DISTRICT.

*Description of the works and repairs executed during the fiscal year ending 30th June, 1868, by H. R. Symmes, Superintendent.*

(No. 4,379) SUPERINTENDENT'S OFFICE, ST. MAURICE WORKS,  
Three Rivers, 14th August, 1868.

SIR,—I have the honor to submit my Annual Report on the state of the St. Maurice Works under my charge, for the fiscal year ending 30th June, 1868.

During the year, no new works were made chargeable to construction.

The appropriations for repairs were as follows :—

October 12th, 1867.....	\$4,985.95
January 18th, 1868.....	2,264.65
	\$7,250.60

The repairs made may be briefly described as follows :—

*Station No. 1—At the mouth of the River.*

*(For the half year ending December 1st, 1867.)*

- 1st. Channel deepened at head of boom on east side.
- 2nd. 32 yards stone filling in three piers.
- 3rd. Raising and removing three other piers.
- 4th. Making small pier to attach booms in winter.
- 5th. 3 small anchor piers for use in low water.
- 6th. 6 new posts in piers.
- 7th. 20 head blocks to booms.
- 8th. 7 buoys.
- 9th. 4 lengths new boom, 136 feet long each, 6 feet wide and 15 inches thick.

*(For half year ending 31st May, 1868)*

- 10th. 500 Feet new boom, 4 feet wide and 14 inches thick, strengthened and repaired 500 feet more that had been broken by the ice.

*Station No. 2—Grès Falls.*

- 1st. Repaired side pier near Baptist Mills.

*Station No. 3*

*(For half year ending 1st December, 1867)*

- 1st. Renewed 600 lineal feet of glance boom, 3½ feet wide and 14 inches thick.
- 2nd. Repaired large dam at head of falls.
- 3rd. Repaired St. Pierre's pier.
- 4th. Repaired mooring pier in Bay.
- 5th. Sundry repairs to boom.
- 6th. One Ottawa skiff.

*(For half year ending 31st May, 1868)*

- 7th. Sundry repairs to bottom of slide.
- 8th. do do to store house at head of falls to make it habitable for the men.
- 9th. 1 scow, 24 feet long, and 5 feet wide.

*(Station No. 4—Grande Mère.)*

- 1st. 1 chain cable and anchor.



*(Station No. 6—Latuque Falls.)*

- 1st. Repaired long pier in Falls.
- 2nd. Raised large pier above Falls.
- 3rd. Repaired dams at mouth of Blondin's Creek.

*Station No. 8—Iroquois Falls.*

- 1st. Sundry repairs to slide.
- 2nd. Repaired wing dam in "big" Vermillion rapid.
- 3rd. Repaired wing dam in "little" Vermillion rapid.

These repairs cost the sum of \$6,411.81, all of which, except about \$60.00, has been paid, leaving a balance of the appropriation amounting to \$898.79.

There were a couple of anchor piers at Latuque, and several other small repairs in other places contained in my estimate of last year which were not completed on account of the state of the water and the ice, but which are now being completed. The balance of the appropriation on hand will be ample for the purpose.

*Staff and Working expenses.*

The expenditure for staff and working expenses for the fiscal year was \$9,323.04 which is about the same as the year previous. Had it not been that the "drive" was detained by low water last fall until a very late period, which prevented the booms being taken in at the usual time, as explained in my report of December 3rd last, the expenses would have been considerably reduced.

*General Remarks.*

The works for the past year have been successfully operated and have sustained no injury of importance except the damage caused to the booms by the ice late last fall, referred to in my report of December 3rd above mentioned.

The water is now lower than it has ever been known to have been before. A great portion of the lumber has not yet come down, and will probably not be down this year. The "drives" have been long, tedious and exceedingly expensive upon the lumbermen, most, if not all of whom must sustain serious losses.

One of the most necessary improvements required upon the river is a rolling dam at the Grandes Piles to raise the water about ten feet, so as to cover the numerous and extensive sand shoals above, and to give more water in the Mekinac and Managanee rapids. This would make steamboat navigation from the Piles to the Tuque—a distance of 65 miles—practicable and create an excellent water power. I am satisfied that far more money has been expended this season by the lumbermen in driving this portion of the river, than would have been required to construct such a dam.

There is also a very important work to be done at the mouth of the river which cannot well be delayed much longer. I have already several times brought the matter to the notice of the Department. The sand has accumulated to such an extent below the piers as to make it almost impossible to get out the logs from the boom, and no sufficient place to raft or to make up a raft, after they are out. One channel is now so dry that logs cannot be taken out, and the other is reduced to very narrow limits, and I fear it will soon be closed altogether. I see no way of getting clear of the difficulty except by taking away the sand or removing the booms further up the river. The latter plan would have a tendency to encourage the erection of saw-mills at the mouth, and either would be a work of considerable expense.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

H. R. SYMMES.

*Superintendent.*

F. Braun, Esq., Secretary,

Department Public Works, Ottawa.

## APPENDIX No. 18,

### SLIDES AND BOOMS—OTTAWA DISTRICT.

*Description of the works and repairs executed during the fiscal year ending 30th June, 1868, by H. Merrill, Superintendent.*

(No. 4,880.)

OTTAWA RIVER WORKS, SUPERINTENDENT'S OFFICE,  
Ottawa, 7th October, 1868.

SIR,—I have the honor to submit to the Department, the following report on the works under my charge for the year from 1st July, 1867, to 30th June last.

The "pitch" of water having been favorable during the portion of the rafting season of 1867 covered by this report, square timber and saw logs descended the Ottawa freely and notwithstanding the late date at which navigation was opened, the great bulk of timber of every description reached its destination about the usual time.

After the timber "running" season had closed, the works at the various stations on the Ottawa and its tributaries were examined, and a report embodying an approximate of the cost of preparing them for the season of 1868, was drawn up and submitted to the Department. In accordance with recommendations contained in that report, repairs were authorized and executed last winter and spring on the slides, dams, booms and piers at Joachim, Calumet, Mountain, Chenaux, Head of Chats and Chaudière Stations on the Ottawa river. At the mouth of the Dumoine river, the booms were lengthened and repaired and the support piers strengthened. On the Petawawa, the works at and near Crooked Chute were overhauled and repaired, while portions of the slide at Bois dur station and of the dams and slides at the lower chutes of that stream were replanked. The single stick slide on Black river was patched and made serviceable for another season, and the booms at the mouth of the river strengthened.

On the Coulonge the old booms and piers above and below the long slide where decayed and delapidated were partially reconstructed. Repairs were effected at the following stations on the Madawaska, viz: Bailey's rapids, Boniface rapids, Ragged chute, Barrett's chute, Nettleton's rock, Table rock, Springtown, Burnstown, Flat rapids and Arnprior. On the Gatineau river, oak pickets, where required, were provided for the main boom and the bridge across the new canal from the river to pond, was re-constructed.

The piers of the Rouge river bridge, which had been damaged by timber floating down the stream, were repaired and faced with hardwood.

Pooley's bridge, and the Chaudière line of wooden bridges in this city, and the bridge over the slide channel at Hull had their roadway planking renewed, and the handrails, posts, braces, suspension wires and cables of the Union Suspension bridge were re-painted.

The new works executed during the year consist of a stop-log dam with a slide opening at the Deschênes rapids and an outside walk along the northerly approach to the Union bridge from the village of Hull.

The winter of 1867-68 was one of great severity in the Ottawa region, and the ice on the lakes and rivers was consequently much above the average thickness. The spring freshets caused by the melting of the snow passed away without materially increasing the volume of water in the main stream, and the upper "drives" on the small tributaries were detained through the late breaking of the ice. The progress of the timber was therefore very slow, and it was much later in the season than usual before it arrived at the principal outlets.

Owing to the low pitch of water, the passage of timber at almost all the stations was attended with more than ordinary difficulties, and the slides and other works were exposed to great tear and wear from the attrition of the cribs and pieces of timber and logs that had scarcely enough water to float them.

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The following statement shows the quantities of timber that passed the works in 1867' and the revenue as slide dues and tolls derived therefrom :—

13,833 cribs making 164 rafts together with upwards of 700,000 saw logs.

Revenue accrued for the use of the Public Works... \$73,643

In respectfully submitting the same,

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

HORACE MERRILL,  
*Superintendent O. R. Works.*

## APPENDIX No. 19.

### SLIDES AND BOOMS AND NAVIGATION—RIVER TRENT AND NEW-CASTLE DISTRICT.

*Description of the works and repairs executed during the fiscal year ending 30th June 1868,  
by G. W. Ranney, Superintendent.*

(No. 4,980)

BELLEVILLE, 16th October, 1868.

SIR,—In compliance with general instructions issued May, 1865, I have the honor to submit to you herewith the annual report required.

Herewith attached is an abstract statement of amounts appropriated and expended for repairs, management and improvements to works at the different stations.

*At Lindsay*, \$175.14 has been expended for working expenses, making surveys and plans of the river and works.

*At Bobcaygean*, \$415.71 has been expended for working expenses, repairs, improvements, surveys and plans.

*At Buckhorn*, \$36.00 has been expended for working expenses, surveys and plans.

*At Crook's Rapids*, \$957.20 has been expended for repairs, improvements and working expenses.

Superintendence, travelling expenses &c., \$634.54, making an aggregate sum of \$2,218.59, to date. The necessary repairs to works have not been extensive. At Bobcaygean the banks of the upper canal race had to be protected, and the gates being out of repair had to be strengthened and crabs put on to work them.

The improvements made consist of an extension to the guard at the lower entrance to the Bobcaygean lock : and at Crook's rapids, gravelling to dam to keep up the level of water, making guard piers and boom above the lock to make a safer entrance.

The surveys and plans furnished were to supply the want of plans on a large scale for needed reference, and those from which instructions can be given.

On the line of communication under my charge there has been no interruption of navigation caused by accident or failure of the works, but the water of late has been so low on the reach between Lindsay and Bobcaygean, that the larger boats have been compelled to stop plying there caused by the excessive application of water at Bobcaygean for lockage and mill power. The Trent slides throughout have worked well during the season, and no interruption or difficulties took place while passing down the lumber.

In further compliance with the instructions, I annex an approximate estimate of the cost for repairs, improvements, working expenses and supervision of the navigation under my charge.

The amount, \$825.00, for improving the upper part of the Scugog River by removing fallen timber, stumps and flood from along the shores, is much required to enable the boats towing to get past the contracted crooked places.

*Lindsay*.—The works are in general good order, the \$90.00 estimated for working expenses and completion of plans are mere ordinary expenses.

*Scugog River below Lindsay*.—The amount, \$1000, to improve the navigation at the cuts, by making booms and guards to overcome serious difficulties experienced in towing two and three scows, or cribs of timber and logs up the river even in day light ; the cuts made are narrow and approaches crooked. The present and probable increase of traffic on that portion of the navigation, would warrant an expenditure sufficient to obviate so very great impediments.

*Bobcaygean*.—The amount, \$3,150.00, for working expenses, repairs to dams, repairs to lock gates, building lock-house &c., is required to make, keep and maintain the works in good order. The extreme length of dams and the peculiar location of the lock, and surrounding circumstances of usages connected with the works render the management and

maintenance difficult and expensive. From the geographical location it is the *key-work* to the majority of the existing trade.

*Repairing Dredge and Machinery.*—The amount, \$800.00, to put the old dredge in working order, and I deem advisable to use in various ways to do work contemplated, and to let to individuals who have put obstructions in the way, affording them means that they may employ which they now cannot command. The necessity and convenience of having the dredge in working order, would warrant the expense to repair it.

*Buckhorn.*—The amount, \$415, for working expenses and placing 500 yards gravel on dam, to maintain the levels to a navigable height, is required. The bed of the river, under the dam, is so very rough that what gravel has been put on has gone into, and through the dam, and it now leaks. The water at present is 8' below the apex of the dam. The works otherwise are in good working order.

*Hastings.*—The amount, \$100, for working expenses, is for ordinary working expenses. The works have been put in good repair of late.

This estimate is based upon the expectation of doing part of the work this fall and winter, and to take advantage of the seasons to do the remainder.

The upper part of this line of navigation is becoming more important every year in commercial and sectional interest, and requires better facilities for its accommodation. The fact of its not being productive of revenue, I think, entirely rests with the Government, as from all the information I can gather, there would not be a dissenting voice in Parliament or otherwise, to make them at least self-sustaining, and paying a liberal interest for amounts expended for further improvements and maintenance.

All of which is humbly submitted.

I have &c.,

(Signed)

G. W. RANNEY,

*Supt. Trent Works.*

F. BRAUN, Esq.,

Secretary of Public Works, Ottawa.

**ABSTRACT STATEMENT of amounts appropriated and expended on the River Trent and Newcastle District Works, from the 1st January to the 30th June, 1868, and extended to the 30th September, 1868.**

Date of letters of appropriation.	No. of letters.	Sums named in letters.	Stations where to be appropriated.	Amount spent at each station.	Total amounts.	For what expended.	Amounts unexpended to date.		Remarks.
							\$	cts.	
February 9 ..	1,803	\$ 185 00	Lindsay .....	\$ 86 09		Surveys and working expenses.....	\$ 98 91		
" " ..	"	290 00	Bobcaygean .....	80 00		do do .....	210 00		
" " ..	"	50 00	Buckhorn .....	30 00		do do .....	20 00		
" " ..	"	40 00	Crook's Rapids .....			Superintendence .....	40 00		
" " ..	"	600 00	Superintendence..	402 87	598 96	Superintendence .....	197 13	566 04	
March 17 ..	2,027	1,165 00	Bobcaygean .....	194 51	194 51	Repairs.....	305 49		
April 9 ..	2,178	1,200 00	Crook's Rapids .....	125 00	125 00	.....	1,075 00	1,380 49	
		\$2,865 00			\$911 47			1,946 53	To 30th June

FROM 1ST JANUARY TO 30TH SEPTEMBER.

		\$	cts.	\$	cts.	\$	cts.	\$	cts.
Lindsay .....	175 14			Surveys and working expenses.....		\$ 9 86		*Some further improvements required.	
Bobcaygean .....	161 20			do do .....		128 80			
Buckhorn.....	36 00			do do .....		14 00		†Work not completed.	
*Crook's Rapids..	957 20			Repairs and improvements.....		282 80			
†Bobcaygean.....	254 51			do do .....		245 49			
Superintendence..	634 54			Less--Excess for Superintendence.				680 95	To 30th Sept.
		2,218 59						34 54	Would not advise any of the above sums to be cancelled.
		\$2,218 59						\$646 41	

(Signed,) G. W. RANNEY,  
Supt. Trent Works.

**AN APPROXIMATE ESTIMATE of cost for repairs, improvements, working expenses and supervision of River Trent and Newcastle District Works from 1st July to 31st December, 1868.**

STATIONS.	FOR WHAT PURPOSE.	AMOUNT.	
		\$	cts.
Scugog River, between Lindsay and Scugog Lake.....	{ To improve the river by removing fallen timber, stumps, &c., at narrow and contracted parts.....	825	00
Lindsay.....	} Ordinary working expenses.....	50	00
Scugog River, below Lindsay.....	{ To complete plans.....	40	00
	} Removing stumps, booming, cuts, &c.....	1,000	00
Bobsaygean.....	{ Ordinary working expenses.....	50	00
	} Repairs to dams, &c.....	300	00
Repairing dredge and machinery.....	{ Pumping lock chamber and repairs to gates.....	2,000	00
Buckhorn.....	} Building lock house.....	800	00
Hastings.....	{ Ordinary working expenses.....	40	00
	} Graveling dam.....	375	00
	} Working expenses.....	100	00
	} General superintendence and expenses.....	600	00
		\$6,980 00	

(Signed,)

G. W. RANNEY,  
Supt. Trent Works.

## APPENDIX No. 20.

### MÉTAPÉDIAC AND RISTIGOUCHE ROADS.

*Description of the works and repairs executed during the fiscal year ending 30th June, 1868,  
by Joseph Rosa, Superintendent.*

(No. 4,924)

QUEBEC, October, 1868.

F. BRAUN, Esq., Secretary,  
Department of Public Works, Ottawa,

SIR,—I have the honor to submit herewith the annual report of works executed under my superintendence during the fiscal year 1867–8, or from the 1st July, 1867, to the 30th June, 1868.

#### MÉTAPÉDIAC ROAD.

*Construction.*—In the course of the year, 2400 feet of hand rail was made and put up on the most dangerous parts of the road where the road runs over the wharves and embankments.

Lots Nos. 11, 38 and 70, on the Central Division, were not finished during the past year; but men are now at work on them, by virtue of the instructions given in your letter of the 29th of May last (No. 2156.)

*Repairs.*—The damages caused by the extraordinary rise of the waters of the River Métapédiac in the spring of 1867 have been repaired.

The repairs were as follows: Two wharves, forming a total length of 357 feet, which had been nearly destroyed, have been re-made; eight other wharves, forming a length of 1200 feet, which had been damaged, were repaired; nineteen culverts have been re-made; one of the central piers of the Causapsal bridge which had been undermined, was made solid; thirty-five acres of road which had been submerged and damaged were raised and covered with gravel.

The road on the Southern Division was cleared of the earth slips, trees, stumps, stones, &c., which the melted snow and thaw of the spring of 1867 had carried down upon it.

A bridge 89 feet long by 16 feet in height, which had been destroyed by the fire which passed over the road in the month of June, 1867, has been rebuilt; two culverts, which had been partly burnt by the same fire, have been repaired.

#### RISTIGOUCHE ROAD.

*Construction.*—In the year 1867–8 the following works were done on this road:

The bridge over the stream which drives the mill belonging to Hugh Fraser, was finished; the floor of the bridge in course of erection over the "Little River" has been finished.

On the 30th of June last, there remained still to be finished, the approaches of the above named bridge and a part of the hand rail to make and put up.

The expense incurred on the Métapédiac and Ristigouche roads during the fiscal year 1867–8, were as follows:

Amount paid contractors according to the monthly estimates.... \$2,579.00

Paid for repairs, superintendence, &c., according to the pay-lists 4,237.42

Total Expenditure..... \$6,816.42

Humbly submitted.

I have the honor, &c.,

(Signed)

JOSEPH ROSA,  
Superintendent.



## APPENDIX No. 21.

### NOVA SCOTIA RAILWAYS.

*Description of Works, by A. Longley, Railway Commissioner.*

(No. 821.)

NOVA SCOTIA RAILWAY,

*Commissioner's Office, July, 1868.*

SIR,—The Railways of Nova Scotia having become the property, and passed into the hands, of the General Government, as provided in the Act of the Union of the Colonies on 1st July, 1867, it may not be uninteresting for me to submit for your information, nor inappropriate to be placed on record, a short but succinct history of the construction of these works, and the principal circumstances connected with them to that date.

The construction of Railways in Nova Scotia was authorized by Act of the Legislature passed in this Province 31st March, 1854. By a subsequent Act of same session, provision was made for obtaining the necessary funds for constructing them by the issue of Provincial Debentures, bearing interest at six per cent, redeemable in twenty years. The Hon. Joseph Howe was appointed a Delegate to proceed to Great Britain to negotiate their sale, which was accomplished with Messrs. Baring Bros. & Co., London. A few were also disposed of in this Province.

The Act first alluded to, provided for the appointment of a Board of Commissioners and Chief Engineer, and conferred upon them the necessary powers to carry on and complete the works.

The Commissioners were authorized to draw upon the Receiver General of the Province for all monies required (previously passed in estimates) but were restricted in the expenditure and the incurring of liabilities to a larger extent in any one year than \$800,000.

The following Commissioners were accordingly appointed, and met for the first time on the 5th April, 1854 :

Hon. Joseph Howe, <i>Chairman.</i>	
Hon. J. McCully,	}
Wm. Pryor, Jr.,	
P. M. Cunningham,	
J. H. Anderson,	
Thos. S. Tobin,	
and James Forman, Esq., <i>Chief Engineer.</i>	} Esquires, <i>Commissioners</i> ;

The first contract for grading was advertised 4th May, 1854, and the first sod was turned at Richmond (about a mile and a half from the city) on 13th June, 1854.

The road was opened for traffic as follows :

To 4-Mile House.....	February,	1855
Bedford, 8 miles.....	July,	1855
Grand Lake, 23 miles.....	January,	1857
Elmsdale, 30 " .....	January	1858
Shubenacadie, 39 " .....	March,	1858
Truro, 61 " .....	December 15th,	1858

#### WINDSOR BEANCH.

Junction to Windsor, 32 miles.....	June 3rd,	1858
------------------------------------	-----------	------

The extension from Truro to Pictou—52 miles—was opened for traffic 31st May, 1867,—making in all 145 miles of railway from Halifax to the waters of Pictou Harbor on the Gulf of St. Lawrence in the East, and Windsor on the Basin of Minas, connecting with the Bay of Fundy, in the West. Details of the construction of the Pictou Extension will be found under the head of "Pictou Extension."

In the year 1857, upon a change of government taking place, the Board of Commissioners was reconstructed and reduced to three members. Hon. James McNab was appointed Chairman, and Messrs. Anderson and Pryor retained as Commissioners. James Laurie, Esq., was appointed Chief Engineer in place of Mr. Forman, and James R. Mosse, General Superintendent. Messrs. Pryor and Anderson subsequently resigned, and Archibald Scott and S. L. Shannon, Esqs., were appointed in their stead. The Board remained thus constituted until 1860, when upon another change of Government, the Board of Commissioners was abolished, and the Hon. Jonathan McCully was appointed *sole* Commissioner; this occurred on 10th February, 1860. The services of an Engineer and General Superintendent were dispensed with, and the entire staff and management organized nearly as it has continued up to the present time.

The Secretary and Accountant, J. Morrow, having soon after resigned, owing to failing health, Thomas Foot, the present officer, his Assistant, was appointed in his stead. Mr. George Taylor was appointed Traffic Superintendent, Mr. Wm. Johnston, Locomotive and Car Superintendent, and Mr. Wm. Marshall, Road Inspector, which subordinate officers still continue to discharge their respective duties at the present time. A general classification of accounts was agreed upon, and the foregoing officers were made directly responsible to the Commissioner for the efficiency of their respective departments.

In 1860 the Government directed a survey to be made of the extension of the railway from Richmond into the city, which was conducted by A. Light, Esq., C. E., (see Journals Assembly Nova Scotia for 1861, Appendix 24,) who reported that the line could be built, exclusive of land damages, for the amount of \$100,000; this has not been constructed, a Chartered Railway Company having since built a tramway of their own, but of a different gauge.

In June, 1863, on a further change of Government again taking place, the Commissioner, Mr. McCully, resigned office, and Hon. James McDonald was appointed in his stead, under whose management the Railway continued until 12th December, 1864, when that gentleman resigned the office of Commissioner to take the position of a member of the Executive Government and the office of financial Secretary, and Avar Longley, Esq., then a member of the Legislature, was forthwith appointed the Commissioner.

#### PICTOU EXTENSION.

The extension of the line of railway eastward from Truro to the waters of Pictou Harbor (52 miles) was decided upon by resolution of the House of Assembly on the 14th day of March, 1864.

In April following, Sandford Fleming, Esq., was appointed Chief Engineer, an Engineering staff organized, and preliminary surveys begun.

On the 13th of June following, tenders for the grading of the first section, extending five miles out of Truro, were called for, and its construction forthwith commenced.

On the 24th September, the Chief Engineer reported to the Government upon eight different lines, or sections of lines, surveyed, recommending the line distinguished as line No. 8, running by the way of the East River, the Albion Mines, and New Glasgow, to Fisher's Grant.

On the 5th of October, this line was approved by the Governor in Council, and on the 19th November the grading, bridging, masonry, and other works, were let on the remaining nine sections, from a point five miles out of Truro to Fisher's Grant, and the ceremony of breaking ground performed at New Glasgow on the 30th day of the same month.

The cost of the Pictou Extension, including rolling stock, was estimated at \$2,314,500. Subsequently some alterations were made in the specifications, in the gradients, and in the curvatures, by which it was anticipated the cost would be brought somewhat below the sum named, but this was not realized in the end.

The works progressed but slowly under the original contractors, and during the summer of 1866, the Government despairing of the completion of the works under their management at the time specified in the contracts, and being persuaded that most of the contractors could not complete their contracts at all, some having already given them up and it being highly desirable to have the line opened for traffic at the earliest possible period, took the work out of the hands of the contractors and entered into an agreement

with Sandford Fleming, Esq., for the completion of the works, for the lump sum of \$2,116,500,\* not including the equipment of the line, Mr. Fleming agreeing to meet all the equitable claims of the original contractors, and have that portion of the line to West River (21 miles from Truro) opened for traffic by the 31st of December, 1866, and the remaining portion, to Pictou landing, ready for traffic on the 31st day of May, 1867.

Upon Mr. Fleming relinquishing the position of Engineer and assuming the charge of the works as contractor, Alex. McNab, Esq., was appointed in his stead, under whose supervision the works were completed.

It is only necessary to say, that by great exertion on the part of Mr. Fleming and these immediately under him, the conditions of the contract were fulfilled to the letter. It is due to Mr. Fleming to remark, that as regards the performance of the contract, both as to the time and manner of its completion, the Government were fully satisfied, and the line may be regarded as one of the best on this continent. The entire cost, including equipment, amounts, to the 30th June, 1868, to the sum of \$2,321,567.98, and to which sum will have to be added probably \$60,000 more.

### CHARACTERISTICS OF THE LINES.

For the first twenty-five miles after leaving Halifax, the railway passes through a sterile and rocky country, full of gorges, and generally of a rugged and uneven surface; after passing Grand Lake—23 miles from Halifax—the character of the country continues to improve until reaching Shubenacadie—39 miles from Halifax,—and from this station to Truro, a wide area of rich soil, well adapted for agriculture, is presented. On leaving Truro, the country traversed by the railway consists of an interval, with a soil of a highly productive nature; five miles from Truro the line skirts a deep and narrow ravine, through which the Salmon river runs, forming a rough and uninviting section of the country, but possessing, however, the redeeming feature of having large tracts of heavy timbered lands in close proximity to the road. This portion of the line, for about a mile and a half, runs through very heavy rock cuttings.

Immediately on leaving West River—82 miles from Halifax—the country assumes a decidedly improved appearance, and the soil is favorable for farming purposes. Approaching Coal Mines Station—101 miles from Halifax—the line enters the vast coal district of Pictou county. These coal areas have been fully explored, and the fact ascertained that within a radius of several miles the supply of coal is almost inexhaustible.

The main line terminates at Pictou landing—112 miles from Halifax,—situate on the south side of Pictou harbor, in the Gulf of St. Lawrence, at which place the Department has leased to the different mining companies a large number of water lots for the purpose of enabling them to provide sufficient accommodation for the shipment of coal.

The Windsor Branch leaves the main line at the Junction—13½ miles from Halifax,—in the midst of the barren and rocky country first referred to, and does not emerge from it until within seven or eight miles of Windsor—45 miles from Halifax,—which is situate on the east side of the river Avon, and distant about fifteen miles from the south shore of the Bay of Fundy, in the midst of a rich fertile country.

The unfavorable features of the country traversed on the first part of the line, rendered it necessary to adopt heavy gradients and sharp curvatures.

The maximum grade on the main line going north between Halifax and Truro occurs in ascending from Bedford station to Lily Lake—9 miles from Halifax—and is at the rate of  $64\frac{8}{10}$  feet per mile for 1½ miles in length, and between Truro and Pictou the maximum grade occurs at 85 miles from Halifax coming south from Pictou, between West River and Glengarry, and is at the rate of  $67\frac{5}{100}$  per mile.

The maximum grade on the Windsor branch going west is  $70\frac{1}{2}$  feet per mile for about a mile and a half, near Long Lake—19 miles from Halifax.

The following table, furnished by the Engineer, Mr. McNab, (see map of gradients attached to this report,)(a) gives an abstract of the grades and curvatures on the main line and Windsor Branch. The map shows at a glance the difficulties that must be encountered in working a road with such heavy grades and sharp curvatures.

The minimum radius of curvature on the main line between Halifax and Truro, is

\*This amount includes all payments made up to date of taking contract.

(a) Map not printed.

792 feet, and between Truro and Pictou 955 feet, and on the Windsor Branch 1320 feet.

The summit, or highest point, on the main line is about 85 miles from Halifax, and is 555 feet above sea level; and on the Windsor Branch 26 miles, and is 519 feet.

	Length in Miles.	Ascents in Feet.	Descents in Feet.	Length of straight line in Miles.	Aggregate Curvature in Degrees.	Average Curvature per Mile in Degrees.
Between Halifax and Truro.....	61 $\frac{1}{8}$	605.4	558.3	39	2,536	41
“ Truro and Pictou harbor.....	51 $\frac{1}{8}$	807.5	849.3	27	3,269	64
Total.....	112 $\frac{1}{4}$	1,412.9	1,407.6	66	5,805	52 $\frac{1}{2}$
Between Halifax and Windsor.....	44 $\frac{3}{4}$	631.4	619.6	25	2,703	60

### [SUPERSTRUCTURE.

The iron rails used on the main line, between Halifax and Stewiacke—44 miles—are of the H pattern, or double-headed, weighing 63 pounds to the yard, supported at intervals of 2 $\frac{1}{2}$  feet by cast iron chairs, weighing 37 pounds each at the rail joints, and 29 pounds intermediate, spiked into cross sleepers 10 feet long, 10 inches wide and 5 inches thick; the rails are secured to the chairs by wooden side-keys.

With the exception of about three miles laid with the H rail between Stewiacke and Truro—17 miles—the rail used between these points is of the T pattern, 63 pounds to the yard, secured at the joint by a wrought iron plate, resting upon, and spiked into, the sleeper.

Between Truro and Pictou, the road is laid with the T rail, weighing 56 pounds to the yard, and secured at the joint with a steel scabbard, into which the rail fits, and which has proved itself to be a superior description of fastening.

The rail and fastening used on the Windsor Branch are the same as that between Halifax and Stewiacke, on the main line.

The switches on the main line from Richmond to Shubenacadie are nearly all self-acting, or Wild's patent; and from this station to Pictou landing, slide-rail switches are used.

On the Windsor Branch, with the exception of those at Five Mile Lake and Pellow's Siding, the switches are all self-acting.

The road is enclosed with a post and rail fence, and a telegraph line has been constructed throughout its whole length, communicating with the principal stations.

The following tables are appended to this report:—

No. 1. Statement of Sidings on main line and Windsor Branch.

No. 2. Statement of Bridges, Viaducts and Culverts on main line and Windsor Branch.

No. 3. Table of the Stations on the main line and Windsor Branch, with their distances from Halifax.

No. 4. Statement showing Receipts and Working Expenses of the Road from 30th June, 1855, to 30th June, 1867, inclusive.

## No. 1.—SIDINGS ON NOVA SCOTIA RAILWAY.

## MAIN LINE.

Distance from Halifax.	Where situated.	Length in Feet.	Remarks.
Miles.	Richmond Station.....	1,4703	
8	Bedford ".....	760	Through Siding.
8	" ".....	736	Mill "
8	" ".....	400	Platform "
11	Rocky Lake.....	335	Freight "
11	" ".....	724	Old Ice Co. Siding.
11½	" ".....	595	New
12¾	Germanston.....	400	Freight "
13	Windsor Junction.....	861	Through
13	" ".....	403	To Turntable.
16	Groves.....	281	Brick Works.
20	Fletcher's.....	476	Freight.
23	Grand Lake.....	700	"
25	Col. Laurie's.....	270	Freight Siding.
28	Enfield.....	350	" "
28¾	Malcom's.....	736	Through Siding, Brick Works.
29¾	Nash & Co.....	360	" " " "
30	Elmsdale.....	1,130	Through "
30	".....	545	Freight "
33¾	Boggs'.....	258	Loading Plaster.
35	Wickwire's.....	410	Freight.
39	Shubenacadie.....	1,173	Through Siding.
39	".....	880	Freight.
40	Lang's.....	355	Brick Works.
41	Murray's.....	293	" "
44	Stewiacke.....	910	Through Siding.
44	".....	423	Freight.
53	Brookfield.....	505	"
53	".....	676	New.
57	Johnston's Road Station.....	612	Freight Siding.
61	Truro.....	4,584	" "
61¾	Ballast Pit.....	803	
70	Union.....	1,086	Freight Siding.
71½	Whall's Mill.....	501	To Ballast Pit.
74	Riversdale.....	927	Through Siding.
74	".....	420	Freight.
79¾	Landsburg.....	645	To Ballast Pit.
82	West River.....	868	Through Siding.
84½	Gordon Summit.....	627	" "
88	Glengarry.....	1,358	To Ballast Pit.
89	Glengarry Station.....	1,024	Through Siding.
96	Hopewell ".....	840	" "
101	Albion Mines ".....	747	" "
104	New Glasgow ".....	1,198	" "
112	Pictou Landing.....	4,628	" "

## WINDSOR BRANCH.

16	Beaver Bank Station.....	294	Freight Siding.
17 $\frac{3}{4}$	Fenerty's.....	695	“ “
21	Mitchell's.....	587	“ “
23 $\frac{1}{4}$	Hibbert's.....	520	“ “
26	Mount Uniacke.....	988	Through “
26	“ “ .....	702	Freight “
31 $\frac{1}{2}$	Bennet Smith's.....	388	“ “
32	Five Mile Lake.....	3,414	New Saw Mill.
34	Dawson's.....	257	Lumber.
32 $\frac{1}{4}$	Stillwater.....	705	Old Saw Mill.
36	Ellershouse.....	944	Freight Siding.
37 $\frac{1}{4}$	St. Croix.....	907	Saw Mill.
39	Newport.....	650	Through Siding.
39	Newport.....	472	Freight.
40 $\frac{1}{2}$	Pellow's.....	3,170	Plaster.
42	McLatchy's.....	747	Ballast Pit.
42 $\frac{3}{4}$	Wilkins'.....	345	Plaster.
45	Windsor.....	5,756	Siding in Station Yard.

No. 2.—BRIDGES, VIADUCTS AND CULVERTS ON NOVA SCOTIA RAILWAY.

MAIN LINE.

Distance from Halifax.	Where Situated.	No. of Spans.	Width of Spans.	Height above Water or Surface of Ground.	Description.
Miles.			Feet.	Feet.	
2½	Sandford's Bridge.....	1	10	9	Stone abutment, Wood beams.
8	Sackville do .....	5	50	52	Do do Iron girders.
9	Dartmouth Road do .....	1	20	25	Do do Wood beams.
9½	Culvert on Bedford Grade.....	.....	5	4	Length, 1,973 feet.
17	Beaver Brook Bridge.....	4	20	6	Stone abutment, Wood beams.
19	Rawdon River do .....	3	25	10	Do do do do
20	Open Canal do .....	1	50	32	Do do Iron girders.
		2	30		
22	Open Culverts do .....	1	6	8	Do do Wood beams.
23	Grand Lake do .....	1	15	16	Do do do do
27	Hall's Road do .....	1	18	12	Do do do do
27½	Canal do .....	3	49	22	Do do Iron girders.
	.....	1	19	9	Do do Wood beams.
	.....	1	19	9	Do do do do
And	.....	1	19	9	Do do do do
	.....	1	19	10	
	.....	1	19	8	
30½	Nine Mile River Bridge...	19	30	20	{ 2 abutments and 8 piers of stone; remainder wood.
32	Truro Road do ...	1	19	12	Stone abutments, Wood beams.
33	Barney's Brook do ...	3	30	40	Do do do do
33½	Simpson's do ...	1	10	7	Do do do do
"	Do do ...	1	5	9	Do do do do
35	Wickwire's do ...	1	10	7	Do do do do
36	Wardrop's do ...	1	14	16	Do do do do
37	Blackburn Pile do .....	.....	20	9	Length, 180 feet.
"	Do do do .....	.....	20	14	Do 439 do
	Open Culvert.....	1	10	7	Stone abutments, Wood beams.
	.....	1	9	4	Do do do do
39½	Truro Road Bridge.....	1	24	17	Do do do do
"	Shubenacadie River Bridge	3	100	35	Stone abutments, Iron girders.
41	Old Mill Bridge.....	1	11	7	Do do Wood beams.
And	4 open Culverts.....	.....	6	7	Do do do do
43	Ellis' do Bridge.....	1	19	11	Do do do do
44½	Arched Culverts .....	.....	7	.....	Stone.
"	Woodworth Road. ....	1	5	5	Do
45½	Arched Culvert.....	.....	6	.....	Do
46	Stewiacke .....	2	100	32	Stone abutment, Iron girders.
46½	Arched Culvert.....	.....	12	.....	Stone.
48	Polly Bog Bridge.....	1	12	6	Stone abutment, Wood beams.
48½	Pile do .....	1	17	6	Wood.
52½	Brookfield do .....	2	17	9	Stone abutment, Wood beams.
	Truro Road do .....	1	16	8	Do do do do
And	McLellan do .....	1	10	6	Do do do do
	Scott's do .....	1	24	9	Do do do do
	Do do .....	1	10	6	Do do do do
57	Johnston's Road Bridge...	2	20	11	Do do do do

## No. 2.—BRIDGES, VIADUCTS AND CULVERTS.—Continued.

Distance from Halifax.	Where situated:	No. of Spans.	Width of Spans.	Height above Water or Surface of Ground.	Description.				
					Miles.	Feet.	Feet.		
	Johnston's Road Bridge	1	17	9				Stone abutment, Wood beams.	
	Smith's do .....	1	16	7	Do	do	do	do	
	Do do .....	1	16	7	Do	do	do	do	
And	Do do .....	1	10	6	Do	do	do	do	
	Do do .....	1	15	13	Do	do	do	do	
	.....	1	18	16	Do	do	do	do	
59	Arched Culvert.....		12					Stone.	
61	Arched Culvert.....		5						
	Mill Brook Bridge.....	1	24	7	Stone	abutment,	Iron	girders.	
	Christie's do .....	1	22		Do	do	do	do	
And	Arched Culvert.....		6					Stone.	
	3 open Culverts.....		6		Stone	abutment,	Wood	beams.	
	2 do do .....		4		Do	do	do	do	
70	2 do do .....		12		Do	do	do	do	
	1 Tunnel.....		12						
And	1 do .....		8						
74	1 do .....		7						
74½	Cavalry Bridge.....	3	40	24	Stone	abutments,	Iron	girders.	
	3 open Culverts.....		6		Do	do	Wood	beams.	
	1 do do .....		7		Do	do	do	do	
And	3 do do .....		8		Do	do	do	do	
	2 do do .....		11		Do	do	do	do	
	1 do do .....		12		Do	do	do	do	
82	3 Tunnels.....				1	arched	with	Stone	at south end.
	2 open Culverts.....		12		Stone	abutments,	Wood	beams.	
	1 do do .....		8		Do	do	do	do	
	1 do do .....		6		Do	do	do	do	
And	2 Arched Culverts.....		5					Stone.	
	1 do do .....		6		Do				
	1 do do .....		7		Do				
89	1 do do .....		12		Do			Iron beams.	
And	1 do do .....		5		Do			Wood beams.	
	1 do do .....		8		Do			do do	
96	1 do do .....		10		Do			do do	
	2 do do .....		4		Do			do do	
And	4 do do .....		5		Do			do do	
	1 open Culvert.....		5		Stone	abutments,	Wood	beams.	
104	1 Arched Culvert.....		8					Stone.	
"	New Glasgow Bridge....	4	77	16	Stone	abutment,	Iron	girders.	
	2 Road Bridges.....	1	19	11	Do	do	do	do	
And	1 Arched Culvert.....		5					Stone.	
	1 do do .....		6		Do				
	1 do do .....		8		Do				
113	1 do do .....		10		Do				

## WINDSOR BRANCH.

113	Accommodation Bridge.	3	20	16	Stone	abutment,	Wood	beams.
15½	2 open Culverts .....	1	3	4	Do	do	do	do





**No. 4.—STATEMENT SHOWING THE RECEIPTS AND EXPENSES OF THE NOVA SCOTIA RAILWAY, from 30th June, 1855, to 30th June, 1867, both inclusive.**

DATE.	Miles open for Traffic.	Gross Receipts.	Expenses.	Net Revenue.	Deficit.	Chief Commissioner.
6 months ending 31st Dec., 1855....	4	7,592 24	3,984 59	3,607 65	.....	} Hon. Joseph Howe.
Year do do 1856....	8	16,480 47	12,049 35	4,431 12	.....	
Do do do 1857....	23	34,505 37	22,584 45	11,920 92	.....	} Hon. James McNab.
Do do do 1858....	30	74,938 62	69,707 55	5,231 07	.....	
Do do do 1859....	93½	102,877 57	111,274 89	.....	8,397 32	
Do do do 1860....	93½	116,742 89	96,472 26	20,270 63	.....	} Hon. Jonathan McCully.
Do do do 1861....	93½	120,917 66	94,114 88	26,802 78	.....	
Do do do 1862....	93½	139,106 71	101,925 23	37,181 48	.....	
Do do do 1863....	93½	149,674 42	127,962 58	21,711 84	.....	} Hon. Jas. McDonald.
9 months ending 30th Sept., 1864....	93½	121,754 45	98,242 90	23,511 55	.....	
Year ending do 1865....	93½	133,953 82	159,068 88	24,884 94	.....	} Avarad Longley, Esq.
Do do do 1866....	93½	199,739 19	165,571 89	34,167 30	.....	
*9 months ending 30th June, 1867....	114	155,098 34	132,398 98	22,699 36	.....	
				236,420 64	8,397 32	
		\$1,423,331 75	1,195,358 43	228,023 32		

\* From 31st May to 30th June—1 month—the line was open to Pictou, making 145 miles open for traffic.

APPENDIX No. 21—*Continued.*

## WINDSOR AND ANNAPOLIS RAILWAY.

As the General Government is now providing the funds to meet the obligations incurred by the Nova Scotia Government in 1864, it may not be deemed inappropriate to offer a few observations bearing upon this undertaking.

During the session of the Legislature in 1864, and soon after the decision come to in reference to the construction of the Pictou Railway, the Government propounded a new policy for the extension of the lines from Windsor to Annapolis Royal on the west, and from Truro to the New Brunswick border on the north.

This policy consisted of an offer, by resolution of the Assembly, of a guarantee of interest of four per cent on an outlay of \$24,000 per mile for the construction of the former, and of interest at four per cent on an outlay of \$40,000 per mile for the construction of the latter. Under the above policy, or under a contract involving a slight modification of it, the Windsor and Annapolis Railway is now being carried rapidly on to completion, and will be opened for traffic before the end of 1869.

A contract was entered into for the construction of the line from Truro to the New Brunswick border, but, as yet, little or nothing has been done in the way of carrying out the contract. As this projected line will be comprehended in the Intercolonial, the failure is not much to be regretted. The distance from Truro to the New Brunswick border is about 73 miles; and the distance from Windsor to Annapolis Royal is about 85 miles. The latter line runs through one of the most productive and attractive sections of the Province, and the travel between Halifax, St. John and the United States will probably be mainly by this route.

As regards the Government Railways and the Company's Railway from Windsor to Annapolis, each will necessarily increase the receipts of the other; and arrangements will doubtless be made for a through tariff from Halifax to Annapolis Royal.

Results highly promotive of the welfare of the western part of the Province may be confidently anticipated through the instrumentality of the Windsor and Annapolis Railway, and the day is probably not far distant when the line will be extended to Yarmouth. When this is accomplished, the journey between Halifax and Portland may be performed by rail and steamer in from 26 to 28 hours.

I have the honor to be, Sir,

Your obedient servant,

The Hon. Wm. McDougall, C. B.,

(Signed),

A. LONGLEY.

Minister of Public Works, &c., &c., &c.

GENERAL REPORT ON THEIR WORKING, MANAGEMENT AND REPAIRS  
BY A. LONGLEY, RAILWAY COMMISSIONER.

NOVA SCOTIA RAILWAY,  
Commissioner's Office, Halifax, July, 1868.

SIR,—I have the honor to submit, for your information, the following report upon the operations of the Nova Scotia Railway, for the fiscal year ending the 30th of June, 1868.

The traffic receipts for the year amount to the sum of.....	\$251,311 94
Receipts from other sources.....	2,682 22
<b>Total.....</b>	<b>\$253,994 16</b>

The following statement indicates the sources from whence the receipts were derived:

Passenger traffic.....	\$114,467 44
Horse and Waggon traffic .....	14,611 96
Freight traffic.....	122,232 54
Old material.....	2,400 69
Sundries .....	281 53
	\$253,994 16

Large as have been the receipts of the year, the expenditures have exceeded them by the sum of \$1,536 35.

The working expenses amounting to the sum of.....	\$255,530 51
And the receipts, as above stated, to.....	253,994 16
	\$1,536 35

The causes which have led to the unusually large expenditures of the year will be fully explained under the several heads of "Maintenance of Way," "Locomotive Power," "Car Department," and "General Charges," and by reference to the tables attached to the Secretary and Accountant's report.

It will be quite obvious to any one conversant with the Nova Scotia Railway, and the equipment connected therewith, that the expenses of the upholding and repairs of rolling stock must be very large.

The rail and fastening originally used on about 47 miles of the main line, between Richmond and Truro, and on the Windsor Branch, were probably the worst that could well have been adopted in this climate, both as regards expense of maintenance, and safety and speed of trains.

Most of the new track has been laid with the T rail, and fastened with spikes, and the steel scabbard joint, similar to that used on the Pictou extension. About a mile of the H rail has been imported, and used in relaying track on the sharpest curves, where some doubts were entertained about the T rail and fastening being sufficiently secure. It is not improbable, however, that these apprehensions were groundless, and that the T rail and fastening will be found sufficiently permanent for any portion of the line, and will hereafter be exclusively used.

A quantity of steel scabbard joints, suitable for the H rail, has been imported from England during the year, and these have been used at the joints where the H rail has been taken up and cut, and relaid, which has been done to the fullest extent practicable. The intermediate chairs cannot, however, be dispensed with so long as the H rail is in use.

The replacing of the ponderous cast-iron chairs, which are constantly breaking, replacing and driving the wooden keys with which the rail is fastened into the chair, involve much extra labor and expense.

Some idea of the expensive nature of this particular superstructure may be gathered from the fact, that, on an average, about 160 tons of these chairs have been recast, and used annually for the last six years. During the greater portion of this period, these chairs have cost \$35.00 per ton. At this rate, the annual cost of the chairs alone would amount to \$5,600.00. The price now paid per ton for these chairs is \$32.00. The quantity used last year was 110 tons, amounting to \$3,220.00. This is nearly fifty per cent less than the average cost of former years, and yet it forms a very large item of expense in connection with the maintenance of the "Permanent Way," quite sufficient to attract attention, and lead to the desire for the substitution of a better fastening as soon as possible.

I am happy to say that Mr. Caffrey, Truro, the present contractor for the supply of these chairs, is furnishing a much better article than that received two or three years ago from Mr. Dimock, at Windsor. The new chairs are made of equal parts of old and new metal.

The H rail should, I think, be entirely discarded, and the T rail substituted as new rails are laid down. The substitution of steel keys instead of the wooden ones now in use, would

probably be attended with a saving in the mean time. A small quantity might be imported, and their utility ascertained before ordering a large quantity.

In June last, the cuttings on the Pictou extension were cleaned out by Sandford Fleming, Esq., C. E., contractor for this line, and other work performed in the way of restoration, Mr. Fleming volunteering to perform the work upon condition that the Department should furnish the rolling stock for the purpose. The "Pile Bridge" near Mount Uniacke, on the Windsor Branch, (27 miles from Richmond) and the Blackburn Bridges, Main Line, (37 miles from Richmond) are in a condition requiring early repairs. Most of the wooden bridges on the lines will require to be renewed or repaired before long, as they were all constructed about the same time, and most of them show more or less signs of decay. Some of the structures in question are composed of open trussel work, and, in such cases, the substitution of embankments would, in the end, be more economical and permanent than renewals in the original mode.

All the station buildings between Richmond and Truro, and on the Windsor Branch, are built of wood, and some of these now demand repairs. Among these may be especially named, the terminal buildings at Richmond and Windsor, and the station-house at Truro.

About 30,000 sleepers have been put in during the year. It is proposed that the sleepers to be supplied during the ensuing year shall be 6 inches thick, instead of 5 inches as heretofore. They are also to be free from sap, and in all respects of a higher standard. I apprehend that a saving of labor and expense will thus be effected. As indicated by the Secretary and Accountant's report (A 6), there has been an increase of expenditure in connection with the "Permanent Way" of \$34,723.67. More than half of this amount, namely, \$18,775.41, was expended in laying between four and five miles of new track. Other portions of the line should be relaid at an early day, and several miles of new rail should be imported early next spring. Several new sidings are urgently demanded, and the old rails, which may be taken up, can be used in putting in new sidings. The two sidings at Shubenacadie one to accommodate the trade with Maitland (20 miles down the Shubenacadie River) and the other to Boggs and Tremain's plaster quarry, may be regarded as almost indispensable. Maitland is a thriving village, and noted as a place for ship-building and general enterprise. For the want of the accommodation in question, much of the trade of this place is diverted to St. John, N. B., and a double loss to the Province and the Railway is thus sustained. Boggs and Tremain contemplate shipping a large quantity of plaster as soon as the siding accommodation is furnished. Sidings are also required at the following places: half way between New Glasgow and Pictou landing, for the better working of the coal traffic; at Lonsburg, for wood, timber, lumber, &c.; and at Riversdale, in connection with a Spool Factory about being started; Windsor Junction, for the safer and more convenient working of the trains; and at a point about two miles from Windsor, for the better accommodation of the plaster business at that place.

Some sections of the road-bed are so low and flat as to render thorough drainage impracticable. A large quantity of gravel should be spread on the lines during the ensuing season. The Road Inspector estimates the quantity required on the main line at 3,500 cubic yards, and 2,500 cubic yards on the Windsor Branch,—in all, 5,900 cubic yards; the cost of which is estimated at 70 cents per cubic yard—\$4,130.00.

The abutments of the Dartmouth road bridge ( $8\frac{1}{2}$  miles from Richmond), are in a bad condition, and they will have to be taken down and rebuilt during the ensuing year. It is only ten or twelve years since this bridge was built, which speaks badly for the character of the masonry, and reflects great discredit upon the builder.

Jordan Bridge (Windsor Branch,  $27\frac{1}{2}$  miles from Richmond) will require new girders next year. This bridge rests on granite piers, and the cheapest method of repair which could be adopted, would be to put in new wooden girders.

#### MERCHANDISE AND PASSENGER CARS.

By referring to the tables attached to the Secretary and Accountant's report (A 5), it will be seen that the excess of expenditure over last year, in connection with this service, is \$13,217.25. The increase of expenditure connected with this service is mainly due to the opening of the Pictou extension, making 145 miles worked in 1868 against 113 worked during 5 months, and 145 during one month of 1867. The length of time during which the cars have been in use also contributed to make the repairs heavy.

During the past two years, the renewal of the freight and platform cars have not quite kept pace with their depreciation; and with a rapidly expanding traffic, it will be necessary to make considerable additions to the rolling stock during the ensuing year.

Two First-class and two Second-class Passenger cars should also be constructed early next season.

### LOCOMOTIVE POWER.

The increase of expenditure over last year, in connection with this service, amounts to the large sum of \$15,258.31. Owing to the length of time which the locomotives have been in use (with the exception of three recently imported) the cost of repairing them is necessarily very large. These are now, according to the locomotive Superintendent's report, in a fair state of repair. Two locomotives are in course of construction for the Department at Kingston, which will probably be finished by the end of 1868. These are much needed at the present time. The three locomotives got from the Canadian Engine and Machinery Company, at Kingston, during the past two years, have given great satisfaction; one of them having run over 26,000 miles during the past year. I would strongly recommend the construction of one or two locomotives by the Department at Richmond during the ensuing season. These should be of a powerful description—say forty tons—for working the heaviest kind of traffic on the lines. This, I believe, would be true economy, as the most of the engines in use require such large outlays to keep them in efficient repair, as to render it cheaper in the end to build or purchase new ones for general use and hard service.

The reason why I would so strongly recommend the construction of one or two locomotives at Richmond is, that I am led to believe that they can be built as well in our own shop as elsewhere, and considerably cheaper, probably. Two years ago some well informed persons deemed it impracticable or inexpedient for the Department to build First class Passenger cars; but being myself strongly persuaded that they could not only be as well, but more cheaply built in our own shop, I was induced to try the experiment, with what success let a comparison between the home and foreign built articles testify; and the most gratifying feature connected with the experiment was the reduction of the cost of the article by nearly *fifteen* per cent. The home-made cars are superior in style and finish, and run over the road with gentler motion than the imported ones.

I scarcely doubt but that we should be equally successful in the construction of locomotives were the task undertaken; and I am decidedly of the opinion that the time has arrived when the construction of all the rolling stock required by the Department should be done in our own shops. The cost of freight and insurance, both in relation to cars and locomotives, especially the latter, and the delays, &c., consequent upon their importation, are such as to form strong inducements, independent of other considerations affecting the credit of the Province and the employment of surplus labor, to justify the course recommended. I would, therefore, earnestly invite your approval of the foregoing recommendations. 60,616 more miles have been run by the locomotives in 1868 than in 1867. The cost of running is only a fraction more than last year, except as regards the firewood. The cost of repairing is only  $\frac{78}{100}$  of a cent more than last year. Owing to the unusual severity of last winter 40 tires were broken. The cost of other material for repairs was correspondingly heavy. The steel tires lately imported have given the utmost satisfaction, none as yet having been broken.

### GENERAL CHARGES.

By referring to table (A 7) attached to the Secretary and Accountant's report, it will be seen that the increased expense of the year in connection with this account is \$8,260.86. The same causes which contributed to swell the other accounts apply equally to this account.

### SEPARATION OF THE TRAINS.

On the 7th day of May last the trains were separated, and an Express Passenger train has since been run once a day to and from each terminal station on the lines, namely: Richmond, Pictou, and Windsor.

This arrangement involved the putting on of an additional train between Richmond

and Pictou, and as a matter of course, additional expense; but the circumstances seemed to me to justify the alteration. The passenger trains have been run at a speed of about twenty miles an hour, and the mixed trains at a speed of fifteen miles an hour.

Express trains connecting with the steamer running between Windsor and St. John have been regularly run, when the arrival of the ordinary trains did not correspond with the time of departure of the steamer. A large number of extra freight trains have also been run during the season, to meet the growing traffic on the lines. Altogether it has been difficult to meet the demands of the traffic with the amount of rolling stock at command.

At the time the trains were separated, a change was also made in connection with the "Horse and Wagon Traffic," which has had the effect of relieving the trains to some extent, of a cumbersome, unnecessary, and unprofitable branch of traffic.

The principal alteration made was in reference to the "Teamsters," who, having been formerly carried *free*, were required to pay the ordinary fares. Some of the class immediately interested were naturally dissatisfied with the alteration made, but additional accommodation, and enhanced privileges, have been secured to the public thereby, and the change has generally been endorsed. As the particular features of this branch of traffic were fully explained in my last report, and are now pretty well understood, I deem it unnecessary to add to what has been already said. That *all* should be satisfied with any imaginable condition of things it were vain to expect; but it has been the earnest endeavour of the Department to make the Railway the medium of conferring upon the public the largest possible amount of benefit consistent with a fair regard to the meeting of the large expenditures inseparable from its management.

The number of passengers carried during the year was 166,256; members of Legislature, 53; militia, 1,918; army, 1,636; immigrants, 8—total, 169,871. In addition to these 7,702 teamsters were carried free. It may be necessary to remark in this connection that the change in relation to the Horse and Wagon traffic was not made until near the end of the fiscal year, namely: on the 7th of May.

The weight of freight moved during the year, including loaded wagons, was 91,770 tons. The weight of freight moved one mile, 3,345,141 tons. The average receipt per ton was \$1.50, and the receipts per ton per mile, \$4.09.

#### WHARF EXTENSION AT RICHMOND.

The wharf extension at Richmond, which up to date has cost \$18,285.16, has already been of great service, and will be of vastly more benefit when completed.

#### FREIGHT SHED AND CAR SHOP.

It will be indispensable to erect a new freight shed at Richmond before the close of the ensuing year, as it will be impracticable to work the traffic longer with the present store-house accommodation.

A car shop, with accommodation for the introduction of improved machinery, is also urgently demanded, and should be supplied during the next season. The cost of the former would probably be about \$2,000, and the cost of the latter, exclusive of machinery, about \$4,000. It was in contemplation to commence the construction of these buildings before the end of the present fiscal year, but in consequence of unforeseen obstacles this was not deemed expedient. A sum corresponding with the estimated cost of these buildings has, however, been appropriated, and the contracts will probably be entered into during the ensuing winter for material required for their construction, with a view of proceeding with the work on the opening of spring.

#### MR. HYDE'S WOOD CONTRACT.

What I have to say upon this subject, may be expressed in a few words: the contract has been the source of much trouble, and no inconsiderable loss to the Department; although Mr. Hyde states that great pains are taken to procure good wood, I am of the opinion, that the wood supplied is inferior to that which was furnished previous to the date of the contract. This remark is especially applicable to the *soft wood* (one-sixth of the whole quantity supplied) some portion of which is not really worth half

the price paid for it. I have had some conversation with Mr. Hyde upon the subject of modifying the agreement, and getting rid of the soft wood altogether; but it is hard to say whether even this will be found practicable. A great saving would be effected by the use of coal in the locomotives, instead of wood. Arrangements will be made to burn coal on the Windsor Branch at an early day.

#### GULF OF ST. LAWRENCE.

The travel and traffic between the Provinces of Ontario and Quebec and Prince Edward Island, *via* Pictou, has increased in a very satisfactory manner during the year, and will doubtless continue to increase in years to come.

#### COAL TRAFFIC.

Owing to the present stagnation in the coal trade, the traffic derived from this source has not been large, but considerable shipments have been made from Pictou landing during the season, and a much larger business will probably be done the coming year. At no distant day, there will, without doubt, be an immense business done in the shipment of this article, in connection with the Railway.

#### WINDSOR AND ANNAPOLIS RAILWAY.

This line will be completed by the end of 1869. It is confidently expected that that portion between Annapolis Royal and Wolfville (68 miles) will be opened for traffic by the end of July 1869. With ordinary good fortune in the getting of the foundation of the piers of the bridge across the "Avon," it is not improbable that the whole line may be opened for traffic by the end of October, 1869.

The opening of the Windsor and Annapolis Railway will improve the traffic on the Government lines.

I need scarcely refer to the station buildings at Richmond, as their unsuitable character and condition are too well known to require any comment.

I regret to report five fatal casualties during the year. The names of the parties, and time and place of accident, will be found in the Traffic Superintendent's report.

I have the honor to remain, Sir,

Your obedient servant,

Hon. WILLIAM McDUGALL, C. B.,

(Signed,)

A. LONGLEY.

Minister of Public Work.



## APPENDIX No. 21.—(Continued.)

## NOVA SCOTIA RAILWAY.

## (APPENDIX A.)

HALIFAX, NOVA SCOTIA, July, 1868.

SIR,—I beg to submit my report of the operations of the Nova Scotia Railway for the fiscal year ending 30th June, 1868, accompanied with the following returns:—

- A 1. General balance.  
 " 2. Capital Account, with Abstracts 1 to 11.  
 " 3. Revenue Account, do 12 to 15.  
 " 4. Comparative Statement of Locomotive Power for years ending 30th June, 1867 and 1868.  
 " 5. Comparative Statement of Merchandise and Passenger Cars for years ending 30th June, 1867 and 1868.  
 " 6. Comparative statement of Maintenance Way and Buildings for years ending 30th June, 1867 and 1868.  
 " 7. Comparative Statement of General Charges for years ending 30th June, 1867 and 1868.  
 " 8. Quarterly Summary of Receipts and Expenses.  
 " 9. Statement of Supplies on hand

On referring to capital account, A 2, it will be seen that the total amount received for the construction of the whole line to 30th June, 1868, is..... \$6,769,476 32

And that the expenditure on the line between Halifax and Truro in the East, and Windsor Junction and Windsor, in the West, is ..... \$4,378,079 61

The expenditure on the Extension from Truro to Pictou, being..... 2,321,567 98

Making the expenditure on the whole line ..... 6,699,647 59

Leaving a balance unexpended (See Balance Sheet) of..... \$69,828 73

It will be seen on referring to Revenue Account, A 3, that there is an increase in the total gross receipts from all sources, as compared with 1867, of..... \$42,255 83

And an increase in working expenses of..... 71,460 09

The gross receipts from all sources for 1868, as compared with 1867, show an increase of..... 19.96 per cent.

The working expenses an increase of..... 38.82 " "

The percentage of working expenses for 1868 on total gross receipts is 100  $\frac{60}{100}$  per cent as against 86  $\frac{92}{100}$  per cent for same period 1867.

The following table shows the increase in the several services as compared with 1867.

Specification.	Increase.
Locomotive Power.....	\$15,258 31
Merchandise and Passenger Cars.....	13,217 25
Maintenance of Way and Buildings.....	34,723 67
General Charges.....	8,260 86
	<b>\$71,460 09</b>

On referring to the several comparative statements, A 4 to A 7, it will readily be perceived on which accounts these increases have arisen.

The increase in "Locomotive Power" generally, is attributable to the severity of last winter, to the length of time the locomotives have been running, and also to the increased length of line operated, owing to the opening of the Pictou extension, which rendered it necessary to make heavy repairs to the rolling stock.

The same remarks will apply to "Merchandise and Passenger Cars."

The increase in "Maintenance of Way" is attributable partly to the above causes, and partly to the relaying of about  $4\frac{1}{2}$  miles of road with new rails, amounting to \$18,775.41 which, on reference to the statement A 6, will appear.

The cost per mile for maintaining the permanent way for year ending 30th June, 1868, is \$621.07, which includes  $4\frac{1}{2}$  miles of track relaid with new rails, as before stated. Deducting the sum paid for this service, the regular upholding of the road has cost per mile \$491.58.

A comparison with 1867 cannot well be made, as the Pictou extension was opened for different distances at different periods during the year; the following, however, is the result:—

	Miles open,	Cost per mile.
6 months ending 31st December, 1866.....	93.75	\$339 53
5 months ending 31st May, 1867.....	113	171 34
1 month ending 30th June, 1867.....	145	28 54

The following table will show the operations of the road for years ending 30th June, 1866, 1867, and 1868 respectively:—

Specification.	Year ending 30th June 1866.	Year ending 30th June 1867.	Year ending 30th June 1868.
Receipts from all sources.....	\$196,526 88	\$211,768 33	\$253,994 16
Working expenses.....	163,191 88	184,070 42	255,530 51
	\$33,335 00	\$27,697 91	*\$1,536 35

The books and accounts of Mr. Jones, the storekeeper, have been examined and found correct, and stock taken of all supplies on hand, as per statement A 9.

I am, Sir,

Your obedient servant,

THOMAS FOOT,

A. LONGLEY, Esq., Chief Commissioner.

Secretary and Accountant.

\*Deficit:

Dr. NOVA SCOTIA RAILWAY, GENERAL BALANCE, 30TH JUNE, 1868.

(A 1.)

Cr.

Revenue Account, 1868.....		\$1,556 35		General Revenue Act. Net Revenue to 30th June, 1867.....	\$45,845 41	
ASSETS.				Capital Account.....	69,828 73	\$115,674 14
Stores on hand.....	\$76,432 90		Receiver General, Prov. N. S., 30th June, 1867.....	9,224 62		
Traffic Superintendent for arrears at stations...	28,662 24		Receiver General, Dominion of Canada, 30th June, 1868.....	18,339 84		27,564 46
B. Wier & Co.....	668 00		LIABILITIES.			
Nash & Co.....	20 70		Russell & Moore, Boston.....	\$ 479 70		
H. Hyde, Wood contract.....	6,412 10		Whitney, Bridges & Stearns, Boston.....	2,079 37		
F. Eilershausen, do.....	325 21		N. Spence, Wood contract, Stillwater.....	487 40		
W. Beckman, do.....	200 00		N. Spence, do Windsor.....	789 24		
Lewis P. Hill.....	499 17		W. Miller, do.....	419 42		
Joseph Thomas, Lumber contract.....	82 78		S. Fleming, Rails.....	14,247 42		
N. Spence, do.....	27 45		Unpaid Pay rolls and accounts, to 30th June, 1868.....	20,320 56		
James McDonald.....	52 00		J. McDougall & Co., Montreal.....	9,019 78		
Intercolonial Railway survey.....	10,100 39		Ibbotson Bros. & Co., Sheffield, G. B.....	606 42		
Annapolis Railway survey.....	4,812 39		Portland Locomotive Co., Portland.....	1,384 03		
Bills receivable.....	82 38		S. Fleming, contract Pictou Railway.....	82,847 40		82,680 74
Countries of Colchester and Pictou to be assessed for land and buildings taken at New Glasgow.....	\$27,044 17					
Materials taken for railway purposes.....	21,432 33					
Fencing through counties of Colchester and Pictou, proportion of 10,400 00						
Cash in Bank.....	36,926 42					
Cash on hand.....	202 36					
	37,128 78	224,382 99				
		\$225,919 34				\$225,919 34

THOMAS FOOT

E. E. Halifax, N. S.,  
30th June, 1868.

(A 2.)  
NOVA SCOTIA RAILWAY. CAPITAL ACCOUNT

Dr.			Cr.
1868.			
June 30. To expend. on construction of Railway from Halifax to Windsor and Truro to 30th June, 1867 (per last report).....	4,345,136 04		
To do. do. year ending 30th June, 1868, new sidings per Abstract 1.....	88,026 19		
Station service per Abstract 2.....	2,556 79		
Sundry services do 3.....	2,2360 59	32,943 57	
		4,378,079 51	4,371,400 68
To expend. on construction of Pictou Railway from Truro to Pictou to 30th June, 1867 (per last report).....	1,946,892 54		
To do. do. year ending 30th June, 1868, Engineering per Abstract 4.....	10,153 29		
Roadway & Wks per Abst. 5.....	172,422 99		
Permanent Way do 6.....	97,148 68		
Rolling Stock do 7.....	42,925 77		
Stat'n Water serv. do 8.....	17,749 80		
Wharf Ferry serv. do 9.....	25,515 50		
Gen'l expenses do 10.....	1,852 44		
Sundry services do 11.....	6,966 97	374,675 44	
		2,321,567 98	2,398,075 64
To Balance.....	6,699,647 59		6,769,476 32
	69,828 73		\$ 6,769,476 32

1868.

June 30. By cash rec'd from Hon. Receiver General, Province of N. Scotia, to 30th June, 1867, (per last report) on account of construction of Line between Halifax, Windsor, and Truro.....

4,310,891 15

By do. do. Hon. Minister of Public Works from 1st July, 1867, to 30th June, 1868.....

60,509 58

By cash rec'd from Hon. Receiver General, Province of N. Scotia, to 30th June, 1867, on account of construction of Pictou Railway from Truro to Pictou (per last report).....

2,072,075 64

By do. do. from 1st July, 1867, to 30th June, 1868.....

159,000 00

By do. do. Hon. Minister of Public Works from 1st July, 1867, to 30th June, 1868.....

167,000 00



(A 4.)  
 COMPARATIVE STATEMENT—LOCOMOTIVE POWER. FOR YEAR ENDING 30TH JUNE, 1867 and 1868.

PARTICULARS.	Year ending 30th June, 1867.	Year ending 30th June, 1868.	Increase.	Decrease.
Wages drivers, firemen, and cleaners .....	9,225 15	12,128 50	2,903 35	
Firewood consumed in running.....	59,917 73	31,202 77	2,185 04	
Oil do .....	1,793 64	2,013 18	219 54	
Tallow do .....	1,297 53	1,791 91	524 38	
Waste do .....	840 25	1,035 26	195 01	
Salary locomotive Superintendent, clerks, and office expenses.....	1,889 16	2,415 10	525 94	
Materials, &c., for repairing engines and tenders, including packing.....	6,313 35	8,740 87	2,427 52	
Wages for repairing engines and tenders.....	8,159 14	10,874 42	2,715 28	
Work not done by railway for do. ....	1,168 59	2,910 88	1,742 29	
Repairs to machinery, workshops, and engine houses.....	2,605 81	2,121 89	.....	483 95
Repairs and renewals of tools, limps, &c.....	2,156 29	3,064 96	908 67	
Water-pumping, wooding-up, wood shed, pump, and tank repairs .....	3,676 51	4,517 61	841 10	
Miscellaneous.....	1,189 96	1,744 10	554 14	
	\$69,303 14	81,561 45	15,742 26	483 95
			483 95	
			15,258 31	

(A. 5.)  
**COMPARATIVE STATEMENT—MERCHANDISE AND PASSENGER CARS.**  
**FOR YEAR ENDING 30TH JUNE, 1867 AND 1868.**

PARTICULARS.	Year ending 30th June, 1867.	Year ending 30th June, 1868.	Increase.	Decrease.
Wages conductors, breakmen, porters and shunters.....	12,174 32	16,152 17	3,957 85	
Oil consumed for packing.....	680 77	517 45		163 32
Waste do.....	131 79	408 96	277 17	
Traffic Superintendent's salary, clerks and office expenses.....	3,181 13	4,392 49	1,211 36	
Salaries of station masters and freight agents.....	7,135 54	11,832 56	4,697 02	
Materials, &c., for repairing cars.....	4,425 47	8,095 37	3,669 90	
Wages for do do.....	3,155 42	5,315 83	2,160 41	
Work not done by railway for do.....	750 72	1,097 65	346 93	
Repairs to workshops, and repairs and renewal to tools, &c.....	355 02	640 88	285 86	
Small stores used on the trains.....	558 12	1,228 63	670 51	
Fuel do.....	307 25	428 93	121 68	
Wages to switchmen, signalmen, and gatemen.....	790 60	1,595 18	804 58	
Drawbacks and overcharges on goods forwarded and tickets refunded.....	5,524 61	2,766 40		2,758 21
Miscellaneous.....	594 74	1,340 00	745 26	
	<u>37,765 50</u>	<u>55,792 50</u>		
Platform cars, renewal of.....	3,428 86			3,428 86
Box freight cars, do.....	1,380 89			1,380 89
	<u>\$42,575 25</u>	<u>55,792 50</u>	<u>13,217 25</u>	
			<u>18,948 53</u>	<u>5,731 28</u>
			<u>5,731 28</u>	

(A. 6.)  
**COMPARATIVE STATEMENT—MAINTENANCE OF WAY AND BUILDINGS.**  
 FOR YEAR ENDING 30TH JUNE, 1867 AND 1868.

PARTICULARS.	Year ending	Year ending	Increase.	Decrease.
	30th June, 1867.	30th June, 1868.		
Maintenance of way by section.....	25,876 47	28,684 05	2,757 58	
Salaries of inspectors and road masters.....	2,080 70	2,829 96	749 26	
Chairs, spikes, sleepers, &c.....	17,417 43	20,298 24	2,880 81	
Small stores.....	142 82	251 34	108 52	
Repairs and renewals of tools.....	1,099 94	2,204 88	1,104 94	
Repairs to stations, wharves, buildings and platforms.....	3,003 51	5,653 93	2,650 42	
Repairs to snow ploughs.....	3 50	30 93	27 43	
Repairs to bridges, culverts and cattle guards.....	1,777 03	2,167 17	390 14	
Repairs of fencing.....	2,218 43	1,755 48	5,690 60	
Clearing snow and ice.....	1,379 30	7,069 90	18,775 41	
New rails and relaying.....	353 12	384 63	51 51	
Miscellaneous.....				
			35,186 62	462 95
	\$55,332 25	90,055 92	34,723 67	
				462 95



(A 7.)  
**COMPARATIVE STATEMENT—GENERAL CHARGES**  
**FOR YEAR ENDING 30TH JUNE, 1867 AND 1868.**

PARTICULARS.	Year ending	Year ending	Increase.	Decrease.
	30th June, 1867.	30th June, 1868.		
Salaries, commissioner, secretary, accountant, clerks, and office expenses.....	5,060 77	7,054 44	1,993 67	
Printing, advertising and tickets.....	4,346 70	4,469 26	122 56	
Books and stationery.....	2,081 92	2,007 92		74 00
Damages to men, and loss of animals and goods.....	467 96	735 36	267 40	
Station watchmen.....	902 92	1,185 61	282 69	
Fuel, oil, light, and incidental expenses at stations.....	1,872 85	3,142 15	1,269 30	
Telegraph operation.....	1,404 97	2,488 68	1,083 68	
Ferry service across Picton harbor.....		2,654 38	2,654 38	
Miscellaneous.....	721 69	1,382 87	661 18	
			8,334 86	74 00
	316,839 78	25,120 64	8,269 86	

(A 8.)  
**QUARTERLY SUMMARY OF RECEIPTS AND EXPENSES**  
**FOR TWELVE MONTHS ENDING 30TH JUNE, 1868.**

QUARTER ENDING	Receipts from all sources.		Expenses.		Balance et Revenue.	Balance Deficit.
September 30th, 1867.....	69,669 92		50,116 82		19,553 10	
December 31st, 1867.....	79,714 36		69,651 60		1,062 76	
March 31st, 1868.....	44,170 99		66,329 69		606 49	22,758 70
June 30th, 1868.....	69,438 89		68,832 40		606 49	
					21,222 35	22,758 70
	323,984 16	255,530 51				21,222 35
						1,536 35

(A 9.)

STATEMENT OF SUPPLIES ON HAND, 30TH JUNE, 1868.

Iron.....	Lbs.....	174,045	6,262 42	
Iron, worked and partly worked..	Lbs.....	48,067	3,411 20	
Copper and brass, do do	Lbs.....	4,958	2,691 13	
Tyres, driving Lowmoor.....	Lbs.....	268 04	2,589 67	
Do do steel.....	Lbs.....	24,534	3,653 72	
Do tender Lowmoor.....	Lbs.....	622 4	472 62	
Do do steel.....	Lbs.....	35,511	5,414 00	
Axles.....	Lbs.....	23,216	1,574 64	
Steel and steel springs.....	Lbs.....	23,743	2,398 86	
Engine truck wheels.....	No.....	51	940 46	
Do tender do.....	No.....	86	1,365 15	
Car wheels.....	No.....	360	6,643 91	
Glass sheets.....	No.....	273	564 55	
Brake bars and brake blocks.....	No.....	3,396	509 00	
Lumber.....	Feet.....	465,214	14,922 13	
Paint and oil.....			321 30	
Oil, kerosene, rosin, and olive....	Galls.....	837½	861 81	
Rubber goods.....			454 89	
Nails.....			223 84	
Other articles.....			3,815 80	
				59,091 10
Firewood.....	Cords.....	2,409 <sup>65</sup> / <sub>100</sub>	7,079 65	
Coal.....	Bushels.....	213 <sup>10</sup> / <sub>100</sub>	229 30	
Oil.....	Galls.....	2,009 <sup>73</sup> / <sub>100</sub>	1,944 55	
Tallow.....	Lbs.....	2,355	317 44	
Waste.....	Lbs.....	3,153	546 32	
Sicpeps.....	No.....	13,685	2,339 57	
Steel rails.....	Lbs.....	53,264	2,435 33	
Clips.....	No.....	800	980 37	
Trolley wheels.....	Setts.....	10	292 98	
Keys, joint and single.....	No.....	66,000	66 00	
Other articles.....			140 11	
Tickets.....	No.....	746,292	970 18	17,341 80
				\$76 432 90

THOMAS FOOT.

## ABSTRACT 1.

## NEW SIDINGS BETWEEN HALIFAX, TRURO, AND WINDSOR.

PARTICULARS.	Year ending 30th June, 1868.	Total.
At Richmond.....	\$714 80	
“ Weir & Co.’s Saw Mill.....	3,114 00	
“ H. Hyde’s, Truro.....	810 20	
“ Nash & Co.’s Brickyard.....	332 73	
“ Grove’s do.....	280 73	
“ Pellow’s Plaster Siding.....	2,773 73	
		\$8,026 19

## ABSTRACT 2.

## STATION SERVICE BETWEEN HALIFAX, TRURO, AND WINDSOR.

PARTICULARS.	Year ending 30th June, 1868.	Total.
At Richmond.....	\$1,854 73	
“ Wickwire’s.....	298 40	
“ Ellershous.....	53 00	
“ Newport.....	350 66	
		\$2,556 79

## ABSTRACT 3.

## SUNDRY SERVICES BETWEEN HALIFAX, TRURO, AND WINDSOR.

PARTICULARS.	Year ending 30th June, 1868.	Total.
Road crossings, cattle guards, &c.....	\$76 22	
Wharf extension at Richmond.....	18,285 16	
Pier at Parrsboro’.....	3,073 50	
Interest Bank of Nova Scotia.....	901 71	
Miscellaneous.....	24 00	
		\$22,360 59

## ABSTRACT 4.

## ENGINEERING. EXTENSION FROM TRURO TO PICTOU.

PARTICULARS.	Year ending 30th June, 1868.		Total.
	Work done by Contractor.	Work done by Department.	
Salaries of staff, wages of men, inspectors, &c.....		2,713 33	
Surveying expenses.....			
Travelling, telegraphing, &c.....		107 21	
Printing and advertising.....			
Stationery, drawing materials, rent, &c.....		362 70	
Other services.....		659 25	
	\$6,310 80	3,842 49	10,153 29

## ABSTRACT 5.

## ROADWAY AND WORKS. EXTENSION FROM TRURO TO PICTOU.

PARTICULARS.	Year ending 30th June, 1868.		Total.
	Work done by Contractor.	Work done by Department.	
Clearing and grubbing.....			
Fencing and gates.....			
Bridge and culvert masonry.....			
Timber excavation and other work in foundation			
Excavations and grading.....		101 79	
Draining & protecting cuttings & embankments.			
	\$172,321 20	101 79	172,522 99

## ABSTRACT 6.

## PERMANENT WAY. EXTENSION FROM TRURO TO PICTOU.

PARTICULARS.	Year ending 30th June, 1868.		Total.
	Work done by Contractor.	Work done by Department.	
Rails, clips, &c.....		918 58	
Rail fastenings.....		130 00	
Sleepers.....		120 33	
Ballast.....			
Track laying.....		38 70	
	\$95,941 07	1,207 61	97,148 68

## ABSTRACT 7.

## ROLLING STOCK. EXTENSION FROM TRURO TO PICTOU.

PARTICULARS.	Year ending 30th June, 1868.		Total.
	Work done by Contractor.	Work done by Department	
Engines.....		21,551 71	21,551 71
First class cars.....		3,250 91	3,250 91
Second class cars.....		2 67	2 67
Box freight cars.....		231 08	231 08
Platform cars.....			
Ballast cars.....			
Cattle cars.....			
Coal cars.....		16,194 45	16,194 45
Snow plough.....		1,694 95	1,694 95
	\$.....	42,925 77	42,925 77

## ABSTRACT 8.

## STATION AND WATER SERVICE. EXTENSION FROM TRURO TO PICTOU.

PARTICULARS.	Year ending 30th June, 1868.		Total.
	Work done by Contractor.	Work done by Department.	
Richmond.....		37 39	
Truro.....			
Union.....		70 37	
Riversdale.....		669 46	
West River.....		165 73	
New Lairg.....		232 49	
Glengarry.....		150 73	
Hopewell.....		165 73	
Coal Mines.....			
New Glasgow.....		335 18	
Fisher's Grant.....			
Pictou Landing.....		489 17	
Pictou.....		352 55	
	\$15,080 00	2,669 80	17,749 80

## ABSTRACT 9.

## WHARF AND FERRY SERVICES.—EXTENSION FROM TRURO TO PICTOU.

PARTICULARS.	Year ending 30th June, 1868.		Total.
	Work done by Contractor.	Work done by Department.	
Steamboat and Ferry service across Pictou harbor..	\$23,200 00	24 60	23,224 60
Wharf accommodation at Fisher's Grant.....	1,244 00	.....	1,244 00
Do do at Pictou.....	1,000 00	46 90	1,046 90
	\$25,444 00	71 50	25,515 50

## ABSTRACT 10.

## GENERAL EXPENSES.—EXTENSION FROM TRURO TO PICTOU.

PARTICULARS.	Year ending 30th June, 1868.		Total.
	Work done by Contractor.	Work done by Department.	
Salary secretary, accountant, &c., proportion.....	.....	384 00	384 00
Office expenses, postages, stationery, rent, &c.....	.....	323 89	323 89
Travelling, telegraphing, &c.....	.....	58 74	58 74
Printing and advertising.....	.....	25 00	25 00
Legal expenses.....	.....	673 65	673 65
Miscellaneous.....	.....	387 16	387 16
	\$ .....	1,852 44	1,852 44

## ABSTRACT 11.

## SUNDRY SERVICES.—EXTENSION FROM TRURO TO PICTOU.

PARTICULARS.	Year ending 30th June, 1868.		Total.
	Work done by Contractor.	Work done by Department.	
Machinery and tools.....	.....	190 17	190 17
Contractor's claims.....	.....	397 65	397 65
Carriage materials.....	.....	6,319 15	6,319 15
	\$ .....	6,906 97	6,906 97

## ABSTRACT. 12.

## LOCOMOTIVE POWER.

PARTICULARS.	Quarter ending 30th Sept., 1867.	Quarter ending 31st Dec., 1867.	Quarter ending 31st March, 1868.	Quarter ending 30th June, 1868.	Total:
Wages of drivers, firemen and cleaners.....	2,741 10	2,878 31	3,130 54	3,378 55	12,128 50
Firewood consumed in running.....	6,828 66	7,749 68	7,425 00	9,199 43	31,202 77
Oil.....	373 05	457 13	458 23	724 77	2,013 18
Tallow.....	372 36	403 65	438 31	577 59	1,791 91
Waste.....	236 47	243 04	251 85	303 90	1,035 26
Salary of locomotive superintendent, clerks, and office expenses.....	554 64	539 99	657 95	662 52	2,415 10
Materials for repairing engines and tenders, including packing.....	1,378 66	800 69	1,687 19	4,874 33	8,740 87
Wages repairing engines & tenders.....	1,315 92	1,353 48	4,769 50	3,435 52	10,874 42
Work not done by railway for do.....	152 10	733 22	1,032 53	993 03	2,910 88
Repairs to machinery, workshops and engine houses.....	463 02	414 51	753 09	491 27	2,121 89
Repairs and renewals of tools, Lamps, &c.....	506 14	983 72	974 57	600 53	3,064 96
Water pumping, wooding-up, wood shed, pump and tank repairs.....	912 05	906 97	1,350 72	1,347 87	4,517 61
Miscellaneous.....	194 55	557 28	457 84	534 43	1,744 10
	\$16,028 72	18,021 67	23,387 32	27,123 74	84,561 45

Per centage on gross receipts..... 33.29

## ABSTRACT. 13.

## MERCHANDISE AND PASSENGER CARS.

PARTICULARS.	Quarter ending 30th Sept., 1867.	Quarter ending 31st Dec., 1867.	Quarter ending 31st March, 1868.	Quarter ending 30th June, 1868.	Total.
Wages conductors, brake- men, porters, &c.....	3,638 21	4,221 78	4,068 19	4,203 99	16,132 17
Oil consumed for packing.	107 03	99 22	121 36	189 84	517 45
Waste do do	20 72	28 30	19 61	340 33	408 96
Traffic superintendent's salary, clerks & office expenses.....	1,071 39	1,062 82	1,310 36	947 92	4,392 49
Salaries of station masters, and freight agents ....	2,884 74	3,019 35	3,003 72	2,924 75	11,832 56
Materials, &c., for repairing cars.....	1,808 37	1,279 58	3,730 58	1,276 84	8,095 37
Wages for do do .....	929 27	1,500 11	1,636 09	1,250 36	5,315 83
Work not done by railway for do .....	80 00	4 50	698 65	314 50	1,097 65
Repairs to workshops, and repairs and renewals of tools, &c.....	4 40	94 92	165 90	375 66	640 88
Small stores used on the trains.....	292 85	249 05	549 56	137 17	1,228 63
Fuel do do .....		141 36	197 40	90 17	428 93
Wages to switchmen, signalmen and gateman.	246 80	437 20	435 03	426 15	1,595 18
Drawbacks and overcharges on goods forwarded, &c.	146 29	1,769 21	399 19	451 71	2,766 40
Miscellaneous.....	227 20	372 93	265 28	474 59	1,340 00
	\$11,457 27	14,280 33	16,650 92	13,403 98	55,792 50

Per centage on gross receipts..... 21.97



## ABSTRACT 14.

## MAINTENANCE OF WAY AND BUILDINGS.

PARTICULARS.	Quarter ending 30th Sep., 1867.	Quarter ending 31st Dec., 1867.	Quarter ending 31st March, 1868.	Quarter ending 30th June, 1868.	Total.
Maintenance of way by section.	5,792 82	5,586 42	5,908 83	11,345 98	28,634 05
Sal's. of inspec. & road masters.	573 99	649 99	881 99	723 99	2,829 96
Chairs, spikes, sleepers, &c.....	4,336 70	6,166 62	2,993 39	6,801 53	20,298 24
Small stores.....	5 58	212 30	6 46	27 00	251 34
Repairs and renewal of tools....	373 61	435 04	1,091 72	304 51	2,204 88
Repairs to stations, wharves, buildings, &c.....	1,383 61	2,261 51	873 64	1,130 17	5,653 93
Repairs to snow ploughs.....		14 63	16 30		30 93
Repairs to bridges, culverts, and cattle guards.....	467 10	1,212 98	167 13	319 96	2,167 17
Repairs to fencing.....	509 53	397 40	326 47	522 08	1,755 48
Clearing snow and ice.....		1,178 30	5,890 60	1 00	7,069 90
New rails and relaying.....	5,135 83	13,209 55	22 73	407 30	18,775 41
Miscellaneous.....	160 63	108 49	82 48	33 03	384 63
	\$ 18,739 40	31,433 23	18,266 74	21,616 55	90,055 92
Per centage on gross receipts.....					35.45

## ABSTRACT 15.

## GENERAL CHARGES.

PARTICULARS.	Quarter ending 30th Sep., 1867.	Quarter ending 31st Dec., 1867.	Quarter ending 31st March, 1868.	Quarter ending 30th June, 1868.	Total.
Salaries commissioner, secretary, accountant, clerks, &c.....	1,748 11	1,573 37	1,866 67	1,866 29	7,054 44
Printing, advertising, & tickets	393 03	1,529 80	2,134 39	412 04	4,469 26
Books and stationery.....	206 74	391 31	514 10	895 77	2,007 92
Damages to men and loss of animals and goods.....	124 25	102 00	349 14	159 97	735 36
Station watchman.....	309 95	279 56	299 20	296 90	1,185 61
Fuel, oil, light, &c., at stations..	409 12	1,198 09	1,104 88	430 06	3,142 15
Telegraph operation.....	410 27	605 40	559 42	933 56	2,488 65
Ferry service across Pictou har- bor.....			1,660 00	994 38	2,654 38
Miscellaneous.....	289 96	236 84	156 91	699 16	1,382 87
	\$3,891 43	5,916 37	8,624 71	6,688 13	25,120 64
Per centage on gross receipts.....					9.89

APPENDIX C.—RETURN No. 5.—SHOWING THE NUMBER OF THE VARIOUS CLASSES OF ENGINES AND CARS COMPRISING THE ROLLING STOCK ON THE 30TH JUNE, 1868.

PARTICULARS.	Locomotive Engines.			Passenger and Freight Cars, &c.										Totals.		
	Passenger.	Ballast.	Totals.	1st Class Passenger cars.	2nd Class Passenger cars.	2nd Class Passenger and mails and baggage combined.	Mails and baggage cars.	Cattle cars.	Box freight cars.	Sheep cars.	Platform cars.	Side tip cars.	5 Ton coal cars.		Snow ploughs.	
Stock per last year's report.....	18	4	22	12	7	1	5	29	42	1	176	11	60	3	287	
Built for Picton extension.....	.....	.....	.....	2	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	2	70
Converted from mails and baggage to combined.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Converted from box freight to platform.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
Imported from United States.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Imported from Kingston, C. W.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Totals.....	19	4	23	14	7	4	5	29	48	1	177	11	61	5	302	
Less condemned, broken up, converted, or sold.....	.....	4	4	.....	.....	.....	3	2	5	1	15	.....	.....	.....	.....	26
List of rolling stock 30th June, 1868.....	19	.....	19	14	7	4	2	27	43	.....	162	11	61	5	336	
Increase.....	1	.....	1	2	.....	3	.....	.....	1	.....	.....	.....	61	2	69	
Decrease.....	.....	.....	4	.....	.....	.....	3	2	.....	1	14	.....	.....	.....	20	
Net decrease.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	49

Richmond, 30th June, 1868.

WILLIAM JOHNSON.

NOTE.—The following reports, returns and statements are not inserted in this report, viz. :—

#### APPENDIX B.

Report of Geo. Taylor, traffic Superintendent.

- B. 1. Traffic Superintendent in account with Railway Commissioner.  
 B. 2. Various sources of revenue and aggregate receipts at each station, for 12 months ending 30th June, 1868.  
 B. 3. Statement showing the mileage of trains, number of passengers and quarterly receipts, for 12 months ending 30th June, 1868.  
 B. 4. Statement showing number of passengers, for 12 months ending 30th June, 1868.  
 B. 5. Statement of monthly receipts at the respective stations, for the 12 months ending 30th June, 1868.
- |        |   |    |    |                             |
|--------|---|----|----|-----------------------------|
| B. 6.  | do  | do | do | (Passengers)                |
| B. 7.  | do  | do | do | (Horse and waggon traffic.) |
| B. 8.  | do  | do | do | (Freight outward.)          |
| B. 9.  | do  | do | do | (Freight inward.)           |
| B. 10. | Comparative statement of receipts for 12 months ending 30th June, 1868. |    |    |                             |
| B. 11. | do  | do | do | (on Main line.)             |
| B. 12. | do  | do | do | (on Windsor branch.)        |
- B. 12. 1st Quarter—Number of 1st and 2nd class passengers carried from each station, with the amounts received for 3 months ending 30th Sept., 1867.  
 “ 2nd Quarter do do do 31st Dec., 1867.  
 “ 3rd Quarter do do do 31st March, 1868.  
 “ 4th Quarter do do do 30th June, 1868.  
 B. 13. .... do do for 12 months ending 30th June, 1868.  
 B. 14. Statement showing the description of freight forwarded from each station, during 12 months ending 30th June, 1868.  
 B. 15. Weight of inward freight from all stations to Richmond, for the 12 months ending 30th June, 1868

#### APPENDIX C.

Report of Wm. Johnston, locomotive Superintendent.

- Return No. 1—Statement of mileage and consumption of stores by Locomotive Engines, for the year ending 30th June, 1868.  
 Return No. 2—Showing number of miles run; wood, oil, tallow and waste consumed, together with the average of regular and extra passenger trains, for the year ending 30th June, 1868 (on what line running.)  
 Return No. 3—Showing miles run on all services, wood, &c., for the year ending 30th June, 1868. (how employed.)  
 Return No. 4—Statement of mileage, consumption of stores, and cost of repairs of locomotives, for the year ending 30th June, 1868.
- |   |   |  |                        |
|---|---|--|------------------------|
| “ | “ | Recapitulation of average cost per mile of locomotives, for year ending 30th June, 1867. |                        |
| “ | “ | do   | do do 30th June, 1868. |

#### APPENDIX D.

RICHMOND, 30th Sept., 1868.

SIR,—In accordance with request, I beg to submit the following report upon the state and condition of the Nova Scotia railway.

The cuttings on main line and Pictou extension, Richmond and Riversdale have all been cleaned at the expense of the department, and from Riversdale to Pictou landing by Sandford Fleming, Fsq.

The cuttings on Windsor branch will require to be thoroughly cleaned out, so as to give proper drainage, and also to prevent any accumulation or lodgment of ice on road-bed during winter, which often interferes with the safety of running snow-plough in clearing track for trains. The trackmen, for upwards of two months during the severe frosts last winter, spent a large portion of their time cutting away ice. I would therefore recommend that the department furnish suitable flange-cleaners for H and T rail, with a view to lessen the amount of manual labor expended in cutting ice, and facilitate the running of trains. The materials taken out of cuttings convenient to pile-bridges can, in all cases, be disposed of to advantage in filling them up.

The piles and longitudinal timbers of the Mount Uniacke and Blackburn pile-bridges are in a very unsatisfactory condition, and should be filled up with earth taken from cuttings.

The east abutment of the Fleming bridge, near Wickwire's station, has been taken down and rebuilt. The west abutment of this bridge and the abutments of the Dartmouth road and the Halifax and Truro road bridges should also be taken down and rebuilt.

The longitudinal timbers and cross-ties of the Jordan bridge, Windsor branch, are fast decaying, and require renewal; but iron girders substituted for the wooden ones would be preferable. The abutments and piers are of granite masonry. The south-west corner of the second pier has slightly settled. This defect, however, is trifling, and I see no necessity at present for taking it down and rebuilding, as all the piers are built on a rock foundation. To remedy this defect and prevent further injury, the crack should be pointed with cement; and if settlement still continues, it will become necessary to rebuild the pier. All the other masonry of said bridge is in perfectly good repair.

New pitch-pine timbers have been substituted for old ones, as under, viz.: on one small bridge near Beaver Bank station; two small bridges near Stillwater, and another at Mr. Godfrey's tannery; also three cattle-guards and two open culverts on Windsor branch, and eight cattle guards on main line.

The embankment on west side of bridge at Polly bog has sunk nearly three feet. The track should be raised to its original level, as it materially adds to the resistance offered to the passing train. The materials used for this purpose should be taken from ground on either side of embankment, on account of its lightness, and would entail but a very slight increase in the expenses. In its present state, it is not calculated to run trains at a high rate of speed.

Twenty-nine thousand eight hundred and twenty-nine new sleepers, one thousand and sixteen joint chairs, and seven thousand five hundred intermediate chairs have been used in maintenance of way.

Eighty-eight clips, or joint fastenings, have been replaced on the Pictou extension since last November. It is to be regretted that so large a number have broken in so short a time. This may preclude the idea of obtaining a further supply; but the practice of driving the wedges in opening clip to allow rail to enter may have overstrained them, and had a tendency to weaken fastening, or, in all probability, running trains over them before road was sufficiently ballasted, or the embankments thoroughly consolidated, may have been the prevailing cause of their breaking. On a careful examination, I find that only two clips have been broken on the five miles of new rails laid between Richmond and Windsor junction, where the traffic is greater and the wear and tear is enhanced.

The long-continued frosts during last winter damaged the rails severely; sixty-four were found broken on section between Bedford and Windsor junction.

Four miles of new rails have this year been laid between Richmond and Windsor junction, and four hundred lineal yards near Stewiacke station.

Seven steel rails were put down last November at sixth mile post, with a view of having them properly tested where trains are running at full speed.

A further supply of new rails should be ordered to relay road from 2nd to 3rd mile posts, also from 7th mile post to Rocky lake. The rails and sleepers on top of culvert Bedford grade require to be renewed; but I consider it would be a useless expenditure to undertake this, until said culvert is either covered with stone flags, or otherwise altered as recommended in previous reports.

Additional ballast is required at various places, where it has been reduced by lifting the track, or been otherwise destroyed in cuttings. On a careful inspection, I have esti-

mated the quantity required for present repairs to be three thousand five hundred cubic yards on main line, and two thousand five hundred yards on Windsor branch,—in all, 5,900 cubic yards, at 70 cents per yard, or \$4,130. Where there is not a sufficient quantity of ballast, the track is expensive to uphold, and is highly injurious to the rolling stock.

In addition to the quantity of sleepers on hand, the department will require twelve thousand for repairs on main line, and eight thousand for Windsor branch. I would recommend that all sleepers hereafter delivered to the department should be at least six inches in thickness. I find it is false economy to put thin sleepers into the track.

The platform at Richmond has been lengthened 138 feet, and the platform at Pictou landing 92 feet. A face wall, built of stone masonry, 120 feet in length, is finished for the loading bank at Wickwire's station.

A new siding has been constructed at Union, in connection with Mr. Hyde's woodshed, 1,086 feet in length; another at Mr. Murray's brick-yard, near Shubenacadie, 293 feet in length.

In dry weather, the supply of water for locomotives at Pictou landing, New Glasgow and Glengarry stations is insufficient to meet the requirements of the trains. It has therefore been deemed advisable to construct a dam in the brook to collect water from an unfailling spring, and put gravitation water inside engine-shed at Pictou landing. The total cost, including excavating and refilling drain, laying iron pipes, and new tank, &c., will not exceed \$700.

I am, Sir,

Your most obed't servant,

A. LONGLEY, Esq.,

WM. MARSHALL.

Commissioner N. S. Railway.

## REPORT ON NOVA SCOTIA RAILWAYS.

HALIFAX, August 7, 1868.

GENTLEMEN,—The working expenses of the Nova Scotia Railway during the last year appear to have exceeded the receipts, while for some years previous to the 1st July, 1867, the published reports represent that the annual receipts considerably exceeded the annual expenditure.

The estimate of working expenses for the current year furnished to the Department of Public Works, for submission to Parliament, by the local manager, Mr. Longley, is now represented by him to be insufficient to the extent of some \$40,000. This discovery is made in the first half of the year, and seems to indicate a defective system of accounts, or defective management in the working of the railway.

An inspection of the line and a brief examination of the mode of keeping the accounts, convinces me that a thorough investigation of the books, and of the several departments of the Railway in respect to the system of account and audit; the sufficiency of the staff or otherwise; the subdivision of the duties and responsibilities of the officers; the rules and regulations now in force; the tariff for freight and passengers, and generally the arrangements for the working of the line, is an essential preliminary to the adoption of proper measures for placing the railway on a satisfactory footing.

I have the honor to request (and I hereby authorize) you to proceed at once to make this investigation. You will report to me the result of your enquiries with a view to such alterations and amendments in every department as may be found expedient in the public interest.

I have informed Mr. Longley of your appointment, and requested him to render you all the information and assistance in his power.

I have the honor to be,

Gentlemen,

Your obedient servant,

(Signed),

W. McDougall,

Minister of Public Works.

Messrs.

L. CARVELL,

T. D. TIMS,

A. BURNEL,

Halifax.

(In No. 881.)

HALIFAX, Aug. 18, 1868.

To the Hon. Wm. McDougall,  
Minister of Public Works.

SIR,—The enquiry with which you have entrusted us, has now so far progressed as to enable us to speak with confidence on certain subjects upon which you have expressed yourself anxious to obtain information, pending the completion of our final report. We now beg, therefore, to submit the following memorandum, which may be taken as a preliminary report.

1st. The chief offices should be removed to Richmond, at as early a period as accommodation can be obtained for them.

2nd. The books now in use should be closed and new ones opened from the 1st July last, in a less complex form, which we now have under consideration.

3rd. There should be a cashier in the chief office, to whom all money should be remitted direct from the agents who collect it. The cashier should deposit to the credit of the Receiver General, daily, all the money coming into his hands.

4th. The making of all payments, by certificates, drawn on the Dominion Paymaster has our full approval, every such certificate should be for a specific payment, showing on its face what purpose the payment is for, and the authority under which it is to be made. Returns showing the progress of the expenditure under such authority should be made in duplicate to the Department of Public Works *monthly*, accompanied by the vouchers.

5th. A store department should be established, and a storekeeper placed at its head, who should be responsible directly to the chief officer.

6th. All stores should be obtained, as far as practicable, by tender and contract based on specifications or sealed samples.

7th. An inventory of the stock of stores of every description should be carefully taken and charged to the new store account. All supplies of fuel, stores and material, should be charged first to the store account.

8th. The storekeeper to keep an account with the subsidiary accounts, debiting them with the articles issued, and when necessary, receiving and classifying returns therefor.

9. The books now in use at the several stations, and by the agents at the terminal stations should be closed, the accounts carefully audited, and all back balances taken to the general office, with a view to writing off such as are bad, and collecting those which are deemed to be good, without reference to the station agent.

10th. The station agents who are defaulters, or who are incompetent, should be removed, as soon as circumstances will permit, and replaced by suitable persons.

11th. The freight tariff requires revision and should be computed more with regard to some recognized principle.

12th. The rolling stock requires extensive repairs and renewals, which should be commenced at as early a date as possible, in order to prepare for the fall and winter work. In doing this the adaptation of the locomotives to burning coal should be kept in view.

13th. The wood contract with Mr. Hyde terminates in two years from the 1st of April next, before which time the department should be prepared to use coal exclusively. The contract with Mr. Hyde does not demand that the department shall purchase all the fuel used on the line from Pictou to Richmond from him, though Mr. Longley says the department is morally bound to do so, that having been the understanding with him when the contract was made. However this may be, there can be no reason why coal should not be used on the Windsor branch, and we believe its use would be productive of a saving equal to one half of the fuel account.

14. The Car rolling stock has been repaired by hand labor, which must necessarily be expensive, and has probably been the main cause of the present deficiencies in the rolling stock; one half of the first value of which has disappeared, partly in depreciation of that now in existence, and partly by the entire disappearance of a large number of cars, we, therefore, recommend that machinery suitable for car repairs should be put in the shops.

15th. The speed of all the trains should be reduced from the present rates, the average speed of the freight trains should not exceed (12) twelve miles per hour, and that of passenger trains should not exceed (20) twenty miles per hour.

16th. When passengers are carried in connection with freight the mixed trains should not be run at a greater speed than twelve miles per hour, *i. e.*, instead of attaching freight

cars to a passenger train, the passenger or *accommodation car* should be attached to a freight train.

17th. The passenger traffic to Windsor and Pictou should be worked as far as the Junction in the same trains, dividing it at the Junction. In order that this may be done, the engine house and turn-table at that point should be placed in good repair. This arrangement would save a very considerable amount of mileage, and will not necessarily be productive of any inconvenience.

18th. Some few employees can be dispensed with, but no important reduction can be expected from that source. Many of the employees are paid at a rate so low as to make it impossible that the department will be able to secure efficient men at the salaries offered.

19th. The telegraph wire on the Pictou extension, which belongs to the department, should be placed on the Telegraph Company's posts, as the old posts are very defective. The Telegraph Company's offices should be made use of as far as possible. The present arrangement with the Telegraph Company is a disadvantageous one for the department, and should be modified if possible.

All station agents, at stations where there is not a Company's office, should be telegraph operators, and the telegraph wire should be in every station.

21st. A covered passenger platform and baggage room should be provided at the wharf at Windsor, for the accommodation of the traffic with the boats.

22nd. The wharf at Pictou landing should be extended so as to increase the accommodation for steamers and vessels. The freight shed should be lengthened and more sidings provided. These improvements would reduce the cost of doing the business, and lessen the risk of damage to freight. We consider it important that steamers and vessels carrying freight in connection with the road, should at all times be sure of finding a berth and that the transfer should be facilitated in every manner possible.

23rd. The following memorandum will afford an explanation of the increased cost of working the road in the year 1867-8, as compared with the previous year:

The average number of miles under traffic in the year ending on the 30th June, 1867, was 104 $\frac{3}{4}$ \*

The number of miles under traffic during the year ending on the 30th of June, 1868, was 145.

The increased mileage was, therefore, 40 $\frac{1}{4}$ .

During the period first named the earnings were \$211,768 33, or \$2,021 65 per mile.

During the period last named the earnings were \$253,994 16, or \$1,751 68 per mile.

The increased earnings are, therefore, \$42,225 13, which on the increased mileage amounted to \$1,049 per mile.

The expenses during the first period were \$184,069, or \$1,753 23 per mile, and during the latter period they were \$255,528, or \$1,762 28 per mile, showing a slight increase in the cost of working per mile.

The increase in the gross expenses was, therefore, \$71,459, and this, supposing it to have been due exclusively to the increased mileage, is equal to \$1,775 57 per mile of that increase.

In the present state of our enquiry, we do not feel justified in touching upon the other matters referred to in your letter of instructions.

All of which is respectfully submitted.

We have the honor to be, Sir,

Your most obedient Servants,

(Signed,)

"

"

L. CARVELL,

THOMAS D. TIMS,

A. BRUNEL.

To the Hon. Wm. McDougall,  
Minister of Public Works.

HALIFAX, August 20th, 1868.

SIR,—Making reference to the preliminary report which we had the honor of submitting to you, on the 18th of August, a copy of which we enclose herewith, we now beg to

\* This is an error. The average mileage was 106 $\frac{1}{2}$ . This affects the comparisons, and has been corrected in the final report.—A. B.

wait upon you with a final report of our enquiry into the condition of the Nova Scotia Railways, undertaken in obedience to instructions conveyed to us in your letter of the 7th of August.

Your instructions first make reference to the working expenses of the railways during the last year, to the excess of those expenses over the receipts, as in contrast with the net earnings reported in former years; to the excess of the working expenses for the current year over the estimates furnished to the Department of Public Works by the local manager, and to the apparent defective system of accounts, or defective management. You direct us "to make a thorough investigation of the books and of the several departments of the railway, in respect to the system of account and audit, the sufficiency of the staff or otherwise, the subdivision of the duties and responsibilities of officers; the rules and regulations now enforced; the tariff for freight and passengers; and generally the arrangements for working the line." And, finally, we are directed to report to you "the result of our enquiries, with a view to such alteration and amendments in every department, as may be found expedient in the public interest."

In carrying out the instructions with which you thus honored us, we endeavoured to make ourselves personally acquainted with the present state of the railways and with the persons employed in working them, and we have taken the evidence of the principal officers as to the manner in which the business has heretofore been managed, together with their suggestions as to the modifications which should be introduced. This evidence will be found in the Appendix A. (not printed).

We now beg to submit the result of our enquiries in as nearly as may be, the same order as has been followed in your letter above quoted.

The working expenses of these railways during the fiscal year ending 30th June, 1868, exceeded the estimate submitted to the Department of Public Works by the Commissioner by about \$51,000.

During the year ending 30th June, 1867, the Pictou extension was brought under traffic. From the 1st of July to 31st December, 1866, only the main line to Truro, and the Windsor branch, consisting together of 93 miles, were in operation. On the 1st of January, 1867, 21 miles were added, and on the 1st of June, the road was opened to Pictou, adding 31 miles to its length, and making the whole mileage 145 miles. The average mileage under traffic during the year was, therefore,  $106\frac{1}{2}$  miles.

The cost of operating the road during the above period was returned as \$184,069 being equal to \$1,735 19 per mile. During the year ending the 30th of June, 1868, the whole of the road was under traffic, and it was reasonable to anticipate that the cost per mile for working it would be as great as the cost during the previous year, yet the sum asked for by the Commissioner, was only \$204,000, or \$1,407 per mile. It is not, therefore, surprising that there should be a deficiency.

But in the same estimate \$60,000 is asked for, for the purpose of purchasing a stock of stores, from the Pictou extension capital account. When these estimates were prepared—9th Oct., 1867—the general stock account in the revenue books was closed, and the road was apparently without any supply of stores for working purposes. The circumstances which brought about this anomalous state of things is a fair illustration of the system of book-keeping which we found in use, and of the process to which the accounts were sometimes subjected; we therefore quote the evidence of the accountant to show how it was done.

He says, "I remember the circumstance of selling stores from one set of books to another. The transaction was first entered on the 27th Sept., 1866. At this time there were certain stores on hand belonging to the "General Stock" account in the revenue book, they were represented by a balance of \$49,844 96. These had been purchased and paid for out of funds provided for revenue purposes. In addition to the above there were certain accounts for stores and other things standing in the revenue ledger, at the debit of the Pictou extension account. These amounted to \$18,148 87.

"About the time mentioned, the Financial Secretary who then represented the Government of Nova Scotia, directed that the general stock of stores should be sold, *i. e.*, transferred to the Pictou extension account, and that their value, together with the amount of the accounts at the debit of that account, amounting in all to the sum of \$67,993 83, should be drawn from the money at the credit of the extension, and deposited to the credit of the Receiver General of the Province of Nova Scotia. This was done on



"the 29th Sept., 1866, and the money was deposited in the same manner as the traffic receipts of the road were deposited. After that date I continued to draw such sums of money as were necessary for carrying on the working expenses of the road.

"The sums drawn at one time, varied from \$5,000 to \$20,000, until the 30th Sept., 1867, when I drew from the Provincial Treasurer \$62,000, and in November I drew \$10,000 in addition. These amounts were deposited to the credit of the Commissioner, and placed the revenue account in funds. On the 22nd of Nov., in the same year (1867) the general store account, which had been kept in the Pictou extension books since Sept., 1866, shewed a balance on hand of \$50,842 37. This stock was on that day transferred back to the Revenue Ledger, *i. e.*, brought from the Pictou extension account, and a cheque was drawn in payment against the Revenue Cash account, and deposited to the credit of the Pictou extension account."

Up, therefore, to the 22nd of Nov., 1867, the road was apparently without any stock of supplies for working it, they had been sold, and the price paid into the Provincial Treasury. It is not difficult, therefore, to understand why a sum should be placed in the estimates for the purchase of stock, though as the stock which it was proposed to purchase was only valued at \$50,842, the sum named (\$60,000) was apparently in excess of what was necessary, but a memorandum put in shows that on the 30th June, 1868, the general stock amounted to \$59,091 10, and it may be assumed that this increase was contemplated when the estimate was made, and that the expenditure was a legitimate one.

The various sums drawn from the Receiver General on maintenance account for the year ending 30th June, 1868, amount to \$267,000, and out of this sum there was paid \$50,842 to the Pictou extension Capital account for the stores transferred to the Revenue account, as above described. There was then left \$216,168 available for working expenses. But as these expenses amounted to \$255,580, there was, as regards the money drawn, a deficiency of \$39,362, while, as regards the estimate, there was a deficiency of \$51,530.

This very large deficiency has, without doubt, been a source of embarrassment to the management, and must continue to be so until the accounts have been placed on a more satisfactory basis, and the necessary working capital supplied.

In the statement of accounts submitted by the accountant (see Appendix B.\*) it will be observed that on the 30th June, 1868, the stock is entered at \$84,031 62. The explanation to this is that in addition to the "General Stock" to which we have above referred, there were, at that time, on hand, supplies of fuel and road material, which appear in a separate account.

This \$84,031 62 represents the working capital of the Nova Scotia railways, but the liabilities with which the management is encumbered must be deducted from the apparent balance, in order to arrive at its true value, and among these liabilities is to be reckoned the sum by which the working expenses of 1867-8 exceed the estimate.

Reckoned by the number of miles under traffic, the working expenses in 1867-8 were somewhat in excess of the working expenses of 1866-7. We have shown that in 1866-7 they amounted to \$1,735 19 per mile. In 1867-8 their total was \$255,528, or \$1,762 28 per mile. The increase was, therefore, \$27 09 per mile, or one and one-half per cent. This is not, however, to be taken as evidence that the new portion of the road is more costly to keep up than the older portions were. It is, on the contrary, more reasonable to assume that the repairs on the older portions were greater in this than in previous years and as about five miles of new iron was laid in 1867-8, being more than double the quantity laid in any previous year, this may be accepted as an explanation of the difference.

The increase in the earnings in 1867-8 over the earnings of the previous year have not been in proportion to the mileage. In 1866-7 the earnings per mile were \$1,996 27, but in 1867-8 they were only \$1,751 68, showing a decrease of \$244 59 per mile, or more than 12 per cent. From this it is evident that the traffic on the Pictou extension is below the traffic on the main line and Windsor branch, though it is probable that the cessation of that part of the traffic over the main line to Truro, which was due to the movement of freight for construction service on the extension, may have contributed to this result. However this may be, the increased cost per mile for working on one hand, and the diminished earnings per mile on the other, has had the effect of placing the balance on the wrong side of the Ledger. In 1867-8 the railways were worked at a loss.

This change from an apparent gain to a certain loss makes it necessary to enquire how far the apparent gain of former years was real.

On the 1st of July, 1867 the Revenue account was opened with a credit of \$45,345 41. This sum purported to represent the net earnings of the railways up to that date, or to speak more accurately, the sum earned towards the payment of interest on capital. It is admitted that the balance so brought to the credit of the account, together with the outstanding liabilities have been absorbed in the accumulation of the stock of stores then on hand and in the assets on the balance sheet at the same date.

We have not made such an inspection of the way, works, and buildings, as will enable us to speak of them otherwise than in general terms, neither have we any very definite information from other sources. We therefore confine ourselves to expressing the opinion, that with reference to the main line to Truro and the Windsor branch, that the station buildings are in a most dilapidated condition and quite inadequate for the service of the road, that the wooden structures under the track must shortly be renewed in order to be made safe, and that the sleepers and iron require extensive renewal, and a heavier expenditure than has hitherto been borne on their account.

As regards the rolling stock we can speak more definitely. From returns which have been placed in our hands, it appears that of the stock which has been placed on the road and charged on capital :—

Six second class passenger cars ; three Post Office cars ; thirteen cattle cars ; thirty-two platform cars, and four ballast cars, have almost entirely disappeared, for the fragments of some and the wreck of others, which we saw at Richmond depôt, cannot be accounted as representing much value.

Of the stock still available for traffic purposes, the locomotive Superintendent tells us that it has not been kept up so as to be equal to new. Of the locomotives six American engines have depreciated about 30 per cent. Ten Scotch engines have depreciated about 20 per cent. The remaining three engines are almost new and therefore but little depreciated.

Of the car stock he says, four of the passenger cars are new, the ten old ones are depreciated about 35 per cent. The seven second class cars are scarcely fit for use, they are depreciated 75 per cent.

Twenty of the box cars have depreciated 50 per cent ; twenty of them about 15 per cent. Nineteen of the cattle cars about 50 per cent. Thirty of the platform cars are depreciated 50 per cent ; and one hundred and thirty of them have depreciated fifteen per cent.

Twenty-two platform cars and eight box cars have disappeared altogether.

The statements of the locomotive Superintendent are confirmed by our observations, and in view of the number of cars which have disappeared altogether, and of the state of the existing stock, we are of the opinion that the rolling stock has lost fully one-half of its original cost.

This taken in connection with the state of the way and works and buildings, justifies the conclusion that these roads have never been worked at a profit, but that on the contrary, a large sum in excess of the apparent profit with which the Revenue account was opened when the Dominion came into possession, will have to be expended in order to restore the way and works, the stock and the equipment to a satisfactory and serviceable condition.

We did not interpret your instructions as directing us to enter upon a complete audit of the books heretofore in use. We do not therefore either impugn or endorse the accuracy of the results brought out, but after carefully considering the system in use we are of opinion that it is so complex, as to render an audit very difficult, and to be reliable, a work of much labor. We refer to the evidence of the accountant for a description of the books, and the arrangement of the accounts which they contain, but no written description can convey any adequate idea of the labor involved in exhuming a plain statement of the transactions of the railway department from among the cross entries, and complications with which they have been surrounded in the three sets of books heretofore in use.

It appears from the evidence of the accountant that the books themselves have never been audited, but that statements of accounts have been prepared from them quarterly and annually, and that these statements were audited by the Financial Secretary of the Province, and ultimately by a joint Committee of the Legislature.

Since the railways passed into the possession of the Dominion the books have not been audited at all, and we submit that they should be at once subjected to a rigid audit by competent persons, and that hereafter in addition to the audit to which the accounts are subjected at Ottawa, they should be subjected to a semi-annual audit at Halifax in the books themselves.

We visited each of the stations and examined the books kept by the agents. They were in a most unsatisfactory state, both as to their form and the manner in which they have been kept. Several of the agents are scarcely able to write legibly, and have but a limited knowledge of accounts. The form in which the books have been kept affords no check on the agents, who have in many instances allowed parties to remove their goods without payment of freight, and in other cases as will be shown presently, they have appropriated the money collected to their own use; in either case accounting for the balance standing against them by a return showing goods in store. To these causes and to a pernicious system of credit which appears to have been authorized by the Commissioner is to be attributed the accumulation of uncollected freight accounts which figure in the assets, for \$28,662.24 and of which but little will ever be recovered.

In order effectually to clear away this unsatisfactory system of book-keeping and accounting, we recommend the closing of the books in use at the main office up to the 30th of June, ultimo; and the opening of a new set in a less complex form. The books at the stations should also be closed, and a system of accounting introduced which will insure a check on the transactions of the agents. The out-standing balances should be removed to the principal office with a view of enforcing the collection of such as are good. The books and accounts of all the agents should be audited by competent auditors who should be instructed to extricate them as far as possible from existing confusion.

In order to secure economy in purchasing, and a certain supply for unforeseen emergencies, it is always necessary to keep on hand a considerable quantity of the various stores used in working a railway. These supplies form the principal part of the working capital of the concern, and in making up statements of the cost of working it is necessary to know how much of these stores have been expended, and the quantity actually remaining on hand. In order to do this and to form a just conception of the cost of operating the road during a specific period and for obtaining the data necessary for checking the ability and economy with which each department of the general service is conducted, it is necessary to establish a depot into which everything purchased for the service of the road is either actually or constructively deposited. From this "STORE DEPARTMENT," all supplies are issued, and here also a complete set of accounts must be kept by a responsible "Store Keeper" who is debited with everything purchased, and who issues on duly authenticated vouchers only, to each of the subdivisions of the service, the supplies necessary for carrying on the work.

These store accounts as will presently be seen, form an important link in the chain of accounts.

The store account as now kept at Halifax, does not fill the conditions above laid down. The stores are under the control of the locomotive Superintendent, and although the nature of the store keeper's responsibility is not very clearly defined, he seems to act usually under the direction of that officer. Only a part of the stores are passed through his books, and for a very large proportion that do pass through them, he neither requires nor receives any vouchers, so that stores are delivered, without any apparent authority, and for the most part on the mere verbal order of an officer whose authority is very indistinctly defined. The books which we found in use by the "Store Keeper" are by no means well adapted to the ends they are intended to serve, and in the absence for the most part, of all vouchers, their correctness or otherwise, is altogether dependent on his reliability not only as to his honesty, but also to his accuracy as an accountant.

It is we submit necessary to terminate this unsatisfactory state of things at once, and to establish a store department on business principles, which, while effectually accomplishing the ends for which it is designed, shall secure a check on the issue of all stores through a store keeper directly responsible to the "General Manager."

In order to establish such a department on a satisfactory footing, an inventory of the existing stock of stores should be carefully taken and brought into the new store accounts on opening the books, and thereafter all supplies of stores, fuel, and material should be charged first to the store account. The store keeper will thereafter be responsible for them, and will only issue them on duly authorized vouchers.

As the store keeper's books are thus made to account for very large values, they must be carefully kept, and should be audited quarterly and the accounts should be arranged with a view to a thorough check and audit of every transaction.

In order to obtain supplies at fair rates, and to avoid undue preferences, all stores should be as far as practicable, purchased by tender and contract based on specifications and sealed samples.

We have prepared an outline of the system of book-keeping, which we believe should be adopted and which we submit for your consideration in the appendix C (not printed).

In preparing this scheme it has been our endeavour so to construct it, that the principal accounts may flow naturally into the returns which may be required by the department at Ottawa, and in a form convenient for audit, but while doing so we have been anxious to avoid interference with recognized principles and divisions in railway accounts.

We have considered the propriety of admitting a capital or construction account in the books kept under the supervision of the manager. There is something to be said in favor of such an account, as undoubtedly works may from time to time be undertaken, that ought to have been provided before the roads were considered complete.

But on the other hand an open capital account has been so frequently abused by railway managers, that it has come to be looked upon as a standing menace against capital, and so long as the line which divides the expenditure justly chargeable on capital from that which is fairly chargeable upon revenue, remains so indefinite as it now is, such an account will be a constant temptation to the manager to reduce his working expenses by charging it with everything about which a question can be raised, and when in addition we take into account the facilities which such an account offers for undertaking works of doubtful value, which would not be for a moment entertained if they had to be provided for out of revenue we have a strong argument at least in the present instance, in favor of absolutely closing the capital account against the local manager, and in favor of carrying on all authorized works of construction on the Engineer's certificates, of which the accounts are kept in the Department of Public Works.

In the scheme submitted herewith, a capital account has been introduced, which may be retained or rejected as you may decide.

A nominal list of the employees in the service of the department on these railways at the date of our inspection will be found in the appendix (D)\*. So far as numbers are concerned this staff is slightly in excess of what is necessary for the ordinary working of the roads, but in order to effect the necessary repairs and re-construction of the rolling stock, a considerable addition must be made to the number of mechanics.

The sufficiency of the staff in relation to the ability of its members cannot be pronounced upon, either so generally or so favorably. The Commissioner has told us that he has been subjected to undue influences in making appointments and in dealing with the servants of the department. For his statements on this head we refer to his evidence.

It is possible that he may have felt himself constrained to appoint or retain unsuitable or inefficient persons. This may have induced laxity of discipline, a belief that it would be useless to represent misconduct, and that the course most satisfactory to his superiors and easiest to himself would be to let things shape their own course as long as the safety of the trains did not appear doubtful. We shall not, however, consider these statements. We shall deal with things as we find them, leaving it open to the Commissioner to justify or explain the course he has deemed it necessary or proper to pursue, for doing which he should have ample opportunity, but so far as this enquiry is concerned he is considered responsible for all the appointments made during his incumbency, for the retention of those who were previously in the service, and for the general management of the business intrusted to him.

The present manager is a gentleman of intelligence and undoubted integrity, and may be possessed of good administrative ability, if placed in a position favorable for its development. It may happen that if after the inauguration of a better system of management he feels himself freed from those adverse influences to which he refers in his evidence, he may administer the affairs of the railways in this Province to your satisfaction. It is no more than fair that he should have the opportunity of trying to do so.

There are several meritorious officers in the service who are quite capable of discharging their duty efficiently, but who have been so hampered and embarrassed by the

\*Appendix not printed.

defective system under which they worked, that they have failed to make a record as satisfactory as would otherwise have resulted.

The principal officers are capable and industrious men, and under energetic and proper management they would become good public servants, but a strange disinclination for change has repressed their energies, and prevented the adoption of improvements. This, coupled with the absence of all contact with railways beyond the Province, has tended to prevent the adoption of most of the recent advances in management, auditing and accounting, which are to be found in other railways.

These officers should not, we submit, be changed unless it is found after adequate trial, that they are incapable of adapting themselves to working out a better system of management. The opportunity for testing them should be afforded, but the chief officer should have full authority to decide as to their fitness for the duties assigned to them, and to remove those who, after reasonable trial, are found to be inefficient.

Several of the station agents appear to have been selected without much reference to their fitness. To be a good station agent a man must be able to write fairly, he should be a good accountant, and of active habits; generally it is necessary that he should be a good telegraph operator, and above all, a man of strict integrity and of sober habits. Men who possess these qualities are not likely to give their services for the salaries for which several of these agents are hired, and it is not, therefore, surprising that many of the stations should be badly managed, and the accounts imperfectly kept. Some of the agents are worthy of further trial and instruction, and may be found capable of better things. This opportunity should, we think, be given to the agents at Elmsdale, Wickwire, Shubenacadia, Stewiacke, West River, Glengarry, Hopewell, Coal Mines, and Pictou. The agents at Richmond may, and doubtless will make good officers, under a better arrangement of their duties. Of the remainder of the station agents we are compelled to say that the interest of the service demands their removal. Should this recommendation be acted upon, it may be possible to find employment for the men so removed, on work more suited to their capacity, or if that is not practicable, they should only be deprived of their pay after such notice as will afford them ample opportunity to obtain other employment.

The agent at Truro is in arrears for money which he has collected, to the extent of more than \$500, probably for a greater sum, for his accounts are very far from being in a satisfactory state, and although this is abundantly evident from the return which he made to the traffic Superintendent on the 30th June, ult., yet the Commissioner has taken no steps either to secure the money or to place the business in safer hands. On the contrary, he tells us that he has felt it necessary "to shield him for the time being." The agents at Mount Uniacke, Enfield, Oakfield, Rocky Lake and Bedford are also in arrears for money collected, in sums varying from \$40 to \$240, and as yet no decided steps have been taken to close their accounts, or to prevent an extension of the evil.

We know of no circumstances which can justify this laxity, and we are compelled to say that it indicates a want of method and decision on the part of the General manager.

As the agent formerly intrusted with the freight business at Richmond has been dismissed, and proceedings taken for the recovery of the money for which he was in default; it is only necessary to allude to him in connection with a letter which he has addressed to you, and which you have referred to us (See Appendix E not printed).

Mr. Alexander says the management of the freight department was bad, and we are of the same opinion, but we do not find therein any justification for his misapplication of the money which he collected for the Government to his own private uses, and most assuredly it would be a bad precedent, if, after the default which has been so clearly established, he were to be re-employed, or that any relaxation should be sanctioned in the efforts of the department to recover the money.

The reduction which may be made in the number of employees is not important, and the saving from that source will be absorbed by the necessary increase in the salaries of agents at stations where they are too low, to secure the services of competent men. At Richmond freight house the services of one clerk may be saved. The establishment now employed there under the traffic Superintendent may be reduced by a re-arrangement of duties.

At Truro, the telegraphing may be done by the Telegraph Company's operator, who has his office in the station. A similar saving may be effected at New Glasgow. At Pic-

to landing the person appointed as telegraph operator cannot perform that duty, and his salary might very well be saved.

The assistant station agents at New Glasgow and Pictou may be dispensed with. These are the only reductions which we can now indicate.

The responsibility of the officers and employees should culminate in the General manager, who should be responsible to the Department of Public Works for the efficient and economical working of every detail of the service, and in order that he may be able to perform his duty effectually, it is essential that every employee should understand that he holds in his hands the power of dismissal for sufficient cause.

As the chief officer is not charged with any responsibility as to financial arrangements, he is free to devote his whole attention to the practical details of working the road, and we see no reason for looking upon him in any other light than that of "*General Manager*," and as such he should be familiar with every department of the business intrusted to his management.

The Accountant, Traffic Superintendent, Storekeeper, Locomotive and Car Superintendent, the Road Master and Wood Inspector should be directly responsible to the General manager.

The Accountant will be responsible for the form and accuracy of all accounts connected with statistics and finance. Under him it will be necessary to have a clerk who will act as cashier, and whose duty it will be to receive and verify the accuracy of all remittances from agents, and to deposit them daily to the credit of the Receiver General.

A second clerk will act as Paymaster, and will pay all employees, on pay-rolls prepared and certified by the heads of the several branches of the service. A third clerk will check and revise all statistical returns, and each of these clerks will, under the accountant, keep such of the subsidiary books, and perform such other duties as are most consistent with their principal duties. It may be necessary to employ a fourth clerk who would be partly employed as secretary to the General manager.

In order to ensure a proper and efficient check on the transactions of the station agents, we propose that each of the clerks in the chief office, including the Accountant, shall in turn audit the agents' books, and that this audit shall be made monthly, but at uncertain intervals. We believe that this would have the effect of preventing the irregularities which have heretofore been prevalent.

The traffic Superintendent's duties will not, under the arrangements now proposed, include the keeping of any accounts with the station agents. They will account directly to the Accountant. His duties will, therefore be restricted to regulating the running of the trains, the distribution of the rolling stock and fuel, and generally the practical management of the traffic, with reference to transacting most economically and expeditiously the business offered. His further duties will be to arrange the time tables for the consideration and approval of the General manager, and to suggest, by report, such measures respecting the tariff, or other matters connected with his duties, as he deems most likely to develop and foster the business.

Conductors of trains, and all train hands, except the drivers and firemen, will be responsible to the traffic Superintendent, and the engine drivers will also be responsible to him through the conductors, for their running time, and general conduct while on the road.

Including the terminal station at Richmond there should be an agent at each station. These agents should make their returns, as to finance and statistics to the Accountant and remit the money they collect to the Treasurer.

As to the delivery of freight, the loading of the cars, the economical use of the rolling stock placed at their respective stations and the general despatch of the traffic business, they will receive instructions from the traffic Superintendent. For the due discharge of their duties they will be directly responsible to the General manager, but it will be the duty of the Accountant and traffic Superintendent to inform him as to whether their duties are promptly and accurately performed.

The agent at Richmond should be responsible for the whole business at that station. He will require the aid of one Entry and Receiving clerk, and also of a clerk for making up statistical and other returns, who may also act as Ticket agent at that station. He must also have the assistance of a chief porter and such under-porters as the extent of the business may, from time to time, render necessary.

The engine drivers and all firemen and employees in the machine shop, car repa

shop and smith's shop should be responsible to the Locomotive Superintendent, except as above that the drivers will be responsible for their running time while on the road to the traffic Superintendent.

The Locomotive Superintendent will be responsible for the maintenance, construction and repair of all locomotives and rolling stock, and of all tools and machinery connected therewith.

We are of opinion that one track master will be sufficient and that he will be able to perform the duties now discharged by the road inspector, and three road masters, but in order that he may do so efficiently, the road should be divided into sections of from five to eight miles, according to the condition of the way and works and the degree of surveillance that may be deemed necessary to insure safety. Each of these sections should be placed in charge of a section foreman, with from three to five men under him as the work may require. These section foremen will of course be responsible to the track master.

If, as at present, it should be considered expedient to retain the services of a professional engineer—and we think the services of one should be available at least for consultation—he should be responsible for the state of all important structures.

In order that the chain of responsibility above suggested may be worth something and that it may conduce to the efficiency of the service, there should be no doubt about the authority of the respective officers. If a conductor, an agent, a driver or other subordinate knows that he can only be dismissed after tedious enquiry, proof and disproof as to alleged misconduct, it will be almost impossible to assure that degree of discipline which is essential to the safe and economical working of a railway.

The rules and regulations in force on these railways are somewhat different from those in force on the other railways of the Dominion. There is an important difference in the code of signals, some of which as well as several of the "Rules of the Road," are somewhat obscure, and although they appear to be very well understood by those who have become accustomed to their use, we submit that they should be revised and assimilated to those in force on the other railways of the Dominion.

The passenger tariff is based on a rate of 3 cents per mile for first class passengers and we have not found any reason for recommending a change in this rate. But in this connection we have to direct attention to what is denominated the "*Horse and Waggon Traffic*." This traffic has been carried in the passenger trains at a rate totally inadequate to the service rendered, it has evidently been carried at a positive loss and we submit that the rates should be raised.

The freight tariff which the Commissioner has submitted to the Department of Public Works (Appendix F\*) has been computed on the basis of a nearly uniform charge per ton, or as in the tariff per 100 lbs per mile for all distances over thirteen miles, up to that distance the rate is somewhat higher. The evidence of the traffic Superintendent shows how that rate was arrived at.

The rates for general traffic are supplemented by several special rates made to meet the demands of various interests. There is a special rate for "*flour and meal in quantities*" and other special rates for certain descriptions of freight carried between Pictou landing and Richmond including coal and fish and articles which more especially enter into the trade with Prince Edward's Island. Besides these special rates which have been published there is a long list of special rates which have not been published. Among these we find a rate for ice, which has been carried from Rocky Lake to Richmond a distance of eleven miles, at about one and a half cents per ton per mile.

It will be evident from the statements of the Commissioner and traffic Superintendent that all these rates have gradually come into use, and are the results of precedents rather than of principles. It is desirable in all cases, but especially in a railway worked by the Government, that the tariff should be computed on some principle of general application so that as far as possible special rates may be avoided and it is above all important that every rate should be published. It is only by pursuing this course that the imputation of favoritism can be repelled.

There are certain charges which are constant on all kinds of freight and have no reference to the distances over which it is carried; other charges which are equally unaffected by distance bear more heavily on some classes of goods than on others, and this renders a classification of freight necessary, and this classification must also have reference

\*Not printed.

to the character of the rolling stock necessary for the traffic and the probability of obtaining loads in either direction in favor of or against the gradients.

Keeping these principles in view, and having determined from the vast fund of information now extant, the value of the constant charges in each class of freight and the actual cost of haulage per ton per mile, we have data sufficient for the computation of a tariff which will meet every case likely to arise in the ordinary traffic of a railway. It is only when some exceptionally large amount of traffic is offered at some particular locality, constant in its volume and likely to employ a determined amount of stock over long periods, that it will become necessary to vary the rates so computed. Such a disturbing cause may arise in the coal traffic between the Mines and Pictou landing and it may be found expedient to encourage the development of the same description of traffic to Halifax when the requisite appliances have been brought into existence.

The classification of freight which accompanies the tariff now in force, sufficiently meets existing conditions, but it is desirable that one classification should obtain on all the railways worked by the department. We submit therefore that the classification now in use in Nova Scotia and New Brunswick should be revised with that object, and made to accord with each other.

It is not our purpose to do more than state the general principles which should govern the construction of the tariff. We leave the computation of the details to those charged with the management, but we must add to what has already been said, that the present tariff does not fulfill the conditions which we have submitted, and we recommend its revision with a view to bringing it into accord with the principles we have laid down.

Although we only state the general principles which should govern the construction of the tariff, the verbal instructions with which you honored us impose on us the duty of entering more fully upon the consideration of the coal tariff, it being, as we understood you, your wish to aid as far as is consistent with the public interests, in the development of that trade.

The proprietors of the Acadia Mines have stated to us that they expect to send from their pit from 800 to 1000 tons of coal per day, which will pass over the railway from the Junction at Coal Mines station to Pictou landing, a distance of 11 miles, providing the department will supply the requisite facilities for moving it. At the rate now charged this quantity of traffic would yield a revenue of from \$60,000 to \$70,000, and if it can be secured will be an important accession to the revenue of the road. Every concession, therefore, which is compatible with the profitable use of the road and stock for this purpose should be made to obtain it; there are however limits to these concessions, beyond which it would not be prudent to go.

To carry the traffic above specified it will be necessary to employ stock of a special description worth from \$75,000 to \$80,000, none of which could be advantageously used for other purposes. Of this stock only a small portion is now on the road. Unless, therefore, it can be shown that the traffic is likely to continue, and that it cannot be diverted from the road with profit to the Pit owners, it would be unwise to incur the expenditure necessary for accommodating it, or to meet the views of the Pit owners by a reduction in the tariff rates now charged. Risk must of course be accepted as to the duration of the promised volume of traffic, and although it is reasonable to believe that these vast magazines of coal must find their way to market, it must at the same time be borne in mind that the Acadia Mining Company does not monopolize the whole coal field and that a neighboring company holding a part of it has constructed an independent line of railway which the Acadia Company may use. Arrangements may therefore at any time be made between these two companies which would render the stock and appliances provided, or to be provided by the department for the accommodation of this traffic, entirely unproductive, the only guarantee against such a result being the more advantageous position of the Acadia Company's loading stages, the capital already expended in their construction and the fact that they can only be approached by the railway owned by the Government. These are important considerations it is true, but there is yet another:—the continuation of this traffic will depend on the commercial success of a single company.

So far as we are able to judge from the preparations made, the amount of capital already invested, and the systematic and business like manner in which the works appear to be carried on, there is every reason to believe that this success is reasonably well assured. Nevertheless, the advisability of making the investment requisite for the accom-



modation of this particular traffic would be more distinctly apparent if the railway owned by the Government were the only outlet for the coal of this district.

If however with these considerations in view, it should be deemed expedient to provide the appliances necessary for carrying the traffic with such despatch as will meet the demands of the Pit owners, then undoubtedly the true policy will be to make a tariff which will offer every inducement, short of carrying at a loss, to use the road and stock.

The rate now charged for coal from Coal Mines station to the loading wharf, a distance of eleven miles, is 25 cents for the ton of 2,000 pounds, the owners of the coal loading and unloading it, and doing the greater part of the shunting for making up the trains at both ends. With the present imperfect arrangements and appliances this rate is as low as the traffic can be carried for. Indeed, it is doubtful if it has thus far been worked without loss. The engine heretofore used in the service is incapable of hauling more than half a train, and the wooding and watering is so badly arranged for, and occupies so much time that the work done is too little to be profitable. It is not surprising therefore that while the revenue of the road has been but little, if any, benefited, the Pit-owners are dissatisfied not only with the tariff but even more so with the delays they experience; their business operations are seriously embarrassed and it is inevitable that either the necessary facilities must be supplied by the department or that the Pit owners will find another outlet.

In considering the rates at which this traffic can be carried, we must bear in mind that if the trains are made up by the Pit owners at the Mines and at Pictou landing, and if no labour is required of the railway employees for the loading and unloading of the coal, the constant charges will be reduced to a minimum. It will still however be liable for its quota of station charges, for lighting, booking, accounting and signalling, but the most important of the constant charges to be brought against it will be for the interest on the cost of the equipment specially provided for it. The rolling stock necessary, for what may be designated as the "*Short Coal Traffic*" will cost as above stated, about \$80,000, but in order to bring into view the whole capital involved, we must add to this the greater portion of the cost of the permanent way and works over which the traffic will pass. This at \$20,000 per mile will come to \$220,000, making in all \$300,000. Now if 60 per cent of the gross earnings from this traffic should, as is probable, be absorbed in working expenses, the annual earnings necessary for paying 6 per cent on the capital, will be \$45,000, and to earn this sum with a tariff of 20 cents per ton, 225,000 tons of coal must be carried, or 725 tons per day for every working day of the year.

Looking at the question from another point of view, we find that the cost of working the road during the last year was for all services \$1.02 per train mile. These trains averaged  $12\frac{4}{100}$  cars in each, including passenger cars run at high speed as well as ten ton freight cars run with the accommodation train at a speed which largely enhanced the cost. It is probable therefore that trains run at a slow speed, consisting of 30 cars each loaded with 5 tons of coal, may be run for one dollar per train mile, including the cost of maintenance of stock and way and works. This, it will be observed, takes no account of the interest on the cost of the special equipment, nor of the interest on the cost of the permanent way. The interest on the special equipment alone will be \$4,800 per annum, and will be distributed over the whole quantity of coal moved by it, and if that quantity should happen to be as in the previous hypothesis 225,000 tons, the charge on this account will be  $2\frac{1}{3}$  cents per ton.

As there will not be any return freight, the trains will run two miles for every mile over which the freight is carried, and therefore with trains carrying 150 tons net load, one dollar per train mile comes to  $1\frac{1}{3}$  cents per ton per mile on the coal, or for the eleven miles from Coal Mines station to the loading stage  $14\frac{6}{100}$  cents per ton, adding to this the constant charges of  $2\frac{1}{3}$  cents we have  $16\frac{9}{100}$  cents, or say 17 cents per ton as the actual cost without reckoning anything for the interest on the cost of the way and works. If 20 cents per ton is charged we shall have 3 cents per ton or on 225,000 tons \$6,750 available to that purpose, which will be equivalent to 3 per cent.

But if it should happen that the traffic should be only one half the amount above estimated, the constant charge for the interest on the cost of the equipment will be  $4\frac{2}{3}$  cents per ton, and instead of giving 3 cents per ton towards the interest on the cost of permanent way, 20 cents per ton will be insufficient for paying the interest on the cost of the special equipment.

In order therefore to justify so low a rate as 20 cents per ton for this description of traffic, it must be shown that this short traffic can be worked at a less cost per train mile than the general traffic of the railway has been worked at. We believe that this may be effected but only by keeping the speed of the trains below twelve miles per hour, and by insuring a regular volume of freight.

It will be remembered that the Pit mouth of the Acadia Mine is about three miles distant from Coal Mines station, on a branch line constructed by the Pit owners. Some account must therefore be taken of the use of the rolling stock over the branch and if it is stocked and worked by the department, an addition must be made to the above rate proportioned to the distance. The maintenance of the way and works by the Pit owners being not more than an equivalent for the additional cost of working incident to the heavier grades and sharper curves which are met with on the branch.

It has been suggested that the Pit owners may supply the power for working the branch. If they should do so a somewhat lower rate may be accepted on their part of the line, say one cent per ton per mile. A rate based upon the suggestions above offered should only be conceded under the following conditions:—

1st. The quantity of coal carried shall not be less than 200,000 tons per annum.

2nd. The whole quantity carried shall be evenly distributed over each day of the whole period during which it is moved.

3rd. The trains shall be made up at both ends, and all shunting, loading and unloading done by the owners of the coal.

4th. The way and works on the branch shall be maintained in a satisfactory state of repairs by the Pit owners.

Under these conditions we submit that a rate of 20 cents per ton of 2,000 lbs from Coal Mines Station to the wharf may be conceded, and the rates upon this basis will then stand as follows:—

For the eleven miles from the Junction at Coal Mines Station, to the wharf, 20 cents per ton of 2000 lbs; and

Additional on the branch to the Pit mouth, the department finding power and stock  $1\frac{8}{1000}$  cents per ton per mile, or:—

Additional on the branch, if the Pit owners find the power, 1 cent per ton per mile.

Until the Pit owners are in a position to accede to the above conditions, we submit that no reduction in the rate now charged ought to be made.

With reference to the coal traffic to Halifax, we are of the opinion that the present rate which is about  $1\frac{1}{2}$  cents per ton per mile, should be continued. It is as low as the traffic can be worked for without loss.

It is not probable that any very large quantity of coal will be carried through so long as the cartage from Richmond to Halifax adds so largely to the cost, but whenever the means of delivery at a central place are provided, we have but little doubt that the chief part of the city consumption will be carried over the road.

In our preliminary report we expressed opinions on several matters affecting the general management of the roads. We referred to the necessity of working the freight trains at lower speed, to working the trains on the Windsor branch in common with the trains on the main line as far as the Junction, to the contract with the Telegraph Company, to the necessity of providing machinery for repairing the car stock, to the existing wood contract with Mr. Hyde, and to the provision of additional accommodation in wharfage and freight buildings at Pictou, as also some passenger accommodation at Windsor. We advised the removal of the main offices from the city to the terminus of the railways at Richmond, and we referred to the system of paying by certificates drawn on the Dominion Paymaster.

To what we then advanced, we have now to add that the management has heretofore been deficient in the arrangements made for checking baggage, and the transfer of traffic generally over connecting lines of steamboats, and we suggest that immediate attention should be directed to the improvement of this part of the management.

Since our preliminary report was written, we have examined the ground at the Windsor Junction, and we see no obstruction to the completion of the Y. This, while greatly facilitating the working of the traffic of the branch in connection with the main line, would serve in lieu of a turntable, and we therefore recommend that the proposed alteration be at once effected.

We have extended our enquiries as to the comparative cost of wood and coal as a fuel for the locomotives, and we are fully convinced, that with coal of the quality, and at the

price for which it may now be obtained, its use would result in a saving of not much less than half the present cost of the fuel. On this subject we examined the locomotive Superintendent, who supplied us with the particulars of a trial made by him several years ago, with Lingan coal from Cape Breton. The trial, of which the particulars are given in Appendix G,\* resulted in a very considerable saving, but the coal now obtainable immediately on the line of railway, is both superior and cheaper for locomotive use than the Lingan coal. If, therefore, any reasonable arrangement can be made with Mr. Hyde for the abandonment of his wood contract, we think it should be done; but while advising this we desire to add, that the conditions of the contract both as to the price to be paid for the wood, and the quality required are advantageous to the department, and could not, we believe, be improved so long as wood is used as a fuel. And here we may remark that the misunderstandings which have arisen between Mr. Hyde and the Commissioner as to the delivery of the wood, appear to be of very easy adjustment. By the terms of the contract, the railway manager undertakes to provide a certain quantity of storage for the wood, and Mr. Hyde engaged to provide a further quantity. Mr. Hyde has to a limited extent complied with his part of the contract, but the railway has not provided any storage whatever. Mr. Hyde urges this failure on the part of the railway as a sufficient justification of his own failure to erect all the woodsheds stipulated for by the terms of his contract. We do not agree with him. In view of the probable substitution of coal for wood, at least so soon as Mr. Hyde's contract has terminated, it would be folly for the railway to incur a heavy expenditure for the erection of extensive woodsheds. The same reason may justify the non-construction of sheds by Mr. Hyde, but in the event of negotiating with him for the surrender of his contract, the value of the sheds which he may fail to erect should unquestionably be considered.

The non-erection of sheds however is not necessarily an obstruction to the delivery of the wood, neither does it impose any inconvenience upon the contractor. He can go on delivering the wood on the site of the proposed sheds, where he can saw and pile it exactly as it would have been sawed and piled in the sheds. Mr. Hyde may then be paid in accordance with the terms of his contract. Such an arrangement would, we submit, remove all just cause of complaint on either side.

The communication which Mr. Hyde addressed to us on this subject will be found in Appendix H,\* and the contract between him and the Commissioner in Appendix J.\*

We have more fully considered the arrangement for paying by certificates drawn on the Dominion Paymaster for specific purposes, and on this subject we have now to add that while we find no valid objection to the continuance of the system, we are of the opinion that to work it without occasioning inconvenience there are certain conditions which must prevail. The most important of these conditions is that the certificates shall so far partake of the character of a cheque, as to be as readily converted into cash.

It is important that the delays which appear to have occurred should be avoided, and that persons residing outside the city and who are entitled to receive small sums of money, should not, as we are told has sometimes happened, be detained over night at a cost for expenses which to them is an important outlay. The remedy for this, and for the objections made to the certificate system by the commissioner and the accountant may, we think, be easily found, and should be at once applied.

It is understood that in ordering the adoption of the system of payment by certificate, the principal object is to keep an exact account of the progressive expenditure under each authority granted, and to make the expenditure under each of such authorities as shown by the railway accounts, agree with the accounts kept at Ottawa.

This may be done so far as the money drawn for each account is concerned; but it is impossible to insure that the actual cost of maintenance and traffic expenditure shall correspond with the money drawn for that account during any specific period. And for this reason; it is no more possible to work a railway than it is to carry on any other commercial enterprise without a working capital. In the case of the railway, this capital is represented by the stock of fuel, road material, stores and general supplies which are on hand for the service of the road. The capital thus represented, must necessarily be an item of considerable magnitude, and it will fluctuate from time to time as the purchase and expenditure of the various articles approach to or diverge from each other in amount.

When the value of the stock is less at the end of the year than it was at the com-

\*Appendixes not printed.

mencement, the cost of maintenance has been greater than is represented by the money drawn for maintenance account.

On the other hand if the value of the stores is increased the actual cost of maintenance has been less than the money drawn would indicate. It is futile therefore to expect that the money drawn on account of maintenance will on any occasion exactly, or even very nearly agree with the working expenses during any specific period.

The same reasoning does not apply to works of construction performed under contract, as in that case the contractor finds the working capital, but if such works were performed by the department without the intervention of contractors an accumulation of stock would take place, and the same difference in the accounts would arise.

In our preliminary report we expressed the opinion that the telegraph wires owned by the department from Halifax to Pictou, should be placed upon the posts owned by the Telegraph Company, so as to avoid a continuance of the expenses incurred for the maintenance of the posts upon which it is now suspended. If the present telegraph arrangements (See Appendix K.\*) which we think are very disadvantageous to the department, are to be continued, the course we then suggested would undoubtedly be the proper one; but inasmuch as we understand that the Government has it in contemplation to construct a telegraph line from the capital to St. John and Halifax, in connection with the Intercolonial Railway, and as this may involve entirely new telegraphic arrangements, it will probably be advisable to maintain the line as it now exists until that question has been decided.

In connection with the general management we have to direct attention to the inconvenience which the public experience, and to the loss occasioned to the railway by the insufficient terminal accommodation at Richmond.

The accommodation for the reception and delivery of goods is altogether inadequate to the requirements of the road. The business has therefore been done at great additional cost, and rolling stock which ought to be in movement, is largely occupied for storage. The freight has also been subjected to heavy charges for cartage between the city and Richmond, a distance of from two to three miles. The cost of this cartage on heavy freight is a serious item, and as regards the coal traffic it is prohibitory. Shippers encounter the risks and delays of sending coal by water rather than pay the costly item of cartage. We believe that similar considerations have great weight in determining the route of other heavy freight, which but for this would pass over the railway.

The project of extending the track into the centre of the city has, we are informed, engaged the attention of the department, and surveys have been ordered with a view to determining what the cost is likely to be. The obstacles which intervene will make the completion of such a project very costly, and we have therefore considered whether an equally satisfactory result can be obtained at less cost.

The harbor of Halifax is usually open throughout the entire year, and as the whole city frontage is accessible by water, it appears to us that it would be possible to construct a "*Steam Bridge*" of moderate cost, which could convey to or from a central depot, or to the premises of any merchant who may choose to make his wharf suitable as a landing stage, such cars as may be laden for city delivery and collect such as are laden for despatch over the railway. In effect the main track would thus be laid *on the water*, and every wharf could be served with what would be equivalent to a switch. Coal and other heavy freight could then be delivered at any required place on the city front, for a very small advance on the cost for which it is now brought to Richmond, and we are convinced that the "*Steam Bridge*" could be worked at a cost infinitely less than that of working the proposed extension, the construction of which would in effect remove the city terminus some eight miles (by the proposed track) from the present machine shops &c., thereby either destroying their value, or occasioning a great increase of mileage for the stock.

With the complete success of the Great Western Steam bridge between Windsor and Detroit before us, we can see no reason for doubting the success of the very similar expedient which we have proposed for working the heavy traffic at Halifax, which we believe may in this way be provided for at an outlay including the capitalized cost of working the bridge, of about one tenth of what it would cost to construct the proposed extension.

The proposition above advanced does not contemplate the carrying of the passengers into the city, but the Street Railway has already been extended from the Richmond station through all the principal streets, and this objection to our plan thus becomes of very little

\*Not printed.

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consequence, especially as it is probable that arrangements might be made with the Street Railway Company that would remove every inconvenience on that account.

We submit that this project for overcoming an admitted difficulty is sufficiently promising to justify further consideration and enquiry as to its feasibility.

The existing accommodation for passengers at Richmond is deficient in several important requisites, but pending a decision on the above proposition, we have not considered it necessary to refer to that part of the subject more in detail.

All of which is most respectfully submitted.

We have the honor to be,

Sir

Your most obedient servants,

(Signed)

L. CARVELL.

THOMAS D. TIMS.

A. BRUNEL.

## APPENDIX No. 22.

### NEW BRUNSWICK RAILWAYS.

*Description of Works by L. Carvell, Manager.*

(No. 751.)

#### EUROPEAN AND NORTH AMERICAN RAILWAY, GENERAL MANAGER'S OFFICE,

ST. JOHN N. B., 24th December, 1868.

*To the Honorable the Minister of Public Works.*

SIR,—The following “detailed history” of the railway, from its inception to the 30th June, 1867, is furnished in accordance with your instructions of 26th September last.

A line of railway to connect St. John, on the Bay of Fundy, with Shediac, on the Gulf of St. Lawrence, was first projected in 1848, and in that year the sum of £1,000 was granted by the New Brunswick Legislature towards defraying the expenses of preliminary survey, which was made by Mr. Wilkinson, C. E., in the following season.

In 1849, a bill was introduced granting further aid to the railway. Under the provisions of this Act, the Province was to guarantee six per cent interest on £300,000. Stock to the amount of £150,000 was to be taken by private subscription, and an equal amount by the Province. The Bill passed the House of Assembly, but was defeated in the Legislative Council.

In 1850, a convention composed of delegates from the State of Maine and the Provinces of Nova Scotia and New Brunswick met at Portland, Maine, for the purpose of taking into consideration the construction of a railway to connect Halifax, N. S. with Bangor, Me. This convention resulted in the adoption of the “European and North American Railway” scheme, the Saint John and Shediac line being merged in the larger undertaking. The exploratory surveys in Maine were made the same year by Mr. Merton, C. E., under the authority of the State Legislature.

In 1851 a Facility Bill was passed in the New Brunswick Legislature, which provided that the Province was to give a subsidy of £250,000 sterling to a Company on the following terms as soon as £100,000 were paid in by subscribers, the Province was to issue debentures bearing six per cent interest, redeemable in thirty years, the issue in any one year not to exceed £100,000.

With this limitation, for every £10,000 paid in by the Company, the Province was to pay a similar amount. The Board of management was to consist of nine directors, two of whom, chosen by a ballot of both Houses of the Legislature, were to represent the Province. Robert Jardine, Esq., was subsequently elected President.

On 29th September, 1852, an agreement for the construction of the railway was entered into between the Government of New Brunswick, the Company and Messrs. Peto, Betts, Jackson & Brassey, under an agreement by which Messrs. Peto & Co. were to build the line from the boundary of Nova Scotia to that of the State of Maine, for the sum of £6,500 sterling per mile. The Province was to take stock to the amount of £1,200 per mile, and to loan its bonds to the Company for £1,800 per mile. These were preference bonds, redeemable in 20 years. The contract was approved and ratified at a special Session of the Legislature, called in the following month.

In 1853, the surveys of the whole route were made under Mr. Frank Giles, C. E., in New Brunswick, and Mr. Jas. Beattee, C. E., in Nova Scotia, and on the 14th of September of the same year, the first sod was turned at St. John by Lady Head. The work on the division between St. John and Shediac was prosecuted during that and part of the following season, when owing to monetary embarrassments arising out of the Crimean war, further operations were suspended. In 1856, the Company having been dissolved, the Government of New Brunswick purchased the road from Messrs. Peto & Co. for the sum of £90,000 ster-

ling, and the construction was resumed under Government direction. The management was in the following spring vested in three Commissioners appointed (31 March, 1857) by the Government, Messrs. W. H. Scovil, F. W. Hatheway and J. Myshrall. These gentlemen held office for four months and a half, and were succeeded on the 15th August by Messrs. R. Jardine, R. Reid and R. C. Scovil. Mr. Reid having resigned, Mr. George Thomas was appointed to the vacancy on 15th May, 1858, and the Board thus constituted remained in office until June, 1865. Mr. A. L. Light, C. E., was appointed Chief Engineer.

When the railway came into possession of the Government, the line had been surveyed and located from St. John to Shediac by Messrs. Peto & Co, a considerable portion of the road built between Moncton and Shediac, and some work done between St. John and Rothesay. The contract for finishing the line between Moncton and Shediac was let on the 1st August, 1856, and this section opened for traffic on 20th August, 1857. A length of three miles out of St. John was finished and opened on 17th March, 1857. Other sections were put under contract as soon as the revision of the location could be completed. They were opened for traffic in the following order: St. John to Rothesay, 9 miles, on 1st June, 1858, Rothesay to Hampton, 13 miles, on 8th June, 1859, Hampton to Sussex, 22 miles, on 10th November, 1859, and Sussex to Moncton, 45 miles, on 1st August, 1860. This completed the division of the European and North American Railway lying between St. John and Shediac. During this time the Government of Nova Scotia had built and opened for traffic, the division between Halifax and Truro, a distance of 60 miles. The remainder of the scheme lay dormant from 1853 until 1864, when it was again revived, chiefly by the untiring exertions of Mr. E. R. Burpee, C. E. Surveys were made, under instructions from the Government, from St. John to the American boundary by Mr. Burpee, and from Moncton to the Nova Scotia boundary by Mr. Boyd.

Two Companies, one in New Brunswick and the other in Maine, were incorporated for the construction of the much needed links, and acts were passed granting subsidies to facilitate the completion of the line, by the Legislature of Maine, Nova Scotia and New Brunswick. The construction of those parts of the line lying in Maine and New Brunswick is now progressing rapidly and favorably.

#### CHARACTERISTICS OF LINE BETWEEN SAINT JOHN AND SHEDIAC.

The whole distance between St. John and Point du Chêne, in Shediac harbor, is 108 miles, being eight per cent longer than an "air" line.

The maximum gradient is 45 feet to the mile, and the minimum radius of curve 1,584 feet.

The total of ascents going east is 1,063 feet, and of descents 1,075 feet. The summit is  $12\frac{1}{2}$  miles from Saint John, and has an elevation of 165 feet above high water in Saint John harbor.

The total amount of curvature is 2,173 degrees or 20 degrees per mile. The total length of straight line is  $79\frac{1}{3}$  miles, and of curved line  $28\frac{2}{3}$  miles.

The road has a single track of 5 feet 6 inch gauge. The length of sidings is  $12\frac{1}{10}$  miles equal to 12 per cent of the main line.

The permanent way, with the exception of about 20 miles laid with U rail, imported by Messrs. Peto & Co. consists of T rail, 63 lbs. to the yard, fastened at the joints with cast iron chairs, weighing 28 lbs. each. The sleepers are Cedar, Haematac and Pine, 9 feet long, six inches thick and averaging 9 inches in width. Those originally laid were flatted. All new sleepers put in are squared, so as to remove the sapwood. The quantity of ballast is about 2 cubic yards to the lineal yard of track.

The width of the road bed is 20 feet on embankments, and never less than 24 feet in cuttings. In side hill cuttings, or whenever it was necessary to secure proper drainage, the formation width was increased to 30 or 32 feet. The road bed has everywhere been kept as much above the general level of the country as possible, in order to ensure good drainage, and facilitate the removal of snow. The side slopes are generally one and a half horizontal to one perpendicular, but when necessary they are made two to one. In rock cuttings the slopes are 3 inches to the foot. In localities where the embankments are exposed to wash, they are well protected either with hand laid bank paving or with ordinary rip-rap.

The masonry of the more important bridges is the best quarry faced ashlar, laid in

cement. That of the smaller bridges is good strong coarsed rubble, laid dry in some cases, and set in cement in others.

All bridges of spans exceeding 40 feet, have iron superstructure.

The following are the principal superstructures.

*Hammond River Bridge.*—Three spans of 100 feet each. Abutments and piers. Granite ashlar in cement. Foundation on piles. Superstructure Fairbairn girders. Roadway between the girders. Floor beams iron.

*Passekeag and Moosehorn Bridges.*—Each one span of 80 feet. Abutments grey sandstone ashlar in cement. Pile foundations. Superstructure Warren girders. Roadway between girders. Floor beams iron.

*Trout Creek Bridge.*—Three spans of 80 feet each. Abutments and piers. Grey sandstone ashlar in cement. Pile foundations. Superstructure Warren girders. With roadway between on iron floor beams.

*Salmon River Bridge.*—Two spans of 100 feet each. Abutments and pier, dark red sandstone. Ashlar in cement. Pile foundations. Superstructure Warren girders with roadway between. Iron floor beams.

*Petitcodiac River Bridge.*—Two spans of eighty feet each. Abutments and pier, brown sandstone ashlar in cement. Foundation natural rock. Superstructure Warren girders. Roadway between girders on iron floor beams.

*Scadouc River Bridge.*—Four spans 60 feet each. Abutments and piers brown sandstone. Superstructure I girders roadway on top. Wooden floor beams. Foundation natural rock.

*Four mile Bridge.*—Over Post road; One span, 50 feet abutments hard grey limestone ashlar in cement. Superstructure I girders. Roadway between girders. Corrugated iron floor.

*Milner's Bridge.*—Over Post road; one span 40 feet.—Abutments brown sandstone ashlar in cement. Superstructure I girders roadway on top. Wooden floor beams.

The superstructure of spans under 40 feet is either of savannah pine or of first quality white pine. The material and workmanship in all are of the best description, and the whole surface of the timber is carefully planed and painted.

There are 20 bridges having stone abutments and wooden superstructures; 5 having trestles resting on stone piers; 2 having trestles on piers formed of piles; and 6 pile bridges. There are nine over bridges of timber, the trestles resting on stone piers.

The arch culverts on the line vary in span from 4 feet to 12 feet. The masonry is ashlar laid in cement. The box culverts are as a general rule 3 feet square, though there are several of larger size. They are laid dry, the masonry being strong rubble. No wooden culverts covered with earth have been permitted on the main line.

The works generally are built in a strong and substantial manner, and with due regard to the ultimate requirements and permanent efficiency of the road.

Tables are attached, giving the station and siding accommodation, the lengths of iron and wooden bridges and abstract of the curves and gradients.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

L. CARVELL, Manager.



## APPENDIX No. 22—Continued.

## TABLE OF CURVES.

No. of Curves.	Aggregate Length. Miles.	Radius, Feet.	Deflection. °
2.....	44.....	1,584.....	85 00
2.....	76.....	1,980.....	96 00
5.....	1.51.....	2,640.....	173 30
24.....	6.69.....	2,865.....	714 38
1.....	23.....	3,016.....	22 46
2.....	59.....	3,243.....	55 23
1.....	87.....	3,263.....	81 15
2.....	62.....	3,438.....	54 39
1.....	15.....	3,630.....	12 00
6.....	1.67.....	3,822.....	132 48
2.....	09.....	3,960.....	7 00
1.....	84.....	4,033.....	63 22
2.....	57.....	4,752.....	36 30
1.....	65.....	4,912.....	39 59
4.....	2.14.....	5,280.....	116 00
1.....	82.....	5,542.....	44 32
15.....	5.94.....	5,730.....	313 57
1.....	61.....	5,807.....	31 36
4.....	2.26.....	11,460.....	63 00
1.....	1.21.....	12,278.....	29 54
78	28.66		2,173 49 curvat. per mile 20'

Length of curved line.....	28.66 miles.
do straight do.....	79.39 "
Total.....	108 05 "

## ABSTRACT OF GRADIENTS.

Description.	No.	Aggregate Length. Miles.
Level .....	86.....	25.17
From 0 feet to 10 feet per mile.....	20.....	19.34
" 10 " 20 " " .....	24.....	10.70
" 20 " 30 " " .....	30.....	16.80
" 30 " 45 " " .....	56.....	36.04
Total.....	216	108.05

## BRIDGING.

Stone abutments and iron superstructure.....	1,390 lin. feet.
do wooden do .....	450 "
Trestles on stone piers.....	1,100 lin. feet.
do Pile " .....	320 "
Pile bridges.....	440
	1,860 "
Total .....	3,700 "

## TABLE SHOWING STATION AND SIDING ACCOMMODATION.

NOTE.—Buildings are of wood unless otherwise specified.

*Class No. 1* are principal stations, the plan and arrangements of which are varied to suit each locality.

*Class No. 2* Stations are two story buildings with station masters office, general waiting room, Ladies waiting room. Water closets, &c., on ground floor, and station masters dwelling above.

*Class No. 3*, Stations are story-and-a-half buildings with station masters office, general waiting room, freight room, water closets, &c., on ground floor, and station masters dwelling above.

*Class No. 4*, Stations are platform with a shed to shelter passengers while waiting.

Distance, miles.		Length of sid- ings.
0	<i>Stamt John.</i> Class No. 1 with a shed 225 feet long, covering one track. The general offices are in the upper stories of the main building. Car shed ..... 45 feet × 335 feet. do ..... 32 “ × 120 “ Wood shed..... 30 “ × 100 “ Freight house..... 25 “ × 100 “ Engine house (brick)..... 175 “ diam. 18 pits. Two outside platforms, cattle pen, &c.	
	NOTE.—The freight shed is much too small.....	16,203 lin. ft.
3	<i>Moosepath.</i> Flag station. Class No. 4.....	1,773 “
6	<i>Torryburn</i> do do .....	252 “
7	<i>Appleby's</i> do do No sidings.....	
	<i>Rothesay.</i> Class No. 2, Passenger house 50 × 28. Tank house 18 × 18. Small freight shed. Skeleton turn table.....	1,555 lin. ft.
12	<i>Quispamsis.</i> Flag station, Class No. 4.....	950 “
14	<i>Walkers'.</i> Out siding, Length.....	530 “
17	<i>Nawwigewank.</i> Flag station, Class No. 4.....	825 “
20	<i>Groom's Cove.</i> Flag station. No siding.....	
22	<i>Ossekeag.</i> Class No. 2, Passenger house, 50 × 28, Tank house 18 × 18. Woodshed 30 × 100. Freight house 70 × 45 with loading platform. Skeleton turn table.....	3,225 “
26	<i>Passekeag.</i> Flag station. Class No. 4. Small freight shed. Loading platform.....	801 “
27	<i>Bloomfield.</i> Flag station. Class No. 4.....	861 “
31	<i>Moosehorn.</i> Out siding. Engine shed and tank.....	950 “
32	<i>Athol.</i> Flag station. Class No. 4. No siding.....	
33	<i>Norton.</i> Class No. 3. Passenger and freight house 50 × 28. Freight platform and cattle pen.....	900 “
35	<i>Johnston's.</i> Out siding. Length.....	250 “
36	<i>Gurney's.</i> do do .....	624 “
37	<i>King's.</i> do do .....	474 “
39	<i>Apohaqui.</i> Class No. 3. Passenger and freight house 50 × 28. Freight platform and cattle pen.....	992 “
44	<i>Sussex.</i> Class No. 1. Passenger house with Dining room and main building 44 × 50—2 wings, each 22 × 28. Freight house 70 × 45—2 wood sheds, each 30 × 100. Tank house 18 × 18—2 small freight sheds. Engine house (brick) 67 × 61—3 pits. Turntable 45 feet diameter covered with shed cattle pen.....	5,104 “
47	<i>Plumvoseep.</i> Flag station. Class No. 4.....	
49	<i>Wallace.</i> Out siding. Length.....	450 “
51	<i>Penobsquis.</i> Class No. 3. Passenger and Freight house 28 × 50. Tank house, 18 × 18.....	1,000 “

TABLE SHOWING STATION AND SIDING ACCOMMODATION.—*Continued.*

Distance, miles.		Length of Sidings.
55	<i>Dunsinane.</i> Flag station.....	546 lin. ft.
56	<i>Portage.</i> Out siding. Length.....	567 "
60	<i>Anagance.</i> Class No. 3. Passenger and Freight house 28 × 50. Cattle pen. Freight platform .....	987 "
62	<i>Hayward's.</i> Out siding. Length.....	315 "
66	<i>Davidson's.</i> Branch to mills. Length with shunts.....	3,042 "
66	<i>Petitcodiac.</i> Class No. 3. Passenger and Freight house 28 × 50. Waiting room (detached) 18 × 15. Tank house 18 × 18. Freight shed and loading platform. Cattle pen, Skeleton turn table.....	1,428 "
71	<i>Pollett River Road.</i> Flag station. Class No. 4. Freight platform.....	611 "
74	<i>North River Road.</i> Out siding. Length.....	292 "
76	<i>Salisbury.</i> Class No. 2. Passenger house 28 × 50. Freight house 70 × 45. Freight platform. Tank house 18 × 18. Cattle pen.....	1,968 "
79	<i>Boundary Creek.</i> Flag station. Class No. 4.....	728 "
81	<i>Mountain Road.</i> Out siding. Length.....	327 "
85	<i>Carriboo.</i> do do .....	572 "
89	<i>Moncton.</i> Passenger house 104 × 18 with wing at back 43 × 14. Freight house 60 × 20. Octagonal tank house 15' diameter. Small woodshed wharf with Freight house on it. Length of sidings including branch to wharf .....	7,609 "
	NOTE.—These buildings are badly placed and very inconvenient.	
91	<i>Humphrey's Mill.</i> Flag station.....	223 "
95	<i>Cooks Brook.</i> do .....	250 "
96½	<i>Painsec Junction.</i> N. S. and N. B. R. W.....	
97	<i>Pine Hill.</i> Out siding. Length .....	1,400 "
102	<i>Dorchester Road.</i> Flag station .....	
106	<i>Shediac.</i> Class No. 2. Passenger house 52 × 22. Freight house 70 × 20. Two outside platforms, (Engine repair shop 117 × 21. Store 46 × 21. Blacksmith shop 36 × 25. Copper smith shop 22 × 24. Engine shed 64 × 33. Engine shed 100 × 22. Tank house 14 × 22.) Turntable covered with shed 45 feet diameter.....	5,283 "
	NOTE.—The buildings included between the brackets are only temporary and are very badly adapted to the present use, having been converted from old buildings erected by Messrs. Peto & Co., for stores, stables, &c.	
108	<i>Point du Chene.</i> Wooden pier 1,860 feet long (1,010 feet 30 feet wide, 770 feet 40 feet wide, L at end 80 feet × 150.) Freight house 20 × 100. Passenger and Freight platforms, double track the whole length of wharf. Length with shunts.....	4,100 "
	NOTE.—The present freight shed is much too small to accommodate the traffic.	
	Total length of sidings.....	67,969 lin. ft.
	Equal to 12,88 miles.	

NEW BRUNSWICK RAILWAYS.—*Continued.*

*General Report on their working, management and repairs, by L. Carvell, Manager.*

EUROPEAN AND NORTH AMERICAN RAILWAY,

(No. 775.)

GENERAL MANAGER'S OFFICE,

St. John, N. B., 21st October, 1868.

To the Honorable

William McDougall, C. B.,  
Minister of Public Works.

SIR,—I have the honor to submit, as directed, a report of the operations of this Railway for the fiscal year ending 30th June, 1868.

Having succeeded Mr. J. Edouard Boyd, C. E., as General Superintendent on the 1st September, 1867, my personal supervision covers but ten months of the year.

Until the 19th February last the operations of the Road were controlled by a Board of three resident Commissioners, who being then relieved, the management was vested in me, under the immediate direction of the Department of Public Works.

This railway having on the 1st July, 1867, by the terms of the "Union Act," passed from the possession of the Provincial to the control of the Dominion Government, it may be proper first to state its financial condition at that time.

It was briefly as follows:—

LIABILITIES.		\$	cts
Provincial Treasury .....		4,761,979	90
Balance Net Revenue not paid over.....		1,925	71
Due Round Trip Ticket Connections.....		205	58
Due International Steamship Company .....		266	35
Due Prince Edward Island Steamship Company .....		17	50
Due Provincial Board of Agriculture .....		77	53
		4,764,472	57
ASSETS.			
Cost of Road and equipment including St. John water terminus since transferred.....		4,642,484	39
*Norton and Apohaqui Bridges .....		12,533	67
*Renewal Apohaqui Bridge.....		643	24
*Bye Roads .....		570	49
*Provincial Railways .....		300	00
*Post Office Dept .....		1,977	06
*Freehold Property Acct .....		1,469	18
†W. E. Weldon.....		227	64
†Frank Giles.....		92	00
†H. W. Baldwin.....		212	40
†LeBaron Drury.....		260	82
†Alex. McBean .....		72	23
†J. H. Littlehale.....		49	28
†Robert Atkinson.....		17	18
†Bills Receivable .....		586	00
†Burpee's Survey.....		343	00
†Suspense Acct. (Special train).....		30	00
†Commissariat Department.....		244	52
†American Telegraph Company .....		10	08
†St. Stephen's Railway.....		7,516	58
Cash in Commercial Bank.....		1,284	40
Cash in Westmorland Bank Paper.....		567	00
Cash in hands of cashier .....		14	
Woodstock Railway.....		2,646	87
Charges on freight and baggage unclaimed.....		2	88
Arroars at stations .....		1,695	72
General stores on hand.....		88,585	80
		\$4,764,472	57

The "assets" marked thus\* have been considered as Provincial rather than Railway accounts.

The accounts marked thus† have since been paid, and those marked thus‡ are bad.

The Westmorland Bank Paper has been sold at a loss of \$198.45, and the amount charged to the working expenses of the past fiscal year.

The results of the transactions of the fiscal year will be best shown upon reference to statements of the Capital and Revenue Accounts:—

Dr.		CAPITAL ACCOUNT.		Cr.			
				\$ cts.			
1868. June 30	To cost of road and equip- ment to date, per Abstract A .....	4,644,903	35	1867. June 30	By Provincial Treasury....	4,761,979	90
	" Norton & Apohaqui Brid'g's.	12,583	67	1868. June 30	By Depart. Public Works..	8,963	24
	" Fleming & Humbert, .....	6,000	00				
	" general stores, .....	99,888	69				
	" bal. per general balance....	7,567	43				
		4,770,943	14			4,770,943	14

E. & O. E.

St. John, N. B. 30th June, 1868.

A. M'NAUGHTON,  
*Accountant.*

ABSTRACT A.

STATEMENT SHOWING COST OF RAILWAY AND EQUIPMENT TO 30th JUNE, 1868.

\$ cts.

*Expenditure the past year.*

Surveying line to Davidson's Mill.....	30	00
New siding at Penobscuis, and rails, sleepers, &c., for new siding at North River, Haywards, and Mountain Road.....	1,665	23
Constructing Mill Pond embankment.....	256	40
Paid Humphrey land damage at Hall's Creek.....	160	00
Paid R. Wilson, land damage at Boundary Creek.....	13	00
Paid for Ladies' Waiting Room at Petitcodiac.....	111	45
Powder safe at St. John.....	9	87
Four new Engine sand boxes....	160	00
One new flange cleaner.....	51	94
Fitting up 4 new Hay cars .....	282	52
Ten new Platform cars .....	6,750	00
Ticket Pockets for Platform cars.....	4	50
<b>Total.....</b>	<b>9,494</b>	<b>91</b>

ADD

Water terminus account transferred.....	59,154	65
Cost of Road to 30 June, 1867, per account.....	4,583,348	94

DEDUCT.

Drawing table sold E. R. Burpee.....	\$25	00
One hand car sold H. G. C. Ketchum.....	60	00
Earth waggons sold Hawkins and others.....	\$2,059	00
Less the freight.....	48	85
	2,010	15
Engine Sussex sold Woodstock Railway .....	5,000	00
	7,095	15

Cost of Railway and equipment.....	4,644,903	35
------------------------------------	-----------	----

CLASSIFIED AS FOLLOWS :

Engineering .....	\$216,781	82
Permanent way.....	3,730,593	52
Buildings .....	256,054	90
Rolling stock and machinery.....	361,065	41
Miscellaneous stock .....	15,512	03
General expenses .....	64,895	67

\$4,644,903 35

Dr.		REVENUE ACCOUNT.				Cr.	
1867.		\$	cts.	\$	cts.	1867.	
Sept. 30	To paid Provinc. Treasurer.....			1,925	71	June 30	By Balance last year.....
" 17	" paid Provinc. Treasurer, Acct. Dominion.....	10,000	00			1868.	
1868.						June 30	" Dept. Pub. Works.....
June 30	" paid Bank of Montreal, Acct. Rec. General.....	85,631	46	95,631	46	" Passenger Traffic.....	70,669 01
						" Freight Traffic.....	87,970 24
						" Mails & Sundries.....	8,119 17
						" Net Revenue this year.....	35,073 45
	Loco. Power per Ab. B.....	39,453	54				
	Mdse. & Pass. Cars C.....	25,675	67				
	Maint. of Way and Buildings, D.....	44,011	00				
	General charges, E.....	22,544	76				
	Net revenue.....	35,073	45				
	Balance per. general balance.....			10,662	39		
		166,758	42	108,219	56		
						166,758	42
						108,219	56

E. & O. E.  
St. John N. B., 30th June, 1868.

A. M'NAUGHTON,  
*Accountant.*

ABSTRACT B.  
LOCOMOTIVE POWER.

1867.	PARTICULARS.	1868.
\$		\$
cts.		cts.
7,895 10	Wages to drivers, firemen and cleaners .....	8,224 15
13,945 72	Firewood.....	17,165 04
1,565 16	Oil tallow and waste.....	1,262 76
3,632 98	Materials for repairing engines and tenders including packing.....	3,602 42
6,931 80	Wages for repairing engines and tenders .....	6,341 83
95 54	Repairs to workshops and engine houses.....	174 92
182 64	Repairs and renewal of tools, lamps, &c .....	174 46
1,530 62	Water pumping and pumps and tank repairs.....	1,586 79
159 10	Small stores.....	129 25
596 69	Miscellaneous.....	791 92
36,535 35		39,453 54

ABSTRACT C.  
MERCHANDISE AND PASSENGER CARS.

1867.	PARTICULARS.	1868.
\$		\$
cts.		cts.
8,060 13	Wages to conductors, brakemen and porters .....	8,929 18
2,149 86	Oil and waste for packing cars .....	941 43
5,342 92	Materials for repairing cars.....	6,770 44
4,191 06	Wages for repairing cars.....	5,204 45
325 95	Repairs to workshops, cranes, tools, and implements, including } repairs and renewal of lamps .....	387 15
153 95	Small stores used on trains.....	216 74
1,321 21	Wages to switchmen .....	1,382 73
228 66	Fuel .....	336 96
426 31	Extra labor loading and discharging freight .....	286 28
648 10	Miscellaneous .....	1,220 31
22,848 15		25,675 67

## ABSTRACT D.

## MAINTENANCE OF WAY AND BUILDINGS.

1867.	PARTICULARS.	1868.
\$ cts.		\$ cts.
21,763 67	Trackmaster, foreman and laborers' wages .....	23,239 39
6,796 59	Rails, chairs, spikes, fittings, sleepers, &c.....	12,029 29
2,430 23	Repairs to stations, wharves, buildings, platforms, &c.....	3,130 70
	Resident Engineer's salary and expenses.....	857 40
19 19	Small stores .....	25 67
80 48	Repairs to snow plows and flange cleaners.....	155 57
433 32	Repairs & renewals of hand cars, tools & implements.....	483 79
797 30	Extra labor shovelling snow and cutting ice .....	1,100 01
1,838 81	Fence repairs .....	2,832 78
482 47	Miscellaneous .....	156 47
\$34,642 06		44,011 00

## ABSTRACT E.

## GENERAL CHARGES.

1867.	PARTICULARS.	1868.
\$ cts.		\$ cts.
2,398 13	Portion of Commissioners salaries & office expenses.....	1,745 86
2,905 10	Salaries of Superintendent, Accountant, Clerks, and office expenses.....	4,164 37
7,540 01	Salaries to Station Agents, Clerks & Watchmen .....	8,440 77
647 43	Stationery used at stations .....	909 87
1,190 34	Damage to goods, &c.....	1,073 83
1,115 00	Insurance .....	1,058 50
1,042 90	Advertising, printing and tickets .....	1,635 37
1,610 28	Fuel, oil and incidental expenses at stations .....	2,071 93
1,820 93	Miscellaneous .....	1,444 26
\$20,270 12		22,514 76

DR.		GENERAL BALANCE.		CR.	
To Freehold Property....	\$ cts.	\$ cts.		By Capital Account.....	\$ cts.
" Bye Roads .....		1,398 70		" Revenue Account.....	7,567 43
" Apohaqui Bridge.....		691 89			10,662 39
" Prov. Railways.....		3,011 58		" International St'm. Co	545 75
" P. O. Department.....		308 44		" P. E. I. S. Nav. Co.....	35 50
due last year.....	1,977 06			" Prov. Board of Agri-	
earned this year .....	812 94	2,790 00		culture .....	77 53
					658 68
SUSPENSE ACCOUNT.					
To Frank Giles.....	92 00				
" H. W. Baldwin .....	212 40				
" LeBaron Drury .....	260 82				
" Alex. McBoan.....	72 23				
" J. H. Littlehale.....	49 28				
" Robt. Atkinson .....	17 18				
" W. E. Weldon .....	227 64				
" Early Kaye .....	62 54				
" Estate James Adam ..	105 12	1,099 21			
" Woodstock Railway...		7,700 03			
" H. G. Ketchum .....		18 44			
" Fleming & Humbert...		56			
" Freight and baggage					
unclaimed .....		5 03			
" Arrears at stations....		1,864 72			
					18,888 60

E. &amp; O. E.

St. John, N. B., 30 June, 1868.

A. M'NAUGHTON,

*Accountant.*

During the year monthly statements of accounts were furnished the department with the proper vouchers, for all moneys received and expended from time to time.

I may observe, that the Provincial system of accounts and audit, which permitted the Railway Commissioners to pay the working expenses out of the revenue of the line, and which required that the net revenue only should be paid to the Government, was continued upon this railway until after the passage of the "Act respecting the Public Works of Canada," when the system was introduced of paying the gross revenue of the railway to the credit of the Receiver General, and of requiring the expenditure to be paid out of the moneys appropriated by Parliament for that purpose, after being sanctioned by the Government, and then making it necessary for the manager, upon the authority of the Minister of Public Works, to obtain funds for working expenses, and other contingencies, by means of certificates addressed to the proper officer of the Finance Department, in favor of the party entitled to receive the money.

Whilst, therefore, during the first part of the year the revenues of the railway were drawn upon to pay working expenses (and to a limited extent, for other purposes), since January the gross cash receipts from whatever source have been deposited to the credit of the Receiver General.

That these money transactions may clearly appear, the following statements showing the "gross receipts from all sources" and the manner in which they were disposed of, have been prepared:—



1867.		GROSS RECEIPTS FROM ALL SOURCES.		\$	cts.
June 30.....	Balance arrears at stations.....			1,695	72
	Cash in Commercial Bank.....			1,284	40
	Westmorland Bank Paper on hand.....			587	00
	Cash.....				11
1868.					
June 30.....	Passenger traffic.....	70,669	01		
	Freight traffic.....	87,970	24		
	Mails and sundries.....	8,119	17	166,758	42
	Cash from station masters for wood and oil.....			315	00
	Cash for barrel sugar sold.....			16	68
	Cash for labor supplied.....			9	80
	Cash from American Telegraph Company.....			10	08
	Cash from T. E. Smith & Sons for Notes and Interest.....			656	48
	Cash for old earth waggons.....			2,084	00
	Cash for stores.....			1,197	52
	Cash for labor and stores supplied H. G. C. Ketchum.....			183	97
	Cash from International Steamers for through tickets.....	1,370	43		
	Less Railway Pro.....	513	47	856	96
	Cash from P. E. Island Steamers.....			4,314	00
	Cash from storekeeper for charges on baggage claimed.....			9	50
	Cash for cartage freight from P. E. Island Steamers.....			87	56
	Cash for labor and stores supplied Western Extension.....			6	35
	Cash from St. Stephen's Railway.....			7,516	58
	Cash from Provincial Government for Burpee's survey.....			343	00
	Cash from "Suspense Accounts" <i>Extra Train</i> .....			30	00
	Cash from Commissariat Department.....	1,227	13		
	Less freight and passengers before entered.....	99	13	1,128	00
				\$189,071	16
Which amount has been disposed of thus :—					
	Paid vouchers 1 to 180, and 182 to 548.....			81,849	28
	Paid by the Commissioners to B. Robinson, Provincial Treasurer, and acting Dominion Paymaster, 14th September, 1867, Account Revenue per vo. 181.....			10,000	00
	Deposited to the credit of the Receiver General.....			85,631	46
	Paid P. E. Island Steamers, pro. through tickets.....			1,602	81
	Loss on Westmorland Bank Paper sold.....			198	45
	Railway freight bills.....	4,873	64	} Classified and charged the	
	Railway freight charged in unclaimed baggage account.....		20		
	Railway charges for Engines, ditching, &c.....	2,070	00	var's services.	6,943
	Due by the Estate Jas. Adam, late station master at Moncton.....				105
	Due by Early Kaye, late station master at Salisbury.....				62
	Due by Post Office Department.....				812
	Arrears at stations.....				1,864
				\$189,071	16

The \$6,000 charged in "Capital Account" as paid "Fleming & Humbert," were for advances made upon a locomotive contracted for under your authority, which has since been completed and delivered to the railway.

Of the \$9,494 91 classified as expended on Capital Account the past year, \$6,750 (for cars) were authorized by the Dominion Government, and the balance for the most part, by the late commissioners under the old system.

The rails and sleepers for sidings, other than that at Penobscis, should have been charged the previous year.

Reverting to the Revenue Account, I beg leave to refer to the following classified monthly comparative statements of receipts and expenses:—

CLASSIFIED MONTHLY COMPARATIVE STATEMENT OF RECEIPTS.

MONTHS.	PASSENGERS.		FREIGHT.		MAILS AND SUNDRIES.			TOTALS.	
	1867.	1868.	1867.	1868.	1867.	1868.	1867.	1868.	
July.....	\$406 61	8,222 84	5,600 13	6,484 51	1,258 00	1,322 70	15,264 74	16,030 95	
August.....	7,731 36	8,585 27	4,813 73	6,180 18	1,017 00	752 50	13,562 09	15,517 35	
September.....	7,628 28	7,344 96	4,639 16	3,781 42	1,078 00	902 00	13,345 44	14,028 38	
October.....	7,024 09	9,507 34	8,062 79	9,595 46	1,833 33	879 40	16,420 21	19,782 20	
November.....	5,602 47	5,804 49	5,430 03	8,947 79	898 00	765 50	14,930 50	15,617 78	
December.....	3,941 18	4,868 42	7,041 74	7,851 49	566 58	667 20	12,649 50	13,387 11	
January.....	3,284 57	3,110 76	4,336 44	7,743 68	507 00	581 47	8,228 01	11,435 91	
February.....	2,800 69	2,670 36	4,553 25	6,591 42	449 00	435 67	7,702 34	8,581 23	
March.....	3,319 40	3,776 06	8,002 02	6,591 42	788 54	504 34	12,109 96	10,871 82	
April.....	4,170 06	4,213 85	6,675 33	5,736 35	453 90	484 71	11,299 29	10,434 89	
May.....	5,588 95	5,830 84	7,689 37	8,504 72	1,205 20	411 00	14,783 52	14,746 56	
June.....	6,176 74	6,533 82	6,027 62	9,278 04	1,270 70	512 68	14,074 54	16,324 54	
Totals.....	\$67,273 80	70,669 01	76,271 01	\$7,970 24	10,925 25	8,119 17	154,370 06	166,758 42	

CLASSIFIED MONTHLY COMPARATIVE STATEMENT OF EXPENSES.

MONTHS.	LOCOMOTIVE POWER.		PASSENGER CARS.		MERCHANDISE AND WAY AND BUILDINGS.		GENERAL CHARGES.		TOTALS.	
	1867.	1868.	1867.	1868.	1867.	1868.	1867.	1868.	1867.	1868.
July.....	2,702 40	2,930 87	1,688 26	1,870 65	4,422 59	3,577 56	1,155 07	1,600 80	9,123 23	10,824 91
August.....	2,810 33	3,150 21	1,325 80	2,498 77	2,982 75	5,366 02	1,545 24	1,700 39	8,864 12	12,715 39
September.....	2,560 48	2,995 20	1,633 01	1,948 75	2,477 82	5,342 44	2,012 48	2,338 22	8,689 79	12,624 61
October.....	2,741 66	3,909 62	1,821 59	2,832 74	3,551 01	6,359 02	2,417 71	2,340 17	10,531 97	15,591 55
November.....	2,465 76	3,736 93	1,746 52	2,737 22	3,750 01	1,740 54	2,029 39	2,029 39	8,767 45	11,262 76
December.....	2,949 02	3,661 94	2,246 48	1,442 47	2,031 49	1,602 87	1,952 56	8,459 52	9,094 46	9,094 46
January.....	3,537 88	3,831 27	1,979 15	1,442 47	1,661 13	1,037 46	1,596 21	1,894 35	8,034 23	8,603 19
February.....	3,183 02	3,329 04	1,751 35	1,751 35	1,367 47	1,367 47	1,522 58	1,564 27	7,090 37	8,477 67
March.....	4,101 27	2,849 88	1,673 53	2,216 89	1,611 24	3,570 82	1,535 72	1,817 67	10,854 13	9,124 04
April.....	2,788 04	2,664 99	1,546 32	2,096 97	2,892 74	4,421 13	1,423 30	1,514 58	8,771 61	9,594 89
May.....	3,505 06	2,910 14	2,362 70	2,270 26	4,417 53	3,751 83	1,758 43	1,778 45	12,043 54	10,710 68
June.....	3,174 43	3,980 45	2,312 24	2,297 71	4,596 61	4,828 65	2,014 44	2,014 00	12,159 72	13,120 82
Totals.....	\$36,535 25	39,453 54	22,848 15	25,675 67	34,642 06	41,011 60	29,270 12	22,544 76	114,295 68	131,684 97

It will thus be seen that while the revenue exceeds that of the corresponding previous year, a much greater increase is shown in the expenses.

The *revenue* increase has been in :—

Passengers .....	3,395 21 or 5.05 per cent.
Freight.....	11,699 23 or 15.3 per cent.
Both.....	\$15,094 44 or 10.5 per cent.

LESS DECREASE IN

Mails and sundries.....	2,706 08 or 25 per cent.
Gross increase.....	\$12,388 36 or 8.02 per cent.

The increase in the *expenses* appears in :—

Locomotive power.....	2,918 19 or 7.98 per cent.
Merchandise and Passenger cars.....	2,827 52 or 12.37 per cent.
Maintenance of way and buildings.....	9,368 94 or 27.04 per cent.
General charges.....	2,274 64 or 11.22 per cent.
Total.....	\$17,389 29 or 15.21 per cent.

The corresponding decrease in the net revenue is therefore \$5,000 93 or 14.25 per cent.

The increase in locomotive expenses is due exclusively to the Anagance accident (for which \$1,134 were charged to this account) and the additional cost of fuel, occasioned in part by the short supply of the previous year, (which caused high rates to prevail during the winter) and to the fact that former deficiencies were only ascertained and charged off the past year.

The locomotive consumption of wood during 1866-7, was 464,818 cubic feet against 473,147 in 1867-8. The charges therefore, being in the former year \$13,945 72 (or 3 cts. per foot) and in the latter \$17,165 04 (or 3.62 cts.)

It is now clearly evident that the average charge, made during the previous few years, was not sufficient to cover the contingencies of the wood account.

The increased car expenses is for the most part, due to the additional repairs to the stock.

Whilst the cause of the increase cost of maintenance is apparent in the larger renewals of rails and sleepers, in the additional repairs to buildings and renewals of platforms and fences, I may state that \$3,456 09 was expended in thoroughly repainting, during the year, several of the iron and wooden bridges.

The following statement will give comparatively for 1867 and 1868 the percentage which the passengers, freight and other earning bear to the gross revenue, and that which each division of the working expenses bears to the whole cost of operating the line :—

REVENUE.			EXPENSES.		
	1867	1868		1867	1868
Passengers.....	43.58	42.38	Locomotive Power.....	31.97	29.96
Freight.....	49.41	52.75	M'dse & Passenger cars.....	19.99	19.50
Mails and sundries.....	7.01	4.87	Main. of Way & Buildings..	30.31	33.42
			General charges.....	17.73	17.12
Total.....	100.00	100.00	Total.....	100.00	100.00

The expenses have been 78.96 per cent of the receipts against, 75.45 per cent the previous year.

The earnings have been \$1,544 06, and the expenses \$1,219 30 per mile of railway, the past year, against earnings \$1,429 35, and expenses \$1,058 29 in 1866-7.

In the Appendix will be found reports by the resident Engineer [F] upon the Roadway and works, and by the Locomotive and Car Superintendent [G] upon the condition of the rolling stock, with a "Monthly Abstract of Locomotive Returns," and a "Statement of Locomotives" and "other Rolling Stock."

There will also be found appended a "Passenger Statement" [H], and a "Freight Statement" [J], with a "Statement showing the business and expenses of the several stations" [K], and a "Descriptive statement of freight forwarded" [L.]

An adjusted balance sheet of the "Store Ledger" and "Wood Ledger" is also given in the "Statement of Stores on hand" [M], and wood at the several stations" [N.]\*

To these is added a "Statement showing the names, duties and pay of all persons in the railway service on the 30th June, 1868."

The first and second class passengers carried the past and previous year compare:--

CLASS.	1867			1868.		
	LOCAL.	THROUGH.	TOTAL.	LOCAL.	THROUGH.	TOTAL.
First .....	109,042	5,892	114,934	116,054	5,742	121,796
Second .....	42,192	1,993	44,185	46,839	2,818	49,657
Total.....	151,234	7,885	159,119	162,893	8,560	171,453

The increase in the number, mileage, and receipts, is in percentage as follows:--

SPECIFICATION.	PASSENGERS.	MILEAGE.	RECEIPTS.
Local .....	7.7	6.27	4.09
Through .....	8.56	8.36	8.29
Total .....	7.75	6.73	5.04

The average distance travelled and the receipts per passenger and per passenger per mile, compare as follows:—

SPECIFICATION.	LOCAL.		THROUGH.		TOTALS.	
	1867	1868	1867	1868	1867	1868
Average passenger mileage .....	19.80	19.53	106.97	106.76	24.12	23.89
Average receipts per passenger in cts.....	34.41	33.26	193.12	192.64	42.27	41.21
Average receipts per passenger per mile in cts .....	1.73	1.70	1.80	1.80	1.75	1.72

\* Statements H, J, K, L, M and N not printed.

The percentage of first and second class, as well as those travelling east and west, is as follows:—

YEAR.	1ST CLASS.	2ND CLASS.	LOCAL	THROUGH.	EAST.	WEST.
1867	72.23	27.77	95.05	4.95	49.93	50.07
1868	71.04	28.96	95.01	4.99	50.60	49.40

Of the freight, which is shown to have been 63,450 tons, and to have given an aggregate of 3,328,535 tons carried one mile, as well as a revenue of \$87,970 24, 51,600 tons, giving 2,058,935 tons per mile, and \$57,335 31 were due to local, and 11,850 tons, giving 1,269,600 tons per mile, and \$30,634 93 to through traffic, which is an increase over the previous year in percentage as follows:—

DESCRIPTION.	TONS.	TONS PER MILE.	RECEIPTS.
Local .....	8.79	1.41	8.04
Through .....	30.81	38.86	30.1
Total .....	13.3	13.94	13.33

The average distance per ton and receipts per ton and per ton per mile compare:—

SPECIFICATION.	LOCAL.		THROUGH		TOTAL.	
	1867	1868	1867	1868	1867	1868
Average distance per ton in miles.....	42.80	39.90	106.72	107.14	52.58	52.46
Average Receipts per ton.....	\$ 1.11	\$ 1.11	\$ 2.75	\$ 2.59	\$ 1.38	\$ 1.38
Average receipts per ton per mile, in cts .....	2.59	2.78	2.57	2.41	2.59	2.64

The proportion of through and local freight carried east and west, and that which each class bears to the whole quantity forwarded, may be stated comparatively as follows:—

YEAR.	1ST CLASS.	2D CLASS.	3D CLASS.	4TH CLASS.	LOCAL.	THROUGH.	EAST.	WEST.
1867	2.91	5.68	3.86	87.55	84.70	15.30	26.64	73.36
1863	2.99	5.66	2.97	88.38	81.33	18.67	32.95	67.05

The following statement will show the gross weight of cars and freight moved per mile comparatively for the past eight years, and the percentage which the dead weight bears to the useful load:—

YEAR.	GROSS TONS MOVED ONE MILE.			PER CENTAGE.		
	FREIGHT.	CARS.	TOTALS.	FREIGHT.	CARS.	TOTALS.
1861	1,446,536	3,833,701	5,280,237	27.39	72.61	100
1862	1,337,873	3,084,800	4,422,673	30.25	69.75	100
1863	2,295,419	4,205,504	6,500,923	35.30	64.70	100
1864	2,790,283	4,562,987	7,353,270	37.95	62.05	100
1865	2,379,594	4,383,455	6,763,049	35.19	64.81	100
1866	2,741,881	4,915,327	7,657,208	35.81	64.19	100
1867	2,944,560	5,052,718	7,997,278	36.82	63.18	100
1868	3,328,535	5,722,970	9,051,505	36.77	63.23	100

I may here remark, that, in the hauling a maximum paying load with a minimum weight of cars, consists, in an important degree, the economy of transporting freight.

It is, therefore, at all times important to keep this principle in view.

Assuming that a car will weigh 15,000 lbs., and is permitted to carry freight to the extent of 18,000 lbs., the maximum percentage would be 45.46 weight of car, and 54.54 its load, but if run empty one way, it would then be 62.5 the car against 37.5 weight of freight.

It will be seen that the cars have not the past year (nor since 1864) been fully laden, upon the average in one direction.

This is sufficiently explained in the uncertain character of the traffic.

From Locomotive Superintendent's report it will appear that the engines ran 182,212 miles, which is 6.49 per cent further than in 1866-7; and that the mileage made by the cars was 1,156,299, or an increase of 11.5 per cent.

The total gross tons moved one mile by the locomotives were 14,393,281 or 12.09 per cent more than during the previous year, although the average miles for each hour in steam, appears, during the past year to have been in excess of 1867 by 0.16, and the number of cars to one mile run by 0.28, yet the consumption of fuel was less per mile run by 0.12 and per ton per mile by 0.05.

The average per ton per mile are as follows:—

	1867	1868
Cubic feet of wood per ton per mile.....	.37	.32
Pints of oil per ton per mile.....	.005	.0052
Pounds of waste per ton per mile.....	.0012	.001

The costs per mile run of the cars for their packing and repairs, and per hundred tons drawn one mile by the engines, is as follows:—

SPECIFICATION.	PER MILES RUN.		PER 100 TONS PER MILE.	
	1867	1868	1867	1868
Oil and waste for packing.....cts.	.20	.08	1.70	.65
Repairs.....cts.	.95	1.07	8.69	8.59
Both.....cts.	1.15	1.15	10.39	9.24

The following tables will shew comparatively the expenses, receipts and net revenue per mile run of the engines and per hundred tons hauled one mile.

CLASSIFICATION.	PER MILE RUN.		PER 100 TONS WEIGHT MOVED ONE MILE.	
	1867	1868	1867	1868
	Drivers, firemen and cleaners, wages.....	4.61	4.51	6.32
Firewood used by locomotives .....	8.15	9.42	11.21	11.93
Oil, tallow and waste.....	0.91	0.69	1.16	0.88
Repairs to locomotives.....	6.34	5.65	9.08	7.15
Water (including) pump and tank repairs,.....	0.90	0.87	1.24	1.10
Small stores and miscellaneous.....	0.44	0.51	0.79	0.64
Locomotive Power .....	21.35	21.65	29.83	27.11
Merchandise and Passenger cars... ..	13.35	14.09	18.77	17.84
Maintenance of way and buildings.....	20.25	24.16	25.59	30.58
General charges.....	11.84	12.37	15.25	15.66
Total expenses.....	66.79	72.27	89.44	91.49
Total receipts .....	90.21	91.51	111.13	115.86
Net revenue.. ..	23.42	19.24	21.69	24.37

The addition of the rolling stock consists of ten new platform cars, supplied at a cost of \$6,750.

Two new engines, of greater power than any of those now in use, have been contracted for at a cost of \$13,700 each.

The engine "Sussex" was sold during the early part of the year to the Woodstock Branch Railway, but it has not yet been paid for.

It may be proper here to state that the rolling stock has not been either so economically, or so satisfactorily, repaired as it ought to have been, because of the want of a commodious and well arranged engine and car repair shop, which is much required.

There was but one "accident" during the year: and this took place at Hayward's siding on the 25th July, 1867.

Mr. Boyd, in his report to the Commissioner, under date of 26th July, says: "The afternoon down train was thrown from the track yesterday about 3.30 P. M., at Hayward's siding, two miles east of Anagance. The train consisted of the engine, three flat cars, two cattle cars, one box car, and one first and one second class passenger car. The bolt had been removed from the switch rod and the switch rail shifted over, leaving the target standing, as if the switch was still set for the main track."

"The engine driver saw the target was all right, and could not perceive that the rail was displaced until he was close to it, when he whistled on brakes and reversed his engine, but too late to save the train. The engine ran about two hundred feet after leaving the rails, tearing up the track for the whole distance, and then fell over on the slope of the embankment, turning completely upside down. The damage to the engine cannot yet be ascertained, but it appears less than might be expected."

"The tender is badly damaged. The three flat cars are broken to pieces, and one cattle car is considerably damaged. The other cattle car and the box car are not much the worse. The passenger cars are not injured, the engine driver, J. H. Moore, had the small bone of his right leg broken and the ankle badly bruised and his left arm is a good deal scalded. He shewed great presence of mind throughout. No one else was injured. The damage to freight, so far as I can tell, as yet is confined to the destruction of a wagon, the killing of three sheep, and the straying away of some others which may be secured."

“ The accident must have been caused by the wilful and malicious act of some unknown person. The bolts are all riveted over after the nuts are put on, so that they cannot shake out, and in this case the bolt was found on the ground, with the nut screwed on it again after its removal from the rod. The target being left in the position to signal switch on the main track, made it a complete trap which it was almost impossible to avoid.”

This accident cost \$2,161 27 in repairs to stock and other contingencies.

The changes in officers, made during the year, besides those already referred to, are as follows:—

Mr. Gavin Rainnie was appointed trackmaster in the place of Mr. Wm. Rainnie, resigned.

Mr. H. D. McLeod was appointed paymaster and clerk at St. John.

Mr. J. W. Pitfield was appointed clerk and operator at St. John, in the place of Mr. J. J. Wallace, resigned.

Mr. A. McN. Travis was appointed station master and operator at Ossekeag, in the place of Mr. Clarence Flewelling, resigned.

Mr. E. A. Leonard was appointed station master and operator at Norton, in the place of Mr. Richard Davidson, resigned.

Mr. John S. Trites was appointed conductor, in the place of Mr. Gavin Rainnie, made trackmaster.

Mr. Andrew Rainnie was appointed conductor, in the place of M. A. McN. Travis, made station master and operator at Ossekeag.

M. Jacob Hughes was appointed foreman of car repairs, in the place of Mr. John Hunter, who resigned.

The trains were run during the year with great regularity, but it is impossible fully to enumerate the detentions, delays, inconveniences, uncertainties, loss of business and additional expense, which resulted from the want of proper facilities for doing the freighting business at Point Duchene and St. John.

The car stock was largely occupied for storage, the freight houses at both these places being entirely inadequate to the requirements of the line.

Extended wharf and siding accommodation are necessary at Point Duchene, and additional yard room and sidings are much needed at St. John.

Small vessels only can use the Water terminus, and there is not sufficient room to unload more than from six to nine cars of lumber, while from forty to sixty frequently accumulate.

I have the honor to be, Sir,

Your obedient servant,

LEWIS CARVELL,

Manager.

[F.]

SAINT JOHN, N. B., 11th August, 1868.

Lewis Carvell, Esq.,  
General Manager.

SIR,—I have the honor to submit the following report for the year ending 30th June, 1868.

The line has been carefully inspected and kept in thorough repair. It is now in good running order.

Thirteen and two-tenths miles of single fencing have been rebuilt at the moderate cost of \$120.74 per mile. The fence is the ordinary Virginia fence, which except perhaps in the immediate vicinity of towns where appearance is of some importance, is for many reasons preferable to other pole fences. It is not disturbed by frost, is cheaply built, easily taken down in case of fire and as easily repaired.

14,830 sleepers, or about six per cent of the whole number in the line, have been renewed. The new sleepers are pine and haematac squared, instead of being merely flatted. The Joint sleepers are 5 inches thick and nine inches wide, and the others are 6 inches thick and not less than 8 or more than 10 inches wide. This insures uniformity of bed in the ballast, a matter of importance where the track is so much exposed to the action of frost. The specification and inspection were very strict, and the quality of the sleepers is correspondingly



good. 749 rails, equal to 150 tons, and 3,557 chairs, equal to about 45 tons, have been put into the main track.

The expenses of the repairs to bridges has been \$605 67, the principal part of which was expended on the wooden trestle bridge over Salmon creek.

The iron bridges at Trout creek, Salmon river, Petiteodioc river, Milner's creek, and Scadoue river, have been repainted at a cost of \$3,001 59. The iron work was carefully scraped with sharp tools, so as to remove all rust or scale, and then painted with "Prince's Metallic Paint." The work was thoroughly and faithfully executed.

The wooden over bridges at Vally road, Stanley street, and Lawlor's Lake have been repainted, all parts specially exposed to the weather receiving three coats, and the less exposed parts two coats of paint. The wooden superstructure of the Seven-mile and Davidson's Cove bridges, has also been repainted. The cost of the whole was \$454.50.

The expense of repairs to buildings including platforms, has been \$1,218 83, many of the platforms requiring almost complete renewal. Painting has cost \$281 69. The roof of the passenger station at St. John was painted with a composition of coal tar and coal oil, which is found to answer well for such purposes. The roofs of the other stations would be the better for similar treatment next summer. The shops at Shediac are in a very bad condition. They were from the first crowded and ill-contrived, having originally been storee and stables built by Messrs. Peto & Co., sheds and additions being put up from time to times. They have been patched and repaired until they are scarcely worth the expense of any further repairs. The work of car repairs is now done in the engine house at St. John. Provision should be made for this work, and for a paint shop in the new buildings at St. John.

The pier at Point Duchene should have some blocking put on the outside to strengthen it. The pier acts as a breakwater to the harbor, and is much exposed to north-easterly gales. The timber is a good deal worm eaten. The best time to do the work, will be in the winter, when the harbor is frozen. The wharf rooms not sufficient to accommodate the present traffic properly, and as the business is increasing, I would submit for your consideration whether an extension which would give more deep water frontage, would not be desirable.

I have the honor to be, Sir,

Your obedient servant.

JOHN EDWARD BOYD,  
Resident Engineer.

NOTE.—The following report and statements (except B & C) are not inserted in this report, viz:

- Appendix (G) Report of H. A. Whitney, Locomotive and Car Superintendent.
- “ (A) Monthly abstract of Locomotive returns.
- “ (B & C) inserted.
- “ (H) Passenger statement.
- “ (J) Freight statement.
- “ (K) Statement showing the business and expenses of the several stations.
- “ (L) Descriptive summary of freight forwarded from all stations.
- “ (M) Statement of stores on hand, 30th June, 1868.
- “ (N) Wood at the several stations, 30th June, 1868.

Statement showing the names, duties, address, and pay of all persons in the railway service, 30th June, 1868.



Rolling stock on hand on 30th June, 1867, and 30th June, 1868, respectively.

DESCRIPTION.	30th June, 1867.	30th June, 1868.	REMARKS.
Engines.....	13	12	One engine, the "Sussex," has been sold and delivered to the Woodstock Branch Railway previous to 30th June, 1867, but was not entered or charged until after that date. It has not yet been paid for.
First class Passenger cars.....	12	12	
Second class do .....	6	6	
Express, Mail and Baggage cars.	4	4	
Box Freight cars.....	63	63	These Ballast cars have not been in general use since the road was finished. The wood work was worn out on construction, and is not worth repairing. They might be converted into Freight cars.
Platform cars.....	105	115	
Ballast cars.....	40	40	
Snow ploughs .....	4	4	
Hand cars.....	19	18	

24th February, 1869.

(Signed) L. CARVELL.

## APPENDIX No. 23.

### LIST OF THE GREAT ROADS IN NEW BRUNSWICK.

*Taken from the Report of the Chief Commissioner of Public Works of New Brunswick,  
for the year ended the 31st October, 1867.*

No. 1	From St. John to Nova Scotia line.....	132 miles
2	“ St. John to St. Andrews.....	63 “
3	“ the bend of Petitcodiac to Shediac.....	15 “
4	“ Dorchester to Shediac.....	16 “
5	“ Shediac to Richibucto.....	36 “
6	“ Richibucto to Chatham and Nelson, with continuation to Stewart's.....	66 “
7	“ Road No. 11, Newcastle, along shore to Gloucester county line.. .. .	45
8	“ the Gloucester county line, Saumarez to Bathurst.....	68 “
9	“ Bathurst to Belledune.....	23 “
10	“ Belledune to Upsalquitch river.....	63 “
11	“ Newcastle to Bathurst.....	50 “
12	“ Fredericton to Newcastle.....	102 “
13	“ Fredericton to St. John.....	66 “
14	“ Fredericton to Woodstock.....	63 “
15	“ Meduxnikeag bridge to river de Chute.....	40 “
16	“ River de Chute to Grand Falls.....	33 “
17	“ the Grand Falls to the boundary of Quebec.....	50 “
18	“ Edmundston to St. Francis.....	32 “
19	“ Grand Falls to the boundary of Maine.....	3 “
20	“ Piekhard's store, Tobique, to the boundary of Maine... ..	5 “
21	“ Florenceville landing to the boundary of Maine.....	9 “
22	“ Woodstock to the boundary of Maine at Houlton.....	11 “
23	“ Fredericton to St. Andrews.....	75 “
24	“ Waweig to St. Stephen .....	9 “
25	“ Roix's to Oak bay.....	20 “
26	“ Oak bay to Eel river.....	60 “
27	“ Deadwater brook to St. Stephen.....	22 “
28	“ Lower Trout brook to the town of Magaguadavic.....	33 “
29	“ Salisbury to Harvey.....	40 “
30	“ Derry's corner, Harvey, to Penobsquis station.....	50 “
31	“ Great Road No. 32, near Loch Lomond, to Hopewell corner, in the county of Albert.....	71 “
32	“ St. John (including branch to Penitentiary) to Quaco... ..	31 “
33	“ Great Road No. 31, near A. B. Smith's, to Bellisle.....	5 “
34	“ Scribner's to Bellisle.....	25 “
35	“ Nerepis to Gagetown.....	23 “
36	“ Fredericton to Jemseg.....	30 “
37	“ Jemseg to Finger Board.....	29 “
38	“ Cole's Island, Sackville, to cape Tormentine.....	40 “
39	“ Fredericton to Kent county line.....	56 “
40	“ Kent county line to Richibucto.....	48 “
41	“ Tilley's landing to Great Road No. 39, at Little river mills.....	12 “
42	“ Sussex Vale to Upham.....	12 “

*Carried over.....* 1,582

		<i>Brought over</i> .....	1,582 miles.
No. 43	From Doak's bridge, S. W. Miramichi, to Salmon river.....		28
44	" Bailey's brook, near Fredericton, by way of Hartt's mills and the Douglas valley, to the Nerepis road		42 "
45	" Chatham, commencing at road No. 6, near Black river, to Escuminac Light house.....		31 "
46	" Taylor's, or " Five Points" on road No. 29, near Coverdale river, to the same road near McLatchey's bridge, and the branch communicating with Moncton station, not including the Toll bridge.....		26 "
47	" Hopper's corner, Coverdale, to Albert county line		13 "
48	" Road No. 1, at Aunagance station, <i>via</i> Elgin corner, to junction with road No. 47, at Albert county line		17 "
49	" Shediac to Cape Tormentine.....		40 "
50	" Great Road No. 1, at Salisbury corner, to Great Road No. 39, near Newcastle river.....		50 "
51	" Apohaqui station, <i>via</i> Duncan McLean's to the Washademoak lake, and thence to John Cold's.....		20 "
52	" the Upsalquitch to Quatswamkedgwick river.....		28 "
53	" Great Road No. 8, south of Pokemouche, to Shippegan harbor .....		9 "
54	" the river St. John, opposite the Tobique village, to Campbellton .....		132 "
55	" Barker's landing, opposite the city of Fredericton, along the eastern side of the river St. John, to Carleton county line.....		54 "
56	" the lower line of Carleton county along the eastern side of the river St. John, to the Suspension bridge, at Grand Falls in the county of Victoria. ....		82 "
57	" Kingston along the south side of Richibucto river to junction with Road No. 40.....		22 "
58	" Road No. 27 at Moore's mills, through Baillie settlement to road No. 26, in the county of Charlotte...		9 "
59	" Road No. 1, at Petitecodiac station, to near Hugh Davidson's on road No. 47 .....		5 "
60	" Judge Stevens', St. Stephen, to Colin Campbell's, Basswood Ridge, Charlotte county.....		11 "
61	" Road No. 26 at Canterbury station, to McMinn's, North Lake, York county.....		14 "
62	" Road No. 22, at Richmond corner, to the boundary of Maine at Bloomfield, Carleton county.....		14 "
			2,229 "

## APPENDIX No. 24.

### PUBLIC BUILDINGS.

*Description of the works and repairs executed during the fiscal year ending 30th June, 1868, by F. P. Rubridge, Assistant Engineer.*

(No. 5,356.)

OFFICE OF PUBLIC WORKS,  
OTTAWA, 29th November, 1868.

F. BRAUN, Esq., Secretary.

SIR,—I have the honor to refer, in the following communication, to the works and official duties which have engaged my attention subsequent to those alluded to, or not embraced, in my last report; Appendix No. 22 to the departmental report of 1867.

*Public Buildings, Province of Ontario.* From a letter under your hands I was instructed by the Hon. the Commissioner of Public Works to prepare the public buildings in the city of Toronto previously occupied by the men and officers of Her Majesty's 17th Regiment as barracks, for the future use and accommodation of the Executive Government and Legislature of the Province of Ontario.

These buildings were found in a most dilapidated condition, and called for very general renovation and repair. On the eastern block the rear and flank brick walls, which had been shored up with timbers to prevent their falling, were taken down and rebuilt from the foundation upwards. The framed wooden roof was renewed and covered with Canadian slates, as was likewise the roof of the Parliamentary block.

The unsightly and decaying wooden portion of the building connecting right and left with the principal or central block, was removed and replaced with brickwork, forming offices and vaults for the Crown Lands Department in the western wing; similar accommodation with vaulted fire proof chambers being provided for the Provincial Secretary and Registrar, the Treasurer of Ontario; and spacious apartments and offices for the Commissioner of Public Works and Agriculture in the eastern wing.

The whole extensive range of buildings and out premises, in point of fact, underwent a thorough repair both within and without; including general drainage, cleansing and lime whiting, painting, fitting up, carpeting and furnishing throughout. The hall of Assembly, Post Office, Reading Room, Wardrobe, Lavatory, W. Closets, &c., were either re-modelled or improved. The heating arrangements, water service, gas-fittings, bells and other appointments were all supplied anew.

In the month of November 1867, the local Parliament and the Executive Departments occupied these buildings; up to which period the expenditure under my supervision amounted to \$54,910.91, payable from the funds of the Provincial Government of Ontario, under whose direction and control any future expenditure henceforward devolved.

*Barrack and Military Works.* A very considerable portion of my time for several months past has been given to the alterations, fitting up, and preparing various buildings and tenements leased for the occupation of Her Majesty's troops, serving in the Dominion of Canada, more particularly in the city of Ottawa and towns of Belleville and Cobourg. I had also placed in my hands for checking and examination, voluminous accounts of expenditure incurred under the Royal Engineer Department for fitting up the Exhibition buildings, and others, as barracks, in the cities of Toronto, Hamilton and London, the town of Brantford, and village of Fort Erie; some of which localities I visited, and inspected the works. The total outlay for which covered the large sum of one hundred and twenty-four thousand seven hundred and nineteen dollars  $\frac{81}{100}$  (\$124,719  $\frac{81}{100}$  currency.)

In the city of Ottawa, the works of alteration and fitting up buildings, for the accommodation of the military have, from time to time, comprised the former British Hotel, leased

from the Honorable James Skead, situated on the corner of Sussex and George streets. The Military Hospital, York street, leased from Mr. Patrick Smith.

The Officers' Mess-room and Quarters, George street, leased from Mr. Patk. O'Meara.

The Champagne Hotel, corner of Sussex and Church streets, leased from the R. C. Bishop of Ottawa. The General Hospital, Bolton street, leased from the Grey Nuns.

Officers' Quarters and Guard Room, Barrack Hill, the property of the Dominion Government.

New Powder Magazine, Point Nepean, also the property of the Dominion—together with the inclosing and fencing in the parade ground, and planting the same, south of Maria street.

The expenditure upon the foregoing, covering about \$21,000, and extending over two years duration and upwards has been defrayed by the Department of the Honble. the Minister of Militia and Defence—and embraced alterations, new buildings, guard rooms and cells, lavatories, cook houses, latrines, drainage, fencing, stables, &c., &c., all of which have been called for by requisition of the military authorities, and executed from plans and specifications furnished by the Royal Engineer Department; submitted to be carried out by the Department of Public Works under competition of local builders and contractors.

#### COBOURG BARRACKS.

The expenditure under contract for alterations, repairs and fitting up the undermentioned buildings in the town of Cobourg, for the use and occupation of Her Majesty's troops, is as follows:

Smith's block—Men's barracks, &c., &c.....	\$ 7,337 52
McConnell's house—married men's quarters .....	2,896 36
Gilchrist's house and store in rear—Hospital.....	1,643 66
McKecknie's house—Mess and Officers' quarters. ....	1,621 52
Sheriff Fortune's house—Officers' quarters.....	1,111 00
Sentry boxes, lamp-posts, supervision, &c.....	261 17
	<hr/>
	\$ 14,871 23
Subsequent outlay upon further requisitions at Smith's block, McKecknie's and Sheriff Fortune's houses, &c.....	998 05
	<hr/>
	\$ 15,869 28

#### BARRACKS AT BELLEVILLE.

Flint's building—men's barracks.....	\$ 1,646 75
Benjamin's house—Officers' Quarters.....	1,446 45
Henderson's Block—Married men's Quarters.....	1,877 62
Smart's house—Hospital.....	1,298 49
Armory building—Barrack.....	1,737 06
Blacksmith's shop—Canteen, store, &c.....	945 41
Jone's carriage factory—Guard House, cells, kitchen... ..	1,375 94
Bull's building—Barrack, school room, &c.....	1,491 54
Sentry boxes, care taker, &c.....	240 00
	<hr/>
	\$ 12,049 26

#### GROUNDS IN THE VICINITY OF PUBLIC BUILDINGS, OTTAWA.

During the past autumn, I received instructions from the Honble. the Minister of Public Works to commence levelling and improving the rough ground surrounding the public edifices, by cutting down portions of the protruding limestone rock, removing boulders and piles of refuse building stone, sloping the bank towards Wellington street preparatory to the intended iron railing in front—laying out foot walks under the cliff, and roads above

the same, &c., the labor on which was performed by hired men at day wages under the supervision of Mr. Alpine Grant, head gardner of the Rideau Hall property—very much of this improvement has been accomplished preparatory to further efforts in the ensuing spring.

Designs for laying out the Quadrangle in front of the Parliament Block, with grass plots, ornamental walks, basins and fountains; as well as fencing in the front on Wellington street—in connection with the proposed grading and improving this thoroughfare by the Corporation of the city of Ottawa—have been prepared and submitted by the undersigned, subject to future action.

#### RIDEAU HALL.

At the residence of the Governor General of the Dominion of Canada, several new works have been carried into execution during the past year; amongst others, a new gate house and porter's lodge constructed of white bricks, four substantial cut stone gate pillars, and ornamental iron gates, an addition or rough cast cottage joining on to the old lodge, as a dwelling for the gardner in charge of grounds and premises—fencing in a portion of the land acquired upon the river front, putting up a circular verandah to the old portion of the residence—erecting new wood and coal sheds in court yards—sinking two wells through the rock to supply water to the stables, gardens and vinery; an extension of fencing in the enlarged kitchen garden. New bath, &c., &c. added to which have been the maintenance and ordinary repairs of house and out buildings, furniture, plumbing-works, pumping and carting water from the river, &c. New winter sashes have further been provided for the basement of the residence where deficient; also for the laundry and stabling, and iron guards or gratings, have been fixed on the outside of all the lower windows both in front and rear.

As a precaution taken against fire, a new engine has been purchased with 200 feet of hose, in addition to 150 feet of smaller India-rubber hose, kept in readiness within the house; and twelve metal fire buckets supplied in case of accident.

During the absence of Lord Monck this past summer at Quebec, a night and day watch has been maintained on the premises, with the additional security of married soldiers being allowed to remain in occupation of the guard house at Rideau Hall.

The improvement of the grounds has embraced the sodding and laying off into grass-plots and flower beds the former vegetable garden near the dwelling, together with other labors upon the estate.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

F. P. RUBIDGE, A. E. P. W.



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## GENERAL STATEMENTS

- Showing 1st Water Power and other Property leased on Canals, &c., during the fiscal year ending 30th June, 1868.
- 2nd. Property purchased or sold by the Department, during the fiscal year ending 30th June, 1868.
- 3rd. Proclamations, in the "Canada Gazette," transferring or abandoning Public Property, during the fiscal year ending 30th June, 1868.
- 4th. Proclamations in "Canada Gazette," respecting Tolls and Regulations on Public Works, during the fiscal year ending 30th June, 1868.
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## APPENDIX

## GENERAL STATEMENTS showing : 1st Water Power and other Property

Date.	Term of Lease.	Lessees.	DESCRIPTION OF PROPERTY LEASED.	
			Situation and Nature.	For what purpose used.
LACHINE CANAL.				
1868. May 11...	During pleasure.	J. B. Auger & Co.....	Vacant lot at Basin No. 2, near Tate's dock..	Coal yard....
do ...	do	C. Copeland.....	do do do	do ...
BEAUHARNOIS CANAL.				
June 3...	21 years....	Joseph Meloche .....	Surplus water at Lock No. 7, on his own lot St. Clément .....	.....
CORNWALL CANAL.				
1867. Aug. 9...	21 years....	George Stephen .....	Surplus water on his lot No. 7.....	Woolen fact'y
Dec. 16...	do	W. D. & G. C. Wood....	Lots Nos. 1 and 2, and a building lot, being part of lot No. 23, in 1st con., Cornwall North of Lock No. 20.....	.....
1868. Mar. 13...	During pleasure.	Louis Derosie .....	Wharf lot on lot E $\frac{1}{2}$ 23, 1st con., Cornwall North of Canal.....	Wharf .....
WILLIAMSBURGH CANALS.				
Mar. 16...	During pleasure.	W. T. Bensen .....	Vacant lot, part of lots Nos. 3, 4 & 5, Edwardsburg, on the Junction Canal.....	Pasturage....
RIDEAU CANAL.				
April 4...	20 years....	Wm. Anglin.....	Lot and water, part of No. 25, Pittsburgh, at Brewer's Upper Mills.....	.....
TRENT WORKS.				
April 29...	21 years...	Owen Roblin.....	Surplus water at Nine Mile rapids. River Trent, near village of Frankford .....	Mills.....
1867. Nov. 11...	During pleasure.	Needler & Sadler .....	Lot, part of No. 21, in 6th con. Ops, county of Victoria.....	Lumber yard.
RIDEAU HALL PROPERTY.				
Sept. 1...	1 year .....	Mrs. Ann Mackay to Her Majesty the Queen.	Lots the "Triangle" and the "Bay," New Edinburgh.. ..	Boat landing.

No. 25.

leased on Canals, &c., during the fiscal year ending 30th June 1868.

Area of property.	Amount of water power. Run of mill stones.	Date from which lease is reckoned.	Annual rental.	TERMS OF PAYMENT.			REMARKS.
				Amount of each instalment.	When payable each year.	When first instalment was payable.	
			\$ cts.	\$ cts.			
.....		May 1, 1868..	50 00	50 00	May 1, in advance .....	May 1, 1868..	
.....		do	40 00	40 00	do .....	do .....	
.....	4 runs.....	July 1, 1869..	120 00	60 00	Jan. 1, July 1	Jan. 1, 1870..	
.....	20 runs.....	Jan. 1, 1867..	1 00	1 00	January 1.....	Jan. 1, 1868..	When works required to maintain level of water are made, the rent to be determined by the minister, but shall not exceed \$135 per year.
<sup>78</sup> 100ths of an acre...	10 runs.....	Jan. 1, 1868..	300 00	150 00	Jan. 1, July 1	July 1, 1868..	2 additional runs at \$30 each, may be granted hereafter.
100 feet frontage.....		May 1, 1868..	20 00	20 00	May 1, in advance .....	At delivery of lease.....	
5 acres.....		Mar. 16, 1868.	12 00	12 00	March 16, in advance ...	Mar. 16, 1868	
43 acres.....	1 run.....	{ May 1, 1867.. For a roadway.	{ 160 00 1 00	{ 80 60	Jan. 1, July 1	July 1, 1867..	1st instalment being only \$26 66 for May and June, 1867..
.....	{ All the surplus water. }	Jan. 1, 1868..	1 00	1 00	January 1.....	Jan. 1, 1869..	With a mortgage.
1/2 acre .....		Jan. 1, 1867..	36 00	18 00	Jan. 1, July 1	At delivery of lease.....	1st instalment only \$15.
.....		Sept. 1, 1867..	720 00	180 00	Quarterly.....	Dec. 1, 1867..	No lease executed.

APPENDIX No. 25.—Continued.  
2nd. Property purchased or sold by the Department, during the fiscal year ending 30th June, 1868.

Date of Deed of sale.	By whom sold.	To whom sold.	Description of Property; Situation.	For what purpose used.	Area of Land.	Price.
Sept. 6, 1867.	Geo. Bryson	To Her Majesty	Part of Lots Nos. 8, 9, 10, 11 & 12, in 4th concession Mansfield, County of Pontiac, on the Coulonge River.....	Slides, &c.....	59 acres...	\$ cts. 4,342 18
Oct. 14, 1867.	Her Majesty	To Corporation of the Counties of York & Peel.	Materials Tools and Plant on the York Roads.....	.....	.....	7,167 00
Aug. 20, 1867.	Bank of Upper Canada...	To Her Majesty	W. part of Lot No. 6, on Corner of Duke & George Sts., Toronto.	Govt. Offices....	200 x 140 ft.	16,000 00
Dec. 11, 1867.	Municipality of Parish of St. Liboire.....	To Municipality of County of Bagot.....	Lots Nos. 32 & 33, in Range St. Patrick, at St. Liboire, county of Bagot & Roadway 36 feet, wide.....	Circuit Court....	1 arpent....	Free.
12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000						

3rd, Proclamations, in the "Canada Gazette," transferring or abandoning Public Property, during the fiscal year ending 30th June, 1868.

Page and date of Proclamation in the "Canada Gazette."	Date of Order in Council.	Works abandoned.	Counties in which Works are situated.	To whom abandoned.
274	Feb. 27, 1868	Swing Bridge over Kettle Creek, near Port Stanley Harbor.	Elgin.....	To Mun. & Road Officers thereof
	May 27, 1868	Bridge over River Batiscan.....	Champlain.....	do
	April 6, 1868	Reformatory Prison, at St. Vincent de Paul.....	LaVal.....	Provincial Govt. Quebec.....
	April 6, 1868	New Jail and Lot, at Sherbrooke.....	Town of Sherbrooke.....	do
701	Feb. 20, 1867	Bridge, over Gatineau River, Township of Hull.....	Ottawa.....	Mun. Township of Hull.....

4th. Proclamations in "Canada Gazette," respecting Tolls and Regulations on Public Works, during the fiscal year ending 30th June, 1868

Tolls or Regulations.	Names of Works.	Page and Date of Proclamation.
Tolls.	Burlington Bay Canal.	491 & 449 May 23, 1863.
Do	River Gateau Bridge.	701 Feb. 20, 1867.
Regulations.	Rideau Canal.	3127 Oct. 14, 1867.
Do	European and North American Railway.	403 Feb. 29, 1868.

5th. List of Acts respecting Public Works, passed during the fiscal year ending 30th June, 1868.

30-31 Vict., cap. III	1867	An Act for the Union of Canada, Nova Scotia & New Brunswick into one " Dominion of Canada "	Imperial Act.
31 Vict., cap. 13	1867	do respecting the Public Works of Canada.	Act of Parliament of Canada.
31 Vict., cap. 13	1867	do do the Construction of the Intercolonial Railway.	do do
30-31 Vict., cap. 16	1867	do do (the Canada Railway Loan Act)	Imperial Act.
31 Vict., cap. 42	1868	do do Ordinance and Admiralty Lands of late Province of Canada— (Placing same under the Secretary of State)	Act of Parliament of Canada.
31 Vict., cap. 58	1868	do do Navigation of Canadian Waters.	do do
31 Vict., cap. 68	1868	do do Railways. (The Railway Act)	do do
31 Vict., cap. 75	1868	do do Rockwood Lunatic Asylum	do do

Ottawa, 6th March, 1868.

H. A. FISSIAULT.



MONTHS.	ST. OURS LOCK.				CHAMBLEY CANAL.				STE. ANNE LOCK.				CARILLON CANAL.			
	Lock No. 1. Lower Sill.		Lock No. 2. Upper Sill.		Lock No. 1. Upper Sill.		Lock No. 9. Lower Sill.		Lower Sill.		Ottawa River. Upper Sill.		Lock No. 1. Lower Sill.			
	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.		
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.		
1867	13 10	7 10	10 10	3 9	12 7	11 9	8 8	4 10	10 8	8 4	10 7	7 10	7 10	11 9	10 0	
July	10 11	8 8	8 11	3 8	10 11	9 7	8 4	6 10	8 4	6 10	6 7	8 0	7 10	9 11	8 2	
August	9 9	8 1	8 11	3 8	10 11	9 7	8 4	6 10	6 10	6 7	8 0	7 10	8 0	8 0	7 6	
September	9 9	8 4	8 11	3 8	10 11	9 7	8 4	6 10	6 10	6 7	8 0	7 10	8 0	8 0	7 10	
October	8 8	7 7	8 11	3 8	10 11	9 7	8 4	6 10	6 10	6 7	8 0	7 10	8 0	8 0	7 10	
November	12 0	8 0	8 11	3 8	10 11	9 7	8 4	6 10	6 10	6 7	8 0	7 10	8 0	8 0	7 10	
December	12 0	8 0	8 11	3 8	10 11	9 7	8 4	6 10	6 10	6 7	8 0	7 10	8 0	8 0	7 10	
1868	11 3	9 9	11 3	10 3	10 3	9 7	12 7	11 9	7 7	7 7	6 9	2 7	4 10	10 7	7 6	
January	16 10	11 6	11 11	3 10	10 3	9 7	12 7	11 9	7 7	7 7	6 9	2 7	4 10	10 7	7 6	
February	14 10	11 6	11 11	3 10	10 3	9 7	12 7	11 9	7 7	7 7	6 9	2 7	4 10	10 7	7 6	
March	15 3	11 4	12 9	11 1	10 9 1/2	9 0	14 6	11 10	8 8	8 11	11 8	9 4	13 0	10 9	0 0	
April	14 4	10 5	12 7	10 10	10 11	9 3	14 0 1/2	11 7	10 3	8 7	11 0	8 1	11 6	10 6	0 0	
May																
June																

MONTHS.	CARILLON CANAL.				CHUTE-A-BLONDEAU.				GRENVILLE CANAL.				RIDEAU CANAL.			
	Lock No. 3. Lower Sill.		Lock No. 4. Lower Sill.		Lock No. 4. Upper Sill.		Lock No. 5. Lower Sill.		Lock No. 11. Upper Sill.		Ottawa. Outlet of Locks.		Kingston Mills. Lower Sill.			
	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.		
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.		
1867	11 0	9 3	12 3	10 0	12 10	9 8	12 6	10 6	12 10	9 5	16 0	13 10	9 10	9 10		
July	11 6	6 3	9 3	7 6	7 1	9 9	8 0	9 4	6 6	6 4	10 11	9 5	9 0 1/2	9 0 1/2		
August	6 4	5 10	7 2	7 0	7 1	6 9	8 2	6 6	6 4	6 0	7 10	7 5	7 3	7 2		
September	6 3	5 10	7 3	7 1	7 0	7 0	8 2	6 8	6 6	6 0	7 7	7 2	7 3	7 2		
October	6 6	5 4	7 2	6 8	7 0	6 6	8 7	6 7	6 5	6 10	7 3	6 11	8 1	6 9		
November	9 0	8 1	12 0	8 10	15 9	7 2	18 6	11 0	6 8	6 0	8 10	8 0	7 8	6 0		
December	9 0	7 0	16 6	16 3	21 0	16 0	22 6	19 6	5 11	5 9	8 9	8 4	7 8	6 0		
1868	7 10	7 0	20 0	10 0	21 0	18 6	22 6	21 6	5 9	5 3	7 10	7 4	7 3	6 0		
January	9 0	7 2	10 4	8 0	18 6	8 9	21 6	10 0	5 4	5 4	8 6	7 1	7 3	6 6		
February	10 0	7 10	11 4	8 4	11 0	8 0	11 0	9 0	11 0	7 9	10 0	9 1	7 3	6 6		
March	13 10	7 0	14 9	11 4	14 4	11 0	15 0	12 6	14 0	11 1	16 2	13 0	7 3	7 2		
April	12 2	8 10	12 9	9 8	13 1	8 11	13 3	10 0	13 4	8 4	16 4	13 7	8 3	7 6		
May																
June																