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REPORT

OF

SELECT COMMITTEE,

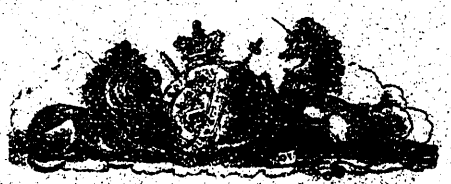
APPOINTED TO ENQUIRE INTO THE CAUSES WHICH HAVE DIRECTED THE TRADE OF THE WEST THROUGH THE UNITED STATES, BY WAY OF THE HUDSON AND PORT OF NEW YORK, AND THE MODE OF REGAINING IT.

TOGETHER WITH

AN APPENDIX

TO THE SAME.

PRINTED BY ORDER OF THE LEGISLATIVE COUNCIL.



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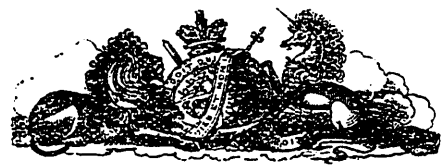

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1861.

REPORT.

COMMITTEE ROOM,
LEGISLATIVE COUNCIL, *Quebec*, 10th May, 1861.

PRESENT :—The Honorable Messieurs *Merritt*, *Campbell*, *Ferrier*, *Leslie*, *Tessier*, and Sir *E. P. Taché*.

The Select Committee appointed "to inquire into the causes which have occasioned the diversion of the Trade of the West through the *United States*, by way of the *Hudson* and Port of *New York*; and to submit, for the consideration of this House, the best means of regaining it through its original and natural channel the *St. Lawrence*, to the Port of *Quebec*;"

After carefully examining the evidence referred to in "Appendix A, Nos. 1 to 20," have unanimously agreed to submit the following Report :—

1. The removal of three bars in the *St. Lawrence*, between Lake *St. Francis* and *St. Louis*, would enable vessels drawing 10 feet water to descend from Lake *Ontario* to *Montreal* and *Quebec*, and return through the Canals in their present state drawing nine feet, at an expenditure of $160,000. (See Report of *Samuel Keefer*, Esq., Dep. Com. of Public Works, No. 1.) The Canals can be deepened at a cost of $582,000, to 10½ feet. (See Estimate of *J. Page*, Esq., C. E., in Report of Public Works for 1859, page 99, No. 2.) The necessity for this improvement is pointed out in the Evidence of *J. McLeod*, Esq., M.P.; Capt. *C. D. Pierce*; *Walker Powell*, Esq., M.P.; Hon. *John Young*, President of the Board of Trade, *Montreal*; and Letter of the Hon. *Wm. Hamilton Merritt* to *A. Bronson*, Esq., of *Oswego*, respecting the enlargement of the *Welland Canal*. (See Nos. 3 to 7.)

Your Committee trust that the early attention of the Government will be given to these works, as, when finished, a vessel of 1,000 tons burden, with a cargo of from 25 to 30,000 bushels of grain, may descend from Lake *Ontario* to *Montreal* or *Quebec*, for one-half the present rate of freight.

2. A new means of communication has been established from *Chicago* to *Port Dalhousie*, by the *Buffalo* and *Lake Huron* Railway, which will materially shorten the distance between those two points. (See evidence of *R. S. Carter*, Esquire, No. 8.)

3. By contrasting the capital employed in steamers, propellers and large vessels on the Upper Lakes, with the capital employed in *Canada* for the like purpose, the immense importance of the trade of the West, which the Committee are desirous of securing, will be understood. (See No. 9.) It will also be seen that out of that portion of the produce which passes the *Welland Canal*, into Lake *Ontario*, only two per cent. descends to *Montreal*, the remaining 98 per cent. passing through the *United States* to the *Hudson*. (See Report of Public Works for 1859, p. 7, No. 10.)

4. Your Committee find the same facilities are afforded by the Customs Regulations at the Port of *Quebec* as at the Port of *New York*, notwithstanding which, goods to the value of only $21,505 passed through *Canada* during the past years, for consumption in the *United States*, against $7,692,531, through the *United States*, for consumption in *Canada*. (See Trade and Navigation Report for 1860, pp. 221 and 156.) Letter of *Richard Irvin & Co.*, *New York*, and evidence of *R. Bouchette*, *Esq.*, Commissioner of Customs, *J. Dunscombe*, *Esq.*, Collector of Customs, Port of *Quebec*, *J. Gillespie*, *Esq.*, President, and *J Walker*, *Esq.*, Vice-President of the Board of Trade of *Quebec*,—Nos. 11 to 15).

5. The natural facilities and cheapness of the route through *Canada* are clearly pointed out in the letters of *Duncan Stewart*, Esquire, of *Detroit*, (Nos. 16 and 17) and the reduction in Freight on a bushel of wheat from *Chicago* and *Liverpool* is shewn in Statement (No. 18). The heavy expenditure incurred for keeping up the Tug service above and

below *Montreal*, would be saved by the introduction of a large class of steamers, and the Government thereby relieved from its present expenditure on that head.

In 1845 the Tariff of Tolls on the Canals averaged 5 *cents* per bushel on grain ; in 1859 they were reduced to 20 cents per ton, or 6-10ths of a cent per bushel, and other articles in like proportion. (See No. 19). By re-imposing a toll of 2 *cents* per bushel on grain passing through the Canals, a revenue (calculated on the business of last year) of over $320,000 per annum, would be derived, from which a fund could be created sufficient to pay the interest on the money required for the necessary internal improvements, and an ample compensation to a sufficient number of Ocean Steamers (with those now forming the weekly line) to furnish a daily line from *Quebec* to *Liverpool*. (See No. 20).

The Magnitude of the Western Trade makes it worth contending for (see No. 9), and a connected line of Inland and Ocean Steamers would go far to secure it.

The natural facilities we possess, with the amount of capital required to connect in the manner pointed out, our great navigable waters and to complete and stock the entire route, would render it one of the most useful and important undertakings on this continent.

Your Committee would therefore respectfully submit that, in their opinion, it would materially promote the commercial prosperity of the country were means adopted to attract this great Trade through our waters; and they believe, that, by a revision of the orders in Council reducing our Canal Tolls to a nominal sum, provision may readily be made to raise the funds necessary for the internal improvements suggested in this Report.

A more constant communication by steamships with *Liverpool* will also be essential to the development of the advantages of the *St. Lawrence* route; and your Committee would humbly recommend that means to increase the Ocean Steamships trading to *Quebec*, should be adopted in such a way as may seem most advantageous.

WM. HAMILTON, MERRITT,
Chairman.

APPENDIX TO REPORT

Of Select Committee appointed to enquire into the causes which have diverted the Trade of the West through the United States, by way of the Hudson and port of New York, and the mode of regaining it.

[No. 1.]

15*th April*, 1861.

Evidence of SAMUEL KEEFER, *Esq., Deputy Commissioner of Public Works.*

A vessel can go without difficulty from Lake Ontario to the Coteau Rapids, drawing 10 feet water, except at periods of low water, when, as appears from the more recent soundings of Messrs. Mailefort and Raasloff, there will be found a slight obstruction in the Gallops Rapids; but which can easily be removed to afford the draught of 10 feet at all seasons.

Having left the service of the Department of Public Works about the time my report of 25th May, 1853, was made, for that of the Grand Trunk Railway, I have found it necessary to refer to the action taken by the Commissioners thereon, and to the survey before referred to, in order to see if those would have any effect in modifying the opinion I then expressed. The Engineers who made a conditional tender for deepening these Rapids at the amount of my estimate, but whose labours terminated in making a survey and estimate for their own plan of effecting the improvement, proposed to accomplish it by blasting out a channel, and not employing piers or dams. The operation of blasting under water after their proposed plan of operations, was pronounced futile by the Commissioners in 1855, and in this opinion I fully concur.

There is only one place where blasting under water must necessarily be resorted to, and that is at the head of the Coteau Rapids. This was part of my original plan—the rest can be accomplished by piers and dams as first proposed; so that as regards *the mode* proposed by me in my report of 1853, for deepening the Rapids, I can at this day see no reason to change my opinion. In reference to the estimated cost, however, I have to state that it was made at a time when the price of labour and materials was much below the present rates, and that it would be necessary to add for this increase accordingly. I think the whole could be carried out now for about Forty thousand pounds (£40,000).

REPORT.

MONTREAL, 25th May, 1853.

SIR,—Mr. James Stewart having furnished me with his Chart and Soundings of the Coteau and Cascades Rapids, prepared during the last Summer, in accordance with instructions which he had received from me; I have thus been enabled to arrange a plan for their improvement, and have now the honor to submit the same, with my final Report thereon, for the information of the Commissioners.

The situation and extent of the Works proposed for that object, are marked upon the accompanying charts in red, and will be referred to more particularly in the following part of this Report.

It is important to observe, in reference to the proposed plans for the improvement of the Rapids, that the draught of water is not necessarily limited to that of the St Lawrence Canals, which is 9 feet, nor to that of the Welland Canal, which is 9½ feet, but

may be increased to such extent as for the creation of further commercial facilities may be considered expedient. In every case, therefore, where any improvement is proposed, it will be with a view of affording a clear draught of 10 feet at ordinary Summer water. To secure this draught the channel should not be less than 11 feet deep in smooth water, and in places where it becomes rough and broken by the decent, it should be as much as 12 or 13 feet in depth, according to situation, and to the extent of the undulations created by the current, in order to afford room for the "send," or settling down of the vessel in passing through them.

For vessels descending all the Rapids between Prescott and Montreal, the draught is at present limited to 7 feet, or thereabout, by the Shallows of the Cascades Rapids, but according to the soundings taken on previous occasions, in the different Rapids above Lake St. Francis, it does not appear that any Works are required westward of that Lake, to obtain the desired draught of 10 feet; and nothing further is proposed than the placing of a few buoys to mark out the channel.

Considering it, therefore, unnecessary, for the present at least, to incur any expense at the Galops, Rapid Plat, or Long Sault. The first improvement called for below Prescott is at the

Coteau Rapids.

These Rapids are approached from Lake St. Francis by four different channels.

1st. The North channel, used only by Rafts.

2nd. The old channel, between Pig and Vridner Islands, now no longer navigated.

3rd. The new channel, between Pig and Thorn Islands, which is the one now exclusively used by steamboats; and

4th. The new South channel, explored by Mr. T. C. Keefer in 1850, between Thorn and Juniper Islands, and approachable from the South side of the Lake by the head of Clarke's Island.

The first of these channels is quite too shallow to admit of improvement. In the second, which is the most direct, a ridge of boulders, resting upon a flat rock, stretches across the channel, and limits the draught to 7 feet. The third is the deepest of all, ranging from 9 to 12 feet, but it is too crooked to admit of navigation, except by steam power. The fourth is as yet untried. It is represented as varying in depth from 15 to 20 feet, until it reaches the swift current between Thorn and Juniper Islands, where the depth is marked 10 feet.

If the new *South Channel* were once buoyed out, and about one foot in depth of the rock at Juniper Island blasted out of it, it would appear that a good navigable channel, thus far, could be obtained at the least expense; but it would not be advisable to do any blasting until the practicability of this channel had first been tested after being buoyed out; because from the manner in which the shoals putting out from the several Islands bordering the channel appear to lie in relation to it, and the current, a doubt has been raised as to whether it can really be navigated to any better advantage than the new channel now in use. If this should prove to be the case after trial, and I must say I am apprehensive it will, I would then recommend making choice of the old channel for improvement, because it is the most direct and convenient of all. In making my estimate, I have, therefore, provided for the construction of two guide piers, and the excavation of a channel through the narrowest part of the ridge, of 200 *feet in width*, and situated near the head of Prisoner's Island, and where the water is deep above and below the ridge. From the accurate soundings taken at this place by Mr. Stewart, it appears that it will require the removal of 1700 cubic yards of rock and boulders between the proposed piers to give a depth of 11 feet at ordinary summer water, but in my estimate I have allowed for the removal of 2000 cubic yards. The rocky bed consists of stratified limestone, and is presumed to be similar in its character to that which forms the base of the Dam at the head of the Beauharnois Canal, and is laid bare for inspection below it; with the conveniences which the two side piers will afford for carrying on the operations, I apprehend no difficulty in removing the rock and boulders to any required depth. I have had some correspondence with Messrs. Maillefort and Raasloff, Submarine Engineers of the City of New York, in reference to these proposed Works, and have received from them a copy of a Report (forwarded herewith) upon their operations at *Hurl Gate*, which

have been so remarkably successful, and were characterised by a novel mode of *blasting without drilling*. They have made no offer as yet, but are ready to do so whenever called upon. However, with the double lifting Screws and other appliances now available by the Commissioners, it is in their power to do this work without soliciting foreign aid, and the only question to be considered in its accomplishment is that of cost.

The South guide pier is intended to be 790 feet long by 15 feet wide; the upper part for 250 feet to be of solid crib-work, and in its position slightly deflected from the channel towards the South; the remainder of it to be detached cribs 15 by 20 feet, ranged in line and placed 60 feet apart, and thus forming a guide for the descending vessel.

The North pier is proposed to be 490 feet long and 15 feet wide, of solid crib-work. Both piers to be raised three feet above ordinary Summer water. (See chart of Coteau Rapids.)

These improvements, which are estimated to cost about £500, will only remove the difficulty at the first pitch of the rapids, for after passing the deep water under Prisoner's Island, the channel is again lost in the great shoals which extend downwards, fan-shaped, from the lower end of that island. The one navigated by steamboats in ten feet deep, and runs off obliquely towards the North Shore; but from the quickness of the grade, and roughness of the water, it will be necessary to increase the present depth to about 13 feet, in order to give a safe draught of ten feet. To accomplish this, I see no better plan than the one proposed by Mr. T. C. Keefer, which is to lay a long pier in the rapids, obliquely with the current—(see the chart). The soundings which have been obtained are insufficient to make a proper, a final location of this pier; but, under any circumstances, they must be retaken before the commencement of the work, and therefore they are not now indispensable necessary. The pier which I propose, will be about 2200 feet long, 18 feet wide, and 15 feet in average height from its base.

The improvements at the Coteau Rapids are estimated to cost £13,143 8s.

Cascades Rapids.

These Rapids present many difficulties. The river between the old lock and the Buisson Point is half a mile wide, and there is a fall of ten feet from the south to the north side. The ledge of rocks under the rapids crosses it diagonally, and causes the current to run obliquely towards the north shore; but at the foot of this ledge, it is carried away again towards the south by a very deep channel leading in that direction. The water above Buisson Point is nearly on a level with that at the Point of Coulange, a mile higher up the river, but on the opposite side. Down this rapid the steamboat channel is intricate and encumbered on either side by threatening rocks: such as the "Dog Reef," the "Baltise," and the "Split Rock." After passing these dangers, the channel becomes broad and very deep for the space of a mile, and there breaks over another ledge of rocks where (at the "Hay-stacks") the depth is limited to nine feet.

An improvement of these rapids was projected by Mr. T. C. Keefer, in 1850, which was intended to remove all the difficulties at these two places at once. It consisted simply of a dam across the Raft Channel, extending from the head of Round Island to the upper entrance of the Old Military Canal, by that means turning the whole volume of the river into the main south channel, and thereby increasing the draught in the rapids both above and below the island. A pier in the upper rapid was added to face off the "Balise," and this completed the projected improvement.

Before submitting any plan, I found it neeessary to ascertain, as nearly as possible, the effect such a dam would have upon the river, and for that purpose have guaged both channels. The soundings on the map give a sectional area of about 30,000 square feet for the main channel, a hydraulic mean depth of 13½ feet, and a surface velocity of 14,078 feet per second. The area of the north channel is 14,650 square feet, and the surface velocity 7,689 feet per second. According to these data, the volume discharged by the north channel is 93,760 cubic feet per second, and that by the south channel 353,650 cubic feet per second. When these two streams are united by the construction of the dam, the whole amount of 456,410 cubic feet per second must be discharged through the south channel, in which case there must of necessity be an increase of velocity and depth. The hydraulic

mean depth due to this augmented volume in the main channel will be 15.55 feet, and the difference between that and the present hydraulic mean depth of 13.33 feet is 2.22 feet, which is the rise due to the increase of volume. The rise will not, therefore, exceed 2½ feet, which is too little to have the desired effect upon the Rapids. Its influence would reach the foot of the first Rapid, but would scarcely be appreciated at the middle or head of it, where it was most wanted. Again, at the "Haystacks" it would exert a beneficial influence, but not sufficient to dispense with the necessity of adopting some further means of increasing the draught of water.

For the reasons just stated, I would not recommend the construction of the dam.

In the plan which I now submit, I propose to increase the depth simply by contracting the width of the river. If the stream be confined within narrower limits it must necessarily rise, and the amount of that rise will be in proportion to the extent of the encroachments made upon its bed. By means of piers running out from the land, judiciously placed so as to back up the water from below, or turn in an additional volume from above, it is practicable to increase the depth to the desired extent without going to the expense of forming a continuous pier parallel with the bank of the river, which, it is evident, would be the most effectual mode of attaining the object.

It will be seen, on reference to the chart, that it is proposed to contract the river at the first pitch of these rapids to 1700 feet in width, and at the second to 1750 feet, and that all the piers take their start from the shore, therefore more easily constructed than if isolated in the current.

Pier No. 1 starts from near the head of the Rapid, on the north side, and extends out into the river and downwards in a curvilinear direction, to cover the "Balize" and contract the breadth of the river. It will be 1700 feet long, 15 feet wide, and will be raised 5 feet above the present surface of the water, making an average height from bottom of 13 feet.

Pier No. 2, extending from the south side, is situated upon the smooth rock in the swift water above the Binken Point. It is 800 feet long, 12 feet wide, and is to be raised 3 feet above the water, making an average height of 9 feet from bottom.

Pier No. 3 is situated at the Old Lock, upon a ledge of rocks which extends out from it to the border of the channel. It is 700 feet long, 31 feet wide, and is to be raised 8 feet above the present surface of the water, making an average height from bottom of 18 feet.

Pier No. 4 is to be placed at the head of Round Island, if required, for the purpose of assisting Nos. 5 & 6 in giving a sufficient depth above the "Haystacks;" but it is believed that the removal of about 200 cubic yards of rock from the channel at this place will render the construction of the pier unnecessary. It should, therefore, be left to the last, and not be commenced until it be found indispensable. It is 600 feet long, 15 feet wide, and has an average height of 12 feet.

Pier No. 5 is based upon a flat rock extending out from the south shore, opposite the second pitch. It is to be 700 feet long, 15 feet wide, and have an average height of 12 feet. The top to be raised seven feet above the present surface of the water.

Pier No. 6, starting from the head of Cascades Island, extends southwards towards No. 5, and leaves a waterway of 1750 feet in width It is to be 900 feet long, 15 feet wide, raised 5 feet above the present surface of water, and has an average height of 10 feet from the bottom.

These piers have been arranged with a view of giving generally a depth of 13 feet in the channel where the obstructions are found. In some places, however, such as the "Split Rock," and the bar above the "Haystacks," it is proposed to blast out the rocks to assist in forming a proper channel, and thereby save pier work. The piers are intended to be built of ordinary crib work, and filled with stones. They do not require any covering.

The cost of the proposed improvements at Cascades Rapids is estimated at £13,926 10s. currency.

Lachine Rapids.

These Rapids, notwithstanding the quickness of the descent, and the violent agitation of the water, afford a sufficient depth for the intended draft of ten feet; but, in the great expanse of water between Laprairie and Nun's Island, the direct channel is lost amongst the shoals with which it abounds. After passing the foot of the Rapids, it bears off

towards the head of Nun's Island, where it is obstructed at low water by a bar formed of boulders, resting upon a rocky bottom, and arranged almost in the same direction as the current. Careful soundings were taken during the last winter by Mr. T. C. Keefer, under the authority of the Commissioner, for the purpose of ascertaining, as correctly as possible, the nature of this obstruction. I learn from him, that he reported on the 6th April last, and also transmitted a chart of the soundings taken at this particular place. I have procured a copy of his chart, and have marked thereon the improvements I now propose.

As all the soundings have been reduced to lowest water, and show ten feet of depth at that, I do not propose disturbing the rocky floor on which the boulders rest; because, if these were removed, the draught would seldom be limited to less than ten feet, as it is not often that the water falls to its lowest stage.

To prevent vessels from being drawn by the cross current upon the shoals on the lower side of the channel, or from falling into the "*Cul de Sac*" shown on the chart, and also to serve as beacons, I propose the constructions of four detached piers of 40 feet long by 18 feet wide, to be arranged equi-distant from each other upon the line drawn upon the plan marked A, B, being on the east side of the channel and extending over a distance of about 500 feet. They need only be raised a foot or two above the ordinary summer level, and thus be led on the influence of the winter ice. If at any future day it be found desirable, they can all be united together by more crib work of the same description, and so form a continuous pier 500 feet long, which will be a still more perfect guide through this pass. I propose also the removal of the boulders for a space of 200 feet parallel with the line of the crib, by means of the double tifling screws and machinery now in the possession of the Department.

The removal of the boulders is estimated at	£500
The construction of the pier crib	500
Total	£1000

In extreme low water the narrow channel opposite Moffat's Island, by former soundings, was found to be only nine feet deep; but since the construction of the long wharf of the Champlain and St. Lawrence Railroad, the depth of this channel has been increased; and it is also very probable that the construction of the St. Lawrence Bridge will have a still further beneficial influence upon its depth; so that any attempt, just now, to improve this part of the channel, would be premature, and perhaps unnecessary.

The proposed expenditure for the improvements of the Rapids, will therefore be as follows:

At the Coteau Rapids	£13,143	8	0
" Cascades	13,926	10	0
" Lachine	1,000	0	0
Buoys between Prescott and Montreal	300	0	0
Superintendence and Contingencies	1,630	0	0
Total	£30,000	0	0

I would remark that no improvements have been projected for any of the Rapids above Lake St. Francis; but it is not certain that they will afford at all times, and with all winds, a clear drought of ten feet for a laden vessel.

It will not be until after the lower Rapids have been improved and navigated by vessels of greater draught than those now using them, that their fullest capacity shall have been ascertained. Further improvements, not now anticipated, will doubtless be called for as the draught of downward vessels is increased by the facilities proposed to be afforded them; but, for the present, the estimate above given is sufficient to overcome the main difficulties, and prove what can be done towards their amelioration.

The details of the foregoing estimate are appended for the information of the Commissioner.

(Signed,) SAMUEL KEEFER,
C. E.

[No. 2.]

23rd April, 1861.

Evidence—JOHN PAGE, *Esq., Civil Engineer, Public Works.*

The St. Lawrence Canal Locks are all 200 feet long and 45 feet wide, except on the Cornwall Canal, where they are 55 feet wide. The depth of water on the mitre sills is 9 feet.

The draught of water can be increased to 10½ feet on the mitre sills of all the St. Lawrence Canal Locks, at an expense of $1,028,000 (as shewn by an estimate in the Public Works Report for 1859, page 99). This depth of water would admit of a vessel carrying fully one-third more cargo.

There is sufficient depth of water, in ordinary seasons, for vessels drawing 9 feet water passing down the River St. Lawrence, from Lake Ontario to the head of the Beauharnois Canal; but the Water in the Long Sault Rapid is very rough and turbulent, and the channel at the Galops Rapids is narrow at low stages of the river.

Vessels in passing through the Canals, either up or down, can draw 9 feet water. A full loaded vessel, in passing down the Lachine Canal, is generally towed by four and sometimes three horses. The same vessel, in returning, frequently with only two-thirds of a cargo, requires from eight to ten horses to tow her up. This is caused by the large volume of water required to supply the mill power leased on the canals.

JOHN PAGE.

DEPARTMENT OF PUBLIC WORKS,
QUEBEC, 25th April, 1860.

The Hon. W. H. MERRITT.

DEAR SIR,—The appropriation made in 1860, for the Lachine Canal, was only in part, but sufficient will be asked this Session to complete the Rock Cut to 100 feet width. You must, however, bear in mind, that the contract is only for the present draught of water, 9 feet on the mitre sills of the Locks.

Respectfully yours,

JOHN PAGE.

[No. 3.]

3rd May, 1861.

Evidence of JOHN MCLEOD, *Esq., M.P.P., Essex.*

In the latter end of the month of October, 1860, I loaded the "*T. F. Parke,*" built on Lake Erie, with a cargo of 16,000 bus. of wheat, at Milwaukie, on Lake Michigan, with which she passed through the Welland Canal; on arrival at Kingston, she was obliged to unload 4500 bus., to enable her to pass through the St. Lawrence Canals to Montreal, at a cost of some $400, besides detention. Left Quebec for Liverpool on the 24th November, in company with three of the largest vessels that ever left Montreal; arrived at Bantry Bay, in Ireland, on the 30th December, after encountering on the Atlantic one of the severest storms on record, in which the three vessels above mentioned foundered.

I have no doubt but that the larger the vessel the cheaper freight can be carried, and that elevating grain in transitu, from lake to ocean vessel, has a tendency to add to its value, which can be transferred through elevators, at the rate of from 3 to 4000 bushels per hour.

In my opinion, there is no necessity for the enlargement of the Welland Canal, as by using the large class of propellers on Lake Erie, elevating at Port Colborne, passing over the Welland Railway, and reshipping it in the same description of vessel at Port Dalhousie, adds to the value of the grain more than the cost of transhipment.

The St. Lawrence Canals, and the Channel of the River should be deepened, so as to allow the passage of vessels drawing 10½ feet water.

I am also of the opinion that the reduction of Toll has not had the effect of diverting the trade down the St. Lawrence. The remedy is to encourage the building the largest class of Propellers that can pass the St. Lawrence Canals, and reimposing a small toll on the Canals to form a fund to encourage the building of a line of Ocean Steamers to run between Quebec and Liverpool.

[No. 4.]

Extract from Evidence of E. D. PIERCE, *formerly Captain of the "Dean Richmond," given before the Committee on Trade, in* 1858.

I have commanded a vessel ten years in the Lake Trade, between Chicago and Quebec, and two years between Chicago and Liverpool. In 1856, left Chicago "in the Dean Richmond," 17th July, passed the Welland Canal drawing 9½ feet, had to lighten to less than 9 feet, to pass the St. Lawrence Canal, at an expense of $250 and detention of 4 days—met with no difficulty in the navigation of the Gulf of St. Lawrence, the Chart of Captain Bayfield being so perfect that any competent mariner can take a vessel out without a Pilot. The high rates of Insurance from the Atlantic to Quebec arises from the number of vessels running ashore without taking soundings, which has led to erroneous impressions. Can see no reason why the insurance should be higher than to the Ports of New York.

A Propeller could carry 1000 tons from Quebec to Port Dalhousie, provided the St. Lawrence Canals were deepened to 10½ feet.

If a daily line of Steamers of 2,000 tons were placed on the route between Quebec and Liverpool, they would be sure of full freights as the supply from the West is ample; the transhipment by elevators would benefit the grain, and the voyage from Chicago to Liverpool reduced to 20 days. This would enable purchasers to draw on Liverpool at 30 days, paying first cost only, leaving the freight (which would be reduced to about 30 cents) to be paid in Liverpool on delivery, requiring less capital in the trade.

[No. 5.]

3rd May, 1861.

Evidence,—WALKER POWELL, *Esq., M. P. P.*

The present price of Freight from Toledo to Port Colborne is (by steamer)	5	cents.
Over Welland Railway	2	"
Port Dalhousie to Kingston	5	"
Kingston to Quebec	8	"
	20	"

The freight from Port Dalhousie to Quebec could be reduced to 6 or 7 cents, provided Propellers of larger capacity were used.

In forwarding grain from Toledo to Liverpool, it would receive an advantage if elevated at Port Colborne and Quebec, of three cents per bushel at least over the direct shipment.

It is desirable that the through passage between Chicago and Liverpool should be as rapid as possible on account of distance and the danger of grain heating while in bulk on board of vessel.

If regular steam connections were established, the time between Chicago and Liverpool could be reduced to from 20 to 23 days.

The present difficulties of transport could be obviated by deepening the channel of the St. Lawrence and its Canals from Lake Ontario to Montreal—building Propellers of a capacity of 25,000 bushels for the Lake and River, and Steamers of 2,500 tons for the Ocean between Quebec and Liverpool.

Believes that the encouragement of such a line of steam communication by Government aid would be expedient—and in order that the deepening of the River and Canals

may be proceeded with and the necessary aid given to a Company who would build the Propellers and Steamers. Is in favor of having tolls re-imposed on the Canals.

[No. 6.]

Letter—Hon. JOHN YOUNG.

MONTREAL, 23rd April, 1861.

SIR—I am in receipt of your letter of yesterday, requesting me to answer the question in reference to the Trade and Commerce of the St. Lawrence, which I shall do as briefly as posssble.

First—To what cause are we to attribute the diversion of the *Trade of the West* (from the St. Lawrence) through the United States, to the Port of New York, and what, in your opinion, is the best means of regaining it through its original and natural channel?

Answer—The rivalry between Canada and the State of New York for the Trade of the West, commenced on the opening of the St. Lawrence Canals in 1849. Up to 1847, the trade of Western Canada was forced down the St. Lawrence by a protective duty in England on all agricultural products from Canada. American Wheat was then largely imported and manufactured into flour, which was also shipped as Canadian; previous to 1849 there was *no* exportation of Canadian cerals to the United States. In that year the bonding system of the United States was inaugurated, by which Western Canada could import and export in Bond. All discriminating duties in favor of Canadian produce were at that time abolished. The Navigation Laws were repealed, and for the first time the Trade of Western Canada and the Western States was left free to find the cheapest and best route either to England or the Eastern States. An additional impulse was given to the trade by the Reciprocity Treaty, under which Canadian cereals were admitted into the United States free of duty. The export of cereals from Western Canada in 1849 to the United States at points above the St. Lawrence Canals was equal, in bushels, to 124,680. In 1852 it had increased to 2,334,570 bushels. In 1854 to 3,812,875 bushels. In 1860 the cereals exported to the United States from Western Canada, exceeded 8,337,064 bushels, while the total receipts at Montreal from all the Western States and Canada was only equal to 6,558,245 bushels.

The Erie Canal from Buffalo and Oswego to Albany has, since 1849, been greatly enlarged and deepened, so that boats of 130 tons are now employed instead of boats of 75 tons a few years ago. The Eastern States do not produce cereals to any extent, but take what they want for consumption either from the Western States or from Western Canada. The supplying of this demand for consumption in the Eastern States exceeds in the average of years, the amount exported to England and other countries. Hence the importance of being able to reach these States through the St. Lawrence.

It was to obtain a share of this trade between the West and the East that the canals of the St. Lawrence were built. Before their completion in 1849, I predicted that unless Lake Champlain was connected with the St. Lawrence, by the most advantageous levels, that Canada would be powerless in trying to attract any considerable share of Western States and Western Canada.

The Trade and Navigation Returns for 1860 shew that the whole export of Canada in that year amounted to $32,361,460, and that $18,427,968 was exported to the United States, Not only is this the fact, but of this $18,427,968 there was exported from Western Canada direct to the United States port, above all the St. Lawrence canals, no less a sum than $13,141,000. I have made these calculations hurriedly, but I believe the figures will be found in the main correct, and they shew how small a share of the trade of Western Canada with the United States is attracted to the Lower St. Lawrence.

Since 1849 and now, the cheapest route from Western Canada and the Western States to New York, and the Eastern States generally, has been through the State of New York, and *because it is the cheapest;* trade as we see, flows in that direction, and not down the St. Lawrence.

The deepening of Lake St. Peter, the establishment of Ocean Steamers, the cheapening of Insurance by the construction of Light Houses, have done much to enable the Canadian

Merchants to compete successfully for the Export trade, but to give Canada that superiority which ought to belong to the St. Lawrence route for the sea Exports and Imports, it is of the highest importance to secure for the St. Lawrence the downward trade to the Eastern States. The route which has this downward's trade, will form the low price of back freights, secure a large portion of the up freight. Until a Canal to connect Lake Champlain with the St. Lawrence is constructed, I believe it to be impossible for Canada to share in the carrying trade passing between the Eastern States on the one hand and the Western States and Western Canada on the other, through the route of the St. Lawrence. Nor can this object be fully secured as regards the Trade of the Western States, until the Welland Canal is enlarged and the Locks on the St. Lawrence Canals lengthened. With these works completed and the natural advantages of Montreal and Quebec developed, for receiving and shipping interior produce; I have not and never had any doubt, that the St. Lawrence route, either for export by sea or for supplying the Eastern States can be made the *cheapest, quickest and best.*

The State of New York is now collecting a very large amount from Canadian property, passing through her Canals and which could be made to pass through the St. Lawrence Canals to the same point. The abolition of Tolls on the St. Lawrence Canals is wholly inadequate to overcome the cheapness of the Erie Canal route, and in my opinion there has not been one ton thereby attracted to the St. Lawrence.

The Locks of the St. Lawrence Canals are 45 and 55 feet wide, but the size of Vessel in Trade from the West is controlled by the 26 feet Locks of the Welland Canal, so that the advantages of the St. Lawrence navigation, can never be fully ascertained until the same class of Vessels which now trade to Buffalo, can pass through to Montreal, Quebec, or Lake Champlain without breaking bulk.

Whether equal facilities exist for importing goods from Sea by the way of Quebec, which are intended for consumption in the United States; as exists for importations at the Port of New York, which are intended for consumption in Canada.

There is no hinderance or obstacle existing to importing goods from Sea *viâ* Quebec, intended for the United States, and as lines of Ocean Steamers ply to the St. Lawrence as well as to New York, the facilities for importing to either place seem to be equal. The navigation of the St. Lawrence opens in April and closes in December. Between December and April the Erie Canal and St. Lawrence are both closed by ice, but the facilities afforded by Ocean Steamers coming to Portland, and the connection from thence by Railway to all parts of the interior are equal to the facilities at New York during this period for the Import of goods.

[No. 7.]

Extract from Letter.—Hon. W. H. MERRITT *to* A. BRONSON, *Esq., Oswego, on 20th November,* 1860.

" In no part of the world has an opportunity even offered to contrast the relative cost " of transportation between a canal with 330 *feet lockage,* and a Railway laying by its side with " a descending grade in the direction of the Trade until the present season. You have ex- " amined the Welland Railway and thus describe its operation. *A Vessel is discharged on " Lake Erie by an elevator at the rate of* 4000 *Bushels per hour, her cargo is transported over " the Railway and spouted into a Vessel on Lake Ontario by its own gravity, thereby almost " discarding the element of transhipment.*

" Every additional elevator can transfer 3000 Bushels per hour from Vessel to cars; pass " over the Railway (10,000 Bushels per train,) and is spouted direct into the Vessel on Lake " Ontario. Thus 4 *trips* per day, of 10,000 Bushels each, will make 40,000 bus. per day. The " charge for elevating is ¼ *of a cent* (paid by the shipper,) and amounts to $100 per day,, " this sum covers every expense and produces the magical effect of delivering a Bushel of " grain from Lake to Lake without any cost to the Company, the charge by whoever made " must be paid by the Trade. My only object is to shew that grain can be conveyed at less " cost and in less time, than through the Canal after its enlargement. The cost of which " is estimated by Walter Shanley, Esq., Civil Engineer, *in Report of Public Works for* 1856,

" at $8,000,000. The interest, commissions, exchange, &c., on which will not fall short of " $500,000 per annum; while an additional Railway Track from Lake to Lake, is estimated " to cost only $400,000: the interest on which is only $24,000, the difference of $476,000 " per annum would pay the expenses of the Railway and build a new Track every year.

[No. 8.]

QUEBEC, 18th April, 1861.

Evidence—R. S. CARTER, *Esq., Director, and the General Manager of the Buffalo and Lake Huron Railway.*

Ques.—Where are the terminal points of the Buffalo and Lake Huron Railway.

Ans.—Fort Erie, at the foot of Lake Erie is the Eastern terminus, and Goderich on the East Coast of Lake Huron is the Western terminus.

Ques.—Does the Buffalo and Lake Huron Railway intersect the Welland Railway, and if so where?

Ans.—The Buffalo and Lake Huron Railway intersects the Welland Railway, and also the Welland Canal at Port Colborne, and is in Railway Junction with the Welland Railway.

Ques.—What in your opinion is the most rapid mode of transportation, between Lake Ontario and the Upper Lake Ports.

Ans.—The shortest and consequently most rapid communication between Port Dalhousie on Lake Ontario and all Ports on Lakes Huron, Michigan and Superior, is *via* the Welland Railway to Port Colborne and thence *via* Buffalo and Lake Huron Railway to Goderich, as by that route 430 miles of Lake Navigation is saved, and all freight and passengers conveyed by that route save sixty hours in transit between the Upper and Lower Lake Ports.

Ques.—Has any thing been done to secure a regular and reliable communication between Godrich and the Upper Lake Ports.

Ans.—The Buffalo and Lake Huron Railway Company have chartered a sufficient number of Propellers (averaging 600 tons burden each) to secure a Tri-Weekly line of communication between Goderich and Chicago, and all intermediate Ports. The object contemplated, being to solicit Freights and Passengers, which have heretofore sought Buffalo as the eastern terminus of the Upper Lake Navigation.

Ques.—What is the Buffalo and Lake Huron Railway Company prepared to do to enable the St. Lawrence route to compete with the Erie Canal and Hudson River for Ocean traffic.

Ans.—If the requisite means of transportation are provided on Lake Ontario, the Buffalo and Huron Railway Company are prepared to convey between the St. Lawrence and the Upper Lake Ports any quantity of Ocean traffic which may be offered for conveyance at the same rates between Port Dalhousie and Chicago or any intermediate Ports West and North West of Goderich, as are now or may be at any future time, charged, between Buffalo and Chicago or any intermediate Port West or North West of Goderich, and the Buffalo and Lake Huron Railway Company are now endeavoring to establish such commercial relations with Lower Canada as will enable them to secure the conveyance of a large quantity of the products of the western States from the Upper Lake ports to Montreal and Quebec.

Ques.—Does passing grain through elevators in transit from the West to the Seaboard add to its value?

Ans.—I have not sufficient knowledge of grain to express an opinion of its value, but having had the charge of extensive graneries in England, I know that when grain remains in bulk for any length of time, it has to be turned over at short intervals to keep it sound, I also know from my own experience that passing grain through an Elevator is a far more effectual means of cleaning and drying it than simply turning it over with a shovel. Furthur I have been informed by parties engaged in the Trade that grain intended for

exportation is enhanced in value at the least five cent per bushel by passing it two or three times through an Elevator in transit from the sending Port to the Seaboard.

R. S. CARTER.

18th April, 1860.

[No. 9.]

Extacts shewing the magnitude of the Trade of the West, in 1860.

The area of Country tributary to the commerce of this route lying East and West of the Missouri River is over 550,000 *square miles.* (*See report of Trade and commerce for* 1855).

	Through freight.	See Railway Com'y. Report 1860.
There passed over the New-York Central Railway	472457 Tons.	Page 156
do do New-York and Erie	1139554 "	" 176
do do through in Erie Canal	3192711 "	Canal Report p. 148
Total tonnage both ways	4804724 Tons.	

(*Extract taken from Report Board of Buffalo, for* 1860).

Receipts of Grain Flour, 1,122,335 Barrels equal to	5,611,675	Bushels.
Wheat,	18,502,649	"
Corn	11,386,217	"
Other Grain	1,952,920	"
Total number of Bushels,	37,453,461	

Elevating Power at Buffalo.

17 Elevators, with storage capacity of 3,205,000 bushels; can elevate 64,000 bushels per hour, or 1,538,000 bushels per day.

Upper Lake Shipping.

138 Steamers	Tonnage	69,150	Value	$2,720,200
197 Propellers	"	61,350	"	2,478,300
1122 Sailing Vessels	"	246,125	"	5,456,700
	Tons	376,825		$10,655,200

Extract from Report of Public Works for 1860, *p.* 13.

Total Tonnage on Welland Canal, Down, 766,288 tons; Up, 177,796 tons—of which 13,782,000 bushels consisted of wheat,
and 3,003,000 bushels passed over the Welland Railway.

Total - 16,785,000 bushels, all of which went to Oswego and other American Lake ports, except 171,000 bushels.

The Elevating Power at Oswego is 11 Elevators; Storage, 1,945,000 bushels. Elevate per day, 400,000 bushels.

The total number of vessels registered in Canada is given (in *Trade and Navigation Report* for 1860, p. 240) at 21 Steamers, tonnage, 9,899, and 109 Sailing Vessels, with a Tonnage of 26,308 tons.

[No. 10.]

Extract from Report Public Works for 1859, *p.* 7.

The Shipments from Toronto alone, from 1st September to 31st December, 1859, were:—

Flour—Barrels, - - - - - - - -	63,627
Wheat—Bushels, - - - - - - -	805,224
Barley, - - - - - - - - - -	167,364

Of which the Ports of Montreal and Quebec received but 19,715 bbls. and 21,691 bus. Wheat or about 2 *per cent* only of the latter, the remainder finding its way to Oswego and other American Ports on Lake Ontario,—the entire shipments by sea, were 140,235 bbl. of flour and 50,029 bus. of wheat and 439,328 bus. of other grain.

[No. 11.]

Letter from RICHD. IRVIN & CO., *New York.*

NEW YORK, 12th April, 1861.

Hon. WM. H. MERRITT, Quebec.

DEAR SIR,—Your favor of the 30th ultimo, is to hand, and we have much pleasure in giving you information therein desired. As the best way of doing so we send you by express, first, a book containing the law of the State under which our pilots act, and the by-laws, or regulations prescribed by them—also the rates of pilotage charged, &c., &c. The system has now been in operation for several years, its influence has been most salutary, and it is universally approved by our merchants and underwriters. The Commissioners act gratuitously—most of them have been sea captains, but are now merchants. Second.—We send you the latest edition of the United States Tariff, containing also our Warehousing Law and debenture regulations, and various other items of information bearing whereupon, by means of which you will be fully instructed in all the particulars of our system. We have placed in this book extract from one of our paper which you will find illustrative of our Warehousing system, which has been found of signal benefit to our commerce.

Yours truly,

RICHD. IRVIN, & CO.

[No. 12.]

Evidence of ROBERT BOUCHETTE, *Esq., Commissioner of Customs.*

The value of goods passing through the United States to Canada in 1860 is $3,041,877.

The amount imported from the United States and being the produce thereof is $12,622,375; of this amount upwards of $8,197,374 are free goods.

The amount of foreign goods, not the produce of the United States, but imported from the United States is $4,650,654.

In 1860, the value of the principal articles imported into Canada from sea by the St. Lawrence, was $13,548,665.

With reference to the tolls originally levied upon the Provincial Canals, a reference will have to be made to the Orders in Council which first established those tolls. The 9th Vic. ch. 37, established the maximum of tolls to be levied on the Provincial Canals.

In the Canada Gazette of 1846, page 3152, will be found the table of tolls under that Act.

The quantity of Wheat exported from Quebec in 1860 is, 29,204 bushels; from Montreal, 1,103,696 bushels.

[No. 13.]

30th March, 1860.

Evidence of JOHN W. DUNSCOMB, *Collector, Port of Quebec.*

There is great an analogy between the two bonding systems of New York and Canada; the advantage for freedom of trade being perhaps on the side of Canada. Exports in bond being made from Canada at any port or place whilst the New York laws require the exports to be made at particular ports designated by proclamation for that purpose.

This answer applies to goods in bond solely, for there is no drawback law in Canada for goods generally, the drawback being confined to exports of manufactured articles, such as refined sugar, whisky and certain materials used in ship building.

Goods imported by Quebec into Canada and duty paid cannot obtain the drawback when exported to the United States.

There is no drawback law in Canada, charges on ships arriving at the Port of Quebec.

Pilotage (upwards) per foot	$3.60
Do (downwards) "	3.15
Hospital dues	1d per ton.
Water Police "	1d per ton.

1st April 1861.

Exports of Grain from the Port of Quebec.

Barley and Rye,	bush.	1015
Beans	"	57
Oats	"	35,281
Peas	"	15,899
Indian Corn	Nil.	.....

The above, all produce of Canada—no U. S. grain ever shipped from Quebec.

[No. 14.]

QUEBEC, 30th April, 1861.

Evidence of J. GILLESPIE, *Esq., President, Board of Trade, Quebec.*

Goods can be imported into Quebec from sea in Bond, intended for consumption in the United States, with equal facilities as they are entered at the Port of New York for goods intended for consumption in Canada.

When once the duties are paid in Canada, if sold for the U. S. Market no drawback is allowed. I do not think our bonding system is properly understood in the western states, or else we should have a larger amount of goods entering by the St. Lawrence from Great Britain and other foreign countries for that market.

[No. 15.]

LEGISLATIVE COUNCIL,
QUEBEC, 30th April, 1861.

Evidence of JOHN WALKER, *Esq., Vice-President of the Board of Trade, Quebec.*

If the duties have been paid in Canada they cannot be exported into the United States and receive any drawback.

Goods can be entered at the Port of Quebec in Bond the same as at the Port of New York, but if not expressly imported for the United States, if resold for that market in Canada, we have to pay duties on amount of Insurance, Freight, &c.

[No. 16.]

DETROIT, April 5th, 1861.

Hon. H. MERRITT,

DEAR SIR,—During the past winter I was at Buffalo on business, and as you were expected, I stayed over one day for the purpose of seeing you relative to the St. Lawrence trade, and its bearings on the trade of the West. I gave Mr. Clark my views on the subject, and he has without doubt, placed them before you.

Since that time I have given the subject much earnest and careful attention, and I will now lay the conclusions I have arrived at before you, and I hope they wil tend in some small measure to awaken an interest in the great project you have in hand, not only in Canada but in England. I intended during the past winter, to have made a journey to Quebec, for the purpose of laying before Parliament some facts connected with the trade of the West, and the benefits its development would confer on the States bordering on our great inland seas—the cities of Montreal and Quebec—and upon the working classes of Great Britain—but my own business will prevent me from doing this at present.

As one who looks with feelings of delight on the unequalled greatness of the land of his birth, and at the same time loves with devoted attachment the land of his adoption, I am most anxious to see the bonds of unity between the two countries made so strong that no human effort can rend them asunder. The surest and quickest way to reach this desirable end, is to encourage and extend the commercial relations of the two countries, for I am satisfied, the more the one knows of the other, the greater will be the esteem and friendship between them.

It is also proper that the peoples who inhabit the great States of the North-West—the noble provinces of British North America, and the British Isles, should be drawn closely together by ties of friendship and trade. *We are not only to a great extent of one race and one language, but we are one in feelings as regards every movement that looks to the elevation of mankind in general*, and more particularly to all efforts that are made in our own midst for the increase of comfort and happiness among the working classes; *and in no way can comfort and happiness be sooner increased among these classes, than by an unlimited increase of cheap food.* Of course this is much more applicable to the working classes of the British Isles than to the same classes either here or in Canada. And this is one of the strongest arguments that can be brought forward in support of *establishing direct trade between the old world and the States that border on our great fresh water seas.*

As regards England and its permanent prosperity, the subject is fraught with great importance. As I have stated before in discussing this question, "The manufacturing supremacy of England will only be maintained so long as she can keep up an unlimited supply of cheap labor, and cheap labor can only exist where there is an unlimited supply of cheap food; for if labor is cheap and food dear, great suffering and destitution must result; and where these two evils are predominant, there always will be more or less murmuring against the government, and a strong disposition for change." If this becomes evident, what would be a blessing to the people would be a great advantage to the government, and what is a benefit to the one, and an advantage to the other, should receive the support of both.

It will also be found, that where there are no natural or artificial obstacle in the way, trade will always seek the shortest and cheapest roads to market, and it can be demonstrated that the shortest and cheapest way for the products of the west to reach the old world is by the River St. Lawrence.

The time is fast approaching when the production of breadstuffs in the west will be so enormous, that in seasons when the crops of Europe are not more than 10 per cent. short of an average, it will be most difficult to find a market for any considerable portion of it, at a price that will remunerate the farmer for his labor. In order therefore to stimulate the farmer under the pressure of low prices, we must *bring cheap means of transporta-*

tion to his aid, in fact we must enable the owner of the soil at the west to reach England at about one-half the present rates of freight.

I have examined with great pleasure the statement made by you to the Legislative Council, on Tuesday, March 26th. You ask for too little in the way of facilities to do the business with despatch. Since I recommended propellers of 600 tons capacity to Mr. Clark, I have come to the conclusion that such propellers are altogether too small, and that six of them are too few. It is a most gigantic trade you are about to compete for, *and gigantic, though not costly, means must be used to make competition successful,* and I will at once proceed to state the means necessary to success:

1st. You must get $100,000 to build another large Elevator at Port Colborne, and to build as many cars as will be needed to the business.

2nd. Instead of $180,000 to build six 600 tons propellers, raise $500,000 to build ten propellers, of a carrying capacity of 900 tons each, to ply between Port Dalhousie and Quebec. There will be sufficient trade for them as fast as they can be built, and with the exception of a very small addition for fuel, the cost to run a propeller of 900 tons would be the same as to run one of 600 tons. The propellers should be 180 feet keel, 14 feet depth of hold, and 38 feet beam, with a good sharp stem, and good easy lines for the stern.

Such propellers could take on 600 tons for Quebec and Montreal, and 300 tons for Oswego and Ogdensburg. Of course, coasting is no allowed, but you would clear from Port Dalhousie to Oswego, thence to Kingston, then to the port of Ogdensburg, and from that to Montreal and Quebec; you would be sure of 300 tons to Oswego and Ogdensburg, and 600 tons to Quebec and Montreal, and after discharging, say 200 tons at Oswego and 100 tons at Ogdensburg, you would be able to carry 600 tons with 9 feet water, on an even keel through the Beauharnois and Lachine Canals. At the rate of six cents per bushel from Port Dalhousie to Quebec, for the first half of the season—say from the opening till Sept. 1st, and 8 cents per bushel from Sept. 1st, to the close of navigation, the propellers would net, at least, $20,000 each, and I firmly believe $25,000. The propellers must be owned by the Welland Railway Company, so that that Company can have full control of all its contracts.

Port Colborne and Buffalo will then be the great starting points of competition; at all places west of these points, you will be on equal terms, for the simple reason that freight of all descriptions will be exactly the same from all points on the Western lakes to these two ports; but your route will stand the best chance for business, as you will be able to reach the great markets of the world at a cheaper rate of freight by the St Lawrence, than can be done by way of New York; and the saving in time will be immense—*I think fully one-third.* The next competing points are Quebec and New York. *As a general thing, freights are lower from New York to European ports, than from Quebec to these ports; this disadvantage must be overcome,* and the way is simple; the merchants and property-owners of Quebec, and the merchants of Liverpool will have to do their portion of the work, and that will be to build a line of freight propellers to connect at *Quebec* with the propellers of the west. Such propellers should be built strong, with a speed of 8 to 9 miles per hour, and to use sail alone in fair winds, so as to need as little room for coal as possible; they should be not less than 2,000 tons burden, and sail punctually every Wednesday and Saturday, and carry only emigrant passengers; this would, at once, turn the emigration for the West from New York into the St. Lawrence, and you could *land them in Detroit or Toledo for two dollars per head* from Quebec to these ports. You would also get a large amount of back freight for Montreal, Quebec, Kingston and Toronto, and I think all the crockery and other heavy stuff imported into the Western and South-western cities.

With this outlay of $600,000, in addition to your outlay already made of $1,300,000, you can move a larger tonnage per day than the Grand Trunk Railway can, with its outlay of seventy millions, or the Great Western Railway of Canada with an investment of nearly twenty-seven millions. *It is an utter impossibility for railroads to compete with water communications of such length as yours will* be. Should I be able to visit Quebec, I will give you some facts in this connection that will surprise yourself, notwithstanding your knowledge of such matters, and as will prove to the Parliament and people of Canada, that the improvement of their lower Canals is of vital importance to the permanent advancement of the provinces in prospects and wealth. With the lines once in motion, Montreal and

Quebec will become cities of the first importance, dividing with New-York the trade of a mighty Empire, for a mighty Empire the West will become, whatever may occur in our Southern borders, and two generations will not pass away, when the States of Ohio, Indiana, Michigan, Illinois, Wisconsin, Iowa and Minnesota will be a more numerous and stronger, peuple, than any power now existing in Europe. *If the present and prospective trade of such a country is not worth a present outlay of* $600,000, *I am much mistaken*, and I am satisfied that the facts are only needed to be understood to insure the $600,000 and the connecting line to Liverpool. A half way line will never do as well as one the entire distance. This is a project that will need no government support or patronage—it will stand on its own feet, and trust in its own strength.

Let the projected elevators be built at once at Quebec, and have the government give two feet more water in the Canal below Kingston—if not two feet, let them give 13 inches more—this would enable the propellers to carry 150 tons more to Ogdensburg than you could with the present depth of water, so that you could take each trip, 150 tons to Oswego, and 150 tons to Ogdensburg, and 600 tons to Quebec. You would still need two more propellers of at least 600 tons to do the Oswego grain trade; in that case, you will need $700,000 in all, to complete your portion of this great and noble undertaking. *You will need no outlay on the Western Lakes—private enterprise will furnish all the facilities needed for feeders.* You will not even need contracting agents, or at least need no very expensive ones at any of the Lake ports above. With the whole line in motion, your expenses west of Port Colborne need not exceed $6,000 per annum. Should a Quebec and Liverpool Company put on the Ocean freight Propellers, the British government should cancel the grants to Lever and Cunard, and the Provincial government, the grants to the Canadian line, so that the subsidised lines would not be in a position to ruin the Quebec and Liverpool line by government aid. If any trade cannot stand on its own merits, it is not worth nursing. All lines sustained by governmental aid are an incubus on enterprise, and tend strongly to corrupt those who govern, and demoralize the governed. In all countries, bribery and corruption is the rule where governments endeavor to foster interests that cannot sustain themselves. Your enterprise is fair, honest and legitimate, and deserves all the aid you claim in its behalf; for the sake of England and the great West, I wish it God speed.

I am, with great respect,
Your obedient servant,
DUNCAN STEWART.

[No. 17.]

DETROIT, April 25th, 1860.

Hon. W. H. MERRITT:

DEAR SIR,—When I had the honor to address you on the 5th of this month, I intended to have followed up that communication with another, within a few days thereafter. My own business, and the state of the country left me no time until to-day to fulfil my intention; and I can only find time now to glance at facts of great interest, of which I had made up my mind to write at some length. I will therefore be brief.

Should the Committee appointed by the Legislative Council to inquire into the causes of the decline in the trade of the St. Lawrence, make personal inquiry at the West into our resources and powers of development, the great fertility of the soil, our vast expanse of easily cultivated lands, the enterprize and industry of the people—all these must be seen to be understood—so must also our unsurpassed means of communication by land and water. Cleveland, Sandusky, Toledo, Detroit, Milwaukie, and Chicago, are all great exporting points, and in all of whose harbors will be found steamers and sail craft in scores, laden with the rich products of Kentucky, Ohio, Indiana, Michigan, Illinois, Wisconsin, Iowa, Minnesota, and Missouri. It is the trade of these rich and powerful States we ask Quebec and Montreal to divide with New York. A small sum will make competition successful.

Let gentlemen representing the Cities of Toronto, Hamilton, Quebec and Montreal, lay aside all local feeling and go with one accord for two feet more water in all the Canals, below the Welland Canal, so that propellers of the tonnage recommended in my letter of

the 5th will be able to reach Montreal and Quebec with as near their carrying capacity as possible. These two cities would be the great centres of the Western trade, seeking your noble river as an outlet to the old world; while Toronto, Hamilton and Port Dalhousie, will become of great importance as the Canadian exporting points for Collingwood, Sarnia, and Port Colborne. There will be sufficient trade for all of these points in one year from the day that two feet more water is obtained in the Canals.

Make your country great; never mind your cities—they will grow up just where trade will naturally centre, and nowhere else. Unless the position for trade is a natural one, no human efforts can make a city large, prosperous, or wealthy. If any man thinks his genius is too great for the particular locality he inhabits, he had much better move to one large enough for his genius and his enterprize, rather than endeavor to make his locality expand to suit his ideas of his own greatness. I illustrate: if a man thinks Toronto is too small a City to live in; that it should be as large as Montreal, he will find it much less trouble to move to the latter, than to make the former of equal importance. It cannot be done; hence I would advice all parties to lay aside local preferences, and and make a combined effort to accomplish on object, not only of national importance, but of, I may almost say, world-wide importance.

With the Canals deepened two feet, it would have a most wonderful effect on the cotton trade, as well as on the trade in breadstuffs. The propellers of 1,000 tons, built as I suggest, could carry from Quebec to Port Dalhousie, without breaking bulk, 2,000 bales of cotton each, in addition to 1,000 barrels flour; but give us two feet more water, and the propellers can be constructed with guards so as to fill the entire width of the locks and take 3,000 bales of cotton and 1,500 barrels flour through without breaking bulk. Quebec and Montreal would thus not only compete with New York for the grain and flour trade of the mighty West, but would contend with New Orleans for the cotton trade of the South, as cotton vessels coming to Quebec would be filled with passengers for the West, freights from Quebec to Liverpool would not be over one-half the rates from New Orleans, and insurance would be much less. In fact, the insurance from Detroit, Cleveland, or Tolédo, would not be much more to Liverpool than to New Orleans to that point, and the freight would not exceed from these points to Liverpool *one half cent* per pound, divided as follows: Lake Erie, 10c; Port Colborne to Quebec, 15c; Quebec to Liverpool, 25c. It must be borne in mind that Quebec is not half the distance from Liverpool that New Orleans is—hence the lowness of the rate of freight. British Captains loading cotton at Montreal or Quebec, would not be subject to the insults and lawless aggressions that characterize the slaveholding part of our republic; nor would the trade be subject to the dangers that must for long years to come attend it in southern ports, owing to the distracted state of that portion of the country.

Have your men of influence and money, ponder over the statements and ask themselves whether the small outlay needed to inaugurate the new route will not be forthcoming. These are mere skeleton outlines of some facts connected with this great subject. I am prepared to go into the most minute details to prove the correctness of the position I have assumed.

I remain,
Yours respectfully,
DUNCAN STEWART.

[No. 18.]

Extract from the St. Catherines Journal, 7th March, 1861.

Western Trade—St. Lawrence and New York Routes contrasted.

We are now in a position to lay before the public the relative advantages of the two routes.

On the 10th September last 16,000 bushels of Wheat were purchased at Chicago, shipped on the 13th, (divided into two cargoes at Port Dalhousie; 10,000 bushels *via* the

St. Lawrence, and 6000 *via* New York) for Liverpool. The following tables show the result.

ST. LAWRENCE.

Time.	Days.
Shipped at Chicago 13th September—Arrived at Port Colborne, 18th	5
Passed over Welland Railway same day.	
Shipped at Port Dalhousie, 19th September—arrived at Montreal, 22nd September	2
Detained at Port Dalhouse 1 day for steamer.	
Shipped at Montreal per steamer, 22nd, which sailed from Quebec on 29th—Arrived in Liverpool on 8th October	10
Detained between Montreal and Quebec 7 days.	
Actual time in movement	18
Add detention	8
In all	26

CHARGES.

Freight—Chicago to Port Colborne	16 cents	
" Welland Railway	2	
" Port Dalhousie to Montreal	8	
" Montreal to Liverpool	26	
		— 52 "
Insurance—Chicago to Montreal	2½	
" Montreal to Liverpool	1½	
		4 "
Charges for Bagging, Wharfage, &c., at Montreal	½	
" for Dock Dues, &c., Liverpool	2½	
" Imperial Duties	3	
" Commissions	5	
		— 11 "
Total charges per bushel		67 "

NEW YORK.

Time.	Days.
Shipped at Chicago, 13th September—arrived at Port Colborne 18th	5
Passed over Welland Railway same day.	
Shipped at Port Dalhousie 25th September—Arrived at Oswego 26th Sept	1
Detained at Port Dalhousie six days for steamer.	
Shipped at Oswego 26th September—Arrived at New York 6th October	10
Shipped at New York 10th October—Arrived at Liverpool 3rd December	54
Detained at New York four days for vessel.	
*Actual time in movement	70
Detention	10
In all	80

*If shipped by steamer, the actual time of movement would have been reduced to 26 days, add for detention 10 days, in all say 36 days.

CHARGES.

Freight—Chicago to Port Colborne	16 cents.	
" Welland Railway	2	
" Port Dalhousie to Oswego	4	
" Oswego to New York	11	
" New York to Liverpool	25½	
		—58½ "
Insurance—Chicago to New York	2¾ cents.	
" New York to Liverpool	2¾	
		—5½ "
Charges—Lighterage, Weighing, &c. at New York	1½ cents.	
" Commission at New York	1½	
" " at Liverpool	5	
" Imperial Duties	3	
" Town Dock Dues, Weighing, &c	3	
		— 14
Total charges per bushel		78 cents.

By examining the above, it will be perceived that, had the cargo been shipped from New York in a steamer, there still would have been fully *ten days* in favor of the movement by the St. Lawrence; and a saving of 490 miles in distance, 6½ cents per bushel on freight, and 4½ cents on charges.

When a daily line of Propellers of 1000 tons each—with a speed of 12 miles per hour—is established from Chicago to Port Colborne, connecting with a similar line, of the same capacity and speed, from Port Dalhousie to Quebec, where the cargo will be transferred by elevators into Ocean Steamers, freights will be reduced from 61 to 39 cents, as shown by the following :—

The prices now paid for freight on a bushel of wheat from Chicago to Liverpool, is :

Chicago to Welland Railway at Port Colborne	1000 miles,	16	cents.
Over Welland Railway	25 "	2	"
Port Dalhousie to Montreal	320 "	8	"
Montreal to Liverpool	2680 "	26	"
	4025 miles,	52	cents.
Insurance, 4 cents; commission, &c., 5 cents		9	"
Total		61	"

When the proposed line is in operation and an elevator erected at Quebec, the reduction will be :

Chicago to Welland Railway	7 cents.		
Welland Railway	2 "		
Port Dalhousie to Quebec	6 "		
*Quebec to Liverpool	20 "		
	35 "		
Insurance, 2 cents; commission, 2 cents	4 "	39	cents.
Reduction from present rates		22	"
Impose a toll of 2 cents on the canals		2	"
It would leave		20	"

*The estimated rate by Mr. McAlpine, (State Engineer, New York), for ocean freights s *one mill* per Ton per mile, and for lake freights *two and a half mills* per Ton per mile. Allow this latter rate on *return freights*, it will amount only to $9.05 per Ton on the whole distance from Liverpool to Chicago.

A daily line of Steamers may appear extravagant in the present state of trade, but when we consider that (allowing 25,000 per day for the navigable season of 200 days) they would only carry *five millions* of bushels, when the Welland Railway will carry with its present rolling stock, 40,000 per day, or for the season of 200 days, *eight millions*

[No. 19.]

Letter of Honorable W. H. Merrill to the Citizens of Quebec.

To the Citizens of Quebec.

Quebec, 9th April, 1861.

1st. It is proposed to connect Toledo with Quebec, by a daily line of Propellers of the largest capacity which can pass through the St. Lawrence Locks, and erect Grain Elevators at this port for transferring cargoes from inland to ocean steamers.

2nd. The magnitude of the trade centering in Toledo may be inferred from its geographical position. It is connected with the Ohio canal leading to Cincinnati; and with the Wabash canal leading to the confluence of the Ohio and Mississippi Rivers; also with three separate Railways, one leading to Dayton and Cincinnati, another to Indianapolis, Springfield and St. Louis, the other in a direct line to Chicago, thus connecting the great valleys of the Ohio, Wabash, Mississippi and Missouri Rivers with Lake Erie. Indian corn is grown and cribbed for 12½ cents per bushel; you may therefore safely rely upon an abundant supply at all times during the navigable season.

Toledo will be connected with Port Colborne (the terminus of the Welland Railway) by the largest class of Propellers which navigate Lake Erie. In 1859, these propellers carried a bushel of grain from Chicago to Buffalo (1000 miles) for 3 cents, or $2 per ton, and return freight for $2 per ton. We will therefore assume that it can be carried from Toledo to Port Colborne (270 miles,) at the same price.

3rd. The Welland Railway (connecting Lake Erie and Ontario in a distance of 25 miles) with its present rolling stock is capable of conveying 40,000 bushels of grain per day, or eight million bushels per season of 200 days, and the Company are prepared, when required, to build another Elevator and rolling stock to convey 50,000 bushels per day in addition, or sixteen million per season, at a cost of 2 cents per bushel.

Six Propellers with a carrying capacity of from 25 to 30,000 bushels, and a speed of 12 miles per hour, to run between Port Dallousie (on Lake Ontario) and Quebec, estimated to cost $30,000, each	$180,000
Erection of Elevators, &c., at Quebec	20,000
Making total capital required	$ 200,000
The estimated profit per trip on 25,000 bushels grain at the *minimum* rate of 6 cents per bushel *down*, and 200 tons *up*, @ $2 per ton, yields	$ 1,000
Deduct 10 days' working expenses @ $100 per day	1,000
Leaves nett profit per trip	$ 900
20 trips per season	$ 18,000
$18,000 per season, net profit on 6 propellers	$108,000
Deduct dividend of 25 per cent. on a capital of $200,000	50,000
Leaves a surplus of	$ 58,000

to be appropriated from year to year in building additional propellers to run between those points.

5th.—I have already shewn in detail, that a reduction of 20 cents per bushel can be made in freights between Chicago and Liverpool, and a corresponding reduction on return

freights. It is also shewn by the Trade and Navigation Returns of 1860 (just published), that the total exports from Canada by sea (see page 221), is 1,712,984 bushels, and 323,718 barrels flour, in all; 3,168,715 bushels—and there passed through the Welland Canada (p. 8,904,523 bushels wheat, and 4,232,500 bushels corn, to addition to 3,003,000 bushels which passed over the Welland Railway, making a total of 16,180,023 bushels; all of which went to American ports on Lake Ontario, except 141,700 bushels, which passed down the St. Lawrence (see page 248). It thus appears that not a single bushel of grain from the United States is shipped from Quebec, and that goods arriving here in transitu (page 121) for the United States, are only valued at $21,505.

In 1766, this port exported 120,000 bushels of Wheat; last season (nearly a century after) only 29,204 bushels. You have now an opportunity by a united effort, of placing your city "one century" in advance, and making it one of the greatest shipping Ports on this continent.

I find that the Corporation of Quebec have $1,150,000 of Municipal Loan Fund Debentures at their disposal. If they would grant this Company a Loan of $100,000 out of this fund (which was intended for the North Shore Railway), it would insure Capitalists taking up the stock at once, and provide the material which can alone accomplish the object.

I remain,

Your obedient servant,

W. HAMILTON MERRITT.

[NO. 20.]

Rates of Toll Levied on the Welland and St. Lawrence Canals.

ARTICLE.	Rates of Toll in 1845.		Rates of Toll in 1859.			
	See U.C. Gazette, folio 1744 and 1834.		Welland Canal.	Chambly and St. Ours Lock	St. Lawrence Canal.	
	Welland Canal.	St. Lawrence Canal. *	each way.	each way.	Up.	Down.
	Hyc.	£ s. d.	per Ton.	per Ton.	per	Ton.
Steamers and Vessels under 50 tons	10s.	0 17 6	2½ Cents.	1½ Cents.	2½ Cts.	1½ Cts.
do 50 to 75 tons	15s.	1 7 6	.....	.....	.....	.....
do 75 and upwards	"	1 17 6	.....	.....	.....	.....
Flour per bbl	4d.	0 0 9	20 "	10 "	10 "	22 "
Pork and Beef per bbl	6d.	0 0 10	.....	.....	.....	.....
Grain per bushel	1d.	0 0 2½	.....	.....	.....	.....
Articles not enumerated	5d.	0 0 9	50 "	10 "	15 "	27 "

* By Proclamation 20th April, 1845, published in the *Canada Gazette*, 14th June, 1845, that in all cases where any Boat, Barge, Scow, or other vessel shall, instead of passing through the Lachine Canal to the Port of Montreal, have descended through the Rapids of the River St. Lawrence to the said Port, or lower down, and such Boat, Barge, Scow, or other vessel and all merchandise therein laden, shall, in ascending the said Canal, be subject to and pay one third more than the rates of Tolls and duties mentioned in the Schedules annexed.

MEMORANDUM.—By re-imposing a Toll of Two Cents on the quantity of Grain which passed the Canals last season, (over 16 million Bushels) it would yield over $320,000, sufficient to pay the interest on $742,000, the cost of deepening the Channel of River and Canals at 6 per cent. $44,520

$200,000 for Inland Propellers at 6 per cent. - - - - - 12,000

$2,000,000 for Ocean Steamers. - - - - - - - 120,000

$176,000

Leaving a surplus to apply to Provincial Revenue of - - - - $143,480

It would be well to remark here that the Toll on a Bushel of Wheat from Buffalo to Albany amounts to Five Cents.

[No. 21.]

SUBSIDIES PAID TO OCEAN MAIL STEAMERS.

1st. The Cunard Contract, was renewed in 1859, will terminate in 1868. Is estimated at about £178,000 Stg., for a weekly trip all the year round paid by the Imperial Government. (*See Report of Government on Packet Contracts to House of Commons in* 1860.)

2nd. The Galway Contract commenced in June, 1860, terminates in 7 years, is for a fortnightly service between Galway and New York, alternately for which £78,000 Stg., is allowed. (*See Report above referred to.*)

3rd. The Canadian Contract is betwen Hugh Allan and the Post Master Oeneral of Canada, dated 1st April, 1860, for a weekly service between Quebec and Liverpool in Summer and Portland and Liverpool in Winter, for a yearly subsidy from the Canadian Goverment of - - - - - - - - - - - - $416,000

Contract expires in January, 1867; "no restriction as to freight or passengers. The amount received from the American Government for sea conveyance for conveyance of U. S. Mails, was $104,641.68

The claims of the British and American P. O. for Packet and transit charges on Canadian correspondence with Europe previous to 1859 and 1860, averaged $165,000 per annum; at present these claims do not average more than $50,000, shewing as a gain to Canada to carrying her own Mails of - - - $115,000 219,641

Making cost of weekly mail service to Province, $196,359

(*See Report Postmaster General for* 1860, *paye* 9.)

From a Statement published by Messrs. Edmondstone, Allan & Co., 30th November, 1860, it appears that the average trips by their Steamers was, *Eastward*, 11 *days*, 1 *hour*; *Westward*, 11 *days*, 1 *hour*. Average time of vessel in port each trip, 11 *days*, 3 *hours*.

From the above it will be seen that if we allow 12 days for the voyage, and the time in port is limited to three days each trip, a steamer would make *two trips* per month or 24 per year, therefore *Sixteen Ocean Steamers* will form a daily Line between Quebec and Liverpool, allowing one extra vessel in case of accident or detention.

By our preseut Weekly Line 30,000 bushels can be carried, making during the navigable season from Quebec, 28 *trips* equal to - - - - - - 840,000 bus.
by adding 8 *Steamers*, a Daily Line can be formed, or 172 *trips*, carrying 5,160,000 bus.

or 200 trips during the Season of 30,000 bus. each gives - - 6,000,000 bus.
The remaining 165 days running from Portland carrying - - - 4,950,000 bus.

Total per year, - - - - 10,950,000 bus.