

ESSAY
ON THE
ADVANTAGES OF THE CANALS
TO THE
FARMERS OF CANADA.

BY J. GORDON BROWN.

TORONTO:
A. H. ARMOUR & Co.

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The following Essay stood second in the estimation of the Judges in the competition for the Governor General's Prize. These gentlemen recommended that it should be published, and the author has complied with the request, more on account of the interest and importance of the subject, than from any high idea of its merits as a literary composition.

ESSAY ON THE ADVANTAGES OF THE CANALS TO THE FARMERS OF CANADA.

CANALS are the invention of a very early period in the world's history. The advantages of water communication, over any system of land carriage, before the iron road had been laid or the locomotive invented, were obviously very great. In speed, ease, and cheapness, the water had then the acknowledged supremacy. Even now, it still maintains its superiority in the two latter, if not in the former particulars; and the problem yet remains to be solved, whether Railroads will ever compete with Lakes, Rivers, and Canals, in all these respects. It was to be expected that attention should have been turned to plans for the creation of water communications, where nature had failed to bestow them with a liberal enough hand, and the ingenuity, industry, and energy of man have been exerted in devising and carrying them into operation. These works have ever been undertaken in the greatest number and of the greatest magnitude, by the nations furthest advanced in civilization. The gigantic Canals of the Chinese, the Dutch, the British, and the people of the United States, will be handed down to posterity, as monuments of their superiority over neighbouring nations.

Canals have been constructed of two distinct kinds, having different results in view. First, those which join large Seas or Lakes, by cutting across comparatively narrow necks of land which divide them, or those which provide new passages round obstructions in Rivers by Rapids or Falls. These are more to obviate obstructions in the natural navigation, than to create new navigation. The second are Inland Canals, having no outlet to other bodies of navigable water, or only one, and occupied by a class of vessels of their own. The former of these are obviously the most profitable: they enable vessels on the

waters they connect to navigate them without the cost of transshipment of goods and passengers ; they are the connecting links of a chain, without which, the remainder would be comparatively valueless.

There is probably no country on the face of the earth in which the necessity for this kind of water communication is greater than in Canada. A chain of Lakes and Rivers washes our shore over two thousand five hundred miles in length, affording an extent of inland navigation unparalleled in the world, considering the depth and breadth of the channels. The great Superior, an inland ocean, the greatest body of fresh water in the world—the beautiful Lake Huron, its broad bosom studded with fairy-like isles—the clear waters of the River St. Clair, and its wide opening into the Lake of the same name—the stormy and turbulent Erie—the majestic Niagara, with its wonderful Falls—Lake Ontario—and lastly, the mighty St. Lawrence, with its Thousand Isles and picturesque banks—form this immense chain of waters.

As if to afford an opportunity for the exercise of the ingenuity and industry of man, the navigation of these waters is broken and interrupted at various points by Falls and Rapids, rendering the ascent of large vessels impossible, and in the instance of Niagara, the descent also. The advantages to be derived from the construction of a series of Canals to overcome these obstructions, to enable large vessels sailing on one part to navigate all—to carry the produce of the West or the manufactures of the East from one end to the other, without the expense and tedious labour of transshipment—were obvious, and from the earliest days of Canadian settlement, the subject has received earnest attention from a portion of the community.

The region bordering on Lake Superior is only now coming under the public notice, with a view to settlement. The recent discoveries of its great mineral riches have drawn many eyes towards it. The sterility of the soil and distance from the seaboard, rendered it less suitable for occupation than the countries bordering on the more easterly Lakes ; and although projects for constructing a Canal round the Rapids of the River St. Mary, which joins Lake Superior to Huron, have often been broached, yet no

progress has been made towards the commencement of the work. Public attention, however, has recently been drawn to its importance, and it will undoubtedly be effected also. It appears highly desirable that as Canada has hitherto effected all the improvements in the navigation of these Lakes and Rivers, that she should effect this also; that she should not allow this last link in the chain to be supplied by another country, which will undoubtedly be the case, should steps not be taken to accomplish the work immediately, on Canadian ground. An American authority estimates the expense of the Canal at £125,000 currency: a small sum, compared with what the Province has already expended on public works.

Proceeding westward, the next interruption to our navigation is that caused by the Falls of Niagara; and however much Canada has expended in overcoming this obstruction, the most utilitarian would hardly breathe a wish that we had been spared our labour, and that where now roars the sublime and beautiful Cataract, the River should flow on in smooth placidity.

The Welland Canal was projected to overcome this obstacle. It was first commenced by a Joint Stock Company, chartered by the Parliament of Upper Canada in the year 1824; and so humble were the views of its promoters, that their proposed capital stock was only £37,500. It was at first intended to connect Lake Ontario with the Welland or Chippewa River, a tributary of the Niagara, through which Lake Erie would be reached; but the design was subsequently altered, and it was carried through to Lake Erie direct, a distance of 29 miles. The work was commenced on the 30th November, 1824, and the whole line was opened in 1832. It was 26 feet wide on the bottom, and 56 on the surface, except in the "Deep Cut," which was somewhat narrower. The Locks were of wood, 39 in number, only 100 feet in length, and 22 in width, with 7 feet of water on the mitre sills. The water was supplied by a Junction Canal from the Grand River. The Company had great difficulties to contend with, although assisted by loans from the Parliament of Upper Canada. These difficulties continued long after the Canal was opened, and even continued to increase, so that in 1839

the Government found themselves compelled to assume the charge of the work, paying the Stockholders for the amount they had expended upon it. At this time about £500,000 had been laid out. The work was speedily found to be too small; larger vessels than its Locks would admit were the most profitable; and it was determined to increase its size. In 1841 the work of enlargement was commenced, and it is not yet completed. The Canal has been open, however, during the progress of the work, in the season of navigation. The Locks are now 150 feet in length by $26\frac{1}{2}$ in breadth, with $8\frac{1}{2}$ feet on the sills. The supply of water will in future be obtained from Lake Erie, instead of the Grand River. The cost of the work of enlargement, up to the end of the year 1848, has been the large sum of £828,943 7s. 8d., and it is estimated that when finished it will have cost £942,350; so that the total expense of creating artificial navigation between the two Lakes will be, when completed, the enormous sum of nearly £1,400,000. Much of this would, of course, have been saved, had the work been commenced on a proper scale.

The Rapids on the River St. Lawrence present the next obstacles to the free navigation of our waters from West to East. These are no fewer than seven in number, between Lake Ontario and the Island of Montreal. The most simple and least expensive process by which to overcome these obstructions, appeared to be to construct Canals round each of them, the whole length required being only forty-one miles; but it was thought advisable, by the Imperial authorities, that the line of navigation should be further from the American border, so that in case of war it might be open for the conveyance of troops and stores; and in consequence, it was resolved to take advantage of certain small Lakes and streams which lie between the foot of Lake Ontario and the River Ottawa, to join these by means of a Canal, and form a line of navigation between the two points, from which vessels would reach the St. Lawrence again by the Ottawa River, at the head of the Island of Montreal. This Canal was commenced in the year 1826, and was opened in 1832. The whole length of the Rideau navigation is 132 miles, but the actual Canal is only 20 miles. Much labour and expense were

required, however, to make the Lakes navigable. There are 47 Locks, 142 feet in length, by 33 in breadth, and only 5 feet deep. The original estimate for the work was only £169,000, but mismanagement and change of plans brought the expenditure up to £975,720, all from the funds of the Imperial Government.

The work failed to accomplish its design, as a channel for the great traffic of the West to the East. The route from Kingston to Montreal, by the Rideau Canal and the River Ottawa, is 273 miles in length, a great part of it slack-water navigation; by the St. Lawrence, it is only 210 miles in length. The *batteaux* which conveyed produce down the Rapids, could compete in cheapness and speed with the Canal barge, and but a slight reduction on the rates of freight was caused by the opening of the work. Its only use has been as a means of opening up and settling the fine country through which it runs; and although it is undoubtedly of considerable importance in this point of view, it is deeply to be regretted that the large sum which it cost had not been more judiciously expended. Instead of reaping the full advantages of our unrivalled inland navigation only within the past two years, we might have been in possession of the carrying trade of the great West twenty years ago.

The Rideau Canal having failed to accomplish the object desired, attention was directed to the improvement of the St. Lawrence navigation, by making Canals round the Rapids. In the year 1834, the Government of Upper Canada commenced the Cornwall Canal, round the Rapids of the Longue Sault, and the work was approaching completion in 1838, when it was stopped for want of funds. At this time £440,097 had been expended on it. In the year 1841, when the loan of one million and a half, sterling, was effected for the Province by the agency of the Imperial Government, the work on the Cornwall Canal was re-commenced, and it was opened in June, 1843. The Canal is the largest in Canada, being 100 feet wide at bottom, and 150 at the surface; the Locks, 7 in number, are 200 feet long and 55 feet wide, with 9 feet water on the mitre sills. The length of the Canal is $9\frac{1}{2}$ miles, and the total cost £515,697.

The Beauharnois Canal overcomes the Rapids of the Coteau, the Cedars, and the Cascades. It was commenced in 1842, and finished in 1845, by the United Provinces, at an expense of £309,363 18s. 3d. It is $11\frac{1}{4}$ miles in length, 80 feet in breadth at bottom, and 120 at surface; the Locks, 9 in number, are 200 feet in length, and 45 in breadth.

Four short Canals—the Galops, 2 miles in length; Point Iroquois, 3 miles; Rapid Plat, 4 miles; and Farren's Point, three-quarters of a mile—all taking their names from Rapids which they are designed to overcome, were commenced and finished about the same time as the Beauharnois Canal. The Locks, 6 in number, are of the same size as those of that work; but the Canals are not so wide, being only 50 feet at bottom, and 90 feet at surface. This group of Canals lies to the Westward of the Cornwall Canal, while the Beauharnois lies to the East of it. Their total cost was £245,568 11s. 8d.

The Lachine Canal, which completes the chain of St. Lawrence navigation, was the earliest constructed of all the Canadian Canals. It was designed to obviate the obstructions in the St. Lawrence within eight miles above the city of Montreal. The work was begun by the Government of Lower Canada in 1821, and completed in 1825, at a cost of £109,601. Its length was $8\frac{1}{2}$ miles, its breadth at bottom 28 feet, at surface, in rock excavation, 36 feet, in earth 48 feet, in depth $4\frac{1}{2}$ feet. The Locks, 7 in number, were of cut stone, 100 feet in length, by 20 wide. When the great St. Lawrence Canals, however, were commenced in 1841, it was determined to enlarge the Lachine; in 1843 the work was begun, and completed in 1848. The enlargement cost £311,109 7s. 11d. The dimensions are the same as those of the Beauharnois.

The Chambly Canal was constructed to overcome the obstructions in the navigation of the Richelieu River, which connects the St. Lawrence at William Henry, with Lake Champlain at the town of St. Johns. This work was projected as early as the year 1819, and the route was examined. It was not, however, commenced till 1831, and great delays in its progress were caused by want of funds. It was ultimately finished and opened in 1843.

The cost, paid by the Lower Canadian Government, was £120,204. The St. Ours' Lock, to improve another part of the Richelieu navigation, cost £20,856.

The Desjardins' Canal gives water carriage from the town of Dundas to Lake Ontario, at Burlington Bay. The Joint Stock Company which constructed it, was incorporated in 1826, but the work was not finished till 1837. It is $3\frac{3}{4}$ miles in length, and no Locks were required, the route being over a level plain. The cost of construction was £24,671, of which £17,000 was advanced by Government to the Company.

The St. Ann's Lock, on the River Ottawa, overcomes the difficulties caused by the Rapids of the same name. It was begun in 1839, and completed in 1843, at an expense of £22,413 0s. 11d.

Five small Canals and Locks have been created to obviate the obstructions on the Rivers Scugog and Trent: their total cost was £41,415.

These complete the list of Canadian Canals. There have been expended on them by the Provinces the sum of three millions, one hundred and sixty thousand, eight hundred and twenty-two pounds. Exclusive of this, is the expenditure on the Rideau Canal, which was borne by the Imperial Government, as a military work. The amount mentioned appears large, indeed, when we consider that it was expended by a young Colony, just struggling into existence, with its forests yet uncleared, roads yet unopened; when we consider that it was torn by domestic strife, and that the investment promised, even in the view of the most sanguine of its advocates, but a very tardy return. Canadians have reason to be proud of the spirit and energy which those who are now gone, and many who yet remain among us, have displayed in the great cause of internal improvements. Who can fail to sympathize with the men who in 1824 first projected the connecting link between the great Lakes, Erie and Ontario? Who does not sympathize with them in their struggles with the countless difficulties which beset them, the doubting support of weak friends, and the fierce opposition of open foes?—and who does not rejoice with them in their ultimate, full, and triumphant success, after years of toil and contumely? What exul-

tation must fill the minds of the men who promoted the first Chartered Company—who perhaps assisted in taking the first portion of earth from its bed—who watched the progress of the small, narrow Canal, with its wooden Locks and mean contrivances—who counselled the enlargement—and who now see the present magnificent work rapidly approaching completion, perhaps the finest of the kind in the world.

While we glory in the industry and energy displayed in projecting and carrying on these labours, it is our present duty to enquire whether these qualities were employed to good purpose, whether the works have up to this time fulfilled the expectations of their founders, and whether they are likely to do so in time to come.

Before the construction of the Canals, the surplus produce of the Canadian farmer was conveyed from the place of its growth to its ultimate market, by a very tedious, hazardous, and expensive process. The produce of the farmer living in the Western Peninsula of Canada, was shipped from one of the ports of Lake Erie by a sailing vessel; was usually transferred at the mouth of the River Welland to a smaller vessel; conveyed up that River as far as the depth of water would allow; there landed and conveyed to Niagara; there to be re-shipped, and again landed at Prescott; transferred thence to the small batteau, exposed to all the dangers of the Rapids of the St. Lawrence; it was landed again at Montreal, where it was put on board another larger vessel for Quebec, if intended for final shipment at that port. *Now* the produce is shipped on board a steamer or sailing vessel on Lake Erie, and is landed in Quebec without being moved from the time it is put on board. Then the time occupied by the voyage was twenty-five days; now it is six days. Then the vessels seldom carried over 600 barrels bulk; now they carry from 2000 to 3000. Then there were frequent losses by spoiling the cargoes in transhipment, from exposure to the weather; now such events rarely occur, and the rates of insurance are greatly reduced. Finally, as a consequence of these facts, the rate of freight on a barrel of flour, from Lake Erie to Montreal, which before the Canals were constructed, *was nine shillings, is now one shilling and nine-pence.*

The trade upwards presents a similar transformation. The batteaux that carried wheat from Prescott to Montreal, conveyed back foreign goods for the use of the settler. They were dragged up the St. Lawrence Rapids by horses, the cables often parting, and the vessels careering down the descent, again to resume their toilsome course; or perhaps the water was low, and it was necessary to land the cargo, and carry it round by land. This was a still more expensive process than the voyage downwards. Before the Canals were fully opened, even after the Rideau was constructed, the cost of conveying goods from Montreal to the head of Lake Ontario was £3. 15s. per ton; now the same service is performed for 20s. per ton, with a great reduction in the rate of insurance. Before the Welland Canal was opened, goods from Montreal to Lake Erie were charged £6 per ton, while now the freight is only 30s.

Again, the price paid for passage has been greatly reduced. Before the Canals were constructed, the price of cabin passage from Montreal to Kingston, was £2 10s.; in the season of 1849 it averaged 17s. 6d.; the price of steerage passage formerly averaged 12s. 6d.; in 1849 it averaged 3s. 9d.

These are the great facts of our Canal system; this is the result of all the expenditure of money, time and labor, in borrowing and lending, in digging and ditching, building up and pulling down, which has been going on for the past twenty-five years. In these facts lie the secret of our present state of progress, and from them we draw bright hopes for the future. Let us examine how this change affects the prosperity of our province. Canada is an agricultural country: it is in that department of labor that the industry of her people can be most profitably employed. It is so in almost all countries. Even those richly endowed with mineral wealth, have remained poor when agriculture was neglected. Mexico and Peru are instances in point; and it is doubtful whether even the mines of California will ever render it wealthy, unless the labour of the plough and the sickle are carried on, along with that of the shovel and pickaxe. Four-fifths of the population of Upper Canada are engaged in farming, according to the census of the year 1848, and upon the profitable prosecution of that

occupation her prosperity must depend. The profits of the agriculturist are regulated by two things : *first*, the cost of the production of the crop; and *second*, the price paid for it when produced. Among the items which make up the cost of production, are the wages the farmer pays to his laborers, the cost of articles which he uses in carrying on the work of his farm, his tools and implements, the cost of his house and of the clothing and other necessities which his family consumes. All these things are now supplied to the Upper Canadian farmer at a much lower price than before the opening of the Canals. The cloths for himself and his sons, the calicoes and woollens for his wife and daughters—his salt, sugar, tea, coffee, the iron of his implements, the locks on his house doors, the glass of his windows—almost every article which he does not produce on his own land, are furnished to him at a greatly reduced cost; three-fourths of the former cost of the carriage is saved. A farmer (as a familiar instance,) perhaps uses seven barrels of Liverpool salt to cure his beef, pork, butter, and for his cattle; before the Canals were opened the freight on the seven barrels, if he lived on Lake Erie, would have been £6—now it is £1 10s.; if on Lake Ontario it would have been £3 15s., while now it is £1. If the merchant buys the farmer's pork and beef and cures it, still the latter benefits by the reduction of the freight on the salt; the merchant pays less for it, and he can afford to pay a higher price for the produce, and what he can afford to pay, competition will force him to pay. The price of the labour employed on his farm is also reduced; the labourer uses many of the articles we have mentioned as well as his employer, and their reduced cost enables him to work for lower wages. Emigrants are also brought more cheaply, quickly, and safely up the country, where the farmer requires their aid. The reduced rates of passage also equalize the price of labor throughout the province, by enabling workmen to travel cheaply to where it is high in price from places where it is low. The expenses of the farm being thus lessened, the cost of the crop becomes so much less to the agriculturist.

But it is in the increased value of his crop, when produced, that the Canadian farmer benefits most by the Canals. The price which he obtains for his produce, as

all know, is regulated by the value in Great Britain, where the surplus production of the Province is ultimately sold. But the farmer does not get, in Canada, the amount that his produce is worth in England; he is paid that amount, with what it would cost to carry it there deducted, together with a reasonable profit to repay the merchant for his services; from which it follows that if the cost of carriage were lessened, by so much would the price of the produce to the farmer be enhanced. In 1831, the cost of carrying a barrel of flour from Lake Erie to Montreal, on its way to England, was nine shillings; in 1849, it is one shilling and ninepence. It is quite evident that farming could not be carried on in Canada profitably, at the present price of breadstuffs, had the Canals not lowered very greatly the rates of freight. The farmer would only get ten shillings and threepence for his flour at Port Stanley, were there no canals, instead of seventeen and sixpence as at present; or at Kingston, he would receive sixteen shillings instead of eighteen and ninepence as at present. The farmer who produces a thousand bushels of wheat, can thus easily calculate the amount of benefit he receives from the Canals by the reduction of freight downwards.

We have fortunately the means of ascertaining very nearly what is the actual saving to the country by the change. We will take the trade of the year 1849, just closed, and if we find the quantity of goods, produce, and passengers sent up and down the Canals, and compare the rates of that year with what would have been charged for the same quantity before the Canals were opened, the difference between the two sums will be the actual gain to the Province. There were received downwards by river and canal at Montreal during that year, of breadstuffs, dairy products, live stock and ashes, above 90,000 tons. We will suppose that one-fourth only of this quantity came from Lake Erie, and three-fourths from the ports of Lake Ontario. The rate of freight from Lake Ontario before the Canals were opened averaged £2 10s. per ton; in 1849 it averaged 12s. 6d.; from Lake Erie before the canals were opened the rate was £4 10s. per ton, now it is 17s. 6d.

67,5000 tons from Lake Ontario before
the Canals were opened, would have

cost, at £2 10s. per ton-----	£168,750	0	0
22,500 tons from Lake Erie, before Canals were opened, would have cost, at £4 10s. -----	111,250	0	0
	<hr/>		
	£280,000	0	0
67,500 tons from Lake Ontario, in 1849, cost, at 12s. 6d. per ton-----	£42,187	10	0
22,500 tons from Lake Erie in 1849, cost, at 17s. 6d. per ton-----	19,429	3	4
	<hr/>		
Gain by Canals on down freight-----	£218,383	6	8

The amount of up freight in the year 1849, was above 40,000 tons. We will take the same proportions of this amount, as intended for the two lakes, as that of the down freight.

30,000 tons to Lake Ontario, before the opening of the Canals, would have cost, at £3 15s. per ton, in round numbers,-----	£110,000		
10,000 tons to Lake Erie, before opening of Canals, would have cost, at £6-----	60,000		
	<hr/>		
	£170,000		
30,000 tons to Lake Ontario, in 1849, cost, at 20s. per ton-----	£30,000		
10,000 tons, to Lake Erie, in 1849, cost, at 30s. per ton-----	15,000	45,000	
	<hr/>		
Gain by the Canals on the up freight-----	£125,000		

The number of passengers in 1849, between Montreal and Kingston, upwards and downwards, is estimated at 75,000. We will suppose that 15,000 of these were cabin passengers, and 60,000 steerage.

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The fare of 15,000 cabin passengers, before the Canals were opened, would have been, at £2 10s. each.....	£37,500
Of 60,000 steerage passengers, at the same time, at 12s. 6d.....	37,500
	<u>£75,000</u>
The fare of 15,000 cabin passengers, in 1849, averaged 17s. 6d. each.....	£13,125
Of 60,000 deck passengers, in 1849, at 3s. 9d.	11,250
	<u>24,375</u>
Gain by the Canals on passage money in 1849	£50,625

RECAPITULATION.

Difference between the amount of freight downwards paid in 1849, and what would have been paid before the Canals were constructed.....	£218,383	6	8
Difference on the amount of freight upwards	125,000	0	0
Difference on passage money, upwards and downwards.....	50,625	0	0
	<u>£394,008</u>	<u>6</u>	<u>8</u>
Total gain.....	£394,008	6	8

This calculation shows, clearly and certainly, the immense importance of their Canal system to the people of the Province.

The whole cost of our Canals has been £3,160,822, the interest upon which averages about five per cent. per annum, which gives the yearly expense of the Canals to the Province as £158,041 2s.

The gain upon the freight of the year 1849, was.....	£394,008	6	8
Add to this the nett revenue of the Canals for that year, not less than.....	60,000	0	0
	<u>454,008</u>	<u>6</u>	<u>8</u>
Deduct the interest on cost.....	158,041	2	0
Giving the profit of the Canals for 1849	£285,967	4	8

It is proper to include the nett revenue of the Canals in the above calculation, because the tolls from which it is derived are included in the rates of freight, and consequently in the cost of the freight business of 1849, while they were in fact returned to the account of the people of the Province.

Each individual, then, of our Canadian population, pays two shillings and a penny per annum on account of the while Canals, each receives from them, indirectly, five shillings and eleven pence per annum. This is calculated for the whole population of the united Provinces, but in fact the great benefit from the canals is received by the people of the Upper Province. Each inhabitant of Canada West probably receives a gain of ten shillings from the Canals, instead of five and elevenpence, while it is probable that he contributes but one shilling and threepence per annum, towards the interest of the cost.

But this is for the year 1849; the advantages of the Canals must rise in importance every year, as our exports and our imports increase in quantity. Who can estimate the value of the Canals to our farmers in time to come. Our exports in 1842 were valued at £1,078,427; in 1847 at £2,612,852 11 11; an increase of nearly one hundred and fifty per cent in the course of five years. In 1842 our imports were valued at £1,390,296; those of 1847 are estimated to have been very nearly £4,000,000, a still greater increase.

We have spoken hitherto of the direct and positive gain which can be calculated in figures, but there are many other ways, in which the change of the mode of carrying their produce to market has benefited the farmers of Canada. The advantages of the increased *speed of transportation* are very great. There is now no delay in transshipment as formerly. There is a saving of interest of money by the time thus saved, at any season, but speed becomes especially desirable towards the close of the navigation in the Autumn. The wheat reaped early in the Fall can now be floured and sent to the Atlantic seaboard, in time for shipment before the setting in of Winter, instead of being allowed to lie in the storehouses till Spring, at the risk of being spoiled and causing a certain

loss of interest of money and the expense of storage. The celerity of transport is also of great importance in enabling the farmer or merchant in the interior, to take advantage of a temporary rise in price in the Atlantic ports, by sending his produce there, before the rate returns to its ordinary level.

It is of importance to notice the effect which the construction of the Canals has had in opening up the country for settlement, in bringing emigrants to it, and in giving life and energy to its commerce. The mere expenditure of the large sum borrowed of foreign capitalists gave an impetus to the trade of the country. Emigrants were attracted to our shores by the works in progress, on which they could be employed, and ultimately became permanent settlers; the lands through which the works pass have risen in value, the neighboring farmers find a good market for their produce near their own doors, towns and villages have sprung up along the routes, mill sites have been provided where they were much wanted. Many of these are mere local advantages it is true, but they are still deserving of mention among the benefits conferred by the Canals. The Rideau has been more particularly beneficial in these respects, from the extent of country which it supplies with communication by water to the Lakes and the St. Lawrence.

The reduction of the rates of passage money on our great routes, is calculated to have a very beneficial effect upon our people by enabling them to travel cheaply, to become acquainted with the parts of their country distant from their own doors. They are led to look beyond the narrow circle of their own neighborhood, and their minds are enlarged by the prospect.

Our manufactories benefit much by the Canals. The reduced rates of freight enable the manufacturer in one part of our long narrow country, to send the articles he produces to all parts of it, at a small expense, and he is thus enabled to compete with the American maker, who has perhaps only to send across the lake or river to reach his Canadian customer. Thus the glass manufactured at St. John's, C. E., may be laid down nearly as cheaply in Toronto, through the Canals, as that made at Lockport, New York; and the woollens of Cobourg,

Georgetown, and many other places, can be sold as cheaply at Montreal as those of Vermont or New Hampshire. The stoves of the foundries of Long Point can be sold as low on Lake Ontario as those of Rochester, when they can be sent through the Welland Canal without transhipment.

Attention has hitherto been directed to the immediate advantages which the Canadian farmers have derived, and will derive, from the Canals, in the reduction of the freight on their produce and goods; but we would take but a very narrow view of the question were we to confine ourselves to this, and omit to notice the relative advantages which the immense trade which is destined to pass through them from the United States will confer upon the whole community—the agriculturists, of course, not excepted.

The Western United States annually produce a large surplus of breadstuffs and provisions, which is sent eastward for the supply of three distinct markets: first, that of Great Britain; second, that of the manufacturing Eastern States; and third, that of the Lower Provinces of British North America, who do not raise enough for their own consumption. A very short investigation will show that the cheapest, quickest, and least hazardous route for this surplus to reach its destination on the shores of the Atlantic, is by our chain of Lake, River, and Canal navigation. Chicago, one of the largest depots in the West for the shipment of produce, is situated at a distance of sixteen hundred miles from the two ocean ports of Quebec and New York, which will ere long wage an active war for the Western trade. How different is the character of the navigation which connects Chicago and Quebec, from that which connects it with New York! In the first case, a cargo of 3000 barrels of flour are shipped by steamer at Chicago, which reaches Quebec in ten days, having only 41 miles of Canal navigation to accomplish; there is no transhipment—no delay—all is simple and easy. The same quantity destined for New York is shipped by steamer for Buffalo; there it is transferred to five Canal barges, dragged by horses through three hundred and sixty-four miles of Canal to Albany, and there re-shipped for New York. The mere mention of the two modes of transport, is sufficient to show which is most advantageous. Time, safety,

and cheapness are all on the side of the St. Lawrence. By a comparison of the rates of freight, we find that the cost of transport by the Canals and St. Lawrence to the seaboard, is only one-half the cost by the Erie Canal and the Hudson. The freight on a barrel of flour from Chicago to New York is three shillings and ten-pence, while from Chicago to Quebec it is only two shillings. It will be asked why, with this difference in its favour, the St. Lawrence route is not preferred for the passage of that portion of the surplus of the produce of the West which is destined for the English market. The reasons are:—firstly, because our Canals were only finished in 1848; it was not till that year that the St. Lawrence obtained its advantage in cheapness over the other route; it requires time to divert any trade from the channel in which it has long continued to flow: and secondly, because the rates of freight are at some seasons of the year so much lower from New York to Europe than from Quebec, that the advantage of the latter in the cost of inland transportation is more than counterbalanced. The first obstacle, time and attention to the merits of the St. Lawrence route, will entirely remove; the second, there is every reason to believe will be remedied very shortly, by the effects of the abolition of the British Navigation Laws;—a series of restrictive Acts, which have hitherto prevented vessels of foreign nations from entering our ports. Vessels of all nations will now be allowed to enter the St. Lawrence, bringing cargoes from whence, and carrying them wherever it pays them best. Competition will be excited between the British and foreign shipowners, the former of whom have hitherto had the monopoly of the trade, and a reduction of rates must be the consequence.

One cause of the lowness of freights from New York, is the number of vessels arriving from all parts of Europe with emigrants, who must take back cargoes at a low rate, or else go in ballast, and of course prefer the former alternative. There is, we believe, no doubt that the St. Lawrence presents by far the cheapest, healthiest, and speediest route for the emigrant to reach a new home in the far West from the seaboard. He is transferred from his ship at Quebec to the steamer, and may be landed at Chicago or Milwaukie, without removal from the vessel;

the voyage being performed in the cool and healthful atmosphere of our northern climate, on our broad Rivers and Lakes. At New York, the emigrants leave the vessel to be taken by steamer up the Hudson to Albany, and are there transferred to the sluggish, unhealthy Canal, on which they remain for many days, and are again re-shipped at Buffalo for their place of destination. By a comparison of the rates of passage, the advantage of the St. Lawrence on the point of expense is clearly shown. We find that the fare of a steerage passenger from Quebec to Chicago is £1 18s 9d. currency, while from New York to Chicago it is £2 7s. 6d.

This route, besides its delays and expense, is also notorious for the impositions practised upon strangers just landed on a foreign shore. Persons engaged in the passenger trade in Europe, are alive to the advantages of our route; and there is good reason to believe that during the coming season, before the commencement of which the Canadian Legislature will have opened their ports to all nations, we shall have considerable additions to the number of "arrivals from sea," and there is no doubt that each revolving year will show a proportionate increase. Foreign goods, likewise, for the consumption of the Western States, will also complete an outward cargo for vessels leaving Europe for our ports. Last year a very large quantity of railroad and pig iron was conveyed to Chicago by our waters. The advent of these vessels at Quebec must necessarily assimilate the rates of freight nearly to those of New York. There are no difficulties in the navigation of the St. Lawrence, which cannot be obviated by the exertions of our Government and our merchants; the erection of light-houses by the former, and the employment of steam-tugs by the latter, are by some considered necessary; this effected, there is no reason why the produce of the West may not be carried as cheap to Europe from the mouth of the great River of the North, as from that of her southern sister. With the rates of ocean freight lowered, the produce of the West for consumption in England must go through our Canals and our ports. It will be the cheapest route, and the cheapest route will command the trade, in spite of national prejudices and established habits.

But another great branch of the trade in Western produce may also be diverted to our Canals. The Eastern States have become of late years very large consumers of that produce. It is computed that an amount equal to 1,500,000 barrels of flour is now used in those States, not of their own growth. This article has generally been sent down the Erie Canal to Albany, and thence conveyed by railroad to Boston, or sent down the Hudson to New York, there to be shipped to the Eastern ports. Since the Canadian Canals were finished, and particularly during the season of 1849, a new and much quicker and cheaper route has been resorted to. The flour for the cotton mills of New England is sent down the Lakes and River to Montreal, from whence there is a choice of two routes to Lake Champlain—by the Richelieu River and Chambly Canal, or across the country by the Laprairie and St. John's Railroad, a distance of fourteen miles. By either route it is shipped at St. John's to the smaller ports on Lake Champlain, to be sent into all the neighboring manufacturing districts; or it is landed at Burlington, and conveyed two hundred miles by Railroad to Boston, and thence all over New England. It is a much cheaper route than the old one, as was conclusively proved by the business of last season, and every succeeding year will undoubtedly show a great increase in the trade. Flour can even be sent by this route from Chicago to *New York*, cheaper than by the Erie Canal. It is in that case landed at Whitehall, at the foot of Lake Champlain, thence sent by Canal to Troy, from which the Hudson conveys it to New York. The expense last year was about 4d. per barrel less than by the Erie Canal. Should the ship canal authorised by Parliament last session, from some point on the St. Lawrence to Lake Champlain, be constructed, this route would be rendered much quicker and cheaper than at present; as the transshipment into smaller vessels to pass the Chambly Canal, or the transference to the St. John's Railroad, would be avoided.

The trade in breadstuffs of the Lower Provinces of British North America was at one time of considerable importance to Canada. It left us because the articles could be bought cheaper in the Atlantic ports of the United States than in ours—our protection in England, and the high rates of inland freight, keeping up prices here. Now that the price has

fallen in our markets, the trade must return to us, and indeed has done so to a considerable extent already. The St. Lawrence is the cheapest route for the breadstuffs of the West to reach them; and the return cargoes of fish, gypsum, &c., will find as ready a market in the Western ports of the United States, or in ours, as in New York and Boston.

We have stated that the St. Lawrence Canals afford a cheaper route to the seaboard than the Erie Canal, and therefore that it must divert from it a large portion of its traffic. But even if the advantages of our route were not so great, it would inevitably secure a great deal of American traffic, because in a very short time the Erie Canal will be unable to transact it all. At the rate the Western trade increases at present, it will be a physical impossibility for the vessels to pass through the Locks. Even before that time comes, the delays on the route, already loudly complained of, will become so great as to compel our neighbors to find a new channel to the ocean, and none other than the St. Lawrence can be selected.

The trade of the Western country with the East increases with amazing rapidity, and no bounds can be set to its future progress. In 1842 the licensed American tonnage of the lakes was 56,252 tons, while in 1846 it was 106,836 tons, being an average increase of nearly eighteen per cent per annum. In the former year the nett moneyed value of the lake commerce was \$32,913,011, while in the latter it was \$61,914,910. In 1832, the first steamboat that traversed Lake Michigan made its first appearance at Chicago; in 1846, the commerce of that place was reported at \$3,927,150. So late as 1836, considerable quantities of pork and flour were shipped from New York State and the eastern parts of Ohio, to the State of Michigan; in 1846, from the three ports of Detroit, Monroe and St. Joseph's, were shipped of wheat and flour equal to 4,465,554 bushels of wheat; and the total exports of the State in that year, exclusive of furs, amounted to \$4,647,668, against \$75,000 in 1836. The traffic returns of the New York canals, show an immense increase in the trade of the west. In 1836, the total movement of property on these works was 1,310,807 tons; in 1847, 2,869,810 tons.

The cheapening of the rates of freight on the St. Lawrence, and on the ocean from the St. Lawrence, must bring back to our waters the produce and goods which are sent from Canada to Europe, or received in Canada from Europe, through the port of New York and the State canals. In 1846, the value of the goods imported under the drawback bill passing through Oswego was \$635,301, and in 1849 the wheat and flour sent through in bond by Oswego, to be shipped at New York, was equal to 354,000 barrels of flour. This trade must revert to its natural channel, the St. Lawrence, whenever the rates of freight from Quebec are reduced to anything near those from New York. This produce went by the St. Lawrence under the protective duty in Great Britain; free trade in corn deprived us of it; free trade in ships will restore it to us again.

We have, then, every reason to expect a very great increase in the traffic on our canals from four different sources:

I.—From the export of American breadstuffs to Europe, and the conveyance of foreign goods and emigrants to the West.

II.—From the transmission of Western produce for consumption in the Eastern States.

III.—From the transport of produce, for consumption in the Lower Provinces of British North America, and the return trade in their articles of export.

IV.—From our own exports henceforward being conveyed through our own canals to the seaboard, instead of being sent by those of the State of New York.

From this traffic, the Province will ultimately derive an immense revenue, the amount of which no person can at present estimate. The increase on the revenue from canal tolls has been very great, every succeeding year since they were first opened. The following is a statement of the gross revenue for the four years ending 1845:

1842	£18,535		1844	£28,347
1843	25,751		1845	28,957

The whole line of canals was opened, although the Lachine

enlargement was not completed, in 1846, and accordingly we find a very great advance in the tolls of that year :

In 1845	£28,957
“ 1846	39,330

While in 1847 the increase was nearly as great, the total amount being £50,131. There was a slight falling off in the receipts for 1848, arising from the depression of trade during that year, and from the immense quantity of produce sent through the canals late in the preceding season, in consequence of the high prices, which under ordinary circumstances would not have been shipped till 1848. The returns for 1849 have not all been made up. We know, however, that on the Welland and Lachine Canals the amount of tolls received is much greater than in 1848 and 1847 :

	1847.	1848.	1849.
Welland Canal . £30 549 17 8	£29,064 7 3	£ 34,500 0 0	
Lachine Canal . 7,122 1 3	11,661 2 10	15,625 5 8	

The best index to what we may expect as the regular increase in the amount of tolls in future years, may be found in the progress of these two works, the oldest in Canada, for the past four years. In 1845, the amount of tolls collected on them was £25,603 14s. 2½d.; in 1849, it was £50,125 5s. 8d., which exhibits an increase of twenty-three per cent. per annum in the traffic. Statements for the past year of the other works would doubtless show a similar progress, but those we have mentioned are sufficient for our purpose. If the amount of annual increase on the whole number were only twenty per cent., the revenue which we will derive from the tolls collected in the year 1860, will be considerably over £400,000,—a sum sufficient to pay the whole expenses of our Government, along with the revenue from Crown Lands, and from the other public works of the Province—and enabling us to dispense with customs duties altogether. This expectation may be thought chimerical, and certainly the result of the calculation is so favourable as to cause us to state it with caution, but if the traffic continues to increase as fast for the next ten years, as for the past four, this must be the result. That we have good reason to expect a *still larger* increase in time to come, from the new branches of trade

likely to aid it, does not admit of a question. Here then by the fruits of our canal system, in ten years we shall be enabled to dispense with customs duties altogether, with all their injurious effects on our trade; we shall be enabled to do so not by paying the expenses of our Government in some other way, from our own resources, but our revenue will be derived mainly from the trade of a foreign country, and be paid by foreign consumers or producers. Canada is now and has always been the most lightly taxed country in the civilized world, but her advantages in this respect will be still greater in time to come.

So much may we expect of indirect revenue from the American trade passing through our canals. The indirect advantages will also be very great. Their vessels will be supplied at our ports with provisions and many other articles, sold cheaper here than in the United States. With a reduced tariff or none at all in Canada, these articles would be much more numerous than at present; some years ago, with a lower tariff than at present, the quantity of British manufactured goods sent over the lines was very great; with our duties removed, the great body of seamen employed on the lakes and a large proportion of the population of the borders would receive their supplies from us.

Let us now recapitulate the advantages derived, or to be derived by the Canadian farmer from his Canals.

1.—His produce is conveyed to its ultimate market at a much cheaper rate than before they were constructed. The difference between the former and present cost is so much gain to the agriculturist, as the amount he receives for his produce is in proportion to the expense of carrying it to market.

2.—The cost of nearly all the articles he uses, not of his own production, is lowered by reducing the cost of carriage from the place of growth or manufacture.

3.—The rates of passage money have been reduced, effecting a great saving, and encouraging the love of travel, which renders the people enterprising and intelligent.

4.—The increased speed of transport effected by the canals enables the produce of the farmer to be sent to the

Atlantic ports late in the autumn, instead of being stored during the winter. The speedy transit also enables the shipper to take advantage of the rise of prices in the ocean ports and in the European market.

5.—Advantage in our inter-Provincial trade from the reduction of freights, by giving a market for the manufactures or products of one part of the country over its entire extent.

6.—Great benefit is derived by the construction of the canals, from the number of emigrants drawn to the country by the employment it has afforded them, and who have become permanent settlers.

7.—Improvement of the country through which the canals pass; rise in the price of land; and creation of water power for milling.

8.—The reasonable expectation of a very large revenue, from tolls levied on the American vessels passing through the canals, enabling us in a very few years to dispense with customs duties altogether, and thus create a new era in our trade.

These are important benefits indeed, and we are sure that all will agree in answering in the affirmative the question with which we commenced,—that they will not hesitate to say that the labour and expense bestowed on our canals have been well laid out—that the return is ample for the capital invested.

It must be evident to the most superficial observer, that the public works are destined to exert a most important influence on the prosperity, moral and intellectual, as well as commercial, of the Canadian people. The spirit of energy and enterprise shown in the accomplishment of these works, is a proof of the capacity of the people for great efforts, while the success attending their exertions, will give encouragement to fresh displays of it. One series of great undertakings successfully achieved, will be a prelude to others of equal magnitude and importance, and Canada will run the race of progress with other nations with credit and honor. Their influence upon the commercial prosperity of the Province cannot be over-estimated. Succeeding generations will bless the wise forethought of their predecessors,

who founded the system, and who carried it into operation with so much skill and vigour.

The people of Canada have been often charged with indolence and want of vigour. It may be that from the political dissensions which marked the early history of the Province, Canada did not progress as rapidly as some parts of the neighbouring country, and it is true that even now we do not equal some of our neighbours, owing to the inferiority of our country, in soil, climate and position, but we assert without fear of contradiction, that Upper Canada has advanced during the past ten years, and is at this time advancing as rapidly, in wealth and prosperity, as any part of the United States not superior to her in natural advantages. In 1835, the population of Upper Canada was 322,203; in 1848 it was 723,322; the number of cultivated acres in 1835 was 1,311,128; in 1848, 2,546,920 acres,—much more highly cultivated, without doubt; in 1835 the number of houses 25,842, in 1848, 115,301; in 1835, there were 355 mills, with 554 runs of stones, in 1848, 553 mills with 1141 runs of stones; of saw mills, in 1835, 835, in 1848, 1584; of merchants' shops, in 1835, 669, in 1848, 1940. The Canadian may look back on the past progress of his country with gratification, without heeding the sneers of ignorant defamers at home or abroad, and he can look forward with still greater gratification to the bright prospects of wealth and prosperity for his country, which open before his view. He will be encouraged to persevere in the same course of patient and persevering industry which has already done so much for his country, without heeding the outcries for wild and impracticable political changes, for improving the country, which can only be effected by the enterprise and industry of its inhabitants. He knows that in its present position, his country has as much liberty as any country in the world; she cannot of her own deed kill, burn or destroy the persons and property of her neighbours, she may not be called upon to negotiate boundaries and international treaties, but in everything that constitutes the true glory of a nation, she is free to take a high and conspicuous place among the nations of the earth. Her people may be as well taught, her schools as efficient as those of Scotland or New England; her citizens may be as wealthy as the

English, her agriculturists as prosperous and as skilful in their profession; her commerce may cover the ocean, Montreal and Quebec may be as Liverpool and London; she may continue as free from the ills of poverty and the vice which follows it as at present; her prisons may be models for imitation, her colleges may be the resort of the new world, her schools of art as those of Italy. All this the people of Canada have the freedom to accomplish and much of this they will accomplish if they follow out the course of persevering industry which they have begun. The patient and laborious beaver, the emblem of their country points out to them the road to true greatness, not violence and force, but earnest exertion in peaceful labour; and when perhaps the tide of misfortune may sweep away their fair habitations, they must, like the beaver, return with renewed energy and spirit to the task, and return again and again, not abandoning the remaining part of the work which the current may have spared, to find new sites whereon to build, but using what has been left as a foundation for the new structure. If this be the course of our people, Canada will yet stand among the nations of the earth, like the lordly maple among the trees of the forest, gigantic in wealth and power, beautiful as the graceful leaf in knowledge and refinement, and possessing in the Christian piety and morality of her people, a parallel to the sweet treasures which the maple pours forth for the use of man.