

DEPARTMENT OF RAILWAYS AND CANALS

84098

CANAL STATISTICS

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FOR THE

SEASON OF NAVIGATION

1911 ✓

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OTTAWA

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THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 111

LECTURE 1

To Field Marshal His Royal Highness PRINCE ARTHUR WILLIAM PATRICK ALBERT, Duke of Connaught and of Strathearn; Earl of Sussex, in the Peerage of the United Kingdom; Prince of the United Kingdom of Great Britain and Ireland; Duke of Saxony; Prince of Saxe-Cobourg and Gotha; Knight of the Most Noble Order of the Garter; Knight of the Most Ancient and Most Noble Order of the Thistle; Knight of the Most Illustrious Order of St. Patrick; One of His Majesty's Most Honourable Privy Council; First and Principal Knight Grand Cross and Great Master of the Most Honourable Order of the Bath; Knight Grand Commander of the Most Exalted Order of the Star of India; Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George; Knight Grand Commander of the Most Eminent Order of the Indian Empire; Knight Grand Cross of the Royal Victorian Order; Personal Aide-de-Camp to His Majesty the King; Governor General and Commander-in-Chief of the Dominion of Canada.

MAY IT PLEASE YOUR ROYAL HIGHNESS,—

The undersigned has the honour to present to Your Royal Highness Canal Statistics, for the year ended December 31, 1911.

F. COCHRANE,
Minister of Railways and Canals.

To the Honorable F. COCHRANE,
Minister of Railways and Canals.

SIR,—I have the honour to submit the annual report of the Comptroller of Statistics in relation to the operations of the Canals of the Dominion for the year ended December 31, 1911.

I have the honour to be, sir,

Your obedient servant,

A. W. CAMPBELL,
Deputy Minister of Railways and Canals.

OFFICE OF THE COMPTROLLER OF STATISTICS,

OTTAWA, February 15, 1912.

A. W. CAMPBELL, Esq., C.E.,

Deputy Minister of Railways and canals.

SIR,—I have the honour to submit to you herewith Canal Statistics for the year ended December 31, 1911.

The aggregate volume of freight moved through all the canals amounted to 38,030,353 tons, which was a decrease of 4,960,255 tons as compared with the year 1910. This decrease is more than accounted for by the decline in traffic at Sault Ste. Marie, applicable almost wholly to American ore. An increase of 211,339 tons through the Welland canal, and of 344,956 tons through the St. Lawrence canals, would point to satisfactory growth as far as strictly Canadian business was concerned.

The freight traffic of 1911 was distributed among the various canals of the Dominion as follows.

	Tons.	Increase.	Decrease.
Sault Ste. Marie	30,951,709		5,443,978
Welland	2,537,620	211,339	
St. Lawrence	3,165,708	344,956	
Chambly	599,829		69,470
St. Peter's	75,298		10,653
Murray	163,457		14,484
Ottawa	320,071		65,190
Rideau	172,227	37,346	
Trent	57,290	11,027	
St. Andrew's	47,135	38,852	
Total	38,030,353	643,520	5,603,775

The development of business through the canals of Canada during the past decade is shown in the following statement :

1902	7,513,197 Tons.
1903	9,203,817 "
1904	8,256,236 "
1905	9,371,744 "
1906	10,523,185 "
1907	20,543,639 "
1908	17,502,820 "
1909	33,720,748 "
1910	42,990,608 "
1911	38,030,353 "

It will be observed that the expansion for the ten year period between 1902 and 1911 was equal to 406 per cent.

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The following comparative statement of traffic will show on what canals the growth has taken place during the past four years :

	1908.	1909.	1910.	1911.
Sault Ste. Marie.....	12,759,216	27,861,245	36,395,687	30,951,709
Welland.....	1,703,453	2,025,951	2,326,290	2,537,629
St. Lawrence.....	2,009,102	2,410,629	2,760,752	3,105,708
Chambly.....	503,276	752,117	669,299	599,829
St. Peter's.....	72,015	79,850	85,951	75,298
Murray.....	25,901	102,291	177,941	163,457
Ottawa.....	258,527	336,939	385,261	320,071
Rideau.....	89,640	91,774	134,881	172,227
Trent.....	81,690	59,952	46,263	57,290
St. Andrew's.....			8,283	47,135

Details of traffic, showing the tonnage of commodities, will be found in tables constituting the body of this report. Comparing the years 1910 and 1911, following was the tonnage by classes and canals:—

Canals.	Vegetable Products.	Animal Products.	Manu- factures.	Produce of Forest.	Produce of Mines.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1910.						
Sault Ste. Marie.....	2,530,396	304,729	862,526	100,613	32,597,423	36,395,687
Welland.....	982,346	60,880	516,333	154,737	611,994	2,326,290
St. Lawrence.....	856,611	83,754	497,007	564,328	759,052	2,760,752
Chambly.....	783	23,288	21,834	496,119	127,275	669,299
St. Peter's.....	4,603	14,867	7,889	10,124	48,468	85,951
Murray.....	20	4,544	152,506	3,471	7,400	177,941
Ottawa.....	723	8,111	72,294	268,199	35,934	385,261
Rideau.....	1,433	3,576	76,299	40,026	13,547	134,881
Trent.....	298	765	8,672	35,849	679	46,263
St. Andrew's.....	1	153	177	7,952		8,283
Total.....	4,377,214	504,667	2,225,537	1,681,418	34,201,772	42,990,608
1911.						
Sault Ste. Marie.....	3,219,929	978	854,516	56,853	26,819,433	30,951,709
Welland.....	1,089,605	574	539,865	250,423	657,162	2,537,629
St. Lawrence.....	1,003,090	9,943	567,992	551,155	983,328	3,105,708
Chambly.....	41,903	315	25,370	396,704	135,537	599,829
St. Peter's.....	16,538	2,153	11,828	7,120	37,659	75,298
Murray.....	1,109	113	143,399	1,622	17,214	163,457
Ottawa.....	9,779	2,467	65,452	202,797	39,576	320,071
Rideau.....	6,084	2,684	114,937	34,350	14,172	172,227
Trent.....	951	397	12,551	31,342	12,049	57,290
St. Andrew's.....	82		33,153	13,773	127	47,135
Total.....	5,389,070	19,624	2,359,063	1,546,139	28,716,457	38,030,353

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The rates which each of the foregoing classes bore to the total volume of traffic during the past three years is shown in the following statement:—

	1909.	1910.	1911.
	Per cent.	Per cent.	Per cent.
Vegetable products.....	13·6	10·2	14·2
Animal ".....	1·5	1·2	1
Manufactures.....	5·6	5·2	6·2
Produce of forests.....	4·9	3·9	4·0
Produce of mines.....	75·0	79·5	75·5

CANADIAN AND UNITED STATES TRAFFIC.

Prior to 1908 the statistical methods in use did not provide for a separation of Canadian and American business passing through the Canals. Since that date a record has been kept of the country of origin, and the facts with respect to the traffic of all the canals of the Dominion are given in the following tabular statement:—

Year.	Canadian Vessels.		U. S. Vessels.		Freight Tonnage.		
	No.	Tonnage.	No.	Tonnage.	Canadian.	United States.	Total.
1908.....	29,040	6,780,789	7,489	4,835,320	5,012,147	12,490,673	17,502,820
1909.....	22,507	7,811,578	9,996	16,459,322	7,378,057	26,342,691	33,720,748
1910.....	25,337	8,931,790	11,462	21,777,297	7,883,614	35,106,994	42,990,608
1911.....	25,585	9,172,192	10,370	18,231,622	7,792,907	30,237,446	38,030,353

It will be observed that of all the commodities transported through the canals of Canada in 1911, the proportion originating in the United States was 79·5 per cent. In 1910 the proportion was 81·6 per cent. This large difference in favour of the United States is almost wholly accounted for in the volume of ore passed through the canal at Sault Ste Marie.

With regard to vessel tonnage, the proportions in 1911 stood as follows:—Canadian, 33·5 per cent; United States 66·5 per cent.

TRANSPORTATION OF CANADIAN WHEAT.

With the development of the Western Provinces there has been a steady growth in the volume of waterborne wheat. Since 1895 the quantities annually brought down through the canal at Sault Ste Marie are shown in the following table:—

1895.....	Bushels.
1896.....	4,518,334
1897.....	19,314,234
1898.....	17,925,834
1899.....	9,746,600
1900.....	12,759,634
1901.....	9,292,034
1902.....	9,639,534
1903.....	27,912,500
1904.....	32,233,934
1905.....	29,794,100
1906.....	25,983,100
1907.....	34,389,300
1908.....	49,399,967
1909.....	58,574,034
1910.....	*48,047,833
1911.....	51,774,833
1911.....	63,641,000

*For the first time represents Canadian wheat only. The figures of preceding years include American wheat which passed through the Canadian Canal.

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The figures for the years anterior to 1909 include American wheat. It will be observed, however, that the increase in 1911 over 1909, applicable only to Canadian wheat, amounted to 15,593,167 bushels, or 32·4 per cent.

In addition to the 63,641,000 bushels of Canadian wheat which passed through the Canadian canal at Sault Ste. Marie, 1,981,481 bushels of Canadian wheat passed through the United States canal at that point. These figures combined show that the volume of water-borne Canadian wheat in 1911 was 65,622,481 bushels. Account is not taken of the relatively small quantity of wheat which was moved through any of the other canals. It is quite relevant, however, to point out that 183,449 barrels of Canadian flour were carried through the Canadian canal at Sault Ste. Marie in 1911, and 841,733 barrels of Canadian flour through the American canal. Calculating this Canadian flour into wheat, we have an addition of 4,100,728 bushels to the volume already indicated, bringing the total up to 69,723,209 bushels.

Last year, for the first time, a careful study was made of the distribution of Canadian wheat after it had passed through the canal at Sault Ste. Marie, and this year the same analytical methods have been applied to the traffic of 1911. Placing the figures for 1909, 1910 and 1911 side by side, for purposes of easy comparison, the record is as follows :

Canadian Wheat.	1909.	1910.	1911.
	Bushels.	Bushels.	Bushels.
Fort William to Montreal.....	10,517,266	13,185,370	12,761,666
" " " Georgian bay.....	13,384,400	12,753,200	9,881,234
" " " other Canadian ports.....	10,149,633	9,603,400	11,880,666
" " " Buffalo.....	12,841,334	15,693,363	27,945,600
Duluth to Montreal.....	520,000	315,000	
" " Buffalo.....	528,200	224,500	710,334
" " Georgian bay.....	28,000		461,500
" " other Canadian ports.....	79,000		
Total.....	48,047,833	51,774,833	63,641,000
Through American canal.....	9,117,328	5,321,446	1,981,481
Grand total.....	57,165,161	57,096,279	65,622,481

It should be explained, perhaps, that the 'other Canadian ports' indicated in the foregoing statement are ports west of Lake Erie, but not on the Georgian bay.

It is quite impracticable to follow the course of the small volume of Canadian wheat which passed through the American canal at Sault Ste. Marie. With respect to that which passed through the Canadian canal, however, the figures work out in the following percentages :—

	1909.	1910.	1911.
	Per cent.	Per cent.	Per cent.
Fort William to Montreal.....	21·9	25·5	20·1
" " " Georgian bay.....	27·9	24·6	15·6
" " " other Canadian ports.....	21·1	18·5	18·7
" " " Buffalo.....	26·7	30·3	43·8
Duluth to Canadian ports.....	1·3	·6	·7
" " American ".....	1·1	·5	1·1

It will be seen that 54·4 per cent of all the Canadian wheat which came down in 1911 through the Canadian canal at Sault Ste. Marie clung exclusively to Canadian

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channels. The proportion in 1910 was 68.6 per cent ; so that the diversion to American channels was considerably greater in 1911.

Of the 63,641,000 bushels of Canadian wheat which were transported through the Canadian canal at Sault Ste. Marie during the past year, 43.8 per cent went to Buffalo. Wheat is supposed to follow the channel offering the lowest freight rates, other things being equal. In this instance, however, distance and freight rates were substantially in favour of Montreal ; and yet other considerations caused nearly half of the wheat which came down last year from the Canadian west to find an outlet to the ocean through the port of Buffalo.

The course of the wheat trade during the month of November, 1911, may be taken as illustrating the situation. In that month 18,021,300 bushels of Canadian wheat were passed through the Canadian canal at Sault Ste. Marie, or nearly one-third of the total volume for the year. The all-water freight rate from Fort William to Montreal in November was $4\frac{1}{2}$ cents per bushel. The water rate from Fort William to Buffalo was $3\frac{1}{2}$ cents per bushel, plus $5\frac{1}{2}$ cents by rail from Buffalo to New York. Montreal and New York are the essential points of comparison. Thus in November the freight rate from Fort William to Montreal was $4\frac{1}{2}$ cents, as compared with 9 cents to New York. This would seem to establish a controlling advantage in favour of Montreal, and, other things being equal, it would be ; yet in that month 48.3 per cent of all the Canadian wheat which came down from the west, including that which passed through the American canal, went out by way of Buffalo-New York.

Careful inquiries were made as to the conditions which operated in November last, and which in some degree operate in all seasons, as a counterweight to the lake freight rates in favour of Montreal. They were ascertained to be : First, availability of ocean tonnage at New York ; second, lower ocean rates between New York and foreign ports ; and third, lower ocean insurance rates from New York. These factors were obviously sufficient to divert, in November last, nearly half of all the Canadian wheat from the west into American channels.

November is the rush month in the wheat trade. Market considerations may, under such circumstances, rise above the immediate question of rates. Delivery at a foreign port within a specified time may depend upon the choice of the dearest available channel, rather than the cheapest, and it is probable that this very situation caused the diversion of millions of bushels from the port of Montreal in 1911. Under such conditions, mere uncertainty as to ocean tonnage may turn the scale.

Marine insurance rates remained unchanged during the year. In November they ran from 65 cents to \$1.10 per \$100 from Montreal, as compared with $12\frac{1}{2}$ to 15 cents from New York.

FREIGHT RATES BY WATER.

This department has very frequently been asked the question: What are the transportation rates per ton per mile on the canals of Canada? It has always been impossible to give an answer. The information upon which to base an accurate calculation, so as to make, for example, a comparison between freight rates by water and freight rates by rail, has never been available. Carriers by water have not at any time been asked to disclose their freight charges. There is no good reason, however, why they should not be. Such carriers enjoy rather extraordinary privileges, and the whole question of transportation rates by land and water is manifestly of deep public interest. Railway corporations are required by law to give an exceedingly analytical statement of their operations, and carriers by water should at least be asked to give such information as will enable the important question of freight rates to be definitely determined. Acting upon your instructions, I propose to inaugurate for the season of 1912 such changes in our statistical methods as will fully and definitely ascertain the freight charges per ton per mile by vessels operating on the inland waters of the Dominion.

Meanwhile, careful study has been given to the data in hand in order to estimate the rate per ton per mile charged by carriers using the canals of Canada. For this

purpose three factors are required: First, the number of tons moved; second, the length of the haul in miles; and third, the freight charges. Not one of them is definitely available at present. It is not known, for example, how many tons were transported through the canals. It is accurately known how many tons passed through each particular canal; but it has been found impracticable under the system which has long been in vogue to prevent some measure of duplication in making up the total. Under the methods to be adopted hereafter the tonnage will be absolutely accurate. The length of the haul in each instance has not been made a matter of record up to this moment. That will be corrected hereafter. The schedules in use have not taken cognizance of freight rates, and that, too, will be taken care of in the plan to be given effect in 1912.

In this situation, it has been found necessary to select one of the gateways of our inland water system, and apply certain tests to the traffic flowing through it. The Welland canal was chosen. All through business between the lower and upper lakes, moving up or down, must pass that point. Here, then, we have our first factor—the volume of traffic. The total number of tons which passed through the Welland canal during the calendar year 1912 was 2,537,629. Of this aggregate, 842,919 tons were moved up, or westward; while 1,694,710 tons were moved down, or eastward. The relative proportions were 34 per cent and 66 per cent respectively. It is assumed that all the business which passed through the Welland canal was moved the whole distance between Montreal and Fort William—1,223 miles—or vice versa. This gives us our second factor—the length of the haul.

In an effort to ascertain the freight charges which prevailed in 1911, it was found that the rate on only one commodity, wheat, was definitely known. That rate is put down at \$1.50 per ton for carriage between Fort William and Montreal. It is probably the lowest rate at which any commodity is carried through the canals. Now, the total volume of wheat transported through the Welland canal in 1911 was 562,282 tons, or a little over 22 per cent of the total volume of traffic. On reference to the table relating to the Welland canal, it will be observed, for example, that among the 32 commodities moved, there were 187,411 tons of general merchandise, on which a rate two or three times as high as \$1.50 per ton was probably charged. Having regard to the whole list, it is thought fair to assume, for the purposes of this estimate, that an average rate of at least \$2 per ton was levied. This is probably a low figure, in view of the fact that the average rate on the Erie canal in the last year for which information was obtainable, was equal to \$2.45 per ton for the distance between Fort William and Montreal; and the Erie canal is a barge canal, which provides the cheapest known form of transportation by water. This, then, gives us our third factor—the freight charge.

It will be seen that 2,537,629 tons carried 1,223 miles, would be equal to 3,103,520,267 tons carried one mile. The freight bill on 2,537,629 tons, at \$2 per ton, would be \$5,075,258. Dividing the ton miles into the freight earnings, we have the quotient of .163 cent per ton per mile. The rail rate from Fort William to Montreal on wheat is \$4 per ton, or .421 cent per mile, so that the water rate is, by comparison, quite low. But in comparing the rail and water rate between those two points, it must be remembered that the railway has to maintain its right-of-way, pay interest on capital invested, and meet all incidental operating expenses. In the case of transportation by water, Government keeps up the right of way, pays the cost of operating the canals, and makes no charge of any kind to the vessel owner or shipper. The question at once suggested is: What is the contribution of Government toward the reduction of the freight rate by water?

To answer this question, the first item to be taken into account is interest on capital invested. Without going into details, let it be said that Government has expended \$80,000,000 in constructing the canals between Fort William and Montreal, and in providing otherwise for the navigation of that chain of waterways. In this sum of \$80,000,000 is not included the very considerable cost of harbours and lighthouses. It represents practically the direct cost of the canal system by itself. The interest charges on that capital outlay, at $3\frac{1}{2}$ per cent, would amount to \$2,800,000 per annum. This would be equal to a contribution of .090 per ton per mile on account of interest on

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capital. To this must be added the expenditure for maintenance and operation, which represents an average of \$1,400,000 per annum. The contribution of Government on that account is equal to .045 per ton per mile. The account would thus stand, per ton per mile, as follows:—

Freight charges. . . . .	.163 cent.
Government contribution, interest. . . . .	.090 "
" " maintenance, &c. . . . .	.045 "
	Total .298 cent.

I am quite confident that when all the facts are positively ascertained for the current year, 1912, it will be found that the foregoing estimate is quite too low. It is below the results on the Erie Canal, in the State of New York, and not more than about one third of the rate per ton per mile charged by the canals of Europe. However that may be, it will be observed that the contribution of Government in 1911 was equal to .135 cent per ton per mile, or 83 per cent of the freight rate charged by vessel owners.

There is still another important and vital aspect of this matter. Of the 2,537,629 tons of freight which passed through the Welland Canal in 1911, only 1,296,480 tons, or 51 per cent of the whole, consisted of Canadian products. The remaining 49 per cent was composed of commodities of the United States, most of which passed from an American port to an American port. This would not in any way affect the freight rate; but it may be worth while to show what was the contribution of Government toward the transportation of exclusively Canadian business through the canals between Fort William and Montreal in 1911. The number of tons carried one mile in that case would be 1,585,595,040. Without going into the details of the calculation, as was done in a preceding paragraph, let it be said that on Canadian traffic only the account per ton per mile would stand as follows:—

Freight charges. . . . .	.163 cent.
Government contribution, interest. . . . .	.177 "
" " maintenance, &c. . . . .	.088 "
	Total .428 cent.

It will be seen that the Government contribution amounted to .265 cent per ton per mile, as compared with .163 charged by the vessel owners. Of course, as has been said, the actual freight rate is probably higher than .163 per ton mile. Be that as it may, the calculation which has been made shows the probable freight rate by water, between Fort William and Montreal, to be slightly higher than the actual rate by rail between those points.

GENERAL STATISTICS.

Detailed information by canals, relating to both tonnage and commodities, will be found in tables constituting the body of this report.

The following digests of statistical data will be found helpful and instructive:—

STATEMENT of total Freight passed through the Canals for the following years.

YEARS.	FROM CANADIAN TO CANADIAN PORTS.		FROM CANADIAN TO UNITED STATES PORTS.		FROM UNITED STATES TO UNITED STATES PORTS.		FROM UNITED STATES TO CANADIAN PORTS.		TONS.		TOTAL TONS.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up and Down.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.			
1887	336,648	1,154,424	138,692	202,563	151,805	192,528	86,374	457,482	713,519	2,006,997	2,720,516
1888	355,165	1,146,260	138,127	174,239	214,407	223,429	81,611	428,357	789,310	1,972,287	2,761,597
1889	384,777	1,156,306	122,295	198,497	267,224	300,193	81,243	603,311	855,529	2,258,367	3,113,896
1890	369,593	1,137,911	144,368	133,188	216,813	320,324	58,709	533,921	789,505	2,123,542	2,913,047
1891	370,120	1,153,247	163,814	123,193	248,188	307,958	50,747	543,259	772,869	2,129,657	2,902,526
1892	327,560	1,322,137	173,538	135,787	241,034	302,983	47,396	481,301	789,528	2,242,298	3,031,736
1893	351,796	1,344,822	214,076	141,602	247,329	385,769	54,912	806,773	868,023	2,678,966	3,546,989
1894	299,155	1,140,606	204,175	89,614	231,172	363,107	46,020	568,866	780,522	2,162,193	2,942,715
1895	264,824	1,070,946	286,191	91,177	362,637	608,778	62,285	390,140	975,937	2,360,141	3,336,078
1896	293,353	1,619,668	259,659	100,519	1,197,245	3,536,054	117,535	867,040	1,867,792	6,123,281	7,991,073
1897	275,587	1,713,274	268,700	187,960	669,142	4,369,314	108,787	968,293	1,322,216	7,238,751	8,560,967
1898	263,989	1,819,887	187,263	98,967	929,598	2,435,121	81,615	912,135	1,362,365	5,256,110	6,618,475
1899	296,298	1,833,412	266,304	115,133	732,030	2,129,988	125,678	727,111	1,420,280	4,805,644	6,225,924
1900	312,201	1,632,915	270,033	81,714	568,197	1,339,915	105,155	703,563	1,255,586	3,758,107	5,013,693
1901	340,805	1,686,094	268,449	201,231	507,204	1,801,696	177,715	682,065	1,294,173	4,371,086	5,665,259
1902	529,085	2,064,480	308,212	342,484	515,828	3,000,636	190,243	562,229	1,543,368	5,969,829	7,513,197
1903	648,159	2,391,366	430,174	408,560	863,337	3,130,816	373,456	958,018	2,315,117	6,888,700	9,203,817
1904	606,737	2,047,499	511,887	276,578	699,784	2,778,903	483,795	851,953	2,302,203	5,954,033	8,256,236
1905	736,976	2,252,514	549,365	347,089	607,228	3,183,895	577,528	1,137,146	2,451,097	6,920,647	9,371,744
1906	1,238,929	2,355,855	627,094	234,919	991,508	3,595,256	482,239	997,385	3,339,770	7,183,415	10,523,185
1907	1,034,733	3,162,158	891,692	226,138	1,991,959	11,060,878	819,369	1,356,712	4,797,753	15,805,886	20,543,639
1908	1,028,246	3,292,422	560,736	278,721	1,704,310	8,218,866	972,300	1,447,219	4,265,592	13,237,228	17,502,826
1909	1,608,659	3,504,849	1,060,715	607,894	1,985,522	22,385,226	1,023,829	1,544,054	5,744,349	27,976,399	33,720,748
1910	2,312,740	3,861,272	600,144	661,436	3,323,822	23,330,163	995,749	1,705,282	7,232,455	35,758,153	42,990,608
1911	2,379,516	3,910,558	572,470	995,719	2,546,677	23,458,256	2,086,777	2,089,380	7,576,440	30,453,913	38,030,353

* Sault Ste. Marie canal opened in August, 1895.

STATEMENT of the Tonnage of Canadian and United States Vessels for the following years :—

CANADIAN VESSELS.

YEARS.	FROM CANADIAN TO CANADIAN PORTS.		FROM CANADIAN TO UNITED STATES PORTS.		FROM UNITED STATES TO UNITED STATES PORTS.		FROM UNITED STATES TO CANADIAN PORTS.		TONS.		TOTAL TONS.	Number of Vessels.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up and Down.	
1887	1,201,529	1,194,665	162,554	36,277	1,071	65	30,778	221,013	1,395,932	1,452,020	2,847,952	18,991
1888	1,113,290	1,120,774	158,209	34,368	1,252	.....	22,553	189,876	1,295,304	1,345,018	2,640,322	17,661
1889	1,285,574	1,207,892	188,131	39,371	976	802	20,271	252,565	1,494,952	1,500,630	2,995,582	19,393
1890	1,314,127	1,250,999	229,478	32,909	929	351	14,003	206,676	1,558,537	1,580,935	3,139,472	20,655
1891	1,356,518	1,287,168	201,758	28,642	550	292	16,350	244,176	1,575,176	1,569,278	3,135,454	19,246
1892	1,517,249	1,490,505	177,136	29,184	1,466	394	14,659	201,374	1,710,510	1,691,455	3,401,965	21,177
1893	1,548,094	1,422,326	170,186	26,787	1,172	10	17,037	248,442	1,736,489	1,697,565	3,434,054	20,757
1894	1,319,792	1,260,907	217,635	19,298	2,177	5	6,394	222,696	1,545,998	1,502,996	3,048,994	19,027
1895	1,258,848	1,165,683	253,693	13,383	.....	.....	5,899	285,553	1,518,440	1,464,619	2,983,059	17,136
1896	1,547,757	1,429,342	200,292	5,234	157	.....	4,115	271,809	1,752,321	1,697,385	3,449,706	20,972
1897	1,629,192	1,482,951	215,785	11,378	.....	.....	3,533	297,898	1,848,510	1,792,227	3,640,737	21,466
1898	1,701,661	1,609,255	215,393	4,927	499	518	6,805	255,927	1,927,358	1,879,627	3,797,985	21,509
1899	1,865,643	1,774,789	242,817	32,436	925	3,691	42,290	345,980	2,151,675	2,156,896	4,308,571	23,579
1900	1,767,293	1,681,340	265,926	14,922	2,909	64	38,015	358,781	2,074,143	2,055,107	4,129,250	21,755
1901	1,615,952	1,587,221	279,007	82,541	3,300	2,908	97,332	312,003	1,995,591	1,984,673	3,980,264	20,860
1902	1,914,167	1,840,787	241,356	97,492	1,874	2,164	101,335	286,520	2,258,732	2,226,963	4,485,695	22,198
1903	2,061,258	2,088,969	340,383	143,614	7,018	3,082	188,896	379,612	2,597,555	2,615,277	5,212,832	23,767
1904	1,838,260	1,907,886	299,245	159,740	5,175	4,223	237,910	319,661	2,380,590	2,391,510	4,772,100	21,851
1905	2,059,097	2,031,766	312,773	188,138	11,820	3,191	262,401	322,005	2,646,091	2,545,100	5,191,191	23,726
1906	2,271,776	2,264,476	292,705	155,595	21,420	5,506	202,276	309,567	2,791,177	2,735,144	5,526,321	25,498
1907	2,591,948	2,661,317	337,822	129,246	9,153	7,331	238,172	383,922	3,147,095	3,181,816	6,328,911	28,833
1908	2,726,776	2,748,139	318,327	227,315	5,057	7,844	348,944	398,387	3,399,104	3,381,685	6,780,789	29,040
1909	3,335,187	2,992,493	300,320	217,989	82,591	111,236	257,945	513,907	3,976,043	3,835,535	7,811,578	22,507
1910	3,891,613	3,504,463	315,656	122,688	95,151	89,618	287,555	627,046	4,587,975	4,343,815	8,931,790	25,337
1911	3,997,973	3,646,516	333,500	176,690	8,499	2,332	393,012	614,570	4,732,084	4,440,108	9,172,192	25,585

STATEMENT of the Tonnage of Canadian and United States Vessels for the following years:—

UNITED STATES VESSELS.

YEARS.	FROM CANADIAN TO CANADIAN PORTS.		FROM CANADIAN TO UNITED STATES PORTS.		FROM UNITED STATES TO UNITED STATES PORTS.		FROM UNITED STATES TO CANADIAN PORTS.		TONS.		TOTAL TONS.	Number of Vessels.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up and Down.	
1887.....	16,265	17,925	38,857	56,708	143,730	140,562	52,793	98,840	251,645	315,035	566,680	3,883
1888.....	14,304	26,801	42,425	50,047	177,714	156,095	49,778	114,613	284,221	347,556	631,777	3,921
1889.....	21,125	26,449	55,996	50,732	253,088	206,567	56,249	160,442	386,458	444,190	830,648	4,542
1890.....	10,390	16,345	38,156	36,397	248,418	234,728	39,697	97,266	336,661	384,736	721,397	3,364
1891.....	10,357	29,851	70,665	27,727	283,013	238,818	31,083	146,602	395,118	442,998	838,116	3,602
1892.....	12,023	29,405	88,221	22,763	280,315	229,437	37,037	172,594	417,594	454,199	871,795	3,928
1893.....	10,752	34,303	214,047	33,741	351,994	282,724	50,994	307,740	627,787	658,508	1,286,295	4,585
1894.....	18,528	30,201	130,720	20,830	302,562	269,788	37,406	192,992	498,216	513,811	1,012,027	4,131
1895.....	8,838	24,768	138,554	17,712	262,240	216,542	32,295	185,730	441,927	444,752	886,679	4,427
1896.....	11,496	19,093	195,228	21,953	357,205	292,359	40,416	290,370	604,345	623,775	1,228,120	4,650
1897.....	14,666	18,267	269,430	17,618	338,938	277,345	26,341	347,698	661,028	649,375	1,310,403	4,675
1898.....	12,142	9,541	233,524	32,880	308,878	305,464	32,331	336,004	586,875	683,889	1,270,764	4,264
1899.....	17,217	18,044	172,897	30,002	1,605,887	1,156,503	51,902	234,336	1,846,848	1,438,885	3,285,733	6,101
1900.....	13,316	17,824	157,659	30,443	1,208,725	744,276	45,741	190,971	1,425,471	983,514	2,408,985	5,502
1901.....	11,587	18,706	177,169	28,124	922,464	1,044,707	54,895	224,622	1,166,115	1,316,139	2,482,274	5,634
1902.....	13,622	37,871	175,826	70,641	1,756,948	1,654,672	123,257	241,602	2,081,653	2,004,786	4,086,439	6,433
1903.....	14,014	24,168	265,208	65,247	1,736,187	1,689,414	106,401	335,836	2,121,810	2,114,665	4,236,475	6,695
1904.....	10,122	16,890	275,721	39,993	1,464,316	1,475,085	68,091	305,697	1,818,240	1,837,065	3,655,905	6,253
1905.....	19,743	19,444	364,985	81,876	2,350,494	1,701,704	101,536	456,459	2,856,758	2,259,483	5,096,241	7,085
1906.....	34,306	15,324	356,239	78,561	2,738,623	1,928,131	115,675	418,436	3,244,863	2,440,452	5,685,515	7,319
1907.....	57,349	72,018	304,591	72,048	4,730,653	5,376,060	205,769	623,941	5,463,767	6,141,067	11,604,834	9,328
1908.....	54,587	39,705	442,773	124,120	2,975,624	4,142,392	218,835	536,103	3,685,819	4,835,320	8,521,139	7,489
1909.....	263,592	109,407	442,176	290,202	4,178,378	10,429,314	213,750	621,903	5,098,196	11,361,126	16,459,322	9,996
1910.....	119,222	50,499	428,702	305,330	5,509,417	14,488,565	299,462	576,101	6,356,803	15,420,494	21,777,297	11,462
1911.....	49,778	12,643	626,897	576,313	3,348,936	12,057,484	709,084	850,487	4,734,695	13,496,927	18,231,622	10,370

Vessel and Freight Tonnage passed through the Sault Ste. Marie Canal:—

20a-2

Years.	CANADIAN VESSELS.		U. S. VESSELS.		Total No.	Vessel Tonnage.	FREIGHT TONNAGE.			LOCKAGES.	DAYS OPEN.	Remarks.
	No.	Tonnage.	No.	Tonnage.			Canadian.	United States.	Total.				No.	No.
1895.....	609	126,534	583	623,092	1,192	749,626			595,837	699	87	Canal first operated Sept. 9, 1895.
1896.....	2,070	589,407	3,066	3,805,749	5,136	4,395,156			4,577,399	3,042	218	
1897.....	1,909	495,546	2,359	3,391,936	4,268	3,797,482			4,947,065	2,604	238	
1898.....	1,811	403,931	1,864	2,353,699	3,675	2,757,630			3,055,387	2,520	243	
1899.....	2,000	558,552	1,769	2,389,457	3,769	2,948,009			3,006,664	2,610	239	
1900.....	1,790	577,310	1,291	1,617,438	3,081	2,194,748			2,085,677	2,205	238	
1901.....	2,796	775,151	1,408	1,674,597	4,204	2,449,748			2,820,394	2,910	246	
1902.....	3,080	1,366,939	1,964	3,237,372	5,044	4,604,302			4,729,268	3,418	264	
1903.....	2,711	1,615,939	1,640	3,146,807	4,351	4,762,746			5,511,868	3,242	256	
1904.....	2,637	1,555,942	1,325	2,675,663	3,962	4,230,795			5,030,705	3,022	241	
1905.....	3,970	1,803,288	1,692	3,734,349	5,662	5,537,637			5,473,406	4,031	255	
1906.....	3,922	1,959,252	1,758	4,399,872	5,680	6,359,124			6,574,039	4,152	253	
1907.....	3,217	2,154,688	3,132	9,961,281	6,349	12,115,969			15,588,165	4,596	238	
1908.....	3,289	2,603,232	2,204	7,035,655	5,293	9,638,887	2,092,231	10,666,985	12,759,216	3,667	235	Origin of cargo first shown.
1909.....	2,597	2,988,936	3,734	14,850,738	6,331	17,839,674	3,366,495	24,494,750	27,861,245	5,046	240	
1910.....	2,744	3,173,494	5,228	20,187,704	7,972	23,361,198	3,345,619	33,050,068	36,395,687	6,110	248	
1911.....	2,713	3,108,880	4,068	16,252,340	6,781	19,361,920	3,177,581	27,774,128	30,951,709	6,802	236	

2 GEORGE V., A. 1912

CAPITAL EXPENDITURE.

The statement following brings the capital expenditure on the canals of the Dominion down to March 31, 1911. It must be understood, however, that the total shown is apart from the outlay by the Imperial Government on the Carillon and Grenville canal, as to which the records were lost in the destruction by the fire of the Ordnance Office, Montreal, in 1852. The details are as follows:—

Canal.	Construction.	Enlargement.	Total.
	\$ cts.	\$ cts.	\$ cts.
Beauharnois.....	1,636,690 26		1,636,690 26
Carillon and Grenville.....	63,053 64	4,119,039 32	4,182,092 96
Chambly.....	637,214 66	63,786 47	701,001 13
Cornwall.....	1,945,624 73	5,289,142 41	7,234,767 14
Culbute.....	382,776 46		382,776 46
Lachine.....	2,589,532 85	10,039,277 20	12,628,810 05
Lake St. Francis.....		75,906 71	75,906 71
Lake St. Louis.....		298,176 11	298,176 11
Murray.....	1,248,946 71		1,248,946 71
Rideau.....	4,085,889 21		4,085,889 21
Sault Ste. Marie.....	4,923,329 97		4,923,329 97
Soulanges.....	7,228,835 30		7,228,835 30
Ste. Anne's.....	134,456 51	1,035,759 12	1,170,215 63
St. Lawrence River and Canals.....	18,442 85	3,451,470 56	3,469,913 41
St. Ours.....	121,537 65		121,537 65
St. Peter's.....	648,547 14		648,547 14
Tay.....	489,599 23		489,599 23
Trent.....	9,555,950 41		9,555,950 41
Welland.....	7,693,824 03	21,049,468 96	28,743,292 99
Williamsburg	{ Farran's Point Galops Rapide Plat Williamsburg	877,090 57	10,485,611 69
		6,118,927 32	
		2,158,242 00	
		1,320,655 54	
Total	44,724,907 15	54,586,983 01	99,311,890 16

The cost of maintenance during the fiscal year 1911 was \$1,526,503.56.

I have the honour to be, sir,

Your obedient servant,

J. L. PAYNE,
Comptroller of Statistics.

CANAL STATISTICS

FOR

SEASON OF NAVIGATION, 1911

GRAIN PASSED DOWN WELLAND.

The quantity of barley, corn, oats, pease, rye and wheat passed down the Welland canal, from ports west of Port Colborne for a period of thirty years is as follows :—

QUANTITY PASSED DOWN TO MONTREAL.		To Ports in Ontario.	Quantity from U. S. Ports to U. S. Ports.
	Tons.	Tons.	Tons.
1882.....	180,694		63,881
1883.....	186,814	10,650	121,876
1884.....	142,194	12,153	104,537
1885.....	96,569	11,909	117,346
1886.....	203,940	9,881	151,551
1887.....	185,034	11,838	134,868
1888.....	160,358	25,599	169,664
1889.....	267,769	19,075	213,766
1890.....	288,513	16,899	245,932
1891.....	295,509	6,805	202,710
1892.....	261,954	8,942	201,540
1893.....	501,806	25,555	222,958
1894.....	273,651	16,699	203,979
1895.....	231,491	32,096	133,823
1896.....	461,049	73,386	160,372
1897.....	560,254	53,257	157,756
1898.....	519,532	31,279	144,612
1899.....	332,746	40,197	68,011
1900.....	244,661	17,525	84,589
1901.....	151,566	13,732	83,370
1902.....	208,215	22,787	81,164
1903.....	351,936	29,062	111,828
1904.....	198,246	23,711	102,523
1905.....	341,431	42,061	129,270
1906.....	404,935	33,351	176,119
1907.....	635,573	42,032	163,295
1908.....	756,141	38,142	135,172
1909.....	652,742	40,238	129,587
1910.....	789,661	63,657	115,457
1911.....	836,924	51,560	121,655

During the last decade the quantity of agricultural products as above, passed down the Welland and St. Lawrence canals to Montreal, has increased from 208,215 tons in 1902 to 836,924 tons in 1911, and the quantity passed down the Welland canal from United States ports to United States, has increased from 81,164 to 121,655 tons the same years.

2 GEORGE V., A. 1912

The quantity of barley, buckwheat, corn, oats, pease, rye and wheat, arrived at Montreal via Grand Trunk and Canadian Pacific Railways for a period of 14 years, is reported as follows:—

Year.	Tons.
1898	293,391
1899	200,170
1900	229,624
1901	227,700
1902	263,861
1903	253,959
1904	154,625
1905	148,577
1906	386,963
1907	383,735
1908	285,262
1909	426,163
1910	.....
1911	241,134

The quantity of the same articles passed down the whole length of the St. Lawrence canals to Montreal for the same period was:—

Year.	Tons.
1898	575,097
1899	372,291
1900	295,928
1901	203,316
1902	242,225
1903	400,057
1904	220,076
1905	375,630
1906	449,673
1907	684,697
1908	776,374
1909	652,742
1910	789,661
1911	836,924

Comparative shipments of grain by the St. Lawrence route, and railways, are as follows:—

QUANTITY OF GRAIN TO SEA BOARD BY COMPETING ROUTES.

The quantity of grain and pease passed down the whole length of the St. Lawrence canal to Montreal, is as follows:—

For 1910	789,661	Tons.
1911	836,924	
Showing an increase of		47,263

The quantity of grain and pease carried to Montreal via Canadian Pacific and Grand Trunk Railways is reported as follows:—

For 1910	275,596	
1911	241,134	
Showing a decrease of		34,462

SESSIONAL PAPER No. 20a

The quantity of grain passed down the Welland canal in Canadian and United States vessels to Kingston and Prescott for fifteen years is as follows:—

In Canadian vessels there were in:

	Tons.
1897, 180 cargoes, with an aggregate quantity of.....	229,265
1898, 166 " "	224,021
1899, 162 " "	221,306
1900, 325 " "	183,200
1901, 112 " "	132,558
1902, 131 " "	175,514
1903, 170 " "	218,840
1904, 115 " "	174,121
1905, 167 " "	239,418
1906, 295 " "	344,605
1907, 255 " "	427,813
1908, 355 " "	598,941
1909, 308 " "	559,276
1910, 383 " "	679,358
1911, 421 " "	727,223

In the United States vessels there were in:—

	Tons.
1897, 197 cargoes, with an aggregate quantity of.....	285,847
1898, 339 " "	464,852
1899, 167 " "	205,571
1900, 259 " "	163,575
1901, 135 " "	123,229
1902, 135 " "	136,652
1903, 219 " "	273,986
1904, 118 " "	150,359
1905, 235 " "	273,344
1906, 178 " "	269,800
1907, 263 " "	413,087
1908, 271 " "	330,514
1909, 174 " "	272,291
1910, 182 " "	295,714
1911, 173 " "	281,916

One hundred and sixty-two Canadian and 49 American vessels took cargoes of 343,733 tons through to Montreal intact in 1908; 87 Canadian and 9 American of 135,582 in 1907; 74 Canadian and 10 American of 108,734 tons in 1906; 96 Canadian and 18 American of 180,206 in 1905; 56 Canadian and 16 American of 116,095 tons in 1904; 56 Canadian and 18 American of 99,582 tons in 1903; 19 Canadian and 17 American of 34,804 tons in 1902; 23 Canadian and 2 American of 17,303 tons in 1901, 15 of 7,924 tons in 1900, 2 of 558 tons in 1899, 7 of 2,426 in 1898, 7 of 2,324 in 1897, 2 of 1,176 in 1896, 4 of 1,344 tons in 1905, 2 cargoes of 810 tons in 1894, none in 1893, 2 in 1892 of 924 tons, and 3 in 1891 of 1,441 tons. Three vessels lightened a portion of their cargoes in 1901, 9 in 1900, 11 in 1899, 25 in 1898, 11 in 1897, 16 in 1896, 6 in 1895, 19 in 1894, 34 in 1893, 25 in 1892, and 44 in 1891; 222 vessels discharged the whole of their cargoes at Kingston in 1901, 540 in 1900, 316 in 1899, 473 in 1898, 359 in 1897, 335 in 1896, 169 in 1895, 188 in 1894, 369 in 1893, 220 in 1892, and 293 in 1891.

The quantity of grain transhipped at Port Colborne in 1909 and the four previous years was as follows:

Articles.	1905.	1906.	1907.	1908.	1909.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Wheat.....	679,840	1,009,474	1,428,300	1,106,244	2,686,963
Corn.....	104,027	110,629	112,036		
Rye.....					
Oats.....		29,118	30,824	23,945	
Barley.....		2,103		56,544	22,216
Flaxseed.....			39,040	49,628	8,202

WELLAND CANAL.

The total quantity of freight passed on the Welland canal during the season of 1911 was 2,537,629 tons; of this quantity 27,898 tons was way or local freight.

There were 1,694,710 tons of freight passed eastward, and 842,919 passed westward.

East and West bound Through Freight.

The total quantity of through freight passed through the whole length of the Welland canal during the season of 1911 was 2,509,731.

Of this quantity 1,682,531 tons were east bound and 827,200 west bound freight.

Of the east bound through freight, Canadian vessels carried 1,206,583 tons and United States vessels carried 475,948 tons; and of the west bound through freight Canadian vessels carried 397,739 tons and United States vessels carried 429,461 tons, or a total of 1,604,322 tons for Canadian and 905,409 tons for American vessels.

ST. LAWRENCE CANALS.

The total quantity of freight passed through these canals during 1911 was 3,105,708 tons; of this quantity 2,146,748 tons passed eastward and 958,960 passed westward.

East and West bound Through Freight.

The total quantity of through freight was 2,326,729 tons; of this quantity 1,792,446 tons were east bound and 534,283 tons were west bound.

Way Freight.

Of the total quantity of (way) or local freight 354,302 were east bound and 424,677 tons west bound freight.

SESSIONAL PAPER No. 20a

THROUGH TRAFFIC BETWEEN MONTREAL AND PORTS ON LAKE ERIE, MICHIGAN, ETC.

The total quantity of through freights passed eastward from Lake Erie and westward from Montreal through the Welland and St. Lawrence canals, during fifteen years, was as follows:—

Year.	Eastward, to Montreal.	Westward, from Montreal.
	Tons.	Tons.
1897.....	584,246	4,542
1898.....	538,108	4,436
1899.....	354,933	5,991
1900.....	288,251	6,217
1901.....	184,420	13,714
1902.....	250,475	25,289
1903.....	390,786	100,699
1904.....	278,328	71,512
1905.....	448,704	72,482
1906.....	554,231	96,791
1907.....	789,167	1,281
1908.....	864,926	3,472
1909.....	925,005	191,510
1910.....	1,170,139	172,360
1911.....	1,291,973	233,335

THROUGH FREIGHT FROM UNITED STATES PORTS TO UNITED STATES PORTS.

The total quantity of through freight passed eastward and westward through the Welland canal, from United States ports to United States ports, for a period of fifteen years, was as follows:—

Year.	Eastward.	Westward.	Total.
	Tons.	Tons.	Tons.
1897.....	353,863	210,831	564,694
1898.....	277,023	210,516	487,539
1899.....	225,491	135,038	360,529
1900.....	218,969	99,560	318,529
1901.....	190,476	83,543	274,019
1902.....	224,110	44,919	269,029
1903.....	221,074	149,151	370,225
1904.....	165,337	87,144	252,481
1905.....	190,547	112,549	303,096
1906.....	237,226	84,205	321,431
1907.....	218,997	177,660	396,657
1908.....	209,518	239,136	448,654
1909.....	196,838	248,581	445,419
1910.....	197,301	288,198	485,499
1911.....	175,752	309,603	485,355

The total quantity of freight passed through the Welland canal from United States ports to United States ports shows a decrease of 144 tons as compared with the previous year; and a decrease of 79,339 tons as compared with 1897.

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The following statement shows the aggregate number of vessels and the total quantity of freight passed through the Welland canal, and the quantity passed between United States ports during the years 1867 to 1911 inclusive.

Fiscal Year.	Aggregate number of Trips.	Total quantity transported on the Welland canal.	Quantity passed from United States ports to United States ports.
	No.	Tons.	Tons.
1867.....	5,405	933,260	458,386
1868.....	6,157	1,161,821	641,711
1869.....	6,069	1,231,903	688,700
1870.....	7,356	1,311,956	747,567
1871.....	7,729	1,478,122	772,756
<i>Season of Navigation.</i>			
1872.....	6,063	1,333,104	606,627
1873.....	6,425	1,506,484	656,208
1874.....	5,814	1,389,173	748,537
1875.....	4,242	1,038,050	477,809
1876.....	4,789	1,099,810	488,815
1877.....	5,129	1,175,398	493,841
1878.....	4,429	968,758	373,738
1879.....	3,960	865,664	284,043
1880.....	4,104	819,934	179,605
1881.....	3,332	686,506	194,173
1882.....	3,334	790,643	282,806
1883.....	3,267	1,005,156	432,611
1884.....	3,138	837,811	407,079
1885.....	2,738	784,928	384,509
1886.....	3,589	980,135	464,478
1887.....	2,785	777,918	340,501
1888.....	2,647	878,800	434,753
1889.....	2,975	1,085,273	563,584
1890.....	2,882	1,016,165	533,957
1891.....	2,594	975,043	553,800
1892.....	2,615	955,554	541,065
1893.....	2,843	1,294,823	631,667
1894.....	2,412	1,008,221	592,267
1895.....	2,222	869,595	469,779
1896.....	2,766	1,279,987	653,213
1897.....	2,725	1,274,292	664,694
1898.....	2,384	1,140,077	487,539
1899.....	2,202	789,770	360,529
1900.....	2,399	719,360	318,529
1901.....	1,547	620,209	274,019
1902.....	1,568	665,387	269,029
1903.....	1,787	1,002,919	370,225
1904.....	1,433	811,371	252,481
1905.....	1,595	1,092,050	305,096
1906.....	1,536	1,201,967	321,431
1907.....	1,982	1,614,132	396,743
1908.....	2,351	1,703,453	448,654
1909.....	2,433	2,025,951	445,419
1910.....	2,544	2,326,290	487,499
1911.....	2,480	2,537,629	485,355

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The total quantity of freight passed through the several divisions of the Canadian canal system during the season of 1911 is as follows :

	Farm Stock.	Forest Produce of Wood.	Manufac- tures.	Products of Mines.	Agricultural Products.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sault Ste. Marie.....	978	56,853	854,516	26,819,433	3,219,929	30,951,709
Welland.....	574	250,423	539,865	657,162	1,089,605	2,537,629
St. Lawrence.....	9,943	551,155	557,992	983,528	1,003,090	3,105,708
Chambly.....	315	396,704	25,370	135,537	41,903	599,829
St. Peter's.....	2,153	7,120	11,828	37,659	16,538	75,298
Murray.....	113	1,622	143,399	17,214	1,109	163,457
Ottawa.....	2,467	202,797	65,452	39,576	9,779	320,071
Rideau.....	2,684	34,350	114,937	14,172	6,084	172,227
Trent.....	397	31,342	12,551	12,049	951	57,290
St. Andrew's.....		13,773	33,133	127	82	47,135

The total quantity of freight moved on the Welland canal was 2,537,629 tons, of which 1,089,605 tons were agricultural products.

On the St. Lawrence canals the total quantity of freight moved was 3,105,708 tons, of which 1,003,090 were agricultural products, and 557,992 tons were manufactures.

On the Ottawa canals the total quantity of freight moved was 320,071 tons ; of this quantity 202,797 tons were the produce of the forest.

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COMPARATIVE STATEMENT of the Commerce through the United States, St. Mary's Falls canals and the Canadian Sault Ste. Marie canal; for the Seasons of 1910 and 1911.

	Traffic for 1911		Total traffic for		Increase.	Decrease.
	United States canal.	Canadian canal.	Season of 1911.	Season of 1910	Amount.	Amount.
Vessels.....number	11,370	6,802	18,672	20,399		2,227
Lockages....."	8,064	5,229	13,293	14,569		1,276
Tonnage, registered.....net tons	22,321,519	19,361,220	41,682,739	49,868,184		8,185,445
" freight....."	22,523,551	30,951,709	53,475,260	62,323,348		8,848,088
Passengers.....number	40,245	39,044	79,289	66,827	12,462	
Coal, hard.....net tons	1,613,347	433,859	2,047,206	1,710,741	336,465	
" soft....."	9,555,380	3,673,094	13,228,474	11,827,429	1,401,045	
Flour.....barrels	4,754,433	2,518,000	7,272,433	7,688,016		415,583
Wheat.....bushels	17,188,795	80,038,100	97,226,895	85,902,249	11,324,646	
Grain (excluding wheat).."	12,609,941	25,104,883	37,714,824	38,801,037		1,086,213
Manufactured and pig iron.....net tons	194,907	204,914	399,821	485,668		85,847
Salt.....barrels	525,180	95,851	621,031	528,610	92,421	
Copper.....net tons	115,970	16,556	132,526	157,244		24,718
Iron ore....."	8,067,511	22,669,789	30,737,300	41,516,314		10,779,014
Lumber.....ft. B.M.	441,201,153	24,729,272	465,930,425	603,253,650		137,323,225
Silver ore.....net tons						
Building stone....."	2,100		2,100	9,355		7,255
Unclassified freight....."	856,159	774,961	1,631,120	1,488,440	142,680	

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The United States canal was open to navigation during the season of—

1889.....	234 days	1901.....	230 days
1890.....	228 "	1902.....	256 "
1891.....	225 "	1903.....	249 "
1892.....	233 "	1904.....	223 "
1893.....	219 "	1905.....	245 "
1894.....	234 "	1906.....	249 "
1895.....	231 "	1907.....	233 "
1896.....	232 "	1908.....	231 "
1897.....	234 "	1909.....	236 "
1898.....	241 "	1910.....	224 "
1899.....	231 "	1911.....	237 "
1900.....	238 "		

The Canadian canal was open to navigation during the season of—

1895.....	87 days	1904.....	241 days
1896.....	218 "	1905.....	255 "
1897.....	238 "	1906.....	253 "
1898.....	243 "	1907.....	238 "
1899.....	239 "	1908.....	235 "
1900.....	238 "	1909.....	240 "
1901.....	246 "	1910.....	248 "
1902.....	264 "	1911.....	236 "
1903.....	256 "		

The average number of vessels passing per day through the two canals for the season of 1911 was seventy-nine.

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A—TABLE showing the total tonnage of the undermentioned articles moved Up and Down

YEAR.	VEGETABLE FOOD.						
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles. †
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869*.....	45,674	313,825	120,599	20,951	.....	904	1,937
1872.....	26,651	239,998	254,902	6,035	7,752	64	2,745
1873.....	30,665	355,847	180,169	8,225	1,194	3	3,777
1874.....	24,019	413,212	181,151	18,871	5,954	513	8,677
1875.....	13,964	253,835	103,749	35,751	3,383	917	6,337
1876.....	15,778	201,906	144,501	18,455	24,496	1,454	3,198
1877.....	13,558	253,953	169,196	19,870	2,810	2,439	2,355
1878.....	9,121	191,982	183,931	10,979	3,088	.....	2,302
1879.....	10,710	274,570	144,506	4,655	1,239	440	2,444
1880.....	12,679	242,020	163,738	17,772	477	1,016	1,480
1881.....	9,959	127,832	101,075	24,509	.....	1,844	2,086
1882.....	12,261	215,056	54,799	20,126	611	3,226	403
1883.....	13,471	152,794	182,269	10,436	731	1,642	10,983
1884.....	13,683	144,851	118,811	7,155	10,746	1,320	9,163
1885.....	13,334	124,206	117,536	15,801	1,116	.....	1,912
1886.....	19,474	154,169	219,442	1,595	4,911	564	14,657
1887.....	23,949	221,927	114,938	9,574	12,050	.....	12,533
1888.....	16,983	160,963	194,886	5,906	26,629	811	13,608
1889.....	7,931	126,664	353,595	4,272	28,356	2,673	18,552
1890.....	14,461	118,002	327,394	10,830	27,728	1,549	20,376
1891.....	13,517	198,658	185,180	8,113	52,959	65,888	28,042
1892.....	17,046	232,019	192,548	6,433	37,173	9,392	32,815
1893.....	15,235	258,392	441,092	18,599	31,283	3,671	36,981
1894.....	33,628	270,993	169,233	28,353	27,962	567	60,673
1895.....	44,044	203,088	164,894	8,689	18,236	1,007	46,463
1896.....	42,425	320,563	320,444	11,368	28,178	9,405	56,591
1897.....	9,065	324,743	390,615	14,173	25,161	8,483	44,674
1898.....	5,578	207,647	437,861	12,286	17,502	16,127	23,182
1899.....	11,625	197,732	204,004	2,907	24,037	923	18,460
1900.....	10,968	137,800	163,509	4,035	41,055	3,538	14,815
1901.....	18,978	151,586	67,756	7,119	28,485	2,961	14,024
1902.....	22,282	225,171	67,647	7,418	11,232	4,079	12,963
1903.....	25,998	259,031	210,758	14,656	7,911	4,904	13,994
1904.....	35,049	165,138	116,444	27,171	16,582	.....	13,184
1905.....	38,512	254,458	180,921	55,432	36,072	1,711	9,883
1906.....	18,294	326,798	211,805	31,446	49,306	1,784	10,739
1907.....	22,739	488,565	271,693	13,240	73,369	2,270	22,683
1908.....	23,209	732,131	127,402	31,172	33,423	6,667	21,668
1909.....	38,763	590,196	140,902	23,151	75,135	33	30,221
1910.....	41,152	587,493	229,980	21,575	136,233	.....	18,149
1911.....	57,061	562,282	273,932	15,029	163,333	112	11,360

* Fiscal.

† Apples, meals of all kinds, pease, potatoes.

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through the Welland canal, during a period of forty-one years, ended December 31, 1911.

HEAVY GOODS.							
Total.	Railway Iron.	Other Iron.	Sugar and Salt.	Iron and Salt having paid full tolls on St. Lawrence canals.	Coal.	Ores.	Total.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
503,860	46,806	16,924	91,575	37,153	103,126	58,781	275,623
538,147	26,217	17,141	50,540	44,243	186,932	98,605	3,678
579,880	6,923	20,754	40,850	17,157	339,016	118,685	43,387
647,397	6,032	12,068	23,309	9,579	323,503	56,825	431,316
417,936	1,517	7,588	13,509	9,962	321,306	43,683	397,565
409,788	51	7,997	30,300	20,327	288,211	81,654	378,540
464,181	9,630	9,696	9,173	3,983	323,869	42,758	399,109
403,403	10	11,518	3,980	12,686	295,318	15,229	338,741
438,564	2,782	5,797	7,174	17,796	192,957	19,164	245,670
442,182	5,360	4,812	413	22,273	109,986	34,139	176,983
269,395	4,585	7,013	10	30,682	123,113	18,785	189,188
306,482	.....	5,348	50	17,327	237,559	23,700	283,984
373,326	1,237	7,922	66	17,037	307,058	31,785	365,105
305,734	698	652	461	3,242	274,471	53,205	332,729
273,905	78	2,055	597	14,243	248,272	26,728	291,973
414,812	166	6,123	48	12,324	271,356	27,447	317,464
394,971	1,351	5,636	.....	6,715	145,193	13,866	172,761
419,786	93	3,220	316	13,617	223,871	16,872	257,989
542,043	47	2,479	1,254	20,269	268,305	2,435	294,789
519,291	.....	753	1,027	28,047	202,384	8,138	240,349
367,177	127	1,610	2,567	7,953	224,644	3,415	240,316
527,426	163	1,567	878	3,666	211,616	355	218,245
805,253	6	2,075	374	8,139	233,096	.....	243,690
591,409	.....	3,072	159	977	203,608	.....	207,816
486,421	185	6,245	54	2,819	158,866	1,140	169,309
788,974	1,192	6,332	82	3,264	223,445	1,158	235,473
816,914	7,206	17,012	227	590	176,226	.....	201,261
720,183	1,444	11,722	799	734	162,336	13,433	190,468
459,688	567	6,361	1,282	1,318	97,732	26,125	133,385
375,720	.....	8,190	533	4,800	47,392	58,400	119,315
290,909	83	6,094	327	8,773	49,480	99,487	164,244
350,792	64	7,488	.....	15,201	64,014	22,480	109,247
537,252	488	5,407	2,554	45,846	147,884	18,323	220,502
373,568	11,381	9,957	1,093	4,164	113,525	39,683	179,803
576,989	2,651	10,912	226	4,221	172,642	22,381	213,033
650,172	3,747	8,493	100	16,204	147,587	5,862	181,993
894,559	961	4,923	246	18,761	267,212	25,040	317,143
975,672	.....	35,726	429	.....	316,921	18,004	371,080
898,401	.....	87,025	.....	.....	377,681	33,301	498,007
1,034,582	57,581	577,491	34,311	669,383
1,083,109	126,956	35,888	619,682	37,480	820,006

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B.—TABLE showing the Total Way and Through Tonnage of the undermentioned Articles cleared downward on the Welland canal during a series of forty-one years, ended December 31, 1911.

VEGETABLE FOOD.

Years.	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles. †	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869.....	44,110	310,090	119,541	3,920	.....	680	1,541	479,882
1872.....	26,648	231,056	254,534	693	7,594	64	2,300	524,889
1873.....	30,660	345,720	180,042	643	1,188	3	3,557	563,813
1874.....	24,017	406,157	181,128	377	5,953	.....	3,301	620,933
1875.....	13,930	248,555	103,477	813	3,383	500	4,304	374,962
1876.....	15,735	194,559	144,501	1,110	24,496	1,454	2,949	384,807
1877.....	13,588	248,894	169,185	10,216	2,810	2,405	1,833	448,931
1878.....	8,854	188,106	185,931	1,217	3,088	.....	2,100	389,296
1879.....	10,588	271,545	114,276	803	1,196	.....	2,387	430,795
1880.....	12,467	240,601	162,891	.....	477	.....	1,418	417,853
1881.....	9,655	121,393	103,075	252	.....	6	1,371	235,752
1882.....	12,205	205,876	54,797	537	.....	1,954	225	275,594
1883.....	13,256	146,741	182,143	975	731	518	10,971	355,335
1884.....	13,626	135,804	118,811	270	10,746	477	9,018	288,752
1885.....	13,322	114,090	117,536	618	1,116	.....	1,628	248,310
1886.....	19,418	146,151	218,897	.....	4,891	.....	14,581	403,928
1887.....	23,940	210,755	114,938	1,711	12,050	.....	12,149	375,543
1888.....	16,973	150,833	194,886	555	26,629	811	13,358	404,045
1889.....	7,922	120,498	353,595	197	28,356	1,918	18,273	530,759
1890.....	14,461	114,924	327,394	6,519	27,728	1,121	20,836	512,983
1891.....	13,517	196,326	185,177	8,113	52,959	65,071	27,895	549,068
1892.....	17,046	229,569	192,548	6,433	37,173	9,392	32,548	524,709
1893.....	15,232	257,203	441,092	18,461	31,283	3,671	36,981	803,923
1894.....	33,628	270,514	169,233	28,353	27,962	.....	60,587	590,277
1895.....	43,895	202,636	164,894	8,689	18,236	.....	46,435	484,785
1896.....	42,159	319,388	320,444	11,368	28,178	8,970	54,031	784,538
1897.....	9,025	322,993	390,615	14,173	25,127	8,483	44,651	815,067
1898.....	5,578	206,313	437,849	12,286	17,491	16,127	23,170	718,814
1899.....	11,625	197,732	204,004	2,424	23,541	923	18,440	458,689
1900.....	10,968	137,800	163,509	3,449	40,256	3,538	14,802	374,322
1901.....	18,937	151,325	67,756	7,119	28,281	2,961	14,021	290,400
1902.....	22,282	223,499	67,647	7,418	11,223	4,079	12,912	349,060
1903.....	25,997	257,370	210,758	14,656	7,911	4,904	13,982	535,578
1904.....	35,046	164,515	116,444	27,171	16,582	.....	13,157	372,915
1905.....	38,512	247,599	180,921	55,432	36,072	1,711	9,882	570,129
1906.....	18,227	326,789	111,243	31,446	49,306	1,411	10,739	549,161
1907.....	22,689	488,565	271,693	13,240	73,369	2,270	22,683	894,509
1908.....	23,187	730,751	127,402	31,172	33,423	6,667	21,668	974,270
1909.....	38,763	590,074	140,902	23,151	75,135	33	30,206	898,264
1910.....	41,152	587,493	229,980	21,575	136,233	.....	18,149	1,034,582
1911.....	57,061	562,282	273,932	14,622	163,333	112	11,360	1,082,702

* Fiscal. † Apples, meal all kinds, peas, potatoes.

C.—TABLE showing the Tonnage of the undermentioned Articles passed through the Welland canal in transit between Ports in the United States during a series of forty-one years, ended December 31, 1911.

YEARS.	VEGETABLE FOOD.								HEAVY GOODS.					
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	* Other Articles.	Total.	Railway Iron.	Other Iron.	Sugar and Salt.	Coal.	Ores.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869	30,681	211,085	91,149	2,942		667	1,006	337,530	68,064	14,334	89,086	28,566	35,912	235,962
1872	10,482	124,695	89,761	1,391	7,400		608	234,337	24,040	13,239	49,843	95,741	59,401	224,264
1873.	10,805	127,727	101,329	1,920	1,188	3	392	243,366	4,659	13,826	40,507	170,242	62,942	292,176
1874	8,230	229,053	125,627		5,948		5,368	374,226	5,742	8,941	22,888	203,673	19,651	260,895
1875	1,881	113,832	54,188	2,641	2,946	500	1,920	177,908	14	4,123	12,931	192,767	34,616	244,451
1876	5,187	96,247	58,138		1,905	525	403	162,405		5,531	29,395	167,110	25,808	227,844
1877	3,342	107,396	65,260	1,603	2,314	258	413	180,586	8,976	8,688	8,336	172,868	41,107	239,975
1878.	1,316	65,542	60,026	859	277		341	128,361		10,713	3,892	150,583	13,535	178,723
1879	159	53,791	33,401		464		11	87,826	2,405	3,648	6,318	118,573	17,797	148,741
1880		30,611	16,122	1,551	296			48,580	4,743	3,515	371	65,945	18,380	92,954
1881		34,320	30,031	924			10	65,285	1,313	5,570		83,858	6,464	97,205
1882	107	30,227	32,433	537		684	14	64,002		4,076		158,552	14,533	177,161
1883	2,041	54,382	66,128	735		731	8,579	132,496	1,209	6,901	8	196,462	24,891	229,471
1884	1,715	40,956	53,707		9,874		8,170	114,422	698	599		210,790	15,100	227,187
1885	124	53,235	63,229	732		882	1	118,203		1,594		198,416	15,029	215,039
1886	7,591	53,258	94,048		4,790		13,201	172,888	156	5,328	1	189,964	11,364	206,813
1887	11,780	37,678	83,431	1,732	12,050		10,859	157,530	15	4,406		82,780	627	87,828
1888	8,563	39,999	102,974	2	26,510	179	11,598	189,825	63	1,601	56	173,259	2,309	177,288
1889	5,017	39,229	147,045		27,492		17,225	236,208		1,587	896	227,476	1,204	231,163
1890	9,204	31,527	180,842	6,519	27,030		20,497	275,619		504	208	162,231	1,620	154,563
1891	6,802	32,097	127,494	8,113	52,823		26,115	253,444		292	705	186,572	1,773	189,342
1892	11,018	26,950	131,222	6,433	36,935		31,992	244,550		576	2	183,895		184,473
1893	6,588	28,187	198,777	16,751	23,870	864	36,352	311,389		344		206,827		207,171
1894	17,795	53,846	105,329	28,095	27,621		60,462	198,358		297		188,521		188,818
1895	10,169	27,881	100,512	7,904	17,020		46,316	209,802	181	246		149,490		149,917
1896	16,224	34,878	175,094	11,128	16,137	490	46,456	300,407		146		207,348		207,494
1897	7,237	28,919	169,057	14,173	14,969		41,887	276,242	965	15		165,143		166,123
1898	4,212	11,268	150,667	6,909	12,732	1,197	22,671	209,656	770	339	4	156,814		157,927
1899	6,118	12,926	81,777	2,424	19,526	923	18,198	141,892	351	1,646	553	88,931		91,481
1900	7,966	18,771	60,545	2,402	39,706	2,149	14,243	145,787		953		46,024		46,977
1901	17,165	23,557	55,531	7,119	26,344		14,016	143,732	83	80	105	46,702		46,970
1902	13,785	32,639	66,111	7,418	10,006		12,675	142,634		214		12,911		13,125

* Apples, meal of all kinds, peas, potatoes.

C.—TABLE showing the Tonnage of the undermentioned Articles passed through the Welland canal in transit between Ports in the United States during a series of forty-one years, ended December 31, 1911—*Concluded*.

YEARS.	VEGETABLE FOOD.								HEAVY GOODS.					
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	*Other Articles.	Total.	Railway Iron.	Other Iron.	Sugar and Salt.	Coal.	Ores.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1903.....	6,082	15,439	108,917	11,433	6,112	4,174	13,568	165,725	459	.....	.....	113,072	.....	113,535
1904.....	8,556	14,269	60,964	16,621	16,497	.....	13,079	129,986	.....	.....	.....	63,882	.....	63,882
1905.....	24,054	15,483	93,622	9,197	10,892	.....	9,682	162,930	.....	1	.....	73,464	.....	73,465
1906.....	15,215	13,410	135,240	9,266	11,323	.....	10,678	195,132	.....	169	.....	33,523	.....	33,692
1907.....	18,898	21,892	124,474	2,812	4,741	2	22,001	194,820	.....	30	.....	110,347	4,050	114,420
1908.....	17,694	24,651	99,830	7,148	2,070	2	21,393	172,788	.....	.....	.....	158,351	1,400	159,751
1909.....	15,452	17,940	100,967	4,224	.....	.....	22,683	161,266	.....	5	.....	131,131	1,531	132,667
1910.....	11,859	10,717	126,938	3,840	.....	.....	8,571	161,925	.....	.....	.....	201,893	.....	201,893
1911.....	2,852	4,950	116,705	7,565	132,072	1,863	26,303	223,942	4,483	256,491

* Apples, meal all kinds, pease, potatoes.

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D.—STATEMENT showing the Quantity of Through Freight passed Down the Welland canal in Canadian and United States Vessels entering the canal at Port Colborne, during the season of Navigation in 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910 and 1911.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	216	114,885	109	67,475	168	182,444	71	30,309	564	395,113
1900.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	
Wheat.....	67,694	43,157	23,066	2,130	136,047					
Corn.....	39,597	31,248	78,701	13,963	163,509					
Barley.....			2,402	1,047	3,449					
Oats.....			39,706	407	40,113					
Pease.....	115		4		119					
Rye.....	1,389		2,149		3,538					
Coal.....	723	637	433	559	2,352					
Miscellaneous merchandise.....	53,649	31,536	43,344	3,564	132,093					
Shingles, woodenware, &c.....	1,078				1,078					
Sawed lumber..... Ft. B.M.	6,847,279	5,344,258	14,984,483	18,770,405	45,946,425					
Square timber..... Cub. ft.	439,827	355,951	11,583	198,420	1,005,781					
Firewood..... Cords.	126	255			381					
Staves..... No.	1,000				1,000					
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	197	103,802	114	59,022	163	182,497	48	22,319	522	367,640
1901.	Tons.	Tons.	Tons.	Tons.	Tons.					
Wheat.....	57,641	58,973	31,955	1,241	149,810					
Corn.....	7,350	4,689	55,717		67,756					
Barley.....			7,119		7,119					
Oats.....	944		27,197		28,141					
Pease.....										
Rye.....	2,961				2,961					
Coal.....	1,960	362	357		2,679					
Miscellaneous merchandise.....	71,300	32,312	12,874	7,469	123,955					
Shingles, woodenware, &c.....	18				18					
Sawed lumber..... Ft. B.M.	6,533,423	4,060,251	11,089,806	13,092,940	34,776,420					
Square timber..... Cub. ft.	362,441	204,682	9,384	149,531	726,038					
Firewood..... Cords.	165	264			429					
Staves..... No.										
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	196	90,791	122	73,958	191	201,339	52	22,097	561	388,185
1902.	Tons.	Tons.	Tons.	Tons.	Tons.					
Wheat.....	82,954	85,973	52,889		221,816					
Corn.....	148	1,388	66,111		67,647					
Barley.....			7,418		7,418					
Oats.....	1,200	43	9,963		11,206					
Pease.....										
Rye.....	3,808		271		4,079					
Coal.....	3,977	25,732	13,497	8,332	51,538					
Miscellaneous merchandise.....	33,111	8,723	38,351	1,594	81,779					
Shingles, woodenware, &c.....	47	28	4		79					
Sawed lumber..... Ft. B.M.	13,218,960	3,256,187	25,437,287	19,540,426	61,452,860					
Square timber..... Cub. ft.	370,718	557,689		115,000	1,043,407					
Firewood..... Cords.	56	40			96					
Staves..... No.		14,000			14,000					

D.—STATEMENT showing the Quantity of Through Freight passed Down the Welland canal in Canadian and United States Vessels, &c.—Continued.

ARTICLES.	CANADIAN VESSELS.				AMERICAN VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	329	151,850	76	45,918	243	252,094	69	27,854	627	477,716
1903.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat.....	149,378		38,473		60,514		6,305		254,670	
Corn.....	21,356		4,682		174,588		10,132		210,758	
Barley.....	2,580		667		11,409				14,656	
Oats.....	306		1,335		6,112				7,753	
Pease.....	63				22				85	
Rye.....					4,904				4,904	
Coal.....	389		12,991		8,133		8,496		30,009	
Miscellaneous merchandise..	39,563		3,367		41,584		2,000		86,514	
Shingles, woodenware, &c..			54						54	
Sawed lumber..... Ft. B.M.	12,841,552		1,625,855		17,871,652		14,733,677		47,072,736	
Square timber..... Cub. ft.	572,000		660,000				84,200		1,316,200	
Firewood..... Cords.			210		9				219	
Staves..... No.			641,000						641,000	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	228	157,539	55	39,375	205	187,748	42	15,918	530	400,580
1904.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat.....	116,794		33,302		14,269				164,365	
Corn.....	12,768		7,814		95,362				116,444	
Barley.....	2,619		824		23,728				27,171	
Oats.....					16,261				16,261	
Pease.....					3				3	
Rye.....	1,925		7,187		17,133		7,668		33,913	
Coal.....	34,907				1,925				36,832	
Miscellaneous merchandise..	29,567				60,548				90,115	
Shingles, woodenware, &c..										
Sawed lumber..... Ft. B.M.	15,077,382		854,811		32,754,541		9,572,655		58,259,389	
Square timber..... Cub. ft.	944,508		744,000				149,000		1,837,508	
Firewood..... Cords.					717				717	
Staves..... No.	634,000								634,000	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	252	182,373	91	48,692	319	286,656	64	29,120	726	546,841
1905.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat.....	188,706		18,575		28,757		2,512		238,550	
Corn.....	6,385		6,636		163,374		4,526		180,921	
Barley.....	6,870		1,451		47,111				55,432	
Oats.....	8,225		2,570		21,535		3,742		36,072	
Pease.....					76				76	
Rye.....					1,711				1,711	
Coal.....	18,756		35,324		28,330		8,678		91,088	
Iron ore.....	14,358		8,023						22,381	
Merchandise.....	29,375		7,485		74,975		3,126		114,961	
Shingles, woodenware, &c..			2,748,941		2,325				2,325	
Sawed lumber..... Ft. B.M.	2,867,147				38,290,831		12,479,698		54,589,200	
Square timber..... Cub. ft.	355,000		951,524						538,000	
Firewood..... Cords.			183,000		900				900	

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D.—STATEMENT showing the Quantity of Through Freight passed Down the Welland canal in Canadian and United States Vessels, &c.—Continued.

ARTICLES.	CANADIAN VESSELS.				AMERICAN VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	328	238,690	121	66,355	305	310,622	43	16,758	797	631,425
1906.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Wheat.....	250,493	34,355	35,578	320,436						
Corn.....	8,177		202,250	49,306	1,378					
Barley.....	8,546	5,046	17,854	31,446						
Oats.....	21,900	16,083	11,323	49,306						
Pease.....			11	11						
Rye.....			5	1,411						
Coal.....	30,455	47,242	24,190	111,243	9,356					
Iron ore.....	5,862			5,862						
Merchandise.....	35,383	7,009	110,263	152,705	50					
Shingles, woodenware, &c.....	16	37	851	904						
Sawed lumber..... Ft. B. M.	3,471,514	235,624	25,711,196	40,188,089	10,769,755					
Square timber..... Cub. ft.	375,000	200,000		573,000						
Firewood..... Cords.	110	18	1,093	1,221						
Staves..... No.			300,000	300,000						
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	375	290,509	148	81,070	408	397,616	76	36,921	1,007	806,116
1907.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Wheat.....	244,298	50,808	130,818	480,303	4,429					
Corn.....	6,713	514	239,895	271,693	4,571					
Barley.....	8,726	468	4,046	13,240						
Oats.....	49,689	16,647	7,033	73,369						
Pease.....			25	25						
Rye.....			2,270	2,270						
Coal.....	31,506	57,373	50,183	143,555	14,493					
Iron ore.....	12,040	8,950		20,990						
Merchandise.....	21,545	9,436	5,231	42,447	6,235					
Shingles, woodenware, &c.....			2,222	2,222						
Sawed lumber..... Ft. B. M.			14,395,124	25,596,570	11,201,446					
Square timber..... Cub. ft.	558,090	323,000		881,090						
Firewood..... Cords.			660	660						
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	567	432,623	149	64,034	428	319,030	36	19,866	1,180	835,553
1908.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Wheat.....	505,151	39,001	183,101	730,751	3,498					
Corn.....	2,405		124,997	127,402						
Barley.....	19,775	1,133	10,264	31,172						
Oats.....	30,091	643	2,689	33,423						
Pease.....			40	40						
Rye.....	742		5,925	6,667						
Coal.....	39,733	42,656	57,448	148,181	8,344					
Merchandise.....	26,815	14,783	14,410	69,694	13,686					
Firewood..... Cords.		70	1,173	1,243						
Sawed lumber..... Ft. B. M.			17,572,070	24,150,615	6,578,545					
Square timber..... Cub. ft.	221,300	313,000		534,300						

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D.—STATEMENT showing the Quantity of Through Freight passed Down the Welland canal in Canadian and United States Vessels, &c.—*Concluded.*

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	555	486,406	136	71,034	323	324,576	26	17,317	1040	899,333
1909.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	
Wheat	415,208	34,903	133,172					583,283		
Corn	6,694		134,208					140,902		
Barley	17,943	360	4,848					23,151		
Oats	70,392	4,743						75,135		
Pease			63					63		
Rye	33							33		
Coal	160,475	53,681	21,097			630		235,883		
Merchandise	52,994	14,782	12,232			16,498		96,506		
Sawed lumber			31,643			10,214		41,857		
Square timber	3,450	7,840	125			1,475		12,890		
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	596	599,416	142	88,963	249	285,704	14	13,563	1,001	987,646
1910.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	
Wheat	481,624	22,200	77,040					580,864		
Corn	15,759		214,221					229,980		
Barley	17,159	576	3,840					21,575		
Oats	135,743		490					136,233		
Pease			123					123		
Rye										
Coal	216,779	114,671	29,646			894		361,990		
Merchandise	39,149	15,231	21,818			29,466		96,664		
Sawed lumber	3,630	800	16,932					21,362		
Square timber	1,930	5,000	800					7,730		
Shingles			525					525		
Unenumerated	74,434	1,772	24,931					100,237		
Total	986,207	160,250	389,466			21,360		1,557,283		
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	640	670,037	122	83,755	270	304,171	48	42,830	1080	1,100,793
1911.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	
Wheat	483,984	24,826	49,330					558,140		
Corn	29,978	11,368	232,586					273,932		
Barley	14,382	240						14,622		
Oats	162,455	878						163,333		
Pease										
Rye	112							112		
Coal	230,809	79,311	40,109			22,489		372,718		
Merchandise	45,838	19,325	45,881			34,449		145,493		
Sawed lumber	300		25,361			9,020		34,681		
Square timber	3,269	4,500	2,277					10,037		
Shingles			60					60		
Unenumerated	95,017		14,386					109,403		
Total	1,066,135	140,448	409,990			65,958		1,682,531		

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WELLAND CANAL THROUGH FREIGHT—RECAPITULATION.

WELLAND CANAL—WEST BOUND FREIGHT.

THE total Quantity of Through Freight passed Up the Welland canal in Canadian and United States Vessels during the Season of Navigation in 1911 is as follows:—

Summary.	Tons.	Tons.
In Canadian steam vessels.....	391,081	
" sail vessels.....	6,658	
Total quantity in Canadian vessels.....		397,739
In United States steam vessels.....	409,665	
" sail vessels.....	19,796	
Total in United States vessels.....		429,461
Grand total freight passed Up the Welland Canal in Canadian and United States vessels.....		827,200

STATEMENT of the Quantity of Through Freight passed Up and Down the Welland Canal during the Season of Navigation in 1911.

Summary.	Tons.	Tons.
In Canadian steam vessels up.....	391,081	
" " down.....	1,066,135	
Total in Canadian steam vessels.....		1,457,216
In Canadian sail vessels up.....	6,658	
" " down.....	140,448	
Total in Canadian sail vessels.....		147,106
Total quantity in Canadian vessels.....		1,604,322
In United States steam vessels up.....	409,665	
" " down.....	409,990	
Total in United States steam vessels.....		819,655
In United States sail vessels up.....	19,796	
" " down.....	65,958	
Total in United States sail vessels.....		85,754
Total quantity in United States vessels.....		905,409
Total in Canadian and United States vessels.....		2,509,731
	Down or East Bound.	Up or West Bound.
In Canadian vessels.....	1,206,583	397,739
In United States vessels.....	475,948	429,461
Total.....	1,682,531	827,200

F.—STATEMENT showing the Quantity of Freight passed Eastward, from Lake Erie, through the whole length of the Welland and St. Lawrence canals, to Montreal, during the Seasons of Navigation 1899 to 1911.

Articles.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 3.</i>													
Cement and water lime						35					5,652	484	
Clay, lime and sand	15	15					22						
Iron, railway				50		8,170	10						
" pig		508											1,901
" all other	5,063	4,292	1,178	5,785	2,542	1,651	384	269	124	553	12,689	7,154	34,540
Steel	3,000	5,420				16	48						
Stone, for cutting													
Apples						1			9,936				
Barley	596	1,288			2,206	9,697	43,607	21,196	105,984	24,318	19,143	20,000	14,853
Corn	150,999	109,359	14,319	1,719	123,864	55,021	84,204	55,559		10,454	17,137	77,612	134,239
Flaxseed			4,965		3,643	212	15,694	80,570	40,159	27,500	19,634	6,607	11,696
Flour	4,229	1,595	1,400	6,755	16,151	24,662	14,571	9,174	3,730	5,028	21,905	27,031	44,588
Meal, all kinds			35		348	57	270	60		156		10,323	3,967
Oats	10,250	8,925	1,584	1,442	2,438		21,404	37,164	66,941	28,081	65,624	129,900	147,180
Oil cake			1,083		462	7,846							
Pease		115			63						30		20
Rye	923	3,078	2,961	4,079	4,260		1,711	1,405	2,266	6,662	120		
Salt	183		50		132	615	168	75	143	419			
Seed, all kinds	200								20				
Hay, pressed	96		246										
Tobacco, raw			23										
Wheat	169,978	121,896	132,702	200,975	226,746	133,528	190,505	289,611	450,446	686,626	550,775	562,149	541,174
All other agricultural products, vegetables	32										5,876		
Hides, skins, horns and hoofs						10		2					
Horses	1												
Lard and lard oil			1,155				2,847	4,810					
Meats, all kinds			114										
Pork			34							524			
Tallow					3		53						
All other agricultural products, animal						1					366		
Total, class 3.	345,565	256,491	161,849	220,805	382,858	241,522	384,727	499,895	688,749	790,321	718,951	841,310	934,158

<i>Class 4.</i>													
Agricultural implements.....	3		1,785	13	58	17							
Ashes.....	55	25	3		2	16							
Bricks.....									1,543				
Crockery.....							93						
Furniture.....		1	5		3	6		6			2		
Glass, all kinds.....	16	6	1		15	3	21	11	4				
Molasses.....	159			54	240	820							
Nails.....	1				19	64				3			
Oil.....	7,143	15,647	14,987	12,091	14,619	12,848	20,700	19,995	22,111	30,002	31,149	26,932	45,930
Paint.....			17		5								
Pitch and tar.....							53		101				
Rags.....					4								
Resin.....					20								
Soda ash.....			4				59	72	15				
Sugar.....			112				2,019				173	345	1,177
Tin.....						87	53						
Tobacco.....	96						204						
White lead.....		16											
Whisky, beer and other spirits.....	74	11	32		2	766	635	614	1,224	1,056	525	959	581
Merchandise not enumerated.....	518	92	2,420	419	582	713	851	466	2,294	2,126	10,418	9,224	11,254
Total, class 4.....	7,969	15,798	19,366	12,577	15,569	14,456	25,572	21,164	25,749	34,730	42,265	37,462	58,942
<i>Class 5.</i>													
Barrels, empty.....	1	182	66	15									
Hoops.....													
Sawed lumber.....	924	15,760	2,635	1,085			3,957	100					300
Staves, pipe and barrel.....							394	2,400					
" West India and pipe.....													
Timber, square, in vessels.....							1,544	1,260	1,500	4,180			
" in rafts.....	26										900	1,800	1,360
Woodenware.....				17									
Total, class 5.....	951	15,942	3,205	1,117		1,988	5,217	4,000	4,180		900	1,800	1,660
<i>Special class.</i>													
Coal.....							29,351	29,172	70,489	42,075	175,115	289,567	298,873
Iron ore.....				15,976		17,362	3,837				1,824		
Stone, all kinds.....										1,272			
Total, special class.....				15,976		17,362	33,188	29,172	70,489	43,367	176,939	289,567	298,873
Grand total.....	354,485	28,231	184,420	250,475	398,427	275,278	448,704	554,231	789,167	869,398	939,055	1,170,139	1,291,973

G.—STATEMENT showing the Quantity of Freight passed Westward from Montreal, through the whole length of the St. Lawrence and Welland canals to Lake Erie, during the Seasons of Navigation in 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1909, 1910 and 1911.

Articles.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1909.	1910.	1911.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 3.</i>												
Bricks.....	24	49	196	22	80	115	132		556			
Brimstone.....			5	20	23	12						
Cement and water lime.....	997	1,931	2,916	178	3,924	39	181	88	13	400	17,565	8,625
Clay, lime and sand.....	8	4	2	1	181				100			
Cotton, raw.....					23							
Fish.....	10	8	8		8	4			39			
Gypsum.....	4											
Iron, railway.....		74	748	11,735	39,641	283	126	7,249	4,119			
“ pig.....		3		558	273		312	680	7,655	7,231	2,060	2,300
“ all other.....	1,318	1,428	4,950	2,904	5,845	3,782	3,633	8,235	6,987		540	
Salt.....		48	75	4	87	99	150	17				
Steel.....	18		3	11	332	58	192	111	2,561	35,153		22,352
Stone for cutting.....						41						
Flour.....			16				18					
Hay.....									30	255		
Meals.....					17	25					1,113	
Oats.....												
Potatoes.....												
Seeds, all kinds.....	121	218	302	58	325	164	35	17				
Tobacco, raw.....				1	2							
Agricultural products, not enumerated, vegetable.....			1	1			127					
Hides and skins.....				16	6							
Horses.....												
Lard and lard oil.....				11			28	20	1			
Meats other than pork.....					1	25			15			
Pork.....		1										
Wool.....												150
All other articles not enumerated.....												
Total, class 3.....	2,500	3,764	9,222	15,520	50,768	4,647	4,984	16,457	22,076	43,039	21,278	34,427

<i>Class 4.</i>												
Agricultural implements												5
Ashes, pot and pearl					2							
Crockery and earthenware	3	5			32	291	155	291	456			
Dye woods, &c.						2			2			
Furniture		1			1	5	2	1	35		90	
Glass, all kinds	299	456	612	1,384	1,207	1,671	1,641	2,519	3,534			
Manilla						34	93		37			
Marble									35			
Molasses			1		6		1		50			
Nails	518	30	675	1,292	2,878	2,009	3,061	4,011	3,331			
Oil, in barrels	21	74	83	14	16	1,418	120	148	155	1	80	607
Paint	2	12	69	97	158	202	367	412	295			
Pitch and tar	6	21	27	27	58	199		5	239			
Rags	14			1	29		15		50			
Resin	15				1				25			
Soda ash	108	62	169	201	264	387	28	310	37			
Stone, wrought									5			
Sugar	1,596	430	810	1,314	204	52	1,168	1,153	6,046	40	3,024	
Tin	159	117	338	566	209	362	928	1,365	1,173			
Turpentine			1	2	1				1			
White lead	1	4	11	37	80	82	80	304	283			
Whiting	89	39	49	61	22	33	158	93	18			
Whisky, beer, &c.	178	295	131	182	452	432	384	483	1,040	220	1,187	163
Merchandise not enumerated	482	744	1,516	1,049	3,674	6,200	15,360	11,707	16,198	21,359	15,129	12,090
Total, class 4.	3,491	2,447	4,492	6,169	9,294	13,379	23,566	23,116	33,049	21,620	19,510	12,920
<i>Class 5.</i>												
Barrels, empty									54,906			
Firewood in vessels				3,600	40,026	40,425	43,982		2,307	2,337		
Pulpwood									101,989	122,867	121,572	182,682
Lumber, sawn, in vessels										3,984		3,306
Railway ties in vessels					611							
Woodenware									5			
Total, class 5.				3,600	40,637	40,425	43,982	57,218	104,326	126,851	121,572	185,988
<i>Special Class.</i>												
Coal						10,200						
Iron ore						2,861						
Total, special class						13,061						
Grand total.	5,991	6,211	13,714	25,289	100,699	71,512	72,482	96,791	159,451	191,510	172,360	283,335

H.—STATEMENT showing the Quantity of Freight passed Eastward through the Welland canal, from United States Ports to United States Ports, during the Seasons of Navigation from 1899 to 1911, inclusive.

Articles.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<i>Class 3.</i>													
Bricks													
Cement and water lime		18										2,000	91
Fish									20				
Iron, railway				30			1	27	30				1,863
" all other	1,008	714											
Salt	549		105										
Steel	13,522	3,110						2	509	9,086			
Stone for cutting													
Apples													
Barley	2,424	2,402	7,119	7,418	11,433	16,621	9,197	9,266	2,812	7,148	4,224	3,840	
Corn	81,777	60,545	55,531	66,111	108,917	60,964	93,622	135,240	124,474	99,830	100,967	126,938	116,705
Flour	6,118	7,966	17,168	13,785	6,082	8,556	24,054	15,215	18,898	17,694		11,859	2,832
Hay, pressed							200						
Meal, all kinds	18,198	14,244	14,016	12,675	13,546	13,076	9,606	10,668	21,976	21,353		8,621	7,565
Marble													
Nails							87						
Oil cake		2,705	1,302	110	740	16,497	228		114				
Oats	19,526	39,706	26,344	10,006	6,112	3	10,892	11,323	4,741	2,070			
Pease		4			22		76	11	25	40	63	123	
Potatoes													
Rye	923	2,149			4,174				2	2			
Flax seed	200				1,594			756			15,452		
Seeds, all kinds	11			10	27		43	3	17				
Tobacco			23										
Wheat	12,926	18,771	23,557	32,639	15,436	14,269	15,483	13,410	21,892	24,651	17,940	10,717	4,950
Agricultural products, vegetable		6	10		1			1	7		22,620		19
Hides and skins, &c.										21	315	233	
Horses		4			2								
Lard and lard oil, &c.	864	1,588	1,680	2,413				22	86				
Meats, other than pork													
Pork	343	117	970	632	152	379	273	268	429				
Sheep										190			
Tallow	201	631	119								157	233	9
Wool	130		3	752	482	134	21	89	30				
Total, class 3	158,720	154,680	147,947	146,581	168,720	130,499	163,784	196,301	196,062	182,085	161,738	164,564	134,054

<i>Class 4.</i>												
Agricultural implements.....				399		396	552	494		2	254	
Crackery and earthenware.....									5			
Furniture.....	7		3	17				1				
Marble.....			4									
Molasses.....	8	57										
Nails.....	11								3			
Oil, in barrel.....	367	17	22	1,594	2,000	1			8	15		8
Paint.....	2	36				17		42	1	1		
Rags.....	1				4			4				
Soda ash.....												
Stone, wrought.....												
Sugar.....		154	448	280		53	53	840	26,075		1,196	
White lead.....							7		4			
Whiting.....									21			
Whisky, beer and all other spirits.....	168	1	1		3				30			122
Merchandise.....	6,219	7,889	3,327	1,928	2,010	1,554	2,008	2,324	41,621	1,857	5,866	67,760
												230
												64,059
Total, class 4.....	6,783	8,164	3,805	4,218	4,017	2,021	2,666	3,660	67,768	1,875	7,316	67,890
												90,639
<i>Class 5.</i>												
Empty barrels.....		5	282				3	2	1			
Firewood, in vessels.....				4		717	2,700	3,609	1,980	3,509		1,531
Lumber, sawn, in vessels.....	57,695	55,128	38,085	72,806	48,337	30,194	15,726	27,701	14,314	21,571	24,327	11,738
Masts and spars, in vessels.....												30,191
Hop poles.....						154						
Railway ties, in vessels.....						652	2,248		2,151	478		
Shingles.....							62	53	70			
Split posts.....							12					25
Staves, salt barrels.....								1,500				
Timber, square, in vessels.....											125	
Woodenware, &c.....											2,932	1,583
Total, class 5.....	57,695	55,133	38,367	72,810	48,337	31,717	20,751	32,865	18,516	25,568	27,384	14,877
												32,237
<i>Special class.</i>												
Coal.....	2,293	992	357	501		1,100	3,346	4,400	110,347		400	201,893
Stone, not suitable for cutting.....												223,942
Kryolite.....									2,734			
Iron ore.....									1,316			1,552
												4,483
Total, special class.....	2,293	992	357	501		1,100	3,346	4,400	114,397		400	203,445
												228,425
Grand total.....	225,491	218,969	190,476	224,110	221,074	165,337	190,547	237,226	396,743	209,518	196,838	450,776
												485,355

2 GEORGE V., A. 1912

L—STATEMENT of the quantity of Grain Transhipped to the following Ports for the season of 1911.

Ports.	Wheat.	Oats.	Barley.	Corn.	Other grain.	Total.	Total.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Tons.
Kingston.....	9,776,100	4,170,119	538,292	563,358	2,416	15,050,285	392,906
Prescott.....	78,034	.....	.....	345,650	.....	423,684	12,019
Ogdensburg.....	.....	.....	.....	.....	.....	.....	.....
Total Bushels....	9,854,134	4,170,119	538,292	909,008	2,416	15,473,969
Total Tons.....	295,624	70,892	12,899	25,452	58	404,925

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M.—The quantity of Coal passed through the Welland canal during a series of years from 1885 to 1911 inclusive, as follows :—

Years.	From Canadian Ports to Canadian Ports.		From Canadian Ports to Canadian Ports.		From United States Ports to United States Ports.		From United States Ports to Canadian Ports.		Total.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	
1885.....			193,442	4,974	10,321	31,350			240,087
1886.....			184,564	5,400	22,187	49,724			261,875
1887.....			81,617	1,163	26,775	25,968			135,523
1888.....			172,381	878	17,365	27,183			217,807
1889.....			226,352	1,124	12,036	25,931			265,443
1890.....	80		116,616	615	17,280	22,781			202,372
1891.....			185,190	1,382	17,374	20,698			224,644
1892.....			183,244	651	12,391	15,330			211,616
1893.....			204,704	2,123	8,325	17,944			233,096
1894.....			187,794	727	1,269	13,947			203,737
1895.....	4		148,887	603	1,565	7,807			158,866
1896.....	20	210	206,093	1,255	4,127	11,740			223,445
1897.....		4	165,143		1,277	9,799			176,223
1898.....			156,055	759	986	4,536			162,336
1899.....			86,638	2,293	525	8,276			97,732
1900.....	8		45,032	992		1,360			47,392
1901.....			46,345	357	456	2,322			49,480
1902.....			12,410	501	65	51,037			64,013
1903.....	3		113,076		4,796	30,009			147,884
1904.....	2,919		62,782	1,100	3,711	32,813			103,325
1905.....			70,118	3,346	11,436	37,742			172,642
1906.....	60		29,123	4,400	7,161	106,843			147,587
1907.....	2,857		110,347		10,453	143,555			267,212
1908.....	4,401		158,351		5,988	148,181			316,921
1909.....			130,731	400	11,067	235,483			377,681
1910.....	2,045		197,482	4,411	15,974	357,579			577,491
1911.....	731		221,752	2,160	24,451	370,558			619,682

2 GEORGE V., A. 1912

N.—STATEMENT showing the quantity of Coal passed through the whole length of the St. Lawrence canals during the season of 1885 to 1911, inclusive.

Years.	Quantity passed up.	Quantity passed down to Montreal.	Total Quantity passed up and down
	Tons.	Tons.	Tons.
1885.....	5,035	122,829	127,864
1886.....	3,301	118,802	122,103
1887.....	7,579	121,618	129,197
1888.....	8,341	123,050	131,391
1889.....	5,360	124,290	129,650
1890.....	6,538	135,168	141,706
1891.....	7,951	141,701	149,652
1892.....	7,543	157,134	164,677
1893.....	2,285	147,139	149,424
1894.....	16,213	169,552	185,765
1895.....	.....	165,151	165,151
1896.....	689	161,551	162,240
1897.....	40	164,963	165,003
1898.....	400	175,609	176,009
1899.....	448	201,546	201,994
1900.....	10	280,169	280,179
1901.....	2,765	298,245	301,010
1902.....	9,231	95,702	104,933
1903.....	30	290,548	290,578
1904.....	9,670	320,973	330,643
1905.....	8,518	345,589	354,107
1906.....	6,989	313,080	320,069
1907.....	1,281	406,978	408,259
1908.....	23,939	448,140	472,079
1909.....	13,543	469,695	483,238
1910.....	7,351	746,926	754,277
1911.....	6,230	756,474	762,704

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O.—STATEMENT showing the quantity of Through Freight passed down the Welland canal, &c.

RECAPITULATION.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports on Lake Ontario.
1900.	Tons.	Tons.	Tons.
Barley.....	1,288	563	1,598
Corn.....	109,358	9,844	44,406
Oats.....	8,925	348	30,840
Pease.....	115		4
Rye.....	3,078	160	300
Wheat.....	121,896	6,610	7,541
Total, grain.....	**244,661	17,525	84,589
Other articles.....	43,670	95,680	93,287
Total.....	288,231	113,205	177,876
1901.			
Barley.....			
Corn.....	14,319	4,828	49,609
Oats.....	1,584	853	25,704
Pease.....			
Rye.....	2,961		
Wheat.....	132,702	8,051	9,057
Total, grain.....	151,566	13,732	83,370
Other articles.....	32,854	128,614	91,799
Total.....	184,420	142,346	175,169
1902.			
Barley.....			7,418
Corn.....	1,719	10,335	56,583
Oats.....	1,412		9,764
Pease.....			
Rye.....	4,079		
Wheat.....	200,075	12,452	8,389
Total, grain.....	208,215	22,787	81,165
Other articles.....	42,260	32,946	179,914
Total.....	250,475	55,733	261,078
1903.			
Barley.....	2,206	1,017	11,433
Corn.....	116,223	13,846	80,689
Oats.....	2,438		5,315
Pease.....	63		22
Rye.....	4,200		644
Wheat.....	226,746	14,199	13,725
Total, grain.....	351,936	29,062	111,828
Other articles.....	38,850	82,298	101,621
Total.....	390,786	111,360	213,449

2 GEORGE V., A. 1912

O.—STATEMENT showing the Quantity of Through Freight passed down the Welland canal, &c.—*Continued.*RECAPITULATION—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports on Lake Ontario.
1904.	Tons.	Tons.	Tons.
Barley.....	9,697	853	16,621
Corn.....	55,021	3,950	57,473
Oats.....			16,497
Pease.....			3
Rye.....			
Wheat.....	*133,528	18,908	11,929
Total grain.....	198,246	23,711	102,523
Other articles.....	77,031	80,092	138,475
Total.....	375,277	103,803	240,998
1905.			
Barley.....	43,607	2,628	9,197
Corn.....	84,204	3,095	93,622
Oats.....	21,404	3,776	16,892
Pease.....			76
Rye.....	1,711		
Wheat.....	190,505	32,562	15,483
Total grain.....	**341,431	42,061	129,270
Other articles.....	107,273	123,225	104,747
Total.....	448,704	165,286	234,017
1906.			
Barley.....	21,196	984	9,266
Corn.....	55,559	15,688	140,558
Oats.....	37,164	819	11,323
Pease.....		11	
Rye.....	1,405	6	
Wheat.....	**289,611	15,843	14,972
Total, grain.....	404,935	33,351	176,119
Other articles.....	118,224	176,277	59,884
Total.....	523,159	209,628	236,003
1907.			
Barley.....	9,936	492	2,812
Corn.....	106,299	31,901	133,493
Oats.....	67,063	1,565	4,741
Pease.....			25
Rye.....	2,266	2	2
Wheat.....	*450,009	8,072	22,222
Total grain.....	635,573	42,032	163,295
Other articles.....	153,594	126,423	93,127
Total.....	789,167	168,455	256,422

SESSIONAL PAPER No. 20a

O.—STATEMENT showing the Quantity of Through Freight passed down the Welland canal, &c.—*Concluded.*RECAPITULATION—*Concluded.*

cls.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports on Lake Ontario.
1908.	Tons.	Tons.	Tons.
Barley.....	24,318	3,546	3,308
Corn.....	10,454	11,489	105,459
Oats.....	28,081	3,272	2,070
Pease.....			40
Rye.....	6,662	3	2
Wheat.....	4686,626	19,832	24,293
Total grain.....	756,141	38,142	135,172
Other articles.....	108,785	162,378	91,875
Total.....	864,926	200,520	227,047
1909.			
Barley.....	19,143		4,908
Corn.....	17,137	22,798	100,907
Oats.....	65,624	2,872	6,639
Pease.....	30		33
Rye.....	33		
Wheat.....	550,775	14,568	17,940
Total grain.....	652,742	40,238	129,587
Other articles.....	272,263	113,970	126,223
Total.....	925,005	154,208	255,810
1910.			
Barley.....	20,000		1,575
Corn.....	77,612	49,326	103,042
Oats.....	129,900	6,333	
Pease.....			123
Rye.....			
Wheat.....	562,149	7,998	10,717
Total grain.....	789,661	63,657	115,457
Other articles.....	380,500	152,325	55,683
Total.....	1,170,161	215,982	171,140
1911.			
Barley.....	14,331	291	
Corn.....	134,239	22,988	116,705
Oats.....	147,180	16,153	
Pease.....			
Rye.....		112	
Wheat.....	541,174	12,016	4,950
Total grain.....	836,924	51,560	121,655
Other articles.....	500,881	115,721	55,790
Total.....	1,337,805	167,281	177,445

APPENDIX A.—Continued.

TABLE I.—COMPARATIVE Statement of Grand Total Freight passed through the undermentioned canals during the Seasons of Navigation, 1910 and 1911.

CANALS.	FROM CANADIAN TO CANADIAN PORTS.		FROM CANADIAN TO UNITED STATES PORTS.		FROM UNITED STATES TO UNITED STATES PORTS.		FROM UNITED STATES TO CANADIAN PORTS.		TONS.		Total Tons.	ORIGIN OF CARGO.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Canadian.	United States.
1910.													
Sault Ste. Marie.....	779,961	1,567,285	28,648	565,335	3,035,290	29,332,862	969,248	117,058	4,813,147	31,582,540	36,395,687	3,378,268	33,017,419
Welland.....	265,790	742,908	154,617	6,983	288,198	197,301	16,229	654,264	724,834	1,601,456	2,326,290	1,196,946	1,129,344
St. Lawrence.....	556,833	1,123,520	286,075	22,235	334	.....	777	770,978	844,019	1,916,733	2,760,752	1,973,441	787,311
Chambly.....	383,148	12,307	130,245	.....	.....	.....	.....	143,599	513,393	155,906	669,299	525,700	143,599
St. Peter's.....	33,482	52,240	.....	.....	.....	.....	229	.....	33,711	52,240	85,951	85,722	229
Murray.....	161,737	8,546	555	.....	.....	.....	7,103	.....	162,292	15,649	177,941	170,660	7,261
Ottawa.....	49,923	266,519	.....	61,013	.....	.....	7,806	.....	57,729	327,532	385,261	377,268	7,993
Rideau.....	58,049	57,218	4	5,870	.....	.....	1,460	12,280	59,513	75,368	134,881	121,043	13,838
Trent.....	15,665	30,598	.....	.....	.....	.....	.....	.....	15,665	30,598	46,263	46,263	.....
St. Andrews.....	8,152	131	.....	.....	.....	.....	.....	.....	8,152	131	8,283	8,283	.....
Grand total.....	2,312,740	3,861,272	600,144	661,436	3,323,822	29,530,163	995,749	1,705,282	7,232,455	35,758,153	42,990,608	7,883,614	35,106,994
1911.													
Sault Ste. Marie.....	644,899	1,585,279	22,157	915,601	2,236,880	23,269,870	2,070,307	206,716	4,974,243	25,977,466	30,951,709	3,177,581	27,774,128
Welland.....	318,764	827,392	190,101	693	309,603	175,752	24,451	690,873	842,919	1,694,710	2,537,629	1,296,480	1,241,149
St. Lawrence.....	629,642	1,086,547	328,732	38,085	194	12	392	1,022,104	958,960	2,146,748	3,105,708	2,063,861	1,041,847
Chambly.....	369,728	12,647	31,465	.....	.....	.....	.....	155,989	431,193	168,636	599,829	443,846	155,983
St. Peter's.....	29,177	46,121	.....	.....	.....	.....	.....	.....	29,177	46,121	75,298	75,298	.....
Murray.....	152,964	6,798	15	.....	.....	.....	3,680	.....	152,979	10,478	163,457	159,409	4,048
Ottawa.....	53,453	221,029	.....	41,340	.....	.....	4,249	.....	57,702	262,369	320,071	312,269	7,802
Rideau.....	77,378	84,831	.....	.....	.....	.....	.....	10,018	77,378	94,849	172,227	159,738	12,489
Trent.....	23,908	33,382	.....	.....	.....	.....	.....	.....	23,908	33,382	57,290	57,290	.....
St. Andrews.....	40,603	6,532	.....	.....	.....	.....	.....	.....	40,603	6,532	47,135	47,135	.....
Grand total.....	2,376,516	3,910,558	572,470	995,719	2,546,677	23,445,634	2,099,399	2,089,380	7,589,062	30,441,291	38,030,353	7,792,907	30,237,446

TABLE II.—STATEMENT Showing the Number, Tonnage and Nationality of Vessels passed through the Several canals during the Season of Navigation in 1911.

VESSELS.	TOTAL NUMBER OF TRIPS.	FROM CANADIAN TO CANADIAN PORTS.		FROM CANADIAN TO UNITED STATES PORTS.		FROM UNITED STATES TO UNITED STATES PORTS.		FROM UNITED STATES TO CANADIAN PORTS.		TONS.		TOTAL TONS.
		Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	
CANADIAN VESSELS.												
<i>Steam and Sail.</i>												
Sault Ste. Marie.....	2,713	1,150,799	1,113,040	112,552	174,329	5,707	2,173	379,706	170,574	1,648,764	1,460,116	3,108,880
Welland.....	1,664	607,518	553,993	141,959	212	2,791	123	12,893	222,059	765,161	776,387	1,541,548
St. Lawrence.....	8,367	1,508,513	1,336,841	53,234	375	1	36	70	204,837	1,561,868	1,542,089	3,103,957
Chambly.....	497	22,126	21,374	4,950					3,001	27,076	24,375	51,451
St. Peters.....	1,260	45,462	43,808							45,462	43,808	89,270
Murray.....	1,356	220,063	124,076	15,503				88	8,459	235,654	132,535	368,189
Ottawa.....	2,109	182,651	193,245		1,774			253		182,906	195,019	377,925
Rideau.....	3,031	104,945	106,725	5,252					5,640	110,197	112,365	222,562
Trent Valley.....	4,165	97,742	99,231							97,742	99,231	196,973
St. Andrews.....	423	57,254	54,183							57,254	54,183	111,437
Total Canadian.....	25,585	3,997,073	3,646,516	333,500	176,690	8,499	2,332	393,012	614,570	4,732,084	4,440,108	9,172,192
UNITED STATES VESSELS.												
Sault Ste. Marie.....	4,068	11,705	1,585	16,170	544,402	3,065,500	11,865,237	699,455	48,286	3,792,830	12,459,510	16,252,340
Welland.....	816	2,148	35	89,267	842	267,682	190,837	1,398	203,422	360,495	395,136	755,631
St. Lawrence.....	1,556	23,930	8,238	347,046	15,902	15,679	1,397	84	406,802	386,739	432,339	819,078
Chambly.....	3,511	2,017	404	173,660					191,897	175,677	192,301	367,978
St. Peters.....												
Murray.....	84	627	784	754	389	75	13	299	80	1,755	1,266	3,021
Ottawa.....	304	7,849	157		14,682			7,848		15,697	14,839	30,536
Rideau.....	31	1,502	1,440		96					1,502	1,536	3,038
Trent Valley.....												
St. Andrews.....												
Total United States.....	10,370	49,778	12,643	626,897	576,313	3,348,936	12,057,484	709,084	850,487	4,734,695	13,496,927	18,231,622
Grand Total Canadian and United States.....	35,955	4,046,851	3,659,159	960,397	753,003	3,357,435	12,059,816	1,102,096	1,465,057	9,466,779	17,937,035	27,403,814

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Table 3.—STATEMENT showing the Number, Tonnage and Nationality of Vessels

VESSELS.	Total Number	FROM CANADIAN TO CANADIAN PORTS.		FROM CANADIAN TO UNITED STATES PORTS.	
		Up.	Down.	Up.	Down.
SAULT STE. MARIE CANAL.					
Canadian vessels, steam	2,493	1,136,791	1,099,652	112,302	173,873
" " sail	220	14,008	13,388	250	456
Total Canadian	2,713	1,150,799	1,113,040	112,552	174,329
United States vessels, steam	4,000	10,342	600	16,170	538,141
" " sail	68	1,363	985		6,261
Total United States	4,068	11,705	1,585	16,170	544,402
Grand Total, Sault Ste Marie Canal	6,781	1,162,504	1,114,625	128,722	718,731
WELLAND CANAL.					
Canadian vessels, steam	1,375	574,556	518,308	88,907	212
" " sail	289	32,962	35,685	53,052	
Total Canadian	1,664	607,518	553,993	141,959	212
United States vessels, steam	701	2,148	35	61,509	842
" " sail	115			27,758	
Total United States	816	2,148	35	89,267	842
Grand Total, Welland Canal	2,480	609,666	554,028	231,226	1,054
ST. LAWRENCE CANALS.					
Canadian vessels, steam	4,106	929,604	786,208	44,920	
" " sail	4,261	578,909	550,633	8,364	375
Total Canadian	8,367	1,508,513	1,336,841	53,284	375
United States vessels, steam	1,033	7,456	3,039	322,943	510
" " sail	523	16,474	5,199	24,103	15,392
Total United States	1,556	23,930	8,238	347,046	15,902
Grand Total, St. Lawrence Canals	9,923	1,532,443	1,345,079	400,330	16,277
CHAMBLY CANAL.					
Canadian Vessels, steam	208	14,051	12,823		
" " sail	289	8,075	8,551	4,950	
Total Canadian	497	22,126	21,374	4,950	
United States Vessels, steam	2				
" " sail	3,509	2,017	404	173,660	
Total United States	3,511	2,017	404	173,660	
Grand Total, Chamblly Canal	4,008	24,143	21,778	178,610	
ST. PETERS CANAL.					
Canadian Vessels, steam	269	15,436	12,271		
" " sail	901	30,926	31,557		
Total Canadian	1,260	45,462	43,808		

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FROM UNITED STATES TO UNITED STATES PORTS.		FROM UNITED STATES TO CANADIAN PORTS.		TONS.		TOTAL TONS.
Up.	Down.	Up.	Down.	Up.	Down.	
5,707	2,173	379,621	170,324	1,634,421	1,446,022	3,080,443
.....	.....	85	250	14,343	14,094	28,437
5,707	2,173	379,706	170,574	1,648,764	1,460,116	3,108,880
3,050,452	11,784,035	693,003	47,695	3,769,967	12,370,471	16,140,438
15,048	81,202	6,452	591	22,863	89,039	111,902
3,065,500	11,865,237	699,455	48,286	3,792,830	12,459,510	16,252,340
3,071,207	11,867,410	1,079,161	218,860	5,441,594	13,919,626	19,361,220
1,932	123	12,893	169,080	678,288	687,723	1,366,011
859	.....	.....	52,979	86,873	88,664	175,537
2,791	123	12,893	222,059	765,161	776,387	1,541,548
263,191	185,034	785	161,689	327,633	347,600	675,233
4,491	5,803	613	41,733	32,862	47,536	80,398
267,682	190,837	1,398	203,422	360,495	395,136	755,631
270,473	190,960	14,291	425,481	1,125,656	1,171,523	2,297,179
1	.....	70	158,432	974,595	944,640	1,919,235
.....	36	.....	46,405	587,273	597,449	1,184,722
1	36	70	204,837	1,561,868	1,542,089	3,103,957
15,327	1,055	84	348,216	345,810	352,820	698,630
352	342	.....	58,586	40,929	79,519	120,448
15,679	1,397	84	406,802	386,739	432,339	819,078
15,680	1,433	154	611,639	1,918,607	1,974,428	3,923,035
.....	.....	.....	15	14,051	12,838	26,889
.....	.....	.....	2,986	13,025	11,537	24,562
.....	.....	.....	3,001	27,076	24,375	51,451
.....	.....	.....	195	.....	195	195
.....	.....	.....	191,702	175,677	192,106	367,783
.....	.....	.....	191,897	175,677	192,301	367,978
.....	194,898	202,753	216,676	419,429
.....	15,436	12,271	27,707
.....	30,026	31,537	61,563
.....	45,462	43,808	89,270

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TABLE 3.—STATEMENT Showing the Number, Tonnage and Nationality of Vessels

VESSELS.	Total Number of Trips.	FROM CANADIAN TO CANADIAN PORTS.		FROM CANADIAN TO UNITED STATES PORTS.	
		Up.	Down.	Up.	Down.
ST. PETERS CANAL—Con.					
United States Vessels, steam.....					
" " sail.....					
Total United States.....					
Grand Total St. Pete Canal.....	1,260	45,462	43,808		
MURRAY CANAL.					
Canadian Vessels, steam.....	940	179,768	87,472	13,740	
" " sail.....	416	40,295	36,604	1,763	
Total Canadian.....	1,356	220,063	124,076	15,503	
United States Vessels, steam.....	69	435	769	686	389
" " sail.....	15	192	15	68	
Total United States.....	84	627	784	754	389
Grand Total, Murray Canal.....	1,440	220,690	124,860	16,257	389
OTTAWA CANALS.					
Canadian Vessels, steam.....	981	95,893	101,791		583
" " sail.....	1,128	86,758	91,454		1,191
Total Canadian.....	2,109	182,651	193,245		1,774
United States Vessels, steam.....					
" " sail.....	304	7,849	157		14,682
Total United States.....	304	7,849	157		14,682
Grand Total, Ottawa Canals.....	2,413	190,500	193,402		16,456
RIDEAU CANAL.					
Canadian Vessels, steam.....	2,361	78,093	79,833	5,252	
" " sail.....	670	26,852	26,892		
Total Canadian.....	3,031	104,945	106,725	5,252	
United States Vessels, steam.....	1		34		
" " sail.....	30	1,502	1,406		96
Total United States.....	31	1,502	1,440		96
Grand Total, Rideau Canal.....	3,062	106,447	108,165	5,252	96
TRENT VALLEY CANAL.					
Canadian Vessels, steam.....	3,088	66,693	66,817		
" " sail.....	1,077	31,049	32,414		
Total Canadian.....	4,165	97,742	99,231		
United States Vessels, steam.....					
" " sail.....					
Total United States.....					
Grand Total, Trent Valley Canal.....	4,165	97,742	99,231		

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TABLE 3.—STATEMENT showing the Number, Tonnage and Nationality of Vessels

VESSELS.	Total Number of Trips	FROM CANADIAN TO CANADIAN PORTS.		FROM CANADIAN TO UNITED STATES PORTS.	
		Up.	Down.	Up.	Down.
ST. ANDREWS CANAL.					
Canadian Vessels, steam.....	341	38,350	39,155		
" " sail.....	82	18,904	15,028		
Total Canadian.....	423	57,254	54,183		
United States Vessels, steam.....					
" " sail.....					
Total United States.....					
Grand Total, St. Andrews Canal.....	423	57,254	54,183		

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FROM UNITED STATES TO UNITED STATES PORTS.		FROM UNITED STATES TO CANADIAN PORTS.		TONS.		TOTAL TONS.
Up.	Down.	Up.	Down.	Up.	Down.	
				38,350	39,155	77,505
				18,904	15,028	33,932
				57,254	54,183	111,437
				57,254	54,183	111,437

TABLE 4.—Comparative Statement of all the canals for the Years ending December 31, 1910 and 1911.

Articles.	1910.	1911.	Increase.	Decrease.
<i>Class No. 1.</i>	Tons.	Tons.	Tons.	Tons.
Canadian vessels—Steam.....	6,927,062	7,286,949	359,887	.....
" " Sail.....	2,004,728	1,885,243	.....	119,485
United States vessels—Steam.....	20,991,142	17,527,229	.....	3,463,913
" " Sail.....	786,155	714,393	.....	71,762
Total, Class No. 1.....	30,709,087	27,403,814	359,887	3,655,160
<i>Class No. 2.</i>	No.	No.	No.	No.
Passengers.....	320,574	304,904	.....	25,670
<i>Class No. 3.</i>	Tons.	Tons.	Tons.	Tons.
Barley.....	161,016	145,576	.....	15,440
Buckwheat.....	1,048	84	.....	964
Corn.....	336,592	451,597	115,005	.....
Oats.....	365,430	637,878	272,448	.....
Rye.....	4,272	3,701	.....	571
Flax.....	85,654	99,334	13,680	.....
Pease.....	340	163	.....	177
Wheat.....	3,222,862	3,528,185	305,323	.....
Flour.....	363,187	366,870	3,683	.....
Hay.....	42,846	73,013	30,167	.....
Other mill products.....	56,003	41,083	.....	13,920
Fruit and vegetables.....	16,026	12,740	.....	3,286
Potatoes.....	7,082	8,839	1,757	.....
Live stock.....	2,250	3,135	885	.....
Poultry, game, fish.....	2,815	2,062	.....	753
Dressed meats.....	148	712	564	.....
Other packing house products.....	1,205	1,266	61	.....
Hides and leather.....	1,261	236	.....	1,025
Wool.....	675	1,319	644	.....
All other animal products.....	12,169	10,901	.....	1,268
Total, Class 3.....	4,881,881	5,408,694	564,217	37,404
<i>Class No. 4.</i>	Tons.	Tons.	Tons.	Tons.
Agricultural implements.....	28,358	41,291	12,933	.....
Cement, bricks, lime.....	728,453	654,629	.....	73,824
Household goods and furniture.....	3,797	2,971	.....	826
Iron, pig and bloom.....	115,997	61,119	.....	54,878
Iron and steel, all other.....	252,061	418,169	166,108	.....
Petroleum and other oils.....	106,491	194,105	87,914	.....
Sugar and salt.....	101,003	89,963	.....	11,040
Wines, liquors and beers.....	28,316	22,203	.....	6,113
Merchandise not enumerated.....	861,361	874,613	13,252	.....
Total, Class No. 4.....	2,225,537	2,359,063	280,207	146,681
<i>Class No. 5.</i>	Tons.	Tons.	Tons.	Tons.
Pulpwood.....	777,427	823,494	46,067	.....
Sawed lumber.....	735,589	596,588	.....	139,001
Squared timber.....	58,633	42,924	.....	15,709
Shingles.....	11,475	12,422	947	.....
Other woods.....	98,294	70,711	27,583
Total, Class No. 5.....	1,681,418	1,546,139	47,014	182,293

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TABLE 4.—Comparative Statement of all the canals for the Years ending December 31, 1910 and 1911—*Concluded.*

Articles.	1910.	1911.	Increase.	Decrease.
<i>Class No. 5.</i>	Tons.	Tons.	Tons.	Tons.
Hard coal	1,208,722	1,246,273	37,551	.....
Soft coal	4,429,222	4,668,843	239,621	.....
Coke	792	14,160	13,368	.....
Copper ore	37,986	16,556	.....	21,430
Iron ore	28,494,716	22,715,838	.....	5,778,878
Other ore	30,334	54,787	24,453	.....
Total, Class No. 6	34,201,772	28,716,457	314,993	5,800,308
Grand total	42,990,608	38,030,353	1,206,431	6,166,686

Net decrease 4,960,255.

TABLE 5.—STATEMENT of Traffic on the Undermentioned canals during the Season of Navigation in 1911.

Articles.	Sault Ste. Marie.	Welland.	St. Lawrence	Chambly.	St. Peters.	Murray.	Ottawa.	Rideau.	Trent Valley.	St. Andrews
<i>Class No. 1.—Vessels.</i>	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Canadian vessels..... Steam	3,080,443	1,366,011	1,919,235	26,889	27,707	288,418	198,522	168,709	133,510	77,505
" "..... Sail	28,437	175,537	1,184,722	24,562	61,563	79,771	179,403	53,853	63,463	33,932
United States vessels..... Steam	16,140,438	675,233	698,630	195	.....	2,699	.....	34	.....	.....
" "..... Sail	111,902	80,398	120,448	367,783	.....	322	30,536	3,004	.....	.....
Total, Class No. 1.....	19,361,220	2,297,179	3,923,035	419,429	89,270	371,210	408,461	225,600	196,973	111,437
<i>Class No. 2.</i>	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Passengers.....	39,044	1,288	101,750	2,708	709	26,187	25,497	25,298	77,078	5,345
<i>Class No. 3.</i>	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Barley.....	114,396	15,029	15,991	.....	1	144	.....	8	15	.....
Buckwheat.....	.....	.....	71	.....	.....	.....	.....	87	5	.....
Corn.....	20,003	273,932	157,153	145	.....	.....	.....	277	.....	.....
Oats.....	331,430	163,333	156,764	1,038	3,833	.....	613	851	16	.....
Rye.....	3,587	112	.....	.....	.....	.....	2	.....	.....	.....
Flax.....	81,660	5,976	11,696	.....	.....	.....	2	.....	.....	.....
Peas.....	.....	.....	113	.....	3	.....	3	11	33	.....
Wheat.....	2,401,143	562,282	563,555	10	.....	.....	9	631	555	.....
Flour.....	251,800	57,061	53,534	1,032	2,219	.....	630	512	74	8
Hay.....	1,367	317	23,622	36,824	1,501	.....	6,569	2,728	25	60
Other mill products.....	14,358	11,360	13,332	108	954	.....	491	408	95	7
Fruit and vegetables.....	184	203	6,354	2,684	1,299	963	717	332	4	.....
Potatoes.....	1	.....	935	62	6,728	2	656	326	129	.....
Live stock.....	24	.....	2,081	245	1	8	436	30	310	.....
Poultry, game and fish.....	126	126	79	4	1,656	5	38	28	.....	.....
Dressed meats.....	7	.....	37	.....	493	4	20	151	.....	.....
Other packing house products.....	30	30	388	66	3	10	306	433	.....	.....
Hides and leather.....	142	20	52	.....	.....	.....	4	15	3	.....
Wool.....	649	398	260	.....	.....	.....	.....	12	.....	.....
All other animal products.....	.....	.....	7,046	.....	.....	86	1,663	2,015	84	7
Total, Class No. 3.....	3,220,907	1,090,179	1,013,033	42,218	18,691	1,222	12,246	8,768	1,348	82

<i>Class No. 4.</i>											
Agricultural implements.....	20,181	19,695	257	209	6	.....	147	753	43	.....	.....
Cement, bricks, lime.....	135,017	85,072	187,200	11,353	6,660	78,000	48,306	96,977	5,044	.....	.....
Household goods and furniture.....	8	10	1,766	121	8	29	333	625	71	.....	.....
Iron, pig and bloom.....	29,744	17,675	11,084	153	300	402	824	892	45	.....	.....
" and steel, all other.....	175,170	109,281	129,667	831	180	736	886	1,251	163	4	.....
Petroleum and other oils.....	58,903	77,285	55,229	80	584	74	744	1,186	19	1	.....
Sugar and salt.....	27,386	35,888	18,492	781	1,371	22	2,842	3,174	7	.....	.....
Wines, liquors and beers.....	5,997	6,548	6,982	18	222	21	1,058	1,325	32	.....	.....
Merchandise not enumerated.....	402,110	187,411	147,315	11,824	2,497	64,115	10,312	8,754	7,127	33,148	.....
Total, Class No. 4.....	854,516	539,865	557,992	25,370	11,828	143,399	65,452	114,937	12,551	33,153	.....
<i>Class No. 5.</i>											
Pulpwood.....	2,301	197,986	310,435	289,728	.....	1,569	.....	2,847	8,465	10,163	.....
Sawed lumber.....	40,771	35,809	205,711	106,497	4,248	35	174,253	24,607	2,553	2,104	.....
Squared timber.....	1,713	10,042	24,610	.....	559	.....	3,661	607	1,732	.....	.....
Shingles.....	11,395	60	16	.....	750	13	16	68	104	.....	.....
Other woods.....	673	6,526	10,383	479	1,563	5	24,867	6,221	18,488	1,506	.....
Total, Class No. 5.....	56,853	250,423	551,155	396,704	7,120	1,622	202,797	34,350	31,342	13,773	.....
<i>Class No. 6.</i>											
Hard coal.....	433,859	246,964	430,166	118,226	241	3,668	3,973	8,717	332	127	.....
Soft ".....	3,673,091	372,718	547,080	471	37,283	1,416	31,139	5,188	454	.....	.....
Coke.....	14,160	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Copper ore.....	16,536	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Iron ".....	22,669,789	31,197	8	14,844	.....	.....	.....	.....	.....	.....	.....
Other ".....	11,975	6,283	6,274	1,996	135	12,130	4,464	267	11,263	.....	.....
Total, Class No. 6.....	26,819,433	657,162	983,528	135,537	37,659	17,214	39,576	14,172	12,049	127	.....
Grand total.....	30,951,709	2,537,629	3,105,708	599,829	75,298	163,457	320,071	172,227	57,290	47,135	.....

TABLE 6.—SUMMARY Statement of Traffic on the undermentioned canals during the Season of Navigation, ended December 31, 1911.
showing the total quantity of each description of property passed through.

	Sault Ste. Marie.	Welland.	St. Lawrence	Chambly.	St. Peter's.	Murray.	Ottawa.	Rideau.	Trent Valley.	St. Andrew's
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Vessels of all kinds.....	19,361,220	2,297,179	3,923,635	419,429	89,270	371,210	408,461	223,600	196,973	111,437
Passengers.....	No. 39,044	No. 1,288	No. 101,750	No. 2,708	No. 709	No. 26,187	No. 25,497	No. 23,298	No. 77,078	No. 5,345
<i>Forest Produce of Wood.</i>										
Pulpwood.....	Tons. 2,301	Tons. 197,986	Tons. 310,422	Tons. 289,728	Tons. 1,569	Tons. 1,569	Tons. 2,487	Tons. 8,465	Tons. 10,163	Tons. 10,163
Sawed lumber.....	40,771	35,809	205,711	106,497	4,248	35	174,253	24,607	2,553	2,104
Squared timber.....	1,713	10,042	24,610	559	750	13	3,661	607	1,732	.....
Shingles.....	11,395	60	16	750	13	16	68	104	.....	.....
Other woods.....	673	6,526	10,383	479	1,563	5	24,867	6,221	18,488	1,506
Total.....	56,853	250,423	551,155	396,704	7,120	1,622	202,797	34,350	31,342	13,773
<i>Animals and Produce of Animals.</i>										
Live stock.....	24	.....	2,081	245	1	8	436	30	310	.....
Poultry, game and fish.....	126	126	79	4	1,656	5	38	28	.....	.....
Dressed meats.....	7	.....	37	.....	493	4	20	151	.....	.....
Other packing house products.....	30	30	388	66	3	10	306	433	.....	.....
Hides and leather.....	142	20	52	.....	.....	.....	4	15	3	.....
Wool.....	649	398	260	.....	.....	.....	.....	12	.....	.....
All other animal products.....	.....	.....	7,046	.....	.....	86	1,663	2,015	84	.....
Total.....	978	574	9,943	315	2,153	113	2,467	2,684	397	.....
<i>Agricultural Products.</i>										
Barley.....	114,396	15,029	15,991	.....	1	144	.....	.....	15	.....
Buckwheat.....	.....	.....	71	.....	.....	.....	.....	8	5	.....
Corn.....	20,003	273,932	157,153	145	.....	.....	87	277	.....	.....
Oats.....	331,430	163,333	156,764	1,038	3,833	.....	613	851	16	.....
Rye.....	3,587	112	.....	.....	.....	.....	2	.....	.....	.....
Flax.....	81,660	5,976	11,696	.....	.....	.....	2	.....	.....	.....

Peas			113		3		3	11	33	
Wheat	2,401,143	562,282	563,555	10			9	631	555	
Flour	251,800	57,061	58,534	1,032	2,219		630	512	74	8
Hay	1,367	317	23,622	36,824	1,501		6,569	2,728	25	60
Other mill products	14,358	11,360	13,302	108	954		491	408	95	7
Fruits and vegetables	184	203	6,354	2,684	1,299	963	717	332	4	
Potatoes	1		935	62	6,728	2	656	326	129	
Total	3,219,929	1,089,605	1,003,090	41,903	16,538	1,109	9,779	6,084	951	82
<i>Manufactures.</i>										
Agricultural implements	20,181	19,695	257	209	6		147	753	43	
Cement, bricks and lime	135,917	86,072	187,200	11,353	6,660	78,009	48,306	96,977	5,044	
Household goods and furniture	8	10	1,766	121	8	29	333	625	71	
Iron, pig and bloom	29,744	17,675	11,084	153	300	402	824	892	45	
Iron, steel, all other	175,170	109,281	129,667	831	180	736	886	1,251	163	4
Petroleum and other oils	58,903	77,285	55,229	80	584	74	744	1,186	19	1
Sugar and salt	27,386	35,888	18,492	781	1,371	22	2,842	3,174	7	
Wines, liquors and beers	5,997	6,548	6,982	18	222	21	1,058	1,325	32	
Merchandise not enumerated	402,116	187,411	147,315	11,824	2,497	64,115	10,312	8,754	7,127	33,148
Total	854,516	539,865	557,992	25,370	11,828	143,399	65,452	114,937	12,551	33,153
<i>Products of Mines.</i>										
Hard coal	433,859	246,964	430,166	118,226	241	3,668	3,973	8,717	332	127
Soft " "	3,673,094	372,718	547,080	471	37,283	1,416	31,139	5,188	454	
Coke	14,169									
Copper ore	16,556									
Iron " "	22,669,789	31,197	8	14,844						
Other " "	11,975	6,283	6,274	1,906	135	12,130	4,464	207	11,263	
Total	26,819,433	657,162	983,528	135,537	37,659	17,214	39,576	14,172	12,049	127
Grand totals (passengers and tonnage of vessels not included)	30,951,709	2,537,629	3,105,708	599,829	75,298	163,457	320,071	172,227	57,290	47,135

TABLE 7 (No. 1)—GENERAL STATEMENT showing the Quantity of each Article Transported on the Sault Ste. Marie canal during the Season of Navigation in 1911.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Origin of Cargo.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Canadian.	United States.
Agricultural implements.....	20,166	15							20,166	15	20,181	20,181	
All other animal.....													
Barley.....		28,582		8,226		77,588				114,396	114,396	38,910	75,486
Buckwheat.....													
Cement, bricks, &c.....	125,437				9,130		450		135,017		135,017	125,372	9,645
Coal, hard.....	12				244,464		189,383		433,859		433,859		433,859
" soft.....	3,527				1,899,125		1,770,442		3,673,094		3,673,094	546	3,672,548
Coke.....							14,160		14,160		14,160		14,160
Corn.....						9,307	10,696		20,003		20,003		20,003
Dressed meats.....	7							7	7		7		7
Flax.....		14,315		10,253		57,092			81,660		81,660	24,568	57,092
Flour.....	33	179,306				67,701		4,671	35	251,767	251,800	183,449	68,351
Fruits and vegetables.....	184								184		184	184	
Hay.....	1,367								1,367		1,367	1,367	
Hides and leather.....	20	2				120			20	122	142	22	120
Household goods.....	8								8		8	8	
Iron, pig and bloom.....	22,577	43	65		420	3,839	2,800		25,862	3,882	29,744	22,455	7,289
Iron and steel, all other.....	115,490	2,481	335		27,377	480	20,007		172,209	2,961	175,170	99,543	75,627
Live stock.....	23	1							23	1	24	24	
Merchandise.....	305,388	5,024	20,470	1,300	46,358	3,926	8,295	11,349	380,511	21,599	402,110	326,529	75,581
Oats.....		305,343		5,371		17,032		3,684	331,430		331,430	310,870	20,560
Other mill products.....		7,482		5,000				1,876		14,358	14,358	12,482	1,876
" packing house products.....	30								30		30	30	
" woods.....	673								673		673	673	
Ore, all other.....	2,345	4,702				4,928			2,345	9,630	11,975	5,247	6,728
" copper.....					45	16,511			45	16,556			16,556
" iron.....				19,372		22,476,048	15,758	158,611	15,758	22,654,029	22,669,789	19,372	22,650,417
Peas.....													
Petroleum.....	17,753		411		2,880		37,859		58,903		58,903	18,164	40,739
Poultry, game and fish.....	35	91							35	91	126	126	
Potatoes.....	1								1		1	1	
Pulpwood.....				2,301						2,301	2,301	2,301	

Rye		112				3,475				3,587	3,587	112	3,475
Sawed lumber	3,452	1,708		25,410	66	8,248	1,887		5,405	35,366	40,771	28,320	12,451
Shingles						11,301		94		11,395	11,395		11,395
Square timber	435	234			498	280	266		1,199	514	1,713	634	1,079
Sugar and salt	20,099	34	716		6,517	20			27,332	54	27,386	20,849	6,537
Wheat		1,035,707		838,368		511,333		15,735		2,401,143	2,401,143	1,909,230	491,913
Wines, liquors and beers	5,829	8	160						5,989	8	5,997	5,997	
Wool		8				641				8	641	8	641
Total freight	644,899	1,585,279	22,157	915,601	2,236,880	23,269,870	2,070,307	206,716	4,974,243	25,977,466	30,951,709	3,177,581	27,774,128

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TABLE 7 (No. 2)—GENERAL STATEMENT showing the Quantity of each Article Transported on the Welland canal during the Season of Navigation in 1911.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Origin of Cargo.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Canadian.	United States.
Agricultural implements.....	19,680	15							19,680	15	19,695	19,695	
All other animal.....													
Barley.....		14,622	407						407	14,622	15,029	15,029	
Buckwheat.....													
Cement, bricks, &c.....	79,569	6,003						500	79,569	6,503	86,072	85,541	531
Coal, hard.....	731				221,782		24,451		246,964		246,964		246,964
" soft.....						2,160		370,558		372,718	372,718		372,718
Coke.....													
Corn.....		40,002				116,705		117,225		273,932	273,932	2,903	271,029
Dressed meats.....													
Flax.....		5,976								5,976	5,976	5,976	
Flour.....		53,513				2,852		696		57,061	57,061	53,073	3,988
Fruits and vegetables.....	184				19				203		203	184	19
Hay.....	317								317		317	317	
Hides and leather.....	20								20		20	20	
Household goods.....	8				2				10		10	8	2
Iron, pig and bloom.....	10,768	104	1,075					5,728	11,843	5,832	17,675	12,050	5,625
Iron and steel, all other.....	70,245	5,520	270			1,863		31,383	70,515	38,766	109,281	75,268	34,013
Live stock.....													
Merchandise.....	101,833	5,038	11,201		54,602	9,457		5,280	167,636	19,775	187,411	117,191	70,220
Oats.....		163,177						156		163,333	163,333	162,409	924
Other mill products.....		60				7,565		3,735		11,360	11,360	1,919	9,441
" packing house products.....	30								30		30	30	
" woods.....	75		2,264			3,800		387	2,339	4,187	6,526	2,339	4,187
Ore, all other.....			1,800		4,483				6,283		6,283	1,800	4,483
" copper.....													
" iron.....								31,197		31,197	31,197		31,197
Peas.....													
Petroleum.....	1,498	27,462	165		45			48,115	1,708	75,577	77,285	28,940	48,345
Poultry, game and fish.....	35				91				126		126	35	91
Potatoes.....													
Pulpwood.....	24,421		171,519		2,046				197,986		197,986	195,940	2,046

Rye.....		112							112		112		
Sawed lumber.....		86	1,042	693		26,331		7,657	1,042	34,767	35,809	1,821	33,988
Shingles.....						60				60	60		60
Square timber.....		5,582						4,460		10,042	10,042	4,265	5,777
Sugar and salt.....	4,099	4,616	50		26,303			820	30,452	5,436	35,888	9,585	26,303
Wheat.....		494,457				4,950		62,875		562,282	562,282	493,321	68,961
Wines, liquors and beers.....	4,882	1,047	238		230			101	5,400	1,148	6,548	6,320	228
Wool.....	369		20			9			389	9	398	389	9
Total freight.....	318,764	827,392	190,101	693	309,603	175,752	24,451	690,873	842,919	1,694,710	2,537,629	1,296,480	1,241,149

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TABLE 7 (No. 3)—GENERAL STATEMENT showing the Quantity of each Through Article Transported on the Welland canal during the Season of Navigation in 1911.

ARTICLES.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Origin of Cargo.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Canadian.	United States.
Agricultural implements.....	19,680	15							19,680	15	19,695	19,695	
All other animal.....													
Barley.....		14,622	407						407	14,622	15,029	15,029	
Buckwheat.....													
Cement, bricks, &c.....	79,569	1,055					500		79,569	1,555	81,124	80,593	531
Coal, hard.....	731				221,782		24,451		246,964		246,964		246,964
" soft.....						2,160	370,558			372,718	372,718		372,718
Coke.....													
Corn.....		40,002				116,705	117,225			273,932	273,932	2,903	271,029
Dressed meats.....													
Flax.....		5,976								5,976	5,976	5,976	
Flour.....		53,513				2,852	696			57,061	57,061	53,073	3,988
Fruits and vegetables.....	184				19				203		317	184	19
Hay.....	317								317		317	317	
Hides and leather.....	20								20		20	20	
Household goods.....	8				2				10		10	8	2
Iron, pig and bloom.....	10,768	104	1,075				5,728	11,843	11,843	5,832	17,675	12,050	5,625
Iron and steel, all other.....	70,245	2,959	270			1,863	31,383	70,515	36,205	106,720	72,707	34,013	
Live stock.....													
Merchandise.....	101,493	4,988	11,201		54,602	9,457	5,280	167,291	19,725	187,021	116,801	70,220	
Oats.....		163,177						156	163,333	163,333	162,409	924	
Other mill products.....		60				7,565	3,735		11,360	11,360	1,919	9,441	
" Packing house products.....	30								30		30		
" Woods.....			2,264			3,800			2,264	3,800	6,064	2,264	3,800
Ore, all other.....			1,800		4,483				6,283		6,283	1,800	4,483
" Copper.....								31,197		31,197	31,197		31,197
" Iron.....													
Peas.....													
Petroleum.....	1,498	27,462	165		45		48,115	1,708	75,577	77,285	28,940	48,345	
Poultry, game and fish.....	35				91			126		126	35	91	
Potatoes.....													
Pulpwood.....	9,117		171,519		2,046				182,682		182,682	180,636	2,046

Rye		112							112	112	112		
Sawed lumber			1,042	693		26,331	7,657	1,042	34,681	35,723	1,735	33,988	
Shingles					60				60	60		60	
Square timber		5,577					4,460		10,037	10,037	4,260	5,777	
Sugar and salt	4,099	4,616	50		26,303		820	30,452	5,436	35,888	9,585	26,303	
Wheat		490,315				4,950			62,875	558,140	558,140	489,179	
Wines, liquors and beers	4,882	1,047	288		230			101	5,400	1,148	6,548	6,320	
Wool	369		20			9			389	9	398	389	
Total freight	303,045	815,600	190,101	693	309,603	175,752	24,451	690,486	827,200	1,682,531	2,509,731	1,268,969	1,240,762

TABLE 7 (No. 4)—GENERAL STATEMENT showing the Quantity of each Way Article Transported on the Welland canal during the Season of Navigation in 1911.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Origin of Cargo.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Canadian.	United States.
Agricultural implements													
All other animal													
Barley													
Buckwheat													
Cement, bricks, &c		4,948								4,948	4,948	4,948	
Coal, hard													
" soft													
Coke													
Corn													
Dressed meats													
Flax													
Flour													
Fruits and vegetables													
Hay													
Hides and leather													
Household goods													
Iron, pig and bloom													
Iron and steel, all other		2,561								2,561	2,561	2,561	
Live stock													
Merchandise	340	50							340	50	390	390	
Oats													
Other mill products													
" Packing house products													
" Woods	75							387	75	387	462	75	387
Ore, all other													
" Copper													
" Iron													
Peas													
Petroleum													
Poultry, game and fish													
Potatoes													
Pulpwood	15,304								15,304		15,304	15,304	
Rye													

Sawed lumber.....		86						86	86	86	
Shingles.....											
Square timber.....		5						5	5	5	
Sugar and salt.....											
Wheat.....		4,142						4,142	4,142	4,142	
Wines, liquors and beers.....											
Wool.....											
Total Freight.....	15,719	11,792				387	15,719	12,179	27,898	27,511	387

TABLE 7—(No. 5)—GENERAL STATEMENT showing the Quantity of each Article Transported on the St. Lawrence canals during the Season of Navigation in 1911.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total tons.	Origin of Cargo.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Canadian.	United States.
Agricultural implements.....	219	38							219	38	257	257	
All other animal.....	1,387	5,659							1,387	5,659	7,046	7,043	3
Barley.....	424	15,567							424	15,567	15,991	15,991	
Buckwheat.....	1	70							1	70	71	71	
Cement, bricks, &c.....	106,791	80,401			8				106,799	80,401	187,200	181,977	5,223
Coal, hard.....	7,518	3,354					419,294		7,518	422,648	430,166	7,085	423,081
" soft.....	191,433	4,820					350,827		191,433	355,647	547,080	191,933	355,147
Coke.....													
Corn.....	2,360	25,417					129,376		2,360	154,793	157,153	27,777	129,376
Dressed meats.....	19	17			1				20	17	37	36	1
Flax.....		11,696								11,696	11,696	11,696	
Flour.....	1,557	51,316					661		1,557	51,977	53,534	52,873	661
Fruits and vegetables.....	168	6,185			1				169	6,185	6,354	6,353	1
Hay.....	12,738	10,884							12,738	10,884	23,622	23,445	177
Hides and leather.....	7	43	2						9	43	52	52	
Household goods.....	691	1,075							691	1,075	1,766	1,766	
Iron, pig and bloom.....	7,756	303	125				2,900	7,881	3,206	11,084	8,184	2,900	
Iron and steel, all other.....	90,638	9,603					29,426	90,638	39,029	129,667	100,421	29,246	
Live stock.....	99	1,982						99	1,982	2,081	2,081	2,081	
Merchandise.....	102,827	30,168	9,793	1,100	166	12	3,249	112,786	34,529	147,315	142,116	5,199	
Oats.....	5,163	151,601						5,163	151,601	156,764	155,840	924	
Other mill products.....	8,314	3,112					1,876	8,314	4,988	13,302	11,426	1,876	
" packing house products.....	304	84						304	84	388	388	388	
" woods.....	1,310	6,569	2,264	240				3,574	6,809	10,383	9,429	954	
Ore, all other.....	3,982	100	1,800				392	6,174	100	6,274	5,110	1,164	
" copper.....													
" iron.....		8								8	8	8	
Peas.....	8	105						8	105	113	113	113	
Petroleum.....	2,526	18,887	165				33,651	2,691	52,538	55,229	21,505	33,724	
Poultry, game and fish.....	37	42						37	42	79	79	79	
Potatoes.....	759	175			1			760	175	935	934	1	
Pulpwood.....	3,570	135	306,730					310,300	135	310,435	310,435	310,435	

Rye													
Sawed lumber	34,597	126,262	7,790	36,745	17			300	42,404	163,307	205,711	205,404	307
Shingles		16								16	16	16	
Square timber	168	24,442						168	24,442	24,610	24,610	24,610	
Sugar and salt	15,112	3,380						15,112	3,380	18,492	18,492	18,324	168
Wheat	20,592	492,419					50,544	20,592	542,963	563,555	563,555	511,841	51,714
Wines, liquors and beers	6,309	610	63					6,372	610	6,982	6,982	6,982	
Wool	258	2						258	2	260	260	260	
Total freight	629,642	1,086,547	328,732	38,085	194	12	392	1,022,104	958,960	2,146,748	3,105,708	2,063,861	1,041,847

TABLE 7 (No. 6)—GENERAL STATEMENT showing the Quantity of each Through Article Transported on the St. Lawrence canals during the Season of Navigation in 1911.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Origin of Cargo.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Canadian.	United States.
Agricultural implements	81								81		81	81	
All other animal	142	4,013							142	4,013	4,155	4,155	
Barley	408	14,853							408	14,853	15,261	15,261	
Buckwheat.....		58								58	58	58	
Cement, bricks, &c.....	14,797	6,165							14,797	6,165	20,962	20,962	
Coal, hard	2,680						413,185	2,680	413,185	2,680	415,865	2,680	413,185
" soft.....	3,550	4,216					339,073	3,550	343,289	3,550	346,839	3,550	343,289
Corn													
Coke	286	4,863					129,376	286	134,239	286	134,519	5,143	129,376
Dressed meats.....		2								2	2	2	
Flax		11,696								11,696	11,696	11,696	
Flour	15	45,228					661	15	45,889	45,904	45,243	45,243	661
Fruits and vegetables.....	20	5,518						20	5,518	5,538	5,538	5,538	
Hay	276							276		276	276	276	
Hides and leather.....													
Household goods.....	283	855						283	855	1,138	1,138	1,138	
Iron, pig and bloom.....	4,977	61	125				2,900	5,102	2,961	8,063	5,163	2,900	
Iron and steel, all other.....	71,478	5,515					29,426	71,478	34,941	106,419	77,173	29,246	
Live stock	1	19						1	19	20	20	20	
Merchandise	88,549	20,451	9,793				3,076	98,342	23,527	121,869	127,267	3,602	
Oats		147,180							147,180	147,180	146,256	924	
Other mill produce.....	42	2,091					1,876	42	3,967	4,009	2,133	1,876	
" packing house products.....		15							15	15	15	15	
" woods.....		37	2,264					2,264	37	2,301	2,301	2,301	
Ore, all other.....			1,800					1,800		1,800	1,800	1,800	
" Copper.....													
" Iron.....													
Peas		41							41	41	41	41	
Petroleum.....	1,803	18,396	165				33,651	1,968	52,047	54,015	20,291	33,724	
Poultry, game and fish.....	37							37		37	37	37	
Potatoes.....	137	8						137		145	145	145	
Pulpwood.....	3,150		306,730					309,880		309,880	309,880	309,880	

Rye.....	825		7,790					300	8,615	300	8,915	8,615	300
Sawed lumber.....													
Shingles.....													
Square timber.....										3,360	3,360	3,360	
Sugar and salt.....	6,520								6,520		2,515	9,035	
Wheat.....		490,630						50,544		541,174	541,174	489,460	51,714
Wines, liquors and beers.....	5,244		592	63					5,307		592	5,899	5,899
Wool.....	258								258			258	258
Total freight.....	205,553	788,378	328,730					1,004,068	534,283	1,792,446	2,326,729	1,315,932	1,010,797

TABLE 7 (No. 7).—GENERAL STATEMENT showing the Quantity of each Way Article Transported on the St. Lawrence canals, during Season of Navigation in 1911.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total-Tons.	Origin of Cargo.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Canadian.	United States.
Agricultural implements	138	38							138	38	176	176	
All other animal.....	1,245	1,646							1,245	1,646	2,891	2,888	3
Barley.....	16	714							16	714	730	730	
Buckwheat.....	1	12							1	12	13	13	
Cement, bricks, &c.....	91,994	74,236			8				92,002	74,236	166,238	161,015	5,223
Coal, hard.....	4,838	3,354					6,109		4,838	9,463	14,301	4,405	9,896
" soft.....	187,883	604					11,754		187,883	12,358	200,241	188,383	11,858
Coke.....													
Corn.....	2,080	20,554							2,080	20,554	22,634	22,634	
Dressed meats.....	19	15			1				20	15	35	34	1
Flax.....													
Flour.....	1,542	6,088							1,542	6,088	7,630	7,630	
Fruits and vegetables.....	148	667			1				149	667	816	815	1
Hay.....	12,462	10,884							12,462	10,884	23,346	23,169	177
Hides and leather.....	7	43	2						9	43	52	52	
Household goods.....	408	220							408	220	628	628	
Iron, pig and bloom.....	2,779	242							2,779	242	3,021	3,021	
Iron and steel, all other.....	19,160	4,088							19,160	4,088	23,248	23,248	
Live stock.....	98	1,963							98	1,963	2,061	2,061	
Merchandise.....	14,278	9,717		1,100	166	12		173	14,444	11,002	25,446	23,849	1,597
Oats.....	5,163	4,421							5,163	4,421	9,584	9,584	
Other mill products.....	8,272	1,021							8,272	1,021	9,293	9,293	
" packing house pro- ducts.....	304	69							304	69	373	373	
" woods.....	1,310	6,532		240					1,310	6,772	8,082	7,128	954
Ore, all other.....	3,982	100					392		4,374	100	4,474	3,310	1,164
" copper.....													
" iron.....		8								8	8	8	
Peas.....	8	64							8	64	72	72	
Petroleum.....	723	491							723	491	1,214	1,214	
Poultry, game and fish.....		42								42	42	42	
Potatoes.....	622	167			1				623	167	790	789	1

Pulpwood.....	420	135						420	135	555	555		
Rye.....													
Sawed lumber.....	33,772	126,262		36,745	17			33,789	163,007	196,796	196,789	7	
Shingles.....		16							16	16	16		
Square timber.....	168	21,082						168	21,082	21,250	21,250		
Sugar and salt.....	8,592	865						8,592	865	9,457	9,289	168	
Wheat.....	20,592	1,789						20,592	1,789	22,381	22,381		
Wines, liquors and beers.....	1,065	18						1,065	18	1,083	1,083		
Wool.....		2							2	2	2		
Total freight.....	424,089	298,169	2	38,085	194	12	392	18,036	424,677	354,302	778,979	747,929	31,050

TABLE 7 (No. 8).—GENERAL STATEMENT showing the Quantity of each Article Transported on the Chambly canal during the Season of Navigation in 1911.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Origin of Cargo.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Canadian.	United States.
Agricultural implements.....	167	36						6	6	167	209	209	
All other animal.....													
Barley.....													
Buckwheat.....													
Cement, bricks, &c.....	371	30						10,952	371	10,982	11,353	401	10,952
Coal, hard.....	107							118,119	107	118,119	118,226	107	118,119
" soft.....	35							436	35	436	471	35	436
Coke.....													
Corn.....	47	98							47	98	145	145	
Dressed meats.....													
Flax.....													
Flour.....	1,032								1,032		1,032	1,032	
Fruits and vegetables.....	899	1,785							899	1,785	2,684	2,684	
Hay.....	404	8,424	27,996						28,400	8,424	36,824	36,824	
Hides and leather.....													
Household goods.....	108	13							108	13	121	121	
Iron, pig and bloom.....	153								153		153	153	
Iron and steel, all other.....	826	5							826	5	831	831	
Live stock.....	2	243							2	245	245		
Merchandise.....	1,393	700	170					9,561	1,563	10,261	11,824	2,263	9,561
Oats.....	4	1,034							4	1,034	1,038	1,038	
Other mill products.....	108								108		108	108	
" Packing house products.....	62	4							62	4	66	66	
" Woods.....	240	239							240	239	479	479	
Ore, all other.....	75	18						1,903	75	1,921	1,996	93	1,903
" Copper.....													
" Iron.....								14,844		14,844	14,844		14,844
Peas.....													
Petroleum.....	80								80		80	80	
Poultry, game and fish.....	3	1							3	1	4	4	
Potatoes.....	58	4							58	4	62	62	
Pulpwood.....	289,728								289,728		289,728	289,728	

Rye												
Sawed lumber	103,192	6	3,299					106,491	6	106,497	106,497	
Shingles												
Square timber												
Sugar and salt	613						168	613	168	781	613	168
Wheat	3	7					3	3	7	10	10	
Wines, liquors and beers	18						18			18	18	
Wool												
Total freight	399,728	12,647	31,465				155,989	431,193	168,636	599,829	443,846	155,983

TABLE 7 (No. 9)—GENERAL STATEMENT Showing the Quantity of each Article Transported on the St. Peters canal during the Season of Navigation in 1911.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Origin of Cargo.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Canadian.	United States.
Agricultural implements.....	6								6		6	6	
All other animal.....													
Barley.....	1								1		1	1	
Buckwheat.....													
Cement, bricks, &c.....	982	5,678							982	5,678	6,660	6,660	
Coal, hard.....	241								241		241	241	
" soft.....	28	37,255							28	37,255	37,283	37,283	
Coke.....													
Corn.....													
Dressed meats.....	493								493		493	493	
Flax.....													
Flour.....	2,209	10							2,209	10	2,219	2,219	
Fruits and vegetables.....	1,296	3							1,296	3	1,299	1,299	
Hay.....	1,501								1,501		1,501	1,501	
Hides and leathers.....													
Household goods.....	8								8		8	8	
Iron, pig and bloom.....	134	166							134	166	300	300	
Iron and steel, all other.....	10	170							10	170	180	180	
Live stock.....	1								1		1	1	
Merchandise.....	2,268	229							2,268	229	2,497	2,497	
Oats.....	3,833								3,833		3,833	3,833	
Other mill products.....	954								954		954	954	
" packing house products.....	3								3		3	3	
" woods.....	709	854							709	854	1,563	1,563	
Ore, all other.....		135								135	135	135	
" copper.....													
" iron.....													
Peas.....	3								3		3	3	
Petroleum.....	582	2							582	2	584	584	
Poultry, game and fish.....	243	1,413							243	1,413	1,656	1,656	
Potatoes.....	6,695	33							6,695	33	6,728	6,728	
Pulpwood.....													
Rye.....													

Sawed lumber.....	4,167	81					4,167	81	4,248	4,248
Shingles.....	750						750		750	750
Square timber.....	559						559		559	559
Sugar and salt.....	1,291	80					1,291	80	1,371	1,371
Wheat.....										
Wines, liquors and beers.....	210	12					210	12	222	222
Wool.....										
Total freight.....	29,177	46,121					29,177	46,121	75,298	75,298

TABLE 7 (No. 10)—GENERAL STATEMENT showing the Quantity of each Article Transported on the Murray canal during the Season of Navigation in 1911.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Origin of Cargo.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Canadian.	United States.
Agricultural implements.....													
All other animal.....	16	76							10	76	86	86	
Barley.....		144								144	144	144	
Buckwheat.....													
Cement, bricks, &c.....	78,000								78,000		78,000	78,000	
Coal, hard.....	474	371					2,823		474	3,194	3,668	845	2,823
" soft.....	317	250					849		317	1,099	1,416	290	1,126
Coke.....													
Corn.....										3	4	4	
Dressed meats.....	1	3							1	3	4	4	
Flax.....													
Flour.....									530	433	963	963	
Fruits and vegetables.....	530	433											
Hay.....													
Hides and leather.....									1	17	29	28	1
Household goods.....	17	11							35	367	402	402	
Iron, pig and bloom.....	35	367							21	715	736	718	18
Iron and steel.....	21	715							4	4	8	8	
Live stock.....	4	4							7	59,780	4,335	64,115	33
Merchandise.....	59,778	4,328	2										
Oats.....													
Other mill products.....										10	10	10	
" packing house products.....		10											
" woods.....	5								5		5	5	
Ore, all other.....	12,130								12,130		12,130	12,130	
" copper.....													
" iron.....													
Peas.....													
Petroleum.....	29	45							29	45	74	54	20
Poultry, game and fish.....	5								5		5	5	
Potatoes.....		2								2	2	2	
Pulpwood.....	1,569								1,569		1,569	1,569	
Rye.....													
Sawed lumber.....	36								36		36	28	

Shingles.....			13					13		13	13	
Square timber.....												
Sugar and salt.....	2	20						2	20	22	2	20
Wheat.....												
Wines, liquors and beers.....	2	19						2	19	21	21	
Wool.....												
Total freight.....	152,964	6,798	15				3,680	152,979	10,478	163,457	159,409	4,048

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TABLE 7 (No. 11)—GENERAL STATEMENT showing the Quantity of each Article Transported on the Ottawa canals during the Season of Navigation in 1911.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Origin of Cargo.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Up.	Down.
Agricultural implements.....	121	26							121	26	147	147	
All other animal.....	68	1,595							68	1,595	1,663	1,663	
Barley.....													
Buckwheat.....													
Cement, bricks, &c.....	3,081	45,225							3,081	45,225	48,306	47,970	336
Coal, hard.....	888						3,085		3,973		3,973	13	3,960
" soft.....	31,139								31,139		31,139	29,617	1,522
Coke.....													
Corn.....	87								87		87	87	
Dressed meats.....	18	2							18	2	20	20	
Flax.....		2								2	2	2	
Flour.....	603	27							603	27	630	630	
Fruits and vegetables.....	99	618							99	618	717	717	
Hay.....		6,478		91						6,569	6,569	6,569	
Hides and leather.....		4								4	4	4	
Household goods.....	305	28							305	28	333	333	
Iron, pig and bloom.....	820	4							820	4	824	824	
Iron and steel, all other.....	857	29							857	29	886	886	
Live stock.....	52	384							52	384	436	436	
Merchandise.....	6,156	4,162							6,156	4,162	10,312	9,792	520
Oats.....	15	598							15	598	613	613	
Other mill products.....	58	433							58	433	491	491	
" packing house products..	290	16							290	16	306	306	
" woods.....	184	24,443		240					184	24,683	24,867	24,867	
Ore, all other.....	3,300						1,164		4,464		4,464	3,000	1,464
" copper.....													
" iron.....													
Peas.....	3								3		3	3	
Petroleum.....	667	77							667	77	744	744	
Poultry, game and fish.....		38								38	38	38	
Potatoes.....	518	138							518	138	656	656	
Pulpwood.....													
Rye.....		2								2	2	2	
Sawed lumber.....	211	133,023		41,009					211	174,042	174,253	174,253	

Shingles.....		16					16	16	16	
Square timber.....	76	3,585					76	3,585	3,661	3,661
Sugar and salt.....	2,793	49				2,793	49	2,842	2,842	
Wheat.....	9					9		9	9	
Wines, liquors and beers.....	1,041	17				1,041	17	1,058	1,058	
Wool.....										
Total freight.....	53,453	221,029	41,340		4,249	57,702	262,360	320,071	312,260	7,802

No. 7. (No. 12.)—GENERAL STATEMENT showing the Quantity of each article transported on the Rideau canal during the Season of Navigation in 1911.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Origin of Cargo.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Canadian.	United States.
Agricultural implements.....	430	323							430	323	753	753	
All other animal.....	300	1,715							300	1,715	2,015	2,015	
Barley.....													
Buckwheat.....		8								8	8	8	
Cement, bricks, &c.....	46,479	50,498							46,479	50,498	96,977	96,717	260
Coal, hard.....	2,055	364					6,298		2,055	6,662	8,717	371	8,346
" soft.....	1,102	366					3,720		1,102	4,086	5,188	1,365	3,823
Coke.....													
Corn.....	17	260							17	260	277	217	60
Dressed meats.....	87	64							87	64	151	151	
Flax.....													
Flour.....	132	380							132	380	512	512	
Fruits and vegetables.....	148	184							148	184	332	332	
Hay.....	2,663	65							2,663	65	2,728	2,728	
Hides and leather.....	4	11							4	11	15	15	
Household goods.....	408	217							408	217	625	625	
Iron, pig and bloom.....	848	44							848	44	892	892	
Iron and steel, all other.....	1,006	245							1,006	245	1,251	1,251	
Live stock.....	17	13							17	13	30	30	
Merchandise.....	4,983	3,771							4,983	3,771	8,754	8,754	
Oats.....	74	777							74	777	851	851	
Other mill products.....	105	303							105	303	408	408	
" packing house products.....	346	87							346	87	433	433	
" woods.....	5,137	1,084							5,137	1,084	6,221	6,221	
Ore, all other.....	113	154							113	154	267	267	
" copper.....													
" iron.....													
Peas.....	7	4							7	4	11	11	
Petroleum.....	780	406							780	406	1,186	1,186	
Poultry, game and fish.....	12	16							12	16	28	28	
Potatoes.....	292	34							292	34	326	326	
Pulpwood.....	1,425	1,422							1,425	1,422	2,847	2,847	
Rye.....													
Sawed lumber.....	4,359	20,248							4,359	20,248	24,607	24,607	

Shingles.....	40	28					40	28	68	68	
Square timber.....	603	4					603	4	607	607	
Sugar and salt.....	2,327	847					2,327	847	3,174	3,174	
Wheat.....	2	629					2	629	631	631	
Wines, liquors and beers.....	1,072	253					1,072	253	1,325	1,325	
Wool.....	5	7					5	7	12	12	
Total freight.....	77,378	84,831				10,018	77,378	94,849	172,227	159,738	12,489

TABLE 7 (No. 13).—GENERAL STATEMENT showing the Quantity of each Article Transported on the Trent Valley canals during the Season of Navigation in 1911.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Origin of Cargo.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Canadian.	United States.
Agricultural implements.....	28	15							28	15	43	43	
All other animal.....	57	27							57	27	84	84	
Bailey.....	10	5							10	5	15	15	
Buckwheat.....	5								5		5	5	
Cement, bricks, &c.....	4,914	130							4,914	130	5,044	5,044	
Coal, hard.....	332								332		332	332	
" soft.....	454								454		454	454	
Coke.....													
Corn.....													
Dressed meats.....													
Flax.....													
Flour.....	41	33							41	33	74	74	
Fruits and vegetables.....	4								4		4	4	
Hay.....	25								25		25	25	
Hides and leather.....	3								3		3	3	
Household goods.....	49	22							49	22	71	71	
Iron, pig and bloom.....	5	40							5	40	45	45	
Iron and steel, all other.....	57	106							57	106	163	163	
Live stock.....	266	44							266	44	310	310	
Merchandise.....	1,710	5,417							1,710	5,417	7,127	7,127	
Oats.....	16								16		16	16	
Other mill products.....	48	47							48	47	95	95	
" packing house products.....													
" woods.....	12,620	5,868							12,620	5,868	18,488	18,488	
Ore, all other.....		11,263								11,263	11,263	11,263	
" copper.....													
" iron.....													
Peas.....	27	6							27	6	33	33	
Petroleum.....	18	1							18	1	19	19	
Poultry, game and fish.....													
Potatoes.....	129								129		129	129	
Pulpwood.....	1,385	7,080							1,385	7,080	8,465	8,465	
Rye.....													
Sawed lumber.....	1,093	1,460							1,093	1,460	2,553	2,553	

Shingles.....	35	69					35	69	104	104
Square timber.....		1,732						1,732	1,732	1,732
Sugar and salt.....	4	3				4	3	7	7	7
Wheat.....	547	8				547	8	555	555	555
Wines, liquors and beers.....	26	6				26	6	32	32	32
Wool.....										
Total freight.....	23,908	33,382				23,908	33,382	57,290	57,290	57,290

TABLE 7 (No. 14).—GENERAL STATEMENT showing the Quantity of each Article Transported on the St. Andrews canal during the Season of Navigation in 1911.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Origin of Cargo.	
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		Canadian.	United States.
Agricultural implements													
All other animal	7								7		7	7	
Barley													
Buckwheat													
Cement, bricks, &c.													
Coal, hard	119	8							119	8	127	127	
" soft													
Coke													
Corn													
Dressed meats													
Flax													
Flour		8								8	8	8	
Fruits and vegetables													
Hay	60								60		60	60	
Hides and leather													
Household goods													
Iron, pig and bloom													
Iron and steel, all other	1	3							1	3	4	4	
Live stock													
Merchandise	27,705	5,443							27,705	5,443	33,148	33,148	
Oats													
Other mill products		7								7	7	7	
" packing house products													
" woods	1,452	54							1,452	54	1,506	1,506	
Ore, all other													
" copper													
" iron													
Peas													
Petroleum		1								1	1	1	
Poultry, game and fish													
Potatoes													
Pulpwood	10,163								10,163		10,163	10,163	
Rye													

Sawed lumber	1,096	1,008						1,096	1,008	2,104	2,104	
Shingles												
Square timber												
Sugar and salt												
Wheat												
Wines, liquors and beer												
Wool												
Total freight	40,0603	6,532						40,603	6,532	47,135	47,135	

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TABLE 8.—STATEMENT showing the Classified Tonnage of all kinds of Vessels

SAULT STE.

CANADIAN.							
Class.	Steam Vessels.	No.	Tonnage.	Class.	Sailing Vessels.	No.	Tonnage.
1	5,000 to 5,142 tons.....	1	5,142	1	5,000 to ——— tons.....		
2	4,000 " 5,000 ".....	2	9,000	2	4,000 " 5,000 ".....		
3	3,000 " 4,000 ".....	2	6,800	3	3,000 " 4,000 ".....		
4	2,000 " 3,000 ".....	9	21,500	4	2,000 " 3,000 ".....		
5	1,000 " 2,000 ".....	62	80,500	5	1,000 " 2,000 ".....		
6	Under 1,000 ".....	49	14,680	6	Under 1,000 ".....	21	4,100
	Total.....	125	137,622		Total.....	21	4,100

WELLAND

1	250 to 1,597 tons.....	81	79,800	1	250 to 1,226 tons.....	18	12,550
2	200 " 249 ".....	3	600	2	200 " 249 ".....	2	425
3	150 " 199 ".....	2	300	3	150 " 199 ".....	1	150
4	100 " 149 ".....	2	250	4	100 " 149 ".....	10	1,100
5	50 " 99 ".....	4	330	5	50 " 99 ".....	3	200
6	Under 50 ".....	16	410	6	Under 50 ".....	2	10
	Total.....	108	81,790		Total.....	36	14,435

ST. LAWRENCE

1	250 to 1,597 tons.....	99	87,790	1	150 to 1,184 tons.....	96	46,220
2	200 " 249 ".....	9	1,940	2	200 " 249 ".....	10	2,140
3	150 " 199 ".....	9	1,540	3	150 " 199 ".....	32	5,140
4	100 " 149 ".....	29	3,080	4	100 " 149 ".....	90	10,920
5	50 " 99 ".....	33	2,320	5	50 " 99 ".....	78	5,800
6	Under 50 ".....	86	1,530	6	Under 50 ".....	16	640
	Total.....	265	98,200		Total.....	322	70,860

RIDEAU, OTTAWA

1	250 to 370 tons.....	5	1,450	1	250 to 410 tons.....	3	980
2	200 " 249 ".....	1	230	2	200 " 249 ".....	8	1,670
3	150 " 199 ".....	7	1,200	3	150 " 199 ".....	37	6,030
4	100 " 149 ".....	11	1,220	4	100 " 149 ".....	52	6,280
5	50 " 99 ".....	15	980	5	50 " 99 ".....	29	2,115
6	Under 50 ".....	64	985	6	Under 50 ".....	18	380
	Total.....	103	6,065		Total.....	147	17,455

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passed through the following canals during the Season of Navigation, 1911.

MARIE CANAL.

UNITED STATES.

Class.	Steam Vessels.	No.	Tonnage.	Class.	Sailing Vessels.	No.	Tonnage.
1	5,000 to 6,498 tons.....	56	234,898	1	5,000 to ——— tons.....		
2	4,000 " 5,000 ".....	77	452,100	2	4,000 " 5,000 ".....	1	44,000
3	3,000 " 4,000 ".....	110	348,000	3	3,000 " 4,000 ".....	5	16,000
4	2,000 " 3,000 ".....	39	92,300	4	2,000 " 3,000 ".....	6	15,400
5	1,000 " 2,000 ".....	54	86,800	5	1,000 " 2,000 ".....	1	1,000
6	Under 1,000 ".....	34	10,905	6	Under 1,000 ".....	15	6,525
	Total.....	370	1,225,003		Total.....	28	43,625

CANAL.

1	250 to 1,993 tons.....	66	65,275	1	250 to 1,599 tons.....	26	21,750
2	200 " 249 ".....	5	1,050	2	200 " 249 ".....	4	825
3	150 " 199 ".....	2	325	3	150 " 199 ".....		
4	100 " 149 ".....	1	125	4	100 " 149 ".....		
5	50 " 99 ".....	6	440	5	50 " 99 ".....	3	260
6	Under 50 ".....	24	540	6	Under 50 ".....	4	70
	Total.....	104	67,755		Total.....	37	22,905

CANAL.

1	250 to 1,640 tons.....	27	26,086	1	250 to 1,316 tons.....	14	8,422
2	200 " 249 ".....			2	200 " 249 ".....		
3	150 " 199 ".....	1	180	3	150 " 199 ".....		
4	100 " 149 ".....	8	940	4	100 " 149 ".....	38	4,310
5	50 " 99 ".....	4	235	5	50 " 99 ".....	58	5,674
6	Under 50 ".....	20	230	6	Under 50 ".....		
	Total.....	60	27,671		Total.....	110	18,406

AND CHAMBLY CANALS.

1	250 to ——— tons.....			1	250 to ——— tons.....		
2	200 " 249 ".....			2	200 " 249 ".....		
3	150 " 199 ".....			3	150 " 199 ".....	9	1,430
4	100 " 149 ".....			4	100 " 149 ".....	174	18,670
5	50 " 99 ".....			5	50 " 99 ".....	481	46,340
6	Under 50 ".....	1	30	6	Under 50 ".....	1	5
	Total.....	1	30		Total.....	665	66,445

APPENDIX

DOMINION CANALS

The canal systems of the Dominion, under government control in connection with lakes and navigable rivers, are as follows:—

First—The through route between Montreal and the head of Lake Superior (14 feet minimum depth of water.)

	Miles.
1. Lachine canal.	8½
Lake St. Louis and River St. Lawrence.	16
2. Soulanges canal.	14
Lake St. Francis and River St. Lawrence.	33
3. Cornwall canal.	11
River St. Lawrence.	5
4. Farran's Point canal.	1½
River St. Lawrence.	10
5. Rapide Plat canal.	3¾
River St. Lawrence.	4
6. Galops canal.	7½
River St. Lawrence and Lake Ontario.	236
7. Welland canal.	26¾
Lake Erie, Detroit river, Lake St. Clair, Lake Huron, &c.	580
8. Sault Ste. Marie canal.	1½
Lake Superior to Port Arthur.	266
Total.	1,223¼
To Duluth.	1,357
Chicago.	1,286

Second.—Ottawa to Lake Champlain.

1. Grenville. 2. Carillon. 3. St. Anne's. 4. Chambly. 5. St. Ours canals.

Third.—Ottawa to Kingston and Perth.

1. Rideau canal.

Fourth.—Lake Ontario at Trenton to Lake Huron at mouth of River Severn.

1. Trent canal (not completed).

Fifth.—Ocean to Bras d'Or lakes.

1. St. Peter's canal.

RIVER ST. LAWRENCE AND LAKES.

The River St. Lawrence with the system of canals established on its course above Montreal, and the Lakes Ontario, Erie, St. Clair, Huron and Superior, with connecting canals, afford a course of water communication extending from the Straits of Belle Isle to Port Arthur, at the head of Lake Superior, a distance of 2,200 statute miles. The distance to Duluth is 2,343 statute miles. The distance to Chicago, 2,272 miles.

From the Straits of Belle Isle, at the mouth of the St. Lawrence, to Montreal, the distance is 986 miles. From Quebec to Montreal, the distance is 160 miles. Owing to the shallowness of the waters on a portion of the river between these two places, particularly through Lake St. Peter, vessels drawing more than from ten to twelve feet were formerly barred from passage for the greater part of the season of navigation. In 1826, the question of deepening the channel was first definitely mooted, but it was not until 1844 that any dredging operations were begun. In that year, the deepening of a new straight channel was commenced, but the scheme was abandoned in 1847. In 1851 the deepening of the present channel was begun. At that time the depth of the channel at low water was 10 feet 6 inches. By the year 1869, this depth had been increased to 20 feet, by 1882 to 25 feet, and by the close of 1888 the depth of 27½ feet, at low water, was attained for a distance of 108 miles from Montreal to a point within tidal influence. This work is now being continued by the government of Canada, which in 1888, under the provisions of the Act 51 Vic., ch. 5, of that year, assumed the indebtedness. The channel has a minimum width of 300 feet, extending to 550 feet at points of curvature. The channel is lighted and buoyed.

Navigation, which is closed by ice during the winter months, opens about the end of April.

Montreal has by this work been placed at the head of ocean navigation, and here the canal systems of the River St. Lawrence begin, overcoming the various rapids by which the river channel upwards is obstructed, and giving access through the St. Lawrence canals, the Welland canal, the great lakes and the Sault Ste. Marie canal, to the head of Lake Superior.

The difference in level between the point on the St. Lawrence, near Three Rivers, where tidal influence ceases, and Lake Superior is about 600 feet.

The Dominion canals, constructed between Montreal and Lake Superior, are the Lachine, Soulanges, Cornwall, Farran's Point, Rapide Plat, Galops, Murray, Welland and Sault Ste. Marie. Their aggregate length is 73 miles; total lockage (or height directly overcome by locks), 551 feet. The number of locks through which a vessel would pass in its passage from Montreal, at the head of ocean navigation, to the head of Lake Superior is 48. The Soulanges canal takes the place of the Beauharnois canal; the latter may be abandoned for navigation purposes.

Communication between Lakes Huron and Superior is obtained by means of the Canadian Sault Ste. Marie canal, and also by the St. Mary's Falls canal, situated on the United States side of the River St. Mary. Both these canals are free of toll.

It is important to note that the enlargement of the canals on the main route between Montreal and Lake Erie comprises locks of the following minimum dimensions: Length, 270 feet; width, 45 feet; depth of water on sills, 14 feet. The length of the vessels to be accommodated is limited to 255 feet. At Farran's, in the canal of that name, the lock is 800 feet long. A similar lock is built at Iroquois on the Galops canal, the object being to pass a full tow at one lockage.

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LACHINE CANAL.

First construction commenced.....	1821
“ completed.....	1825
First enlargement commenced.....	1843
“ completed.....	1848
Second enlargement commenced.....	1873
“ completed.....	1901
Length of canal.....	8½ statute miles.
Number of locks.....	5
Dimensions of locks.....	270 feet by 45 feet.
Total rise of lockage.....	45 feet.
Depth of water } at two locks.....	18 “
on sills. } at three locks.....	14 “
Average width of new canal.....	150 “

The old lift locks, 200 feet by 45 feet, are still available, with 9 feet of water on mitre sills.

The canal consists of one channel, with two distinct systems of locks, the old and the enlarged. There are two lock entrances at each end.

The canal extends from the city of Montreal to the town of Lachine, overcoming the St. Louis rapids, the first of the series of rapids which bars the ascent of the River St. Lawrence. They are 986 miles distant from the Straits of Belle Isle.

SOULANGES CANAL.

Construction commenced.....	1892
Open for traffic.....	1899
Length of canal.....	14 statute miles.
Number of locks } lift.....	4
guard.....	1
Dimensions of locks.....	280 feet by 45 feet.
Total rise of lockage.....	84 feet
Depth of water on sills.....	15 “
Breadth of canal at bottom.....	100 “
Breadth of canal at water surface.....	164 “
Number of arc lights.....	219 of 2,000 c. p. each.

The canal extends from Cascade point to Coteau Landing, overcoming the Cascade Rapids, Cedar rapids and Coteau rapids.

From the head of the Lachine to the foot of the Soulanges, the distance is sixteen miles.

CORNWALL CANAL.

First commenced, 9 feet.....	1844
“ opened.....	1847
Enlargement commenced.....	1897
“ completed.....	1900
Length of canal.....	11 statute miles.
Number of locks.....	6
Dimensions of locks.....	270 feet by 75 feet.
Total rise of lockage.....	48 feet.
Depth of water on sills.....	14 “
Breadth of canal at bottom.....	100 “
Breadth of canal at water surface.....	164 “

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The old lift locks, 200 feet by 45 feet, are also available, with nine feet of water on mitre sills.

From the head of the Soulanges to the foot of the Cornwall canal there is a stretch through Lake St. Francis, of 32½ miles, which is being made navigable for vessels drawing fourteen feet.

The Cornwall canal extends past the Long Sault rapids from the town of Cornwall to Dickinson's landing.

WILLIAMSBURG CANALS.

The Farran's Point, Rapide Plat and Galops canals are collectively known as the Williamsburg Canals.

FARRAN'S POINT CANAL.

First commenced, 9 feet	1844
" opened	1847
Enlargement commenced	1897
" completed	1900
Length of canal	1½ miles.
Number of locks	1
New lock	800 feet by 45 feet
Old lock	200 "
Total rise or lockages	3½ feet.
Depth of water on sills of new lock	14 "
Depth of water on sills of old lock	9 "
Breadth of canal at bottom	90 "
Breadth of canal at water surface	154 "

From the head of the Cornwall canal to the foot of Farran's Point canal, the distance on the River St. Lawrence is five miles. The latter canal enables vessels ascending the river to avoid Farran's Point rapid, passing the full tow at one lockage. Descending vessels run the rapids with ease and safety.

RAPIDE PLAT CANAL.

First commenced, 9 feet	1844
" opened	1847
Enlargement commenced	1884
" completed	1897
Length of canal	3¾ miles.
Number of locks	2
Dimensions of locks	270 feet by 45 feet.
Total rise in lockage	11½ feet.
Depth of water on sills	14 "
Breadth of canal at bottom	80 "
Breadth of canal at surface of water	152 "

The old lift lock, 200 feet by 45, is also available, with nine feet of water on mitre sills.

From the head of Farran's Point canal to the foot of Rapide Plat canal, there is a navigable stretch of 10½ miles. This canal was formed to enable vessels ascending the river to pass the rapids at that place. Descending vessels run the rapids safely.

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GALOPS CANAL.

First commenced, 9 feet.....	1844
Opened.....	1846
Enlargement commenced.....	1888
" completed.....	1903
Length of canal.....	7½ miles.
Number of locks.....	3
Dimensions of locks. { one of which is }.....	2-270 by 45.
{ a guard lock. }.....	1-800 by 45.
Total rise of lockage.....	15½ feet.
Depth of water on sills.....	14 "
Breadth of canal at bottom.....	80 "
Breadth of canal at surface of water.....	144 "

From the head of Rapide Plat canal to Iroquois, at the foot of the Galops canal, the St. Lawrence is navigable 4½ miles. The canal enables vessels to overcome the rapids at Pointe aux Iroquois, Point Cardinal and the Galops.

MURRAY CANAL.

Construction begun.....	1882
Completed.....	1890
Length between eastern and western pier heads.....	5½ miles.
Breadth at bottom.....	80 feet.
Breadth at water surface.....	120
Depth below lowest known lake level.....	11
No locks.	

This canal extends through the Isthmus of Murray, giving connection westward between the head waters of the Bay of Quinte and Lake Ontario, and thus enabling vessels to avoid the open lake navigation.

WELLAND CANAL.

Main line from Port Dalhousie, Lake Ontario, to Port Colborne, Lake Erie.

	Old Line.	Enlarged or New Line.
Length of canal.....	27½ miles	26½ miles
Pairs of guard-gates (formerly 3)		2
Number of locks { lift.....	26	25
{ guard.....	1	1
Dimensions..... { 1 lock 200 x 45		270 feet x 45 feet.
{ 1 lock 200 x 45		
{ 1 (tidal) 230 x 45		
{ 24 locks 150 x 26 ft. 6 in. }		
Total rise or lockage	326½ feet	326½ feet.
Depth of water on sills.. ..	10¼ "	14 "
Construction commenced, 8 feet.....		1824
" Completed.....		1833
Enlargement commenced, 14 feet.....		1872
" completed.....		1887

20a-7½.

WELLAND RIVER BRANCHES.

Length of canal—

Port Robinson cut to River Welland	2,622 feet.
From the canal at Welland to the river, via lock at Aqueduct	300 "
Chippewa cut to River Niagara	1,020 "
Number of locks—one at Aqueduct and one at Port Robinson	2
Dimensions of locks	150 by 26½ feet.
Total lockage from the canal at Welland down to River Welland	10 feet.
Depth of water on sills	9 feet 10 inches.

GRAND RIVER FEEDER.

Length of canal	21 miles.
Number of locks	2
Dimensions of locks	} 1 of 150 by 26½ feet. 1 of 200 by 45 feet.
Total rise or lockage . . . . .		7 to 8 feet.
Depth of water on sills	9 feet.

PORT MAITLAND BRANCH.

Length of canal	1½ miles.
Number of locks	1
Dimensions of locks	185 feet by 45 feet.
Total rise or lockage	7½ feet.
Depth of water on sills	11 "

The Welland canal has two entrances from Lake Ontario, at Port Dalhousie, one for the old, the other for the new canal.

From Port Dalhousie to Allanburg, 11½ miles, there are two distinct lines of canal in operation, the old line and the enlarged or new line.

From Allanburg to Port Colborne, a distance of 15 miles, there is only one channel, the old canal having been enlarged.

From the head of the Welland canal there is a deep water navigation through Lake Erie, the Detroit river, Lake St. Clair, the St. Clair river, Lake Huron and River St. Mary to the Sault canal, a distance of about 580 miles. From the Sault the distance through Lake Superior to Port Arthur is 266 miles, and to Duluth 400 miles.

SAULT STE. MARIE CANAL.

Construction commenced	1888
Opened for traffic	1895
Length of canal, between the extreme ends of the entrance piers	5,967 feet.
Number of locks	1
Dimensions of locks	900 feet by 60 feet.
Depth of water on sills (at lowest known water level)	20 feet 3 inches.
Total rise or lockage	18 feet.
Breadth of canal at bottom	141 feet 8 inches.
Breadth at surface of water	150 feet.

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This canal has been constructed through St. Mary's island, on the north side of the rapids of the River St. Mary, and, with that river, gives communication on Canadian territory between Lakes Huron and Superior. The masonry pier of the bridge carrying the Canadian Pacific Railway over the canal, which stood in the channel of the canal, forming an obstruction to navigation, has been removed; the swing now spanning the full width of the channel or prism of the canal.

MONTREAL, OTTAWA AND KINGSTON.

This route extends from the harbour of Montreal to the port of Kingston, passing through the Lachine canal, the navigation section of the lower River Ottawa, and the Ottawa canals, to the city of Ottawa; thence by the River Rideau and the Rideau canal to Kingston, on Lake Ontario—a total distance of 245½ miles.

After leaving the Lachine canal the works constructed to overcome difficulties of navigation are:—

Ottawa River Canals.

The Ste. Anne's lock.
Carillon canal.

Grenville canal.
Rideau canal.

The total lockage (not including that of the Lachine canal) is 509 feet (345 rise, 164 fall)—and the number of locks is 55.

The following table exhibits the intermediate distances from Montreal harbour:—

Sections of Navigation.	Interme- diate Distance.	Total Distance, from Montreal.
	Miles.	Miles.
The Lachine canal.....	8½	
From Lachine to Ste. Anne's lock.....	15	23
Ste. Anne's lock and piers.....	½	23
Ste. Anne's lock to Carillon canal.....	27	50
The Carillon canal.....	¾	51
The Carillon to Grenville canal.....	6¼	57
The Grenville canal.....	5¾	63
From the Grenville canal to entrance of Rideau navigation.....	56	119
Rideau navigation ending at Kingston.....	126¼	245

STE. ANNE'S LOCK.

Construction commenced.....	1814.
“ completed.....	1816
Rebuilt of wood.....	1833
“ in masonry.....	1843.

	Old Lock.	New Lock.
Length of canal.....	½ mile.	½ mile.
Number of locks.....	1	1
Dimensions of locks.....	190 x 45 feet.	200 x 45 feet.
Total rise or lockage.....	3 feet.	3 feet.
Depth of water on sills.....	6 “	9 “

This work, with guide piers above and below, surmounts the Ste. Anne's rapids between Ile Perrot and the head of the Island of Montreal, at the outlet of that portion of the River Ottawa which forms the Lake of Two Mountains, 23½ miles from Montreal harbour.

THE CARILLON CANAL.

Construction commenced.	1819
" completed.	1833
Enlargement commenced.	1871
" completed.	1887
Length of canal.	$\frac{3}{4}$ mile.
Number of locks.	2
Dimensions of locks.	200 x 45 feet.
Total rise or lockage.	16 feet.
Depth of water on sills.	9 "
Breadth of canal at bottom.	100 "
Breadth of canal at water surface.	110 "

This canal overcomes the Carillon rapids.

From Ste. Anne's lock to the foot of the Carillon canal there is navigable stretch of 27 miles, through the Lake of Two Mountains and the River Ottawa.

By the construction of the Carillon dam across the River Ottawa the water at that point is raised 9 feet, enabling the river above to be used for navigation.

GRENVILLE CANAL.

Construction commenced.	1819
" completed.	1833
Enlargement commenced.	1871
" completed.	1887
Length of canal.	$5\frac{3}{4}$ miles.
Number of locks.	5
Dimensions of locks.	200 x 45 feet.
Total rise or lockage.	43 $\frac{3}{4}$ feet.
Depth of water on sills.	9 "
Breadth of canal at bottom.	40 to 50 feet.
Breadth of canal at surface of water.	50 to 80 "

This canal, by which the Long Sault rapids are avoided, is about 56 miles below the city of Ottawa, up to which point the River Ottawa affords unimpeded navigation.

RIDEAU NAVIGATION.

Construction commenced.	1826
" completed.	1832

The Rideau system connects the River Ottawa, at the city of Ottawa, with the eastern end of Lake Ontario, at Kingston.

Length of navigation waters.	126 $\frac{1}{2}$ miles.
Number of locks going from Ottawa to Kingston. } 35 ascending. 14 descending.	
Total lockage. 446 $\frac{1}{2}$ feet	{ 282 $\frac{1}{2}$ rise and 164 fall } at high water.
Dimensions of locks.	134 x 33 feet.
Depth of water on sills.	5 feet.
Navigation depth through the several reaches.	4 $\frac{1}{2}$ "
Breadth of canal reaches at bottom. } 60 feet in earth. 54 feet in rock.	
Breadth of canal at surface of water.	80 feet in earth.

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PERTH BRANCH.

Construction commenced.	1883
" completed.	1892
Length of canal.	7 miles.
Number of locks.	2
Dimensions of locks.	134 feet x 33 feet.
Total rise or lockage.	26 "
Depth of water on sills.	5 " 6 inches.
Length of dam.	200 "
Breadth of canal at bottom.	40 "
Breadth of canal at surface of water.	40 " in rock.
	60 " in clay.

The Perth branch of the Rideau canal affords communication between Beveridge's bay, on Lake Rideau and the town of Perth.

The summit level of the Rideau system is at upper Lake Rideau, but several of the descending reaches are also supplied by waters which have been made tributary to them. The following description gives the sources of supply:—

From the summit, the route towards Ottawa follows the Rideau river, and that towards Kingston follows the River Cataraqui. The supply of water for the canal is derived from the reserves given in detail below.

These may be divided into three systems, viz.:—

1. The summit level, supplied by the Wolfe lake system.
2. The eastern descending level to Ottawa, supplied by the River Tay system, discharging into Lake Rideau.
3. The southwest descending level to Kingston, supplied by the Mud lake system formerly known as the Devil lake system, discharging into Lake Openicon.

Lake Openicon receives the waters of Buck lake and Rock lake.

All these waters on the descending level, supplemented by those of Lake Loughboro', flow into Cranberry lake, which, discharging through Round Tail outlet, forms the River Cataraqui. The river, rendered navigable by dams at various points, affords a line of navigation to Kingston.

RICHELIEU AND LAKE CHAMPLAIN.

This system, commencing at Sorel, at the confluence of the Rivers St. Lawrence and Richelieu, 46 miles below Montreal, extends along the River Richelieu, through the St. Ours lock to the basin of Chambly; thence, by the Chambly canal, to St. Johns, and up the River Richelieu to Lake Champlain. The distance from Sorel to the boundary line is 81 miles.

At Whitehall, the southern end of Lake Champlain is entered, and connection is obtained with the River Hudson, by which the city of New York is directly reached. From the boundary line to New York the distance is 330 miles.

The following table shows the distances between Sorel and New York:—

Section of Navigation.	Interme- diate Distance.	Total Distances.
	Miles.	Miles.
Sorel to St. Ours lock.	14	14
St. Ours lock to Chambly canal.	32	46
Chambly canal.	12	58
Chambly canal to boundary line.	23	81
Boundary line to Champlain canal.	111	192
Champlain canal to junction with Erie canal.	66	258
Erie canal, from junction to Albany.	7	265
Albany to New York.	146	411

ST. OURS LOCK DAM.

Construction commenced.	1844
" completed.	1849
Length.	$\frac{1}{2}$ mile.
Number of locks.	1
Dimensions of lock.	200 feet by 45 feet.
Total rise of lockage.	5 "
Depth of water on sills.	7 feet at low water.
Length of dam in eastern channel.	300 "
Length of dam in western channel.	690 "

At St. Ours, 14 miles from Sorel, the River Richelieu is divided by a small island into two channels. The St. Ours lock is in the eastern channel.

There is a navigable depth in the Richelieu of 7 feet between St. Ours lock and Chambly basin, a distance of 32 miles.

CHAMBLY CANAL.

Construction commenced.	1831
" completed.	1843
Length of canal.	12 miles.
Number of locks.	9
Dimensions of locks:—	
Guard lock, No. 1 at St. Johns.	122 feet.
Lift " 2 	124 "
" " 3, 4, 5, 6 	118 "
" " 7, 8, 9 combined 	125 "
Total rise or lockage.	74 "
Depth of water on sills.	7 "
Breadth of canal at bottom.	36 "
Breadth of canal at surface of water.	60 "

} From 22½ to
24 feet wide.

This canal succeeds the 32 miles of navigable water between St. Ours lock and Chambly basin. The canal overcomes the rapids between Chambly and St. Johns.

TRENT CANAL.

The term 'Trent canal' is applied to a series of water stretches, which do not, however, form a connected system of navigation, and which, in their present condition, are efficient only for local use. By various works this local use has been extended, and by others, now in progress and contemplation, this will become a through route between Lake Ontario and Lake Huron.

The series is composed of a chain of lakes and rivers, extending from Trenton, at the mouth of the River Trent, on the Bay of Quinté, Lake Ontario, to Lake Huron.

Many years ago the utilizing of these waters for the purpose of through water communication between Lake Huron and Lake Ontario was projected.

The course, as originally contemplated and modified, is as follows:—

Through the River Trent, Rice lake, the River Otonabee and Lakes Clear, Stony, Lovesick, Deer, Buckhorn, Chemong, Pigeon, Sturgeon and Cameron to Lake Balsam, the summit water, about 165 miles from Trenton; from Lake Balsam by a canal and the River Talbot to Lake Simcoe; thence by the River Severn to Georgian bay, Lake Huron; the total distance being about 200 miles, of which only about 15 or 20 miles will be actual canal.

The full execution of the scheme, commenced by the Imperial Government in 1837, was deferred. By certain works, however, below specified, sections of these

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waters have been made practicable for navigation, and the whole scheme is now being carried out. A branch of the main route, extending from Sturgeon lake south, affords communication with the town of Lindsay, and, through Lake Scugog to Port Perry, a distance of 190 miles from Trenton.

The following table gives the distance of navigable and unnavigable reaches:—

From Trenton, Bay of Quinté to Nine Mile rapids ..	—	9
Nine Mile rapids to Percy landing..	19½	—
Percy landing to Heeley's Falls dam..	—	14½
Heeley's Falls dam to Peterborough..	51½	—
Peterborough to Lakefield..	—	9½
Lakefield to a point across Balsam lake..	61	—
	<hr/>	<hr/>
	132½	33

Total distance, Bay of Quinté to a point across Balsam lake.. 165½

From Sturgeon point on Sturgeon lake, 48½ miles from Lakefield, the branch through the town of Lindsay to Port Perry at the head of Lake Scugog.. 27

The works by which the Trent navigation has been improved comprise canals, with locks and bridges, at Young's point, Burleigh rapids, Lovesick, Buckhorn rapids, Bobcaygeon, Fenelon falls and Rosedale; also dams at Lakefield, Young's point, Burleigh falls, Lovesick, Buckhorn, Bobcaygeon and Fenelon falls. By these works there is afforded communication between Lakefield, 9½ miles from Peterborough, and Balsam lake, the headwaters of the system; opening up a total of about 160 miles of direct and lateral navigation.

At Lakefield, 9½ miles from Peterborough, the dam at the head of the Nine Mile rapids of the River Otonabee maintains navigation on Lake Katchewanoe up to Young's point.

At Young's point, 5 miles from Lakefield, the dam between Lake Katchewanoe and Clear lake controls the water level through Clear and Stony lakes up to the foot of the Burleigh canal.

At Burleigh rapids, 10 miles from Young's point, a canal, about 2½ miles in length, passes the Burleigh and Lovesick rapids, and gives communication between Stony lake and Deer bay.

At Buckhorn rapids, 7 miles from Burleigh rapids, there is a canal about one-fourth of a mile long.

At Bobcaygeon, 15½ miles from Buckhorn rapids, a dam, 553 feet long, controls the water level to Fenelon falls.

At Fenelon falls, 15 miles from Bobcaygeon, a canal about one-third of a mile in length connects Sturgeon lake with Cameron lake.

The following is a list of the locks, with their dimensions:—

1	Lock at Rosedale (maintained by the Ontario government), 100' x 30' x 4' 6" to 6' 6" depth water on mitre sill.		
2	Locks at Fenelon	134' x 33' x 5' 0" to 7' 6" depth water on mitre sill.	
1	" Lindsay	134' x 33' x 5' 0" to 7' 6"	" "
1	" Bobcaygeon	134' x 33' x 5' 8" to 7' 0"	" "
1	" Buckhorn	134' x 33' x 5' 0" to 9' 0"	" "
1	" Lovesick	134' x 33' x 5' 0" to 9' 4"	" "
2	" Burleigh	134' x 33' x 6' 0" to 8' 0"	" "
1	" Young's point.	134' x 33' x 5' 0" to 14' 0"	" "
1	" Peterborough	134' x 33' x 5' 0" to 10' 0"	" "
1	" Hastings	134' x 33' x 7' 0" to 10' 6"	" "
1	" Chisholms	134' x 33' x 5' 0" to 8' 6"	" "

ST. PETER'S CANAL, CAPE BRETON.

Construction commenced.	1854
" completed.	1869
Enlargement begun.	1875
" completed.	1881
Length of canal.	About 2,400 feet.
Breadth at water line.	50 feet.
Lock.	One tidal lock, 4 pairs of gates.
Dimensions.	200 feet by 48 feet.
Depth of water on sills.	18 feet at lowest water.
Depth through canal.	19 "
Extreme rise and fall of tide in St. Peter's bay.	4 "

This canal connects St. Peter's bay on the northern side of Cape Breton, Nova Scotia, with the Bras d'Or lakes. It crosses an isthmus half a mile in width, and gives access from the Atlantic.

BEAUHARNOIS CANAL.

Construction begun.	1842
" completed.	1845
Length of canal.	12 statute miles.
Number of locks.	9
Dimensions of locks.	200 feet by 45 feet.
Total rise or lockage.	82½ "
Depth of water on sills.	9 "
Breadth of canal at bottom.	80 "
Breadth of canal at water surface.	120 "

As the new Soulanges canal is now opened for navigation, the Beauharnois canal is abandoned for navigation purposes.

EARLIER CANALS.

A system of three canals preceded the Beauharnois. These were:—

COTEAU DU LAC CANAL.

Construction commenced.	1779
" completed.	1780

SPLIT ROCK CANAL.

Construction commenced.	1779
" completed.	1780

CASCADE POINT CANAL.

Construction commenced.	1782
" completed.	1783

The locks were 20 x 6 feet, and provided for a draft of 2 feet. In 1814 the work of widening them to 12 feet was begun, and finished in 1817.

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Two canals were also constructed off Burlington Bay, Ontario. They were:—

BURLINGTON BAY CANAL.

Construction commenced..	1825
“ completed..	1832

DESJARDINS CANAL.

Construction commenced..	1826
“ completed..	1837

Neither of these canals required locks. They have for many years been abandoned. The depth of water provided in the first instance was $7\frac{1}{2}$ feet.

ST. LAWRENCE NAVIGATION—TABLE OF DISTANCES.

FROM STRAITS OF BELLE-ILE TO PORT ARTHUR, AT HEAD OF LAKE SUPERIOR
BY WATER.

From	To	Sections of Navigation.	Statute Miles.	
			Inter- mediate.	Total to Straits of Belle-Ile.
Straits of Belle-Ile	Cape Whittle	Gulf of St. Lawrence	240	240
Cape Whittle	West Point, Anticosti	"	201	441
West Point, Anticosti	Father Point	River St. Lawrence	202	643
Father Point	Rimouski	"	6	649
Rimouski	Bic.	"	12	661
Bic.	Isle Verte	"	39	700
Isle Verte (opp. Saguenay)	Quebec	"	126	826
Quebec	Three Rivers	" to tide-water	74	900
Three Rivers	Montreal	"	86	986
Montreal	Lachine	Lachine Canal	8½	994½
Lachine	Cascade Point	Lake St. Louis	16	1,009½
Cascade Point	Coteau Landing	Soulanges Canal	14	1,021
Coteau Landing	Cornwall	Lake St. Louis	30	1,053½
Cornwall	Dickinson's Landing	Cornwall Canal	11½	1,065½
Dickinson's Landing	Farran's Point	River St. Lawrence	5	1,070½
Farran's Point	Upper end of Croyle's Island	Farran's Point	¾	1,071
Upper end Croyle's Island	Williamsburg or Morrisburg	River St. Lawrence	10½	1,081½
Williamsburg	Rapide Plat	Rapide Plat Canal	4	1,085½
Rapide Plat	Point Iroquois Village	River St. Lawrence	4½	1,090
Point Iroquois Village	Upper end Presqui Ile	Point Iroquois Canal	3	1,093
Presqui-Ile	Point Cardinal, Edwardsburg	Junction Canal	2½	1,095½
Point Cardinal	Head of Galops Rapids	Galops Canal	2	1,097½
Galops Rapids	Prescott	River St. Lawrence	7½	1,105
Prescott	Kingston	"	59	1,164
Kingston	Port Dalhousie	Lake Ontario	170	1,334
Port Dalhousie	Port Colborne	Welland Canal	26½	1,360½
Port Colborne	Amherstburg	Lake Erie	232	1,592½
Amherstburg	Windsor	River Detroit	18	1,610½
Windsor	Foot of St. Mary's Island	Lake St. Clair	25	1,635½
Foot of St. Mary's Island	Sarnia	River St. Clair	33	1,668½
Sarnia	Foot of St. Joseph Island	Lake Huron	270	1,938½
Foot of St. Joseph Island	Foot of Sault Ste. Marie	River Ste. Marie	47	1,985½
Sault Ste. Marie	Head of Sault Ste. Marie	Sault Ste. Marie Canal	1	1,986½
Head of Sault Ste. Marie	Point aux Pins	River Ste. Marie	7	1,993½
Pointe aux Pins	Port Arthur	Lake Superior	266	2,259½
Port Arthur to Lake Shebandowan			45	
Lake Shebandowan to North-west Angle			312	
North-west Angle to Winnipeg			95	
Pointe aux Pins to Duluth			390	

Of the 2,259½ miles from the Straits of Belle-Ile to the head of Lake Superior, 73½ miles are artificial navigation, and 2,186½ open navigation.

Straits of Belle-Ile to Liverpool, 1,942 geographical or 2,234 statute miles.

The total fall from Lake Superior to tide-water is about 600 feet.

The steamboat voyage from Collingwood to Port Arthur is 532 miles.

" " Depot Harbour to Port Arthur is 510 miles; to Duluth is 644 miles; to Chicago 525 miles, and to Milwaukee, 442 miles.

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TABLE of distances of Stations between the cities of Ottawa and Kingston.

No. of Station.	Name of Station.	Distances from Ottawa.	Locks.		Dams.		Length of Artificial Canal at each Station in miles.	
			No.	Lift at Low water.	No.	Length.		Height.
			Miles.	Rise. Ft. In.	Feet.	Feet.		
1	Ottawa	0	8	82 0	3	230 1,320 1,616	13 33 14	4 00 0 13 0 13 1 50 0 50 0 05 0 33 0 13 0 06 0 25 0 13 1 25 0 06
2	Hartwell's	4½	2	22 0		100	28	
3	Hogsback	5½	2	18 6	1	320	60	
4	Black Rapids	9½	1	10 0	1	300	12	
5	Long Island	14½	3	27 0	3	850	68	
6	Burritt's	40½	1	10 6	1	240	14	
7	Nicholson	43½	2	15 2	1	500	9	
8	Clowes	44½	1	10 6	1	481	16	
9	Merrickville	46½	3	25 0	1	150	6	
10	Maitland	55	1	4 9	1	270	8	
11	Edmunds	59½	1	10 10	1	343	8	
12	Old Stys	60½	2	15 6	1	250	20	
13	Smith's Falls	61½	4	33 9	2	600	24	
14	First Rapids or Poonamalie	64	1	7 9	1	260	5	
15	Narrows	83½	1	4 0	1	600	9	
Total rise at low water				292 3				
				Fall.				
16	Isthmus	87½	1	4 0				1 25
17	Chaffey	92	1	12 6				0 13
18	Davis	94½	1	9 0	1	300	15	0 06
19	Jones' Falls	97½	4	60 0	1	300	60	0 25
20	Brewer's Upper Mills	108½	2	19 0	1	200	20	1 75
21	" Lower Mills	110	1	14 2	1	200	12	4 25
22	Kingston Mills	120½	4	46 8	1	6,042	14	0 25
23	Kingston	126½						
Total fall at low water				165 4				
Total			47		24	15,472		16 46

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