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DEPARTMENT OF RAILWAYS AND CANALS

# CANAL STATISTICS

FOR THE

SEASON OF NAVIGATION

1915 ✓

PRINTED BY ORDER OF PARLIAMENT



OTTAWA

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EXCELLENT MAJESTY

1916

Historical File Copy

# CANAL STATISTICS

OF THE CANALS OF THE STATE

1872

*To Field Marshal, His Royal Highness Prince Arthur William Patrick Albert,  
Duke of Connaught and of Strathearn, K.G., K.T., K.P., etc., etc., etc.,  
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, 1915.

All of which is respectfully submitted.

F. COCHRANE,

*Minister of Railways and Canals.*



To the Honourable 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, 1915.

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 18, 1916.

A. W. CAMPBELL, Esq., C.E.,  
Deputy Minister of Railways and Canals.

SIR,—I have the honour to submit herewith Canal Statistics for the year ended December 31, 1915.

Traffic through the Canals of Canada had a total volume of 15,198,803 tons, as compared with 37,023,237 tons, for the preceding year. The decrease amounted to 21,824,434 tons, or 58·9 per cent.

The following table gives in succinct form the record of canal traffic for 1915:—

	Tons.	Increase.	Decrease.
	Tons.	Tons.	Tons.
Sault Ste. Marie.....	7,750,957		19,848,227
Welland.....	3,061,012		799,957
St. Lawrence.....	3,409,467		982,026
Chambly.....	478,707	41,802	
St. Peter's.....	2,895		51,285
Murray.....	30,728		53,179
Ottawa.....	272,370		62,762
Rideau.....	120,781		30,958
Trent.....	49,904		17,811
St. Andrews.....	21,982		20,031
Total.....	15,198,803	41,802	21,866,236

It will be seen that 91·0 per cent of the decrease in 1915 occurred at Sault Ste. Marie. Of the decline of 19,848,227 tons at that gateway, 1,049,241 tons attached to Canadian traffic, and 18,798,986 tons to American traffic; or 5·1 in the former case and 94·9 in the latter. A study of the tables which will appear in other parts of these introductory observations, as well as in the body of this report, makes it clear that the decrease in both Canadian and American traffic was largely in the nature of a diversion to the American canal at Sault Ste. Marie. The cause of this diversion was the availability of a new lock on the American side, having a much larger capacity than the lock on the Canadian side. There are now three locks on the United States side of the St. Marys river, the last to be opened having a depth of 24·5 feet at extreme low water. There is but one lock on the Canadian side, with a minimum depth of 18·25 feet. The practicability of carrying a heavier load through the new American lock drew away nearly all the iron ore trade and a good deal of wheat from the Canadian canal.

The gross traffic through the canals since 1905 was as follows:—

1905.....	Tons. 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
1912.....	47,587,245
1913.....	52,053,913
1914.....	37,023,237
1915.....	15,198,803

The following table shows the total traffic for 1914 and 1915 by canals and by months:—

	Sault. Ste. Marie.	Welland.	St. Lawrence.	Chambly.	Ottawa.	Rideau.	St. Peters.	Murray.	Trent.	St. Andrews.	Total.
1914.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
April.....	437,182	77,805	33,947		2,081		494	2,865			554,605
May.....	3,939,578	569,900	655,929	33,517	60,860	27,823	6,785	5,726	4,277	2,930	5,307,123
June.....	4,653,580	581,388	673,678	74,959	73,030	30,090	6,724	15,945	10,069	16,194	6,136,657
July.....	4,749,845	618,038	764,625	74,834	62,902	28,537	6,017	11,540	11,160	13,335	6,339,831
August.....	4,799,387	583,441	681,136	84,919	54,515	24,210	3,565	11,370	13,004	5,833	6,261,380
September.....	4,669,372	593,822	635,327	80,400	36,475	16,944	3,490	18,071	13,684	2,361	6,099,946
October.....	3,355,305	537,729	626,996	58,830	31,137	16,633	10,605	8,315	13,574	1,360	4,660,484
November.....	815,235	270,337	311,281	29,448	14,132	7,502	12,034	8,575	1,927		1,470,471
December.....	179,700	28,500	8,574				4,466	1,500			222,740
Total.....	27,599,184	3,860,969	4,391,493	436,905	335,132	151,739	54,180	83,907	67,715	42,013	37,023,237
1915.											
April.....	115,684	170,343	97,090	7,724	4,472		728	2,200	109		398,350
May.....	318,488	450,178	523,260	65,675	38,195	21,367	1,988	1,925	4,359	1,370	1,426,805
June.....	371,484	441,911	507,289	79,571	32,989	24,171	179	4,194	10,450	423	1,472,670
July.....	552,410	396,012	459,515	84,897	56,265	19,371		3,962	13,554	1,625	1,587,611
August.....	748,770	427,962	508,199	74,627	37,512	10,810		4,076	8,045	9,020	1,829,021
September.....	1,390,240	425,272	457,765	69,096	49,886	15,291		4,685	5,082	7,400	2,424,717
October.....	2,271,098	425,636	522,425	60,412	40,503	19,501		6,982	6,128	2,144	3,354,829
November.....	1,634,451	268,961	311,480	36,705	12,548	10,270		1,704	2,126		2,278,245
December.....	348,332	54,737	22,444					1,000	42		426,555
Total.....	7,750,957	3,061,012	3,409,467	478,707	272,370	120,781	2,895	30,728	49,904	21,982	15,198,803



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Following is a summary of traffic, by months, during the past five years:—

	1911.	1912.	1913.	1914.	1915.
	Tons.	Tons.	Tons.	Tons.	Tons.
January.....	254	181	397	494	398,350
April.....	722,311	77,871	875,226	554,111	1,426,805
May.....	5,170,587	6,134,122	7,260,227	5,307,123	1,472,670
June.....	5,451,549	6,851,248	7,647,189	6,136,657	1,587,611
July.....	5,798,169	7,054,060	8,137,169	6,339,831	1,829,021
August.....	5,778,187	7,159,871	7,625,782	6,261,380	2,424,717
September.....	5,466,054	6,983,913	7,531,379	6,069,946	3,354,829
October.....	5,514,042	7,321,846	7,350,914	4,660,484	2,278,245
November.....	3,657,824	5,369,493	4,891,143	1,470,471	426,555
December.....	471,376	634,640	734,487	222,740	
Total.....	38,030,353	47,587,245	52,053,913	37,023,237	15,198,803

The following further summary gives the record of traffic, by canals, for 1910 and succeeding years:—

	1910.	1911.	1912.	1913.	1914.	1915.
Sault Ste. Marie.....	36,395,687	30,951,709	39,669,655	42,699,324	27,599,184	7,750,957
Welland.....	2,326,290	2,537,629	2,851,915	3,570,714	3,860,969	3,061,012
St. Lawrence.....	2,760,752	3,105,708	3,477,188	4,302,427	4,391,493	3,409,467
Chambly.....	660,299	599,829	618,415	555,602	436,905	478,707
St. Peters.....	85,951	75,298	74,809	71,514	54,180	2,895
Murray.....	177,941	163,457	170,081	180,576	83,907	30,728
Ottawa.....	385,261	320,071	392,350	365,438	335,132	272,370
Rideau.....	134,881	172,227	160,133	171,223	151,739	120,781
Trent.....	46,263	57,290	77,150	55,800	67,715	49,904
St. Andrews.....	8,283	47,135	95,549	81,295	42,013	21,982

Eliminating all duplications, the net tonnage for 1915 is shown in the following table:—

Canals.	Canadian.	United States.	Net Tonnage.	Gross Tonnage
	Tons.	Tons.	Tons.	
Sault Ste. Marie.....	2,446,055	5,184,427	7,630,482	7,750,957
Welland.....	847,190	1,623,268	2,470,458	3,061,012
St. Lawrence.....	942,078	405,828	1,347,906	3,409,467
Chambly.....	262,752	186,516	449,268	478,707
Ottawa.....	210,375		210,375	272,370
Rideau.....	120,781		120,781	120,781
St. Peters.....	2,895		2,895	2,895
Trent.....	49,904		49,904	49,904
Murray.....	27,942	2,786	30,728	30,728
St. Andrews.....	21,982		21,982	21,982
Total.....	4,931,954	7,402,825	12,334,779	15,198,803

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The traffic of 1915 and 1914 is analyzed by classes of commodities in the following tabular statement:—

Canals.	Agricultural Products.	Animal Products.	Manufactures.	Products of Forest.	Products of Mines.	Total.
1915.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sault Ste. Marie.....	2,655,789	655	441,293	89,218	4,564,002	7,750,957
Welland.....	1,306,803	1	320,442	308,660	1,125,106	3,061,012
St. Lawrence.....	1,204,523	4,685	276,713	601,255	1,322,291	3,409,467
Chambly.....	7,163	784	21,605	280,117	169,038	478,707
St. Peters.....	381	10	322	179	2,003	2,895
Murray.....	153	271	6,523		23,781	30,728
Ottawa.....	4,202	2,889	16,089	155,669	93,521	272,370
Rideau.....	1,521	1,690	10,186	10,211	97,173	120,781
Trent.....	1,990	299	2,751	44,575	289	49,904
St. Andrew's.....		5	187	4,894	16,896	21,982
Total.....	5,182,525	11,289	1,096,111	1,494,778	7,414,100	15,198,803
1914.						
Sault Ste. Marie.....	3,799,337	217	487,789	40,956	23,270,885	27,599,184
Welland.....	2,116,378	275	361,174	360,434	1,022,708	3,860,969
St. Lawrence.....	2,020,035	6,905	297,269	668,775	1,398,509	4,391,493
Chambly.....	9,248	211	11,111	293,242	123,093	436,905
St. Peters.....	11,845	1,543	4,117	3,126	33,519	54,180
Murray.....	149		21,605	430	61,723	83,907
Ottawa.....	3,032	3,183	18,663	171,440	138,814	335,132
Rideau.....	2,027	3,010	13,466	15,041	118,195	151,739
Trent.....	795	336	3,043	62,473	1,068	67,715
St. Andrews.....	22	1	288	6,050	35,652	42,013
Total.....	7,962,868	15,681	1,218,525	1,621,967	26,204,196	37,023,237
					Decrease. Tons.	Decrease. Per cent.
Sault Ste. Marie.....					19,848,227	91.0
Welland.....					799,957	3.8
St. Lawrence.....					982,026	4.5
Chambly.....					41,802	
St. Peters.....					51,285	2.3
Murray.....					53,179	2.4
Ottawa.....					62,762	2.9
Rideau.....					30,958	1.4
Trent.....					17,811	.8
St. Andrews.....					20,031	.9
Net decrease.....					21,824,434	

The following statement shows the tonnage of commodities by classes moved through all the canals in 1915:—

	Tons.
Agricultural products.....	5,182,525
Animal products.....	11,289
Manufactures.....	1,096,111
Products of the forest.....	1,494,778
Products of the mine.....	7,414,100
Total.....	15,198,803

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Following were the percentages attaching to each commodity class in 1915 and five preceding years:—

	1910.	1911.	1912.	1913.	1914.	1915.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Agricultural products.....	10.2	14.2	14.51	16.40	21.51	34.11
Animal products.....	1.2	.1	.04	.04	.04	.07
Manufactures.....	5.2	6.2	4.68	3.61	3.29	7.21
Products of forests.....	3.9	4.0	3.43	3.22	4.38	9.83
Products of mines.....	79.5	75.5	77.34	76.73	70.78	48.78

The rise in the ratio of agricultural products and the decline in products of the mines are striking features of the traffic situation in 1915.

## CANADIAN AND AMERICAN TRAFFIC.

The canals of Canada and the United States being free of tolls, or restrictions of any character, there is absolute reciprocity in the use made of them by the vessels of each nation.

The following table shows the number and tonnage of Canadian and American vessels, and also the tonnage of Canadian and American traffic, which passed through the canals of Canada in 1908 and succeeding years:—

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	12,190,673	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
1912.....	27,371	10,237,335	11,785	24,636,190	9,376,529	38,210,716	47,587,245
1913.....	28,654	12,078,041	10,739	24,238,788	11,130,875	40,923,038	52,053,913
1914.....	26,125	12,050,856	7,742	15,636,414	9,382,206	27,641,031	37,023,237
1915.....	21,575	9,398,207	6,415	7,335,101	6,789,423	8,409,380	15,198,803

Reducing the foregoing figures with respect to freight tonnage to a percentage basis, the result is as follows:—

Year.	Canadian Per Cent.	American Per Cent.
1908.....	28.7	71.3
1909.....	21.8	78.2
1910.....	18.3	81.7
1911.....	20.5	79.5
1912.....	19.7	80.3
1913.....	21.3	78.7
1914.....	25.3	74.7
1915.....	44.7	55.3

It will be observed that, while there was an actual decrease in the volume of Canadian traffic which passed through the canals of Canada in 1915, the ratio of that traffic to the total was materially raised. This was due to the still larger decrease in American tonnage which sought Canadian channels.

It must be distinctly borne in mind, however, that all the freight tonnage of Canada did not pass through Canadian canals. Some of it has always been moved through the American canal at Sault Ste. Marie, and in 1915 the volume thus diverted was larger than in any year since the Canadian lock at that point was opened in 1895. The volume of traffic thus transported in 1915 was 1,802,269 tons. Adding this tonnage to the net Canadian tonnage indicated in a preceding paragraph, a final aggregate of 6,734,223 tons is had. The total net Canadian business of 1915 was therefore 144,183 tons greater than for 1914. Summarized for two years the facts are as follows:—

	Net Canadian Tonnage.
1914.....	6,590,040
1915.....	6,734,223

Dealing now with gross Canadian and American tonnage through all the canals of Canada, the following statement gives the facts:—

Canals.	Total Traffic.	Canadian Tons.	Per Cent.	American Tons.	Per Cent.
Sault Ste. Marie.....	7,750,957	2,561,734	33.0	5,189,223	67.0
Welland.....	3,061,012	1,426,256	46.6	1,634,756	53.4
St. Lawrence.....	3,409,467	2,024,755	59.3	1,384,712	40.7
Chambly.....	478,707	292,191	61.0	186,516	39.0
St. Peters.....	2,895	2,895	100.0		
Murray.....	30,728	27,942	90.9	2,786	9.1
Ottawa.....	272,370	267,406	98.1	4,964	1.9
Rideau.....	120,784	114,358	94.7	6,423	5.3
Trent.....	49,904	49,904	100.0		
St. Andrews.....	21,982	21,982	100.0		
	15,198,803	6,789,423	44.67	8,409,380	55.33

These figures, as has already been made clear, include duplication. A through cargo from Port William-Port Arthur to Montreal, for example, would be recorded three times—first, at the Soo, next at the Welland, and finally at the St. Lawrence group. There were, however, in 1915 fewer through cargoes than usual. The pressure of traffic during the autumn months was so great that more traffic than in normal years was carried to Georgian Bay ports and to Port Colborne. In the latter case, steamers merely transferred their loads to either smaller vessels or to the railways. With a larger volume of traffic available at the head of the Great Lakes, the total eastward movement fell 482,567 tons below the record for 1914, or from 3,067,497 to 2,584,930 tons.

Sault Ste. Marie is the chief gateway of waterborne commerce on the Great Lakes and the St. Lawrence river, and what takes place at that point has a

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special bearing on the traffic situation as a whole. The Canadian canal at that point was opened in 1895, and since that year the record of traffic is as follows:—

Canadian Canal Year.	Total Traffic.	Canadian Traffic.	Per cent Canadian.	American Traffic.	Per cent American.
1896	4,557,399	321,770	7.0	4,255,629	93.0
1897	4,947,063	337,146	6.8	4,609,737	93.2
1898	3,055,287	146,539	4.8	2,908,748	95.2
1899	3,006,664	299,975	9.9	2,706,629	90.1
1900	2,035,677	255,264	12.5	1,880,413	87.5
1901	2,820,394	494,613	17.5	2,325,781	82.5
1902	4,729,268	1,140,623	24.1	3,588,645	75.9
1903	5,511,868	1,362,820	24.7	4,149,048	75.3
1904	5,039,705	1,212,145	24.1	3,818,360	75.9
1905	5,473,406	1,304,355	23.8	4,169,051	76.2
1906	6,574,046	1,632,683	24.8	4,941,363	75.2
1907	15,588,165	1,957,334	12.5	13,630,831	87.5
1908	12,759,216	2,113,160	16.5	10,646,056	83.5
1909	27,861,245	2,767,875	9.1	25,093,370	90.9
1910	36,395,687	2,941,229	8.1	33,454,458	91.9
1911	30,951,709	3,167,936	10.2	27,783,773	89.8
1912	39,669,655	3,808,157	9.6	35,861,498	90.4
1913	42,699,324	4,816,718	11.3	37,882,606	88.7
1914	27,599,184	3,609,747	13.1	23,989,437	86.9
1915	7,750,957	2,561,734	33.0	5,189,223	67.0

It will be observed that the Canadian percentage increased materially, while the American was correspondingly lowered. This was due much less to the larger volume of Canadian business than to the diversion of both Canadian and American tonnage to the new lock on the United States side of the St. Marys river.

The foregoing table will not, however, be understood in the absence of certain salient facts showing the character of American traffic through the Canadian canal at Sault Ste. Marie. Iron and copper ores have played a large part in that movement, and the following table has been prepared to show the situation in that regard:—

Year.	American Traffic through Canadian Canal.			Ore included in foregoing total.	Per cent of Ore.	Commodities other than Ore.	Per cent of other Commodities.
	Up.	Down.	Total.				
	Tons.	Tons.	Tons.	Tons.	Tons.		
1905	1,028,871	3,140,180	4,169,051	2,919,118	69.9	1,258,933	30.1
1906	1,367,796	3,573,567	4,941,363	2,929,366	59.3	1,011,997	40.7
1907	2,604,741	11,026,090	13,630,831	9,995,242	73.2	3,635,589	26.8
1908	2,419,709	8,226,347	10,646,056	7,362,351	69.1	3,283,705	30.9
1909	2,737,101	22,356,269	25,093,370	21,156,915	84.3	3,936,455	15.7
1910	4,004,538	29,449,920	33,454,458	28,440,952	85.0	5,013,506	15.0
1911	4,307,187	23,476,586	27,783,773	22,654,029	81.5	5,129,744	18.5
1912	3,133,638	32,727,860	35,861,498	31,134,251	87.0	4,727,247	13.0
1913	4,238,829	33,643,777	37,882,606	32,386,866	85.5	5,495,740	14.5
1914	2,398,944	21,737,678	24,136,622	20,817,953	86.2	3,318,669	13.8
1915	509,788	4,741,552	5,251,340	4,004,426	76.3	1,246,914	23.7

The foregoing total is slightly higher than the total shown in Table 7, owing to the fact that Canadian wheat shipped from Duluth in bond is unavoidably classified with American traffic.

Following is a comparison of eastbound Canadian and American traffic at Sault Ste. Marie, exclusive of ore:—

Year.	Canadian Eastbound exclusive of ore.	Per cent of total Eastbound	American Eastbound exclusive of ore.	Per cent of total Eastbound
1905	838,537	82.7	303,630	9.7
1906	1,112,742	92.8	721,320	20.2
1907	1,446,788	91.7	1,142,468	10.3
1908	1,585,540	92.3	986,614	11.9
1909	2,038,245	98.0	1,229,282	5.5
1910	2,132,620	100.0	962,062	3.3
1911	2,466,806	99.1	820,488	3.5
1912	3,019,998	99.8	1,576,646	4.8
1913	4,114,402	99.0	1,271,882	3.8
1914	2,985,114	97.1	919,725	4.2
1915	2,134,546	97.1	737,126	15.5

At the Welland canal ores disappear as a factor in traffic. The situation at that important gateway between the upper Great Lakes and the St. Lawrence is summarized in the following statement:—

#### TRAFFIC THROUGH THE WELLAND CANAL.

Year.	Canadian— <i>Up.</i>	Per cent.	Canadian— <i>Down.</i>	Per cent.	United States— <i>Up.</i>	Per cent.	United States— <i>Down.</i>	Per cent.
	Tons.		Tons.		Tons.		Tons.	
1887	61,310	41.3	87,159	58.7	265,738	31.9	565,928	68.1
1891	25,260	25.8	72,522	74.2	264,952	30.2	612,279	69.8
1896	19,369	8.8	200,294	91.2	271,900	25.6	788,424	74.4
1897	12,091	6.3	179,998	93.7	212,108	19.6	870,095	80.4
1898	11,904	8.5	127,236	91.5	211,592	21.1	789,435	78.9
1899	17,464	10.2	153,174	89.8	135,038	21.8	484,094	78.2
1900	18,670	11.0	150,378	89.0	99,560	18.1	450,752	81.9
1901	22,804	10.2	200,693	89.8	83,601	21.1	313,111	78.9
1902	39,760	16.2	204,398	83.8	44,994	10.7	376,235	89.3
1903	116,143	34.6	220,152	65.4	153,947	23.1	512,677	76.9
1904	94,353	27.1	253,920	72.9	90,855	19.6	372,243	80.4
1905	104,490	24.6	319,944	75.4	127,569	19.1	540,047	80.9
1906	131,502	24.2	410,749	75.8	91,366	13.8	568,350	86.2
1907	202,051	29.6	479,292	70.4	188,113	20.1	744,676	79.9
1908	163,447	21.7	587,239	78.3	247,513	25.9	705,254	74.1
1909	382,041	37.5	635,187	62.5	260,048	25.7	748,675	74.3
1910	420,407	35.9	749,891	64.1	304,427	26.3	851,565	73.7
1911	508,865	38.0	828,085	62.0	334,054	27.8	866,625	72.2
1912	578,251	37.1	979,525	62.9	247,471	19.1	1,046,668	80.9
1913	641,402	32.4	1,338,274	67.6	363,701	22.9	1,227,337	77.1
1914	504,487	22.2	1,769,502	77.8	351,562	22.2	1,235,418	77.8
1915	422,996	27.6	1,108,332	72.4	333,464	21.8	1,196,220	78.2

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## TRANSPORTATION OF CANADIAN WHEAT.

The volume of Canadian wheat moved by water in 1915 was the largest in the history of the Dominion, although an unprecedented proportion passed through the American canal at Sault Ste. Marie. The cause of the diversion has already been stated. There was special urgency in connection with the shipment of wheat eastward, and the new American lock permitted vessels to carry heavier loads than did the Canadian lock. The choice of either the American or the Canadian canal at Sault Ste. Marie has for years turned upon the judgment of steamer captains at the moment when lockages were desired. This year, however, the deeper water in the American lock led, under the circumstances to which allusion has been made, to that channel being chosen for a majority of the steamers carrying Canadian wheat from the head of lake Superior.

Since 1895 the volume of Canadian wheat annually carried through the Canadian canal at Sault Ste. Marie has been as follows:—

	Bushels.
1895.....	1,087,800
1896.....	7,274,000
1897.....	9,130,167
1898.....	3,456,934
1899.....	7,699,267
1900.....	5,573,267
1901.....	5,893,034
1902.....	19,896,900
1903.....	25,807,800
1904.....	25,250,969
1905.....	22,603,500
1906.....	26,361,400
1907.....	34,602,000
1908.....	41,793,300
1909.....	48,047,833
1910.....	51,774,833
1911.....	63,641,000
1912.....	83,743,034
1913.....	101,066,133
1914.....	77,467,833
1915.....	48,727,911

The foregoing totals do not represent all the Canadian wheat moved eastward. Many millions of bushels have passed through the American canal each year. It should also be borne in mind that prior to 1909 Canadian wheat carried from Duluth in bond was classified as American wheat.

In 1915 there were 121,389,950 bushels of Canadian wheat transported through the American canal at Sault Ste. Marie. Added to the volume passed through the Canadian canal, a total of 170,117,861 bushels is had. A summary for 1914 and 1915 is as follows:—

	1914.	1915.
	Bushels.	Bushels.
Through the Canadian canal.....	77,467,833	48,727,911
Through the American canal.....	17,564,233	121,389,950
Total.....	95,032,066	170,117,861

A further calculation is necessary in order to account for all the Canadian wheat moved eastward in 1915. Some of it was brought down in the form of flour. There were, in fact, 1,776,230 barrels of Canadian flour moved through the Canadian canal and 438,868 barrels through the American canal, making a total of 2,215,098 barrels. At  $4\frac{1}{2}$  bushels to the barrel, the volume of flour would be equal to 9,967,941 bushels of wheat. The complete account for 1915 would therefore stand as follows:—

	Bushels.
Through the Canadian canal.....	48,727,911
Through the American canal.....	121,389,950
In the form of flour.....	9,967,941
Total.....	180,085,802

A summary of Canadian wheat carried through the Canadian and American canals at Sault Ste. Marie in 1912 and succeeding years is as follows:—

	Bushels.
1912.....	109,842,031
1913.....	141,726,899
1914.....	95,032,066
1915.....	170,117,861

During the year 1915 careful records were made of the distribution of Canadian waterborne wheat. For the three years beginning 1913 the movement through both the Canadian and American canals at Sault Ste. Marie was as follows:—

From	1913.	1914.	1915.
Port Arthur—Fort William.	Bushels.	Bushels.	Bushels.
To Montreal.....	11,950,433	9,624,600	3,512,410
“ Georgian Bay ports.....	24,448,134	21,086,566	25,065,999
“ other Canadian ports.....	28,045,733	33,132,733	33,067,613
“ Buffalo.....	67,701,900	24,974,767	106,784,542
Total.....	132,146,200	88,818,666	168,430,564

To account for all the Canadian wheat shipped eastward by water in 1915 there must be added the quantity passed through Duluth in bond. The complete statement would therefore be as follows:—

From	1913.	Per cent.	1914.	Per cent.	1915.	Per cent.
Port Arthur—Fort William and Duluth.	Bushels.		Bushels.		Bushels.	
To Montreal.....	15,186,632	10·7	10,283,166	10·8	4,025,010	2·4
“ Georgian Bay ports.....	26,054,001	18·4	24,864,466	26·2	25,315,999	14·9
“ other Canadian ports.....	28,973,333	20·5	34,350,700	36·2	33,067,613	19·4
“ Buffalo.....	71,522,933	50·4	25,533,734	26·8	107,709,239	63·3
Total.....	141,726,899		95,032,066		170,117,861	



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It will be seen that wide fluctuations have taken place during the past two years in the distribution of Canadian waterborne wheat. The proportion diverted from all Canadian channels to Buffalo in 1915 was the highest of any year since the facts were available.

"Other Canadian ports" in the foregoing and succeeding statements must be understood as being ports between Georgian bay and lake Ontario. For more than ninety per cent of the traffic the term means Port Colborne, which is the chief port of transfer at the eastern end of lake Erie and the western entrance to the Welland canal.

Following is a summary of the volume moved in 1909 and succeeding years through both canals at Sault Ste. Marie:—

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	.....	.....
Unclassified .....	.....	.....	.....
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

  

Canadian Wheat.	1912.	1913.	1914.	1915.
	Bushels.	Bushels.	Bushels.	Bushels.
Fort William to Montreal .....	14,929,099	11,950,433	9,624,600	3,512,410
"    "    Georgian bay .....	19,501,168	24,448,134	21,086,566	25,063,999
"    "    other Canadian ports .....	20,458,700	28,045,733	33,132,733	23,067,613
"    "    Buffalo .....	44,228,266	67,701,900	24,974,767	106,784,542
Duluth to Montreal .....	283,500	3,236,199	658,566	512,600
"    Buffalo .....	5,714,367	3,811,033	3,777,900	250,000
"    Georgian bay .....	1,418,767	1,605,867	1,217,967	.....
"    other Canadian ports .....	230,000	927,600	558,967	924,697
Unclassified .....	3,078,164	.....	.....	.....
Total .....	109,842,031	141,726,899	95,032,066	170,117,861

During the past three years a careful record has been made of the movement of Canadian wheat through both the Canadian and American canal at Sault Ste. Marie, by months. The information thus given has considerable value. The facts for 1913, 1914 and 1915 follow:—

Canadian and American Canals.	April.	May.	June.	July.	August.
1913.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Fort William and Port Arthur to—					
Montreal.....	634,600	2,218,900	1,845,667	1,407,733	1,097,900
Georgian bay.....	2,425,263	2,941,136	1,132,833	1,169,965	532,576
Other Canadian ports.....	1,612,800	2,901,488	3,270,066	2,652,300	1,848,400
Buffalo.....	7,012,984	5,859,935	1,206,130	486,862	.....
Duluth and Superior to—					
Montreal.....	202,500	428,753	239,403	75,040	187,000
Georgian bay.....	330,000	86,066	.....	.....	.....
Other Canadian ports.....	.....	77,600	109,000	.....	.....
Buffalo.....	748,610	1,975,878	594,948	351,434	.....
Total.....	12,966,757	16,489,756	8,398,047	6,143,334	3,665,876

Canadian and American Canals.	September.	October.	November.	December.	Total.
1913.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Fort William and Port Arthur to—					
Montreal.....	1,584,500	2,034,867	1,052,900	73,367	11,950,434
Georgian bay.....	681,764	6,307,332	6,807,900	1,949,400	23,948,169
Other Canadian ports.....	2,547,040	6,869,233	4,580,900	1,763,500	28,045,727
Buffalo.....	4,147,427	19,381,496	19,706,857	10,089,410	67,891,101
Duluth and Superior to—					
Montreal.....	433,500	504,455	204,500	.....	2,275,151
Georgian bay.....	.....	61,000	185,000	.....	662,066
Other Canadian ports.....	204,000	.....	.....	.....	390,600
Buffalo.....	100,700	525,000	.....	.....	4,296,570
Total.....	9,608,931	35,683,383	32,538,057	13,875,677	139,459,818

Canadian and American Canals.	April.	May.	June.	July.	August.
1914.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Fort William to Montreal.....	1,175,000	2,074,733	1,329,067	1,235,334	474,933
“ “ Georgian bay.....	778,300	3,405,133	839,334	1,193,533	371,600
“ “ other Canadian ports.....	924,000	5,403,233	3,417,600	2,730,200	1,211,000
“ “ Buffalo.....	2,834,100	5,549,700	844,266	1,150,433	293,334
Duluth to Montreal.....	.....	78,000	.....	107,000	.....
“ Georgian bay.....	355,833	2,098,067	326,000	117,000	.....
“ other Canadian ports.....	.....	.....	744,000	128,100	48,866
“ Buffalo.....	.....	.....	41,567	393,400	.....
Total.....	6,067,233	18,608,866	7,541,834	7,055,000	2,399,733

Canadian and American Canals.	September.	October.	November.	December.	Total.
1914.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Fort William to Montreal.....	1,229,700	1,212,300	833,533	60,000	9,624,600
“ “ Georgian bay.....	1,335,567	2,891,500	7,642,100	2,629,500	21,086,567
“ “ other Canadian ports.....	6,407,866	8,855,000	3,218,200	965,634	33,132,733
“ “ Buffalo.....	2,780,467	4,983,600	4,810,367	1,728,500	24,974,767
Duluth to Montreal.....	353,000	71,500	49,066	.....	658,566
“ Georgian bay.....	881,000	.....	.....	.....	3,777,900
“ other Canadian ports.....	99,000	198,000	.....	.....	1,217,966
“ Buffalo.....	.....	48,200	46,300	29,500	558,967
Total.....	13,086,600	18,260,100	16,599,566	5,413,134	95,032,066

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Canadian Canal.	April.	May.	June.	July.	August.
1915.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Fort William—Port Arthur to—					
Montreal.....	964,450	229,422	176,000	363,200	300,000
Georgian bay.....	120,000	163,870	521,473	540,688	881,071
Other Canadian ports.....	428,000	1,561,371	1,017,500	394,000	634,000
Buffalo.....		340,000	188,200	317,830	
Duluth—Superior to—					
Montreal.....					
Georgian bay.....					
Other Canadian ports.....					
Buffalo.....					
Total.....	1,512,450	2,294,663	1,903,173	1,615,718	1,815,071
Canadian Canal.	September.	October.	November.	December.	Total.
1915.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Fort William—Port Arthur to—					
Montreal.....	399,138	550,700	37,000	30,000	3,049,910
Georgian bay.....	1,860,430	3,740,811	4,437,773	2,465,350	14,731,466
Other Canadian ports.....	2,446,724	3,657,940	3,883,500	2,487,500	16,510,535
Buffalo.....	992,594	5,390,272	4,744,604	1,695,500	13,669,000
Duluth—Superior to—					
Montreal.....					
Georgian bay.....	250,000				250,000
Other Canadian ports.....					
Buffalo.....	87,000	350,000	80,000		517,000
Total.....	6,035,886	13,689,723	13,182,877	6,678,350	48,727,911
American Canal.	April.	May.	June.	July.	August.
1915.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Fort William—Port Arthur to—					
Montreal.....	111,000	306,500		45,000	
Georgian bay.....	307,500	83,200	34,399	320,000	
Other Canadian ports.....	2,689,000	4,621,637	963,000	756,000	165,000
Buffalo.....	3,635,691	1,838,378	415,400	540,465	204,000
Duluth—Superior to—					
Montreal.....	47,000	145,000	75,300		
Georgian bay.....					
Other Canadian ports.....					
Buffalo.....					
Total.....	6,790,191	6,994,715	1,488,099	1,661,465	369,000
American Canal.	September.	October.	November.	December.	Total.
1915.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Fort William—Port Arthur to—					
Montreal.....					462,500
Georgian bay.....	574,941	4,222,493	3,581,000	1,211,000	10,334,533
Other Canadian ports.....	1,280,000	2,926,196	1,976,000	1,180,245	16,557,078
Buffalo.....	4,314,446	25,717,061	31,685,181	24,764,920	93,115,542
Duluth—Superior to—					
Montreal.....		98,500	146,800		512,600
Georgian bay.....					
Other Canadian ports.....					
Buffalo.....	154,500		41,000	212,197	407,697
Total.....	6,323,887	32,964,250	37,429,981	27,368,362	121,389,950

Canadian and American Canals.	April.	May.	June.	July.	August.
1915.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Fort William—Port Arthur to—					
Montreal.....	1,075,450	535,922	176,000	408,200	300,000
Georgian bay.....	427,500	247,070	555,872	860,688	881,071
Other Canadian ports.....	3,117,000	6,183,008	1,980,500	1,150,000	799,000
Buffalo.....	3,635,691	2,178,378	603,600	858,295	204,000
Duluth—Superior to—					
Montreal.....	47,000	145,000	75,300		
Georgian bay.....					
Other Canadian ports.....					
Buffalo.....					
Total.....	8,302,641	9,289,378	3,391,272	3,277,183	2,184,071

  

Canadian and American Canals.	September.	October.	November.	December.	Total.
1915.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Fort William—Port Arthur to—					
Montreal.....	399,138	550,700	37,000	30,000	3,512,410
Georgian bay.....	2,435,371	7,963,304	8,018,773	3,676,350	25,065,909
Other Canadian ports.....	3,726,724	6,584,136	5,859,500	3,667,745	33,067,613
Buffalo.....	5,307,040	31,107,333	36,429,785	26,460,420	106,784,542
Duluth—Superior to—					
Montreal.....		98,500	146,800		512,600
Georgian bay.....	250,000				250,000
Other Canadian ports.....					
Buffalo.....	241,500	350,000	121,000	212,197	924,697
Total.....	12,359,773	46,653,973	50,812,858	34,046,712	170,117,861

There was a very large volume of wheat moving during the year 1915 from Port Colborne to Montreal, which might properly be added to the foregoing total for Fort William—Port Arthur to Montreal. Port Colborne was used as a port of transfer. It might, in fact, be assumed that nearly all of the 33,067,613 moved from the head of the Great Lakes to "other Canadian ports" actually went to Montreal.

A helpful light is thrown on the foregoing table when the monthly totals are reduced to a percentage basis, as follows:—

April.....	4.8	September.....	7.3
May.....	5.5	October.....	27.5
June.....	2.0	November.....	29.7
July.....	1.9	December.....	20.0
August.....	1.3		

It will be observed that 77.2 per cent of the whole volume was moved during the months of October, November and December. As indicative of the pressure at the very close of navigation, it is significant that 20 per cent was shipped in December. The last cargo passed eastward on the 16th of that month. In 1914 the proportion of shipments in the last three months of the year was 42 per cent.

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## FREIGHT RATES BY WATER.

It was not deemed expedient to depart from the scheme which had been in use for several years past for the studying of freight rates by water. That scheme limited the enquiry to Canadian wheat, as to which definite and more or less complete information was available. Ship owners have responded quite cheerfully to the enquiries addressed to them from day to day, and in this way a satisfactory record has been established. Every cargo of wheat moved during the season was accounted for in the schedules of the Department.

The facts disclosed by this official inquiry are of considerable value. They show that the season of 1915 developed abnormal freight rates on waterborne wheat. The comparisons which follow will make that clear. The study of the average rates by months will be found to be particularly instructive, as demonstrating the effect of pressure in the face of a limited supply of vessels.

Figures showing the volume of wheat moved over the different routes will be found on preceding pages. We are immediately concerned in an analysis of the freight rates which applied to that volume. For 1915 and the two years preceding the facts are given below:—

	1913.	1914.	1915.
Port Arthur—Fort William to Montreal—			
Per ton per mile.....	.142 cent.	.124 cent.	.132 cent.
Per bushel.....	5.351 "	4.58 "	4.99 "
Per ton.....	\$1.78	\$1.52	\$1.66
Port Arthur—Fort William to Georgian Bay—			
Per ton per mile.....	.148 cent.	.095 cent.	.282 cent.
Per bushel.....	2.279 "	1.46 "	3.54 "
Per ton.....	76.00 "	48.61 "	\$1.18
Port Arthur—Fort William to other Canadian ports—			
Per ton per mile.....	.104 cent.	.065 cent.	.124 cent.
Per bushel.....	2.436 "	1.48 "	2.84 "
Per ton.....	81.21 "	49.29 "	94.80 "
Port Arthur—Fort William to Buffalo—			
Per ton per mile.....	.103cent.	.061 cent.	.159 cent.
Per bushel.....	2.430 "	1.63 "	3.97 "
Per ton.....	81.00 "	53.72 "	\$1.32
Port Arthur—Fort William to Kingston—			
Per ton per mile.....		.096 cent.	
Per bushel.....		3.08 "	
Per ton.....		\$1.00	
Port Colborne to Montreal—			
Per ton per mile.....			.288 cent.
Per bushel.....			3.25 "
Per ton.....			\$1.08

The advance in 1915, as compared with the two years preceding, applied to all the ports, with the single exception of Montreal. The increase in freight rates will be more clearly understood in the light of data showing the rising

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scale after August. The facts for 1915 and the two preceding years are as follows:—

Port Arthur-Fort William to Montreal.	1913.			1914.		
	Per bushel.	Per ton.	Per ton per mile.	Per bushel.	Per ton.	Per ton per mile.
	Cents.	\$	Cents.	Cents.	\$	Cents.
April.....	6.015	2.04	.165	5.52	1.84	.149
May.....	5.525	1.84	.135	5.01	1.67	.136
June.....	4.682	1.54	.127	4.17	1.39	.113
July.....	4.080	1.60	.130	4.02	1.34	.107
August.....	5.440	1.68	.137	4.47	1.49	.121
September.....	5.282	1.76	.144	4.53	1.51	.123
October.....	6.313	2.10	.171	4.31	1.43	.116
November.....	6.341	2.11	.172	4.30	1.40	.114
Average.....	5.351	1.78	.142	4.58	1.52	.124

Port Arthur-Fort William to Montreal.	1915.		
	Per bushel.	Per ton.	Per ton per mile.
	Cents.	\$	Cents.
April.....	4.88	1.62	.132
May.....	3.94	1.31	.107
June.....	3.84	1.28	.104
July.....	3.58	1.19	.097
August.....	4.09	1.36	.111
September.....	5.49	1.83	.149
October.....	6.75	2.25	.183
November.....			
December.....			
Average.....	4.99	1.66	.132

Port Arthur-Fort William to Georgian Bay.	1913.			1914.		
	Per bushel.	Per ton.	Per ton per mile.	Per bushel.	Per ton.	Per ton per mile.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
April.....	2.42	80.63	.157	1.82	60.72	.118
May.....	2.16	71.85	.135	1.45	48.66	.095
June.....	2.18	73.93	.142	1.11	37.02	.070
July.....	1.59	52.73	.102	.90	30.20	.058
August.....	1.43	47.81	.092	1.04	35.12	.068
September.....	1.53	51.26	.100	1.23	41.23	.080
October.....	2.21	73.95	.146	1.26	42.26	.082
November.....	2.46	82.30	.160	1.35	45.01	.087
December.....	3.35	\$1.12	.220	2.20	73.37	.143
Average.....	2.28	76.03	.148	1.46	48.61	.095

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Port Arthur-Fort William to Georgian Bay.	1915.		
	Per bushel.	Per ton.	Per ton per mile.
	Cents.	Cents.	Cents.
April.....	1.61	53.81	.105
May.....	1.24	41.31	.080
June.....	1.16	38.69	.075
July.....	1.05	35.12	.068
August.....	1.18	38.70	.072
September.....	1.96	63.83	.124
October.....	3.39	\$1.13	.221
November.....	4.48	1.49	.291
December.....	4.99	1.66	.353
Average.....	3.54	\$1.18	.282

Port Arthur-Fort William and other Canadian ports.	1913.			1914.		
	Per bushel.	Per ton.	Per ton per mile.	Per bushel.	Per ton.	Per ton per mile.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
April.....	2.599	86.63	.127	1.75	58.46	.075
May.....	2.200	73.35	.091	1.60	53.43	.067
June.....	1.755	58.53	.072	1.41	47.19	.064
July.....	2.371	90.36	.122	1.35	45.12	.056
August.....	1.928	64.27	.082	1.05	35.30	.060
September.....	1.969	65.63	.083	1.34	44.90	.060
October.....	2.767	92.23	.166	1.40	49.51	.062
November.....	2.780	92.69	.116	1.52	50.75	.071
December.....	3.081	\$1.03	.146	2.24	72.22	.102
Average.....	2.436	84.25	.104	1.48	49.29	.....

Port Arthur-Fort William to other Canadian ports	1915.		
	Per bushel.	Per ton.	Per ton per mile.
	Cents.	Cents.	Cents.
April.....	1.56	51.91	.065
May.....	1.36	45.34	.057
June.....	1.21	40.37	.050
July.....	1.19	39.81	.048
August.....	1.27	42.29	.064
September.....	1.67	55.85	.073
October.....	3.01	\$1.00	.134
November.....	4.22	1.40	.191
December.....	5.51	1.83	.244
Total.....	2.84	94.80	.124

Port Arthur-Fort William to Buffalo.	1913.			1914.		
	Per bushel.	Per ton.	Per ton per mile.	Per bushel.	Per ton.	Per ton per mile.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
April.....	2.739	91.30	.108	2.79	91.94	.105
May.....	2.442	81.40	.094	1.26	42.21	.048
June.....	1.954	65.13	.076	1.41	36.10	.041
July.....	2.289	76.30	.118	.82	27.52	.031
August.....	1.969	65.63	.090	2.10	70.00	.081
September.....	1.739	57.97	.066	1.11	37.20	.043
October.....	2.876	95.86	.122	1.59	53.11	.061
November.....	2.998	99.97	.114	1.46	49.25	.057
December.....	3.296	\$1.09	.126	2.23	74.33	.086
Average.....	2.436	81.25	.104	1.63	53.72	.061

  

Port Arthur-Fort William to Buffalo.	1915.		
	Per bushel.	Per ton.	Per ton per mile.
	Cents.	Cents.	Cents.
April.....	1.49	49.63	.057
May.....	1.04	34.79	.040
June.....	1.08	36.20	.041
July.....	1.24	41.47	.048
August.....	2.25	75.00	.086
September.....	2.78	92.70	.107
October.....	4.04	\$1.35	.162
November.....	4.30	1.43	.172
December.....	4.53	1.51	.181
Average.....	3.97	\$1.32	.159

  

Port Colborne to Montreal.	1915.		
	Per bushel.	Per ton.	Per ton per mile.
	Cents.	Cents.	Cents.
April.....	2.90	96.79	.256
May.....	2.97	99.24	.263
June.....	2.90	96.50	.253
July.....	2.81	90.33	.253
August.....	2.92	97.47	.258
September.....	2.98	99.60	.264
October.....	3.77	\$1.25	.333
November.....	4.14	1.38	.366
December.....	4.00	1.34	.353
Average.....	3.25	\$1.08	.287



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The foregoing rates present several problems in transportation. For example, the distance between Fort William and Port Colborne is 337 miles, or 40 per cent, greater than to Port McNichol, on Georgian bay; yet there were times during the year when the rates per bushel to Port Colborne were lower than to Port McNichol. They were much lower for all months on the ton mile basis. It will also be noticed that the average rate to Georgian Bay ports in December was 375 per cent higher than the average for July. As a matter of fact, cargoes were moved over certain routes in December at nearly six times the rate which prevailed in the midsummer months.

There is an aspect of the broad matter of freight rates on wheat which should not be overlooked. The ship owners do not receive all of the freight charges. Out of the rate certain payments have to be made. These payments on cargoes from Fort William to Montreal were officially ascertained to be as follows:—

Clearing house at Fort William.....	.01 to .03 cent per bushel.
Trimmers at Fort William.....	.06 “ “
Elevation at Montreal.....	.30 “ “
Shovelling at Montreal.....	.20 “ “
Total.....	.59 cent per bushel.

To Port Colborne the average deductions would amount to .44 per bushel, to Buffalo .41, and to Georgian Bay ports .38.

## MOVEMENT OF OTHER GRAIN.

The volume of other Canadian grain moved eastward through the Canadian and American canals at Sault Ste. Marie in 1915 was lower than for the year 1914. A comparison is made in the following statement:—

	1914.	1915.
	Bushels.	Bushels.
Oats.....	26,240,701	26,798,488
Barley.....	5,284,350	4,496,509
Flax seed.....	7,175,977	2,068,582
Total.....	38,701,028	33,363,579

The decline in flax seed is striking, particularly when it is remembered that in 1914 the shipments amounted to 7,175,977 bushels, and in 1913 to 21,281,723 bushels.

6 GEORGE V, A. 1916

Since considerable interest attaches to the facts with regard to the distribution of Canadian oats, the following tabular statements for 1914 and 1915 will be helpful:—

Canadian Oats. Canadian and American Canals, 1914.	April.	May.	June.	July.	August.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Fort William to Montreal.....	1,204,353	1,967,647	1,679,588	418,647	687,353
“ Georgian bay.....	732,294	2,279,118	1,661,882	117,529	174,529
“ other Canadian ports.....		1,531,058	786,000	45,000	240,000
“ Buffalo.....	1,643,823	623,118	114,764		1,352
Duluth to Montreal.....			348,530		
“ Georgian bay.....			120,000		
“ other Canadian ports.....			365,588		
“ Buffalo.....				133,882	
Total.....	3,580,470	6,400,941	5,076,352	715,058	1,103,234
	Sept.	October.	Nov.	December.	Total.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Fort William to Montreal.....	715,647	1,641,050	544,235	30,000	8,888,529
“ Georgian bay.....	16,706	562,353	1,930,529	832,000	8,306,940
“ other Canadian ports.....	353,000	851,353	532,706	271,000	4,610,117
“ Buffalo.....	3,059	958,589	98,882	23,528	3,467,115
Duluth to Montreal.....					348,530
“ Georgian bay.....					120,000
“ other Canadian ports.....					365,588
“ Buffalo.....					133,882
Total.....	1,088,412	4,013,354	3,106,352	1,156,528	26,240,701

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Canadian Oats. Canadian and American Canals. 1915.		April.	May.	June.	July.	August.
		Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Fort William-Port Arthur to Montreal.....		643,348	753,795	342,528	164,000	120,000
“ “ Georgian bay.....			676,087	168,294	526,865	396,858
“ “ other Canadian ports.....		232,000	1,676,124	388,000	612,000	263,000
“ “ Buffalo.....				50,000		
Duluth-Superior to Montreal.....						
“ “ Georgian bay.....						
“ “ other Canadian ports.....						
“ “ Buffalo.....			1,750			
Total.....		875,348	3,107,756	948,822	1,302,865	779,858
		Sept.	October.	Nov.	December.	Total.
		Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Fort William-Port Arthur to Montreal.....		88,176	1,379,985	2,108,033	319,275	5,919,140
“ “ Georgian bay....		167,275	1,169,522	5,788,206	3,244,500	12,137,607
“ “ other Canadian ports.....			611,650	469,118	735,000	4,986,892
“ “ Buffalo.....			292,802	1,802,028	1,559,519	3,704,349
Duluth-Superior to Montreal.....						
“ “ Georgian bay.....						
“ “ other Canadian ports.....						
“ “ Buffalo.....		45,000	3,750			50,500
Total.....		300,451	3,457,709	10,167,385	5,858,294	26,798,488

## INSURANCE RATES.

Following are the facts with respect to marine insurance rates on the Great Lakes:—

	First Class.	Second Class.
To Lake Erie and Georgian Bay ports—		
April 15, a.m., to April 30, p.m.	\$ 0 45	\$ 0 60
May 1, a.m., to August 31, p.m.	0 30	0 40
September 1, a.m., to November 30, midnight	0 45	0 65
To Port Huron, Point Edward, Goderich, Sarnia and Detroit—		
April 1, a.m., to April 30, p.m.	0 40	0 55
May 1, a.m., to August 31, p.m.	0 25	0 35
September 1, a.m., to November 30, midnight	0 40	0 60
To Kingston and Lake Ontario ports, including Ogdensburg and Prescott—		
April 1, a.m., to April 30, p.m.	0 65	0 75
May 1, a.m., to August 31, p.m.	0 45	0 55
September 1, a.m., to November 30, midnight	0 60	1 00
To Montreal direct without Transhipment—		
April 20, a.m., to October 31, p.m.	0 60	1 10
November 1, a.m., to November 30, p.m.	0 70	1 25
To Montreal via Kingston, Prescott and Ogdensburg and Transhipped—		
If transhipped at Kingston, Ogdensburg, or Prescott, and forwarded thence to Montreal, approved standard barges, add 15 cents to Kingston, Ogdensburg and Prescott rate.		
From Lake Superior ports to Lake Michigan ports—		
Charge Lake Erie ports' rates.		
From Lake Michigan ports to Lake Michigan ports—		
Charge 50 per cent of Lake Erie ports' rates.		
From Port Colborne to Montreal—		
Sailing April 15, a.m., to August 31, midnight	0 30	0 40
For through rates add the rate to lake Erie to the above. If transhipped again at Kingston, tariff charges apply.		

The foregoing schedules apply to the year 1914. For 1915 the standard rate paid on steel hulls covering to the foot of lake Erie for a period of one year with a navigating season from April 15 at midnight to November 30 at midnight was  $3\frac{3}{4}$  per cent. The usual extra  $\frac{1}{2}$  per cent for the season was charged for navigation not east of Kingston, with a further  $\frac{1}{2}$  per cent for navigation not east of Montreal, while an additional  $\frac{1}{2}$  per cent was charged for navigation as far as Cape Breton. For an additional 1 per cent sailing was permitted in 1915 up to December 12.

STATEMENT of the Tonnage of Canadian and United States Vessels.

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 Trips.
	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	30,371	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	296,676	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	1,560,278	3,135,454	19,246
1892.....	1,517,249	1,460,505	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	1,502,906	3,048,904	19,027
1895.....	1,258,848	1,165,683	253,693	13,383	.....	.....	5,889	285,553	1,518,440	1,464,619	2,983,059	17,136
1896.....	1,547,757	1,420,342	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.....	1,704,661	1,609,255	215,393	4,927	499	518	6,805	255,927	1,927,358	1,870,627	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	24,420	5,506	202,276	309,567	2,791,177	2,735,144	5,526,321	25,498
1907.....	2,561,948	2,661,317	337,822	129,246	9,153	7,331	238,172	383,922	3,147,095	3,181,685	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	2,992,403	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	4,597,975	4,343,815	8,931,790	25,337
1911.....	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	25,585
1912.....	4,457,303	4,168,304	617,407	21,176	9,907	1,053	180,735	781,450	5,265,352	4,971,983	10,237,335	27,371
1913.....	4,964,635	4,827,587	898,249	67,031	3,531	5,231	348,477	963,300	6,214,892	5,863,149	12,078,041	28,654
1914.....	4,891,369	4,976,317	764,317	124,505	4,687	2,109	385,433	902,119	6,045,806	6,005,050	12,050,856	26,125
1915.....	3,809,004	3,662,531	730,617	213,887	11,508	7,232	166,428	797,000	4,717,557	4,680,650	9,398,207	21,575

## GENERAL STATISTICS.

The following tables of general statistics will afford further information with regard to the canals of Canada:—

## 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.	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	780,310	1,972,287	2,701,597
1889	384,777	1,156,306	122,295	198,497	267,224	300,193	81,243	603,311	855,529	2,253,367	3,113,896
1890	369,593	1,137,011	144,368	133,188	216,813	320,324	58,709	533,021	789,505	2,123,542	2,913,047
1891	370,120	1,155,247	103,814	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	2,242,208	3,031,736
1893	351,706	1,344,822	214,076	141,602	247,329	383,769	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	1,070,046	286,191	91,177	362,637	608,778	62,285	590,140	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	968,203	1,322,216	7,238,751	8,560,967
1898	263,980	1,819,887	187,253	98,967	829,568	2,425,121	81,615	912,135	1,362,365	5,256,110	6,618,475
1899	296,208	1,833,412	266,364	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	1,886,094	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	648,150	2,391,366	430,174	408,500	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	851,053	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	627,960	234,919	991,508	3,595,256	482,299	997,355	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	4,737,753	15,805,886	20,543,639
1908	1,028,246	3,292,422	960,736	278,721	1,704,310	8,218,866	972,300	1,447,219	4,265,592	13,237,228	17,502,820
1909	1,608,659	3,504,849	1,060,715	607,894	1,935,522	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	29,530,163	995,749	1,705,282	7,232,455	35,758,153	42,990,608
1911	2,370,516	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
1912	2,340,444	4,073,342	867,250	961,838	2,042,819	32,434,735	1,343,288	2,623,529	6,593,801	40,993,444	47,587,245
1913	2,212,928	6,286,637	967,712	1,478,263	2,694,527	33,630,484	1,906,947	2,876,415	7,782,114	44,271,799	52,053,913
1914	1,474,124	6,381,242	999,256	618,275	1,491,563	21,610,033	1,264,343	3,184,401	5,229,286	31,793,951	37,023,237
1915	1,073,014	4,300,658	938,860	643,331	505,574	4,848,152	344,110	2,545,104	2,861,558	12,337,245	15,198,803

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

STATEMENT of the Tonnage of Canadian and United States Vessels.

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 Trips.
	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	3,964
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	37,937	172,594	417,596	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	139,720	20,830	302,562	269,788	37,406	192,992	498,216	513,811	1,012,027	4,131
1895.....	8,838	24,768	139,554	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	18,367	269,430	17,618	338,938	277,345	26,341	347,698	649,375	661,028	1,310,403	4,675
1898.....	12,142	9,541	133,524	32,880	308,878	305,464	32,331	336,004	586,875	683,880	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	157,689	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	1,316,159	2,482,274	5,634
1902.....	13,622	37,871	187,826	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	30,993	1,464,316	1,475,085	68,081	305,697	1,818,240	1,837,665	3,655,905	6,253
1905.....	19,743	19,444	364,985	81,876	2,350,494	1,701,704	1,101,536	456,459	2,836,758	2,259,483	5,096,241	7,085
1906.....	34,306	15,324	356,259	78,561	2,738,623	1,928,131	115,675	418,436	3,244,863	2,440,452	5,685,315	7,319
1907.....	57,349	72,018	304,591	72,048	4,730,053	5,376,060	205,769	623,941	5,463,767	6,141,067	11,604,834	9,328
1908.....	54,587	32,705	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	200,202	4,178,378	10,429,614	213,750	621,903	5,098,196	11,361,126	16,459,329	9,996
1910.....	119,222	50,498	429,702	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
1912.....	50,296	15,518	763,426	470,330	5,778,534	16,011,911	614,311	931,864	7,206,567	17,429,623	24,636,190	11,785
1913.....	61,301	29,788	673,382	711,603	5,657,984	15,567,499	703,212	834,019	7,995,879	17,142,909	24,238,788	10,739
1914.....	39,246	31,535	563,517	373,829	3,292,736	10,259,835	868,800	806,916	4,164,299	11,472,115	15,636,414	7,742
1915.....	49,138	30,310	672,094	306,502	2,934,955	2,419,998	171,696	800,408	3,827,883	3,557,218	7,385,101	6,415

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

Years.	Canadian Vessels.		U.S. Vessels.		Total No.	Vessel Tonnage.	Freight Tonnage.			Loekages No.	Days Open. No.	Remarks.
	No.	Tonnage.	No.	Tonnage.			Canadian	United States.	Total.			
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	405,546	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	2,081	2,194,748			2,035,677	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	1,366,930	1,964	3,237,372	5,044	4,604,302			4,729,268	3,418	264	
1903.....	2,711	1,615,939	1,640	3,146,897	4,351	4,762,746			5,511,868	3,242	256	
1904.....	2,637	1,555,042	1,325	2,675,663	3,962	4,230,705			5,030,705	3,022	241	
1905.....	3,970	1,803,299	1,692	2,734,349	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	5,238	20,187,704	7,972	23,361,198	2,345,619	33,050,068	36,395,687	6,110	248	
1911.....	2,713	3,108,880	4,068	16,252,340	6,781	19,361,220	3,177,581	27,774,128	30,951,709	6,802	236	
1912.....	2,643	3,296,229	5,213	22,536,015	7,856	25,832,244	4,090,362	35,579,293	39,669,655	6,200	240	
1913.....	3,279	3,793,434	5,006	22,181,007	8,285	25,974,441	4,954,734	37,744,500	42,699,324	6,266	246	
1914.....	3,011	3,473,292	2,966	13,827,870	5,977	17,301,162	3,609,747	23,989,437	27,599,184	4,712	239	
1915.....	3,000	3,041,003	1,331	5,443,812	4,331	8,484,815	2,561,734	5,189,223	7,750,957	4,374	248	



## CAPITAL EXPENDITURE.

The following statement brings the capital expenditure on the canals of the Dominion down to March 31, 1915. 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 fire of the Ordnance Office, Montreal, in 1852. The details are as follows:—

Canal.	Capital.		
	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.....	637,056 76	94,639 76	731,696 52
Cornwall.....	1,945,624 73	5,300,679 48	7,246,304 21
Culbute.....	382,391 46		382,391 46
Lachine.....	2,589,532 85	11,387,717 10	13,977,249 95
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.....	4,084,323 37	83,130 84	4,167,454 21
Sault Ste. Marie.....	4,994,372 51		4,944,372 51
Soulanges.....	7,870,284 74		7,870,284 74
Ste. Anne's.....	134,456 51	1,035,759 12	1,170,215 63
Fleuve St. Lawrence and canals.....	18,442 85	3,451,470 56	3,469,913 41
St. Ours.....	121,537 65	5,690 91	127,228 56
St. Peter's.....	648,547 14		648,547 14
Tay.....	489,599 23		489,599 23
Trent.....	14,612,735 30		14,612,735 30
Welland.....	7,693,824 03	21,854,424 09	29,548,248 12
Welland Ship Canal.....	5,068,458 29		5,068,458 29
Williamsburg		877,090 57	
{ Farran's Point.....		6,121,213 70	
{ Galops.....		2,158,242 00	10,491,098 07
{ Rapide Plat.....		13,896 26	
{ Williamsburg.....	1,320,655 54		
St. Andrew's Loek.....	1,533,750 57		1,533,750 57
Total.....	57,094,284 14	56,877,076 53	113,971,360 67

The cost of maintenance for the fiscal year 1915 was \$1,644,176.26.

I have the honour to be, sir,

Your obedient servant,

J. L. PAYNE,

*Comptroller of Statistics.*



## CANAL STATISTICS

FOR

## SEASON OF NAVIGATION, 1915.

## GRAIN PASSED DOWN WELLAND.

The quantity of barley, corn, oats, peas, rye, and wheat passed down the Welland canal, from ports west of Port Colborne for a period of thirty-four 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	15,899	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.....	251,936	29,062	111,828
1904.....	198,246	23,711	102,523
1905.....	341,431	42,061	129,270
1906.....	304,935	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
1912.....	961,855	47,866	177,195
1913.....	1,265,368	63,806	122,069
1914.....	1,836,456	90,910	70,186
1915.....	1,120,027	33,200	109,810

During the last decade the quantity of agricultural products, as above passed down the Welland and St. Lawrence canals to Montreal has increased

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from 304,935 tons in 1906 to 1,120,027 in 1915, and the quantity passed down the Welland canal from United States ports to United States has decreased from 176,119 to 109,810 tons the same years.

The quantity of barley, buckwheat, corn, oats, peas, rye, and wheat, arrived at Montreal via Grand Trunk and Canadian Pacific railways for a period of 15 years, is reported as follows:—

Year.	Tons.
1901.....	227,700
1902.....	263,861
1903.....	253,959
1904.....	154,625
1905.....	148,377
1906.....	386,963
1907.....	383,735
1908.....	285,262
1909.....	426,163
1910.....	280,705
1911.....	241,134
1912.....	462,444
1913.....	268,388
1914.....	659,969
1915.....	558,043

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.
1901.....	203,316
1902.....	242,225
1903.....	400,057
1904.....	221,076
1905.....	375,630
1906.....	449,673
1907.....	634,697
1908.....	776,374
1909.....	652,742
1910.....	780,661
1911.....	836,924
1912.....	964,187
1913.....	1,265,376
1914.....	1,836,456
1915.....	1,120,027

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

#### QUANTITY OF GRAIN TO SEABOARD BY COMPETING ROUTES.

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

For 1914 .....	Tons.
1915 .....	1,836,456
	1,120,027
Showing a decrease of..... 716,429	

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

For 1914.....	Tons 689,969
1915.....	558,043
Showing a decrease of.....	131,926

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,

	Tons.
1901, 112 cargoes, with an aggregate quantity of.....	132,558
1902, 131 " " .....	175,514
1903, 170 " " .....	218,840
1904, 115 " " .....	174,121
1905, 167 " " .....	239,418
1906, 205 " " .....	344,605
1907, 255 " " .....	427,813
1908, 355 " " .....	508,941
1909, 308 " " .....	550,276
1910, 383 " " .....	679,358
1911, 421 " " .....	728,223
1912, 504 " " .....	796,858
1913, 687 " " .....	1,128,324
1914, 911 " " .....	1,004,236
1915, 693 " " .....	992,252

In United States vessels there were,

	Tons.
1901, 135 cargoes, with an aggregate quantity of.....	123,229
1902, 135 " " .....	136,652
1903, 219 " " .....	273,986
1904, 118 " " .....	150,359
1905, 235 " " .....	273,344
1906, 178 " " .....	269,800
1907, 263 " " .....	413,687
1908, 271 " " .....	330,514
1909, 174 " " .....	272,291
1910, 182 " " .....	295,714
1911, 173 " " .....	281,916
1912, 154 " " .....	330,058
1913, 253 " " .....	322,919
1914, 178 " " .....	219,462
1915, 157 " " .....	270,785

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, 3 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 934 tons, and 3 in 1891 of

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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.....			30,040	49,628	8,202

## WELLAND CANAL.

The total quantity of freight passed on the Welland canal during the season of 1915 was 3,061,012 tons; of this quantity 219,953 tons was way or local freight.

There were 2,304,552 tons of freight passed eastward, and 756,460 passed westward.

*East- and Westbound Through Freight.*

The total quantity of through freight passed through the whole length of the Welland canal during the season of 1915 was 2,841,059 tons.

Of this quantity 2,155,304 tons were eastbound and 685,755 westbound freight.

Of the eastbound through freight, Canadian vessels carried 1,656,390 tons and United States vessels carried 498,914 tons; and of the westbound through freight, Canadian vessels carried 259,625 tons and United States vessels carried 426,130 tons, or a total of 1,916,015 tons for Canadian, and 925,044 tons for American vessels.

## ST. LAWRENCE CANALS.

The total quantity of freight passed through these canals during 1915 was 3,409,467 tons; of this quantity, 2,584,930 tons passed eastward and 824,537 passed westward.

*East- and Westbound Through Freight.*

The total quantity of through freight was 2,865,062 tons; of this quantity 2,297,261 tons were eastbound and 567,801 tons were westbound.

*Way Freight.*

Of the total quantity of (way) or local freight, 287,669 tons were eastbound and 256,736 tons westbound freight.

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

The total quantity of through freight 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.
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.....	1,293,638	233,335
1912.....	1,559,963	236,979
1913.....	1,710,219	333,592
1914.....	2,052,900	360,645
1915.....	1,813,998	289,215

## 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.
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
1912.....	180,319	235,437	415,756
1913.....	204,597	320,736	525,333
1914.....	170,624	338,455	509,079
1915.....	156,167	329,449	485,616

The total quantity of freight passed through the Welland canal from United States ports to United States ports shows a decrease of 23,463 tons, as compared with the previous year; and an increase of 211,597 tons as compared with 1901.

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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 year 1867 to 1915, inclusive:—

Fiscal Year.	Aggregate Number of Trips.	Total quantity transported on the Welland Canal.	Quantity passed from United States ports to United States ports.
	Number.	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	748,557
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.....	2,883	1,016,165	233,957
1891.....	2,594	975,013	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	564,694
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
1912.....	2,905	2,851,915	415,756
1913.....	3,229	3,570,714	525,333
1914.....	3,692	3,860,969	509,079
1915.....	2,922	3,061,012	485,616



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The total quantity of freight passed through the several divisions of the Canadian canal system during the season of 1915 is as follows:—

	Farm Stock.	Forest Produce of Wood.	Manu- factures.	Products of Mines.	Agricultural Products.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sault Ste. Marie.....	655	89,218	441,293	4,564,002	2,655,789	7,750,957
Welland.....	1	308,660	320,442	1,125,106	1,306,803	3,061,012
St. Lawrence.....	4,685	601,255	276,713	1,322,291	1,204,523	3,409,467
Chambly.....	784	280,117	21,605	169,038	7,163	478,707
St. Peter's.....	10	179	322	2,003	381	2,895
Murray.....	271	.....	6,523	23,781	153	30,728
Ottawa.....	2,889	155,669	16,089	93,521	4,202	272,370
Rideau.....	1,690	10,211	10,186	97,173	1,521	120,781
Trent.....	299	44,575	2,751	289	1,990	49,904
St. Andrews.....	5	4,894	187	16,896	.....	21,982

The total quantity of freight moved on the Welland canal was 3,061,012 tons, of which 1,306,803 tons were agricultural products.

On the St. Lawrence canals the total quantity of freight moved was 3,409,467 tons, of which 1,204,523 were agricultural products, and 276,713 tons were manufactures.

On the Ottawa canals the total quantity of freight moved was 272,370 tons; of this quantity, 155,669 tons were the produce of the forest.

6 GEORGE V, A. 1916

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

1889.....	234 days.	1902.....	256 days.
1890.....	228 "	1903.....	249 "
1891.....	225 "	1904.....	223 "
1892.....	233 "	1905.....	245 "
1893.....	219 "	1906.....	249 "
1894.....	234 "	1907.....	233 "
1895.....	231 "	1908.....	231 "
1896.....	232 "	1909.....	236 "
1897.....	234 "	1910.....	224 "
1898.....	241 "	1911.....	237 "
1899.....	231 "	1912.....	237 "
1900.....	238 "	1913.....	245 "
1901.....	230 "	1914.....	242 "
		1915.....	248 "

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

1895.....	87 days.	1905.....	255 days.
1896.....	218 "	1906.....	253 "
1897.....	238 "	1907.....	238 "
1898.....	243 "	1908.....	235 "
1899.....	239 "	1909.....	240 "
1900.....	238 "	1910.....	248 "
1901.....	246 "	1911.....	236 "
1902.....	264 "	1912.....	240 "
1903.....	256 "	1913.....	246 "
1904.....	241 "	1914.....	239 "
		1915.....	248 "

The average number of vessels passing per day through the two canals for the season 1915 was 86.

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 1914 and 1915.

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CANAL STATISTICS

	Traffic for 1915.		Total Traffic for		Increase.	Decrease.
	United States Canal.	Canadian Canal.	Season of 1915.	Season of 1914.	Amount.	Amount.
Vessels.....	Passages.....	16,910	4,374	21,284	18,616	2,668
Lockages.....	Number.....	10,312	3,496	13,808	13,502	306
Tonnage, registered.....	Net tons.....	47,918,847	8,484,815	56,403,662	41,991,543	14,412,119
Tonnage, freight.....	".....	63,548,993	7,750,957	71,299,950	55,370,651	15,929,299
Passengers.....	Number.....	25,378	25,047	50,425	60,418	9,993
Coal, hard.....	Net tons.....	1,972,597	54,127	2,026,724	2,248,628	221,904
Coal, soft.....	".....	10,910,080	426,054	11,336,134	12,236,693	900,559
Flour.....	Barrels.....	5,716,109	2,754,040	8,470,149	9,717,353	1,247,204
Wheat.....	Bushels.....	192,053,141	63,428,467	255,481,608	150,257,781	105,223,827
Grain, including wheat.....	".....	39,864,401	24,911,588	64,775,989	68,209,544	3,433,555
Manufactured and pig iron.....	Net tons.....	182,141	109,648	291,789	112,660	179,129
Salt.....	Barrels.....	653,256	50,890	704,146	778,301	74,255
Copper.....	Net tons.....	136,105	20,331	156,436	91,764	64,672
Iron ore.....	".....	41,163,254	4,046,705	45,219,959	31,430,691	13,789,268
Lumber.....	Ft. B.M.....	410,535,000	27,621,000	438,156,000	459,615,200	21,459,200
Silver ore.....	Net tons.....					
Building stone.....	".....					
Unclassified freight.....	".....	1,175,677	385,346	1,561,023	1,259,386	301,637

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-five years, ended December 31, 1915.

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	1,200	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	.....	4,799	.....	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	164,563
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	.....	60,402	198,358	.....	297	.....	188,521	.....	188,818
1895.....	10,169	27,881	100,512	7,904	17,920	.....	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	14,248	145,787	.....	953	.....	46,024	.....	46,977
1901.....	7,165	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	40,006	.....	12,675	142,634	.....	214	.....	12,911	.....	13,125

\*Apples, most of all kinds, pears, 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-five years, ended December 31, 1915—*Concluded.*

Years.	Vegetable Food.								Heavy Goods.					
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	*Other	Total Articles.	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	4,175	13,568	165,725	459			113,072		113,535
1904.....	8,556	14,269	60,964	16,821	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	135,410	9,266	11,323		10,678	195,132		169		33,523		33,692
1907.....	18,898	21,892	124,474	2,812	4,741		22,001	194,820		30		110,347	4,050	114,420
1908.....	17,694	24,651	99,830	7,418	2,070		21,393	172,788				158,351	1,400	159,751
1909.....	15,452	17,940	100,967	4,224			22,683	161,268		5		131,131	1,531	132,667
1910.....	11,859	10,717	126,938	3,840			8,751	161,925				201,895		201,893
1911.....	2,852	4,950	116,705				7,565	132,072		1,863	26,303	233,942	4,483	256,491
1912.....	9,878	15,911	91,254	2,160	1,400		12,714	133,317		300	11,078	166,419	4,979	182,776
1913.....	11,967	20,258	114,662		7,407		8,685	162,979		505	18,387	237,230	5,202	261,324
1914.....	8,580	32,657	85,700		5,210		10,278	142,425			25,258	236,976	6,341	268,575
1915.....	4,124	22,310	89,269	690	457		5,152	122,022			15,705	235,929	17,972	269,606

\*Apples, meal all kinds, pease, potatoes.

A.—TABLE showing the total tonnage of the undermentioned articles moved Up  
December

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	109,196	19,870	2,810	2,439	2,355
1878	9,121	191,982	185,931	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	9,168
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	20,876
1891	13,517	198,658	185,180	8,113	52,959	64,888	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		13,183
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	271,093	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
1912	45,807	795,989	121,333	25,241	185,546	714	14,626
1913	45,710	1,005,362	144,354	96,889	199,794	6,867	10,640
1914	87,701	1,599,909	112,133	89,622	225,068	10,220	10,318
1915	15,117	955,181	121,086	26,231	169,046		5,999

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

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and Down, through the Welland canal, during a period of forty-five years, ended 31, 1915.

Total.	Railway Iron.	Other Iron.	Sugar and Salt.	Iron & 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	23,409	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	128,113	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	145,103	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	240,249
367,177	127	1,610	2,567	7,953	224,844	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	18,094	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
1,189,256		139,991	21,630		709,696	82,376	953,693
1,509,616		96,245	28,396		945,790	78,776	1,149,207
2,135,571		34,037	35,060		949,306	14,151	1,032,554
1,292,660		46,039	30,250		935,824	49,339	1,061,452

B.—TABLE showing the Total Way and Through Tonnage of the under-mentioned articles cleared downward on the Welland canal during a series of forty-five years, ended December 31, 1915.

## 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	488,931
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		1,417	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	549,058
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	67,757	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
1912	45,807	795,989	121,333	25,241	185,546	714	14,626	1,189,256
1913	45,710	1,005,362	144,354	96,889	199,794	6,867	10,640	1,509,616
1914	87,701	1,599,909	112,333	89,622	225,663	10,220	10,318	2,135,571
1915	15,087	946,004	121,086	26,231	168,876		5,999	1,283,283

\* Fiscal. † Apples, meal all kinds, 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 1904, 1909, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914 and 1915.

Articles.	Canadian Vessels.				United States Vessels.				Total.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail.	
	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		95,862				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				33,913
Coal.....		34,907				1,925		7,668		36,832
Miscellaneous merchandise.....		29,567				60,548				90,115
Shingles, woodenware, etc.....										
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
	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.....						1,171				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, etc.....				2,748,941		2,325				2,325
Sawed lumber..... Ft. B.M.		2,867,147				38,290,831		12,479,689		54,569,200
Square timber..... Cub. ft.		355,000		951,524						538,000
Firewood..... Cords				183,000		900				900
	328	238,690	121	65,355	305	310,622	43	15,758	797	631,425
1906.		Tons		Tons		Tons		Tons		Tons
Wheat.....		250,493		34,355		35,578				320,436
Corn.....		8,177				202,250		1,378		49,306
Barley.....		8,546		5,046		17,854				31,446
Oats.....		21,900		16,083		11,323				49,306
Pease.....						11				11
Rye.....				5		1,406				1,411
Coal.....		30,455		47,242		24,190		9,356		111,243
Iron ore.....		5,862								5,862
Merchandise.....		35,383		7,009		110,263		50		152,705
Shingles, woodenware, etc.....				37		851				904
Sawed lumber..... Ft. B.M.		3,471,514		235,624		25,711,196		10,789,755		40,188,089
Square timber..... Cub. ft.		375,000		200,000						575,000
Firewood..... Cords		110		18		1,093				1,221
Staves..... No.						300,000				300,000

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D.—STATEMENT showing the quantity of Through Freight passed down the Welland canal in Canadian and United States vessels, etc.—*Continued.*

Articles.	Canadian Vessels.				American Vessels.				Total.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	375	290,500	148	81,070	408	397,616	76	36,921	1007	816,116
1907.										
		Tons.		Tons.		Tons.		Tons.		Tons.
Wheat.....		294,298		50,808		130,818		4,429		480,303
Corn.....		6,713		514		259,895		4,571		271,693
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		14,493		143,555
Iron ore.....		12,040		8,950						20,990
Merchandise.....		21,545		9,436		5,231		6,235		42,447
Shingles, woodenware, etc.....						2,222				2,222
Sawed lumber..... Ft. B.M.						14,395,124		11,201,446		25,596,570
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	1180	835,553
1908.										
		Tons.		Tons.		Tons.		Tons.		Tons.
Wheat.....		505,151		39,001		183,011		3,498		730,751
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.....		33,733		42,656		57,448		8,334		148,181
Merchandise.....		26,815		14,783		14,410		13,686		69,694
Firewood..... Cords				70		1,173				1,243
Sawed lumber..... Ft. B.M.						17,572,070		6,578,545		24,150,615
Square timber..... Cub. ft.		221,300		313,000						534,300
	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.
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		14,732		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

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D.—STATEMENT showing the Quantity of Through Freight passed down the Welland canal in Canadian and United States vessels, etc.—Continued.

Articles.	Canadian Vessels.				American Vessels.				Total.
	Steam.		Sail.		Steam.		Sail.		Steam and Sail.
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.   Tonnage.
	596	599,416	142	88,963	249	285,704	14	13,563	1001   987,646
1910.									
		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.....		216,679		114,671		29,646		894	361,990
Merchandise.....		39,149		15,231		21,818		20,466	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		24,031			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.	
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.....		3,260		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	1,682,513
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.   Tonnage.
	774	790,044	152	95,202	450	427,226	52	33,102	1428   1,345,574
1912.									
		Tons.		Tons.		Tons.		Tons.	
Wheat.....		603,854		78,794		111,284			793,932
Corn.....		536		2,181		118,616			121,333
Barley.....		22,022		353		2,866			25,241
Oats.....		170,446		3,269		11,831			185,546
Pease.....						150			150
Rye.....						714			714
Coal.....		331,536		44,212		154,653		3,800	534,201
Merchandise.....		48,659		17,602		47,836		32,340	146,437
Sawed lumber.....						22,689		15,361	38,050
Square timber.....		9,000		8,660		1,409			19,069
Shingles.....						250			250
Unenumerated.....		73,387		1,186		69,367			143,940
Total.....		1,259,440		156,257		541,665		51,501	2,088,863

D.—STATEMENT showing the Quantity of Through Freight passed down the Welland canal in Canadian and United States vessels, etc.—*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.
	1043   1,081,973	148   104,194	375   386,284	28   18,908	1594   1,590,459
<b>1913.</b>					
	Tons.	Tons.	Tons.	Tons.	Tons.
Wheat.....	761,418	87,153	154,768		1,003,339
Corn.....	1,549		142,805		144,354
Barley.....	82,241	2,448	12,200		96,889
Oats.....	188,442	1,937	9,415		199,794
Pease.....					
Rye.....	3,136		3,731		6,867
Coal.....	498,269	59,145	107,946	1,735	667,095
Merchandise.....	59,375	18,701	28,825	21,008	127,909
Sawed timber.....	1,500		19,200	3,736	24,436
Square timber.....	4,636	4,004	1,040		9,680
Shingles.....					
Unenumerated.....	183,957	9,059	76,613	3,550	273,179
<b>Total.....</b>	<b>1,784,523</b>	<b>182,447</b>	<b>556,543</b>	<b>30,029</b>	<b>2,553,531</b>
	No.   Tonnage.	No.   Tonnage.	No.   Tonnage.	No.   Tonnage.	No.   Tonnage.
	1301   1,345,319	154   93,099	357   353,547	25   7,279	1837   1,799,244
<b>1914.</b>					
	Tons.	Tons.	Tons.	Tons.	Tons.
Wheat.....	1,268,410	101,833	189,666		1,559,909
Corn.....	4,973	1,422	105,738		112,133
Barley.....	80,488	4,423	4,711		89,622
Oats.....	210,795	3,699	10,982		225,476
Pease.....					
Rye.....	1,114		9,106		10,220
Coal.....	531,240	32,288	132,215	901	696,544
Merchandise.....	61,135	16,751	14,987		92,873
Sawed timber.....	450		17,285	1,670	19,405
Square timber.....	4,846		1,397		6,243
Shingles.....	175				175
Unenumerated.....	102,804		20,936	400	124,140
<b>Total.....</b>	<b>2,266,430</b>	<b>160,416</b>	<b>507,023</b>	<b>2,871</b>	<b>2,936,740</b>
	No.   Tonnage.	No.   Tonnage.	No.   Tonnage.	No.   Tonnage.	No.   Tonnage.
	856   885,441	161   105,309	285   310,071	7   2,133	1309   1,302,954
<b>1915.</b>					
	Tons.	Tons.	Tons.	Tons.	Tons.
Wheat.....	679,534	105,391	161,079		946,004
Corn.....	14,742	1,089	105,255		121,086
Barley.....	23,878	1,663	690		26,231
Oats.....	163,125	2,830	2,921		168,876
Pease.....			840		840
Rye.....					
Coal.....	465,649	51,975	160,162	1,490	679,276
Merchandise.....	97,085	18,105	37,862		153,052
Sawed lumber.....	2,543		17,565		20,108
Square timber.....	4,650		1,381		6,031
Shingles.....					
Unenumerated.....	22,972	1,159	8,499	1,170	33,800
<b>Total.....</b>	<b>1,474,178</b>	<b>182,212</b>	<b>496,254</b>	<b>2,660</b>	<b>2,155,304</b>

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## WELLAND CANAL THROUGH FREIGHT—RECAPITULATION.

## WELLAND CANAL—WESTBOUND FREIGHT.

The total quantity of Through Freight passed up the Welland canal in Canadian and United States vessels during the Season of Navigation in 1915 is as follows:—

Summary.	Tons.	Tons.
In Canadian steam vessels.....	257,548	
“ sail vessels.....	2,077	
Total quantity in Canadian vessels.....		259,625
In United States steam vessels.....	426,130	
“ sail vessels.....		
Total in United States vessels.....		426,130
Grand total freight passed up the Welland canal in Canadian and United States vessels.....		685,755

STATEMENT of the Quantity of Through Freight passing up and down the Welland canal during the Season of Navigation in 1915.

Summary.	Tons.	Tons.
In Canadian steam vessels up.....	257,548	
“ down.....	1,474,178	
Total in Canadian steam vessels.....		1,731,726
In Canadian sail vessels up.....	2,077	
“ down.....	182,212	
Total in Canadian sail vessels.....		184,289
Total quantity in Canadian vessels.....		1,916,015
In United States steam vessels up.....	426,130	
“ down.....	496,254	
Total in United States vessels.....		922,384
In United States sail vessels up.....		
“ down.....	2,660	
Total in United States sail vessels.....		2,660
Total quantity in United States vessels.....		925,044
Total in Canadian and United States vessels.....		2,841,059
	Down or East bound	Up or West bound.
In Canadian vessels.....	1,656,390	259,625
In United States vessels.....	498,914	426,130
Total.....	2,155,304	685,755

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 1903 to 1915.

Articles.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
Class 3.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Cement and water lime		35					5,652	484			270		
Clay, lime and sand			22										
Iron, railway		8,170	10										
" all other	2,542	1,651	384	269	124	553	12,689	7,154	1,901		93	430	2,575
Steel		16	48						34,540	28,996	5,402	150	9,880
Stone, for cutting													
Apples		1			9,936								
Barley	2,206	9,697	43,607	21,196	105,984	24,318	19,143	20,000	14,853	20,572	60,854	56,784	25,108
Corn	123,864	55,021	84,204	55,559		10,454	17,137	77,612	134,239	7,345	9,344	6,031	18,643
Flaxseed	3,643	212	15,694	80,570	49,159	27,500	19,634	6,607	11,696	15,413	117,548	4,285	10,317
Flour	16,151	24,662	14,574	9,174	3,730	5,028	21,905	27,081	44,588	38,026	34,152	60,723	10,295
Meal, all kinds	348	57	270	60		156			10,323	3,967			
Oats	2,438		21,404	37,164	66,941	28,081	65,624	129,900	147,180	164,581	72,733	97,361	151,075
Oil cake	462	7,846	9,229										
Pease	63						30		20	10			
Rye	4,260		1,711	1,405	2,266	6,662	120			714	4,567	9,385	
Salt	132	615	168	75		143	419			931	686	100	142
Seed, all kinds					20								
Hay, pressed													
Tobacco, raw													
Wheat	226,746	133,528	190,505	289,611	450,446	686,626	550,775	562,149	541,174	768,633	763,851	1,184,645	925,201
All other agricultural products, vegetables							5,876					308	1,500
Hides, skins, horns and hoofs		10		2									
Horses													
Lard and lard oil			2,847	4,810									
Meats, all kinds										41			
Pork						524							
Tallow	3		53										
All other agricultural products, animal		1					366						
Total, class 3	382,858	241,522	384,727	499,895	668,749	790,321	718,951	841,310	934,158	1,045,262	1,069,500	1,420,202	1,154,736

<i>Class 4.</i>													
Agricultural implem'ts	58	17											
Ashes	2	16											
Bricks						1,548							
Crockery			93										
Furniture	3	6		6				2		36			
Glass, all kinds	15	3	21	11	4								
Molasses	240		820										
Nails	19		64			3							
Oil	14,619	12,848	20,700	19,995	22,111	30,002	31,149	26,932	45,930	52,871	67,576	48,401	59,012
Paint	5												
Pitch and tar			53		101								
Rags	4												
Resin	20												
Soda ash			72	72	15								
Sugar			2,019				173	345	1,177	3,475	898	2,812	2,728
Tin		87	53										
Tobacco			204										
White lead													
Whisky, beer and other spirits	2	766	635	614	1,244	1,056	525	959	581	1,739	1,298	447	71
Merchandise not enumerated	582	713	851	466	2,294	2,126	10,418	9,224	11,254	13,601	4,270	719	3,210
Total, class	15,569	14,456	25,572	21,164	25,749	34,730	42,265	37,462	58,942	71,686	74,078	52,379	65,021
<i>Class 5.</i>													
Barrels, empty													
Hoops													
Sawed lumber			3,957	100					300			175	775
Staves, pipe and barrel		394		2,400									
Staves, West India and pipe													
Timber, sq., in vessels		1,544	1,260	1,500	4,180								
Timber, sq., in rafts							900	1,800	1,360	5,560	3,444	12,907	4,650
Woodenware													
Total, class 5		1,938	5,217	4,000	4,180		900	1,800	1,660	5,560	3,444	13,082	5,425
<i>Special Class.</i>													
Coal			29,351	29,172	70,489	42,075	175,115	289,567	298,873	424,988	563,197	567,237	579,474
Iron ore		17,362	3,837				1,824			12,467			9,342
Stones, all kinds						1,272							
Total, special class		17,362	33,188	29,172	70,489	43,367	176,939	289,567	298,873	437,455	563,197	567,237	588,816
Grand total	398,427	275,278	448,704	554,231	789,167	869,398	939,055	1,170,633	1,293,633	1,559,963	1,710,219	2,052,900	1,813,998

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 1903, 1904, 1905, 1906, 1907, 1909, 1910, 1911, 1912, 1913, 1914 and 1915.

Articles.	1903.	1904.	1905.	1906.	1907.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
<i>Class 3.</i>	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Bricks .....	80	115	132		556							
Brimstone .....	23	12										
Cement and water lime .....	3,924	39	181	88	13	400	17,565	8,625	40,074	36,890	18,000	10,168
Clay, lime and sand .....	181				100							
Cotton, raw .....	23											
Fish .....	8	4			39							
Gypsum .....												
Iron, railway .....	39,641	283	126	7,289	4,119							
“ pig .....	273		312	650	7,655	7,231	2,060	2,300	2,598	675	7,268	734
“ all other .....	5,845	3,782	3,633	8,235	6,987		540					
Salt .....	87	99	150	17								
Steel .....	332	58	192	111	2,561	35,153		22,352	66,544	49,692	10,602	9,080
Stone for cutting .....		41										
Flour .....			18									30
Hay .....					30	255						
Meals .....	17	25					1,113					
Oats .....												
Potatoes .....												
Seeds, all kinds .....	325	164	35	17								
Tobacco, raw .....	2											
Agricultural products, not enumerated, vegetable .....			127									
Hides and skins .....	6											
Horses .....												
Lard and lard oil .....			28	20	1							
Meats, other than pork .....	1	25			15							
Pork .....												
Wool .....								150	150	25	164	
All other articles not enumerated .....												
Total, class 3 .....	50,768	4,647	4,934	16,457	22,076	43,039	21,278	34,427	109,366	87,282	36,034	20,012



<i>Class 4.</i>												
Agricultural implements.....				5								
Ashes, pot and pearl.....	2											
Crockery and earthenware.....	32	291	155	294	456							
Dye woods, etc.....		2			2							
Furniture.....	1	5	2	1	35		90					20
Glass, all kinds.....	1,207	1,671	1,641	2,519	3,634							
Manilla.....		24	93	37	15							
Marble.....				35								
Molasses.....	6		1		50							
Nails.....	2,878	1,009	3,061	4,011	3,331							
Oil, in barrels.....	16	1,418	120	148	155	1	80	687	15	100		
Paint.....	158	202	367	412	295							
Pitch and tar.....	58	198	5	239								
Rags.....	29		15		50							
Resin.....	1				25							
Soda ash.....	264	387	28	310	37							
Stone, wrought.....			1		5							
Sugar.....	204	52	1,168	1,153	6,046	40	3,024		1,275	510	7,819	9,640
Tin.....	200	362	928	1,365	1,173							
Turpentine.....	1				1							
White lead.....	80	82	80	304	283							
Whiting.....	22	33	158	93	18							
Whisky, beer, etc.....	452	432	384	483	1,040	220	1,187	163	867	1,492	4,390	774
Merchandise not enumerated.....	3,674	6,200	15,360	11,707	16,498	21,359	15,129	12,090	12,353	17,878	49,969	50,063
<b>Total, class 4.....</b>	<b>9,294</b>	<b>13,379</b>	<b>23,566</b>	<b>23,116</b>	<b>33,049</b>	<b>21,620</b>	<b>19,510</b>	<b>12,920</b>	<b>14,509</b>	<b>19,980</b>	<b>62,178</b>	<b>60,497</b>
<i>Class 5.</i>												
Barrels, empty.....				54,006								
Firewood, in vessels.....	40,026	40,435	43,982	2,307	2,337							
Pulpwood.....					101,989	122,867	121,572	182,682	113,104	225,928	262,433	207,451
Lumber, sawn, in vessels.....						3,984		3,306		402		
Railway ties in vessels.....	611											1,135
Woodenware.....				5								
<b>Total, class 5.....</b>	<b>40,637</b>	<b>40,435</b>	<b>43,982</b>	<b>57,218</b>	<b>104,326</b>	<b>126,851</b>	<b>121,572</b>	<b>185,988</b>	<b>113,104</b>	<b>226,330</b>	<b>262,433</b>	<b>208,586</b>
<i>Special Class.</i>												
Coal.....		10,200										
Iron ore.....		2,861										120
<b>Total, special class.....</b>		<b>13,061</b>										<b>120</b>
<b>Grand total.....</b>	<b>100,699</b>	<b>71,512</b>	<b>72,482</b>	<b>96,791</b>	<b>159,451</b>	<b>191,510</b>	<b>172,360</b>	<b>233,335</b>	<b>236,729</b>	<b>333,592</b>	<b>360,645</b>	<b>289,215</b>

H.—STATEMENT showing the Quantity of Freight passed Eastward and Westward through the Welland canal from United States Ports to United States Ports, during the Seasons of Navigation from 1903 to 1915, inclusive.

Articles.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
<i>Class 3.</i>	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Bricks.....								2,000			11,060		
Cement and water lime.....									91				
Fish.....					20								
Iron, railway.....													
“ all other.....			1	27	30				1,863	300	505		
Salt.....											238		
Steel.....				2	509	9,086							
Stone for cutting.....													
Apples.....													690
Barley.....	11,433	16,621	9,197	9,266	2,812	7,148	4,224	3,840		2,160			
Corn.....	108,917	60,964	93,622	135,240	124,474	99,830	100,967	126,938	116,705	91,254	114,662	85,700	89,268
Flour.....	6,082	8,556	24,054	15,215	18,898	17,694		11,859	2,852	9,878	11,967	8,580	4,124
Hay, pressed.....			200										
Meal, all kinds.....	13,456	13,076	9,606	10,668	21,976	21,353		9,621	7,565	12,569	8,685	10,278	5,152
Marble.....			87										
Nails.....			1										
Oil cake.....	740	16,497	228		114								
Oats.....	6,112	3	10,892	11,323	4,741	2,070				1,400	7,407	5,219	457
Pease.....	22		76	11	25	40	63	123		150			
Potatoes.....													
Rye.....	4,174				2	2							
Flax seed.....	1,594			756			15,452						
Seeds, all kinds.....	27		43	3	17								
Tobacco.....													
Wheat.....	15,436	14,269	15,483	13,410	21,802	24,651	17,940	10,717	4,950	15,911	20,258	32,657	22,310
Agricultural products, vegetable.....	1			1	7		22,620		19	37			6
Hides and skins, etc.....						21	315	233					
Horses.....	2												
Lard and lard oil, etc.....				22	86								
Meats, other than pork.....													
Pork.....	152	379	273	268	429								
Sheep.....						190							
Tallow.....													
Wool.....	482	134	21	89	30		157	233	9				
Total, class 3.....	168,720	130,301	163,301	196,301	190,061	182,085	161,738	164,654	134,054	133,659	184,782	142,425	122,008

<i>Class 4.</i>												
Agricultural implem'ts	396	552	494		2	254						
Crockery and earthen-ware					5							
Furniture				1					2			
Marble												
Molasses												
Nails					3							
Oil, in barrel	2,000	1			8	15		8	45	2	1,119	83
Paint		17	42	1	1	1						
Rags	4		4									
Soda ash												
Stone, wrought												
Sugar		53	53	840	26,075		1,196		26,303	11,078	18,419	24,858
White lead			7		4							
Whiting					21							
Whisky, beer and all other spirits	3				30			122	230	137	109	236
Merchandise	2,010	1,554	2,008	2,324	41,621	1,839	5,866	67,860	64,059	67,481	70,255	79,649
Total, class 4	4,017	2,021	2,666	3,660	67,768	1,857	7,316	67,890	90,939	78,698	89,632	104,826
<i>Class 5.</i>												
Empty barrels			3	2	1							
Firewood, in vessels		717	2,700	3,609	1,980	3,509		1,531	2,046	2,394		
Lumber, sawn, in vessels	48,337	30,194	15,726	27,701	14,314	21,571	24,327	11,738	30,191	26,614	14,937	16,424
Masts and spars, in vessels												
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												
Woodenware, etc							125		723		437	1,381
							2,932	1,583	2,270	3,550	1,650	2,310
Total, class 5	48,337	31,717	20,751	32,865	18,516	25,558	27,384	14,877	32,237	32,001	18,487	18,511
<i>Special Class.</i>												
Coal		1,100	3,346	4,400	110,347		400	201,893	223,942	166,419	237,230	236,976
Stone, not suitable for cutting												5,864
Kryolite					2,734							
Iron ore					1,316			1,552	4,483	4,979	5,202	6,341
Total, special class		1,100	3,346	4,400	114,397		400	203,445	228,425	171,398	242,432	243,317
Grand total	221,074	165,337	190,547	237,226	396,743	209,518	193,838	450,776	485,355	415,756	525,333	509,079

L.—STATEMENT of the quantity of Grain Transhipped to the following Ports for the season of 1915.

Ports.	Wheat.	Oats.	Barley.	Corn.	Other grain.	Total.	Total.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Tons.
Kingston.....	1,073,500	2,864,648	9,042	96,857		4,044,047	83,832
Prescott.....	51,834	18,706				70,540	1,873
Ogdensburg....	97,200					97,200	2,916
Total bushels.	1,222,534	2,883,354	9,042	96,857		4,211,787	
Total tons...	36,676	49,017	217	2,712			88,621

M.—The quantity of Coal passed through the Welland canal during a series of years from 1885 to 1915 inclusive, is as follows:—

Years.	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.	
	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	223,443
1897.....		4	165,143		1,277	9,799	176,225
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		113,066		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	2,169	24,451	370,558	619,682
1912.....			163,461	2,978	12,034	531,243	709,696
1913.....			235,730	1,500	42,965	665,595	945,790
1914.....			236,966		13,107	699,223	949,306
1915.....		71	235,929		4,015	695,869	935,824

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N.—STATEMENT showing the quantity of Coal passed through the whole length of the St. Lawrence canals during the season of 1885 to 1915 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	175,699	176,099
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
1912.....	9,300	903,237	912,537
1913.....	3,500	1,225,288	1,228,788
1914.....	7,750	1,038,127	1,045,877
1915.....	7,644	1,025,821	1,033,465

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

## 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.
1904.	Tons.	Tons.	Tons.
Barley.....	9,697	853	16,621
Corn.....	55,021	3,950	57,473
Oats.....			16,497
Peas.....			
Rye.....			3
Wheat.....	*133,528	18,908	11,929
<b>Total, grain.....</b>	<b>198,246</b>	<b>23,711</b>	<b>102,523</b>
Other articles.....	77,031	80,092	138,475
<b>Total.....</b>	<b>375,277</b>	<b>103,803</b>	<b>240,988</b>
<b>1905.</b>			
Barley.....	43,607	2,628	9,197
Corn.....	84,204	3,095	93,622
Oats.....	21,404	3,776	10,892
Peas.....			76
Rye.....	1,711		
Wheat.....	190,505	32,562	15,483
<b>Total, grain.....</b>	<b>*341,431</b>	<b>42,061</b>	<b>129,270</b>
Other articles.....	107,273	123,225	104,747
<b>Total.....</b>	<b>448,704</b>	<b>165,286</b>	<b>234,017</b>
<b>1906.</b>			
Barley.....	21,196	984	9,266
Corn.....	55,559	15,688	140,558
Oats.....	37,164	819	11,323
Peas.....		11	
Rye.....	1,405	6	
Wheat.....	***289,611	15,843	14,972
<b>Total grain.....</b>	<b>404,935</b>	<b>33,351</b>	<b>176,119</b>
Other articles.....	118,224	176,277	59,884
<b>Total.....</b>	<b>523,159</b>	<b>209,628</b>	<b>236,003</b>
<b>1907.</b>			
Barley.....	9,936	492	2,812
Corn.....	106,299	31,901	133,493
Oats.....	67,063	1,565	4,741
Peas.....			25
Rye.....	2,266	2	2
Wheat.....	450,009	8,072	22,222
<b>Total grain.....</b>	<b>635,573</b>	<b>42,032</b>	<b>163,295</b>
Other articles.....	153,594	126,423	93,127
<b>Total.....</b>	<b>789,167</b>	<b>168,455</b>	<b>256,422</b>

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O.—STATEMENT showing the Quantity of Through Freight passed down the Welland canal, etc.—*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.
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
Peas.....			40
Rye.....	6,662	3	2
Wheat.....	1686,626	19,832	24,293
<b>Total grain.....</b>	<b>756,141</b>	<b>38,141</b>	<b>135,172</b>
Other articles.....	108,785	162,378	91,875
<b>Total.....</b>	<b>864,926</b>	<b>200,520</b>	<b>227,047</b>
1909.			
Barley.....	19,143		4,008
Corn.....	17,137	22,798	100,967
Oats.....	65,624	2,872	6,639
Peas.....	30		33
Rye.....	33		
Wheat.....	550,775	14,568	17,940
<b>Total grain.....</b>	<b>652,742</b>	<b>40,238</b>	<b>129,587</b>
Other articles.....	272,263	113,970	126,223
<b>Total.....</b>	<b>925,005</b>	<b>154,208</b>	<b>255,810</b>
1910.			
Barley.....	20,000		1,575
Corn.....	77,612	49,326	103,042
Oats.....	129,900	6,333	
Peas.....			128
Rye.....			
Wheat.....	562,149	7,998	10,717
<b>Total grain.....</b>	<b>789,661</b>	<b>63,657</b>	<b>115,457</b>
Other articles.....	380,500	152,325	55,683
<b>Total.....</b>	<b>1,170,161</b>	<b>215,982</b>	<b>171,140</b>
1911.			
Barley.....	14,331	291	
Corn.....	134,239	22,988	116,705
Oats.....	147,180	16,153	
Peas.....			
Rye.....		112	
Wheat.....	541,174	12,016	4,950
<b>Total grain.....</b>	<b>836,924</b>	<b>51,560</b>	<b>121,655</b>
Other articles.....	500,881	115,721	55,790
<b>Total.....</b>	<b>1,337,805</b>	<b>167,281</b>	<b>177,445</b>

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

RECAPITULATION—*Concluded.*

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.
1912.			
	Tons.	Tons.	Tons.
Barley.....	20,572	218	4,451
Corn.....	7,345	1,372	112,616
Oats.....	164,581	20,965	.....
Peas.....	10	12	128
Rye.....	714	.....	.....
Wheat.....	768,633	25,299	.....
Total grain.....	961,855	47,866	117,195
Other articles.....	598,108	214,395	69,444
Total.....	1,559,963	262,261	186,639
1913.			
Barley.....	91,856	5,033	.....
Corn.....	9,344	20,348	114,662
Oats.....	173,827	18,560	7,407
Peas.....	.....	.....	.....
Rye.....	4,567	2,300	.....
Wheat.....	983,774	17,565	.....
Total grain.....	1,265,368	63,806	122,069
Other articles.....	916,254	135,742	50,303
Total.....	2,181,622	199,548	172,372
1914.			
Barley.....	89,622	.....	.....
Corn.....	6,031	85,700	20,402
Oats.....	204,166	5,210	16,292
Peas.....	.....	.....	.....
Rye.....	9,385	.....	835
Wheat.....	1,527,252	.....	32,657
Total grain.....	1,836,456	90,910	70,186
Other articles.....	855,855	46,652	36,681
Total.....	2,692,311	137,562	106,867
1915.			
Barley.....	25,108	433	690
Corn.....	18,643	13,174	89,269
Oats.....	151,075	17,344	457
Peas.....	.....	840	.....
Rye.....	.....	.....	.....
Wheat.....	925,201	1,409	19,394
Total grain.....	1,120,027	33,200	109,810
Other articles.....	778,273	74,677	39,317
Total.....	1,898,300	107,877	149,127



TABLE 1.—Comparative Statement of Grand Total Freight passed through the undermentioned canals during the Seasons of Navigation 1914 and 1915.

	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.
1914.													
Sault Ste. Marie.....	379,703	2,490,510	10,174	582,175	1,153,050	21,438,985	1,245,894	298,693	2,788,821	24,810,363	27,599,184	3,609,747	23,989,437
Welland.....	225,532	1,769,052	278,955	450	338,455	170,624	13,107	1,064,794	856,049	3,004,920	3,860,969	2,013,619	1,847,350
St. Lawrence.....	571,331	1,725,196	413,149	91	58	424	1,416	1,679,828	985,954	3,405,539	4,391,493	2,738,649	1,652,844
Chambly.....	4,335	8,492	295,258					128,820	299,593	137,312	436,905	308,091	128,814
St. Peters.....	21,793	32,387							21,793	32,387	54,180	54,164	16
Murray.....	76,021	2,938	1,490					3,458	77,511	6,396	83,907	80,946	2,961
Ottawa.....	57,330	238,317		35,559				3,926	61,256	273,876	335,132	325,059	10,073
Rideau.....	80,867	62,009	230					8,633	81,097	70,642	151,739	142,203	9,536
Trent.....	15,531	52,009						175	15,531	52,184	67,715	67,715	
St. Andrews.....	41,681	332							41,681	332	42,013	42,013	
Grand total.....	1,474,124	6,381,242	999,256	618,275	1,491,563	21,610,033	1,264,343	3,184,401	5,229,286	31,793,951	37,023,237	9,382,206	27,641,031
1915.													
Sault Ste. Marie.....	287,474	1,614,502	14,987	582,654	176,083	4,691,580	333,705	49,972	812,249	6,938,708	7,750,957	2,561,734	5,189,223
Welland.....	180,710	1,105,813	242,286	2,519	329,449	156,167	4,015	1,040,053	756,460	2,304,552	3,061,012	1,426,256	1,634,756
St. Lawrence.....	421,377	1,324,318	401,244	4	42	405	1,874	1,260,203	824,537	2,584,930	3,409,467	2,024,755	1,384,712
Chambly.....	5,648	6,325	280,218					186,516	285,866	192,841	478,707	292,191	186,516
St. Peters.....	491	2,404							491	2,404	2,895		
Murray.....	25,696	3,066						1,966	25,696	5,032	30,728	27,942	2,786
Ottawa.....	43,883	165,817		58,154				4,516	48,399	223,971	272,370	267,406	4,964
Rideau.....	72,852	41,410	125					6,394	72,977	47,804	120,781	114,358	6,423
Trent.....	13,083	36,821							13,083	36,821	49,904	49,904	
St. Andrews.....	21,800	182							21,800	182	21,982	21,982	
Grand total.....	1,073,014	4,300,658	938,860	643,331	505,574	4,848,152	344,110	2,545,104	2,861,558	12,337,245	15,198,803	6,789,423	8,409,380

TABLE 2.—Statement showing the Number, Tonnage and Nationality of Vessels passed through the several canals during the Season of Navigation in 1915.

Vessels.	Total Number.	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.	
<b>CANADIAN VESSELS.</b>												
<i>Steam and Sail.</i>												
Sault Ste. Marie.....	3,000	1,373,691	1,212,260	47,818	208,699	3,192	5,497	152,484	37,362	1,577,185	1,463,818	3,041,003
Welland.....	2,126	670,944	687,737	304,789	400	8,316	935	11,577	347,650	995,626	1,036,722	2,032,348
St. Lawrence.....	7,099	1,327,498	1,321,358	368,653	49		800	1,136	403,497	1,697,287	1,725,704	3,422,991
Chambly.....	488	26,192	26,021	3,118	127				3,540	29,310	29,688	58,998
Ottawa.....	1,649	142,506	148,964		4,486			1,231	157	143,827	153,607	297,434
Rideau.....	2,070	66,175	70,156	3,952	126				4,378	70,127	74,660	144,787
St. Peter's.....	71	2,738	2,912							2,738	2,912	5,650
Trent Valley.....	3,433	87,386	85,394							87,386	85,394	172,780
Murray.....	552	63,329	58,474	2,287					416	65,616	58,890	124,506
St. Andrews.....	1,087	48,455	49,255							48,455	49,255	97,710
Total Canadian.....	21,575	3,809,004	3,662,531	730,617	213,887	11,508	7,232	166,428	797,000	4,717,557	4,680,650	9,398,207
<b>UNITED STATES VESSELS.</b>												
Sault Ste. Marie.....	1,331	8,617	7,177	32,719	271,567	2,686,554	2,268,557	161,429	7,192	2,889,319	2,554,493	5,443,812
Welland.....	796	4,159	1,914	143,930	6,574	235,948	150,860		279,462	384,037	438,810	822,847
St. Lawrence.....	1,542	21,712	17,795	376,311	8,320	11,600	470	5,368	400,216	414,991	426,801	841,792
Chambly.....	2,301		2,824	118,960	19				113,390	118,960	116,233	235,193
Ottawa.....	391	14,035			19,936	801		4,692		19,528	19,936	39,464
Rideau.....	6	293	293							293	293	586
St. Peter's.....												
Trent Valley.....												
Murray.....	48	322	307	174	86	52	111	207	148	755	652	1,407
St. Andrews.....												
Total United States.....	6,415	49,138	30,310	672,094	306,502	2,934,955	2,419,998	171,696	800,408	3,827,883	3,557,218	7,385,101
Grand total, Canadian and United States.....	27,990	3,858,142	3,692,841	1,402,711	520,389	2,946,463	2,427,230	338,124	1,597,408	8,545,440	8,237,868	16,783,308

TABLE 3.—Statement showing the Number, Tonnage and Nationality of Vessels passed through the several canals during the Season of Navigation in 1915.

Vessels.	Total Number.	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.	
<b>SAULT STE. MARIE CANAL.</b>												
Canadian vessels, steam.....	2,742	1,355,307	1,191,877	47,129	203,895	2,992	5,297	151,784	37,362	1,557,212	1,438,431	2,995,643
"    "    sail.....	258	18,384	20,383	689	4,804	200	200	700	.....	19,973	25,387	45,360
Total Canadian.....	3,000	1,373,691	1,212,260	47,818	208,699	3,192	5,497	152,484	37,362	1,577,185	1,463,818	3,041,003
United States vessels, steam.....	1,327	8,577	7,143	32,719	271,567	2,686,514	2,268,557	160,538	7,192	2,888,348	2,554,459	5,442,807
"    "    sail.....	4	40	34	.....	.....	40	.....	891	.....	971	34	1,005
Total United States.....	1,331	8,617	7,177	32,719	271,567	2,686,554	2,268,557	161,429	7,192	2,889,319	2,554,493	5,443,812
Grand total, Sault Ste. Marie canal.....	4,331	1,382,308	1,219,437	80,537	480,266	2,689,746	2,274,054	313,913	44,554	4,466,504	4,018,311	8,484,815
<b>WELLAND CANAL.</b>												
Canadian vessels, steam.....	1,760	585,318	604,723	282,681	400	6,354	935	9,245	316,654	883,598	922,712	1,806,310
"    "    sail.....	366	85,626	83,014	22,108	.....	1,962	.....	2,332	30,996	112,028	114,010	226,038
Total Canadian.....	2,126	670,944	687,737	304,789	400	8,318	935	11,577	347,650	995,626	1,036,722	2,032,348
United States vessels, steam.....	758	4,159	1,914	135,262	4,621	234,835	147,514	.....	265,993	374,256	420,042	794,298
"    "    sail.....	38	.....	8,665	1,953	.....	1,113	3,346	.....	13,469	9,781	18,768	28,549
Total United States.....	796	4,159	1,914	143,930	6,574	235,948	150,860	.....	279,462	384,037	438,810	822,847
Grand total, Welland canal.....	2,922	675,103	689,651	448,719	6,974	244,264	151,795	11,577	627,112	1,379,663	1,475,532	2,855,195
<b>ST. LAWRENCE CANALS.</b>												
Canadian vessels, steam.....	4,474	956,101	965,496	342,090	49	.....	800	1,136	375,189	1,299,327	1,341,534	2,640,861
"    "    sail.....	2,625	371,397	355,862	26,563	.....	.....	.....	.....	28,308	397,960	384,170	782,130
Total Canadian.....	7,099	1,327,498	1,321,358	368,653	49	.....	800	1,136	403,497	1,697,287	1,725,704	3,422,991 ✓
United States vessels, steam.....	981	3,435	4,002	351,347	10	11,595	470	735	370,087	367,112	374,569	741,681
"    "    sail.....	561	18,277	13,793	24,964	8,310	5	.....	4,633	30,129	47,879	52,232	100,111
Total United States.....	1,542	21,712	17,795	376,311	8,320	11,600	470	5,368	400,216	414,991	426,801	841,792 ✓
Grand total, St. Lawrence canals.....	8,641	1,349,210	1,339,153	744,964	8,369	11,600	1,270	6,504	803,713	2,112,278	2,152,505	4,264,783 ✓

TABLE 3.—Statement showing the Number, Tonnage and Nationality of Vessels passed through the several canals during the Season of Navigation in 1915—*Concluded*.

Vessels.	Total Number.	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.	
<b>CHAMBLY CANAL.</b>												
Canadian vessels, steam.....	308	22,093	23,010							22,093	23,010	45,103
“ “ sail.....	180	4,099	3,011	3,118	127				3,540	7,217	6,678	13,895
Total Canadian.....	488	26,192	26,021	3,118	127				3,540	29,310	29,688	58,998
United States vessels, steam.....	1				19						19	19
“ “ sail.....	2,300		2,824	118,960					113,390	118,960	116,214	235,174
Total United States.....	2,301		2,824	118,960	19				113,390	118,960	116,233	235,193
Grand total, Chamblly canal.....	2,789	26,192	28,845	122,078	146				116,930	148,270	145,921	294,191
<b>OTTAWA CANALS.</b>												
Canadian vessels, steam.....	788	75,067	79,685		3,183			471	157	75,538	83,025	158,563
“ “ sail.....	841	67,529	69,279		1,303			760		68,289	70,582	138,871
Total Canadian.....	1,649	142,596	148,964		4,486			1,231	157	143,827	153,607	297,434
United States vessels, steam.....												
“ “ sail.....	391	14,035			19,936	801		4,692		19,528	19,936	39,464
Total United States.....	391	14,035			19,936	801		4,692		19,528	19,936	39,464
Grand total, Ottawa canals.....	2,040	156,631	148,964		24,422	801		5,923	157	163,355	173,543	336,898
<b>RIDEAU CANAL.</b>												
Canadian vessels, steam.....	1,817	51,326	55,155	3,952	126				4,378	55,278	59,659	114,937
“ “ sail.....	253	14,849	15,001							14,849	15,001	29,850
Total Canadian.....	2,070	66,175	70,156	3,952	126				4,378	70,127	74,660	144,787
United States vessels, steam.....												
“ “ sail.....	6	293	293							293	293	586
Total United States.....	6	293	293							293	293	586
Grand total, Rideau canal.....	2,076	66,468	70,449	3,952	126				4,378	70,420	74,953	145,373

ST. PETERS CANAL.												
Canadian vessels, steam.....	37	2,212	1,503							2,212	1,503	3,715
“ “ sail.....	34	526	1,409							526	1,409	1,935
Total Canadian.....	71	2,738	2,912							2,738	2,912	5,650
United States vessels, steam.....												
“ “ sail.....												
Total United States.....												
Grand total, St. Peters canal.....	71	2,738	2,912							2,738	2,912	5,650
TRENT VALLEY CANALS.												
Canadian vessels, steam.....	2,855	67,813	66,634							67,813	66,634	134,447
“ “ sail.....	578	19,573	18,760							19,573	18,760	38,333
Total Canadian.....	3,433	87,386	85,394							87,386	85,394	172,780
United States vessels, steam.....												
“ “ sail.....												
Total United States.....												
Grand total, Trent Valley canals.....	3,433	87,386	85,394							87,386	85,394	172,780
MURRAY CANAL.												
Canadian vessels, steam.....	478	55,116	51,456	2,287						57,403	51,456	108,859
“ “ sail.....	74	8,213	7,018						416	8,213	7,434	15,647
Total Canadian.....	552	63,329	58,474	2,287					416	65,616	58,890	124,506
United States vessels, steam.....	48	322	307	174	86	52	111	207	148	755	652	1,407
“ “ sail.....												
Total United States.....	48	322	307	174	86	52	111	207	148	755	652	1,407
Grand total, Murray canal.....	600	63,651	58,781	2,461	86	52	111	207	564	66,371	59,542	125,913
ST. ANDREWS CANAL.												
Canadian vessels, steam.....	664	21,723	22,579							21,723	22,579	44,302
“ “ sail.....	423	26,732	26,676							26,732	26,676	53,408
Total Canadian.....	1,087	48,455	49,255							48,455	49,255	97,710
United States vessels, steam.....												
“ “ sail.....												
Total United States.....												
Grand total, St. Andrews canal.....	1,087	48,455	49,255							48,455	49,255	97,710

TABLE 4—Comparative Statement of all the Canals for the years ending December 31, 1914 and 1915.

Articles.	1914.	1915.	Increase.	Decrease.
<i>Class No. 1.</i>	Tons.	Tons.	Tons.	Tons.
Canadian vessels, steam.....	10,244,207	8,052,740		2,191,467
"    sail.....	1,806,649	1,345,467		461,182
United States vessels, steam.....	15,253,993	6,980,212		8,273,781
"    sail.....	382,421	404,889	22,468	
Total, Class No. 1.....	27,687,270	16,783,308	22,468	10,926,430
<i>Class No. 2.</i>	No.	No.	No.	No.
Passengers.....	287,326	250,836		36,490
<i>Class No. 3.</i>	Tons.	Tons.	Tons.	Tons.
Barley.....	332,983	161,590		171,393
Buckwheat.....	317	12		305
Corn.....	154,335	163,527	9,192	
Oats.....	816,232	637,420		178,812
Rye.....	45,954	11,878		34,076
Flax.....	108,671	59,771		48,900
Peas.....	84	1,001	917	
Wheat.....	6,045,317	3,807,722		2,237,595
Flour.....	408,708	310,385		98,323
Hay.....	15,008	9,874		5,134
Other mill products.....	15,844	8,988		6,856
Fruit and vegetables.....	12,224	8,878		3,346
Potatoes.....	7,191	1,479		5,712
Live stock.....	1,587	1,205		382
Poultry, game and fish.....	1,529	625		904
Dressed meats.....	61	79	18	
Other packing house products.....	1,523	1,677	154	
Hides and leather.....	40	26		14
Wool.....	484	183		301
All other animal products.....	10,457	7,494		2,963
Total, Class No. 3.....	7,978,549	5,193,814	10,281	2,795,016
<i>Class No. 4.</i>	Tons.	Tons.	Tons.	Tons.
Agricultural products.....	14,085	21,570	7,485	
Cement, bricks, lime.....	147,657	34,996		112,661
Household goods and furniture.....	3,469	2,158		1,311
Iron pig and bloom.....	41,846	30,918		10,928
Iron and steel, all other.....	162,179	174,641	12,462	
Petroleum and other oils.....	135,751	134,877		874
Sugar.....	71,036	61,975		9,061
Salt.....	20,620	11,490		9,130
Wines, liquors and beers.....	19,881	6,241		13,640
Merchandise not enumerated.....	602,001	617,245	15,244	
Total, Class No. 4.....	1,218,525	1,096,111	35,191	157,605
<i>Class No. 5.</i>	Tons.	Tons.	Tons.	Tons.
Pulpwood.....	1,017,993	910,774		107,219
Sawed lumber.....	470,400	487,709	17,309	
Squared timber.....	24,369	37,844	13,475	
Shingles.....	3,288	9,229	5,941	
Other woods.....	105,917	49,222		56,695
Total, Class No. 5.....	1,621,967	1,494,778	36,725	163,914

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TABLE 4—Comparative Statement of all the Canals for the years ending December 31, 1914 and 1915.—*Concluded.*

Articles.	1914.	1915.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.
<i>Class No. 6.</i>	Tons.	Tons.	Tons.	Tons.
Hard coal.....	1,176,567	780,629	.....	395,938
Soft coal.....	3,561,754	1,988,531	.....	1,573,223
Coke.....	20	324	.....	304
Copper ore.....	2,887	20,331	.....	17,444
Iron ore.....	20,917,633	4,133,360	.....	16,784,273
Other ore.....	33,054	29,518	.....	3,536
Sand, etc.....	512,281	461,407	.....	50,874
Total, Class No. 6.....	26,204,196	7,414,100	.....	18,807,844
Grand total.....	37,023,237	15,198,803	.....	21,924,379

Net decrease, 21,824,434 tons.

TABLE 5.—Statement of Traffic on the undermentioned canals during the Season of Navigation in 1915.

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.....	2,995,643	1,806,310	2,640,861	45,103	3,715	108,859	158,563	114,937	134,447	44,302
“ sail.....	45,360	226,038	782,130	13,895	1,935	15,647	138,871	29,850	38,333	53,408
United States vessels, steam.....	5,442,807	794,298	741,681	19		1,407				
“ sail.....	1,005	28,549	100,111	235,174			39,464	586		
Total, Class No. 1.....	8,484,815	2,855,195	4,264,783	294,191	5,650	125,913	336,898	145,373	172,780	97,710
<i>Class No. 2.</i>	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Passengers.....	25,047	7	78,303	2,640	8	12,223	27,258	18,664	82,391	4,295
<i>Class No. 3.</i>	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Barley.....	109,552	26,231	25,761	26	1		19			
Buckwheat.....			10				2			
Corn.....	4,695	121,086	37,567	123			20	36		
Oats.....	314,409	169,046	152,107	707	98		571	480	2	
Rye.....	11,853								25	
Flax.....	36,822	12,624	10,317						8	
Peas.....		840	36	90			33	2		
Wheat.....	1,902,706	955,181	947,925	54	1		91		1,764	
Flour.....	275,404	15,117	18,181	1,074	23		470	82	34	
Hay.....	20		4,672	3,542	52		1,172	393	23	
Other mill products.....	233	5,152	2,042	212	25	3	788	429	104	
Fruit and vegetables.....	27	1,526	5,374	1,149	10	149	536	91	16	
Potatoes.....	68		531	186	171	1	500		22	
Live stock.....			443	153	1		362	3	243	
Poultry, game and fish.....	473	1	53	31	7		52	5		3
Dressed meats.....			32	15			16	14	2	
Other packing house products.....			518	548	2	265	150	192	2	
Hides and leather.....			8	13			1	4		
Wool.....	182							1		
All other animal products.....			3,631	24		6	2,308	1,471	52	2
Total, Class No. 3.....	2,656,444	1,306,804	1,209,208	7,947	391	424	7,091	3,211	2,280	5



<i>Class No. 4.</i>										
Agricultural implements.....	10,496	10,496	164	180			138	77	19	
Cement, bricks, lime.....	3,469	10,168	19,451	404	26		1,051	257	170	
Household goods and furniture.....	5	20	1,556	194		3	264	62	54	
Iron, pig and bloom.....	14,538	7,000	8,362	78			518	417	5	
Iron and steel, all other.....	95,110	39,039	38,735	440	21	105	427	681	83	
Petroleum and other oils.....	700	71,648	61,248	207	5		558	469	42	
Sugar.....	3,070	30,108	25,655	1,748	4	425	465	500		
Salt.....	7,270	142	2,250	660	8		552	606	2	
Wines, liquors and beers.....	331	1,406	3,294	33		144	588	445		
Merchandise not enumerated.....	306,304	150,415	115,998	17,661	258	5,846	11,528	6,672	2,376	187
<b>Total, Class No. 4.....</b>	<b>441,293</b>	<b>320,442</b>	<b>276,713</b>	<b>21,605</b>	<b>322</b>	<b>6,523</b>	<b>16,089</b>	<b>10,186</b>	<b>2,751</b>	<b>187</b>
<i>Class No. 5.</i>										
Pulpwood.....	26,100	278,156	440,323	151,316				11	14,868	
Sawed lumber.....	46,035	21,243	146,655	127,531	179		136,140	8,355	1,571	
Square timber.....	4,650	6,031	7,167	976			18,408	193	419	
Shingles.....	8,916		13	111			13	45	131	
Other woods.....	3,517	3,230	7,097	183			1,108	1,607	27,586	4,894
<b>Total, Class No. 5.....</b>	<b>89,218</b>	<b>308,660</b>	<b>601,255</b>	<b>280,117</b>	<b>179</b>		<b>155,669</b>	<b>10,211</b>	<b>44,575</b>	<b>4,894</b>
<i>Class No. 6.</i>										
Hard coal.....	54,127	239,944	363,669	113,988		1,185	1,037	6,398	116	165
Soft coal.....	426,054	695,880	825,512		2,003	1,601	36,229	1,116	136	
Coke.....			60	263				1		
Copper ore.....	20,331									
Iron ore.....	4,046,705	27,291	9,402	49,962						
Other ore.....	6,662	22,048	185					586	37	
Sand, etc.....	10,123	139,943	123,463	4,825		20,995	56,255	89,072		16,731
<b>Total, Class No. 6.....</b>	<b>4,564,002</b>	<b>1,125,106</b>	<b>1,322,291</b>	<b>169,038</b>	<b>2,003</b>	<b>23,781</b>	<b>93,521</b>	<b>97,173</b>	<b>289</b>	<b>16,896</b>
<b>Grand total.....</b>	<b>7,750,957</b>	<b>3,061,012</b>	<b>3,409,467</b>	<b>478,707</b>	<b>2,895</b>	<b>30,728</b>	<b>272,370</b>	<b>120,781</b>	<b>49,904</b>	<b>21,982</b>



Flax.....	36,822	12,024	10,317					81		
Peas.....		840	36	90			33	2		
Wheat.....	1,902,706	955,181	947,925	54	1		91		1,764	
Flour.....	275,404	15,117	18,181	1,074	23		470	82	34	
Hay.....	20		4,672	3,542	52		1,172	393	23	
Other mill products.....	233	5,152	2,042	212	25		788	429	104	
Fruit and vegetables.....	27	1,526	5,374	1,149	10	3	536	91	16	
Potatoes.....	68		531	186	171		500		22	
<b>Total.....</b>	<b>2,655,789</b>	<b>1,306,803</b>	<b>1,204,523</b>	<b>7,163</b>	<b>381</b>	<b>153</b>	<b>4,202</b>	<b>1,521</b>	<b>1,990</b>	
<i>Manufactures.</i>										
Agricultural implements.....	10,496	10,496	164	180			138	77	19	
Cement, bricks and lime.....	3,469	10,168	19,451	404	26		1,051	257	170	
Household goods and furniture.....	5	20	1,556	194				62	54	
Iron, pig and bloom.....	14,538	7,000	8,362	78			264	518	417	5
Iron, steel, all other.....	95,110	39,039	38,735	440	21	105	427	681	83	
Petroleum and other oils.....	700	71,648	61,248	207	5		558	469	42	
Sugar.....	3,070	30,108	25,655	1,748	4	425	465	500		
Salt.....	7,270	142	2,250	660	8		552	606	2	
Wines, liquors and beers.....	331	1,406	3,294	33			588	445		
Merchandise not enumerated.....	306,304	150,415	115,098	17,061	258	5,846	11,528	6,672	2,376	187
<b>Total.....</b>	<b>441,293</b>	<b>320,442</b>	<b>276,713</b>	<b>21,605</b>	<b>322</b>	<b>6,523</b>	<b>16,089</b>	<b>10,186</b>	<b>2,751</b>	<b>187</b>
<i>Produce of Mines.</i>										
Hard coal.....	54,127	239,944	363,669	113,988		1,185	1,037	6,398	116	165
Soft coal.....	426,054	695,880	825,512		2,003	1,601	36,229	1,116	136	
Coke.....			60	263				1		
Copper ore.....	20,331									
Iron ore.....	4,046,705	27,291	9,402	49,962						
Other ore.....	6,662	22,048	185					586	37	
Sand, etc.....	10,123	139,943	123,463	4,825		20,995	56,255	89,072		16,731
<b>Total.....</b>	<b>4,564,002</b>	<b>1,125,106</b>	<b>1,322,291</b>	<b>169,038</b>	<b>2,003</b>	<b>23,781</b>	<b>93,521</b>	<b>97,173</b>	<b>289</b>	<b>16,896</b>
Grand totals (passengers and tonnage of vessels not included).....	7,750,957	3,061,012	3,409,467	478,707	2,895	30,728	272,370	120,781	49,904	21,982

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 1915.

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	U. S.
Agricultural implements	10,480	16							10,480	16	10,496	10,496	
Barley		53,871		5,145		49,576		960		109,552	109,552	59,976	49,576
Cement, bricks, etc.	2,991							478	3,469		3,469	3,469	
Coal, hard					13,959		40,168		54,127		54,127		54,127
" soft	1,325				136,500		288,229		426,054		426,054		426,054
Corn						4,695				4,695	4,695		4,695
Flax		22,785		13,337		700				36,822	36,822	36,122	700
Flour		176,169				95,901		3,334		275,404	275,404	177,623	97,781
Fruits and vegetables		27								27	27	27	
Hay	20								20		20	20	
Household goods	5								5		5	5	
Iron, pig and bloom	5,058	2,000		7,450		30			5,058	9,480	14,538	14,508	30
Iron and steel, all other	13,904	17,823			6,214	53,369	3,800		23,918	71,192	95,110	84,296	10,814
Merchandise	241,843	7,328	14,865	5,636	19,350	16,222	1,030	30	277,088	29,216	306,304	266,329	39,975
Oats		287,914		4,267		21,997		231		314,409	314,409	292,181	22,228
Other mill products		233								233	233	233	
" woods	50	1,275		2,192					50	3,467	3,517	3,517	
Ore, all other	120			6,542					120	6,542	6,662	6,662	
" copper						20,331				20,331	20,331		20,331
" iron			62,610		3,953,849		30,246		4,046,705	4,046,705	59,710	3,986,995	
Petroleum	700								700		700	700	
Poultry, game and fish	5	468							5	468	473	473	
Potatoes	36	32							36	32	68	68	
Pulpwood				25,500		600				26,100	26,100	25,500	600
Rye		612				11,241				11,853	11,853	612	11,241
Sawed lumber	331	197		29,543		15,964			331	45,704	46,035	34,199	11,836
Shingles						8,916				8,916	8,916		8,916
Square timber		4,650								4,650	4,650	4,650	
Sugar	3,050				20				3,070		3,070	3,050	20
Salt	7,230				40				7,270		7,270	7,230	40
Sand and stone		10,123								10,123	10,123	10,123	
Wheat		1,028,914		420,432		438,189		15,171		1,902,706	1,902,706	1,459,442	443,264
Wines, liquors and beers	326	5							326	5	331	331	
Wool		60	122						122	60	182	182	
<b>Total freight</b>	<b>257,474</b>	<b>1,614,502</b>	<b>14,987</b>	<b>582,654</b>	<b>176,033</b>	<b>4,691,580</b>	<b>333,705</b>	<b>49,972</b>	<b>812,249</b>	<b>6,938,708</b>	<b>7,750,957</b>	<b>2,561,734</b>	<b>5,189,223</b>

TABLE 7 (No. 2).—General Statement showing the Quantity of each Article Transported on the Welland canal during the Season of Navigation in 1915.

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.	U. S.
Agricultural implements	10,480	16							10,480	16	10,496	10,496	
Barley		25,541				690				26,231	26,231	25,445	786
Cement, bricks, etc.	10,168								10,168		10,168	10,168	
Coal, hard					235,929		4,015		239,944		239,944	239,944	
" soft		71					695,809		695,880		695,880	30	695,850
Corn		10,992				89,269		20,825		121,086	121,086	551	120,535
Flax		12,624								12,624	12,624	12,624	
Flour	30	10,963				4,124			30	15,087	15,117	10,993	4,124
Fruits and vegetables		1,520			6				6	1,520	1,526	1,520	6
Household goods	20								20		20	20	
Iron, pig and bloom	4,225	2,550					225		4,225	2,775	7,000	6,975	25
Iron and steel, all other	14,576	2,907					21,556		14,576	24,463	39,039	15,187	23,852
Merchandise	58,297	2,887	22,666		54,848	11,715	2		135,811	14,604	150,415	86,180	64,235
Oats	170	164,442				457		3,977	170	168,876	169,046	156,689	12,357
Other mill products						5,152				5,152	5,152		5,152
" woods		920				2,310				3,230	3,230	920	2,310
Ore, all other	60	5,625	1,197		14,976		190		16,233	5,815	22,048	8,024	14,024
" iron	60	4,098			2,996		20,137		3,056	24,235	27,291	4,158	23,133
Peas							840			840			840
Petroleum		61,091			16		10,541		16	71,632	71,648	61,091	10,557
Poultry, game and fish		1								1	1	1	
Pulpwood	70,705		207,451						278,156		278,156	278,156	
Sawed lumber			1,135	2,519		17,589			1,135	20,108	21,243	3,654	17,589
Square timber		4,650				1,381				6,031	6,031	4,650	1,381
Sugar	9,640	4,563			15,705			200	25,345	4,763	30,108	14,583	15,525
Salt		142								142	142		142
Sand and stone		18,250	2,100		4,694	1,170		113,729	6,794	133,149	139,943	20,350	119,593
Wheat	1,440	771,672	7,737			22,310		152,022	9,177	946,004	955,181	692,522	262,659
Wines, liquors and beers	839	288			279				1,118	288	1,406	1,127	279
Total freight.....	180,710	1,105,813	242,286	2,519	329,449	156,167	4,015	1,040,053	756,460	2,304,552	3,061,012	1,426,256	1,634,756

TABLE 7 (No. 3).—General Statement showing the Quantity of each Through Article Transported on the Welland canal during the Season of Navigation in 1915.

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.	U. S.
Agricultural implements	10,480	16							10,480	16	10,496	10,496	
Barley		25,541				690				26,231	26,231		786
Cement, bricks, etc.	10,168								10,168		10,168	10,168	
Coal, hard					235,929		4,015		239,944		239,944		239,944
" soft							679,276			679,276	679,276		679,276
Corn		10,992				89,269	20,825			121,086	121,086	551	120,535
Flax		12,624								12,624	12,624	12,624	
Flour	30	10,963				4,124			30	15,087	15,117	10,993	4,124
Fruits and vegetables		1,520			6				6	1,520	1,526	1,520	6
Household goods	20								20		20	20	
Iron, pig and bloom	4,225	2,550					225		4,225	2,775	7,000	6,975	25
Iron and steel, all other	14,576	2,907					21,556		14,576	24,463	39,039	15,187	23,852
Merchandise	58,297	2,873	22,666		54,848	11,715	2	135,811	14,590	150,401	86,166	64,235	
Oats	170	164,442				457	3,977		170	168,878	169,046	156,689	12,357
Other mill products						5,152				5,152	5,152		5,152
" woods		920				2,310				3,230	3,230	920	2,310
Ore, all other	60	4,625	1,197		14,976		190		16,233	4,815	21,048	7,024	14,024
" iron	60	4,098			2,996		20,137		3,056	24,235	27,291	4,158	23,133
Peas							840			840			840
Petroleum		61,091			16		10,541		16	71,632	71,648	61,091	10,557
Pulpwood			207,451						207,451		207,451	207,451	
Sawed lumber			1,135	2,519		17,589			1,135	20,108	21,243	3,654	17,589
Square timber		4,650				1,381				6,031	6,031	4,650	1,381
Sugar	9,640	4,563			15,705		200		25,345	4,763	30,108	14,583	15,525
Salt		142								142	142	142	
Sand and stone		350	2,100		4,694	1,170			6,794	1,520	8,314	2,450	5,864
Wheat	1,440	771,672	7,737			22,310	152,022		9,177	946,004	955,181	692,522	262,659
Wines, liquors and beers	839	288			279				1,118	288	1,406	1,127	279
Total freight...	110,005	1,086,827	242,286	2,519,	329,449	156,167	4,015	909,791	685,755	2,155,304	2,841,059	1,336,606	1,504,453

TABLE 7 (No. 4).—General Statement showing the Quantity of each Way Article Transported on the Welland canal during the Season of Navigation in 1915.

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.	U. S.
Coal, soft.....		71					16,533		16,604		16,604	30	16,574
Merchandise.....		14							14		14	14	
Ore, all other.....		1,000							1,000		1,000	1,000	
Poultry, game and fish.....		1							1		1	1	
Pulpwood.....	70,705							70,705		70,705	70,705	70,705	
Sand and stone.....		17,900					113,729		131,629		131,629	17,900	113,729
Total freight.....	70,705	18,986					130,262	70,705	149,248	219,953	89,650	130,303	

TABLE 7 (No. 5).—General Statement showing the Quantity of each Article Transported on the St. Lawrence canals during the Season of Navigation in 1915.

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.	U. S.
Agricultural implements	153	11							153	11	164	164	
All other animals	732	2,899							732	2,899	3,631	3,631	
Barley	19	25,742							19	25,742	25,761	25,665	96
Buckwheat	2	3			5				7	3	10	2	8
Cement, bricks, etc.	17,042	2,409							17,042	2,409	19,451	18,565	886
Coal, hard	981	72				402		362,214	981	362,688	363,669	805	362,864
“ soft	136,523	940						688,049	136,523	688,989	825,512	137,061	688,451
Coke		60								60	60	60	
Corn	24	24,382					13,161		24	37,543	37,567	31	37,536
Dressed meats	14	18							14	18	32	32	
Flax		10,317								10,317	10,317	10,317	
Flour	1,610	16,571							1,610	16,571	18,181	18,181	
Fruits and vegetables	283	5,091							283	5,091	5,374		5,374
Hay	3,574	1,098							3,574	1,098	4,672	4,672	
Hides and leather		7	1							7	8	8	
Household goods	573	968	2	4	9				584	972	1,556	1,551	5
Iron, pig and bloom	4,058	4,302			2				4,060	4,302	8,362	8,180	182
Iron and steel, all other	17,189	12,308					9,238		17,189	21,546	38,735	29,541	9,194
Live stock	98	339			3	1		2	101	342	443	439	4
Merchandise	47,801	40,902	25,400		20	1	1,874		75,095	40,903	115,998	113,391	2,607
Oats	77	149,481						2,549	77	152,030	152,107	143,607	8,500
Other mill products	716	1,326							716	1,326	2,042	2,042	
“ packing house products		334								334	518	518	
“ woods	2,969	4,128							2,969	4,128	7,097	7,097	
Ore, all other		185								185	185	185	
“ iron		60					9,342			9,402	9,402	60	9,342
Peas	4	32							4	32	36	36	
Petroleum	711	43,817					16,720		711	60,537	61,248	44,528	16,720
Poultry, game and fish		51			1	1			1	52	53	51	2
Potatoes	80	449			2				82	449	531	529	2
Pulpwood	73,249	201	366,873						440,122	201	440,323	440,323	
Sawed lumber	22,743	123,078	834						23,577	123,078	146,655	146,655	
Shingles		13								13	13	13	
Square timber	1,144	6,023							1,144	6,023	7,167	7,155	12
Sugar	22,654	3,001							22,654	3,001	25,655	24,574	1,081
Salt	1,468	782							1,468	782	2,250	1,932	318
Sand and stone	47,396	76,067							47,396	76,067	123,463	121,924	1,539
Wheat	14,225	766,638	8,134				158,928		22,359	925,566	947,925	707,936	239,989
Wines, liquors and beers	3,081	213							3,081	213	3,294	3,294	
Total freight	421,377	1,324,318	401,244	4	42	405	1,874	1,260,203	824,537	2,584,930	3,409,467	2,024,755	1,384,712



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 1915.

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.	U. S.
Agricultural implements		1								1	1	1	
All other animals	50	314							50	314	364	364	
Barley		25,108								25,108	25,108	25,012	96
Cement, bricks, etc.	10,229	1							10,229	1	10,230	10,230	
Coal, hard							355,465			355,465	355,465		355,465
" soft	7,664						670,356		7,664	670,356	678,020	7,664	670,356
Corn		5,482					13,161			18,643	18,643		18,643
Flax		10,317								10,317	10,317	10,317	
Flour	30	10,295							30	10,295	10,325	10,325	
Fruits and vegetables		4,619								4,619	4,619	4,619	
Hay		150								150	150	150	
Hides and leather		4								4	4	4	
Household goods	257	713							257	713	970	970	
Iron, pig and bloom	1,196	2,862							1,196	2,862	4,058	4,058	
Iron and steel, all other	8,786	3,343						9,238	8,786	12,581	21,367	12,173	9,194
Live stock		6								6	6	6	
Merchandise	39,940	32,281	25,400						65,340	32,281	97,621	97,619	2
Oats		148,526						2,549		151,075	151,075	142,575	8,500
Other packing house products		264								264	264	264	
" woods		775								775	775	775	
Ore, all other		125								125	125	125	
" iron							9,342			9,342	9,342		9,342
Petroleum		42,292					16,720			59,012	59,012	42,292	16,720
Pulpwood	71,857		366,873						438,730		438,730	438,730	
Sawed lumber	2,269		834						3,103		3,103	3,103	
Square timber		4,650								4,650	4,650	4,650	
Sugar	20,647	2,778							20,647	2,778	23,425	23,425	
Salt	32	142							32	142	174	174	
Wheat	1,440	766,273	8,134				158,928		9,574	925,201	934,775	694,786	239,989
Wines, liquors and beers	2,163	181							2,163	181	2,344	2,344	
Total freight	166,560	1,061,502	401,241				1,235,759		567,801	2,297,261	2,865,062	1,536,755	1,328,307

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CANAL STATISTICS

TABLE 7 (No. 7).—General Statement showing the Quantity of each Way Article Transported on the St. Lawrence canals during the Season of Navigation in 1915.

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.	U. S.
Agricultural implements	153	10							153	10	163	163	
All other animals	682	2,585							682	2,585	3,267	3,267	
Barley	19	634							19	634	653		
Buckwheat	2	3			5				7	3	10		8
Cement, bricks, etc.	6,813	2,408							6,813	2,408	9,221	8,335	886
Coal, hard	981	72				402		6,749	981	7,223	8,204	805	7,399
" soft	128,859	940						17,693	128,859	18,633	147,492	129,397	18,095
Coke		60								60	60	60	
Corn	24	18,900							24	18,900	18,924	31	18,893
Dressed meats	14	18							14	18	32		
Flour	1,580	6,276							1,580	6,276	7,856	7,856	
Fruits and vegetables	283	472							283	472	755		
Hay	3,574	948							3,574	948	4,522	4,522	
Hides and leather		3	1						1	3	4	4	
Household goods	316	255	2	4	9				327	259	586		5
Iron, pig and bloom	2,862	1,440			2				2,864	1,440	4,304	4,122	182
Iron and steel, all other	8,403	8,965							8,403	8,965	17,368	17,368	
Live stock	98	333			3	1			101	336	437		4
Merchandise	7,861	8,621			20	1	1,874		9,755	8,622	18,377	15,772	2,605
Oats	77	955							77	955	1,032		1,032
Other mill products	716	1,326							716	1,326	2,042		2,042
" packing house products	184	70							184	70	254		254
" woods	2,969	3,353							2,969	3,353	6,322		6,322
Ore, all other		60								60	60		60
" iron		60								60	60		60
Peas	4	32							4	32	36		36
Petroleum	711	1,525							711	1,525	2,236	2,236	
Poultry, game and fish		51			1	1			1	52	53		2
Potatoes	80	449			2				82	449	531		2
Pulpwood	1,392	201							1,392	201	1,593	1,593	
Sawed lumber	20,474	123,078							20,474	123,078	143,552	143,552	
Shingles		13								13	13		
Square timber	1,144	1,373							1,144	1,373	2,517	2,505	12
Sugar	2,007	223							2,007	223	2,230	1,149	1,081
Salt	1,436	640							1,436	640	2,076	1,758	318
Sand and stone	47,396	76,067							47,396	76,067	123,463	121,924	1,539
Wheat	12,785	365							12,785	365	13,150		13,150
Wines, liquors and beers	918	32							918	32	950		950
Total freight	264,817	962,816	9	4	42	405	1,874	34,444	956,746	987,669	244,406	422,374	51,031

TABLE 7 (No. 8).—General Statement showing the Quantity of each Article Transported on the Chambly canal during the Season of Navigation in 1915.

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.	U. S.
Agricultural implements	168	12							168	12	180	180	
All other animals	9	15							9	15	24	24	
Barley	18	8							18	8	26	26	
Cement, bricks, etc.	391	13							391	13	404	404	
Coal, hard	73							113,915	73	113,915	113,988	73	113,915
Coke								263		263	263		263
Corn	118	5							118	5	123	123	
Dressed meats	10	5							10	5	15	15	
Flour	1,045	29							1,045	29	1,074	1,074	
Fruits and vegetables	318	831							318	831	1,149	1,149	
Hay	26	3,356	160						186	3,356	3,542	3,542	
Hides and leather	13								13		13	13	
Household goods	143	51							143	51	194	194	
Iron, pig and bloom	78								78		78	78	
Iron and steel, all other	391	49							391	49	440	440	
Live stock	3	150							3	150	153	153	
Merchandise	458	532	1,168					15,503	1,626	16,035	17,661	2,158	15,503
Oats	55	652							55	652	707	707	
Other mill products	171	41							171	41	212	212	
“ packing house products	109	439							109	439	548	548	
“ woods	30							153	30	153	183	30	153
Ore, iron								49,962		49,962	49,962		49,962
Peas	58	32							58	32	90	90	
Petroleum	207								207		207	207	
Poultry, game and fish	3	28							3	28	31	31	
Potatoes	133	53							133	53	186	186	
Pulpwood			151,316						151,316		151,316	151,316	
Sawed lumber	317		127,214						127,531		127,531	127,531	
Shingles	111								111		111	111	
Square timber								976		976	976		976
Sugar	163	4						1,581	163	1,585	1,748	167	1,581
Salt	488	4						168	488	172	660	492	168
Sand and stone	470		360					3,995	830	3,995	4,825	830	3,995
Wheat	39	15							39	15	54	54	
Wines, liquors and beers	32	1							32	1	33	33	
Total freight	5,648	6,325	280,218					186,516	285,866	192,841	478,707	292,191	186,516

TABLE 7 (No. 9).—General Statement showing the Quantity of each Article Transported on the St. Peter's Canal during the Season of Navigation in 1915.

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.	U. S.
Barley.....	1								1		1		1
Cement, bricks, etc.....		26								26	26		26
Coal, soft.....		2,003								2,003	2,003		2,003
Flour.....	4	19							4	19	23		23
Fruits and vegetables.....	8	2							8	2	10		10
Hay.....	52								52		52		52
Iron and steel, all other.....	7	14							7	14	21		21
Live stock.....	1								1		1		1
Merchandise.....	124	134							124	134	258		258
Oats.....	90	8							90	8	98		98
Other mill products.....	20	5							20	5	25		25
“ packing house products.....	2								2		2		2
Petroleum.....	5								5		5		5
Poultry, game and fish.....		7								7	7		7
Potatoes.....	171								171		171		171
Sawed lumber.....		179								179	179		179
Sugar.....	3	1							3	1	4		4
Salt.....	3	5							3	5	8		8
Wheat.....		1								1	1		1
Total freight.....	491	2,404							491	2,404	2,895		2,895

TABLE 7 (No. 10).—General Statement showing the Quantity of each Article Transported on the Murray Canal during the Season of Navigation in 1915.

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.	U. S.
All other animals.....		6								6	6	6	
Coal, hard.....								1,185		1,185	1,185		1,185
"    soft.....	20	800						781		20	1,581		1,601
Fruits and vegetables.....	119	30								119	30		149
Household goods.....		3									3		3
Iron and steel, all other.....	65	40								65	40		105
Merchandise.....	3,998	1,848								3,998	1,848		5,846
Other mill products.....		3									3		3
"    packing house products.....		265									265		265
Potatoes.....		1									1		1
Sugar.....	425									425			425
Sand and stone.....	20,995									20,995			20,995
Wines, liquors, beers.....	74	70								74	70		144
Total freight.....	25,696	3,066						1,966		25,696	5,032	30,728	27,942

TABLE 7 (No. 11).—General Statement showing the Quantity of each Article Transported on the Ottawa Canals during the Season of Navigation in 1915.

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.	U. S.
Agricultural implements	128	10							128	10	138	138	
All other animals	5	2,303							5	2,303	2,308	2,308	
Barley	19								19		19	19	
Buckwheat	2								2		2	2	
Cement, bricks, etc.	998	53							998	53	1,051	1,051	
Coal, hard	60						977		1,037		1,037		1,037
" soft	34,008						2,221		36,229		36,229	33,620	2,609
Corn	19	1							19	1	20	20	
Dressed meats	5	11							5	11	16	16	
Flour	456	14							456	14	470	470	
Fruits and vegetables	140	396							140	396	536	536	
Hay	2	1,170							2	1,170	1,172	1,172	
Hides and leather		1								1	1	1	
Household goods	152	112							152	112	264	264	
Iron, pig and bloom	490	28							490	28	518	518	
Iron and steel, all other	423	4							423	4	427	427	
Live stock	88	274							88	274	362	362	
Merchandise	4,221	5,078		911			1,318		5,539	5,989	11,528	10,210	1,318
Oats	46	525							46	525	571	571	
Other mill products	125	663							125	663	788	788	
" packing house products	101	49							101	49	150	150	
" woods		1,108								1,108	1,108	1,108	
Peas	1	32							1	32	33	33	
Petroleum	422	136							422	136	558	558	
Poultry, game and fish		52								52	52	52	
Potatoes	57	443							57	443	500	500	
Sawed lumber	152	78,745		57,243					152	135,988	136,140	136,140	
Shingles		13								13	13	13	
Square timber		18,408								18,408	18,408	18,408	
Sugar	407	58							407	58	465	465	
Salt	542	10							542	10	552	552	
Sand and stone	150	56,105							150	56,105	56,255	56,255	
Wheat	91								91		91	91	
Wines, liquors and beers	573	15							573	15	588	588	
Total freight	43,883	165,817		58,154			4,516		48,399	223,971	272,370	267,406	4,964

TABLE 7 (No. 12).—General Statement showing the Quantity of each Article Transported on the Rideau Canal during the Season of Navigation in 1915.

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.	U. S.
Agricultural implements	63	14							63	14	77	77	
All other animals	589	882							589	882	1,471	1,471	
Cement, bricks, etc.	25	232							25	232	257	257	
Coal, hard	1	58						6,339	1	6,397	6,398	59	6,339
" soft	1,055	6						55	1,055	61	1,116	1,057	59
Coke	1								1		1	1	
Corn		36								36	36	36	
Dressed meats	7	7							7	7	14	14	
Flax	8								8		8	8	
Flour	6	76							6	76	82	82	
Fruits and vegetables	21	70							21	70	91	91	
Hay	376	17							376	17	393	393	
Hides and leather	3	1							3	1	4	4	
Household goods	36	26							36	26	62	62	
Iron, pig and bloom	401	16							401	16	417	417	
Iron and steel, all other	649	32							649	32	681	681	
Live stock	3								3		3	3	
Merchandise	3,673	2,999							3,673	2,999	6,672	6,672	
Oats	36	444							36	444	480	480	
Other mill products	157	272							157	272	429	429	
" packing house products	143	49							143	49	192	192	
" woods	1,360	247							1,360	247	1,607	1,582	25
Ore, all other		461	125						125	461	586	586	
Peas	2								2		2	2	
Petroleum	225	244							225	244	469	469	
Poultry, game and fish	2	3							2	3	5	5	
Pulpwood	11								11		11	11	
Sawed lumber	2,126	6,229							2,126	6,229	8,355	8,355	
Shingles	43	2							43	2	45	45	
Square timber	190	3							190	3	193	193	
Sugar	343	157							343	157	500	500	
Salt	401	205							401	205	606	606	
Sand and stone	60,475	28,597							60,475	28,597	89,072	89,072	
Wines, liquors and beers	420	25							420	25	445	445	
Wool	1								1		1	1	
Total freight	72,852	41,410	125					6,394	72,977	47,804	120,781	114,358	6,423

TABLE 7 (No. 13).—General Statement showing the Quantity of each Article Transported on the Trent Valley Canals during the Season of Navigation in 1915.

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.				Total Tons.	Canadian.	U. S.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.			
Agricultural implements	16	3							16	3	19	19	
All other animals	15	37							15	37	52	52	
Cement, bricks, etc.	161	9							161	9	170	170	
Coal, hard	109	7							109	7	116	116	
“ soft	98	38							98	38	136	136	
Dressed meats	1	1							1	1	2	2	
Flour	28	6							28	6	34	34	
Fruits and vegetables	15	1							15	1	16	16	
Hay	16	7							16	7	23	23	
Household goods	53	1							53	1	54	54	
Iron, pig and bloom	5								5		5	5	
Iron and steel, all other	83								83		83	83	
Live stock	198	45							198	45	243	243	
Merchandise	1,374	1,002							1,374	1,002	2,376	2,376	
Oats	2								2		2	2	
Other mill products	92	12							92	12	104	104	
“ packing house products		2								2	2	2	
“ woods	7,661	19,925							7,661	19,925	27,586	27,586	
Ore, all other	37								37		37	37	
Petroleum	42								42		42	42	
Potatoes	9	13							9	13	22	22	
Pulpwood	126	14,742							126	14,742	14,868	14,868	
Rye	25								25		25	25	
Sawed lumber	933	638							933	638	1,571	1,571	
Shingles	90	41							90	41	131	131	
Square timber	129	290							129	290	419	419	
Salt	2								2		2	2	
Wheat	1,764								1,764		1,764	1,764	
Total freight	13,083	36,821							13,083	36,821	49,904	49,904	



TABLE 7 (No. 14).—General Statement showing the Quantity of each Article Transported on the St. Andrew's Canal during the Season of Navigation in 1915.

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.	U. S.
All other animals.....	2								2		2		
Coal, hard.....	165								165		165		
Merchandise.....	15	172							15	172	187		
Other woods.....	4,884	10							4,884	10	4,894		
Poultry, game and fish.....	3								3		3		
Sand and stone.....	16,731								16,731		16,731		
Total freight.....	21,800	182							21,800	182	21,982	21,982	

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 5,704 .....	1	5,704	1	5,000 to .....		
2	4,000 " 5,000 .....	3	13,550	2	4,000 " 5,000 .....		
3	3,000 " 4,000 .....	4	13,550	3	3,000 " 4,000 .....		
4	2,000 " 3,000 .....	14	30,600	4	2,000 " 3,000 .....	1	2,132
5	1,000 " 2,000 .....	63	83,350	5	1,000 " 2,000 .....		
6	Under 1,000 .....	71	11,820	6	Under 1,000 .....	34	6,230
	Total .....	156	158,574		Total .....	35	8,362

WELLAND							
1	250 to 1,905 .....	107	118,209	1	250 to 1,951 .....	28	20,751
2	200 " 249 .....	3	600	2	200 " 249 .....	4	800
3	150 " 199 .....	1	150	3	150 " 199 .....	6	900
4	100 " 149 .....	2	225	4	100 " 149 .....	6	600
5	50 " 99 .....	6	500	5	50 " 99 .....	4	230
6	Under 50 .....	37	1,085	6	Under 50 .....	1	40
	Total .....	156	120,769		Total .....	49	23,321

ST. LAWRENCE							
1	250 to 1,629 .....	113	110,248	1	250 to 1,226 .....	101	48,975
2	200 " 249 .....	3	640	2	200 " 249 .....	20	4,130
3	150 " 199 .....	8	1,310	3	150 " 199 .....	44	6,530
4	100 " 149 .....	12	1,420	4	100 " 149 .....	61	7,300
5	50 " 99 .....	23	1,505	5	50 " 99 .....	44	3,330
6	Under 50 .....	33	940	6	Under 50 .....	9	205
	Total .....	192	116,063		Total .....	279	70,470

RIDEAU, OTTAWA							
1	250 to 370 .....	3	950	1	250 to .....	3	750
2	200 " 249 .....			2	200 " 249 .....	4	800
3	150 " 199 .....	5	820	3	150 " 199 .....	29	4,860
4	100 " 149 .....	6	730	4	100 " 149 .....	35	4,120
5	50 " 99 .....	14	770	5	50 " 99 .....	21	1,500
6	Under 50 .....	42	810	6	Under 50 .....	18	385
	Total .....	70	4,080		Total .....	110	12,415

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passed through the following Canals, during the Season of Navigation in 1915.

MARIE CANAL.

## UNITED STATES.

Class.		Steam Vessels.		No.	Tonnage.	Class.		Sailing Vessels.		No.	Tonnage.
1	5,000 to 6,498	69	375,548	1	5,000 to						
2	4,000 " 5,000	69	321,100	2	4,000 " 5,000						
3	3,000 " 4,000	90	312,650	3	3,000 " 4,000	1				3,200	
4	2,000 " 3,000	31	82,350	4	2,000 " 3,000	1				2,350	
5	1,000 " 2,000	25	41,250	5	1,000 " 2,000						
6	Under 1,000	28	9,180	6	Under 1,000	1				50	
Total		312	1,142,078	Total		3				5,600	

## CANAL.

1	250 to 2,146	67	76,721	1	250 to 1,953	5			5,328
2	200 " 249	0		2	200 " 249	2			450
3	150 " 199	3	500	3	150 " 199	2			300
4	100 " 149	1	100	4	100 " 149	2			200
5	50 " 99	7	470	5	50 " 99	1			60
6	Under 50	25	430	6	Under 50	6			120
Total		103	78,221	Total		18			6,458

## CANALS.

1	250 to 1,836	45	47,933	1	250 to 400	7			2,490
2	200 " 249	2	480	2	200 " 249	1			200
3	150 " 199	1	170	3	150 " 199	3			500
4	100 " 149	3	390	4	100 " 149	46			5,190
5	50 " 99	4	295	5	50 " 99	117			10,520
6	Under 50	4	75	6	Under 50	9			175
Total		59	49,343	Total		183			19,075

## AND CHAMBLY CANALS.

1	250 to			1	250 to				
2	200 " 249			2	200 " 249				
3	150 " 199			3	150 " 199	5			810
4	100 " 149			4	100 " 149	128			14,020
5	50 " 99			5	50 " 99	317			29,955
6	Under 50			6	Under 50	2			90
Total				Total		452			44,875



## 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.....	8 $\frac{1}{2}$
Lake St. Louis and river St. Lawrence.....	16
2. Soulanges canal.....	14
Lake St. Francis and river St. Lawrence.....	31
3. Cornwall canal.....	11 $\frac{1}{4}$
River St. Lawrence.....	5
4. Farran's Point canal.....	1 $\frac{1}{2}$
River St. Lawrence.....	9 $\frac{1}{2}$
5. Rapide Plat canal.....	3 $\frac{3}{8}$
River St. Lawrence.....	4
6. Galops canal.....	7 $\frac{1}{3}$
River St. Lawrence and lake Ontario.....	228
7. Welland canal.....	26 $\frac{3}{4}$
Lake Erie, Detroit river, lake St. Clair, lake Huron, etc.....	574
8. Sault Ste. Marie canal.....	1 $\frac{1}{4}$
Lake Superior to Port Arthur.....	272
Total.....	1,214
To Duluth.....	1,336
Chicago.....	1,240

*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 2,217 statute miles. The distance to Duluth is 2,339 statute miles. The distance to Chicago, 2,243 miles.

From the straits of Belle Isle, at the mouth of the St. Lawrence, to Montreal, the distance is 1,003 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 74 miles; total lockage (or height directly overcome by locks), 553¼ 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.

## 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 "
Depth of water on sills at two locks.....	18 "
"    "    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 to the river St. Lawrence. They are 1,006 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 "
Depth of water on sills.....	15 "
Breadth of canal at bottom.....	100 "
"    "    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 rapid 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
First 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 "
Depth of water on sills.....	14 "
Breadth of canal at bottom.....	90 "
"    "    water surface.....	154 "

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The old lift locks, 200 feet by 55 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 31 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 of lockage.....	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
First opened.....	1847
Enlargement commenced.....	1884
"    completed.....	1897
Length of canal.....	3⅔ 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 by 45 feet, 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 9½ 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.....	7 $\frac{3}{4}$ miles.
Number of locks.....	3
Dimension of locks (one of which is a guard lock).....	800 by 50. 270 by 45. 303 by 45.
Total rise of lockage.....	15 $\frac{1}{2}$ 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 4 $\frac{1}{2}$  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.....	5 $\frac{1}{6}$ miles.
Breadth at bottom.....	80 feet.
Breadth at water surface.....	124 "
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.....	27 $\frac{1}{2}$ miles.	26 $\frac{3}{4}$ miles					
Pairs of guard-gates (formerly 3) .	2	1					
Number of locks } lift.....	26	25					
} guard.....	1	1					
Dimensions.....	<table> <tr> <td>1 lock 270 x 45</td> <td rowspan="4">} 270 feet x 45 feet.</td> </tr> <tr> <td>1 lock 200 x 45</td> </tr> <tr> <td>1 (tidal) 230 x 45</td> </tr> <tr> <td>24 locks 150 x 26 ft. 6 in.</td> </tr> </table>		1 lock 270 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.
1 lock 270 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 of lockage.....	326 $\frac{3}{4}$ feet.	326 $\frac{3}{4}$ feet.					
Depth of water on sills.....	10 $\frac{1}{4}$ "	14 "					
Construction commenced, 8 feet.....		1824					
"    completed.....		1833					
Enlargement commenced, 14 feet.....		1872					
"    completed.....		1887					

## 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 river Welland.....	10 feet.
Depth of water on sills.....	9 " 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 300 by } 45 " "
Total rise of lockage.....	10 feet.
Depth of water on sills.....	9 "

## PORT MAITLAND BRANCH.

Length of canal.....	1¾ miles.
Number of locks.....	1
Dimensions of locks.....	185 feet by 45 feet.
Total rise of lockage.....	7 "
Depth of water on sills.....	7½ "

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, 11¾ 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 274 miles, and to Duluth 397 miles.

## SAULT STE. MARIE CANAL.

Construction commenced.....	1888
Opened for traffic.....	1895
Length of canal, between the extreme ends of the entrance piers.....	7,472 feet.
Number of locks.....	1
Dimensions of locks.....	900 " by 60 feet.
Depth of water on sills (at lowest known water level).....	18 " 3 inches.
Total rise or lockage.....	18 "
Breadth of canal at bottom.....	141 " 8 inches.
Breadth at surface of water.....	150 "

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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  $245\frac{5}{8}$  miles.

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

*Ottawa River Canals.*

The Ste. Anne's lock.	Grenville canal.
Carillon 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.	Inter- mediate Distance.	Total Distance from Montreal.
	Miles.	Miles.
The Lachine canal.....	8½	23½
From Lachine to Ste. Anne's lock.....	15	23½
Ste. Anne's lock and piers.....	½	50½
Ste. Anne's lock to Carillon canal.....	27	51½
The Carillon canal.....	½	57½
The Carillon to Grenville canal.....	6½	63½
The Grenville canal.....	5½	119½
From the Grenville canal to entrance of Rideau navigation.....	56	245½
Rideau navigation ending at Kingston.....	126½	

## 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 of 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,  $23\frac{1}{2}$  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 of 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 a 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.....	$5\frac{1}{4}$ miles.
Number of locks.....	5
Dimensions of locks.....	200 x 45 feet.
Total rise of 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.....	$126\frac{1}{4}$ miles.
Number of locks going from Ottawa to Kingston.....	35 ascending. 14 descending.
Total lockage. .457 $\frac{1}{2}$ feet.	292 $\frac{1}{2}$ rise and 165 $\frac{1}{4}$ fall.

at low water.

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Dimensions of locks.....	134 x 33 feet.
Depth of water on sills.....	5 feet.
Navigation depth through the several reaches.....	5 "
Breadth of canal reaches at bottom.....	60 feet in earth.
	54 " in rock.
Breadth of canal at surface of water....	80 " in earth.

## 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 of lockage.....	26 "
Depth of water on sills.....	5 " 6 inches.
Length of dam.....	200 "
Breadth of canal at bottom.....	{ 40 " in rock.
	{ 60 " in clay.
Breadth of canal at surface of water....	80 "

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 source of supply:—

From the summit, the route towards Ottawa follows the Rideau river, and that towards Kingston follows the river Cataragui. 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 Cataragui. 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,

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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.....	$\frac{1}{8}$ 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.....	6 $\frac{1}{2}$ “
Breadth of canal at bottom.....	36 “
Breadth of canal at surface of water.....	60 “

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 Quinte, 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 155 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 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 174 miles from Trenton.

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

From Trenton, bay of Quinte to Nine Mile rapids:—		
Nine Mile rapids to Percy landing.....	19½	9
Percy landing to Heeley's Falls dam.....	—	14½
Heeley's Falls dam to Peterborough.....	51¾	—
Peterborough to Lakefield.....	—	9½
Lakefield to a point across Balsam lake..	61	—
	<hr/>	<hr/>
	132¼	33
Total distance, bay of Quinte to a point across Balsam lake		165¼
From Sturgeon point on Sturgeon lake, 48¾ 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  $2\frac{1}{4}$  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,  $15\frac{3}{4}$  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'x33'x5' 0" to 7' 6" deep water on mitre sill.
1	" Lindsay.....	134'x33'x5' 0" to 7' 6" " "
1	" Bobcaygeon.....	134'x33'x5' 8" to 7' 0" " "
1	" Buckhorn.....	134'x33'x5' 0" to 9' 0" " "
1	" Lovesick.....	134'x33'x5' 0" to 9' 4" " "
2	" Burleigh.....	134'x33'x6' 0" to 8' 0" " "
1	" Young's pt.....	134'x33'x5' 0" to 14' 0" " "
1	" Peterborough.....	134'x33'x5' 0" to 10' 0" " "
1	" Hastings.....	134'x33'x7' 0" to 10' 6" " "
1	" Chisholms.....	134'x33'x5' 0" to 8' 6" " "

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#### ST. PETER'S CANAL, CAPE BRETON.

Construction commenced.....	1854
" completed.....	1869
Enlargement begun.....	1875
" completed.....	1881
Length of canal, about 2,600 feet.	
Breadth at water line.....	50 feet.
Lock.....	One tidal lock, 4 prs. 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.....	7 "

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 to 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.....	$82\frac{1}{2}$ "
Depth of water on sills.....	9 "
Breadth of canal at bottom.....	80 "
Breadth of canal at water surface.....	120 "



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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.....	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.

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.



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