

DOMINION OF CANADA

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ANNUAL REPORT  
OF THE  
DEPARTMENT OF RAILWAYS  
AND CANALS

For the Fiscal Year from April 1, 1926,  
to March 31, 1927

Submitted in accordance with the provisions of the Revised Statutes of Canada,  
Chapter 35, Section 33



OTTAWA  
F. A. ACLAND  
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY  
1927



*To His Excellency the Right Honourable Viscount Willingdon, G.C.S.I.,  
G.C.M.G., G.C.I.E., G.B.E., Governor General and Commander in Chief  
of the Dominion of Canada.*

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to present to Your Excellency the Annual Report of the Department of Railways and Canals, of the Dominion of Canada, for the fiscal year ending March 31, 1927.

C. A. DUNNING,  
*Minister of Railways and Canals.*

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# REPORT

## OF THE

# DEPUTY MINISTER OF RAILWAYS AND CANALS

FOR THE FISCAL YEAR ENDED MARCH 31, 1927

To the Hon. C. A. DUNNING,  
Minister of Railways and Canals.

SIR,—In submitting the annual report of the department for the fiscal year ended March 31, 1927, may I be permitted to refer to certain features of the year's operations which may be considered worthy of comment?

For the fifth consecutive year it has been possible for the management of the Canadian National Railways to produce an operating surplus. This operating net has grown from less than three millions in 1922 to \$48,225,029 in 1926, an increase of \$14,781,731 over the previous year. After taxes and miscellaneous operations had been taken care of, the total operating income amounted to \$42,843,846. As the fixed charges due the public amounted to \$39,701,896, it will be seen that, for the first time, the operating income of the National lines has been sufficient to take care of the interest charges of the investing public, and provide a respectable balance for other purposes. Incidentally, it may be stated that for the first time also the operating net of the Canadian National system, in 1926, exceeded that of any other Canadian railway. It is worthy of note that this continued improvement over a period of years has been maintained in the face of wage increases and rate reductions. Whether it will be possible, indefinitely, for the management to produce such results, it is impossible to predict. In that connection, the president himself, in his annual statement, does not hesitate to sound a note of warning, when he says:—

“The question of freight rates continues to be one of importance and some anxiety. It is not the province of the Board of Directors to argue for or against higher freight rates, but a distinct responsibility rests upon the board to direct attention to the effect of alterations in the rate structure which would reduce the gross revenues of the system. The board is of opinion that the welfare of the Dominion would be best served if its railways were allowed rates which would enable them not only to maintain solvency, but to make those improvements and provide those facilities which are from time to time necessary to meet the constantly increasing traffic requirements of a rapidly growing country. In so far as the Canadian National Railways are concerned, the property is owned by the people of Canada, and, in the last analysis, the financial position is in their hands. However, the board ventures to express the thought—as it has indeed on previous occasions—that freight rates cannot be constantly decreased and net earnings continue to increase. With fair rates it has been possible to reduce to a minimum the demands of the railways on the public treasury. The Canadian National Railways are emerging from a condition which may be conservatively described as unsatisfactory; they have reached the point where they are paying interest out of net earnings on all the securities held by the public, and, furthermore, they are furnishing a service which the board feels is satisfactory to the shipping public. Would it not be wise to allow that condition to continue and improve?”

The president also referred to the wage situation which developed late in the year and demanded immediate consideration. It was a situation which, in certain of its aspects, required joint action by the Canadian Pacific and the Canadian National managements, and concerning it, Sir Henry Thornton advises that:—

“After careful and anxious consideration an amicable arrangement was made which was thought to be to the interest of the immediate parties involved and of the Dominion itself. Following upon this adjustment negotiations were undertaken and others are in discussion which will result in further increases. While the burden upon the company's expenses will be considerable, it is believed by your board that the zeal, efficiency and loyalty of all of the employees justify financial recognition, and it is confidently believed that a large part of the money so spent will, in course of time, be saved through improved good feeling and consequent efficiency.”

## GRAND TRUNK PACIFIC SETTLEMENT

On May 27 last it was possible, by Order in Council, P.C. 1011, to terminate the Grand Trunk receivership, pursuant to section 10 of chapter 7, 17 George V, passed at the recent session of Parliament. This legislation ratified the agreement reached between the Grand Trunk Pacific 4 per cent Debenture Stockholders' Committee and the Canadian National Railway Company with respect to a dispute which arose out of the abandonment by the Grand Trunk of its subsidiary, the Grand Trunk Pacific, in March, 1919, as a result of which the latter road was plunged into receivership. The dispute was as to the responsibility for the interest, amounting to \$1,395,720 per annum upon an issue of \$34,879,252 of 4 per cent perpetual debenture stock put out by the company between February, 1907, and March, 1914. Prior to receivership, interest on this security was paid by the Grand Trunk Pacific out of Government advances, and the crisis in the affairs of the company arose when the Government insisted that its advances should be applied to meet working expenses.

These debentures were not guaranteed by the Government of Canada or by any of the provinces, but were conditionally guaranteed by the Grand Trunk Railway Company of Canada, the condition being that there should be net surplus earnings available for the purpose of the debenture interest after payment of all Grand Trunk prior charges.

There was protracted correspondence and negotiation on behalf of the debenture stockholders by a representative committee in London extending over the last half dozen years in an endeavour to secure recognition of the committee's claim. The Government admitted that the claim was valid and cumulative against the Grand Trunk Pacific Company, and also against the Grand Trunk, in so far as the conditional guarantee imposed obligation. However, as regards the Grand Trunk, the charge was not cumulative. Interest was paid under the Grand Trunk guarantee for one year only since receivership, namely, in 1924, on the Grand Trunk earnings for 1923. Thus, there was a cumulative charge of almost seven years' interest against the Grand Trunk Pacific property in connection with this interest claim.

There were other complications growing out of the Grand Trunk conditional guarantee, the Debenture Stockholders' Committee urging that their interest charge should be considered prior to interest charges on all subsequent advances on Grand Trunk account. This was disputed and the Government offered to submit the issue to the courts. Finally, representatives of the Canadian National Railways and the debenture stockholders agreed to consider the possibility of settlement by compromise. At their request, a committee of prominent banking and financial men agreed to act in an independent advisory capacity in the possible settlement of the dispute. This committee included the Right Hon. Reginald McKenna, of the Midland Bank, Mr. E. R. Peacock, of Barings, Sir George May, of the Prudential Assurance Company, and Mr. D. W. Berdoe-Wilkinson, of Messrs. Mullins Marshall.

As a result of the intervention of the independent advisory committee, Sir Henry Thornton, for the Canadian National Railway Company, submitted the proposal which was accepted by the Debenture Stockholders' Committee—and embodied in chapter 7, 17 George V. The arrangement arrived at substitutes for the 4 per cent Grand Trunk Pacific perpetual debentures a guaranteed Canadian National Railway issue carrying interest at 4 per cent, two per cent of which goes into a sinking fund designed to terminate the obligation in about 32 years.

In replying to Sir Henry Thornton's offer, the advisory committee stated:—

“On our part we whole-heartedly recommend the debenture stockholders to accept your offer, which we unreservedly regard as a just one and one that should remove the soreness that undoubtedly exists and restore the feeling of amity in financial circles so desirable for both our countries.”

The agreement was accepted by the Debenture Stockholders' Committee, and recommended by them to the debenture stockholders. Under the provisions of The Canadian Railway Act for dealing with the affairs of insolvent companies, which is based on the British Act, an arrangement of this sort is deemed to be conclusive and binding on all debenture stockholders when agreed to by the holders of 75 per cent of the debenture stock outstanding.

The arrangement was assented to in writing by the holders of slightly more than 90 per cent of the debenture stockholders. This is an unusually large percentage of assent, and might almost be called unanimous in view of the tendency of securities in the hands of the public to disappear from various causes.

In accepting the offer, the debenture stockholders agreed to forego their claim to arrears which had accumulated against the bankrupt Grand Trunk Pacific Company, as a result of which arrears of interest amounting to \$8,138,492 have been written off and the necessary adjustment made in profit and loss account.

The termination of the receivership removed the disability which required the submission to the courts of all financial matters connected with the management and operation of the Grand Trunk Pacific Railway. Among other benefits of settlement are the elimination of accounting heretofore necessary to keep the results of operation of the Grand Trunk Railway Company of Canada and the Grand Trunk Pacific separate, thus making it possible to reduce considerably railway accounting expenses; the avoidance of possibly expensive and prolonged litigation and the establishment of a better feeling in London and the Continent towards Canadian securities and Canadian enterprises generally.

#### MARITIME FREIGHT RATES

A matter which greatly engaged the attention of the department and the railway management, and, subsequently, Parliament and the Board of Railway Commissioners, during the past year was the consideration, adoption and application of the recommendations of the Royal Commission on Maritime Claims in connection with freight rates. The department was particularly interested inasmuch as the recommendations principally concerned the Intercolonial Railway, constructed in accordance with the pledge given to the Maritime Provinces at Confederation. At that time, the purposes of the railway were defined by leading Canadian statesmen to be a means of affording to Canadian merchandise, and to Canada herself in times of national and imperial need, an all-the-year-round access to the Atlantic ocean. The railway was to provide, also, for maritime merchants, traders and manufacturers, a market of several millions of people, instead of the restricted market of the Maritime Provinces themselves. The commission called attention to the fact that the actual course of the railway was much longer than it otherwise need have been, but for strategic considerations, and held that to the extent that commercial considerations were subordinated to national, imperial and strategic considerations, the added cost of transportation should be borne by the Dominion and not by the traffic that might pass over the line.

The commission found that since 1912, changes had taken place in the rate structure, and increases had been added to the freight rates, the combined effect of which had been to impose upon the merchandise and interests of the Maritime Provinces a burden quite out of proportion to the increase added since 1912 to the freight structure in other parts of Canada, although it was admitted that the increases in many cases might only have raised Intercolonial rates to the same level of scale as rates in other parts of Canada. In view of this, the commission felt that the increases arising from the changes that had taken place in freight rates since 1912—over and above the general increase that

has taken place in other parts of the National system—was as fair a measure as could be devised of those special considerations, and that excess of increase ought, in their view, to be transferred from the Maritimes to the Dominion as a whole, so that the original intention of the concept of Confederation might be observed. The Commission, therefore, recommended a reduction of 20 per cent on all rates charged on traffic which both originates and terminates at stations in the Atlantic Division of the Canadian National Railway (including export and import traffic, by sea, from and to that division), and that the same reduction be also applied to the Atlantic Division proportion of the through rates on all traffic which originates at stations on the Atlantic Division (excluding import traffic by sea), and is destined to points outside the Atlantic Division.

For this purpose, the commission could not regard the Atlantic Division as ending at Riviere du Loup and Monk, which are its present western limits, and recommended that the divisional points should, for the purpose of the reduced rates, be regarded as Diamond Junction and Levis—Diamond Junction being the point at which the Transcontinental Railway meets the old Inter-colonial Railway, and Levis the point to which in 1879 the Inter colonial Railway was extended.

In discussing the application of these reduced rates, the commission stated that it was not overlooking the fact that “the other great railway system operating in the area would be entitled to equitable consideration if they find themselves prejudiced as a result of the reduction proposed.” Subsequently, when the legislation was before the House (March 25, 1927) the Minister of Railways stated that any railway in the affected area would also be entitled to the same equitable consideration. In that connection, the minister estimated the cost of the concession as likely to be in the neighbourhood of \$2,500,000, of which the Canadian National proportion was approximately two millions.

Effect was given to the recommendation of the Commission by chapter 44, 17 George V, assented to April 14, 1927, and the reduced rates in the area referred to came into force in due course on July 1, that date being selected as appropriate in view of the 60th anniversary of Confederation.

#### BRANCH LINE CONSTRUCTION

Parliament at the recent session also approved the second three-year construction program of the Canadian National Railways. The management find that the principle of granting authority to construct such lines over a period of years has proved to be of substantial value in that it permits of more satisfactory arrangements for the prosecution of the work, and it is undoubtedly, in many respects, preferable to obtaining a separate vote each year.

In transmitting the new program to the Government, with the recommendation of the management, Sir Henry Thornton stated:—

“It is too early to determine whether the anticipated traffic results in connection with each of the lines included in the previous program have been realized, but on the whole we are fully satisfied with the results. Considering the traffic secured so far, the economic advantages of operation which will result from the construction of certain of these above proposed lines, and the necessity of entering additional territory in order to maintain the company's relative position and provide for the rising tide of immigration, it is felt that the program as submitted represents substantially the minimum that could be undertaken at this time, and is justified by the prospects.”

The program recommended by the management was duly considered by the Select Standing Committee on Railways and afterwards adopted by both Houses of Parliament, the necessary legislation being assented to on March 31.

The following statement groups the new branch line proposals into three classes, viz:—

- (1) Those which offer economic and operating advantages.
- (2) Branches for the purpose of development and colonization.
- (3) A link to the Hudson Bay Railway.

For traffic to and from points on the Canadian National Railways south of Canora, this last-mentioned connection (Hudson Bay Junction to Sturgis) the route distance to Hudson bay will be shortened by 120 miles.

1927	Name of Branch	Miles	Estimated cost
			\$
	<i>Lines which offer economic and operating advantages to the property of the system—</i>		
Chap. 13	Grand Mere to East Burrills.....	7.9	1,683,000
" 14	Pilkington to Niagara Junction.....	16.7	1,164,000
" 21	Kindersley to Glidden.....	18.0	640,000
" 26	Bretona to Clover Bar.....	11.0	319,000
	Total, Group (1).....	53.6	3,806,000
	<i>Branches for the purpose of general development and colonization of the country, which will constitute feeders to the system—</i>		
" 12	{St. Felicien to Mistassini River.....	27.3	1,463,000
	{Hebertville to Savanne Falls.....	34.5	2,132,000
" 15	Weyburn-Radville.....	22.7	570,000
" 16	Willowbrook northwesterly.....	22.0	616,000
" 17	Sturgis to Crooked River (or point east).....	100.0	3,395,000
" 18	Peesane northerly.....	19.0	570,000
" 19	Shellbrook westerly.....	77.0	2,480,000
" 20	Turtleford S.E., Mile 67 to between Hafford and Richard...	35.6	1,130,000
" 22	Spruce Lake (near)—westerly.....	29.5	990,000
" 24	Elk Point easterly.....	19.0	745,000
" 25	Ashmont-Bonnyville.....	38.0	1,415,000
	Total Group (2).....	424.6	15,506,000
	<i>A branch which will link the Hudson Bay Railway with the south lines of the Canadian National Railway System—</i>		
" 23	Hudson Bay Junction southerly to meet proposed Sturgis-Crooked River line.....	32.0	1,088,000
	Total, Group (3).....	32.0	1,088,000
	Total, All Branches.....	510.2	20,400,000

#### BRANCH LINES PREVIOUSLY AUTHORIZED

The branch lines authorized by Parliament in 1924-25 numbered 21, with an estimated mileage of 652.3 and an estimated cost of \$18,002,000. The actual expenditure to December 31 last, and the mileage constructed, is given in the following statement:—

## DEPARTMENT OF RAILWAYS AND CANALS

	Name	Mileage constructed	Expenditure to Dec. 31, 1926	Estimated expenditure for year 1927
1924			\$	\$
Chap. 14	China Clay.....	2.3	84,799 39	Nil
" 15	Cowichan Bay.....	7.44	381,434 53	Nil
" 16	Dunblane-Central Butte.....	37.58	2,572,673 75	150,000
" 17	Eston S.E.....	34.75	537,845 28	25,000
" 18	Acadia Valley.....	24.62	353,744 81	80,000
" 19	Grande Fresniere.....	12.0	405,851 62	Nil
" 20	Gravelbourg.....	10.17	126,962 96	Nil
" 21	Hanna-Warden.....	62.18	1,519,766 37	35,000
" 22	Kamloops-Kelowna-Lumby.....	105.12	2,233,772 29	300,000
" 23	Kingsclear-Vanceboro.....		Nil	Nil
" 24	Lockeport Spur.....	4.22	183,571 10	Nil
" 25	Loverna Westerly.....	49.93	1,096,530 04	40,000
" 26	Vancouver Island.....	10.11	102,447 18	15,000
" 27	Peebles southerly.....	22.41	296,084 36	Nil
" 28	Pine Falls.....	20.36	542,907 34	Nil
" 29	Prince Albert N.E.....	23.94	348,795 52	Nil
" 30	Rosedale S.E.....	Nil	Nil	500,000
" 31	St. Paul S.E.....	20.82	429,379 06	90,000
" 32	Ste. Rose du Lac.....	22.56	353,296 73	Nil
	Total, 1924.....		11,569,862 33	1,235,000
1925				
Chap. 5	Bengough-Willowbunch.....	28.49	749,139 30	50,000
" 7	Turtleford, S.E.....	65.53	1,098,046 96	375,000
	Totals, 1925.....		1,847,186 26	425,000
	Grand Totals.....		13,417,048 59	1,660,000

Two projects of the 1924 program were not proceeded with—the Kingclear-Vanceboro line and the Rosedale-Bullpond line. The first-named was rendered unnecessary by running rights secured over the Canadian Pacific Railway, and an extension of time is being asked for on the Rosedale-Bullpond proposal.

This reduced the authorized mileage by 80, and the cost by \$3,038,000, leaving the mileage 572.3, and the estimated cost \$14,964,000. The work involved in the foregoing program included 301.88 miles of grading, 564.53 miles of track-laying, and 490.97 miles of ballasting.

## HUDSON BAY RAILWAY AND PORT DEVELOPMENT

After almost ten years of inaction, following the shut-down, in 1917, of the work at Nelson and the termination of railway construction and release of the contractors in 1918, construction work has been actively resumed by the department. The work so far has not been relet to contract, it being felt that greater expedition could be secured, and more satisfactory results obtained, by direct use of the construction and engineering forces of the Canadian National Railways. While that is the case, the undertaking is again a departmental responsibility and the capital and other accounts connected with the railway have been transferred from the books of the Canadian National Railway to those of the department, as will be seen by reference to the detailed Canadian National statements.

As indicated in the report of the departmental accountant, the expenditure on the Hudson Bay Railway to March 31, 1927, was \$18,121,379.63, as compared with \$15,297,474.03 at the end of the previous fiscal year. Of the \$2,823,905.60 expended during the year, \$849,651.85 was for ties, \$428,377.41 for track-laying and surfacing, \$289,783.56 for shops and engine houses, \$262,838.30 for bridges, trestles and culverts, \$229,069.75 for ballast, \$196,465.99 for rails, \$99,455.69 for water stations, \$97,946.12 for grading, \$73,909.24 for telegraph and telephone lines, \$69,597.87 for track material other than rails, \$68,448.63 for equipment, \$62,560.75 for engineering, \$32,336.10 for fuel stations, etc., etc.

A progress report, of August 31, 1927, gives a bird's-eye view of the work of reconditioning the railway:—

Total ties delivered to date.....	696,304
Total ties placed to date.....	619,552
Of above ties placed, number used for renewals.....	554,500
Daily average number of men employed.....	1,455
Number of work trains.....	12
Total yards to date in raising and widening banks.....	477,086
Total yards of ballast delivered.....	327,284
Total miles of ballasting completed.....	293

(Between Miles 0.130, 137-286, 340-350)

*Bridges.*—Various work is being undertaken on bridge over Saskatchewan River, bridge at mileage 235, Limestone River bridge, where two spans have been placed, and Kettle Rapids bridge.

*Track-laying.*—End of track now at Limestone River, mile 350.

### THE CHANGE TO CHURCHILL

Before committing the country to further heavy expenditures on the port development at Nelson it was considered advisable during the year to engage the services of an expert in harbour development to report as to the relative merits of Nelson and Churchill as the ocean terminus for the railway. Since the work at Nelson was undertaken, unexpected difficulties both as to engineering and navigation had been experienced, and, in order to assure successful harbour operation under present-day conditions, it was arranged to submit the plan of development and conditions there to an undoubted authority on tidal and estuarial harbour problems, and if, meanwhile, the construction of a railway to Churchill were found to be feasible, it was also proposed to have an examination by the same engineering authority, of the situation at Churchill, as to which there appeared to be no exact information of record in the department.

For the harbour examination, the services of Mr. Frederick Palmer, of the firm of Rendel, Palmer & Tritton, London, England, were secured, and he came to Ottawa in December last and made a close study of the records and documents relating to the choice of Nelson as the railway terminus and the type of development proposed there and partially constructed. Before returning to London, Mr. Palmer indicated the nature of the information he would require as to Churchill in the following letter:—

“I think it necessary to call attention to the fact that there was a complete absence of engineering data at the time when the decision was arrived at to locate the port at Nelson. It is very desirable that this mistake shall not be repeated when reconsidering that decision. During the progress of the works at Nelson a great deal of information has been obtained from time to time, but in regard to Churchill the position to-day is that there is absolutely no data upon which anything approaching a reliable estimate of costs can be formulated. I have therefore given Colonel Dubuc a memorandum of requirements in regard to borings, trial pits, etc., information regarding which must be in my hands before a scheme can be prepared. About Nelson, no further data seems to be necessary, and when those for Churchill have been completed, and the estimated costs of the railway works are forthcoming, it will be possible to place before you a very fair comparison of the merits of both these ports.”

To avoid the loss of an entire season, it was decided to send in the men and materials, as well as the machinery, by aeroplane from the end of steel, and this method of transport was successfully employed under winter conditions and much time saved.

Meanwhile, a Canadian National Railway engineering party was engaged from January 9 to April 4 last on the survey of a possible line of railway to Fort Churchill. As a result, the engineers reported that it would be no more difficult to build and maintain a line of railway to Churchill than has been experienced on other parts of the Hudson Bay Railway.

The line as surveyed leaves the present Hudson Bay Railway location at mile 356.8, and runs north from township 28, range 21, east of the Principal meridian, to township 112, range 20. The last 28 miles parallel the Churchill river.

The line to Churchill from mile 356.8, would be 154 miles long as against 67 miles to Nelson, and the cost to Churchill would be \$7,543,000 as compared with \$2,458,000 to Nelson.

The foregoing estimates include half a million for railway terminals at either place. The engineers believe the line to Churchill could be completed in two working seasons, or by December, 1929, and the line to Nelson by December, 1928.

Mr. Palmer returned to Canada in July last and visited Nelson and Churchill, following which he has submitted a preliminary report strongly recommending that Churchill be made the port terminal for the Hudson Bay Railway as, in his opinion, it would afford by far the best possible opportunity for the development of trade through the Bay. Mr. Palmer's preliminary report, and the letter of instructions upon his engagement, are reproduced as an appendix to the present report for convenience of record and reference.

Immediate action was taken on the Palmer report, and as this is written a force of nearly two hundred men, under Mr. George Kydd, resident engineer, is busy at Nelson reconditioning the floating plant there, dismantling buildings, and collecting material generally for immediate transfer to Churchill. Dredging plant and equipment, fuel and other supplies are also being sent into Churchill this Fall by sea in order to make possible an early start in dredging and construction work in the Spring of 1928.

In connection with the Hudson Bay project generally, Parliament last session voted \$850,000 for the establishment of an aerial patrol service in Hudson strait to investigate conditions attending navigation in the strait and bay. The expedition left Halifax July 14 last, and bases have been established at Port Burwell, at the Atlantic entrance to the strait; at Wakeham Bay, about midway through, and at Nottingham Island, at the Hudson bay end of the strait. The distance between Port Burwell and Nottingham Island is 500 miles. The engineering, wireless and radio staff was provided from the personnel of the Department of Marine and Fisheries, and the air force by the Air Branch of the Department of National Defence. Six planes have been taken in, two for each base. Wireless stations at each base will provide communication between bases and with such stations as Greenland, Belle Isle, Ottawa and Port Nelson. The duration of the present expedition is for eighteen months, during which close observation of ice and weather conditions, currents and tides will be made, and at the conclusion of this period of observation it is expected that, based on the information thus secured, a permanent plan may be developed as to the requirements of the Strait from the standpoint of navigation and the possible extension of the navigation season.

#### CANADIAN NATIONAL RAILWAYS

The Canadian National report proper now includes the operations of the Central Vermont, a controlled company. Heretofore, it has been the practice for this company to issue a separate report. This has been the subject of some criticism in Parliament so the management took the necessary steps this last year to combine the two reports. This has necessitated the recasting of all 1925 statements to make them comparable with those of 1926. It has also necessitated certain bookkeeping changes in connection with the profit and loss account and the balance sheet, which are self-explanatory.

During the year, 193.53 miles of new line were placed in operation, principally in Western Canada. In addition, 117 miles of track were laid, and 65 miles were graded. Including the 492.52 miles of Central Vermont trackage heretofore separately shown, the total first main track mileage of steam-operated lines referred to as "steam mileage" in the Canadian National reports now stands at 22,681.95 miles. In addition, there are, separately operated, 183.53 miles of electric line and the six-mile-long Thousand Island steam line.

#### ANALYSIS OF OPERATING RESULTS

The gross revenue for the year was \$275,570,310 and the working expenses \$227,345,280. The increase in gross earnings was \$21,861,536, while the increase in working expenses was only one-third of that amount, or \$7,079,804. As indicating how economies in operation and increased efficiency in all branches of the transportation played its part in securing this very satisfactory result, it is sufficient to say that the increase of \$21,861,536 in gross revenues was achieved with an increase of only \$1,006,783 in transportation expenses. This in itself constitutes a remarkable achievement, and among the factors that made it possible were the following:—

*Cheaper Fuel.*—A saving in price of 46 cents per ton means a saving of \$2,702,974.38.

*Fuel Economy.*—In freight train operation there was a saving of 2 pounds per 1000 gross ton miles, approximating a saving of \$100,000; in passenger train operation there was a saving of 4 pounds per passenger train car mile, which means a saving of approximately \$166,000.

*Better Train Performance.*—Gross train load increased from 1421 tons to 1445 tons, or by 24 tons, or 1.7 per cent, saving approximately 600,000 train miles. In this connection, it may be stated that enginemen's and trainmen's wages, fuel, and other locomotive supplies, enginehouse expenses and train supplies, and expenses per freight train mile (selected accounts only) amount to more than \$1 per train mile. A comparison of the monthly averages indicates a saving throughout the year of 3.73 per cent in cost of these items, or \$1.01.6 per train mile in 1926, as against \$1.05.6 per train mile in 1925.

Engine house expenses were reduced by over \$170,000 due to decrease in number of engines dispatched, resulting from increasing the length of main line runs, use of heavier power, and increasing use of self-propelled cars. Cost of lubricants for train locomotives was reduced, due to better supervision, etc

Transportation costs include locomotive operation, and a considerable amount of the saving achieved in transportation expenses is due to the efficiency developed in the Motive Power Department. This also shows up in the maintenance of equipment expenses, where the cost of motive power repairs shows an inconsiderable increase notwithstanding the much larger volume of business moved.

*Better Station Performance.*—A reduction in cost of office wages per consignment shows up in the statistics every month of the year, and the average reduction indicated for the year is 9.32 per cent; a reduction in the cost of shed wages per ton handled also shows up in every month of the year, and indicates an average reduction of 3.28 per cent.

*Better Yard Performance.*—A slight reduction in the cost of wages per car handled is indicated by the monthly statistics in nine out of twelve months, and indicates an average saving, of about 1 per cent. This saving is largely due to the fact that where business increases, as it did in 1926, a certain amount more business can be handled without increasing switching locomotive assignments or

supervision involved. There were a number of miscellaneous savings which can hardly be identified and to some extent due to the accumulating benefits of improvements made to the transportation plant over a number of years.

An approximation of the savings effected in transportation expenses is shown below, where the expense ratio of various groups of accounts is shown for 1926 as compared with 1925. The statement for the year, including Central Vermont, shows that transportation expenses per dollar of gross earnings dropped from 43.51 to 40.43 cents. If the transportation ratio of 1925 were applied to the gross earnings of 1926, a transportation cost of \$119,900,000 would have been produced instead of \$111,393,000, and an approximation of the differences involved is shown below, the statement including a large percentage of all transportation expense:—

	1926	1925	Savings
			\$
Stations.....	6.80	7.36	1,379,018 00
Yards.....	5.39	5.44	137,785 00
Trains.....	12.25	12.80	1,515,636 00
Fuel.....	9.24	10.51	3,499,742 00
Freight Claims.....			357,074 00
Miscellaneous.....	6.35	6.93	1,598,307 00
	40.03	43.04	\$8,487,562 00

Another tangible indication of improving methods is to be found in the balance sheet item of "materials and supplies," under "Current Assets." At December 31, 1923, the amount represented in materials and supplies was \$54,728,486. At December 31, 1926, it was \$38,271,283, a decrease, since reorganization, of \$16,457,213. This is regarded as a most satisfactory performance, and is due to a certain extent to decreased cost of material carried in stock. It is the policy of the purchasing department to reduce the amount of working capital locked up in stores, as a result of which loss due to deterioration and depreciation is greatly lessened, while the reduction of sixteen million dollars in working capital affords in itself a saving of \$800,000 a year in interest.

While these achievements are worthy of appreciative record, it would not be fair to the management to expect similar improvements indefinitely. The management itself does not think that possible, as witness the following extract from Sir Henry Thornton's statement:—

"It is but fair to call attention to the fact that during the first years of system consolidation there have been many opportunities for economy. Much of this field has been exhausted and, while efficiency and lower operating costs will be rigorously sought, it is not probable that corresponding percentage improvements can be maintained, especially when it is remembered that certain wage increases have already been granted to employees, and others are in negotiation which will tend to affect operating results."

#### TAXES AND INSURANCE

Privately-owned roads occasionally make a point of the taxes they pay. Lest it be supposed that the National lines are exempt from this common affliction, it may be pointed out that taxes paid by the Canadian National lines in 1926 amounted to \$5,281,817, an increase during the year of \$816,400. This was mainly due to the half million allowance made to the Maritime Provinces where the original Government lines, following the practice with respect to Dominion public works, are not considered to be taxable. The balance of the

increase is due to United States taxes on American earnings. The taxation of United States railways is particularly heavy. In 1926, for the fifth successive year, taxes paid by United States railways, as a whole, exceeded the amount of cash dividends paid.

Four years ago the present management decided to extend to the entire system the principal of self-insurance which the Right Hon. Geo. P. Graham, during his first connection with the Department of Railways, adopted with respect to the Intercolonial. The Insurance Department was reorganized and placed under the control of a director of insurance. At that time, annual premiums paid to outside insurance companies amounted to approximately \$1,105,000. In addition to this annual cash outlay, there were charged to operating expenses and credited to insurance reserves, premiums aggregating \$130,000. The Grand Trunk had a limited self-insurance fund, built up by cash. The Canadian Northern's insurance fund on the other hand was merely a book-keeping fund.

Under the present arrangement, the amount of the premiums that would have gone to a private company are laid aside in the Canadian National insurance fund. This insurance is an actual charge against the revenues of the railways. It is not merely a bookkeeping fund, but represents actual cash or realizable securities. As Sir Henry Thornton has pointed out, the surplus of the self-insurance fund, which covers both railway and marine insurance, was increased during the year under review by \$1,667,567. The total surplus at December 31 last amounted to \$8,049,552, nearly all of which is invested in victory bonds.

## OPERATING RESULTS UNITED STATES LINES AND CANADIAN LINES,

## SEPARATELY SHOWN

The following statement is of interest as showing the operating results of the Canadian National lines in Canada and in the United States, separately:—

	1926	1925
	\$ cts.	\$ cts.
<i>Gross Operating Revenues—</i>		
Canadian National Railway Lines in Canada.....	225,547,852 16	208,218,920 82
Canadian National Railway Lines in United States.....	50,022,458 12	45,489,853 37
Total.....	275,570,310 28	253,708,774 19
<i>Gross Operating Expenses—</i>		
Canadian National Railway Lines in Canada.....	190,173,271 00	184,373,201 44
Canadian National Railway Lines in United States.....	37,172,009 64	35,892,274 71
Total.....	227,345,280 64	220,265,476 15
<i>Net Revenue from Railway Operations—</i>		
Canadian National Railway Lines in Canada.....	35,374,581 16	23,845,719 38
Canadian National Railway Lines in United States.....	12,850,448 48	9,597,578 66
Total.....	48,225,029 64	33,443,298 04
<i>Tax Accruals, Uncollectible Revenues and Miscellaneous Operations—</i>		
Canadian National Railway Lines in Canada.....	3,559,212 59	3,048,206 96
Canadian National Railway Lines in United States.....	1,821,970 72	1,580,837 68
Total.....	5,381,183 31	4,629,044 64
<i>Total Operating Income—</i>		
Canadian National Railway Lines in Canada.....	31,815,368 57	20,797,512 42
Canadian National Railway Lines in United States.....	11,028,477 76	8,016,740 98
Total.....	42,843,846 33	28,814,253 40
<i>Non-Operating Income or Charges, Net—</i>		
Canadian National Railway Lines in Canada.....	7,219,421 87	9,119,271 05
Canadian National Railway Lines in United States.....	8,164,991 12	7,714,248 56
Total.....	945,569 25	1,405,022 49
<i>Total Income or Deficit before Fixed Charges—</i>		
Canadian National Railway Lines in Canada.....	39,034,790 44	29,916,783 47
Canadian National Railway Lines in United States.....	2,863,486 64	302,492 42
Total.....	41,898,277 08	30,219,275 89
<i>Fixed Charges—</i>		
Canadian National Railway Lines in Canada—		
Interest due Public.....	38,311,469 77	39,539,506 95
Interest due Government.....	32,090,453 66	31,450,381 89
Canadian National Railway Lines in United States—		
Interest due Public.....	1,390,426 58	1,427,051 78
Total.....	71,792,350 01	72,416,940 62
<i>Net Income or (Deficit)—</i>		
Canadian National Railway Lines in Canada.....	31,367,132 99	41,073,105 37
Canadian National Railway Lines in United States.....	1,473,060 06	1,124,559 36
Total.....	29,894,072 93	42,197,664 73

## SEPARATELY-OPERATED PROPERTIES

In the Income statement of the Canadian National report, which appears in its usual place in this volume, the net profit or loss only of separately-operated properties is shown. The following statement gives the detail as applied to each of the subsidiary companies transferred on the acquisition of the formerly privately-owned railways, express, steamships, telegraphs, electric lines, etc.:

## A/Cs. 512 AND 545—"SEPARATELY OPERATED PROPERTIES"

## NET INCOME OF SUBSIDIARY COMPANIES TRANSFERRED TO CANADIAN NATIONAL RAILWAY SYSTEM

	A/C 512 S.O.P.—Profit		A/C 545 S.O.P.—Loss		Increases and decreases
	1926	1925	1926	1925	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Canadian National Railway Company—</i>					
Prince Charles, Limited.....	20,405 51			3,791 56	24,197 07
Can. Nat. Railways (France).....	81,056 44				81,056 44
Can. Nat. Railways, carried forward.....	4,809 24				4,809 24
	106,271 19			3,791 56	110,062 75
<i>Grand Trunk Railway System—</i>					
Canadian National Express (70·92 per cent of Miscellaneous Income)	211,996 63	199,365 69			12,630 94
Chicago, New York and Boston Refrigerator Line.....	168,696 56	194,600 26			25,903 70
Oshawa Railway.....	193,346 92	151,777 58			41,569 34
Rail and River Coal Company.....			354,272 19	293,206 18	61,066 01
Terminal Warehousing Company.....	47,496 68	77,767 59			30,270 91
Thousand Island Railway.....	20,658 68	25,418 60			4,759 92
Canada Atlantic Transit Co. of United States.....			50,970 44	164,002 74	113,032 30
Montreal and Southern Counties Railway.....	3,264 82			19,344 09	22,608 91
Toronto Terminals Railway.....				150,291 29	150,291 29
	645,460 29	648,929 72	405,242 63	326,261 72	82,460 34
<i>Canadian Northern Railway System—</i>					
Canadian National Express (29·08 per cent of Miscellaneous Income)	86,926 99	81,747 80			5,179 19
Canadian National Telegraphs.....	241,249 87	176,061 14			65,188 73
Canadian National Transfer.....	12,141 64	24,388 45			12,246 81
Niagara, St. Catharines and Toronto Railway.....	226,789 09	83,014 77			143,774 32
Canadian National Realities Limited.....	42,254 95	16,087 12			26,167 83
Duluth and Virginia Realities.....			11,854 45	18,605 09	6,750 64
Canadian National Electric Railways (Toronto Suburban).....			206,402 50	228,919 83	22,517 33
	609,362 54	381,299 28	218,256 95	247,524 92	257,331 23
<i>Grand Trunk Pacific Railway System—</i>					
Canadian National Steamships, Limited.....	97,020 66	24,837 87			72,182 79
Grand Trunk Pacific Development Company.....	23,729 38			107,625 04	131,354 42
Grand Trunk Pacific Terminal Elevator Company.....	20,565 57	19,155 07			1,410 50
Grand Trunk Pacific Alaska S.S. Company.....			794 76	2,568 57	1,773 81
Grand Trunk Pacific Telegraph Company.....			22,452 39	13,256 38	9,196 01
Prince Rupert Dry Dock.....	19,386 21			58,031 44	77,417 65
	160,701 82	43,992 94	23,247 15	181,481 43	274,943 16
<i>Montreal Warehousing Company.....</i>	84,484 15	104,835 28			20,351,13
<i>Canadian National Railway System.....</i>	1,606,279 99	1,179,057 22	646,746 73	759,059 63	539,535 67

## HOTELS, CAMPS AND LODGES

In addition to the aforementioned separately-operated properties, there are what are referred to in the Income statement as "miscellaneous operations." These are the hotels and camps associated with modern railway operations in which the Canadian National Railways now have a capital investment of \$12,178,228. The loss on these operations was \$48,977, which was \$37,596 less than the previous year. The investment, revenues, taxes and net are separately indicated in the following statement:—

—	Capital cost Dec. 31, 1926		Revenues	Expenses	Taxes	Net income or deficit				
	\$	cts.	\$	cts.	\$	cts.				
Chateau Laurier.....	2,619,876	48	865,408	38	692,289	09	22,372	46	150,746	83
Highland Inn.....	204,587	24	52,029	79	65,916	40			13,886	61
Nipigon Lodge.....	37,838	85	2,855	20	5,550	84	63	45	2,759	09
The Nanaki Inn.....	856,177	54	25,745	91	105,000	11			79,254	20
The Prince Arthur.....	1,139,012	09	160,516	41	150,331	85	8,025	60	2,158	96
The Prince Edward.....	500,644	89	93,202	60	107,671	54	4,440	00	18,908	94
Jasper Park Lodge.....	1,417,989	44	243,700	51	241,888	91	2,375	00	563	40
Mount Robson Camp.....	107	15								
Grand Beach Hotel.....	368,600	54	7,429	88	13,602	29			6,172	41
The Fort Garry.....	2,779,879	58	458,388	09	512,979	41	24,796	33	79,387	65
The Macdonald.....	2,177,324	42	385,539	02	369,413	84	3,639	12	12,486	06
Pictou Lodge.....	76,189	96	6,731	61	9,460	14	500	00	3,228	53
Eastern Lands Department.....					10,208	29			10,208	29
	12,178,228	18	2,301,547	40	2,284,312	71	66,211	96	48,977	27

## DECREASE IN LONG-TERM DEBT

The 1925 report showed the long-term debt held by the public as \$931,329,302.74. To make that figure comparable with the present balance sheet, \$10,237,865.25 should be added on Central Vermont account, making the combined figure, as of December 31, 1925, \$941,567,167.99. The long-term debt in the hands of the public on December 31 last, was \$935,383,109.74, indicating a decrease of \$6,184,058.25 during the year. This decrease was due to the retirement of equipment trust certificates and serial and sinking fund issues.

It is of interest to note that this debt due the public is held in Great Britain, the United States, and Canada, in the following proportions:—

	Amount	Per cent
Great Britain.....	\$ 490,654,318	64
United States.....	260,359,208	28
Canada.....	184,369,582	82
Total.....	\$ 935,383,159	74
		100.0

The debt due the Government increased from \$572,685,535.07 to \$594,300,367. This increase of \$21,614,831.93 consisted of two appropriations of \$10,000,000 each, one during the fiscal year 1925-26 and the other during the current fiscal year. In addition, there was an item of \$100,000 owing the Government on account of the purchase by the railway of two Canadian Government Merchant Marine vessels for lake service and expenditures made by Canadian National Railways on account of the Canadian Government Railways amounting to \$1,514,831.93.

The item of interest due the Government, accrued but unpaid, increased by \$32,089,853.66 during the year, and now stands at \$193,951,356.64. Appropriations account, Canadian Government Railways, which stood at \$453,935,303.43 at December 31, 1925, now stands at \$437,412,032.64. This reduction of \$16,523,270.79 is due principally to the transfer of the Hudson Bay Railway capital account to the Department of Railways and Canals, which is now actively prosecuting the construction of that railway, and to a bookkeeping transfer of an item of \$1,514,831.93 from appropriations account Canadian Government Railways to Canadian Government loan account. The total increase in long-term debt during 1926 was \$30,997,356.55, made up as follows:—

—	1926	1925	Increase or decrease
	\$ cts.	\$ cts.	\$ cts.
Debt to Public.....	935,383,109 74	941,567,167 99	6,184,058 25
Loans from Government.....	594,300,367 00	572,685,535 07	21,614,831 93
Interest due Government.....	193,951,356 64	161,861,502 98	32,089,853 66
C.G.R. Appropriation.....	437,412,032 64	453,935,303 43	16,523,270 79
	2,161,046,866 02	2,130,049,509 47	30,997,356 55

#### CANADIAN GOVERNMENT RAILWAYS

The mileage of the original Government railways—the former Intercolonial and Prince Edward Island lines, and, latterly, the Hudson Bay line, the Transcontinental and eastern branch lines—constitutes 4,502 miles of main line, or about one-fifth of the entire Canadian National system. Of this mileage, 2,213 are located in the Atlantic Region, 1,442 in the Central Region, and 390 in the Western Region.

The investment in road and equipment in these lines amounts to \$412,035,529. This does not include expenditure on the Hudson Bay Railway which, to March 31, 1927, was \$18,121,379.63, which expenditure, being a departmental and not a railway undertaking, will be found set out in the report of the departmental accountant.

Net operating income for the year 1926 amounted to \$1,908,235, compared with \$3,767,142 in 1925. This operating net is exclusive of interest charges, of which there are none on the former Government-owned lines, the money for the construction or purchase of which was provided from the general funds of the Dominion and not by company borrowing. Since January 1, 1921, receipts and revenues have been applied by the management to operation. Previous to that arrangement all moneys required were voted by the Government, which also received the revenues. Since the change in form of financing of operations a profit and loss account has been set up. Total debits under that account amounted to \$12,408,024 in 1925 and this was reduced to \$8,622,038 by the net income of that year, and to \$6,638,582 by last year's net income of almost two millions.

Railway operating revenues were \$46,290,922 for the year, compared with \$275,570,310 for the system as a whole; and the operating expenses \$43,170,627, compared with the total of \$227,345,280 for the entire system. Net earnings of these original Government lines were \$3,120,294; for the system as a whole, \$48,225,029. For the system, the operating ratio was 82.50; for the former Government lines, 93.26. Earnings per mile of road operated were \$10,372.67 for this group of lines, as compared with \$12,220.95 for the system, while the operating expenses per mile of road were \$9,673.48, compared with \$10,082.28 for the entire system.

The principal items of capital expenditure to December 31, 1927, include:—

Transcontinental Railway.....	\$172,414,516
Intercolonial Railway.....	149,109,347
Equipment account.....	34,301,972
Quebec Bridge.....	22,640,228
Prince Edward Island Railway.....	13,639,309
Quebec and Saguenay Railway.....	7,822,310
International Railway.....	3,140,078
Long Lac Cut-off.....	2,847,547
Lawlor Building, Toronto.....	1,229,912
Caraquet and Gulf Shore.....	1,015,457

A complete statement, including construction and betterments during the year, and deductions due to retirements, is to be found in the report.

Equipment to the value of thirty-four millions includes 589 locomotives, 688 passenger cars, 21,772 freight cars of various kinds, and 1,917 units of work equipment.

#### REPORT OF DEPARTMENTAL ACCOUNTANT

Expenditure on railways and canals, prior to and since Confederation, now totals \$1,336,852,172, of which \$1,031,965,008 has been on railway account, \$255,665,393 on account of canals, and \$49,221,770 miscellaneous departmental expenditure having to do with both railways and canals. Included in the railway expenditure is the capital cost of the railways constructed or purchased by the Government, also working expenses of Government railways prior to the reorganization and consolidation of the national lines and the payment of working expenses from railway revenues. It includes also subsidies paid to privately-owned railways, a complete list of which is included in the report, the cost of the Quebec bridge and the maintenance and operation of the Board of Railway Commissioners.

On canal account, the total expenditure now amounts to \$255,665,393. Of this sum, \$189,657,999 has been capital account, \$14,968,916 on heavy repairs, \$27,517,607 on administrative staff, and \$21,627,451 on ordinary repairs and maintenance. On Welland Ship canal construction \$13,846,473 was expended during the year ended March 31 last, making the total expenditure on this work to that date \$76,579,030. The cost of the Welland canal presently in use, and which will be superseded by the Welland Ship canal, and in part incorporated with it, has been \$46,306,011 to date, of which sum \$7,732,149 has been cost of administration and operation. Details of the expenditure on all canals is given in the statements accompanying the accountant's report.

During the fiscal year the total expenditures of the department amounted to \$20,649,644, divided as follows: railways, \$3,319,380; canals, \$16,438,853; general, \$891,410. The principal item of expenditure was the \$13,846,473 on the Welland Ship canal, already referred to; \$2,415,843 on general canal account; \$2,823,905 on Hudson Bay Railway construction and betterments; Board of Railway Commissioners, \$299,606; Railway Grade Crossing Fund, \$126,490; Canada Highways Act, \$346,496; St. Lawrence Ship canal surveys and investigations, etc., \$112,316; Workmen's Compensation Act, \$331,141 (the department administers this Act for all the other departments of Government); and \$56,505, cost of Sunday labour in the operation of the canals during the season of navigation.

Total revenues received by the department to March 31, 1927, amounted to \$415,376,267, of which \$391,866,392 was revenue received by the former Government Railway lines to December 31, 1920, since which date such rail-

way revenues have been directly applied by the management towards working costs. To date, revenues received on canal account amount to \$23,509,875. Until 1903 tolls were charged for the use of the canals and revenues averaged about a third of a million dollars annually. With the abolition of tolls, the revenue dropped to \$79,536, principally from rentals. During the intervening years, these have been gradually augmented, and last year hydraulic and other rents amounted to \$432,205. Wharfage dues and elevator charges added another \$529,488, so that the annual revenue from canals now amounts to \$961,694.

#### EMPLOYEES' COMPENSATION

Since the adoption of the Employees' Compensation Act, chapter 15, 1918, Dominion advances on account of compensation, pensions, etc., and administration have amounted to \$1,655,268.31. As the Department of Railways and Canals was obliged to maintain a staff for the purpose, owing to the Canadian Government Railways being chiefly concerned, the department took over the administration of the Act for the other departments of Government which were concerned in lesser degree.

During the fiscal year ended March 31, 1927, 2,618 claims were dealt with and \$316,721.47 disbursed on compensation or pension account, and \$24,246.76 on administration. Of this total, 1,746 were claims involving both compensation and medical aid, 679 were medical aid only, and 256 pensions. Of the total of 2,681, 2,038 had to do with Canadian Government Railways, involving \$226,212.18, and 117 the canals, involving \$23,862.21. Next in importance numerically was the Department of Public Works with 116 cases, involving an expenditure of \$16,155.93; Marine and Fisheries, 54 cases, and \$13,169.36; Interior, 105 cases, and \$12,538.75; National Defence, 43 cases, and \$7,135.62; Hudson Bay Railway, 136 cases, and \$6,198.68; Soldiers' Civil Re-establishment, 15 cases, and \$3,815.82, etc., etc. Detailed statements dealing with these expenditures by provinces and by departments form part of the accountant's report.

#### STATE OF THE CANALS

The report of the chief engineer of the department deals with the construction, operation and maintenance of the canals of the Dominion, and, in particular, with the activities of the department in that connection during the fiscal year under review.

The canal system of Canada comprises a series of canals and canalized waters by means of which 1,831 miles of waterways have been opened to navigation. These canals consist of the through St. Lawrence and Great Lakes route and a number of subsidiary canals and branches. The through route between Montreal, at the present head of ocean navigation, and Fort William and Port Arthur, on the west shore of lake Superior, comprises 74 miles of canal, with 49 locks, and 1,140 miles of river and lake waters, or a total of 1,214 miles. The minimum depth of water on this route is 14 feet, and the size of vessels using this route is limited by the dimensions of the locks on the St. Lawrence and present Welland canals, which are 270 feet long and 45 feet wide. The difference in level between tidewater on the St. Lawrence and lake Superior, which is overcome by the canals, is about 600 feet.

The minor canals, the Ottawa, Rideau, Murray and Trent canals, while geographically branches of the main route, are devoted chiefly to the needs of local traffic. Isolated from the systems just mentioned are the Richelieu River

canals, consisting of the St. Ours Lock and Chambly canal, by which a waterway for vessels of light draft is provided between Sorel, on the St. Lawrence river, and lake Champlain; and the St. Peter's canal, which provides communication between the Bras d'Or lakes of Cape Breton Island and the Atlantic ocean

A detailed statement of the various canals, with their mileage, limiting dimensions, etc., is the subject of a separate departmental publication, "The Canals of Canada." A pamphlet has also been issued by the Department dealing with the Welland Ship canal at present in course of construction.

The chief engineer's report deals with the physical features of the canals, the cost of which has already been referred to in the accountant's report. The statistics relating to the use of the canals are compiled by the Transportation Branch of the Dominion Bureau of Statistics, Department of Trade and Commerce, whose report is separately issued and forms no part of the present publication.

The navigation season of 1926 was late in opening, and bad weather in early December also affected the number of vessel passages. The traffic on both the St. Lawrence and Welland canals was likewise affected by the poor oat crop of that year. Despite this handicap, the traffic through the St. Lawrence canals was only 1.3 per cent less than the record year of 1925. On the Welland canal the decrease in tonnage carried was 7.5 per cent, although the decrease in vessel traffic amounted to only 5.76 per cent below the figures of the previous year. During the 1926 navigation season, a total of 5,214,514 tons was transported through the Welland canal, a falling off of 425,784 tons from the 1925 showing, when the largest tonnage ever recorded in the history of the canal was carried.

The traffic through the Canadian and United States locks at Sault Ste. Marie in 1926 was heavier than in 1925, and, in fact, was only exceeded in 1916, 1917 and 1923. Grain traffic was lighter, but iron ore and coal traffic was considerably heavier.

During the past fiscal year, the Government elevator at Port Colborne received 62,535,602 bushels of grain, an increase over the record of the previous year of 8,023,868 bushels, or 3,045,987 bushels more than the previous record—that of 1924-25. Last season was, therefore, the best operating year in the history of the elevator. During last winter, the storage facilities of the elevator were taxed to their utmost capacity. In all, 3,604,000 bushels were taken in. The winter storage prospects of the elevator have been considerably bettered by the entrance of the Toronto, Hamilton and Buffalo Railway into Port Colborne, thus providing direct connection with the Canadian Pacific Railway.

#### WELLAND SHIP CANAL

This work, which has been in progress since the latter part of 1913, is now well advanced.

The proposed ship canal leaves lake Ontario at the original mouth of Ten Mile creek, now known as Port Weller, about 3 miles east of Port Dalhousie, where a harbour of entry is under construction, and follows an entirely different route from the present canal as far south as Allanburg. From here it proceeds in general along the line of the existing canal to a point about one mile north of the village of Humberstone, where another diversion about two and one-half miles in length is made to the east of the present waterway. The route of the present canal is then followed for the final half mile to the lake Erie entrance at Port Colborne. The total distance traversed from lake to lake will

be 25 miles. The difference in level between the two lakes, 325½ feet, will be overcome by seven lift locks, most of which are now well advanced towards completion, each having a lift of 46½ feet, and one guard lock of variable lift. The locks are 829 feet long and 80 feet wide in the clear and will provide a depth of 30 feet of water over the mitre sills. The width of the canal prism at bottom is to be 200 feet. A new breakwater, at present under construction, will be built at Port Colborne, extending 2,000 feet farther into the lake at right angles to the existing structure. At Port Weller, the lake Ontario entrance, extensive harbour works have now been entirely completed. The route of the new canal has been divided for purposes of construction into eight sections numbered in order from Port Weller southerly. Between Sections Nos. 4 and 5 there is a short stretch of canal prism 1,300 feet in length immediately north of the junction of the new route with the present canal, known as Section 4B. The entire canal is now under contract.

A comprehensive statement of the more important work carried out or still in hand on the various sections of the canal during the fiscal year will be found in the chief engineer's report. The various classes of work involved in the construction of the canal are now estimated as having been completed to the following extent: rock excavation, 78 per cent; earth excavation, 69 per cent; water-tight embankments, 56 per cent; concrete work, 78 per cent; reinforcing steel, 92 per cent; steel sheet piling, 80 per cent; giving a general average of 75.5 per cent, an increase of 12.8 per cent over the general average of last year's summary. It is expected that the canal will be completed in 1930.

#### ST. LAWRENCE SHIP CANAL

For many years the question of the ultimate enlargement of the St. Lawrence canal system between lake Ontario and Montreal has been studied by the engineers of this department, and much data relating thereto has been obtained.

During recent years the work of completing definite plans for such an enterprise became necessary in order to enable the department to deal intelligently with proposals, by private corporations, for the development of isolated water-powers which might seriously conflict with any reasonable development of the navigation and power potentialities of the river as a whole. Under this impetus, plans were evolved for a comprehensive development of the upper section of the river.

Early in the fiscal year 1924-25, a board of engineers was appointed by the Canadian Government and a similar board appointed by the United States Government for the purpose of jointly reviewing the Wooten-Bowden report of 1921 and reporting on the cost of a through deepwater route from the head of the Great Lakes to the sea. The members of the board are Mr. D. W. McLachlan (chairman), Brig.-Gen. C. H. Mitchell, and Mr. Oliver O. Lefebvre. A number of meetings of the board have been held and instructions as to the form and scope of the report to be made were finally agreed upon in joint session at Washington in December, 1924, and forwarded to both the Canadian and American Governments. On January 5, 1925, these instructions, after having been considered by the National Advisory Committee for Canada, were transmitted to the board. Meanwhile, ice conditions have been carefully investigated, stream discharges determined, soundings taken, test borings driven, surveys carried out, and numerous plans prepared. As a result, a large amount of valuable information has been got together for use in the preparation of the required designs and report.

Thirty-seven meetings with the American section of the board have been held since its inception, twenty-five of which took place during the past year. These meetings extended over periods of from two to three days and consisted of a general discussion of the various matters on which the board was preparing to make its report. The main body of the report was eventually signed at Washington, November 16, 1926. Certain appendices, however, have still to be added to this report, seven in all. These appendices are, at this writing, in the hands of the printer.

Your obedient servant,

G. A. BELL,  
*Deputy Minister of Railways and Canals.*

September 30, 1927.

## CANADIAN NATIONAL RAILWAY SYSTEM

MONTREAL, QUE., March 16, 1927.

To The Hon. CHARLES A. DUNNING, M.P.,  
Minister of Railways and Canals.

SIR,—I have the honour to submit herewith, on behalf of the Board of Directors, the report of the operation and affairs of the Canadian National Railway System for the year ended December 31, 1926. The returns for the year include the Central Vermont Railway, and the figures herein given for the year 1925 have been revised to include the results for that railway in order to permit of proper comparison.

### MILEAGE

—	Miles owned by constituent companies	Miles under lease or contract	Miles under trackage rights	Total mileage
Atlantic Region.....	2,571.76	224.78	82.61	2,879.15
Central Region.....	7,145.04	444.87	11.82	7,601.73
Grand Trunk Western Lines.....	841.81	121.12	27.78	990.71
Western Region.....	10,233.22	430.55	54.07	10,717.84
Central Vermont.....	272.68	160.69	59.15	492.52
Total steam-operated lines making up "System Mileage".....	21,064.51	1,382.01	235.43	22,681.95

Certain details are shown at the end of this report.

### OPERATING RESULTS

The operating results for the year are shown in the following summary, which compares the principal items of revenue and expenses with the corresponding items for the previous year:—

### REVENUE

—	1926	1925	Increase or decrease
	\$    cts.	\$    cts.	\$    cts.
Freight.....	207,157,028 09	187,763,637 13	Inc. 19,393,390 96
Passenger.....	39,427,264 87	37,963,479 53	Inc. 1,463,785 34
Mail.....	3,688,356 86	3,693,646 75	Dec. 5,289 89
Miscellaneous.....	25,297,660 46	24,288,010 78	Inc. 1,009,649 68
Total.....	275,570,310 28	253,708,774 19	21,861,536 09

## EXPENSES

	1926		1925		Increase	
	\$	cts.	\$	cts.	\$	cts.
Maintenance of W. & S. ....	48,536,502	94	44,753,310	38	3,783,192	56
Maintenance of equipment.....	51,211,820	99	49,324,910	70	1,886,910	29
Traffic.....	7,026,004	70	6,902,501	84	123,502	86
Transportation.....	111,393,757	98	110,386,974	93	1,006,783	05
Miscellaneous operations.....	2,336,041	37	2,272,917	98	63,123	39
General.....	7,881,495	87	7,520,303	27	361,192	60
Transportation for Investment <i>Credit</i> .....	1,040,343,	21	895,442	95	144,900	26
Total.....	227,345,280	64	220,265,476	15	7,079,804	49
Net earnings.....	48,225,029	64	33,443,298	04	14,781,731	60
Operating ratio.....	82	50	86	82		

The above figures reflect what may be fairly regarded as a satisfactory position. An increase in the system's gross earnings of 8.6 per cent indicates a generally satisfactory business situation throughout the Dominion, and it is equally gratifying to note that with an increase of nearly twenty-two million dollars in gross earnings there was an increase of but one million dollars in transportation expenses.

A reduction in the operating ratio from 86.82 to 82.5 shows a further improvement in operating efficiency.

For the first time the net earnings for the year are more than sufficient to pay all fixed charges due the public.

## RAILWAY OPERATING REVENUES

This item requires no comment other than to record that an increase of \$21,861,536.09 may be regarded as the result of improved prosperity throughout the Dominion, and the zeal and energy displayed not only by the traffic department but by all of those in the service of the company in attracting business to the system and securing its fair proportion of increased traffic.

## MAINTENANCE OF WAY AND STRUCTURES

It was thought wise to increase the total expenditures under this heading for the year in order to effect a higher standard of maintenance. Although the percentage of expenditures for maintenance of way and structures to gross earnings has not increased, the larger expense is to some extent due to the increase in the number of treated ties used, with tie plates for protective purposes, and is also partly due to the greater mileage of new rail employed for renewals. This in turn necessitated increased expenditures for other track materials, including the purchase and application of stone ballast. It is the intention of the administration as rapidly as financial conditions will permit to extend the use of stone ballast on high speed and important passenger routes. A generally improved standard of maintenance, with bridge improvements, permits the use of heavier power, with consequently reduced transportation costs.

## MAINTENANCE OF EQUIPMENT

While this group of expenses also shows an increase, the two maintenance accounts combined exhausted nearly 1 per cent less of the year's gross earnings. Maintenance of equipment expenses increased by 3.82 per cent as against the increase in gross earnings of 8.6 per cent. Motive power maintenance showed practically no increase, the extra expenditure being more than accounted for by the increase in the cost of freight train car repairs. Under an authorized

programme provision is made for modernizing certain classes of cars to fit them for use in the heavier trains now being operated, thus extending their period of use and reducing the expense of their upkeep; this is recognized as good practice, and during the period in which such a programme is being carried out heavier charges for current repairs are naturally incurred.

#### TRANSPORTATION EXPENSES

The present Board of the Canadian National Railways, in submitting its first annual report for the year ended December 31, 1923, pointed out that a determined attack would be made on transportation expenses to reduce such expenses to a minimum as the business of the company increased. In the year 1926 substantial progress was made in this direction because, while gross earnings increased by 8.6 per cent, transportation expenses increased by less than 1 per cent, with the result that the transportation charge against each dollar earned was reduced from 43.51 cents to 40.43 cents. In the 1923 report the statement was made that transportation expenses offered a fruitful field for economy. It is therefore proper to submit the following table of comparison to show the progress made in the last four years in this important measure of efficiency generally known as the transportation ratio or, more completely, the ratio of transportation expenses to gross earnings.

1922 .....	49.06
1923 .....	47.66
1924 .....	46.71
1925 .....	43.51
1926 .....	40.43

The figures in the above table include operations of the Central Vermont Railway.

To state perhaps more vividly the importance of the improvement achieved, it may be said that if transportation expenses had absorbed in 1926 the same percentage of the gross earnings as in 1922, the net earnings of the system would have been reduced by 49 per cent or by \$23,800,000.

#### TRAFFIC, MISCELLANEOUS AND GENERAL EXPENSES

These expenses increased slightly during the year, but in each case absorbed a smaller percentage of the gross earnings than in 1925.

#### TOTAL OPERATING EXPENSES AND NET EARNINGS

Total operating expenses increased by \$7,079,804.49 as compared with an increase in gross revenue of \$21,861,536.09, leaving an increase in the net earnings of \$14,781,731.60 or 44.2 per cent.

It is but fair to call attention to the fact that during the first years of system consolidation there have been many opportunities for economy. Much of this field has been exhausted and, while efficiency and lower operating costs will be rigorously sought, it is not probable that corresponding percentage improvements can be maintained, especially when it is remembered that certain wage increases have already been granted to employees, and others are in negotiation which will tend to affect operating results.

#### FINANCE

For the Dominion fiscal year ending March 31, 1927, the sum of not exceeding \$31,000,000 was requested from the Government for Canadian National purposes. \$10,000,000 of this amount has been received in cash. The remainder can be provided under authority of an Act passed at the present session of Parliament. As gross and net earnings for 1926 were larger than it was expected they would be, the full amount of \$21,000,000 will not be required.

The funded debt retirements during the year were:—

Equipment trust certificates of various issues.....	\$5,663,400
Payments under various sinking funds and otherwise.....	520,658
Total.....	\$6,184,058

### TRAFFIC MOVEMENT

Generally speaking, freight car loadings on all lines were better throughout the year than in 1925. Congestion in elevators at the head of the lakes in February necessitated embargoes which were not lifted until April, thus adversely affecting the eastward grain movement in Western Canada during that period. During the same period, however, grain moved in much larger volume to Vancouver than in 1925, and there was also a good grain movement by rail on the lines east of the head of the lakes. Navigation on the Great Lakes did not open until May 3, which was much later than usual. Grain then moved in large volume to the lake head. In September the grain movement in Western Canada was very light, extending into October, and December was a particularly bad month, having little over half the grain movement of 1925 to the lake head.

Movement of grain to Vancouver in the last five months of the year was only about 55 per cent of the 1925 volume. Movement of grain to Prince Rupert commenced in October and averaged 765 cars per month for the last three months of the year.

Apart from the fluctuations in the grain movement, freight traffic continued steady throughout the year. The increase in revenue freight ton-miles moved by train was 6.9 per cent, whereas the train miles in freight service increased only 6.2 per cent.

Passenger traffic was generally good and produced an increase in revenue of 3.9 per cent, whereas passenger train mileage including unit car mileage increased 1 per cent only.

### RATES

The question of freight rates continues to be one of importance and some anxiety. It is not the province of the Board of Directors to argue for or against higher freight rates, but a distinct responsibility rests upon the Board to direct attention to the effect of alterations in the rate structure which would reduce the gross revenues of the system. The Board is of opinion that the welfare of the Dominion would be best served if its railways were allowed rates which would enable them not only to maintain solvency, but to make those improvements and provide those facilities which are from time to time necessary to meet the constantly increasing traffic requirements of a rapidly growing country. In so far as the Canadian National Railways are concerned, the property is owned by the people of Canada, and, in the last analysis, the financial position is in their hands. However, the board ventures to express the thought—as it has indeed on previous occasions—that freight rates cannot be constantly decreased and net earnings continue to increase. With fair rates it has been possible to reduce to a minimum the demands of the railways on the public treasury. The Canadian National Railways are emerging from a condition which may be conservatively described as unsatisfactory; they have reached the point where they are paying interest out of net earnings on all the securities held by the public, and, furthermore, they are furnishing a service which the board feels is satisfactory to the shipping public. Would it not be wise to allow that condition to continue and to improve?

## INDUSTRIAL DEVELOPMENT

New industries continue to be established at points on the Canadian National Railways in large numbers. There has been a marked activity in the establishment of pulp and paper plants. Seventeen new plants connected with this industry were brought into operation during the year, mostly in the province of Quebec. Water power development is being rapidly pushed in that and other provinces. A large number of new industries were located on the Canadian National Railways, involving expenditures running into millions of dollars. There is every reason to believe that these extensive investments were provoked by confidence in the future of Canada.

## PURCHASING AND STORES DEPARTMENTS

Generally speaking, there was little change in the price of materials during the year. Notwithstanding the increased business handled during the year, the value of materials and supplies in stock at the end of 1926 was less by \$5,147,703 than at the end of 1925. This indicates that the special attention given to stocks is having satisfactory results.

Owing to the recent miners' strike in Great Britain there was an unusual demand on United States and Canadian mines for coal for shipment abroad, but the requirements of the System were fully taken care of at reasonable prices by contracts entered into early in 1926.

## CONSTRUCTION

During the year 193.53 miles of new line were placed in operation, including the following:—

Turtleford, southeasterly 42.5 miles, Warden-Hanna, 29.18 miles, Bengough-Willowbunch, 28.49 miles, Central Butte, towards Dunblane, 25.98 miles, Acadia Valley Branch, 24.6 miles, Pine Falls extension, 19.5 miles, St. Paul, southeasterly, 19.55 miles.

In addition to this, 117 miles of track were laid and 65 miles were graded.

## ROUYN LINE

The construction by the National Transcontinental Railway Branch Lines Company of its line from Taschereau to Rouyn, which was commenced in December, 1925, is now practically completed and as was intended is being operated by the Canadian National Railways on behalf of the Government. It is proving a valuable traffic producer.

## WAGES AND LABOUR

The "Co-operative plan" adopted in conjunction with the shops craft employees some two years ago has worked with much satisfaction, and a study is being made to determine the practicability of extending a similar movement to employees in the maintenance of way department.

Late in the year a situation developed with respect to the wage position which demanded immediate consideration and in certain of its aspects required joint action by the Canadian Pacific Railway and the National System. After careful and anxious consideration an amicable arrangement was made which was thought to be to the interest of the immediate parties involved and of the Dominion itself. Following upon this adjustment negotiations were undertaken and others are in discussion which will result in further increases. While the burden upon the company's expenses will be considerable, it is believed by your board that the zeal, efficiency and loyalty of all of the employees justify financial recognition, and it is confidently believed that a large part of the money so spent will, in the course of time, be saved through improved good feeling and consequent efficiency.

## HOTEL DEPARTMENT

The gross revenue from hotels showed an increase of \$295,612 as compared with an increase of \$258,016 in expenses, leaving a net operating loss of \$38,769 which was less by \$37,596 than the corresponding loss in the previous year.

An extension of the Chateau Laurier will be made to meet the ever-growing demand for accommodation at the capital city.

## IMMIGRATION

Immigration continues to be one of the most important activities of the National Railway System. The officers of the two Canadian transcontinental railways specifically charged with immigration have reached an understanding with the Canadian Government to extend the co-operative agreement for a further period of three years from which good results are expected.

During the past year 31,536 European settlers were brought out by the Canadian National Railways, as compared with 9,582 in 1925; the number of British included in these figures being 8,003 and 3,883 respectively. 335 families from the United States were secured for Western Canada, quite a number of whom have taken up Canadian National lands. At the end of the year there were in effect nine different arrangements under which aid in one form or another may be given to intending immigrants. In connection with those arrangements and immigration generally, also with the development of natural resources in territory adjoining the lines of the system and elsewhere, a great deal of educational and preparatory work has been undertaken from which good results may confidently be expected in the future.

## BETTERMENTS

The program under this head, providing for many improvements in the railway's transportation plant, was continued during the year, including work on the ocean terminals at Halifax, Toronto grade separation and terminal improvements, also similar work at Chicago, Detroit and Edmonton, and a new train shed for Saint John, N.B.

Other work included the following: new yard and engine facilities at Jonquiere, Que.; new yards and track at Clifton Junction, Niagara Falls; three-track ferry slip at Windsor, Ont.; new connection near Solomon, Alberta; additions to Jasper Park Lodge and reconstruction work at Minaki Lodge; further gauge standardization on the Prince Edward Island Railways. About 60 miles of rock ballasting has been done on the main line between Montreal and Toronto.

Two new car ferries for service on lake Michigan were ordered, one of which was put into service in December, the second one being launched January 19, 1927.

## TAXES

The increase of \$816,400 in this account is mainly due to a charge of \$500,000 for taxes agreed to be paid by the National Railways to the provinces of Nova Scotia, New Brunswick and Prince Edward Island, for the years 1925 and 1926, and to provision in the accounts for income taxes payable to the United States on the improved net income of the lines in the United States.

## INSURANCE

The Insurance Fund which covers the properties of both the Canadian National Railways and the Canadian Government Merchant Marine Limited, amounted at December 31, 1926, to \$8,666,116 as shown by the accounts. This fund is invested either in cash or securities, chiefly Dominion of Canada obligations. After providing for losses sustained but not settled, the total surplus of the fund at December 31, 1926, was \$8,049,552. The increase during

the year was \$1,667,567. The losses chargeable to the fund during the year amounted to \$936,720, as compared with \$1,202,893 for the year 1925. The fire losses show a decrease of \$362,590. The largest fire loss amounted to approximately \$21,000 and only in three other cases did any individual fire loss amount to over \$10,000. Apart from these fires the other railway losses were all of small amounts. The improvement as compared with last year's position is indicative of the response to the fire prevention campaign.

### PENSION

The following employees, with fifty or more years of service, were placed on pension during the year, and their records furnish a fine testimonial to the fidelity and loyalty with which they have served the Company for more than half a century. The best wishes of the management are extended to them for a long and well-merited period of retirement:—

	Service		Service		Service
Brent, F. W.....	57	Ferriter, Eugene....	56	McMurphy, J.....	54
Carr, W. F.....	52	Forrester, W. H....	52	Merrifield, J.....	53
Coulthurst, A. A....	52	Griffin, P.....	53	Mitchell, G. A.....	55
Dalrymple, T. A....	59	Hovey, A.....	52	*Mock, J.....	53
Davis, J. R.....	53	Lapointe, F.....	53	Morrissey, J.....	52
Dougherty, J.....	52	Logan, R.....	55	Phemister, G.....	57
Duckworth, W. J....	54	McMillan, J.....	50	Purdue, J.....	54
Ellis, J. G.....	50				

\*It is regretted that Mr. John Mock died shortly after retirement.

The board records with pride and admiration that the following employees deserve honourable mention for life saving acts and efforts:—

Anger, Joseph.	Kneller, Albert E.	Morrison, Robert.
Cornish, George.	Main, John.	Sharkey, A. W.
Hyndman, E.	McKnight, Edgar.	Watson, T. G.

It is greatly regretted that Mr. W. H. Sharpe, painter, Point St. Charles shops, lost his life in an attempt to prevent a drowning accident at Old Orchard Beach, in September.

Owing to ill-health, Dr. J. A. Hutchison retired from service at the end of the year. This was much regretted by the directors in view of his long and honourable service as Chief Medical Officer and otherwise.

### GENERAL

*Grand Trunk Pacific 4 per cent Debenture Stock.*—The scheme of arrangement under which Canadian National Guaranteed Stock will be issued in exchange has been assented to by the holders of about ninety per cent of the 4 per cent Debenture stock. The Dominion Act authorizing the carrying out of the scheme, entitled "The Grand Trunk Pacific Securities Act, 1927", was passed at the present session of Parliament and became effective on February 18, 1927. The scheme was arrived at after friendly discussions between representatives of the railways and the debenture stockholders and an advisory committee composed of the Rt. Hon. Reginald McKenna, Sir George May, Mr. E. R. Peacock and Mr. D. Berdoe Wilkinson, whose services were given gratuitously and were much appreciated. The board desires to record its gratitude to the gentlemen above mentioned.

The directors feel that the remarkably good operating results obtained in 1926 could not have been attained except through the whole-hearted efforts of officers and employees working in thorough harmony for a common cause, and are very glad to acknowledge the inestimable value of the excellent esprit de corps which obtains throughout the System, and to express their thanks for the loyal service rendered by officers and employees.

H. W. THORNTON,  
*Chairman and President.*

DEPARTMENT OF RAILWAYS AND CANALS  
CANADIAN NATIONAL RAILWAY SYSTEM  
(INCLUDING THE CENTRAL VERMONT RAILWAY)

CONSOLIDATED BALANCE SHEET AT DECEMBER 31, 1926

ASSETS		
<i>Investments—</i>		
701 Investment in road and equipment.....	\$ 1,886,449,586	30
702 Improvements on leased railway property.....	5,964,867	63
703 Sinking funds:		
System securities at par.....	\$ 7,530,000	13
Other assets at cost.....	4,886,537	66
		12,416,537 79
704 Deposits in lieu of mortgaged property sold.....	5,538,985	66
705 Miscellaneous physical property.....		55,536,066 08
706 Investments in affiliated companies:		
"A" Stocks.....	1,770,403	45
"B" Bonds.....	12,331,565	45
"D" Advances.....	613,188	09
		14,715,156 99
707 Other investments.....	5,869,507	30
		<u>\$ 1,986,490,707 75</u>
<i>Current Assets—</i>		
708 Cash.....	27,569,771	24
711 Special deposits.....	7,154,503	51
712 Loans and bills receivable.....	27,576	97
713 Traffic and car-service balances receivable.....	2,025,518	30
714 Net balances receivable from agents and conductors.....	6,307,103	55
715 Miscellaneous accounts receivable.....	8,107,259	99
716 Materials and supplies.....	38,271,283	26
717 Interest and dividends receivable.....	311,959	20
718 Rents receivable.....	151,410	45
719 Other current assets.....	152,820	51
		<u>90,079,206 98</u>
<i>Deferred Assets—</i>		
720 Working fund advances.....	544,781	61
721 Insurance and other funds—Railway and C.G.M.M.....	9,233,122	35
722 Other deferred assets.....	14,734,444	06
		<u>24,512,348 02</u>
<i>Unadjusted Debits—</i>		
723 Rents and insurance premiums paid in advance.....	8,935	75
724 Discount on capital stock.....	190,500	00
725 Discount on funded debt.....	4,995,313	10
727 Other unadjusted debits.....	5,128,455	14
		<u>10,323,203 99</u>
		<u>\$ 2,111,405,466 74</u>
NOTE.—The title of the Canadian Northern Ontario Railway and the Canadian Northern Quebec Railway Companies to lands carried in "Miscellaneous Physical Property" at \$7,318,140 has been questioned by the Ontario and Quebec provincial governments.		
LIABILITIES		
<i>Stock—</i>		
751 Capital stock.....	\$ 271,032,348	70
752 Stock liability for conversion.....	10,600	00
		<u>\$ 271,042,948 70</u>
<i>Governmental grants—</i>		
754 Grants in aid of construction.....		16,416,351 31
<i>Long term debt—</i>		
755 Funded debt unmatured.....	935,383,109	74
<i>Dominion of Canada Account—</i>		
Funded debt unmatured.....	\$ 33,048,000	00
Receiver's certificates.....	53,403,855	11
Loans from Dominion of Canada.....	507,848,511	89
		594,300,367 00
Interest on above accrued but unpaid.....	193,951,356	64
Appropriation account Canadian Government Railways.....	437,412,032	64
		<u>1,225,663,756 28</u>
		<u>2,161,046,866 02</u>

*Current Liabilities—*

758 Loans and bills payable.....	1,900 00	
759 Traffic and car-service balances payable.....	5,712,753 36	
760 Audited accounts and wages payable.....	17,173,510 23	
761 Miscellaneous accounts payable.....	4,481,248 37	
762 Interest matured unpaid.....	5,626,797 07	
764 Funded debt matured unpaid.....	422,543 14	
766 Unmatured interest accrued.....	8,508,495 70	
767 Unmatured rents accrued.....	422,350 36	
768 Other current liabilities.....	274,240 34	
		42,623,838 62

*Deferred Liabilities—*

769 Liability for provident funds.....	34,513 62	
770 Other deferred liabilities.....	4,582,309 78	
		4,616,828 40

*Unadjusted Credits—*

771 Tax liability.....	2,439,884 57	
773 Insurance and casualty reserves—Railway and C.G.M.M....	9,107,247 12	
775 Accrued depreciation—road.....	2,410,414 38	
776 Accrued depreciation—equipment.....	6,707,437 25	
777 Accrued depreciation—Miscellaneous physical property.....	779,519 61	
778 Other unadjusted credits.....	3,154,803 97	
		24,599,306 90

*Corporate Surplus—*

779 Additions to property through income and surplus.....	1,778,964 70	
780 Funded debt retired through income and surplus.....	967,000 00	
781 Sinking fund reserves.....	575,283 99	
783 Appropriated surplus.....	2,058,372 19	
784 Profit and loss—Balance..... Deficit	414,320,294 09	
		408,940,673 21
		\$ 2,111,405,466 74

J. M. ROSEVEAR,  
*General Comptroller.*

We have examined the books and records of the Companies comprising the Canadian National Railway System for the twelve months ended December 31, 1926. The investments in road and equipment appearing in the books of the companies as at January 1, 1923, were accepted by us.

We certify that, in our opinion, the above Consolidated Balance Sheet is properly drawn up so as to exhibit a true and correct view of the affairs of the System, as at December 31, 1926, and we further certify that, in our opinion, the attached Income and Profit and Loss Accounts for the year ended December 31, 1926, are correctly stated.

GEORGE A. TOUCHE & Co.,  
*Chartered Accountants, Auditors.*

March 16, 1927.

PROFIT AND LOSS ACCOUNT, 1926

*Debits—*

611 Debit balance Canadian National Railway System at January 1, 1926.....	\$ 385,712,040 41	
Add Central Vermont Railway System debit balance at January 1, 1926.....	5,187,178 63	
	\$ 390,899,219 04	
Deduct Hudson Bay Railway eliminated from C.N. System accounts.....	287,316 65	
	\$ 390,611,902 39	
612 Debit balance transferred from income.....	29,894,072 93	
613 Surplus applied to Sinking and Other Reserve Funds.....	3,336 15	
615 Surplus appropriated for investment in physical property.....	32,179 54	
618 Miscellaneous appropriations of surplus.....	84,484 15	
619 Loss on retired road and equipment.....	2,173,610 68	
620 Delayed income debits.....	415 18	
622 Adjustment of land surplus account.....	32,428 87	
	\$ 422,832,429 89	

*Credits—*

603 Profit on road and equipment sold.....	164,826 46	
605 Unrefundable overcharges.....	26,515 75	
606 Donations.....	108,800 05	
607 Miscellaneous credits and debits, net.....	8,211,993 54	
Debit balance forward to balance sheet.....	414,320,294 09	
	\$ 422,832,429 89	

## DEPARTMENT OF RAILWAYS AND CANALS

## INCOME STATEMENT

	Year ending December 31, 1926		Year ending December 31, 1925	
	\$	cts.	\$	cts.
501 Railway operating revenues.....	275,570,310	28	253,708,774	19
531 Railway operating expenses.....	227,345,280	64	220,265,476	15
Net revenue from railway operations.....	48,225,029	64	33,443,298	04
532 Railway tax accruals.....	5,281,817	62	4,465,377	74
533 Uncollectible railway revenues.....	50,388	42	59,791	74
Railway operating income.....	42,892,823	60	28,918,128	56
502 Revenues from miscellaneous operations.....	2,301,547	40	2,010,800	95
534 Expenses of miscellaneous operations.....	2,284,312	71	2,041,189	12
Net Revenue from Miscellaneous operations.....	17,234	69	30,388	17
535 Taxes on miscellaneous operations.....	66,211	96	73,486	99
Total operating income.....	42,843,846	33	28,814,253	40
504 Rent from locomotive.....	268,839	96	196,593	26
505 Rent from passenger train cars.....	252,095	52	211,347	93
506 Rent from floating equipment.....	150	00	337	30
507 Rent from work equipment.....	352,012	29	316,996	34
508 Joint facility rent income.....	1,068,235	48	1,029,439	95
509 Income from lease of road.....	91,374	92	85,640	54
510 Miscellaneous rent income.....	633,544	69	1,205,650	55
511 Miscellaneous non-operating physical property.....	204,263	28	192,138	58
512 Separately operated properties—Profit.....	1,606,279	99	1,179,057	22
513 Dividend income.....	413,227	50	386,958	91
514 Income from funded securities.....	642,732	41	573,124	59
515 Income from Unfunded securities and accounts.....	1,269,328	73	1,461,087	88
516 Income from sinking and other reserve funds.....	736,906	86	634,785	17
519 Miscellaneous income.....	83,835	66	222,069	62
Total non-operating income.....	7,622,827	29	7,695,227	84
Gross income.....	50,466,673	62	36,509,481	24
536 Hire of freight cars—Debit balance.....	3,947,605	83	1,861,208	49
537 Rent for locomotives.....	33,391	93	26,849	30
538 Rent for passenger train cars.....	364,675	04	408,900	82
539 Rent for floating equipment.....	9,224	29	21,748	16
540 Rent for work equipment.....	13,642	70	6,173	73
541 Joint facility rents.....	958,463	53	682,064	68
542 Rent for leased roads.....	1,487,040	49	1,478,437	79
543 Miscellaneous rents.....	111,921	64	117,904	58
544 Miscellaneous tax accruals.....	162,485	89	162,061	57
545 Separately operated properties—Loss.....	646,746	73	759,059	63
546 Interest on funded debt.....	39,701,896	35	40,966,558	73
546A Interest on Dominion Government advances.....	32,090,453	66	31,450,381	89
547 Interest on unfunded debt.....	133,051	34	116,968	24
548 Amortization of discount on funded debt.....	518,886	34	529,650	83
551 Miscellaneous income charges.....	120,692	95	61,571	09
Miscellaneous appropriations of income.....	60,567	84	57,606	44
Total deductions from gross income.....	80,360,746	55	78,707,145	97
Net income deficit.....	29,894,072	93	42,197,664	73

## RAILWAY OPERATING REVENUES AND EXPENSES

	Year ending December 31, 1926		Year ending December 31, 1925	
	\$	cts.	\$	cts.
<i>Railway operating revenues:—</i>				
101 Freight.....	207,157,028	09	187,763,637	13
102 Passenger.....	39,427,264	87	37,963,479	53
103 Excess baggage.....	242,890	44	238,443	05
104 Sleeping car.....	2,204,070	53	1,952,221	20
105 Parlor and chair car.....	290,309	87	277,529	51
106 Mail.....	3,688,356	86	3,693,646	75
107 Express.....	13,954,167	88	13,504,380	15
108 Other passenger-train.....	29,592	66	125,183	91
109 Milk.....	781,320	90	753,552	10
110 Switching.....	2,491,106	73	2,420,560	94
111 Special service train.....	149,893	83	69,291	66
112 Other freight train.....	57	28	7,518	08
114 Water transfers—Passenger.....	9,406	80	3,992	20
115 Water transfers—Vehicles and live stock.....	25,318	76	16,367	67
116 Water transfers—Other.....	1,721	50	621	50
131 Dining and buffet.....	1,506,207	20	1,436,527	16
132 Restaurant.....	59,780	18	73,597	72
133 Station, train and boat privileges.....	181,732	64	175,743	80
134 Parcel room.....	113,575	31	113,398	70
135 Storage—Freight.....	196,970	73	194,177	06
136 Storage—Baggage.....	52,602	15	51,650	41
137 Demurrage.....	833,738	70	689,487	04
138 Telegraph and telephone.....	2,507	28	2,559	40
139 Grain elevator.....	391,408	87	502,988	19
141 Power.....	14,711	86	.....	.....
142 Rents of buildings and other property.....	368,738	54	336,153	21
143 Miscellaneous.....	1,546,898	93	1,433,892	60
151 Joint facility—Credit.....	26,787	62	22,763	39
152 Joint facility—Debit.....	118,671	41	99,553	71
Total operating revenues.....	275,570,310	28	253,708,774	19
<i>Railway operating expenses:—</i>				
Maintenance of way and structures.....	48,536,502	94	44,753,310	38
Maintenance of equipment.....	51,211,820	99	49,324,910	70
Traffic.....	7,026,004	70	6,902,501	84
Transportation.....	111,393,757	98	110,386,974	93
Miscellaneous operations.....	2,336,041	37	2,272,917	98
General.....	7,881,495	87	7,520,303	27
Transportation for investment—Credit.....	1,040,343	21	895,442	95
Total operating expenses.....	227,345,280	64	220,265,476	15



## RAILWAY OPERATING EXPENSES—Continued

	Year ending December 31, 1926		Year ending December 31, 1925	
	\$	cts.	\$	cts.
<i>Maintenance of Equipment—</i>				
301 Superintendence.....	1,908,282	94	1,790,721	42
302 Shop machinery.....	1,323,824	94	1,241,970	98
304 Power plant machinery.....	90,368	02	84,529	76
306 Power substation apparatus.....	1,004	37	479	09
308 Steam locomotives—Repairs.....	16,598,797	54	16,522,002	00
310 “ “ Retirements.....	652,357	84	1,506,515	45
311 Other locomotives—Repairs.....	32,087	53	45,287	51
314 Freight Train Cars—Repairs.....	17,949,560	79	15,490,115	49
316 “ “ Retirements.....	1,179,763	77	1,569,393	32
317 Passenger Train Cars—Repairs.....	6,758,719	33	6,480,021	19
319 “ “ Retirements.....	221,012	32	99,581	51
320 Motor Equipment of cars—Repairs.....	182,651	94	64,452	61
322 “ “ Retirements.....	21,251	46	.....	.....
323 Floating equipment—Repairs.....	169,803	41	169,049	86
326 Work equipment—Repairs.....	1,899,116	26	1,933,427	93
328 “ “ Retirements.....	103,077	13	256,148	60
329 Miscellaneous equipment—Repairs.....	17,625	48	17,034	41
331 “ “ Retirements.....	3,443	60	1,492	72
332 Injuries to persons.....	313,911	07	277,835	27
333 Insurance.....	475,426	34	496,904	32
334 Stationery and printing.....	86,746	25	85,193	01
335 Other expenses.....	36,283	95	43,449	85
336 Maintaining joint equipment at terminals, Dr.....	71,016	86	56,325	14
337 “ “ “ “ “ “ Cr.....	202,681	71	192,416	34
Depreciation—U.S. lines only.....	1,318,369	56	1,285,395	60
Total.....	51,211,820	99	49,324,910	70
<i>Traffic Expenses—</i>				
351 Superintendence.....	2,013,666	66	1,929,680	60
352 Outside agencies.....	2,585,389	08	2,516,559	58
353 Advertising.....	1,136,587	14	1,061,487	66
353 Radio.....	256,276	70	240,686	49
354 Traffic associations.....	85,941	39	95,319	67
356 Industrial bureaus.....	75,608	73	63,368	32
356 Colonization, agriculture and natural resources.....	470,684	05	448,300	40
356 British Empire Exhibition.....	437	55	60,538	47
357 Insurance.....	743	63	957	37
358 Stationery and printing.....	376,641	80	388,864	87
359 Other expenses.....	24,027	97	96,738	41
Total.....	7,026,004	70	6,902,501	84

## DEPARTMENT OF RAILWAYS AND CANALS

## RAILWAY OPERATING EXPENSES—Continued

	Year ending December 31, 1926		Year ending December 31, 1925	
	\$	cts.	\$	cts.
<i>Transportation Rail Line—</i>				
371 Superintendence.....	4,122,148	82	4,089,594	85
372 Dispatching trains.....	1,483,882	02	1,459,509	52
373 Station employees.....	17,137,605	66	16,996,169	82
374 Weighing, inspection and demurrage Bureaus.....	77,150	37	73,725	34
375 Coal and ore wharves.....	49,301	32	111,568	37
376 Station supplies and expenses.....	1,475,145	86	1,488,780	82
377 Yardmasters and yard clerks.....	2,713,373	56	2,535,263	96
378 Yard conductors and brakemen.....	5,487,222	34	5,067,110	58
379 Yard, switch and signal tenders.....	729,118	97	730,345	63
380 Yard enginemen.....	3,977,190	16	3,579,392	25
381 Yard motormen.....	32,909	25	27,628	06
382 Fuel for yard locomotives.....	4,813,568	71	4,916,360	31
383 Yard switching power produced.....	17,572	58	15,845	67
384 " " Purchased.....	55,307	62	44,231	57
385 Water for yard locomotives.....	197,338	06	193,286	28
386 Lubricants for yard locomotives.....	52,599	63	48,926	52
387 Other supplies for yard locomotives.....	47,965	03	46,869	07
388 Enginehouse expenses—Yard.....	1,511,706	40	1,469,719	31
389 Yard supplies and expenses.....	127,162	40	120,836	39
390 Operating joint yards and terminals, Dr.....	934,189	45	962,882	05
391 " " " Cr.....	1,532,119	33	1,411,499	12
392 Train enginemen.....	11,046,409	29	10,431,339	09
393 Train motormen.....	104,352	61	80,598	88
394 Fuel for train locomotives.....	20,657,673	57	21,772,943	95
395 Train power produced.....	13,859	01	12,579	92
396 " " purchased.....	61,113	34	70,918	78
397 Water for train locomotives.....	1,089,275	51	1,085,100	02
398 Lubricants for train locomotives.....	295,521	06	308,973	49
399 Other supplies for train locomotives.....	211,075	28	204,269	75
400 Enginehouse expenses—Train.....	3,799,111	38	3,970,362	43
401 Trainmen.....	12,114,975	55	11,564,948	01
402 Train supplies and expenses.....	5,106,008	29	4,837,443	86
403 Operating sleeping cars.....	1,048,017	18	987,223	35
404 Signal and interlocker operation.....	572,153	78	573,110	10
405 Crossing protection.....	706,680	42	734,019	47
406 Drawbridge operation.....	113,138	94	119,555	03
407 Telegraph and telephone operation.....	66,126	79	88,096	44
408 Operating floating equipment.....	1,085,448	24	1,061,434	27
409 Express service.....	6,183,186	74	6,112,992	71
410 Stationery and printing.....	740,876	61	776,140	33
411 Other expenses.....	327,645	87	343,381	27
412 Operating joint tracks and facilities, Dr.....	249,545	67	216,658	86
413 " " " Cr.....	539,205	61	471,913	77
414 Insurance.....	424,300	24	424,196	35
415 Clearing works.....	465,831	98	460,159	23
416 Damage to property.....	151,469	46	125,760	78
417 Damage to live stock on right of way.....	57,060	85	60,012	78
418 Loss and Damage—Freight.....	1,027,228	60	1,139,394	96
419 " " Baggage.....	4,125	75	4,910	90
420 Injuries to persons.....	700,412	70	725,816	34
Total.....	111,393,757	98	110,386,974	93

RAILWAY OPERATING EXPENSES—*Concluded*

	Year ending December 31, 1926		Year ending December 31, 1925	
	\$	cts.	\$	cts.
<i>Miscellaneous Operations—</i>				
441 Dining and buffet service.....	2,026,081	82	1,967,673	49
442 Restaurants.....	68,744	30	66,229	88
443 Grain elevators.....	188,553	46	214,780	46
445 Producing power sold.....	26,689	37		
446 Other miscellaneous operations.....	25,972	42	24,234	15
Total.....	2,336,041	37	2,272,917	98
<i>General Expenses—</i>				
451 Salaries and expenses of general officers.....	1,010,691	01	1,042,980	78
452 Salaries and expenses of clerks and attendants.....	3,871,334	21	3,941,964	49
453 General office supplies and expenses.....	447,450	95	491,909	29
454 Law expenses.....	542,189	39	504,837	95
455 Insurance.....	25,332	20	25,726	67
456 Relief department expenses.....	27,500	00	27,500	00
457 Pensions.....	1,189,590	88	829,223	65
458 Stationery and printing.....	196,781	18	191,725	87
459 Valuation expenses.....	42,496	77	35,783	51
460 Other expenses.....	530,783	88	432,336	05
461 General joint facilities, Dr.....	6,989	54	6,960	51
462 " " " Cr.....	9,644	24	10,645	50
Total.....	7,881,495	87	7,520,303	27

## EXPENDITURES, LESS RETIREMENTS, DURING THE YEAR 1926, APPLICABLE TO INVESTMENT IN ROAD AND EQUIPMENT

<i>Road—</i>	
1. Engineering.....	\$ 398,475 32
2 Land for transportation purposes.....	1,955,237 25
3 Grading.....	2,671,624 86
5 Tunnels and subways.....	52,883 40
6 Bridges and culverts.....	2,420,219 78
8 Ties.....	826,043 03
9 Rails.....	1,712,597 45
10 Other track material.....	2,354,468 91
11 Ballast.....	1,164,872 17
12 Track laying and surfacing.....	1,159,025 80
13 Right-of-way fences.....	209,739 64
14 Snow and sand fences and snow sheds.....	18,353 19
15 Crossings and signs.....	628,385 78
16 Station and office buildings.....	1,206,992 93
17 Roadway buildings.....	136,953 75
18 Water stations.....	349,755 69
19 Fuel stations.....	149,225 78
20 Shops and enginehouses.....	1,404,901 58
21 Grain elevators.....	1,174,966 97
23 Wharves and docks.....	191,578 13
25 Gas producing plants.....	283 28
26 Telegraph and telephone lines.....	106,061 06
27 Signals and interlockers.....	87,389 05
29 Power plant buildings.....	14,300 40
30 Power sub-station buildings.....	1,501 10
31 Power transmission systems.....	1,011 41
32 Power distribution systems.....	33,669 52
33 Power lines, poles and fixtures.....	3,798 41
34 Underground conduits.....	2,087 41
35 Miscellaneous structures.....	44,951 78
36 Paving.....	23,225 00
37 Roadway machines.....	20,107 75
38 Roadway small tools.....	20,528 23
39 Assessments for public improvements.....	113,130 29
40 Revenues and operating expenses during construction.....	20 93
43 Other expenditure—Road.....	3,549 06
44 Shop machinery.....	272,136 06
45 Power plant machinery.....	27,858 97
46 Power sub-station apparatus.....	6,618 39
47 Unapplied construction material and supplies.....	15,658 25
	18,538,152 62

## DEPARTMENT OF RAILWAYS AND CANALS

EXPENDITURES, LESS RETIREMENTS, DURING THE YEAR 1926, APPLICABLE TO INVESTMENT IN ROAD AND EQUIPMENT—*Concluded**Equipment—*

51 Steam locomotives.....	248,924 30
52 Other locomotives.....	64,322 26
53 Freight train cars.....	395,158 91
54 Passenger train cars.....	785,293 66
55 Motor equipment of cars.....	14,736 58
56 Floating equipment.....	1,226,226 54
57 Work equipment.....	622,187 74
58 Miscellaneous equipment.....	36,406 79
	<hr/>
	2,105,090 36

*General—*

72 General officers and clerks.....	5,826 37
73 Law.....	19 18
74 Stationery and printing.....	8,434 03
75 Taxes.....	1,507 50
76 Interest during construction.....	244,971 91
77 Other expenditures—General.....	22,791 23
	<hr/>
	237,967 76

Total.....	20,881,210 74
Investment expenditures under suspense appropriations.....	587,778 34
Investment expenditures by separately operated properties.....	1,802,712 13
Transfer between balance sheet accounts not applicable to years' expenditures.....	4,283,617 08
	<hr/>

Change in A/c 701 during year.....	17,812,527 45
Balance at January 1, 1926—	
Canadian National Railways.....	\$ 1,855,037,567 94
Central Vermont Railway.....	28,544,006 12
Hudson Bay Railway.....	14,944,515 21
	<hr/>
	1,868,637,058 85
Balance at December 31, 1926, as per balance sheet.....	\$ 1,886,449,586 30

## A/C 702—IMPROVEMENTS ON LEASED RAILWAY PROPERTY DURING YEAR 1926

*Road—*

1 Engineering.....	\$ 13,232 06
2 Land for transportation purposes.....	107 80
3 Grading.....	106,482 11
6 Bridges, trestles and culverts.....	68,723 62
8 Ties.....	7,436 98
9 Rails.....	49,338 02
10 Other track material.....	86,047 02
11 Ballast.....	15,375 10
12 Track laying and surfacing.....	22,419 64
13 Right-of-way fences.....	609 23
14 Snow and sand fences and snow sheds.....	1,112 01
15 Crossings and signs.....	86,781 77
16 Station and office buildings.....	12,915 47
17 Roadway buildings.....	4,462 79
18 Water stations.....	1,673 70
19 Fuel stations.....	7,768 47
20 Shops and enginehouses.....	93,587 13
21 Grain elevators.....	8,730 75
23 Wharves and docks.....	67 26
26 Telegraph and telephone lines.....	2,719 26
27 Signals and interlockers.....	188 49
32 Power distribution systems.....	2,117 35
33 Power lines, poles and fixtures.....	69 36
35 Miscellaneous structures.....	8,235 00
37 Roadway machines.....	282 72
39 Assessments for public improvements.....	9,365 81
44 Shop machinery.....	20,879 51
	<hr/>
	\$ 577,778 07

*Equipment—*

58 Miscellaneous equipment.....	\$ 2,000 00
Total.....	\$ 575,778 07
Investment expenditures under suspense appropriations.....	\$ 11,568 13
Investment expenditures by separately operated properties.....	51,619 41
Transfers between balance sheet accounts not applicable to year's expenditures.....	1,522,346 85
	<hr/>

Change in A/c 702 during year.....	\$ 986,620 06
Balance at January 1, 1926—	
Canadian National Railways.....	\$ 6,291,279 95
Central Vermont Railway.....	660,207 74
	<hr/>
	6,951,487 69
Balance at December 31, 1926, as per balance sheet.....	\$ 5,964,867 63

## STATEMENT SHOWING DETAILS OF EQUIPMENT OWNED DECEMBER 31, 1925 ADDITIONS, RETIREMENTS AND POSITION AT DECEMBER 31, 1926

	December 31, 1925	Additions during year	Retirements during year	December 31, 1926
<i>Locomotives—</i>				
Passenger—Freight.....	2,714	6	93	2,627
Switching.....	512		6	506
Electric locomotives.....	12			12
Total locomotives.....	3,238	6	99	3,145
<i>Freight equipment—</i>				
Box cars.....	87,800	8	1,713	86,095
Flat cars.....	11,110	18	602	10,526
Stock cars.....	5,877		164	5,713
Coal cars.....	17,142	65	295	16,912
Tank cars.....	142	40	1	181
Refrigerator cars.....	3,069	60	50	3,079
Caboose cars.....	1,807	28	34	1,801
Other cars in freight service.....	1,951	13	242	1,722
Total freight equipment.....	128,898	232	3,101	126,029
<i>Passenger equipment—</i>				
First class cars.....	1,009	2	18	993
Second class cars.....	252	5	6	251
Combination cars.....	290		18	272
Immigrant cars.....	332		5	327
Dining cars.....	85			85
Parlor cars.....	133	2	2	133
Sleeping cars.....	255		4	251
Postal cars.....	97		10	87
Baggage and express cars.....	1,062	60	12	1,110
Unit cars.....	40	7	4	43
Other cars in passenger service.....	93	26	3	116
Total passenger equipment.....	3,648	102	82	3,668
<i>In company's service—</i>				
Business and pay cars.....	74	1	2	73
All other cars in company's service.....	7,193	556	364	7,385
Total in Company's service.....	7,267	557	366	7,458
Total cars.....	139,813	891	3,549	137,155
<i>Floating equipment—</i>				
Steamers.....	2			2
Car ferries.....	8	1		9
Barges.....	5			5
Tugs.....	3			3
Work.....	4			4

## COMPARATIVE STATEMENT OF OPERATING REVENUE PAID IN LABOUR AND THE AVERAGE NUMBER OF EMPLOYEES

	1926	1925	Increase or decrease	Per cent increase or decrease
Gross earnings.....	\$275,570,310 28	\$253,708,774 19	Inc. \$21,861,536 09	8.62
Operating labour.....	135,990,307 53	131,162,256 07	Inc. 4,828,051 46	3.68
Ratio of labour to gross earnings.....	49 35	51 70	Dec. 2 35	4.55
Comparison of payroll (including betterments).....	152,653,720 00	145,364,754 00	Inc. 7,288,966 00	5.01
Average number of employees.....	102,653	98,464	Inc. 4,189	4.25

## DEPARTMENT OF RAILWAYS AND CANALS

## COMPARATIVE STATEMENT SHOWING DISTRIBUTION OF OPERATING RATIO AS BETWEEN LABOUR, FUEL AND OTHER EXPENSES

	1926	1925	Increase or decrease		Per cent increase or decrease
Labour.....	49 35	51 70	Dec.	2 35	4.55
Fuel.....	9 24	10 52	Dec.	1 28	12.17
Other expenses.....	23 91	24 60	Dec.	69	2.80
Total.....	82 50	86 82	Dec.	4 32	4.98

## COMPARATIVE STATEMENT SHOWING DISTRIBUTION OF OPERATING RATIO OVER GENERAL ACCOUNTS

	1926	1925
Maintenance of way and structures.....	17 61	17 64
Maintenance of equipment.....	18 58	19 44
Traffic.....	2 55	2 72
Transportation—Rail.....	40 43	43 51
Miscellaneous operations.....	85	90
General.....	2 86	2 96
Transportation for investment—Credit.....	38	35
Total.....	82 50	86 82

## COMPARATIVE STATEMENT SHOWING DISTRIBUTION OF DOLLAR SPENT AS BETWEEN LABOUR, FUEL AND OTHER EXPENSES

	1926	1925
	Cents	Cents
Labour.....	60	60
Fuel.....	11	12
Other expenses.....	29	28
Total.....	\$1 00	\$1 00

## COMPARATIVE STATEMENT SHOWING DISTRIBUTION OF DOLLAR SPENT OVER GENERAL ACCOUNTS

	1926	1925
	Cents	Cents
Maintenance of way and structures.....	21	20
Maintenance of equipment.....	23	23
Traffic.....	3	3
Transportation—Rail.....	49	50
Miscellaneous operations.....	1	1
General.....	3	3
Transportation for investment—Credit.....	-	-
Total.....	\$1 00	\$1 00

## LOANS FROM DOMINION OF CANADA

	Principal outstanding at Dec. 31, 1926		Interest accrued 1926		Interest accrued 1925	
	\$	cts.	\$	cts.	\$	cts.
<i>Canadian National—Grand Trunk—</i>						
6% Loan—Vote 478, appropriation 4, 1920.....	25,000,000	00	1,500,000	00	1,500,000	00
6% loan—Vote 126, appropriation 2, 1921.....	55,293,435	18	3,317,606	10	3,317,606	10
6% loan—Vote 137, appropriation 2, 1922.....	23,288,747	15	1,397,324	82	1,397,324	82
5% loan—Vote 377, appropriation Act, 1925.....	2,149,381	75	89,714	61		
4% loan to G.T.P. Rly., chap. 23, Acts of 1913....	15,000,000	00	600,000	00	600,000	00
Sundry items.....	100,000	00	23,125	30	114,752	82
<i>Grand Trunk Pacific—</i>						
6% loan—Chapter 4, Acts of 1915.....	6,000,000	00	360,000	00	360,000	00
6% loan—Appropriation Act No. 2, Acts of 1916....	4,555,843	45	273,350	60	273,350	60
6% loan—Appropriation Act No. 4, Acts of 1917....	4,196,073	72	251,764	42	251,764	42
6% loan—Appropriation, Acts of 1919.....	5,787,439	93	347,246	40	347,246	40
Advances to pay guaranteed interest (1919 to 1926)	23,664,210	51				
Receiver's advances 5% and 6% (1919 to 1926)....	53,403,855	11	3,142,394	68	3,081,487	44
3% G.T.P. Rly. Bonds held by Dominion Govern- ment.....	33,048,000	00	991,440	00	991,440	00
<i>Canadian Northern Railway: (Note)—</i>						
3½% loan—Chap. 6, Acts of 1911.....	2,396,099	68	83,863	48	83,863	48
4% loan—Chap. 20, Acts of 1914.....	5,294,000	02	211,760	00	211,760	00
5% loan—Chap. 4, Acts of 1915.....	10,000,000	00	500,000	00	500,000	00
6% loan—Chap. 29, Acts of 1916.....	15,000,000	00	900,000	00	900,000	00
6% loan—Chap. 24, Acts of 1917.....	25,000,000	00	1,500,000	00	1,500,000	00
6% loan—Act No. 1, Acts of 1918.....	25,000,000	00	1,500,000	00	1,500,000	00
6% loan—War Measure Act of 1918.....	1,887,821	16	113,269	26	113,269	26
6% equipment loans—Chap. 38, Acts of 1918.....	13,951,328	28	837,079	70	837,079	70
6% loan—Vote 108, appropriation 4, Acts of 1919....	35,000,000	00	2,100,000	00	2,100,000	00
6% equipment loan—Vote 96, Acts of 1919.....	23,362,212	73	1,401,732	76	1,401,732	76
6% loan—Vote 127, Appropriation 4, 1920.....	48,611,077	00	2,916,664	62	2,916,664	62
6% equipment loan—Vote 115, Acts of 1920.....	15,503,426	34	930,205	58	930,205	58
6% equipment loans—Vote 113, Acts of 1921.....	1,725,723	30	103,543	40	103,543	40
6% loan—Vote 126, Appropriation 2, 1921.....	44,419,806	42	2,665,188	38	2,665,188	38
6% loan—Vote 136, Appropriation 1, 1922.....	42,800,000	00	2,568,000	00	2,568,000	00
6% equipment loans—Vote 115, 1922-1923.....	2,315,805	79	138,948	34	138,948	34
6% loan—Vote 139, Appropriation Act, 1923.....	12,655,019	57	759,301	17	759,301	17
5% loan—Vote 137, Appropriation Act, 1924.....	1,318,315	86	65,915	79	215,358	24
5% loan—Vote 377, Appropriation Act, 1925.....	9,496,718	21	396,390	41		
5% loan—Vote 372, Appropriation Act, 1926.....	7,076,025	84	150,874	44		
	594,300,367	00	32,090,453	66	31,450,381	89

NOTE.—In respect of the advances under this heading the Government has security by guarantee, mortgage or otherwise, in accordance with the conditions under which said advances were made.

A/C 546—"INTEREST ON FUNDED DEBT"  
A/C 755—"UNMATURED FUNDED DEBT"

Name of security	Issuing company	Date of maturity	Principal outstanding at Dec. 31, 1926	Interest accrued 1926	Interest accrued 1925
			\$ cts.	\$ cts.	\$ cts.
<i>Guaranteed by Dominion Government—</i>					
5% Perpetual debenture stock.....	G. T. R.....	Perpetual.....	20,782,491 67	1,039,124 58	1,039,124 58
5% G.W. perpetual deb. stock and bonds.....	G. T. R.....	Perpetual.....	13,252,322 67	662,616 12	662,616 12
4% perpetual debenture stock.....	G. T. R.....	Perpetual.....	119,839,014 33	4,793,560 56	4,793,560 56
4% Nor. Rly. perpetual deb. stock.....	G. T. R.....	Perpetual.....	1,499,979 67	59,999 18	59,999 18
4% Perpetual guaranteed stock.....	G. T. R.....	Perpetual.....	60,833,333 33	2,433,333 33	2,433,333 33
7% Sinking fund gold deb. bonds.....	G. T. R.....	Oct. 1, 1940.....	24,743,000 00	1,732,010 00	1,732,010 00
6% Sinking fund gold deb. bonds.....	G. T. R.....	Sept. 1, 1936.....	25,000,000 00	1,500,000 00	1,500,000 00
3% 1st mtg. bonds (ex Govt. holdings).....	G. T. P.....	Jan. 1, 1962.....	34,992,000 00	1,049,760 00	1,049,760 00
4% Sterling bonds, due 1962.....	G. T. P.....	Jan. 1, 1962.....	8,440,848 00	337,633 92	337,633 92
3% 1st mortgage debenture stock.....	Can. Nor.....	July 10, 1953.....	9,359,996 72	280,799 86	280,799 86
3% 1st mortgage debenture stock.....	Can. Nor.....	July 20, 1958.....	7,896,575 10	276,380 14	276,380 46
4% debenture stock and bonds.....	Can. Nor.....	Sept. 1, 1934.....	17,060,333 33	682,413 34	682,413 34
7% Sinking fund debenture bonds.....	Can. Nor.....	Dec. 1, 1930.....	24,793,000 00	1,735,510 00	1,735,510 00
6% Sinking fund debenture bonds.....	Can. Nor.....	July 1, 1946.....	25,000,000 00	1,625,000 00	1,625,000 00
4% 10 year gold bonds.....	Can. Nor.....	Feb. 15, 1935.....	17,000,000 00	765,000 00	667,279 07
3% 1st mortgage debenture stock.....	C. N. A.....	May 4, 1960.....	3,149,998 66	110,249 94	110,249 94
3% 1st mortgage debenture stock.....	C. N. O.....	May 19, 1961.....	34,229,998 87	1,198,049 84	1,198,049 84
5% Equipment trust—Series "G".....	Can. Nat.....	Serially 1/8/1938.....	18,000,000 00	925,000 00	1,000,000 00
5% 30 year bonds.....	Can. Nat.....	Feb. 1, 1954.....	50,000,000 00	2,500,000 00	2,500,000 00
4% 3 year guaranteed gold notes.....	Can. Nat.....	July 1, 1927.....	20,000,000 00	800,000 00	800,000 00
4% 30 year guaranteed gold bonds.....	Can. Nat.....	Sept. 15, 1954.....	26,000,000 00	1,170,000 00	1,170,000 00
4% 5 year gold bonds.....	Can. Nat.....	Feb. 15, 1930.....	18,000,000 00	810,000 00	706,530 78
<i>Guaranteed by Province of Ontario—</i>					
3% 1st mortgage debenture stock.....	C. N. O.....	1936 and 1938.....	7,859,997 59	275,099 90	275,099 90
<i>Guaranteed by Province of Manitoba—</i>					
4% Consolidated debenture bonds.....	Can. Nor.....	June 30, 1930.....	10,785,993 31	431,439 73	431,416 74
4% Sifton branch bonds.....	Can. Nor.....	Feb. 1, 1929.....	1,137,340 00	45,493 60	45,493 60
4% Gilbert Plains branch bonds.....	Can. Nor.....	Nov. 1, 1930.....	2,433 33	97 32	97 32
4% Man. & South eastern bonds.....	Can. Nor.....	Feb. 1, 1929.....	510,513 34	20,420 53	20,442 91
4% Ontario division bonds.....	Can. Nor.....	June 30, 1930.....	5,680,373 33	227,205 19	227,166 27
*4% Ontario division bonds.....	Can. Nor.....	June 30, 1930.....	64,240 00	2,901 75	2,945 55
4% Winnipeg terminal bonds.....	Can. Nor.....	July 1, 1939.....	3,000,000 00	120,000 00	120,000 00
4% 1st mortgage debenture stock.....	Can. Nor.....	June 30, 1930.....	2,859,998 87	114,399 92	114,399 92
4% Province of Manitoba bonds.....	Can. Nor.....	Oct. 1, 1930.....	349,000 00	13,960 00	13,960 00
<i>Guaranteed by Province of Saskatchewan—</i>					
4% 1st Mortgage bonds.....	G. T. P. B. L.....	Jan. 22, 1939.....	9,874,062 00	394,962 48	394,962 48
4% 1st mortgage debenture stock.....	Can. Nor.....	Jan. 23, 1939.....	8,029,999 99	321,200 00	321,200 00
<i>Guaranteed by Province of Alberta—</i>					
4% 1st mortgage bonds—1942.....	G. T. P. B. L.....	Feb. 15, 1942.....	1,153,764 00	46,150 56	46,150 56
4% 1st mortgage bonds—1939.....	G. T. P. B. L.....	Feb. 25, 1939.....	2,430,000 00	97,200 00	97,200 00
4% 1st mortgage debenture stock.....	Can. Nor.....	Feb. 25, 1939.....	5,586,665 64	223,466 62	223,466 62
4% 1st mtg. deb. stock & bonds—1943.....	C. N. W.....	Oct. 22, 1943.....	2,799,997 73	125,999 90	125,999 90
4% 1st mtg. deb. stock & bonds—1942.....	C. N. W.....	Feb. 16, 1942.....	6,424,000 00	289,080 00	289,080 00
<i>Guaranteed by Province of British Columbia—</i>					
4% 1st mortgage debenture stock.....	C. N. P.....	April 2, 1950.....	16,412,001 13	656,480 07	656,480 07
4% Terminal debenture stock.....	C. N. P.....	April 2, 1950.....	8,614,000 00	387,630 00	387,630 00
Carried forward.....			673,447,270 61	30,279,628 38	30,153,442 82

\*These securities are not guaranteed but may be exchanged for 4% Ontario Division Bonds.

CANADIAN NATIONAL RAILWAYS

A/C 546—"INTEREST ON FUNDED DEBT"—Continued  
 A/C 755—"UNMATURED FUNDED DEBT"—Continued

Name of security	Issuing company	Date of maturity	Principal outstanding at Dec. 31, 1926	Interest accrued 1926	Interest accrued 1925
			\$ cts.	\$ cts.	\$ cts.
Brought forward.....			673,447,270 61	30,279,628 38	30,153,442 82
<i>Unguaranteed (by Provinces or Dominion)—</i>					
4% Canada Atlantic 1st mtge. bonds.....	G.T.R.....	Jan. 1, 1955...	16,000,092 00	640,003 68	640,003 68
7% Wellington, Grey & Bruce bonds.....	G.T.R.....	By drawings.....	219,000 00	27,738 85	26,876 66
6% Northern railway 3rd pref. bonds.....	G.T.R.....	Indeterminable.....	70,566 66	4,234 00	4,234 00
5% Equipment trust—Series "D".....	G.T.R.....	Serially 1/8/1927.....	250,000 00	16,666 66	29,166 67
6% Equipment trust notes "U.S.R.A.".....	G.T.R.....	Serially 15/1/1935.....	539,100 00	32,346 00	35,940 00
6 1/2% Equipment trust certificates "F".....	G.T.R.....	Feb. 1, 1936.....	11,230,000 00	729,950 00	729,950 00
3 1/2% 1st mortgage bonds.....	N.E. Elev.....	Serially 1/7/1941.....	150,000 00	5,812 50	6,187 50
4% 1st mortgage bonds.....	Port. elev.....	Serially 1/1/1937.....	55,000 00	2,200 00	2,400 00
4% 1st mortgage bonds.....	Pem. Southern.....	Sept. 1, 1956.....	150,000 00	6,000 00	6,000 00
4% 2nd mortgage prairie "A".....	G.T.P.....	April 1, 1955.....	10,206,000 00	408,240 00	408,240 00
4% 2nd mortgage mountain "B".....	G.T.P.....	April 1, 1955.....	9,963,000 00	398,520 00	398,520 00
4% 1st mortgage lake Superior.....	G.T.P.....	April 1, 1955.....	7,533,000 00	301,320 00	301,320 00
*4% Perpetual debenture stock.....	G.T.P.....	Perpetual.....	34,879,252 86	348,792 53	1,395,170 12
4% Perpetual con. debenture stock.....	Can. Nor.....	Perpetual.....	44,943,019 40	1,797,720 74	1,797,720 74
4 1/2% Prince Albert branch bonds.....	Can. Nor.....	June 30, 1930.....	300,000 00	13,500 00	13,500 00
6% Equipment trust—Series "A".....	Can. Nor.....	Serially 1/7/1928.....	800,000 00	61,500 00	88,500 00
6% Equipment trust—Series "B".....	Can. Nor.....	Serially 1/1/1929.....	1,875,000 00	123,750 00	168,750 00
6% Equipment trust—Series "C".....	Can. Nor.....	Serially 1/5/1929.....	1,875,000 00	138,750 00	183,750 00
6% Equipment trust—Series "D".....	Can. Nor.....	Serially 1/12/1929.....	2,250,000 00	165,000 00	210,000 00
7% Equipment trust—Series "E".....	Can. Nor.....	May 1, 1935.....	14,000,000 00	980,000 00	980,000 00
5% Equipment trust—Series "L-1".....	Can. Nor.....	Serially 1/8/1926.....		2,083 33	8,600 00
4% Perpetual con. debenture stock.....	C.N.O.....	Perpetual.....	8,724,113 20	348,964 50	348,964 50
5% 1st mortgage bonds.....	C.O.R.....	Jan. 1, 1934.....	774,773 33	38,908 99	39,237 51
5% 1st mortgage bonds.....	Bay of Quinté.....	Jan. 2, 1927.....	730,000 00	36,500 00	36,500 00
4% Perpetual con. debenture stock.....	C.N.O.....	Perpetual.....	5,250,369 26	210,014 76	210,014 76
4% 1st mortgage gold bonds.....	G.N. of C.....	Oct. 1, 1934.....	3,510,250 00	140,410 00	140,410 00
4% 1st mortgage perp. deb. stock.....	Q. & L. St. J.....	Perpetual.....	4,252,503 06	170,100 14	170,100 14
3 1/2% 1st mortgage bonds.....	H. & S.W.....	Sept. 30, 1942.....	4,447,000 00	155,645 00	155,645 00
4% 1st mortgage debenture stock.....	Q.L.L. & S.R.....				
5% 1st mortgage rent charge bonds.....	M. R. Tnl. & Tml.....	July 1, 1936.....	5,019,701 43	200,784 16	200,781 14
5% 1st mortgage bonds.....	C.N.C. & O. Dock.....	April 15, 1970.....	1,697,493 33	85,960 55	89,940 05
4% 1st mortgage debenture bonds.....	D.W. & P.....	Jan. 1, 1936.....	1,375,000 00	68,750 00	68,750 00
4% 1st mortgage bonds.....	G.T.W.....	June 1, 1939.....	7,004,997 27	280,199 89	280,200 00
6% Equipment trust notes "U.S.R.A.".....	G.T.W.....	July 1, 1950.....	10,964,416 00	438,576 64	438,576 64
5% 1st mortgage bonds.....	G.T. Jet.....	Serially 15/1/1935.....	1,858,500 00	112,026 25	124,416 25
4 1/2% Equipment trust—Series "H".....	Can. Nat.....	Jan. 1, 1934.....	938,960 00	46,948 00	46,948 00
5% Refunding mtge. gold bonds.....	C.V. Rly.....	Serially 1/7/1939.....	8,125,000 00	379,687 50	407,812 50
6% Equipment trust notes—Series "E".....	C.V. Rly.....	May 1, 1930.....	8,659,000 00	430,315 00	433,415 00
5% Equipment trust notes—Series "F".....	C.V. Rly.....	Serially 1/5/1930.....	313,000 00	22,210 00	28,090 00
6% U.S. government notes.....	C.V. Rly.....	Serially 1/10/1932.....	575,000 00	31,150 00	36,326 30
4% 1st mortgage bonds.....	M. & P.L. Rly.....	Retired 1926.....		6,753 70	16,257 49
4% Indebtedness.....	S.S. & C.R.R.....	Oct. 1, 1950.....	200,000 00	8,000 00	8,000 00
Interest on securities retired in 1925.....	Can. Nor.....	Optional.....	155,865 25	6,234 60	6,234 60
Fixed charges due public per income A/C 546.....				39,701,896 35	40,966,558 73
4% Montreal Warehousing Co. firsts.....		April 1, 1936.....	136,000 00	Charged to A/C 512 or 545.	
5% Rail & River Coal Co. firsts.....		April 1, 1928.....	1,465,000 00	do	do
5% Niagara, St. Catharines & Toronto Ry. Co. firsts.....		Nov. 1, 1929.....	1,098,000 00	do	do
4 1/2% Toronto Suburban debenture stock.....		July 15, 1961.....	2,628,000 00	do	do
Canadian National Realities Ltd. outstanding mtges.....		Various.....	607,020 00	do	do
5% Canadian Northern income charge deb. stock.....		May 6, 1930.....	24,137,846 08	Interest not earned.	
Total debt held by public (including bonds held in sinking funds) as per balance sheet A/C 755.....			935,383,109 74		

\*To be exchanged for Dominion guaranteed stock. Interest for 1926 in accordance with agreement with stockholders.

## STATISTICS OF RAIL-LINE OPERATION

## TRAIN AND LOCOMOTIVE MILEAGE

Class of service	Train mileage		Locomotive mileage							
	1926	1925	Principal		Helper		Light		Total locomotive mileage	
			1926	1925	1926	1925	1926	1925	1926	1925
Freight.....	33,462,719	31,169,730	33,484,841	31,191,811	911,770	707,202	562,471	521,377	34,959,082	32,420,390
Passenger.....	24,049,719	24,204,708	24,049,727	24,205,419	127,068	159,763	451,489	477,676	24,628,284	24,842,858
Mixed.....	3,503,725	3,712,544	3,503,903	3,712,718	22,291	14,882	38,717	39,162	3,564,911	3,766,762
Special.....	39,301	25,156	39,301	25,168	2,833	1,589	1,095	1,413	43,229	28,170
Unit cars.....	1,199,298	734,130	.....	.....	.....	.....	.....	.....	.....	.....
Train switching.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yard switching—Freight.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
“ Passenger.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total transportations.....	62,254,762	59,846,268	.....	.....	.....	.....	.....	.....	82,033,164	78,718,508
Work.....	2,510,743	2,136,348	.....	.....	.....	.....	.....	.....	3,220,659	2,760,462
Grand total.....	64,765,505	61,982,616	.....	.....	.....	.....	.....	.....	85,253,823	81,478,970

## FREIGHT TRAIN CAR MILEAGE

Class of service	Loaded		Empty		Total Loaded and empty		Caboose		Total freight train car mileage	
	1926	1925	1926	1925	1926	1925	1926	1925	1926	1925
Freight train.....	859,554,359	786,399,733	432,330,434	402,107,391	1,291,884,793	1,188,507,124	33,079,063	30,702,668	1,324,963,861	1,219,209,792
Mixed train.....	21,409,977	22,574,330	8,540,788	9,158,361	29,950,765	31,732,691	1,266,151	1,508,834	31,216,916	33,241,525
Special train.....	349,640	224,595	2,046	3,156	351,686	227,751	55,675	21,043	387,361	248,794
Other transportation.....	13,855,922	12,691,907	8,537,524	7,674,839	22,393,446	20,366,746	809,832	848,266	23,203,278	21,215,012
Total transportation.....	895,169,898	821,890,565	449,410,792	418,943,747	1,344,580,690	1,240,834,312	35,190,726	33,080,811	1,379,771,416	1,273,915,123
Work.....	8,606,255	5,591,378	7,363,632	5,004,984	15,969,887	10,896,362	1,645,888	1,380,808	17,615,775	11,977,170
Grand total.....	903,776,153	827,481,943	456,774,424	423,948,731	1,360,550,577	1,251,430,674	36,836,614	34,461,619	1,397,387,191	1,285,892,293

PASSENGER TRAIN CAR MILEAGE

Class of service	Passenger		Sleeping, parlor and observation		Dining		Other		Total passenger train car mileage	
	1926	1925	1926	1925	1926	1925	1926	1925	1926	1925
	Freight train.....	4,966,206	4,166,314	149,080	147,729	16,383	18,284	3,269,723	2,861,781	8,401,392
Passenger train.....	57,860,076	57,377,251	43,271,236	41,293,031	6,547,817	6,470,146	56,282,791	56,534,186	163,961,920	161,674,614
Mixed train.....	5,114,860	5,395,599	38,453	35,140	2,304	1,374	1,876,229	2,117,352	7,031,846	7,549,465
Special train.....	117,214	61,970	28,398	30,144	3,048	1,877	45,728	12,485	194,388	106,476
Unit cars and trailers.....	1,470,677	756,038	.....	.....	.....	.....	.....	.....	1,470,677	756,038
All transportation services.....	69,529,033	67,757,172	43,487,167	41,506,044	6,569,552	6,491,681	61,474,471	61,525,804	181,060,223	177,280,701
Work service.....	57,288	45,390	48,894	7,234	9,474	565	70,135	64,418	185,751	117,607
Grand total.....	69,586,321	67,802,562	43,536,021	41,513,278	6,579,026	6,492,246	61,544,606	61,590,222	181,245,974	177,398,308

STATISTICS OF RAIL-LINE OPERATION—Continued

Item No.	Year 1926	Year 1925	Item No.	Year 1926	Year 1925
<b>1. Average mileage of road operated—</b>					
<i>Freight service—</i>					
91 Tons—Revenue freight.....	63,568,779	57,648,158	131 Loaded freight car-miles—Freight trains...	26-10	25-64
92 Tons—Non-revenue freight.....	10,586,802	9,725,629	132 Loaded freight car-miles—Mixed trains...	6-11	6-08
93 Tons—Total.....	74,155,581	67,373,787	133 Empty freight car-miles—Freight trains...	13-17	13-15
94 Ton miles—Revenue freight.....	19,812,953,935	18,527,148,862	134 Empty freight car-miles—Mixed trains...	2-44	2-47
95 Ton miles—Non-revenue freight.....	2,141,693,402	1,796,812,882	135 Ton miles—Revenue freight.....	542-00	538.28
96 Ton miles—Total.....	21,954,647,337	20,323,961,744	136 Tons-miles—All freight.....	600-96	590-83
<i>Passenger service—</i>					
97 Passengers carried—Revenue.....	22,240,390	22,373,724	137 Passenger train car-miles—Passenger trains...	6-88	6-80
98 Passenger miles.....	1,477,755,975	1,417,685,163	138 Passenger train car-miles—Mixed trains...	2-01	2-03
<i>Revenues and expenses—</i>					
101 Freight revenue.....	\$207,157,028 09	\$187,763,637 13	139 Revenue passenger miles.....	57-07	55-32
102 Passenger revenue.....	39,427,264 87	37,963,479 53	140 Freight revenue.....	\$5 70	\$5 49
103 Passenger service train revenue.....	60,558,788 69	58,508,436 20	141 Passenger service train revenue.....	\$2 34	\$2 28
104 Operating revenues.....	275,570,310 28	253,708,774 19	142 Operating revenues.....	\$4 43	\$4 24
105 Operating expenses.....	227,345,265 64	220,265,476 15	143 Operating expenses.....	\$3 65	\$3 63
106 Net operating revenue.....	48,225,029 64	33,443,298 04	144 Net operating revenue.....	\$ 78	\$ 56
<i>Averages per mile of road—</i>					
111 Freight train miles.....	1,484	1,390	<i>Averages per locomotive mile—</i>		
112 Passenger train miles.....	1,120	1,112	151 Train miles—Freight trains.....	96	96
113 Mixed train miles.....	155	166	152 Car miles—Freight trains.....	38 56	38 26
114 Special train miles.....	2	1	153 Train miles—Passenger trains.....	98	97
115 Transportation service train miles.....	2,761	2,669	154 Car miles—Passenger trains.....	7 00	6 80
116 Work train miles.....	111	95	155 Train miles—Mixed trains.....	98	99
117 Locomotive train miles—Transportation.....	3,638	3,511	156 Car miles—Mixed trains.....	10 73	10 83
118 Freight service car miles.....	61,190	56,821	157 Train miles—Special trains.....	91	89
119 Passenger service car miles.....	8,030	7,907	158 Car miles—Special trains.....	13 46	12 61
120 Freight revenue.....	\$ 9,186 97	\$ 8,374 84	<i>Averages per loaded freight car mile—</i>		
121 Passenger service train revenue.....	\$ 2,685 65	\$ 2,609 66	161 Ton miles—Revenue freight.....	22 00	22 40
122 Operating revenues.....	\$ 12,220 95	\$ 11,316 19	162 Ton miles—All freight.....	24 59	24 59
123 Operating expenses.....	\$ 10,082 28	\$ 9,824 52	163 Freight revenue.....	\$0-23151	\$0-22852
124 Net operating revenues.....	\$ 2,138 67	\$ 1,491 67	<i>Average per car-mile—Passenger—</i>		
125 Ton miles—Revenue freight.....	873,063	820,992	171 Passenger miles—Revenue.....	13 09	12-99
126 Ton miles—All freight.....	968,043	901,135	172 Passenger revenue.....	\$0-34931	\$0-34774
127 Passenger miles—Revenue.....	65,535	63,231	<i>Miscellaneous averages—</i>		
181 Miles hauled—Revenue freight.....					
182 Miles hauled—Non-revenue freight.....					
183 Miles hauled—All freight.....					
184 Miles carried—Revenue passengers.....					
185 Revenue per ton of freight.....					
186 Revenue per ton-mile of freight.....					
187 Revenue per passenger.....					
188 Revenue per passenger-mile.....					
189 Operating ratio.....					

## COMPARATIVE STATEMENT OF REVENUE TONNAGE BY COMMODITIES

	Year 1926	Year 1925	Increase Decrease
	Tons	Tons	Tons
<i>Products of agriculture—</i>			
Wheat.....	6,215,751	5,682,992	532,759
Corn.....	509,823	424,128	85,695
Oats.....	902,786	1,016,415	113,629
Barley.....	530,291	549,597	19,306
Rye.....	95,488	105,798	10,310
Flax (seed).....	64,711	84,739	20,028
Other grain.....	86,656	124,048	37,392
Flour.....	1,147,216	1,113,872	33,344
Other mill products.....	1,030,608	868,474	162,134
Hay and straw.....	586,041	440,843	145,198
Cotton.....	55,997	62,530	6,533
Apples (fresh).....	119,438	88,344	31,094
Other fresh fruits.....	346,135	302,610	43,525
Potatoes.....	335,434	332,386	3,048
Other fresh vegetables.....	167,138	152,807	14,331
Other products of agriculture.....	546,554	432,685	113,869
Total.....	12,740,067	11,782,268	957,799
<i>Products of animals—</i>			
Horses and mules.....	50,025	49,058	967
Cattle and calves.....	438,287	438,918	631
Sheep and goats.....	40,856	38,557	2,299
Hogs.....	214,670	232,294	17,624
Dressed meats (fresh).....	209,274	235,191	25,917
Dressed meats (cured or salted).....	79,928	73,221	6,707
Other packing house products.....	150,153	134,158	15,995
Poultry.....	22,899	20,234	2,665
Eggs.....	52,498	57,802	5,304
Butter and cheese.....	161,375	152,839	8,536
Wool.....	19,582	21,473	1,891
Hides and leather.....	86,291	80,701	5,590
Other products of animals.....	44,795	49,455	4,660
Total.....	1,570,633	1,583,901	13,268
<i>Products of mines—</i>			
Anthracite coal.....	3,079,267	2,818,692	260,575
Bituminous coal.....	7,991,577	7,231,202	760,375
Lignite coal.....	1,881,334	1,850,671	30,663
Coke.....	812,718	726,084	86,634
Iron ores.....	566,655	409,152	157,503
Other ores and concentrates.....	338,334	313,964	24,370
Bullion and matte.....	54,608	52,699	1,909
Clay, gravel, sand and crushed stone.....	5,321,065	3,787,496	1,533,569
Slate, stone, granite (dimension or block).....	895,560	921,679	26,119
Crude petroleum.....	184,259	122,525	61,734
Asphaltum.....	103,499	76,638	26,861
Salt.....	430,073	445,290	15,217
Other products of mines.....	195,032	224,885	29,853
Total.....	21,853,981	18,980,977	2,873,004
<i>Products of forests—</i>			
Logs, posts, poles and cordwood.....	2,223,492	2,032,385	191,107
Ties.....	129,410	135,050	5,640
Pulpwood.....	2,810,432	2,715,894	94,538
Sawed lumber, timber, box shooks, staves and headings.....	4,999,348	4,864,049	135,299
Other products of forests.....	240,721	203,019	37,702
Total.....	10,403,403	9,950,397	453,006
Carried forward.....	46,568,084	42,297,543	4,270,541

COMPARATIVE STATEMENT OF REVENUE TONNAGE BY COMMODITIES—*Concluded*

	Year 1926	Year 1925	Increase Decrease
	Tons	Tons	Tons
Brought forward.....	46,568,084	42,297,543	4,270,541
<i>Manufactures and miscellaneous—</i>			
Refined petroleum and its products.....	1,685,433	1,489,540	195,893
Sugar, syrup, glucose and molasses.....	393,020	457,342	64,322
Iron, pig and bloom.....	310,309	298,155	12,154
Rails and fastenings.....	69,428	56,437	12,991
Bar and sheet iron, structural iron and iron pipe.....	833,314	786,385	46,929
Castings, machinery and boilers.....	434,007	320,150	113,857
Cement.....	1,051,380	1,117,690	66,310
Brick and artificial stone.....	528,932	495,715	33,217
Lime and plaster.....	397,728	418,460	20,732
Sewer pipe and drain tile.....	121,448	114,258	7,190
Agriculture implements and vehicles other than autos...	200,794	136,544	64,250
Automobiles and auto trucks.....	1,239,155	895,326	343,829
Household goods and second-hand furniture.....	46,059	42,298	3,761
Furniture (new).....	62,382	70,005	7,623
Liquor and beverages.....	118,486	117,988	498
Fertilizer.....	177,549	170,453	7,096
Paper, printed matter and books.....	1,128,240	1,034,948	93,292
Wood pulp.....	1,100,029	1,094,085	5,944
Fish (fresh, frozen, smoked or salted).....	84,615	69,228	15,387
Canned meats.....	838	1,362	524
Canned goods (all canned food products other than meat)	191,640	184,041	7,599
Other manufactures and miscellaneous.....	4,135,776	3,661,829	473,947
Merchandise.....	2,690,133	2,318,376	371,757
Total.....	17,000,695	15,350,615	1,650,080
Grand total.....	63,568,779	57,648,158	5,920,621

## SCHEDULE OF COMPANIES COMPRISING THE CANADIAN NATIONAL RAILWAY SYSTEM

Name of issuing company	Capital stock	Held by system	Held by Government and others
	\$ cts.	\$ cts.	\$ cts.
<i>Canadian National Railway Company</i> .....	180,424,327 70	†14,796,589 00	†165,627,738 70
Bay City Terminal Railway Company.....	15,000 00	15,000 00	
*Canada Atlantic Transit Company.....	219,000 00	219,000 00	
*Canada Atlantic Transit Company of U.S.....	250,000 00	250,000 00	
The Canadian Express Company.....	1,768,800 00	1,768,800 00	
The Champlain and St. Lawrence Railroad Company.....	50,000 00	50,000 00	
*Chicago, New York and Boston Refrigerator Company.....	1,129,400 00	1,129,400 00	
Detroit, Grand Haven and Milwaukee Railway Company.....	1,500,000 00	1,500,000 00	
Grand Rapids Terminal Railroad Company.....	50,000 00	50,000 00	
The Grand Trunk Junction Railway Company.....	500,000 00	500,000 00	
Grand Trunk Western Railway Company.....	6,000,000 00	6,000,000 00	
International Bridge Company.....	1,500,000 00	1,500,000 00	
The Lachine, Jacques Cartier and Maisonneuve Railway Company.....	1,200 00	1,200 00	
The Michigan Air Line Railway.....	300,000 00	300,000 00	
*Montreal and Southern Counties Railway Company.....	500,000 00	309,500 00	190,500 00
The Maganetawan River Railway Company.....	30,000 00	30,000 00	
*The Montreal Warehousing Company.....	236,000 00	221,100 00	14,900 00
New England Elevator Company.....	400,000 00	400,000 00	
*The Oshawa Railway Company.....	40,000 00	40,000 00	
The Ottawa Terminals Railway Company.....	250,000 00	250,000 00	
The Fembroke Southern Railway Company.....	107,800 00	90,500 00	17,300 00
Portland Elevator Company.....	50,000 00	50,000 00	
*Rail and River Coal Company.....	2,000,000 00	2,000,000 00	
St. Clair Tunnel Company.....	700,000 00	700,000 00	
*The Terminal Warehousing Company Limited.....	1,000,000 00	1,000,000 00	
*The Thousand Islands Railway Company.....	60,000 00	60,000 00	
Toledo, Saginaw and Muskegon Railway Company.....	1,600,000 00	1,600,000 00	
The Toronto Belt Line Railway Company.....	50,000 00	26,000 00	24,000 00
The United States and Canada Rail Road Company.....	219,400 00	218,925 00	475 00
Vermont and Province Line Railroad Company.....	200,000 00	200,000 00	
*Prince Charles, Limited.....	10,000 00	10,000 00	
Canadian National Land Settlement Association.....			
The Pontiac, Oxford and Northern Railroad Company.....	1,000,000 00	1,000,000 00	
The Detroit and Huron Railway Company.....	148,000 00	148,000 00	
The Chicago and Kalamazoo Terminal Railroad Company.....	100,000 00	100,000 00	
Grand Trunk Milwaukee Car Ferry Company.....	200,000 00	200,000 00	
Whipple Car Company.....	1,400,000 00	1,400,000 00	
<b>Total Canadian National Railway—Grand Trunk Group.....</b>	<b>204,008,927 70</b>	<b>38,134,014 00</b>	<b>165,874,913 70</b>
<i>The Canadian Northern Railway Company</i> .....	101,000,600 00	1,000,000 00	100,000,600 00
The Bay of Quinté Railway Company.....	1,395,000 00	1,395,000 00	
The Bessemer and Barry's Bay Railway Company.....	125,000 00	125,000 00	
The Canadian Northern Alberta Railway Company.....	3,000,000 00	3,000,000 00	
The Canadian Northern Railway Express Company, Limited.....	1,000,000 00	1,000,000 00	
Canadian Northern Manitoba Railway Company.....	250,000 00	250,000 00	
The Canadian Northern Ontario Railway Company.....	10,000,000 00	10,000,000 00	
Canadian Northern Pacific Railway Company.....	25,000,000 00	25,000,000 00	
**The Canadian Northern Quebec Railway Co.....	9,550,000 00	5,700,800 00	3,849,200 00
*Canadian National Realities, Limited.....	40,000 00	40,000 00	
Canadian Northern Steamships, Limited.....	2,000,000 00	2,000,000 00	
The Canadian Northern Coal and Ore Dock Company, Limited.....	500,000 00	500,000 00	
Canadian Northern Rolling Stock, Limited.....	50,000 00	50,000 00	
Canadian National Rolling Stock Limited.....	50,000 00	50,000 00	
*Canadian National Electric Railways.....	1,750,000 00	1,750,000 00	
Canadian National Express Company.....	1,000,000 00	1,000,000 00	
Canadian Northern System Terminals Limited.....	2,000,000 00	2,000,000 00	
*Canadian National Telegraph Company.....	500,000 00	500,000 00	
*Canadian National Transfer Company.....	500,000 00	500,000 00	
Canadian Northern Western Railway Company.....	2,000,000 00	2,000,000 00	
The Central Ontario Railway.....	3,331,000 00	3,329,000 00	2,000 00
Continental Realty & Holding Company, Limited.....	90,000 00	90,000 00	
The Dalhousie Navigation Company, Limited.....	50,000 00	50,000 00	
<b>Carried forward.....</b>	<b>165,181,600 00</b>	<b>61,329,800 00</b>	<b>103,851,800 00</b>

SCHEDULE OF COMPANIES COMPRISING THE CANADIAN NATIONAL RAILWAY SYSTEM—*Continued*

Name of issuing company	Capital stock		Held by system		Held by Government and others	
	\$	cts.	\$	cts.	\$	cts.
Brought forward.....	165,181,600	00	61,329,800	00	103,851,800	00
Duluth, Winnipeg and Pacific Railroad Company...	100,000	00	100,000	00		
Duluth, Winnipeg and Pacific Railway Company....	6,000,000	00	6,000,000	00		
*Duluth and Virginia Realty Company.....	45,000	00	45,000	00		
Duluth, Rainy Lake & Winnipeg Railway Company.	2,000,000	00	2,000,000	00		
*The Great North Western Telegraph Company of Canada.....	373,625	00	33,850	00	8,275	00
The Great North Western Telegraph Company of Canada (held in escrow).....			331,500	00		
The Halifax and South Western Railway Company.	1,000,000	00	1,000,000	00		
The Irondale, Bancroft and Ottawa Railway Company.....	53,500	00	53,000	00	500	00
The James Bay and Eastern Railway Company....	1,250,000	00	1,250,000	00		
The Marmora Railway and Mining Company.....	128,600	00	128,600	00		
The Lake Superior Terminals Company Limited...	500,000	00	500,000	00		
The Minnesota and Manitoba Railroad Company...	400,000	00	400,000	00		
The Minnesota and Ontario Bridge Company.....	100,000	00	100,000	00		
Mount Royal Tunnel and Terminal Company, Ltd.	5,000,000	00	5,000,000	00		
*The Niagara, St. Catharines and Toronto Railway Company.....	925,000	00	924,900	00	100	00
*The Niagara, St. Catharines and Toronto Navigation (Limited).....	100,000	00	100,000	00		
The Quebec and Lake St. John Railway Company..	4,508,300	00	4,019,140	00	489,160	00
The Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company.....	201,000	00	201,000	00		
St. Boniface Western Land Company.....	250,000	00	250,000	00		
The St. Charles and Huron Railway Company.....	10,000	00	10,000	00		
The Toronto, Niagara and Western Railway Company.....	125,000	00	125,000	00		
The Winnipeg Land Company Limited.....	100,000	00	100,000	00		
Total Canadian Northern Railway group.	188,351,625	00	84,001,790	00	104,349,835	00
<i>The Grand Trunk Pacific Railway Company—</i> .....	24,942,000	00	24,942,000	00		
The Grand Trunk Pacific Branch Lines Company..	1,002,000	00	1,002,000	00		
The Grand Trunk Pacific Saskatchewan Railway Company.....	200,000	00	200,000	00		
*The Grand Trunk Pacific Development Company, Limited.....	3,000,000	00	3,000,000	00		
*Canadian National Steamship Company, Limited..	15,000	00	15,000	00		
*Grand Trunk Pacific Alaska Steamship Company..	50,000	00	50,000	00		
*Grand Trunk Pacific Terminal Elevator Company (Limited).....	501,000	00	501,000	00		
*The Grand Trunk Pacific Telegraph Company....	100,000	00	100,000	00		
*Grand Trunk Pacific Dock Company, of Seattle....	150,000	00	150,000	00		
Total Grand Trunk Pacific Railway Group.	29,960,000	00	29,960,000	00		
<i>Central Vermont Railway Company—</i>						
Central Vermont Transportation Company.....	3,000,000	00	2,192,400	00	807,600	00
Bethel Granite Railway Company.....	200,000	00	200,000	00		
The Barre Granite Railway Company.....	25,000	00	25,000	00		
Montreal and Province Line Railway Company....	1,000,000	00	1,000,000	00		
The Montreal and Vermont Junction Railway Company.....	197,300	00	197,300	00		
The Stanstead, Shefford and Chambly Railroad Company.....	608,333	33	608,333	33		
Southern New England Railway Company (In Receivership).....						
Southern New England Railroad Corporation (In Receivership).....						
Total Central Vermont Railway Group..	5,030,633	33	4,223,033	33	807,600	00

SCHEDULE OF COMPANIES COMPRISING THE CANADIAN NATIONAL RAILWAY SYSTEM—*Concluded*

Name of issuing company	Capital stock	Held by system	Held by Government and others
SUMMARY			
Canadian National Railway-Grand Trunk Group...	204,008,927 70	38,134,014 00	165,874,913 70
Canadian Northern Railway Group.....	188,351,625 00	84,001,790 00	104,349,835 00
Grand Trunk Pacific Railway Group.....	29,960,000 00	29,960,000 00	
Central Vermont Railway Group.....	5,030,633 33	4,223,033 33	807,600 00
	427,351,186 03	156,318,837 13	271,032,348 70‡
*Canadian National Railways (France).....	fr. 30,000,000 00	fr. 30,000,000 00	

\*The accounts of Companies indicated (\*) are taken up in the System Income Account as "Separately Operated Properties."

\*\*\$5,144,600 C.N.Q. Stock is held by the Northern Consolidated Holding Company. The Canadian Northern Railway owns 44,467 shares in that Company out of a total issue of 61,815. For the purpose of this statement the Holding Company is ignored and the proportion of the C.N.Q. Stock thus owned by the Canadian Northern Railway is shown as held by the latter Company.

†One certificate for \$180,424,327.70 of the Company's Capital Stock is issued in the name of His Majesty as representing \$165,627,738.70 of Grand Trunk Stock previously held by the public and \$14,796,589 previously held in that Company's treasury.

‡\$265,628,338.70 of this amount is owned by the Dominion of Canada.

## A/C 706—INVESTMENTS IN AFFILIATED COMPANIES

Company	Amount outstanding		Amount owned by Can. Nat. System		Book value	
	\$	cts.	\$	cts.	\$	cts.
<b>"A"—Stocks—</b>						
Atlantic and St. Lawrence Rail Road Company...	5,484,000	00		224	33	
The Belt Railway Company of Chicago.....	3,120,000	00		240,000	00	
The Chicago, Detroit and Canada Grand Trunk Junction Railroad Company.....	1,095,000	00		522,500	00	
Chicago & Western Indiana Railroad Company...	5,000,000	00		1,000,000	00	
The Detroit and Toledo Shore Line Railroad Company.....	1,428,000	00		714,000	00	
The Ontario Car Ferry Company (Limited).....	500,000	00		250,000	00	
The Toronto Terminals Railway Company.....	50,000	00		25,000	00	
The Toledo Terminal Railroad Company.....	4,000,000	00		387,200	00	
Detroit Terminal Railroad Company.....	2,000,000	00		1,000,000	00	
Canadian Government Merchant Marine, Limited	460,900	00		900	00	
	23,137,900	00		4,139,824	33	1,770,403 45
<b>"B"—Bonds—</b>						
Atlantic and St. Lawrence Rail Road Company..	3,000,000	00		3,000,000	00	
The Chicago, Detroit and Canada Grand Trunk Junction Railroad Company.....	1,786,141	46		1,786,141	46	
Chicago and Western Indiana Railroad Consolidated Bonds.....	49,257,666	67		2,187,000	00	
The Detroit and Toledo Shore Line R.R. Co. First Mortgage Bonds.....	3,000,000	00		587,000	00	
The Toledo Terminal Railroad Company.....	5,241,000	00		137,000	00	
The Toronto Terminals Railway Co. 5% First Mortgage Bonds.....	9,313,100	00		4,656,500	00	
	71,597,908	13		12,353,641	46	12,331,565 45
<b>"D"—Advances—</b>						
Chicago and Western Indiana Railroad Company.....						613,188 09
Total balance sheet A/c No. 706.....						14,715,156 99

## OPERATED MILEAGE DECEMBER 31, 1926

Territory	Mileage owned by Constituent Companies				Mileage of Lines under Lease or Contract		Mileage of Trackage Rights		Total Road Mileage				Spurs, Sidings and Yard Tracks			Inactive Mileage			
	1st Main Track	2nd Main Track	3rd Main Track	4th Main Track	1st Main Track	2nd Main Track	1st Main Track	2nd Main Track	1st Main Track	2nd Main Track	3rd Main Track	4th Main Track	Miles	Yard Tracks	1st Main Track	2nd Main Track	Spurs, Sidings and Yard Tracks		
ATLANTIC REGION																			
Halifax Division..	511.96	21.09					1.02		512.98	21.09			148.41						
New Glasgow Division.....	354.56	1.93			66.32				420.88	1.93			124.86						
Island Division.....	276.32								276.32				38.23				1.30		
Moncton Division.....	390.07	27.09							390.07	27.09			186.85						
Campbellton Division.....	475.08								475.08				147.20						
Edmundston Division.....	563.77				158.46				803.82				110.43						
Total Atlantic Region.....	2,571.76	50.11			224.78				2,879.15	50.11			755.98				1.30		
CENTRAL REGION																			
Quebec District—																			
Levis Division.....	521.46	22.97							524.74	22.97			171.08		13.02		1.12		
Saguenay Division.....	440.01				5.48				445.49				143.09		32.49		4.30		
Cochrane Division.....	710.71								710.71				201.25		5.66		0.61		
Montreal Division.....	429.42				0.91				430.33				92.19				0.64		
Montreal District—																			
Portland Division (excluding New England Lines).	123.63	28.61							123.63	28.61			51.19						
Portland Division New England Lines—																			
Atlantic and St. Lawrence R.R.					165.37				165.37	0.99			92.00						
Lewiston and Auburn R.R.					5.43				5.43				1.76						
Norway Branch R.R.....					1.41				1.41				0.62						

<b>CENTRAL REGION</b>												
<i>—Continued</i>												
Montreal Terminals.....	35-58	16-39	5-82	5-82			41-40	22-21		204-12		
St. Lawrence Division.....	409-84	142-02	78-09	0-33			488-26	142-02		148-31	11-86	
Ottawa Division.....	421-55	2-13	21-09	0-28			442-64	2-13	0-28	82-89		
											0-48	
<b>Northern Ontario</b>												
<i>District—</i>												
Allandale Division.....	436-82	1-30			4-08		436-82	1-30		161-25		
Capreol Division.....	586-38	0-15		1-87	4-14		592-39	6-10		177-30	0-60	
Homepayne Division.....	590-46						590-46			95-49		
											0-60	
<b>Southern Ontario District—</b>												
Belleville Division.....	1,114-64	199-92					1,114-64	199-92		315-76	18-60	
Toronto Terminals.....	30-56	20-02	7-42	8-85			30-56	20-02	8-85	203-21		
Stratford Division.....	644-01	1-25		159-15	8-25		803-16	9-50		207-21		
London Division.....	404-54	207-84					404-54	207-84	3-36	238-48		
St. Thomas Division (excluding International Bridge Company's and Niagara Falls Suspension Bridge Company's Tracts).....	244-46	89-92		4-07	4-05		248-53	93-97		153-58		
St. Thomas Division, International Bridge Company.....	0-97	0-55					0-97	0-55		5-95		
St. Thomas Division, Niagara Falls Suspension Bridge Company.....												
				0-25			0-25	0-25				
<b>Total Central Region.....</b>	<b>7,145-04</b>	<b>733-67</b>	<b>12-49</b>	<b>7-42</b>	<b>11-82</b>	<b>8-13</b>	<b>7,601-73</b>	<b>758-98</b>	<b>12-49</b>	<b>7-42</b>	<b>82-23</b>	<b>7-15</b>

## OPERATED MILEAGE DECEMBER 31, 1926—Continued

Territory	Mileage owned by Constituent Companies				Mileage of Lines under Lease or Contract		Mileage of Trackage Rights		Total Road Mileage				Spurs, Sidings and Yard Tracks	Inactive Mileage			
	1st Main Track	2nd Main Track	3rd Main Track	4th Main Track	1st Main Track	2nd Main Track	1st Main Track	2nd Main Track	1st Main Track	2nd Main Track	3rd Main Track	4th Main Track	Miles	1st Main Track	2nd Main Track	Spurs, Sidings and Yard Tracks	Miles
GRAND TRUNK WESTERN LINES																	
Grand Trunk Western Railway	331-09	321-67	10-56				4-85	4-85	335-94	326-52	10-56		271-33				
Chicago & Kalama-zoo Terminal R.R.	0-89						1-03		1-92				17-65				
Chicago, Kalamazoo & Saginaw Ry.					9-50				9-50				0-58				
Detroit, Grand Haven & Milwaukee Ry.	188-32	15-91							188-32	15-91			179-65				
Grand Rapids Terminal R.R.					1-51				1-51				3-53				
Toledo, Saginaw Grand Rapids Terminal R.R.					1-51				1-51				3-53				
Toledo, Saginaw & Muskegon Ry.	95-95						20-33		116-28				17-78				
Pontiac, Oxford & Northern R.R.	99-89								99-89				22-45				
Detroit & Huron Ry.	18-58								18-58				3-93				
Chicago, Detroit & Canada Grand Trunk Junction R.R.					59-55	11-19			59-55	11-19			98-78				
Michigan Air Line Ry.	105-92								105-92				19-03				
Cincinnati, Saginaw & Mackinaw R.R.					50-56		1-57		52-13				48-18				
Bay City Terminal Ry.	1-17								1-17				2-53				



OPERATED MILEAGE DECEMBER 31, 1926—Continued

Territory	Mileage owned by Constituent Companies				Mileage of Lines under Lease or Contract		Mileage of Trackage Rights		Total Road Mileage				Spurs, Sidings and Yard Tracks			Inactive Mileage		
	1st Main Track	2nd Main Track	3rd Main Track	4th Main Track	1st Main Track	2nd Main Track	1st Main Track	2nd Main Track	1st Main Track	2nd Main Track	3rd Main Track	4th Main Track	Miles	1st Main Track	2nd Main Track	Spurs, Sidings and Yard Tracks	Miles	Miles
<b>CENTRAL VERMONT SYSTEM</b>																		
Central Vermont Ry.....	241.96	5.56		*0.27			59.04		301.00	5.56		*0.27			116.27			
Stansford & Chamblay Ry.....	2.53								2.53						1.43			
Montreal & Vermont Jct. Ry.....	22.80								22.80						5.26			
New London Northern R.R.....					125.29		0.11		125.40						52.57			
West River R.R.....					35.40				35.40						3.00			
Bethel Granite Ry.....	5.39								5.39						0.64			
<b>Total Central Vermont System.....</b>	<b>272.68</b>	<b>5.56</b>		<b>*0.27</b>			<b>59.15</b>		<b>492.52</b>	<b>5.56</b>		<b>*0.27</b>			<b>179.17</b>			

SUMMARY

Atlantic Region.....	2,571.76	50.11			224.78		82.61		2,879.15	50.11				755.98				1.30
Central Region.....	7,145.04	733.67		7.42	444.87	17.18	11.82	8.13	7,601.73	758.98	12.49	7.42	2,746.73	82.23	0.60			7.15
Grand Trunk Western Lines.....	841.81	337.58			121.12	11.19	27.78	4.85	990.71	353.62	10.56			688.85				
Western Region.....	10,233.22	76.97			430.55	5.43	54.07	19.93	10,717.84	102.33				2,399.70				4.88
Central Vermont System.....	272.68	5.56		0.27	160.69		59.15		492.52	5.56		0.27	179.17					
<b>Total Mileage Steam Operated Lines referred to as "System Mileage".....</b>	<b>21,064.51</b>	<b>1,203.89</b>	<b>23.05</b>	<b>7.69</b>	<b>1,382.01</b>	<b>33.80</b>	<b>235.43</b>	<b>32.91</b>	<b>22,681.95</b>	<b>1,270.60</b>	<b>23.05</b>	<b>7.69</b>	<b>6,770.43</b>	<b>120.59</b>	<b>0.60</b>			<b>13.33</b>

\*Designated as "Other Main Track."

## SUMMARY OF FIRST MAIN TRACK BY REGIONS AND DISTRICTS

	Miles
<i>Atlantic Region</i> .....	2,879-15
<i>Central Region—</i>	
Quebec District.....	2,111-27
Montreal District.....	1,268-14
Northern Ontario District.....	1,619-67
Southern Ontario District.....	2,602-65
<i>Grand Trunk Western Lines</i> .....	990-71
<i>Western Region—</i>	
Manitoba District.....	3,716-59
Saskatchewan District.....	3,241-69
Alberta District.....	2,312-18
British Columbia District.....	1,447-38
<i>Central Vermont System</i> .....	492-52
Total First Main Track Mileage Steam Operated Lines referred to as “System Mileage”.....	22,681-95

## MILEAGE OF LINES CONTROLLED BY CANADIAN NATIONAL RAILWAYS NOT INCLUDED IN OPERATING FIGURES

	Miles
<i>Steam Operated Lines—</i>	
Thousand Islands Railway.....	6-00
<i>Electric Lines—</i>	
Canadian National Electric Railway (Toronto Suburban Division).....	49-36
Niagara, St. Catharines & Toronto Railway.....	68-13
Montreal & Southern Counties Railway.....	56-16
Oshawa Railway.....	9-98

CANADIAN NATIONAL RAILWAYS  
CANADIAN GOVERNMENT RAILWAYS  
BALANCE SHEET AS AT DECEMBER 31, 1926

A C	ASSETS	
701	<i>Investment in road and equipment—</i>	
	Investment in road and equipment.....	\$ 410,749,867 92
	Branch lines purchases.....	133,418 77
	Capital suspense—Overseas rail.....	582,559 36
	"B" Abandoned Lines.....	623,454 79
		410,924,182 12
702	<i>Improvements on Leased Railway Property—</i>	
	Lake Superior Branch.....	594,331 08
705	<i>Miscellaneous Physical Property—</i>	
	Minaki Inn.....	517,016 11
722	<i>Canadian National Railways.....</i>	18,868,389 85
		\$ 430,903,919 16
LIABILITIES		
755	<i>Branch Line Purchases.....</i>	\$ 130,468 77
757	<i>Non-Negotiable Debt.....—</i>	
	Dominion of Canada—	
	Advances for Road and Equipment.....	\$ 412,265,344 92
	Material and Supplies—Open Accounts.....	17,030,369 97
	Operating Deficits.....	6,628,448 29
	Advances for Workmen's Comp. Payments.....	1,225,245 11
	Advances for Pension Payments.....	262,624 35
		437,412,032 64
780	<i>Profit and Loss Account.....</i>	6,638,582 25
		\$ 430,903,919 16

Certified Correct:  
L. H. COOPER,  
General Auditor.

C. E. FRIEND,  
Asst. General Comptroller.  
J. M. ROSEVEAR,  
General Comptroller.

PROFIT AND LOSS ACCOUNT AS AT DECEMBER 31, 1926

DEBITS		
611	Debit balance at January 1, 1926.....	\$ 8,622,038 17
	Less Hudson Bay Railway.....	287,316 65
		\$ 8,334,721 52
612	Debit balance transferred from income.....	
613	Surplus applied to sinking and other reserve funds.....	
614	Dividend appropriations of surplus.....	
615	Surplus appropriated for investment in physical property.....	
616	Stock Discount extinguished through surplus.....	
617	Debt discount extinguished through surplus.....	
618	Miscellaneous appropriations of surplus.....	
619	Loss on retired road and equipment.....	249,476 39
620	Delayed income debits.....	
621	Miscellaneous debits.....	823 60
	Total debits.....	\$ 8,585,021 51
CREDITS		
602	Credit balance transferred from income.....	\$ 1,908,235 00
603	Profit on road and equipment sold.....	202 95
604	Delayed income credits.....	
605	Unrefundable overcharges.....	4,448 08
606	Donations.....	10,878 35
607	Miscellaneous credits.....	22,674 88
	Total credits.....	\$ 1,946,439 26
	Debit balance at December 31, 1926.....	\$ 6,638,582 25

CANADIAN GOVERNMENT RAILWAYS INCLUDING ST. JOHN AND  
QUEBEC RAILWAY

INCOME STATEMENT YEAR ENDED DECEMBER 31, 1926

	Year ended December 31, 1926
<b>1. OPERATING INCOME</b>	
501 Railway operating revenues.....	\$ 46,290,922 14
531 Railway operating expenses.....	43,170,627 45
Operating ratio.....	93·26%
Net revenue from railway operations.....	<u>3,120,294 69</u>
532 Railway tax accruals.....	492,273 37
533 Uncollectible railway revenues.....	8,158 08
Railway operating income.....	<u>2,619,863 24</u>
502 Revenues from miscellaneous operations.....	25,745 91
534 Expenses of miscellaneous operations.....	105,000 11
Net revenue from miscellaneous operations.....	<u>79,254 20</u>
535 Taxes on miscellaneous operations.....	—
Miscellaneous operating income.....	—
Total operating income.....	<u>2,540,609 04</u>
<b>II. NON-OPERATING INCOME</b>	
503 Hire of freight cars—Credit balance.....	571,239 78
504 Rent from locomotives.....	234,439 83
505 Rent from passenger—Train cars.....	136,634 35
506 Rent from floating equipment.....	—
507 Rent from work equipment.....	97,146 59
508 Joint facility rent income.....	113,477 74
509 Income from lease of road.....	23,300 00
510 Miscellaneous rent income.....	168,115 46
511 Miscellaneous non-operating physical property.....	10,992 35
512 Separately operated properties—Profit.....	—
513 Dividend income.....	—
514 Income from funded securities.....	—
515 Income from unfunded securities and accounts.....	28,238 38
516 Income from sinking and other reserve funds.....	—
517 Release of premiums on funded debt.....	—
518 Contributions from other companies.....	—
519 Miscellaneous income.....	1,190 43
Total non-operating income.....	<u>1,384,774 91</u>
Gross income.....	<u>3,925,383 95</u>
<b>III. DEDUCTIONS FROM GROSS INCOME</b>	
536 Hire of freight cars—Debit balance.....	260,027 49
537 Rent for locomotives.....	9,191 99
538 Rent for passenger train cars.....	529,976 16
539 Rent for floating equipment.....	—
540 Rent for work equipment.....	8,908 78
541 Joint facility rents.....	468,506 36
542 Rent for leased roads.....	708,622 42
543 Miscellaneous rents.....	2,545 07
544 Miscellaneous tax accruals.....	18,976 56
545 Separately operated properties—Loss.....	—
546 Interest on funded debt.....	—
547 Interest on unfunded debt.....	3,621 87
548 Amortization of discount on funded debt.....	—
549 Maintenance of investment organizations.....	—
550 Income transferred to other companies.....	—
551 Miscellaneous income charges.....	6,772 25
Total deductions from gross income.....	<u>2,017,148 95</u>
Net income.....	<u>\$ 1,908,235 00</u>

## CANADIAN GOVERNMENT RAILWAYS

CAPITAL ACCOUNT, YEAR ENDED DECEMBER 31, 1926

<i>Intercolonial Railway—</i>			
To cost to December 31, 1925.....	\$ 148,253,399 80		
Construction and betterments during year.....	894,698 07		
Less: Transfer of 1925 equipment expenditure.....	<u>38,750 14</u>		149,109,347 73
<i>Prince Edward Island Railway—</i>			
To cost to December 31, 1925.....	13,690,347 30		
Construction and betterments during year.....	212,195 05		
Transfer of 1925 expenditure.....	263 15		
Equipment retirements 1923 to 1926.....	<u>263,495 90</u>		13,639,309 60
<i>New Brunswick and Prince Edward Island—</i>			
To cost to December 31, 1925.....	898,616 98		
Construction and betterments during year.....	<u>16,557 43</u>		915,174 41
<i>International Railway—</i>			
To cost to December 31, 1925.....	3,103,841 38		
Construction and betterments during year.....	<u>36,237 44</u>		3,140,078 82
<i>National Transcontinental Railway—</i>			
To cost to December 31, 1925.....	171,892,734 55		
Construction and betterments during year.....	<u>521,781 58</u>		172,414,516 13
<i>Moncton and Buctouche Railway—</i>			
To cost to December 31, 1925.....	452,944 61		
Construction and betterments during year.....	<u>66,990 96</u>		519,935 57
<i>Salisbury and Albert Railway—</i>			
To cost to December 31, 1925.....	622,619 27		
Construction and betterments during year.....	<u>3,717 69</u>		626,336 96
<i>St. Martins Railway—</i>			
To cost to December 31, 1925.....	356,355 81		
Construction and betterments during year.....	<u>10,732 85</u>		367,088 66
<i>Elgin and Havelock Railway—</i>			
To cost to December 31, 1925.....	179,527 04		
Construction and betterments during year.....	<u>3,078 68</u>		182,605 72
<i>York and Carleton Railway—</i>			
To cost to December 31, 1925.....	63,636 55		
Construction and betterments during year.....	<u>498 86</u>		64,135 41
<i>Quebec &amp; Saguenay Railway—</i>			
To cost to December 31, 1925.....	7,807,858 55		
Construction and betterments during year.....	<u>14,451 58</u>		7,822,310 13
<i>Caraquet and Gulf Shore—</i>			
To cost to December 31, 1925.....	953,932 52		
Construction and betterments during year.....	<u>61,525 41</u>		1,015,457 93
<i>Lotbiniere and Megantic Railway—</i>			
To cost to December 31, 1925.....	353,836 16		
Construction and betterments during year.....	<u>          </u>		353,836 16
<i>Cape Breton Railway—</i>			
To cost to December 31, 1925.....	103,231 45		
Construction and betterments during year.....	<u>290 49</u>		103,521 94
<i>Hudsons Bay Railway—</i>			
To cost to December 31, 1925.....	14,944,515 21		
Transferred during year.....	<u>14,944,515 21</u>		
<i>Quebec Bridge—</i>			
To cost to bridge to December 31, 1924.....			22,640,228 46
<i>Long Lac Cut-off—</i>			
To cost to December 31, 1925.....	2,846 724 87		
Construction and betterments during year.....	<u>822 14</u>		2,847,547 01
<i>Lake Superior Branch—</i>			
To additions and betterments to December 31, 1925.....	544,465 87		
To additions and betterments during year.....	<u>49,865 21</u>		594,331 08

## CANADIAN GOVERNMENT RAILWAYS

CAPITAL ACCOUNT, YEAR ENDED DECEMBER 31, 1926—*Concluded*

<i>Lawlor Building, Toronto—</i>			
To cost to December 31, 1925.....	1,229,912	87	
Additional expenditure during year.....			
			1,229,912 87
<i>Canadian Government Railways—</i>			
Cost of equipment to December 31, 1925.....	34,549,839	18	
Expenditure during year.....	195,119	57	
Transfer of 1925 expenditure.....	38,486	99	
Less: Equipment retired.....	521,836	14	
	34,261,609	60	
<i>Add: Additions to S.S. "Northumberland" to Decem-</i>			
<i>ber 31, 1926.....</i>	40,362	74	
			34,301,972 34
Capital suspense—Vale Railway.....	49,234	31	
Capital suspense—Branch Line Aid.....	36,485	95	
Branch Lines purchased—balance of purchase			
of Moncton & Buctouche Railway.....	\$70,000	00	
New Brunswick & Prince Edward Island Ry.	63,418	77	
	133,418	77	
	219,139	03	
<i>Deduct:</i>			
Capital suspense—Overseas rail.....	582,559	36	
Capital suspense—Moncton and Buctouche			
Rly.....	5,713	40	
	588,272	76	
			369,133 73
<i>Minaki Inn—</i>			
To cost to December 31, 1925.....	389,387	90	
Additions and betterments during year.....	127,628	21	
			517,016 11
			<u>\$ 412,035,529 31</u>

## ST. JOHN AND QUEBEC RAILWAY

## EARNINGS, EXPENSES AND RENTAL ACCOUNT YEAR ENDED DECEMBER 31, 1926

Railway operating revenues.....	\$	264,474	30
Railway operating expenses.....		446,424	77
			181,950 47
Operating deficit.....			38,204 84
Other income items net debit.....			220,155 31
Net deficit.....			105,789 72
In addition to the above 40% of operating revenues has been paid as rental.....			325,945 03
Total loss.....	\$		<u>325,945 03</u>

## CANADIAN GOVERNMENT RAILWAYS

## STATEMENT OF AVERAGES, YEAR ENDED DECEMBER 31, 1926

Mileage of road operated.....	4,462.78
Total engine mileage.....	14,687,914
Total train mileage.....	11,831,787
Total car mileage.....	263,221,088
<i>Earnings—</i>	
Transportation—Rail (Accts. 101 to 112).....	\$ 45,291,483 51
Incidentals (Accts. 113 to 152).....	999,438 63
Total.....	\$ 46,290,922 14
<i>Operating expenses—</i>	
Rail.....	43,170,627 45
Water.....	—
Total.....	\$ 43,170,627 45
<i>Ratio of earnings to gross earnings—</i>	
Earnings from transportation—Rail.....	97.84%
Earnings from transportation—Water.....	—
Earnings from incidentals.....	2.14%
Earnings per mile of road operated.....	\$ 10,372 67
Earnings per engine mile.....	3 15
Earnings per train mile.....	3 91
Earnings per car mile.....	17 59
<i>Ratio of expenses to gross earnings—</i>	
Rail.....	93.26%
Water.....	—
Expenses per train mile.....	3 65
Expenses per mile of road operated.....	9,673 48
Repairs of locomotives.....	2,880,365 02
Repairs of freight cars.....	2,906,193 88
Repairs of passenger cars.....	1,710,804 47
Cost or repairs per locomotive.....	4,890 26
Cost of repairs per freight car.....	133 48
Cost of repairs per passenger car.....	2,486 63
Freight traffic.....	33,965,065 66
Passenger traffic.....	8,152,916 24
Mails and express.....	2,066,657 46
Miscellaneous (A/Cs. 103, 104, 105, 108 to 112).....	1,124,164 97
Incidental.....	982,117 81
Total.....	\$ 46,290,922 14
Hire of equipment—Credit.....	\$ 231,356 13
Income account—Debit.....	178,407 75
Rentals leased roads—Debit.....	685,922 42

## LOCOMOTIVE AND CAR EQUIPMENT AS AT DECEMBER 31, 1926

	On hand January, 1, 1926	Added during year	Retired during year	On hand December 31, 1926
<i>Locomotives</i> .....	594		5	589
<i>Freight—</i>				
Automobile.....	497		1	496
Box.....	13,724	3	430	13,297
Stock.....	2,279		33	2,246
Poultry.....	2			2
Refrigerator.....	291		4	287
Eastman heater.....	192		1	191
Potato.....	200		1	199
Flat.....	1,949	16	230	1,735
Hart.....	1,016		29	987
Coal and coke.....	903	273	56	1,120
Pulpwood.....	996	9	208	797
Tank.....	66		1	65
Caboose.....	316	50	16	350
	22,431	351	1,010	21,772

LOCOMOTIVE AND CAR EQUIPMENT AS AT DECEMBER 31, 1926—*Concluded*

	On hand January 1, 1926	Added during year	Retired during year	On hand December 31, 1926
<i>Passenger—</i>				
Business.....	23	1	6	18
Parlor.....	2			2
Cafe parlor.....	13			13
Cafe coach.....	4			4
Observation, parlor-buffet.....	6		2	4
Mountain observation.....	2	2		4
Comp. cafe, parlor, sleeping.....	1			1
Buffet sleeping.....	8			8
Compartment.....	2			2
Dining.....	15			15
Sleeping.....	61		4	57
Colonist.....	46		5	41
First class.....	156	2	6	152
Second class.....	46	5	2	49
Passenger and baggage cars.....	106		3	103
Passenger and mail cars.....	3			3
Mail and express or baggage.....	20		1	19
Baggage.....	92		3	89
Box baggage.....	24			24
Postal.....	15			15
Refrigerator express.....	32			32
Milk.....	3			3
Stockman's.....	5	2		7
Gasoline motor pass. trailers.....	1			1
Hospital.....				
Lunch counter.....	6			6
Photographers.....	1		1	
Instruction.....	2			2
Vision test.....	2			2
Stores supply.....	4	2		6
Trailers.....	5			5
Dynamometer.....	1			1
	707	14	33	688
<i>Work—</i>				
Lidgerwood.....	9		1	8
Gas.....	8	1	1	8
Cranes and derricks.....	47		1	46
Flangers.....	94	5	9	90
Ditchers.....	8			8
Ballast spreaders and trimmers.....	9			9
Pile drivers.....	3			3
Steam shovels.....	17		1	16
Snow plows.....	128		13	115
Boarding.....	1,218	128	73	1,273
Engineer.....	2	2		4
Store.....	1			1
Auxiliary.....	132	17	8	141
Cabin and idler.....	11	7	1	17
Cinder.....	66	2	15	53
Road repair.....	13	1	1	13
Air dump.....	38			38
Transfer flat.....	17			17
Water tank.....	2			2
Fire fighting tank.....	12	3		15
Concrete mixer.....	4			4
Sand blast.....	1			1
Well boring.....	1			1
Test weight and scale test.....	2		1	1
Centerfugal pump.....				
Ice.....	3			3
Shop service.....	11			11
Rail saw.....	1			1
Oil tank.....	1			1
Paint.....	1		1	
Dump.....	16			16
Bridge tanks.....	1			1
	1,877	166	126	1,917

## CANADIAN GOVERNMENT RAILWAYS EMPLOYEES' RELIEF AND INSURANCE ASSOCIATION

STATEMENT OF RECEIPTS AND EXPENDITURES FROM JANUARY 1 TO DECEMBER 31, 1926

## RECEIPTS

Credit balance on December 31, 1925.....		\$ 126,282 66
Amount of premiums collected from Canadian National Railways' pay lists.....	\$ 231,049 63	
Premiums collected from railways' vouchers.....	1,723 18	
Contribution from Canadian National Railways.....	15,000 00	
		<u>247,772 81</u>
Cash members not on duty, refunds, etc.....	1,462 11	
Premiums from S. & A. vouchers.....	3,254 22	
Premiums from retired members.....	6,271 33	
Annual fees.....	1,358 75	
Examination fees.....	74 00	
Interest on monthly balances and bonds.....	5,763 21	
		<u>18,183 62</u>
Total receipts.....		\$ 392,239 09

## EXPENDITURES

Sick and Accident Indemnity.....	\$ 92,803 68	
Medical and surgical attendance.....	50,025 85	
		<u>142,829 53</u>
Temporary employees' accident fund.....	26,047 90	
Death and total disability claims.....	68,500 00	
Examination fees.....	62 00	
		<u>\$ 237,439 43</u>

## OPERATING EXPENSES

Sick and accident fund, temporary employees' accident fund, retired employees, death and total disability fund.....	20,753 74	
		<u>258,193 17</u>
Difference.....		134,045 92
Less Outstanding liabilities.....		<u>14,000 00</u>
Estimated net surplus December 31, 1926.....		\$ 120,045 92

## SICK AND ACCIDENT FUND (REGULAR &amp; TEMPORARY)

This fund shows a surplus, December 31, 1926.....\$ 72,215 50

## DEATH AND TOTAL DISABILITY FUND

The statement shows an expenditure on account of death and total disability claims of.....		\$68,500 00
This statement shows that One hundred and thirty-four death and total disability claims were assessed and paid during the year, one hundred and twelve death claims, due to natural causes aggregating..	57,250 00	
Nineteen death claims due to accidental injuries aggregating.....	9,750 00	
		<u>67,000 00</u>
Three total disability claims, aggregating.....	1,500 00	
		<u>68,500 00</u>
Sixteen temporary death claims, due to accidental injuries, aggregating..	4,000 00	
		<u>\$ 72,500 00</u>

C. B. TRITES,

*General Secretary.*

W. F. SEARS,

*Auditor*

INTERCOLONIAL AND PRINCE EDWARD ISLAND RAILWAYS  
EMPLOYEES' PROVIDENT FUND

STATEMENT OF RECEIPTS AND EXPENDITURES DURING THE YEAR  
ENDED DECEMBER 31, 1926

Balance to the credit of the fund on December 31, 1925.....	Nil
The contributions made by employees during the year, being one and one-half per cent of their monthly salary and wages, were.....	\$ 266,368 46
The contributions made by the railways were.....	100,000 00
Special contribution made by the railways to offset deficit, year ending December 31, 1926.....	319,395 06
Amounts received to increase retiring allowances of all retired employees receiving less than \$30 per month, in order that the minimum allowance now paid under the Act, viz.: \$20, might be increased to \$30 per month, in accordance with vote No. 473, whereby an amount was placed in the estimates to supplement retiring allowances payable under the provisions of the I.C. & P.E.I. Railways Employees' Provident Fund, including from January 1, to December 31, 1926.....	41,054 28
Amounts received from refunds, etc.....	843 84
	727,661 64
The expenditures were:—	
For retiring allowances.....	645,310 63
For allowances made to retired employees receiving less than \$30 per month, to increase the minimum allowance in accordance with vote No. 473, whereby an amount was placed in the estimates to supplement retiring allowances payable under the provisions of the I.C. & P.E.I. Railways Employees' Provident Fund, including from January 1, to December 31, 1925.....	41,054 28
For contributions refunded in cases of deceased employees.....	18,560 90
For contributions refunded which were deducted in error.....	594 86
For contributions refunded to discharged employees, etc.....	5,628 01
Medical examinations for probationers entering the service, etc.	496 00
Medical examinations for employees retiring from the service...	193 50
For election expenses.....	1,411 41
For salaries and travelling expenses, Secretary's office, and proportion of salary of Chief Medical Officer.....	14,095 90
For stationery, printing, postage, etc.....	316 15
	727,661 64
Balance to the credit of the Fund on the 31st December, 1926.....	Nil

C. B. TRITES,  
*Secretary.*

W. U. APPLETON,  
*Chairman.*

CANADIAN NATIONAL RAILWAYS

STATEMENT SHOWING THE AMOUNT CREDITED TO THE CANADIAN GOVERNMENT  
RAILWAYS EMPLOYEES' RELIEF AND INSURANCE ASSOCIATION BY THE  
CANADIAN NATIONAL RAILWAYS DURING THE YEAR ENDED  
DECEMBER 31, 1926

Amount of premiums collected from the Canadian National Railway pay lists.....	\$ 231,049 63
Premium collected from railway vouchers.....	1,723 18
Annual contribution from the Canadian National Railways.....	15,000 00
Total.....	\$ 247,772 81

C. B. TRITES,  
*Secretary.*

W. F. SEARS,  
*Auditor.*

## CANADIAN NATIONAL RAILWAYS

STATEMENT SHOWING MILEAGE OF CANADIAN GOVERNMENT RAILWAYS AS AT  
DECEMBER 31, 1926

	Main line		Yard track and sidings	Total
	1st track	2nd track		
Atlantic Region.....	2,213 49	50·11	697 61	2,961 21
Central Region.....	1,441 76	22 24	427 04	1,891 04
Western Region.....	390 17	4 89	134 03	529 09
Leased Lines—Atlantic Region.....	164 25	.....	15 71	179 96
“ Central Region.....	5 48	.....	1 46	6 94
“ Western Region.....	162 76	.....	82 58	245 34
Running Rights—Atlantic Region.....	81 53	.....	.....	81 59
“ Central Region.....	†42 80	*37 94	.....	80 74
“ Western Region.....	.....	.....	.....	.....
	4,502 30	115 18	1,358 43	5,975 91

†Running Rights over Grand Trunk Railway—39·52 miles.

\*Running Rights over Grand Trunk Railway.

REPORT OF THE DEPARTMENTAL ACCOUNTANT

TOTAL EXPENDITURE and Revenue of the Department of Railways and Canals prior to and since Confederation to March 31, 1927.

	\$	cts.	\$	cts.
Grand total expenditure.....			1,336,852,172	67
Expenditure on railways.....	931,268,941	67		
" Quebec Bridge.....	21,910,596	06		
" railway subsidies.....	78,785,471	09		
" canals.....	255,665,393	65		
" miscellaneous.....	49,221,770	20		
Total expenditure.....			1,336,852,172	67
Classification of expenditure in general—				
Capital account.....	710,051,390	94		
Revenue account.....	496,066,313	90		
Income account.....	51,948,996	74		
Consolidated Fund—Railway subsidies.....	78,785,471	09		
Total expenditure.....			1,336,852,172	67
Classification of expenditure in detail—				
Railways—				
Capital.....	477,059,275	44		
Income.....	9,258,541	24		
Revenue.....	444,951,124	99		
Total expenditure.....			931,268,941	67
Quebec bridge—				
Capital.....	21,706,664	49		
Income.....	203,931	57		
Total expenditure.....			21,910,596	06
Railway subsidies.....			78,785,471	09
Total expenditure on railways.....			1,031,965,008	82
Canals—				
Capital.....	189,657,999	64		
Income.....	14,968,916	15		
Revenue, staff.....	28,443,695	61		
Revenue, repairs.....	22,594,782	25		
Total expenditure.....			255,665,393	65
Miscellaneous expenditure—				
Capital.....	21,627,451	37		
Income.....	27,517,607	78		
Revenue.....	76,711	05		
Total expenditure.....			49,221,770	20
Grand total expenditure.....			1,336,852,172	67

GENERAL SUMMARY of the Expenditure and Revenue for Fiscal Year ending March 31, 1927

Grand total expenditure to March 31, 1927.....		1,336,852,172	67
This expenditure is divided as follows—			
Railways, including Quebec bridge.....	1,031,965,008	82	
Canals.....	255,665,393	65	
General expenditure.....	49,221,770	20	
Total expenditure.....		1,336,852,172	67
Total expenditure for the year ending March 31, 1927—			
This expenditure is divided as follows—			
Railways.....	3,319,380	24	
Canals.....	16,438,853	48	
General expenditure.....	891,410	75	
Total expenditure.....		20,649,644	47
REVENUE RECEIVED			
Grand total of revenue received from July 1, 1867 to March 31, 1927.			
Railways.....	391,865,392	09	
Canals.....	23,509,875	78	
Total revenue.....		415,376,267	87
Revenue received from Canals during fiscal year.....		961,694	09

## REVENUE

GENERAL STATEMENT of the Revenue received during the year ending  
March 31, 1927

	\$	cts.
<i>Canals—</i>		
Welland canal.....	79,657	29
Welland canal, Port Colborne elevator.....	494,455	92
Welland Ship canal.....	2,824	01
Beauharnois canal.....	15,075	31
Soulanges canal.....	3,971	67
Cornwall canal.....	26,046	70
Williamsburg canal.....	1,817	50
Lachine canal.....	226,319	07
Chambly canal.....	958	24
Carillon and Grenville canal.....	1,174	00
Chats Falls canal.....	1	00
St. Anne's Lock.....	545	36
Rideau canal.....	12,699	00
St. Peter's canal.....	30	00
Murray canal.....	239	00
Trent canal.....	95,792	02
Sault Ste. Marie canal.....	86	00
Miscellaneous.....	2	00
Total.....	961,694	09

## GENERAL STATEMENT of Expenditure during the Year ending March 31, 1927

	\$	cts.	\$	cts.
Total expenditure.....			20,649,644	47
Expenditure chargeable to railways.....	3,319,380	24		
Expenditure chargeable to canals.....	16,438,853	48		
General expenditure.....	891,410	75		
Total expenditure.....			20,649,644	47
<i>Classification of expenditure in general—</i>				
Capital account.....	16,674,027	43		
Income account.....	1,820,495	19		
Revenue account.....	2,155,121	85		
Total expenditure.....			20,649,644	47
<i>Classification of expenditure by accounts—</i>				
<i>Railways—</i>				
Capital expenditure.....			2,828,343	65
Income expenditure, general.....			477,204	51
Revenue.....			13,832	08
<i>Canals—</i>				
Capital expenditure.....			13,845,683	78
Income expenditure.....	429,118	85		
Income expenditure, general.....	22,761	08		
Revenue expenditure, staff.....	1,129,040	91		
Revenue expenditure, staff, general.....	134,131	10		
Revenue expenditure, repairs.....	858,472	92	1,263,172	01
Revenue expenditure, repairs, general.....	19,644	84		
General expenditure, income account.....			878,117	76
Total expenditure.....			891,410	75
Total expenditure.....			20,649,644	47

## PRINCIPAL EXPENDITURES during the Fiscal Year

Railway Commission, maintenance.....	\$	246,106 05
Railway Commission, statute.....		53,500 00
Surveys and Inspections, railways.....		48,467 95
Railway Grade Crossing Fund.....		126,490 81
Canada Highways Act, Chapter 54, 1919.....		346,496 52
Canada Highways Commission.....		24,663 72
Vote 342, St. Lawrence Ship Canal, Surveys and Investigations.....		112,316 77
Workmen's Compensation Act.....		331,141 57
Canadian Government Railways, to supplement pension allowance.....		41,054 28
Hudson Bay Railway—Construction and betterments.....		2,808,549 31
Welland Ship Canal.....		13,846,472 92
Sunday Labour.....		56,505 25
Canals expenditure.....		2,415,843 54
Miscellaneous expenditure.....		192,035 78
Total.....		20,649,644 47

EXPENDITURE on Government and other Railways for fiscal year ending  
March 31, 1927

—	Capital		Income		Revenue		Total	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Intercolonial Railway.....	4,438	05					4,438	05
Hudson Bay Railway.....	2,808,549	31					2,808,549	31
Total.....	2,812,987	36					2,812,987	36
Railway Commission, maintenance.....			246,106	05			246,106	05
Railway Commission, statutory.....			53,500	00			53,500	00
Surveys and inspections.....			48,467	95			48,467	95
Railway Grade Crossing Fund.....			126,490	81			126,490	81
Governor General's cars.....			2,639	70			2,639	70
Hudson Bay Ry.—Port Nelson and Fort Churchill terminals.....	15,356	29			13,832	08	29,188	37
Total.....	15,356	29	477,204	51	13,832	08	506,392	88
Grand total of railways.....	2,828,343	65	477,204	51	13,832	08	3,319,380	24
MISCELLANEOUS								
Canada Highways Act, chapter 54, 1919.....			346,496	52			346,496	52
Workmen's Compensation Act, Chap. 15, Statutes of Canada 1918.....			331,141	57			331,141	57
Canada Highways Commission.....			24,663	72			24,663	72
Printing and Stationery, outside service.....			6,424	79			6,424	79
Canadian Government Rys.—To supplement pension allowance.....			41,054	28			41,054	28
Vote 342, St. Lawrence Ship Canal—Surveys and Investigations and Canadian National Advisory Committee.....			112,316	77			112,316	77
Vote 415, deferred adjustment of military pay.....			29,313	10			29,313	10
			891,410	75			891,410	75

## EXPENDITURE on Canals for Fiscal Year ended March 31, 1927

Name of Canal	Chargeable to		Chargeable to Revenue		Total				
	Capital		Income			Staff	Repairs		
	\$	cts.	\$	cts.				\$	cts.
Carillon and Grenville.....		4,770 73		31,429 03		25,705 01		61,904 77	
Chambly.....		7,973 14		54,636 85		36,001 51		98,611 50	
Cornwall.....				101,945 36		74,131 48		176,076 84	
Lachine.....		8,687 63		156,128 05		146,825 06		311,640 74	
Murray.....				6,860 48		4,877 46		11,737 94	
Rideau.....				86,940 85		158,610 70		245,551 55	
St. Anne's Lock.....		6,504 13		5,295 48		5,056 49		16,856 10	
St. Lawrence river canals.....		3,762 85						3,762 85	
St. Lawrence Ship canal.....		170 96						170 96	
St. Ours.....				4,671 62		2,756 01		7,427 63	
Soulanges.....		2,835 00		52,470 08		67,633 54		122,938 62	
St. Peters.....		18,589 12		6,772 59		4,807 22		30,168 93	
Sault Ste. Marie.....				42,229 19		29,408 44		71,637 63	
Trent.....		258 02		300,355 01		143,724 12		69,390 21	
Welland.....		876 20		75,641 24		380,999 71		204,286 44	
Welland Ship.....	13,846,472 92							13,846,472 92	
Williamsburg.....				54,937 50		28,983 35		83,920 85	
	13,845,683 78	429,118 85		1,129,040 91		858,472 92		16,262,316 46	
GENERAL ON CANALS									
Dredge Vessels, Quebec Canals.....		3,979 28		25,430 23		6,101 52		35,511 03	
Dredge Vessels, Rideau Canal.....				19,240 10		10,121 96		29,362 06	
Sunday Labour.....				56,505 25				56,505 25	
Surveys and Inspections.....		16,781 80						16,781 80	
QUEBEC CANALS									
Maintenance.....				29,849 00				29,849 00	
Hungry Bay and St. Barbe dykes.....						3,421 36		3,421 36	
MISCELLANEOUS									
Vote 418, compassionate allowance to Mother of late Francis S. King.....		2,000 00						2,000 00	
Civil Service Amendment Act gratuities to dependents of deceased employees.....				3,106 52				3,106 52	
Total.....		22,761 08		134,131 10		19,644 84		176,537 02	
Grand total.....	13,845,683 78	451,879 93		1,263,172 01		878,117 76		16,438,853 48	
Canals revenue—									
Add Year 1919-20.....		266 66						266 66	
Deduct Year 1920-21.....		10 00							

## RECAPITULATION OF EXPENDITURE

	Capital		Income		Revenue		Total	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Expenditure on railways.....	2,828,343 65		477,204 51		13,832 08		3,319,380 24	
Expenditure on canals.....	13,845,683 78		451,879 93		2,141,289 77		16,438,853 48	
Miscellaneous expenditure, general.....			891,410 75				891,410 75	
	16,674,027 43		1,820,495 19		2,155,121 85		20,649,644 47	

EXPENDITURE on Canals to March 31, 1927

CAPITAL ACCOUNT

	Previous Years		1926-27		Total	
	\$	cts.	\$	cts.	\$	cts.
Beauharnois.....	1,636,029	29			1,636,029	29
Carillon and Grenville.....	4,191,756	51			4,191,756	51
Chambly.....	780,996	52			780,996	52
Cornwall.....	7,245,804	21			7,245,804	21
Culbute lock and dam.....	382,391	46			382,391	46
Lachine.....	14,132,684	80			14,132,684	80
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.....	4,214,263	99			4,214,263	99
Sault Ste. Marie.....	4,935,809	42			4,935,809	42
Soulanges.....	7,904,044	53			7,904,044	53
St. Anne's Lock.....	1,320,215	63			1,320,215	63
St. Lawrence river canals—						
North channel.....	1,995,142	87			1,995,142	87
River reaches.....	483,830	20			483,830	20
Galops channel.....	1,039,895	65			1,039,895	65
St. Lawrence ship canal.....	134,067	76		170 96	133,896	80
St. Ours.....	127,228	56			127,228	56
St. Peter's.....	648,547	14			648,547	14
Tay.....	489,599	23			489,599	23
Trent.....	19,337,174	58		258 02	19,337,432	60
Welland.....	29,907,288	13		876 20	29,906,411	93
Welland Ship.....	62,732,557	88	13,846,472	92	76,579,030	80
Williamsburg.....	1,334,551	80			1,334,551	80
Farran's Point.....	877,090	57			877,090	57
Galops.....	6,143,463	11			6,143,463	11
Rapide Plat.....	2,159,880	80			2,159,880	80
Total.....	175,777,349	17	13,845,683	78	189,623,032	95
Canals general.....	34,966	69			34,966	69
Grand total.....	175,812,315	86	13,845,683	78	189,657,999	64

INCOME ACCOUNT

	Previous years		1926-27		Total	
	\$	cts.	\$	cts.	\$	cts.
Baie Verte.....	44,387	53			44,387	53
Beauharnois.....	265,810	84			265,810	84
Carillon and Grenville.....	461,519	72	4,770	73	466,290	45
Chambly.....	926,345	35	7,973	14	934,318	49
Cornwall.....	637,119	09			637,119	09
Culbute lock and dam.....	60,923	37			60,923	37
Lachine.....	1,932,185	38	8,687	63	1,940,873	01
Lake St. Francis.....	27,023	08			27,023	08
Murray.....	101,457	76			101,457	76
Rideau.....	714,865	55			714,865	55
Sault Ste. Marie.....	320,974	77			320,974	77
Soulanges.....	507,694	93	2,835	00	510,529	93
St. Anne's lock.....	126,437	51	6,504	13	132,941	64
St. Lawrence river canals.....	220,724	91	3,762	85	224,487	76
St. Ours.....	178,366	58			178,366	58
St. Peter's.....	826,493	05	18,589	12	845,082	17
Tay.....	748	65			748	65
Trent.....	2,607,599	66	300,355	01	2,907,954	67
Welland.....	3,167,734	87	75,641	24	3,243,376	11
Williamsburg.....	396,175	43			396,175	43
Total.....	13,524,593	03	429,118	85	13,953,711	88
Canals general.....	992,443	19	22,761	08	1,015,204	27
Grand total.....	14,517,036	22	451,879	93	14,968,916	15

## DEPARTMENT OF RAILWAYS AND CANALS

## REVENUE ACCOUNT STAFF

	Previous years		1926-27		Total	
	\$	cts.	\$	cts.	\$	cts.
Beauharnois.....	649,574	89			649,574	89
Carillon and Grenville.....	1,075,467	52	31,429	03	1,106,896	55
Chambly.....	1,370,347	26	54,636	85	1,424,984	11
Cornwall.....	2,446,908	64	101,945	36	2,548,854	00
Culbute lock and dam.....	11,507	48			11,507	48
Lachine.....	3,837,907	25	156,128	05	3,994,035	30
Murray.....	206,123	08	6,860	48	212,983	56
Rideau.....	2,384,714	25	86,940	85	2,471,655	10
Sault Ste. Marie.....	737,094	41	42,229	19	779,323	60
Soulanges.....	935,851	68	52,470	08	988,321	76
St. Anne's lock.....	167,500	71	5,295	48	172,796	19
St. Curs.....	163,143	44	4,671	62	167,815	06
St. Peter's.....	166,048	82	6,772	59	172,821	41
Trent.....	1,506,416	61	143,724	12	1,650,140	73
Welland.....	7,351,149	82	380,999	71	7,732,149	53
Williamsburg.....	1,036,529	62	54,937	50	1,091,467	12
Total.....	24,046,285	48	1,129,040	91	25,175,326	39
Canals general.....	3,155,089	20				
".....	*20,851	08				
	3,134,238	12	134,131	10	3,268,369	22
	27,180,523	60	1,263,172	01	28,443,695	61

\*Canals Revenue for years 1912, 1920-1-2-3-4-5-6 adjusted to show net revenue.  
See statement of yearly Expenditure on Canals and Revenue Received to March 31, 1927.

## REVENUE ACCOUNT, REPAIRS

	Previous years		-1926-27		Total	
	\$	cts.	\$	cts.	\$	cts.
Beauharnois.....	525,691	23			525,691	23
Carillon and Grenville.....	793,231	79	25,705	01	818,936	80
Chambly.....	1,436,413	83	36,001	51	1,472,415	34
Cornwall.....	1,576,532	86	74,131	48	1,650,664	34
Culbute lock and dam.....	7,036	15			7,036	15
Lachine.....	3,625,323	09	146,825	06	3,772,148	15
Murray.....	146,277	29	4,877	46	151,154	75
Rideau.....	2,811,292	65	158,610	70	2,969,903	35
Sault Ste. Marie.....	649,708	22	29,408	44	679,116	66
Soulanges.....	1,260,535	67	67,633	54	1,328,169	21
St. Anne's lock.....	188,745	66	5,056	49	193,802	15
St. Ours.....	159,280	26	2,756	01	162,036	27
St. Peter's.....	50,209	64	4,807	22	55,016	86
Trent.....	1,385,104	53	69,390	21	1,454,494	74
Welland.....	5,219,787	05	204,286	44	5,424,073	49
Williamsburg.....	875,724	46	28,983	35	904,707	81
Total.....	20,710,894	38	858,472	92	21,569,367	30
Canals general.....	1,005,770	11	19,644	84	1,025,414	95
Grand total.....	21,716,664	49	878,117	76	22,594,782	25

## TOTAL EXPENDITURE by Canals to March 31, 1927

Canals	Capital	Income	Revenue		Total
			Staff	Repairs	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Baie Verte.....		44,387 53			44,387 53
Beauharnois.....	1,636,029 29	265,810 84	649,574 89	525,691 23	3,077,106 25
Carillon and Grenville.....	4,191,756 51	466,290 45	1,106,896 55	818,936 80	6,583,880 31
Chambly.....	780,996 52	934,818 49	1,424,984 11	1,472,415 34	4,612,714 46
Cornwall.....	7,245,804 21	637,119 09	2,548,854 00	1,650,664 34	12,082,441 64
Culbute lock and dam.....	382,391 46	60,923 37	11,507 48	7,036 15	461,858 46
Lachine.....	14,132,684 80	1,940,873 01	3,994,035 30	3,772,148 15	23,839,741 26
Lake St. Francis.....	75,906 71	27,028 08			102,934 79
Lake St. Louis.....	298,176 11				298,176 11
Murray.....	1,248,946 71	101,457 76	212,983 56	151,154 75	1,714,542 78
Rideau.....	4,214,263 99	714,865 55	2,471,655 10	2,969,903 35	10,370,687 99
Sault Ste. Marie.....	4,935,809 42	320,974 77	779,323 60	679,116 66	6,715,224 45
Soulanges.....	7,904,044 53	510,529 93	988,321 76	1,328,169 21	10,731,065 43
St. Anne's lock.....	1,320,215 63	132,941 64	172,796 19	193,802 15	1,819,755 61
St. Lawrence river canals—					
North channel.....	1,995,142 87				
River reaches.....	483,830 20	224,487 76			3,743,356 48
Galops channel.....	1,039,895 65				
St. Lawrence ship canal.....	133,896 80				133,896 80
St. Ours.....	127,228 56	178,366 58	167,815 06	162,036 27	635,446 47
St. Peter's.....	648,547 14	845,082 17	172,821 41	55,016 86	1,721,467 58
Tay.....	489,599 23	748 65			490,347 88
Trent.....	19,337,432 60	2,907,954 67	1,650,140 73	1,454,494 74	25,350,022 74
Welland.....	29,906,411 93	3,243,376 11	7,732,149 53	5,424,073 49	46,306,011 06
Welland ship.....	76,579,030 80				76,579,030 80
Williamsburg.....	1,334,551 80				
Farran's Point.....	877,090 57	396,175 43	1,091,467 12	904,707 81	12,907,341 64
Galops.....	6,143,468 11				
Rapide Plat.....	2,159,880 80				
Total.....	189,623,032 95	13,953,711 88	25,175,326 39	21,569,367 30	250,321,438 52
Canals general.....	34,966 69	1,015,204 27	3,268,369 22	1,025,414 95	5,343,955 13
Grand total.....	189,657,999 64	14,968,916 15	28,443,695 61	22,594,782 25	255,665,393 65



STATEMENT of Canals Revenue for Year ending March 31, 1927

Divisions	Dues		Rents		Total	
	\$	cts.	\$	cts.	\$	cts.
<i>Welland canal</i> .....						
Port Dalhousie.....	452	71	65,252	34	65,705	05
Port Colborne.....	225	38	13,726	86	13,952	24
Port Colborne elevator.....	494,455	92			494,455	92
Total.....	495,134	01	78,979	20	574,113	21
<i>Welland Ship canal—</i>						
Port Dalhousie.....			2,784	01	2,784	01
Port Colborne.....			40	00	40	00
Total.....			2,824	01	2,824	01
<i>St. Lawrence canals—</i>						
Coteau Landing, Beauharnois canal.....			15,075	31	15,075	31
Coteau Landing, Soulanges canal.....		5 00	3,966	67	3,971	67
Cornwall, Cornwall canal.....	1,190	87	24,855	83	26,046	70
Cardinal, Williamsburg canal.....			1,817	50	1,817	50
Lachine, Lachine canal.....	23,307	68	193,856	55	217,164	23
Montreal, Lachine canal.....	9,154	84			9,154	84
Total.....	33,658	39	239,571	86	273,230	25
<i>Chambly canal—</i>						
Chambly.....			763	24	763	24
St. Johns.....			130	00	130	00
St. Ours.....			65	00	65	00
Total.....			958	24	958	24
<i>Ottawa River canals—</i>						
Carillon and Grenville canal.....	8	00	1,166	00	1,174	00
Chats Falls canal.....			1	00	1	00
Ste. Anne's Lock.....	81	36	464	00	545	36
Total.....	89	36	1,631	00	1,720	36
<i>Rideau canal—</i>						
Ottawa.....	504	47	10,923	13	11,427	60
Kingston Mills.....			863	90	863	90
Smiths Falls.....	65	00	342	50	407	50
Total.....	569	47	12,129	53	12,699	00
<i>St. Peter's canal</i> .....			30	00	30	00
<i>Murray canal</i> .....			239	00	239	00
<i>Trent canal</i> .....	37	00	95,755	02	95,792	02
<i>Sault Ste. Marie canal</i> .....			86	00	86	00
Miscellaneous.....			2	00	2	00
Grand total.....	529,488	23	432,205	86	961,694	09

## STATEMENT of Hydraulic and other Rents Showing Rent Accrued, Paid and Balances Due March 31, 1927

Balance due April 1, 1926	Hydraulic and other rents accrued	House rents accrued	Totals	Divisions	Abatement of over-charges	Refunds	Deposited to credit of Receiver General		Balance due Mar. 31, 1927	Totals
							House rents	Hydraulic and other rents		
\$ cts.	\$ cts.	\$ cts.	\$ cts.		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
11,896 67	78,192 75	1,769 00	91,858 42	Welland Canal.....	343 50	.....	1,669 00	77,310 20	12,535 72	91,858 42
665 03	618 40	2,668 79	39,52 22	Welland Ship Canal.....	561 33	71 77	2,521 91	302 10	495 11	3,952 22
53,065 53	182,150 12	237 00	129,321 54	Lachine Canal.....	740 75	719 68	237 00	193,619 55	65,995 44	129,321 54
.....	15,075 31	.....	15,075 31	Beauharnois Canal.....	.....	.....	.....	15,075 31	.....	15,075 31
25 00	3,630 67	336 00	3,991 67	Soulanges Canal.....	.....	.....	336 00	3,630 67	25 00	3,991 67
1 00	270 24	689 00	958 24	Chambly Canal.....	.....	.....	689 00	269 24	.....	958 24
10 00	749 00	147 00	886 00	Carillon and Grenville Canal.....	.....	.....	147 00	1,019 00	280 00	886 00
.....	24,922 50	.....	24,922 50	Cornwall Canal.....	16 67	.....	.....	24,855 83	50 00	24,922 50
.....	14 00	225 00	239 00	Murray Canal.....	.....	.....	225 00	14 00	.....	239 00
25 00	379 00	60 00	464 00	Ste. Anne's Lock.....	.....	.....	60 00	404 00	.....	464 00
3,291 00	2,433 50	234 00	5,958 50	Williamshurg Canal.....	851 00	.....	234 00	1,583 50	3,290 00	5,958 50
10,276 35	10,057 92	2,158 00	22,492 27	Rideau Canal.....	18 00	.....	2,158 00	9,971 33	10,344 74	22,492 27
59	93,690 19	2,242 50	95,933 28	Trent Canal.....	88 31	.....	2,242 50	93,512 52	89 95	95,933 28
.....	91 00	.....	91 00	Sault Ste. Marie Canal.....	.....	.....	.....	86 00	5 00	91 00
5 00	25 00	.....	30 00	St. Peters Canal.....	.....	.....	.....	30 00	.....	30 00
.....	1 00	.....	1 00	Chats Falls Canal.....	.....	.....	.....	1 00	.....	1 00
15 00	14 00	.....	29 00	Miscellaneous.....	.....	.....	.....	4 00	27 00	29 00
26,876 94	412,314 60	10,766 29	396,203 95	.....	2,619 50	791 45	10,519 41	421,686 45	39,412 92	396,203 95

## HUDSON BAY RAILWAY (Railway only)

## STATEMENT SHOWING ACTUAL EXPENDITURE TO MARCH 31, 1927

Classification of expenditure	Total expended to fiscal year ending March 31, 1926	Expended during fiscal year 1926-27	Total construction cost
	\$ cts.	\$ cts.	\$ cts.
<i>Road—</i>			
1. Engineering.....	1,554,508 46	47,204 46	1,601,712 92
2. Land for transportation purposes.....	47,037 77	2,156 39	49,194 16
3. Grading.....	7,166,621 27	97,946 12	7,264,567 39
6. Bridges, trestles and culverts.....	1,367,994 76	262,838 30	1,630,833 06
8. Ties.....	1,049,465 97	849,651 85	1,899,117 82
9. Rails.....	1,983,448 78	196,465 99	2,179,914 77
10. Other track material.....	441,427 24	69,597 87	511,025 11
11. Ballast.....	428,624 01	229,069 75	657,693 76
12. Track laying and surfacing.....	376,870 14	428,377 41	805,247 55
13. Right-of-way fences.....	762 85		762 85
14. Snow fences and snowsheds.....		156 41	156 41
15. Crossings and signs.....	38 36	4,266 34	4,304 70
16. Station and office buildings.....	8,448 43	11,527 74	19,976 17
17. Roadway buildings.....		14,803 40	14,803 40
18. Water stations.....	172,083 81	99,455 69	271,539 50
19. Fuel stations.....	15,510 05	32,336 10	47,846 15
20. Shops and enginehouses.....	14,987 86	289,783 56	304,771 42
21. Grain elevators.....			
22. Storage warehouses.....	394 95		394 95
23. Wharves and docks.....	669 55		669 55
24. Coal and ore wharves.....			
25. Gas producing plants.....			
26. Telegraph and telephone lines.....	186,857 17	73,909 24	260,766 41
27. Signals and interlockers.....	376 37	11 77	388 14
35. Miscellaneous structures.....	5,372 12		5,372 12
36. Paving.....			
37. Roadway machines.....		2,669 10	2,669 10
38. Roadway small tools.....	9,365 98	1,620 50	10,986 48
40. Revenue and operating expenses.....	355,796 69	13,039 17	368,835 86
41. Cost of road purchased.....	21,413 79		21,413 79
42. Reconstruction of road purchased.....			
43. Other expenditures—Road.....		2,996 63	2,996 63
44. Shop machinery.....	12,823 00		12,823 00
45. Power plant machinery.....			
46. Power substation apparatus.....			
47. Unapplied construction materials.....			
Total Road.....	15,220,899 38	2,729,883 79	17,950,783 17
<i>Equipment—</i>			
51. Steam locomotives.....			
52. Other locomotives.....			
53. Freight-train cars.....			
54. Passenger-train cars.....			
55. Motor equipment of cars.....			
56. Floating equipment.....			
57. Work equipment.....		68,448 63	68,448 63
58. Miscellaneous equipment.....			
Total equipment.....		68,448 63	68,448 63
<i>General Expenditures—</i>			
71. Organization expenses.....			
72. General officers and clerks.....	46,605 11	5,458 14	52,063 25
73. Law.....	200 00		200 00
74. Stationery and printing.....		1,778 87	1,778 87
75. Taxes.....			
76. Interest during construction.....			
77. Other expenditures—General.....	29,769 54	2,979 88	32,749 42
Total General Expenses.....	76,574 65	10,216 89	86,791 54
Total Construction Cost.....	15,297,474 03	2,808,549 31	18,106,023 34

## HUDSON BAY RAILWAY—Expenditure to March 31, 1927

Year	Capital		Deficits during operations		Total cost
	Schedule "F" Public Accounts	Schedule "K" Public Accounts	Amounts chargeable to appropriations under collection of Revenue	Schedule "K"	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1909	92,427 83				92,427 83
1910	53,042 63				53,042 63
1911	184,149 81				184,149 81
1912	159,632 00				159,632 00
1913	1,009,024 52				1,009,024 52
1914	3,071,631 22				3,071,631 22
1915	3,256,074 39				3,256,074 39
1916	2,981,425 47				2,981,425 47
1917	1,792,190 39				1,792,190 39
1918	1,288,789 61				1,288,789 61
1919	641,318 69				641,318 69
1920	247,153 67		*51,585 17		195,568 50
1921			*22,484 42		22,484 42
1922	61,563 43		*49,397 98		110,961 41
1923	13,824 94		*26,293 27		40,118 21
1924	183,250 35	27,104 38		111,924 37	322,279 10
1925	53,848 38	296,439 06		51,567 80	294,158 48
1926		133,983 32		39,351 03	173,334 35
1927	2,808,549 31				2,808,549 31
	17,295,892 54	457,526 76	149,760 84	202,843 20	18,106,023 34

NOTE.—Above items under "Schedule K" in Public Accounts form part of cash loans to Canadian National Railways.

\*These items form part of Canadian Government Railways deficits shown elsewhere under heading of "Government expenditure relative to Railways."

## PORT NELSON AND FORT CHURCHILL TERMINALS—Expenditure to March 31, 1927

	Port Nelson		Fort Churchill	
	Capital	Amounts chargeable to appropriations under collection of Revenue	Capital	Amounts chargeable to appropriations under collection of Revenue
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1913	90,038 63			
1914	1,427,086 03			
1915	1,517,669 60			
1916	1,905,706 30			
1917	812,089 55			
1918	590,909 39			
1919	78,760 89			
1920	11,545 19			
1921	121,063 71			
1922	34,769 87			
1923	27,802 56			
1924	24,621 93			
1925	2,184 04			
1926	2,484 07	20,587 31		
1927	1,548 80	13,429 71	16,905 09	402 37
	6,240,565 62	34,017 02	16,905 09	402 37

WELLAND SHIP CANAL—Amounts expended on Construction to March 31, 1927

	Year ending	Capital	
		\$	cts.
Government expenditure.....	1914	994,257	60
“ “.....	1915	4,074,200	69
“ “.....	1916	4,892,105	15
“ “.....	1917	3,513,769	82
“ “.....	1918	1,235,046	59
“ “.....	1919	1,823,875	96
“ “.....	1920	3,499,963	35
“ “.....	1921	5,070,297	57
“ “.....	1922	4,279,815	61
“ “.....	1923	4,776,393	84
“ “.....	1924	6,465,512	55
“ “.....	1925	9,909,636	95
“ “.....	1926	11,960,465	11
		\$13,988,961	74
Less sale of materials.....	1927	142,488	82
Total.....		76,341,813	71

Expenditure as above.....\$76,341,813 71

To which add the preliminary expenditure for survey, borings, etc., charged to Welland canal capital as follows:—

1905-06.....	\$	13,231	97
1906-07.....		10,825	27
1907-08.....		8,300	34
1908-09.....		19,993	37
1909-10.....		9,979	91
1910-11.....		21,229	35
1911-12.....		23,138	60
1912-13.....		112,890	92
1915-16.....		17,627	36

237,217 09

Total cost of Welland Ship Canal to March 31, 1927.....\$76,579,030 80

INCOME EXPENDITURE Relative to Railways to March 31, 1927

Railways	Previous years		1926-27		Total	
	\$	cts.	\$	cts.	\$	cts.
Annapolis and Digby Railway.....	8,381	82			8,381	82
Intercolonial Railway.....	280,000	00			280,000	00
Miscellaneous expenditure.....	8,492,954	91	477,204	51	8,970,159	42
Total.....	8,781,336	73	477,204	51	9,258,541	24
Quebec Bridge.....	203,931	57			203,931	57
Grand total.....	8,985,268	30	477,204	51	9,462,472	81

## QUEBEC BRIDGE—Amounts expended on Construction

	Year	Capital		Income	
		\$	cts.	\$	cts.
Government expenditure.....	1909			67,588	05
" ".....	1910			111,788	02
" ".....	1911	227,563	40		
" ".....	1912	603,293	07		
" ".....	1913	1,512,825	96		
" ".....	1914	2,604,105	61		
" ".....	1915	2,816,305	10		
" ".....	1916	2,746,813	70		
" ".....	1917	2,733,677	00		
" ".....	1918	931,278	01		
" ".....	1919	656,761	79		
" ".....	1920	880	65		
" ".....	1921			24,555	50
" ".....	1923	344	70		
		14,831,398	29	203,931	57

Capital expenditure as above.....\$14,831,398 29

In this expenditure a total of \$91,188.10 has been credited, being received for sale of scrap and used material from the collapsed bridge.

Add amounts paid by authorities other than Appropriation Acts—

Amount guaranteed by Act of 1903, Chapter 54.....\$ 6,424,781 00

Amount paid to the province of Quebec..... 250,000 00

Amount paid to the city of Quebec..... 300,000 00

Amount paid to Emile Tanguay, as per Supreme Court award..... 485 20

6,975,266 20

\$21,806,664 49

Less amount received from Phoenix Bridge Co..... 100,000 00

Total amount of Capital Expenditure.....\$21,706,664 49

To which add the expenditure under Income 1909, 1910 and 1921.....

203,931 57

Also amount paid for subsidies during 1901, 1902 and 1903.....

374,353 33

578,284 90

Total expenditure to March 31, 1927.....\$22,284,949 39

Amount \$355,279.07, previously included in both Income for year 1909 and in amount guaranteed by Act of 1903, Chapter 54, now properly adjusted and appears only in the latter.

## EMPLOYEES COMPENSATION ACT—CHAPTER 15, 1918

## STATEMENT OF EXPENDITURE

To MARCH 31, 1926

Board	Dominion expenditure including amounts advanced	Disbursement under the Act				Balance on deposit
		Compensation, pensions, etc.	Proportion administrative expenses	Interest	Total	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Nova Scotia.....	181,557 55	148,238 59	25,607 50		173,846 09	7,711 46
New Brunswick.....	439,003 22	381,512 47	45,943 39		427,455 86	11,547 36
Ontario.....	408,311 51	379,175 24	12,205 42		391,380 66	16,930 85
Manitoba.....	260,287 11	217,572 79	35,140 08	497 50	252,215 37	8,071 74
Alberta.....	40,152 92	34,229 85	4,921 54	5,963 22	33,188 17	6,964 75
British Columbia.....	79,803 01	68,667 87	3,985 17	5,510 64	67,142 40	12,660 61
Province of Quebec and miscellaneous.....	235,581 48	235,581 48			235,581 48	
Interest deposited to credit of casual revenue.....	10,571 51			10,571 51	10,571 51	
Totals to March 31, 1926....	1,655,268 31	1,464,978 29	127,803 10	1,399 85	1,591,381 54	63,886 77

STATEMENT OF EXPENDITURE—*Concluded*

YEAR 1926-1927

Board	Dominion expenditure including amounts advanced	Disbursement under the Act				Balance on deposit
		Compensation, pensions, etc.	Proportion administrative expenses	Interest	Total	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Nova Scotia.....	38,957 06	37,314 52	4,858 66		42,173 18	3,216 12
New Brunswick.....	75,336 49	70,008 70	6,735 80		76,744 50	1,408 01
Ontario.....	71,338 99	77,032 62	4,802 20		81,834 82	10,495 83
Manitoba.....	72,699 39	60,526 59	6,559 88	0 50	67,086 97	5,612 42
Alberta.....	10,958 15	6,925 42	882 80	574 23	7,233 99	3,724 16
British Columbia.....	9,006 56	13,407 57	468 39	178 44	14,054 40	5,047 84
Province of Quebec and miscellaneous.....	50,166 58	50,227 55	60 97		50,166 58	
Province of Ontario (Medical Aid).....	163 50	163 50			163 50	
Province of Saskatchewan..	1,115 00	1,115 00			1,115 00	
Interest deposited to credit of casual revenue.....	1,399 85			1,399 85	1,399 85	
<b>Total year 1926-1927.....</b>	<b>331,141 57</b>	<b>316,721 47</b>	<b>24,246 76</b>	<b>1,004 56</b>	<b>341,972 79</b>	<b>10,831 22</b>

TO MARCH 31, 1927

Board	Dominion expenditure including amounts advanced	Disbursement under the Act				Balance on deposit
		Compensation, pensions, etc.	Proportion administrative expenses	Interest	Total	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Nova Scotia.....	220,514 61	185,553 11	30,466 16		216,019 27	4,495 34
New Brunswick.....	514,339 71	451,521 17	52,679 19		504,200 36	10,139 35
Ontario.....	479,650 50	456,207 86	17,007 62		473,215 48	6,435 02
Manitoba.....	332,986 50	278,099 38	41,699 96	497 00	319,302 34	13,684 16
Alberta.....	51,111 07	41,155 27	5,804 34	6,537 45	40,422 16	10,688 91
British Columbia.....	88,809 57	82,075 44	4,453 56	5,332 20	81,196 80	7,612 77
Province of Quebec and miscellaneous.....	285,748 06	285,809 03	60 97		285,748 06	
Province of Ontario (Medical Aid).....	163 50	163 50			163 50	
Province of Saskatchewan..	1,115 00	1,115 00			1,115 00	
Interest deposited to credit of casual revenue.....	11,971 36			11,971 36	11,971 36	
<b>Totals to March 31, 1927....</b>	<b>1,986,409 88</b>	<b>1,781,699 76</b>	<b>152,049 86</b>	<b>395 29</b>	<b>1,933,354 33</b>	<b>53,055 55</b>

EMPLOYEES COMPENSATION ACT—CHAPTER 15, 1918—Number of Claims on which payments were made and amounts disbursed in Compensation, Medical Aid and Pensions, Fiscal Year 1926-1927

## NOVA SCOTIA BOARD

Department	Number of Claims				Disbursements
	Compensation and Medical Aid	Medical Aid only	Pension	Total	
					\$ cts.
Indian Affairs.....	1			1	20 61
Interior.....	1			1	59 84
Marine and Fisheries.....	2			2	529 96
National Defence.....	5	2	3	10	1,925 36
Public Works.....	10	4	3	17	2,538 44
Railways and Canals: Canadian Government Railways.....	219	28	37	284	31,759 11
Soldiers' Civil Re-establishment.....	1			1	6 20
Trade and Commerce.....			1	1	475 00
Totals.....	239	34	44	317	37,314 52

## NEW BRUNSWICK BOARD

Interior.....	1			1	47 35
Marine and Fisheries.....	8	3	1	12	1,236 06
Post Office.....			2	2	900 00
Public Works.....	2	1	1	4	466 05
Railways and Canals; Canadian Government Railways.....	631	42	71	744	67,359 24
Totals.....	642	46	75	763	70,008 70

## ONTARIO BOARD

Agriculture.....			1	1	650 04
Interior.....	6	1	2	9	3,325 13
Marine and Fisheries.....	2	4	9	15	5,462 66
Mines.....	2			2	126 57
National Defence.....	9	5	5	19	3,294 78
Public Printing and Stationery.....	3			3	248 86
Public Works.....	23	7	11	41	8,591 16
Railways and Canals—					
Canals.....	52	16	28	96	21,193 01
Canadian Government Railways.....	140	27	29	196	30,340 86
Soldiers' Civil Re-establishment.....	3	2	8	13	3,555 80
Soldiers' Settlement Board.....	1			1	49 08
Trade and Commerce.....	5	1		6	194 67
Totals.....	246	63	93	402	77,032 62

## MANITOBA BOARD

Interior.....		2	1	3	371 29
Marine and Fisheries.....			1	1	240 00
Mines.....	1			1	50 00
National Defence.....	1			1	142 28
Public Works.....	7	2	2	11	1,213 30
Railways and Canals; Canadian Government Railways.....	291	332	19	642	52,057 22
Hudson Bay Railway.....	48	88		136	6,198 68
Soldiers' Civil Re-establishment.....			1	1	253 82
Totals.....	348	424	24	796	60,526 59

ALBERTA BOARD

Department	Number of Claims				Disbursements
	Compensation and Medical Aid	Medical Aid only	Pension	Total	
Agriculture.....			1	1	\$ 564 00
Indian Affairs.....			1	1	420 00
Interior.....	25	2	6	33	5,504 92
Mines.....		2	1	3	427 50
Trade and Commerce.....		1		1	9 00
Totals.....	25	5	9	39	6,925 42

BRITISH COLUMBIA BOARD

Agriculture.....	3	1	1	5	569 09
Customs and Excise.....		2		2	67 25
Indian Affairs.....	1	2		3	86 88
Interior.....	47	7	2	56	3,206 72
Justice.....			1	1	717 10
Marine and Fisheries.....	13	5	5	23	4,456 68
Marine Biological Board of Canada.....		2		2	14 00
Mines.....	1	1		2	628 07
National Defence.....		11		11	70 60
Post Office.....		16		16	300 20
Public Works.....	18	20	2	40	3,290 98
Totals.....	83	67	11	161	13,407 57

PROVINCE OF QUEBEC AND MISCELLANEOUS

Marine and Fisheries.....	1			1	1,244 00
National Defence.....	2			2	1,702 60
Railways and Canals—					
Canals.....	1			1	2,585 20
Canadian Government Railways.....	157	15		172	44,695 75
Totals.....	161	15		176	50,227 55

PROVINCE OF ONTARIO (MEDICAL AID)

Interior.....		2		2	23 50
Public Works.....		3		3	56 00
Railways and Canals.....		20		20	84 00
Totals.....		25		25	163 50

PROVINCE OF SASKATCHEWAN

Trade and Commerce.....	2			2	1,115 00
Totals.....	2			2	1,115 00

SUMMARY

Agriculture.....	3	1	3	7	1,783 13
Customs and Excise.....		2		2	67 25
Indian Affairs.....	2	2	1	5	527 49
Interior.....	80	14	11	105	12,538 75
Justice.....			1	1	717 10
Marine and Fisheries.....	26	12	16	54	13,169 36
Marine Biological Board of Canada.....		2		2	14 00
Mines.....	4	3	1	8	1,232 14
National Defence.....	17	18	8	43	7,135 62
Post Office.....		16	2	18	1,200 20
Public Printing and Stationery.....	3			3	248 86
Public Works.....	60	37	19	116	16,155 93
Railways and Canals—					
Canals.....	53	36	28	117	23,862 21
Canadian Government Railways.....	1,438	444	156	2,038	226,212 18
Hudson Bay Railway.....	48	88		136	6,198 68
Soldiers' Civil Re-establishment.....	4	2	9	15	3,815 82
Soldiers' Settlement Board.....	1			1	49 08
Trade and Commerce.....	7	2	1	10	1,793 67
Totals.....	1,746	679	256	2,681	316,721 47

## CAPITAL EXPENDITURE Relative to Railways to March 31, 1927

	Previous years		Year ending March 31, 1927		Total	
	\$	cts.	\$	cts.	\$	cts.
<i>Canadian Government Railways—</i>						
<i>International Railway System—</i>						
Canada Eastern Railway.....	819,000	00			819,000	00
Cape Breton Railway.....	3,860,679	14			3,860,679	14
Drummond County Railway.....	1,464,000	00			1,464,000	00
Eastern Extension Railway.....	1,324,042	81			1,324,042	81
Montreal and European Railway.....	333,942	72			333,942	72
Oxford and New Glasgow Railway.....	1,949,063	21			1,949,063	21
Intercolonial Railway.....	136,822,010	27	4,438	05	136,826,448	32
Total.....	146,572,738	15	4,438	05	146,577,176	20
New Brunswick and Prince Edward Island Railway.....	861,847	83			861,847	83
Prince Edward Island Railway.....	13,276,674	49			13,276,674	49
International Railway of New Brunswick.....	2,963,021	87			2,963,021	87
National Transcontinental Railway.....	169,294,876	56			169,294,876	56
Moncton and Buctouche Railway.....	293,067	16			293,067	16
Salisbury and Albert Railway.....	437,647	60			437,647	60
St. Martin's Railway.....	302,045	64			302,045	64
Elgin and Havelock Railway.....	135,029	12			135,029	12
York and Carleton Railway.....	59,749	15			59,749	15
Quebec and Saguenay Railway.....	7,772,911	03			7,772,911	03
Caraqueb and Gulf Shore Railway.....	711,767	38			711,767	38
Lotbiniere and Megantic Railway.....	360,008	39			360,008	39
Cape Breton Railway (extension).....	107,646	73			107,646	73
Hudson Bay Railway.....	14,487,343	23	2,808,549	31	17,295,892	54
Canadian Government Rys.—Rolling Stock.....	35,906,042	55			35,906,042	55
Canadian Government Rys.—Miscellaneous.....	345	00			345	00
<sup>b</sup> Quebec Bridge.....	21,706,664	49			21,706,664	49
Miscellaneous suspense.....	3,862	40			3,862	40
Total.....	415,253,288	77	2,812,987	36	418,066,276	13
<i>Other Railways and Miscellaneous—</i>						
Canadian Northern Railway.....	10,000,000	00			10,000,000	00
Annapolis and Digby Railway.....	660,683	09			660,683	09
<sup>a</sup> European and North American Railway.....	88,363	18			88,363	18
<sup>a</sup> Nova Scotia Railway.....	208,509	72			208,509	72
<sup>c</sup> Carleton Branch Railway.....	48,410	48			48,410	48
Canadian Pacific Railway.....	62,791,364	25			62,791,364	25
Hudson Bay Railway—Port Nelson and Fort Churchill Terminals.....	6,242,114	42	15,356	29	6,257,470	71
Yukon Territory Works, Stikine—Teslin Railway.....	283,323	55			283,323	55
North Railway.....	250,000	00			250,000	00
Governor General's cars.....	71,538	82			71,538	82
Miscellaneous expenditure.....	18,000	00			18,000	00
Total.....	495,915,596	28	2,828,345	65	498,743,939	93

<sup>a</sup> Amount paid between 1868 and 1873, inclusive, was transferred to Consolidated Fund.

<sup>b</sup> Adjusted to agree with Schedule F of the Public Accounts.

<sup>c</sup> This Railway, which cost \$88,410.48, was sold in 1893 to the City of St. John, N.B., for \$40,000 00 (Vic. Chap. 6).

GOVERNMENT EXPENDITURE RELATIVE TO RAILWAYS

RECAPITULATION of Expenditure and Revenue to March 31, 1927

—	Capital		Revenue			Revenue received		
			Compassionate and miscellaneous	Improvements and betterments	Working expenses			
	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Expenditure prior to Confederation.....	13,881,460	65						
Since Confederation—								
1868 to 1890 inclusive.....	105,592,016	89	43,639	97	45,661,435	22	39,107,792	60
1890 to 1891.....	1,184,317	34			3,949,263	73	3,181,888	56
1891 to 1892.....	417,425	73			3,748,597	77	3,136,393	51
1892 to 1893.....	712,917	44			3,288,629	62	3,262,505	62
1893 to 1894.....	585,749	01			3,226,208	13	3,179,019	57
1894 to 1895.....	376,814	83			3,197,846	17	3,129,450	37
1895 to 1896.....	324,774	72			3,254,442	64	3,140,678	47
1896 to 1897.....	204,624	31			3,195,959	58	3,060,074	38
1897 to 1898.....	270,990	85	1,400	00	3,507,248	88	3,313,847	10
1898 to 1899.....	1,112,348	47			3,696,612	31	3,940,570	11
1899 to 1900.....	3,309,130	42			4,665,228	06	4,774,161	87
1900 to 1901.....	3,922,989	37			5,739,051	54	5,213,381	24
1901 to 1902.....	5,386,611	24			5,861,099	54	5,918,990	43
1902 to 1903.....	3,083,680	86			6,474,134	20	6,584,598	77
1903 to 1904.....	2,619,059	86			7,599,958	57	6,627,255	51
1904 to 1905.....	6,125,481	79			8,906,154	35	7,050,892	11
1905 to 1906.....	6,102,565	74			7,893,653	49	7,950,552	97
1906 to 1907.....	7,174,370	17			6,328,745	65	6,509,186	49
1907 to 1908.....	23,684,005	25			9,595,295	43	9,534,569	04
1908 to 1909.....	29,414,227	34			9,764,586	51	8,894,420	42
1909 to 1910.....	21,505,975	91			9,095,903	96	9,647,963	71
1910 to 1911.....	24,532,466	18	1,000	00	10,037,878	77	10,249,394	38
1911 to 1912.....	23,108,805	52	3,950	00	11,074,852	80	11,034,165	83
1912 to 1913.....	17,375,968	10	4,500	00	12,499,925	65	12,442,203	46
1913 to 1914.....	21,628,095	15	11,300	00	13,559,225	45	13,394,317	37
1914 to 1915.....	22,115,663	92	23,000	00	12,474,453	85	12,149,357	32
1915 to 1916.....	21,153,255	19	3,400	00	17,891,484	65	18,427,908	65
1916 to 1917.....	12,003,649	70	4,000	00	24,725,571	90	23,539,758	61
1917 to 1918.....	34,699,416	96	15,100	00	33,400,460	45	27,240,956	87
1918 to 1919.....	40,193,180	64	17,000	00	43,889,626	07	38,013,725	69
1919 to 1920.....	11,593,148	00	8,500	00	48,194,709	86	41,402,061	36
1920 to 1921.....	5,096,534	94	2,000	00	43,770,971	10	36,814,349	70
*1921 to 1922.....	4,553,638	03			6,326,800	47		
1922 to 1923.....	1,052,292	72			5,695,669	05		
1923 to 1924.....	315,943	52						
1924 to 1925.....	37,499	27						
1925 to 1926.....	40,580	26			a	20,587	31	
1926 to 1927.....	2,828,343	65			a	13,832	08	
	477,059,275	44	138,789,97	2,586,230	442,226,104	81	391,866,392	09

Total amount of Capital Expenditure.....	\$	cts.
Cost of Quebec bridge to March 31, 1925.....	477,059,275	44
Miscellaneous expenditure in 1914.....	21,706,664	49
	18,000	00
	498,783,939	93
Less amount received from the City of St. John, N.B., as purchase price of Carleton Branch Railway.....	40,000	00
	498,823,939	93

\*Under authority of Item 341, Chapter 54, 1921, the receipts and revenues of the Canadian Government Railways were from, Jan. 1, 1921, applied by the management towards payment of working expenditures.

a Revenue expenditure of Port Nelson Terminals.

## II.—STATEMENT showing Subsidies paid to March 31, 1927

Subsidies Voted		Number	Railways	July 1, 1883, to March 31, 1922		Total
Authority	Amount					
	\$ cts.			\$ cts.	\$ cts.	
47 Vic., chap. 8	51,200 00	1	Albert Southern Railway, N.B.....	50,460 00		50,460 00
52 " "						
3-4 Geo. V, chap. 46	—	2	Alberta Central Railway, Alta.....	404,480 00		404,480 00
2 Geo. V, chap. 48	—	3	Algoma Central and Hudson Bay R., Ont.	2,048,704 00		2,048,704 00
2 Geo. V, chap. 48	—	4	Algoma Eastern Ry. Co., formerly Manitoulin and North Shore Ry. Co., Ontario.....	547,648 00		547,648 00
1 Ed. VII, chap. 7	—	5	Atlantic and Lake Superior Ry., Quebec.....	163,418 19		163,418 19
37 Vic., chap. 14	186,600 annual-ly for 20 years	6	Atlantic and Northwestern Railway.....	3,732,000 00		3,732,000 00
48-9 " "	58	7	Atlantic, Quebec and Western Ry. Co., Quebec....	902,800 00		902,800 00
6 Ed. VII, chap. 43	902,800 00					
9-10 " "	51					
46 Vic., chap. 25	—					
47 " "	8	8	Baie des Chaleurs Railway, Quebec.....	620,000 00		620,000 00
52 " "	3					
62-3 " "	7					
63-4 " "	8					
6 Ed. VII, chap. 43	—	9	Bay of Quinte Railway, Ontario, now Canadian National Ry.....	141,722 45		141,722 45
50-1 Vic., chap. 24	62,400 00	10	Beauharnois Junction Railway, Quebec.....	62,400 00		62,400 00
56 " "	2					
48-9 " "	59	11	Belleville and North Hastings Railway, Ontario...	21,888 00		21,888 00
49 " "	10					
50-1 " "	24	12	Brantford, Waterloo and Lake Erie Ry., Ontario...	57,600 00		57,600 00
48-9 " "	59	13	Brockville, Westport and Sault Ste. Marie Railway Ontario, now Canadian National Ry.....	140,800 00		140,800 00
54-5 " "	8	14	Bruce Mines and Algoma Railway, Ontario.....	53,920 00		53,920 00
1 Ed. VII, chap. 7	53,920 00					
4 " "	34					
49 Vic., chap. 10	96,000 00	15	Buctouche and Moncton Railway, New Brunswick	101,600 00		101,600 00
50-1 " "	24					
48-9 " "	59					
49 " "	10					
50-1 " "	24	16	Canada Atlantic Railway, Ontario.....	282,355 20		282,355 20
43 " "	16					
57-8 " "	4	16 1/2	Canada Central Ry.....	1,525,250 00		1,525,250 00
62-3 " "	7					
52 " "	3					
47 " "	8					
48-9 " "	59	17	Canada Eastern Ry., formerly Northern and Western Ry., New Brunswick, including also Chatham Branch Ry.....	374,839 84		374,839 84
49 " "	10					
7-8 Ed. VII, chap. 63	210,053 59	18	Canada and Gulf Terminal Ry. Co.....	210,053 59		210,053 59
47 Vic., chap. 8	32,000 00					
49 " "	10					
52 " "	3					
57-8 " "	4	19	Canadian Northern Quebec Ry. Co., formerly Great Northern Ry., Quebec.....	1,265,357 14		1,265,357 14
60-1 " "	4					
62-3 " "	7					
6-7 Ed. VII, chap. 40	86,468 03					
7-8 " "	63					
2 Geo. V, chap. 7	—	20	Canadian Northern Alberta Ry. Co., Alberta.....	3,120,000 00		3,120,000 00
3-4 " "	10					
6-7 Ed. VII, chap. 40	—	21	Canadian Northern Ontario Ry. Co.....	14,485,635 20		14,485,635 20
7-8 " "	63					
3-4 Geo. V, chap. 10	—					
62-3 Vic., chap. 7	1,580,800 00	22	Canadian Northern Ry. Co., Ontario, Manitoba and North West Territories.....	1,909,132 00		1,909,132 00
63-4 " "	8					
2 Geo. V, chap. 9	6,300,000 00	23	Canadian Northern Pacific Ry. Co., British Columbia.....	5,987,520 00		5,987,520 00
63-4 Vic., chap. 8	341,819 75	24	Canadian Northern Quebec Ry., formerly Chateauguay and Northern Ry., Quebec.....	391,819 75		391,819 75
3 Ed. VII, chap. 57	50,000 00	25	Canadian Pacific Ry. Co., British Columbia, (Crow's Nest Pass).....	3,404,720 00		3,404,720 00
60-61 Vic., chap. 5	3,630,000 00	26	Canadian Pacific Ry. Co. (Dyment Branch).....	22,336 00		22,336 00
63-4 Vic., chap. 8	32,400 00					
2 Geo. V, chap. 48	126,000 00	27	Canadian Pacific Ry., Bridge at Edmonton, Alberta.....	126,000 00		126,000 00
3-4 " "	46	28	Canadian Pacific Ry., Gimli to Icelandic River Bridge.....	80,032 00		80,032 00
4 Ed. VII, chap. 34	153,866 00	29	Can. Pac. Ry. Co. (Kootenay and Arrowhead Branch).....	153,866 00		153,866 00
3-4 Geo. V, chap. 46	485,474 27	30	Can. Pac. Ry. Co., Moosejaw northwesterly.....	485,474 27		485,474 27
2 " "	48	31	Can. Pac. Ry. Co., Bridge at Outlook.....	115,000 00		115,000 00
3 Ed. VII, chap. 57	435,200 00	32	Can. Pac. Ry. Co. (Pheasant Hills Branch).....	435,200 00		435,200 00
62-3 Vic., chap. 7	160,000 00	33	Can. Pac. Ry. Co. (Pipestone Branch).....	160,000 00		160,000 00
55-6 " "	5	34	Can. Pac. Ry. Co. (Revelstoke to Arrow Lake).....	80,000 00		80,000 00
1 Ed. VII, chap. 7	83,200 00	35	Can. Pac. Ry. Co. (Selkirk Branch).....	83,200 00		83,200 00
6-7 " "	40	36	Can. Pac. Ry. Co. (Staynerville Branch).....	13,024 00		13,024 00
6 " "	43	37	Can. Pac. Ry. Co. (Teulon to Icelandic River).....	112,000 00		112,000 00
63-4 Vic., chap. 8	64,000 00	38	Can. Pac. Ry. Co. (Waskada Branch).....	64,000 00		64,000 00
7-8 Ed. VII, c. 63	34,522 43	39	Can. Pac. Ry., Winnipeg to Gimli, Man.....	34,522 43		34,522 43
48-9 Vic., chap. 58	1,500,000 00	40	Canadian Pacific Extensions.....	1,500,000 00		1,500,000 00
57-8 " "	4	41	Cap de la Magdeleine Railway, Quebec.....	7,424 00		7,424 00
62-3 " "	7	42	Cape Breton Extension Railway, Nova Scotia.....	196,800 00		196,800 00
7-8 Ed. VII, chap. 63	196,800 00					

II.—STATEMENT showing Subsidies paid to March 31, 1927—Continued

Subsidies Voted		Number	Railways	July 1, 1883,	Total
Authority	Amount			to March 31, 1922	
	\$ cts.			\$ cts.	\$ cts.
46 Vic., chap. 25	115,200 00	43	Caraquet Railway, New Brunswick.....	224,000 00	224,000 00
47 " " 8	76,800 00				
50-1 " " 24	32,000 00				
51 Vic., chap. 3	83,612 54	44	Central Railway, New Brunswick.....	226,012 54	226,012 54
52 " " 3					
53 " " 2					
2 Geo. V, chap. 48					
Appn., Oct. 2, 1918	175,000 00	46	Central Canada Railway.....	175,000 00	175,000 00
6-7 Ed. VII, c. 40	—	47	Central Ontario Railway Co., Ontario, now Canadian National Railway.....	205,862 79	205,862 79
—	—	48	Coast Line of Nova Scotia (Halifax and Yarmouth Ry.), now Canadian National Ry.....	160,000 00	160,000 00
6 Ed. VII, chap. 43	—	49	Colechester Coal and Railway Co., Nova Scotia....	12,800 00	12,800 00
53 Vic., chap. 2	112,000 00	50	Columbia and Kootenay Ry. Co., B.C.....	88,800 00	88,800 00
50-1 " " 24	44,800 00	51	Cornwallis Valley Railway Co., Nova Scotia.....	44,800 00	44,800 00
52 " " 3					
50-1 " " 24	44,800 00	52	Cumberland Railway and Coal Co., Nova Scotia..	39,850 00	39,850 00
55-6 " " 5	89,600 00	53	Dominion Coal Co., Nova Scotia.....	87,808 00	87,808 00
50-1 " " 24	22,400 00	54	Dominion Lime Co., Quebec.....	15,360 00	15,360 00
50-1 " " 24	96,000 00	55	Drummond County Railway, Quebec.....	423,936 00	423,936 00
52 " " 3	14,400 00				
53 " " 2	76,800 00				
57-8 " " 4	96,000 00				
—	—	56	East Richelieu Valley Railway Co., Quebec, (Quebec, Montreal and Southern Ry.).....	69,952 00	69,952 00
3-4 Geo. V, chap. 46	—	57	Edmonton, Dunvegan and British Columbia Railway, Alberta.....	338,382 48	338,382 48
6-7 Ed. VII, c. 40	—	58	Edmonton, Yukon and Pacific Railway Co., Alberta, now Canadian National Ry.....	91,200 00	91,200 00
46 Vic., chap. 25	38,400 00	59	Elgin, Petitiocodiac and Havelock Railway, N.B....	82,652 82	82,652 82
51 " " 3	44,252 82				
47 " " 8	96,000 00				
47 " " 6	750,000 00				
2 Geo. V, chap. 48	—	60	Erie and Huron Railway, Ontario.....	96,000 00	96,000 00
52 Vic., chap. 3	30,000 00	61	Esquimalt and Nanaimo Railway, British Columbia.....	1,520,560 00	1,520,560 00
60-61 " " 4	500,000 00	62	Fredericton and Grand Lake Railway Co., New Brunswick.....	216,576 00	216,576 00
63 " " 3		63	Fredericton and St. Mary's Ry., Bridge Co., New Brunswick.....	30,000 00	30,000 00
56 " " 2		48,000 00	64	Grand Trunk Ry. Co., Victoria Jubilee Bridge, Quebec.....	500,000 00
7-8 Ed. VII, c. 63	—	65	Grand Trunk, Georgian Bay and Lake Erie Ry., Ontario.....	39,744 00	39,744 00
49 Vic., chap. 10	32,000 00	66	Grand Trunk Pacific Ry. Co.....	1,220,480 00	1,220,480 00
50-1 " " 24	96,000 00	67	Great Eastern Railway, Quebec.....	40,345 00	40,345 00
56 " " 2	64,000 00				
53 " " 2	37,500 00	68	Guelph Junction Railway, Ontario.....	46,000 00	46,000 00
50-1 " " 24	51,200 00				
57-8 " " 4	—	69	Gulf Shore Railway Company, New Brunswick...	53,699 20	53,699 20
9-10 Ed. VII, c. 51	—	69½	Ha-Ha-Bay Railway Co., Quebec.....	231,462 00	231,462 00
—	—	70	Halifax and Southwestern Railway Co., Nova Scotia, now Canadian National Ry.....	1,238,450 93	1,238,450 93
50-1 Vic., chap. 24	9,600 00	71	Harvey Branch Railway Co., New Brunswick....	5,553 57	5,553 57
49 " " 10	108,800 00	72	Hereford Railway, Quebec.....	155,200 00	155,200 00
52 " " 3	48,000 00	73	International Railway, Quebec.....	156,800 00	156,800 00
46 " " 25	156,800 00				
53 " " 3	—	74	International Ry. of New Brunswick, formerly Restigouche and Western Ry. Co.....	726,080 00	726,080 00
7-8 Ed. VII, c. 63	—	75	Inverness Railway and Coal Co.....	368,545 97	368,545 97
—	—	76	Iroindale, Bancroft and Ottawa Railway, Ontario, now Canadian National Ry.....	144,000 00	144,000 00
47 Vic., chap. 3	160,000 00	77	Joggins Railway, Nova Scotia.....	37,500 00	37,500 00
52 " " 8	—	78	Kettle Valley Ry., British Columbia.....	2,174,190 72	2,174,190 72
49 " " 10	38,400 00				
50-1 " " 24	4,000 00	79	Kingston, Napanee and Western Ry., formerly Napanee, Tamworth and Quebec Ry., Ontario, now Canadian National Ry.....	208,732 80	208,732 80
6 Ed. VII, chap. 43	—				
46 Vic., chap. 24	89,600 00	80	Kingston and Pembroke Ry., Ontario.....	48,000 00	48,000 00
49 " " 10	70,000 00				
50-1 " " 24	12,800 00	81	Klondike Mines Railway.....	197,184 00	197,184 00
52 " " 3	32,000 00				
55-6 " " 5	64,000 00	82	Kootenay Central Ry. Co., British Columbia....	1,065,856 00	1,065,856 00
47 " " 8	48,000 00	83	Lake Erie and Detroit River Railway, Ontario....	475,851 00	475,851 00
6 Ed. VII, chap. 43	—				
2 " " 48	—	84	Lake Erie and Northern Ry. Co., Ontario.....	320,192 00	320,192 00
50-1 Vic., chap. 23	118,400 00				
55-6 " " 4	224,000 00	85	Lake Temiscamingue Colonization Ry., Quebec...	310,335 95	310,335 95
62-3 " " 5	—				
2 Geo. V, chap. 48	—	85	Lake Temiscamingue Colonization Ry., Quebec...	310,335 95	310,335 95
50-1 Vic., chap. 24	65,022 00				
57-8 " " 4	274,940 00				

## II.—STATEMENT showing Subsidies paid to March 31, 1927—Con.

Subsidies Voted		Number	Railways	July 1, 1883,	Total
Authority	Amount			to March 31, 1922	
	\$ cts.			\$ cts.	\$ cts.
49 Vic., chap. 10	11,200 00	86	L'Assomption Railway, Quebec.....	11,200 00	11,200 00
50-1 " " 24	217,000 00	87	Laurentian Railway, now Canadian National Ry..	217,600 00	217,600 00
48-9 " " 50	44,800 00	88	Leamington and St. Clair Ry., Ontario.....	51,200 00	51,200 00
50-1 " " 24	6,400 00				
6-7 Ed. VII, c. 40	—	89	Liverpool and Milton Ry., now Canadian National Ry.....	32,000 00	32,000 00
45 Vic., chap. 14	—	90	Lindsay, Bobcaygeon, Pontypool Ry. Co., Ontario.	185,173 06	185,173 06
55-6 " " 5	48,000 00	91	Lotbinière and Megantic Railway, Quebec.....	96,000 00	96,000 00
57-8 " " 4	48,000 00				
7-8 Ed. VII, c. 63	—	92	Maganetawan River Railway Co., Ontario.....	3,552 00	3,552 00
—	—	93	Maritime Coal and Railway Co.....	3,200 00	3,200 00
—	—	94	Massawippi Valley Railway Co., Quebec.....	5,376 00	5,376 00
—	—	95	Midland Railway Co., Nova Scotia.....	399,060 40	399,060 40
—	—	96	Middleton and Victoria Beach Railway Co., Nova Scotia, now Canadian National Ry.....	125,760 00	125,760 00
3 Ed. VII, chap. 57	—	97	Minudic Coal Co., Nova Scotia.....	18,544 00	18,544 00
56 Vic., chap. 2	67,200 00				
57-8 " " 4	38,400 00	98	Montfort Colonization Railway, Quebec, now Canadian National Ry.....	167,440 00	167,440 00
60-1 " " 4	66,000 00				
48-9 " " 59	30,000 00				
50-1 " " 24	64,000 00	99	Montreal and Champlain Junction Railway, Quebec	103,600 00	103,600 00
51 " " 3	9,600 00				
49 " " 10	32,000 00	100	Montreal and Lake Maskinongé Railway, Quebec.	41,280 00	41,280 00
53 " " 2	10,200 00				
50-1 " " 24	192,000 00	101	Montreal and Ottawa Railway, Ontario.....	192,000 00	192,000 00
53 " " 2					
54-5 " " 8					
57-8 " " 4					
1 Ed. VII, chap. 7	—	102	Montreal and Province Line Railway, Quebec.....	58,560 00	58,560 00
48-9 Vic., chap. 59	72,000 00	103	Montreal and Sorel Railway, Quebec (Quebec, Montreal and Southern Ry.)	93,757 57	93,757 57
53 " " 2	40,000 00				
53 Vic., chap. 2	361,270 00	104	Montreal and Western Railway, Quebec.....	361,270 00	361,270 00
57-8 " " 4	121,600 00	105	Nakusp and Slocan Railway, British Columbia...	117,760 00	117,760 00
Ed. VII, chap. 43	—	106	Napierville Junction Railway Co., Quebec.....	173,440 00	173,440 00
—	—	107	New Brunswick Coal and Railway Co., New Brunswick.....	48,000 00	48,000 00
48-9 Vic., chap. 59	118,400 00	108	New Brunswick and Prince Edward Island Ry.....	113,440 00	113,440 00
55-6 " " 5	40,000 00	109	New Glasgow Iron, Coal and Railway Co., Nova Scotia.....	39,840 00	39,840 00
Ed. VII, chap. 57	—	110	Nicola, Kamloops and Similkameen Coal Railway Co.....	300,800 00	300,800 00
7-8 " " 63	—	111	North Shore Railway Co., formerly Beersville Coal and Railway Co.....	27,616 00	27,616 00
—	—	112	Northern Colonization Railway Co., Quebec.....	355,200 00	355,200 00
2 Geo. V, chap. 47	—	113	Northern New Brunswick and Seaboard Railway Co., New Brunswick.....	108,160 00	108,160 00
3-4 " " 46	—				
46 Vic., chap. 26	660,000 00	114	Northern and Pacific Junction Railway, Ontario...	1,320,000 00	1,320,000 00
53 " " 2	660,000 00				
55-6 " " 5	240,000 00	115	Nova Scotia Central Railway Co., Nova Scotia, now Canadian National Ry.....	235,200 00	235,200 00
61 " " 2					
56 " " 2	32,000 00	116	Ontario, Belmont and Northern Ry. Co., Ontario (Marmora Ry. and Mining Co.), now Canadian National Ry.....	30,720 00	30,720 00
53 Geo. V, chap. 2	99,200 00	117	Orford Mountain Railway Company, Quebec.....	202,926 50	202,926 50
3 Ed. VII, chap. 2	—				
53 Vic., chap. 2	22,400 00	118	Oshawa Railway and Navigation Co., Ontario....	22,400 00	22,400 00
55-6 " " 5	—	119	Ottawa, Arnprior and Parry Sound Ry., Ontario...	779,712 00	779,712 00
—	—	120	Ottawa and New York Railway Company, Ontario	262,384 00	262,384 00
52 Vic., chap. 3	320,000 00				
57-8 " " 6	64,000 00	121	Ottawa, Northern and Western Railway, Quebec, formerly Ottawa and Gatineau Valley Railway	414,931 20	414,931 20
60-1 " " 4	—	122	Parry Sound and Colonization Railway, Ontario...	152,800 00	152,800 00
52 " " 3	128,000 00				
57-8 " " 4	64,000 00				
—	—	123	Pembroke Southern Railway, Ontario.....	64,000 00	64,000 00
55-6 Vic., chap. 5	—	124	Phillipsburg Junction Ry. Quarry Co., Quebec....	23,712 00	23,712 00
47 " " 8	272,000 00				
51 " " 3	41,000 00	125	Pontiac Pacific Junction Railway, Quebec.....	193,578 00	193,578 00
53 " " 2	24,000 00				
60-1 " " 4	212,500 00	126	Pontiac Pacific and Ottawa and Gatineau Ry. Co. (Interprovincial Bridge over Ottawa River)...	212,500 00	212,500 00
63-4 " " 2	—				
52 " " 3	19,200 00	127	Pontiac and Renfrew Railway, Ontario.....	13,600 00	13,600 00
51 " " 3	287,200 00	128	Port Arthur, Duluth and Western Ry., Ontario now Canadian National Ry.....	271,200 00	271,200 00
62-3 " " 7	1,000,000 00	129	Quebec Bridge Co., Quebec.....	374,353 33	374,353 33
63-4 " " 8	—				
47 " " 8	60,342 00				
51 " " 2	—	130	Quebec Central Ry., Quebec.....	585,038 90	585,038 90
53 " " 2	288,000 00				
7-8 Ed. VII, c. 63	—				

II.—STATEMENT showing Subsidies paid to March 31, 1927—Concluded

Subsidies Voted		Number	Railways	July 1, 1883, to March 31, 1922	Total
Authority	Amount			\$ cts.	\$ cts.
45 Vic., chap. 14	384,000 00	131	Quebec and Lake St. John Railway, Quebec, now Canadian National Ry.....	1,261,463 50	1,261,463 50
46 " "	80,000 00				
48-49 " "	96,000 00				
49 " "	186,295 00				
50-1 " "	28,800 00				
51 " "	96,000 00				
52 " "	64,000 00				
53 " "	40,000 00				
54-5 " "	5,250 00				
57-8 " "	44,800 00				
52 " "	96,000 00				
56 " "	—				
7-8 Ed. VII, c. 51	—				
	—	132½	Quebec, Montreal and Southern Railway Co.—See South Shore Ry., Quebec.....	—	—
	—	133	Quebec and Saguenay Railway Co., Quebec.....	248,801 28	248,801 28
	—	134	Schomberg and Aurora Railway Co., Ontario.....	46,144 00	46,144 00
52 Vic., chap. 3	162,200 00	135	Shuswap and Okanagan Railway, British Columbia.....	163,200 00	163,200 00
2 Geo. V, chap. 48	—	136	Southampton Railway Co., New Brunswick.....	81,280 00	81,280 00
50-1 Vic., chap. 24	54,400 00	137	South Norfolk Railway, Ontario.....	54,400 00	54,400 00
7-8 Ed. VII, c. 63	—	138	South Shore Railway (Quebec, Montreal and Southern), Quebec.....	529,442 00	529,442 00
55-6 " "	108,000 00	139	St. Catharines and Niagara Central Railway, Ontario.....	38,400 00	38,400 00
57-8 " "	103,800 00		St. Clair Frontier Tunnel Co., Ontario.....	375,000 00	375,000 00
52 " "	375,000 00	140	St. John and Quebec Railway Co., New Brunswick.....	1,005,902 42	1,005,902 42
2 Geo. V, chap. 48	—	141	—	—	—
53 Vic., chap. 2	57,600 00	142	St. Lawrence and Adirondack Railway, Quebec...	149,481 60	149,481 60
55-6 " "	25,024 00		—	—	—
60-61 " "	—	143	St. Louis and Richibucto Railway, New Brunswick.....	22,400 00	22,400 00
47 " "	22,400 00		St. Mary River Railway Co., Northwest Territories.....	148,094 00	148,094 00
7-8 Ed. VII, c. 63	—	145	St. Mary's and Western Ontario Railway Co., Ontario.....	67,709 00	67,709 00
7-8 " "	—	146	St. Maurice Valley Railway Co., Three Rivers to Grand'Mere, Quebec.....	173,120 00	173,120 00
56 Vic., chap. 2	—	146½	St. Stephen and Milltown Railway, New Brunswick.....	14,848 00	14,848 00
3-4 Geo.V, chap. 53	—	147	Temiskaming and Northern Ontario Railway Co., Ontario.....	2,134,080 00	2,134,080 00
45 Vic., chap. 14	240,000 00	148	Temiscouata Railway, New Brunswick and Quebec.....	645,950 00	645,950 00
48-9 " "	258,000 00				
51 " "	100,000 00				
53 " "	51,200 00				
7-8 Ed. VII, c. 63	—	149	Thessalon and Northern Railway Co., Ontario.....	6,112 00	6,112 00
52 Vic., chap. 3	54,400 00	150	Thousand Islands Railway, Ontario.....	29,840 00	29,840 00
63-4 " "	—	151	Tilsonburg, Lake Erie and Pacific Railway, Ont. ...	150,071 48	150,071 48
55-6 " "	—				
57-8 " "	—				
60-1 " "	—				
62-63 " "	—				
54-5 " "	9,600 00				
53 " "	35,200 00				
55-6 " "	9,600 00				
59 " "	16,000 00	153	Toronto, Grey and Bruce Railway, Ontario.....	14,656 00	14,656 00
56 " "	102,400 00	154	United Counties Railway Co., Quebec (Quebec, Montreal and Southern).....	188,816 00	188,816 00
57-8 " "	102,400 00	155	Vancouver and Lulu Island Railway Co., British Columbia.....	61,760 00	61,760 00
7-8 Ed. VII, c. 34	—				
53 Vic., chap. 5	35,200 00	156	Waterloo Junction Railway, Ontario.....	32,800 00	32,800 00
49 " "	256,000 00	157	West Ontario Pacific Railway and Ontario and Quebec Railway.....	256,000 00	256,000 00
53 " "	—	158	York and Carleton Railway, New Brunswick.....	32,896 00	32,896 00
62-3 " "	—				
47 " "	2,394,000 00	159	Provincial Govt. of Quebec—Quebec-Montreal.....	2,394,000 00	2,394,000 00
Total.....				78,785,471 09	78,785,471 09

†This amount does not include the subsidy of \$25,000,000 to the Canadian Pacific Railway, nor the amount of \$660,-683.08 expended on the Annapolis and Digby Railway, both of which are included in Capital Account.

Agreement with Public Accounts 1926-27 as follows:—	\$ cts.
Above statement shows.....	78,785,471 09
Total as per Public Accounts.....	76,115,221 09
Difference.....	2,670,250 00
Difference is located as follows:—	
Public Accounts Statement does not include, in Subsidy Account	\$ cts.
(a) Item 40 (part).....	970,000 00
(b) Item 46.....	175,000 00
(c) Item 16½.....	1,525,250 00
	2,670,250 00



## REPORT OF THE CHIEF ENGINEER OF THE DEPARTMENT OF RAILWAYS AND CANALS

SIR,—I have the honour to submit my annual report for the fiscal year ending March 31, 1927.

The canal system of Canada comprises a series of canals and canalized waters by which a total waterway of 1,831 miles has been opened to navigation. These canals may be considered under two main classes: the through St. Lawrence and Great Lakes route and the subsidiary canals or branches. By the former, communication with seaports is made possible for the large vessels which navigate the Great Lakes. The latter or branch system of canals serves for the most part the requirements of a merely local traffic.

The through water route between Montreal, at the head of ocean navigation, and Fort William, and Port Arthur, on the west shore of lake Superior, comprises 74 miles of canal, with forty-nine locks and 1,140 miles of river and lake waters, or a total of 1,214 miles. The minimum depth of water on this route, at normal low water level, is 14 feet. From Montreal to Duluth, at the southwest end of lake Superior, the total distance is 1,337 miles, and to Chicago 1,244 miles. Connection is made with the Canadian Pacific Railway from points west and south at Fort William and Port Arthur (6 miles apart). From Fort William, connection with the main transcontinental line of the Canadian National Railways is made by the branch line originally constructed by the Grand Trunk Pacific Railway, but now operated by the Canadian National Railways. At Port Arthur, the Canadian National Railways have an additional connection with points west and south viâ the old main line of the Canadian Northern Railway.

Of the minor or branch systems, the Ottawa river, Rideau, Murray and Trent canals, while geographically branches of the main route, attend, as already noted, chiefly to the needs of local traffic. Isolated from the systems just mentioned are the Richelieu river canals, consisting of the St. Ours lock and Chambly canal, by which a waterway for vessels of light draught is opened between Sorel on the St. Lawrence river and lake Champlain, and the St. Peters canal in the extreme east, which provides communication between the Bras d'Or lakes of Cape Breton island and the Atlantic ocean.

A full statement of the various canals and canalized waters now in operation, with their mileage, limiting dimensions, etc., is the subject of a separate departmental publication, "The Canals of Canada." A summary of this data is, however, appended to this report.

In the detailed report which follows, the various canal systems, etc., are taken up in the following order:—

1. The present St. Lawrence and Great Lakes route between Montreal and lake Superior;
2. The route from Montreal to Kingston viâ the Ottawa and Rideau rivers;
3. The navigation of the Richelieu river from its junction with the St. Lawrence to lake Champlain;
4. The route from lake Ontario to Georgian bay viâ the Trent river, etc.;
5. The St. Peters canal across the isthmus at the southerly end of Cape Breton island;
6. Miscellaneous works.

## 1. THE ST. LAWRENCE AND GREAT LAKES ROUTE

## (a) LACHINE CANAL

This canal, which lies across the southeasterly portion of the island of Montreal, overcomes the Lachine rapids, between the harbour of Montreal and lake St. Louis. It is  $8\frac{1}{2}$  miles long and has five locks with a minimum depth, at normal low water level, of 14 feet.

Navigation opened April 26, and closed December 11.

One delay to navigation, which took place between August 16 and 18, occurred during the year. The steamer *Norman B. MacPherson*, westbound, having perforated her hull on a stone beside the north wing wall, sank on the lower mitre sill of the south lock at Lachine. The steamer was floated again after a delay of 36 hours.

Among the more important works of construction and maintenance attended to during the year the following may be noted:—

Eighteen lock gates were changed during the summer months; during the winter, three large gates were hauled on the ways and repaired. Three new gates were constructed. The usual minor repairs to gate platforms, winches, motors, etc., were attended to.

Bridges 1, 3, 4 and 6 were entirely refloored and partial repairs were made to the floors of Bridges 5 and 7. The stringers of Bridge 6 were renewed with creosoted timber. The small fixed bridge over the head race at St. Gabriel lock was painted. After the close of navigation a temporary bridge was constructed across the upper end of Basin No. 2 by the placing of a line of scows with a plank walk laid thereon.

The retaining wall on the south side of the canal opposite to Crane Limited, was underpinned on a length of 121 feet. Materials excavated from the flour basins, which had been deposited on the south side of the canal, were spread and levelled.

At the easterly end of the Canada Steamships Lines shed, on the north side of north Basin No. 1, 80 square yards of floor area were repaved in concrete. The ramp, giving access to Common street from this shed, which had been out of use for many years, was removed and the space covered by it, containing an area of 40 square yards, paved in concrete.

The usual minor repairs to buildings were attended to as usual. The entire roof of St. Gabriel Shed No. 1 was tarred and sanded, the area thus treated amounting to 450 squares. Sheds Nos. 1, 3, 4 and 5 were covered with corrugated galvanized iron, the total area measuring 180 squares.

The floating plant consisting of tug *Dandy*, dipper dredge No. 2, clam derrick No. 2, three dump scows, six flat scows, one coal scow, one sounding scow, and six row boats, underwent the usual repairs while wintering in the Montreal dry dock and in Basin No. 2. The tug, dredge and derrick commenced the season in cleaning and deepening the shallow parts of south Basin No. 1, and in cleaning the canal bottom opposite to the terminal warehouse at Basin No. 2. Later in the season the fleet, returning from the Soulanges canal, was employed in cleaning the canal bottom in the reach between Wellington street bridge and St. Gabriel locks. The total operations of the season involved the removal of 7,490 cubic yards (scow measure), this material being deposited on the south bank of the canal in the vicinity of the Canadian Pacific Railway bridge near Lachine.

## (b) SOULANGES CANAL

The entrance to this canal lies 16 miles west of the upper end of the Lachine canal. The canal is 14 miles in length, has five locks, with a minimum depth of 15 feet, and extends from Cascades Point to Coteau Landing, overcoming the Cascades, Cedars, and Coteau rapids.

Navigation opened April 26 and closed December 11.

On August 19, the steamer *W. C. Warren*, westbound, struck Bridge 6, throwing it off its pivot into an oblique position across the canal. It was possible to replace the bridge within three hours in such a position that navigation could be resumed. A delay, however, of twenty-three days occurred before the bridge could again be opened to vehicular traffic. During this period a temporary ferry was employed. The cost of repairs was met by the owners of the vessel.

Repairs and improvements carried out during the year included the following:

A new lower oak mitre sill was set in Lock 3. Five lock gates were changed and five gates and gate sluices repaired. The spaces between the rear edge of lock copings and grass plots on each side of Locks 1 and 3 were surfaced with concrete to prevent pebbles being dragged into the lock chamber. An area of 2,100 square yards was thus treated.

The floors of Bridges 3, 4, 5 and 6 were renewed in timber and Bridges 1, 2, 6 and 7 painted. Bridge 6, damaged by the steamer *W. C. Warren*, as already noted, was repaired partly by the Dominion Bridge Company and partly by canal forces.

At the foot of the canal at Cascades Point, 1,500 lineal feet of new walling pieces were placed on the south wing dam; similar repairs were made at the upper entrance at Coteau.

The quarry wharf at Cascades Point was extended and improved by the construction of a stone-filled crib pier situated 33 feet beyond the end of the wharf and connected thereto by a timber loading platform or bridge front which, by means of traps, scows moored in the space between the wharf and the pier can be loaded from above.

The bases of twelve snubbing posts, along the canal banks between Locks 1 and 4, were made heavier and more stable. Ten scow loads of stone were distributed on both north and south slopes between the guard gate and Coteau Landing. The south bank at Mile 4 was reinforced by 7,400 cubic yards of excavated material deposited behind it. A concrete sidewalk, 3 feet wide and 150 feet long, was constructed across the grass plot south of the canal office at Coteau Landing.

All canal roads were well attended to and maintained in good surface. At both ends of Bridge 1 and at the north end of the Coteau Landing bridge the approaches were asphalted.

Along the division line between the canal quarry and the DeBeaujeu property a new wire fence, about 3,300 feet in length, was erected.

The operations of the canal quarry at Cascades Point for the year covered the supply of about 1,200 cubic yards of one-man stone and 2,000 tons of crushed stone, this stone being made use of at the Soulanges and Lachine canals and at the Ste. Anne Lock.

The fore part of the hull of the tug *Carillon* was renewed and the remainder of the vessel caulked and painted. The gate lifter and all flat scows were repaired and painted and a new scow, 80 feet long by 30 feet beam, for the reception of a steam derrick, constructed and launched.

The operations of the dredging fleet comprised the cleaning of the site of the new pier at the quarry wharf at Cascades Point and the widening of the channel in this vicinity, the excavated material being used to make up ground in front of the lock gate shop and for strengthening the south bank near Bissonnette's gully above Lock 3. A total of 14,010 cubic yards was removed in the carrying out of these operations.

## (c) CORNWALL CANAL

This canal, which lies at the westerly end of lake St. Francis, extending for 31 miles from the head of the Soulanges canal, is  $11\frac{1}{4}$  miles long with six locks and a minimum depth of 14 feet. It surmounts the Long Sault rapids.

Navigation opened May 3 and closed December 11, traffic being unimpeded throughout the entire season by accident or other cause. Traffic through the canal was unusually heavy in the early part of the season but fell off considerably in August and September, due to congestion of grain cargoes at the port of Montreal.

Of repairs and improvements effected or in progress during the past year the following may be noted:—

The work of raising the banks, roads and lock walls along the canal, begun in 1925 under contract with Fallon Brothers of Cornwall, as a measure of safety against the possible recurrence of extreme high water, a probable result of the construction of a submerged weir in the Sault channel of the St. Lawrence river by the St. Lawrence Power Company, was completed at the end of last August. The entire cost of this work was met by the St. Lawrence Power Company.

In April, 1926, a portion of the southeast retaining wall at the Cornwall swing-bridge, 238 feet in length, collapsed. A contract for the removal and rebuilding of this wall was entered into with R. C. Sutherland, of Ottawa, in December last. This work, which has been in progress during the winter, is now within 30 per cent of completion.

About 50 feet of concrete protection wall on the south bank above Lock 20 was rebuilt. At Cornwall, a concrete fireproof building, 12 feet by 24 feet, was built for the storage of patterns and a 24-foot extension was made to the coal shed. About 1,900 feet of stone protection along the canal banks was rebuilt. The old timber crib supporting the easterly of the two range lights on the St. Regis dyke below Cornwall was removed to water level and the face rebuilt in concrete. A portion of the Government sewer on William street, 45 feet in length, which had broken down, was rebuilt in concrete and three concrete man-holes were constructed over the Government stone sewer on Water street. A new scow, 63 feet by 23 feet, was built and will be taken into commission next season. To provide a greater depth at the entrance to the repairing basin, the masonry of the crown of the driveway arch culvert under the old canal was cut down about 6 inches. The canal grounds about the head office and locks were kept in good condition and considerable attention was given to the propagation of plants, the Quebec canals being now supplied from the green house at Cornwall. The usual minor repairs received customary attention.

## (d) FARRAN'S POINT CANAL

This canal, together with the Rapide Plat and Galops canals which succeed it up stream, form the group known as the "Williamsburg canals". The length of the Farran's Point canal is  $1\frac{1}{4}$  miles. It has one lock and is situated 5 miles west of the Cornwall canal.

The season of navigation extended from May 3 till December 11 and no serious delays were occasioned either through accident or other cause.

No repairs, beyond the rebuilding of about 1,000 feet of stone protection, were found necessary during the year.

## (e) RAPIDE PLAT CANAL

This canal extends from the town of Morrisburg to Flag's bay, a distance of  $3\frac{2}{3}$  miles. It is situated  $9\frac{1}{2}$  miles above the Farran's Point canal and has two locks.

The navigation season extended from May 3 till December 11 and traffic was at no time delayed through accident or other cause.

Work on the improvement of the upper entrance to the canal, commenced in September, 1923, under contract with A. W. Robertson Limited, was completed last July. Much better facilities are, as a result, now provided for the larger downbound vessels entering the canal, such vessels being obliged to use the canal during periods of extreme low water. The north side of the improved entrance has been marked by two red spar buoys.

Among smaller improvements made during the year may be noted the construction of a new timber crib, 30 feet in length, as an extension to the canal shops wharf, this crib being later surrounded by a concrete wall from low water level. The total length of this wharf is now 123 feet. On the south side of the upper entrance to Lock 24, at the head of the canal, the timber cribwork, which was badly decayed, was removed to low water level and rebuilt. About 3,500 feet of stone protection along the canal banks was practically rebuilt.

#### (f) GALOPS CANAL

Situated about  $4\frac{1}{2}$  miles west of the Rapide Plat canal, the Galops canal extends from the village of Iroquois to a point about  $1\frac{1}{2}$  miles beyond the town of Cardinal, a distance of  $7\frac{1}{3}$  miles. It surmounts the last series of rapids met with between Montreal and lake Ontario and has three locks, a lift lock at the easterly entrance, a guard lock at the upper entrance and a lift lock beside the guard lock for overcoming the Galops rapids only.

This canal was opened to navigation on May 3 and closed December 11. It was operated without accident or delay to vessels during the entire season.

Along the canal banks about 6,500 feet of stone protection was relaid. Two new brick chimneys were erected at the lockhouses of Locks 27 and 28 and the old oil lamps at these locks were replaced by eight Coleman gasoline lanterns. The swing bridge at Iroquois was completely refloored. A cesspool was constructed in rear of the bridgemaster's house at Cardinal. Various other minor repairs and replacements were also carried out as usual.

#### (g) WELLAND CANAL

This canal, which overcomes the falls of the Niagara river, lies between Port Dalhousie on lake Ontario and Port Colborne, on lake Erie. It is  $26\frac{3}{4}$  miles long, has twenty-six locks and, under usual water conditions, provides, like the St. Lawrence system of canals, 14 feet of water on lock sills.

Navigation in the past fiscal year opened May 1 and closed December 16.

A decrease in vessel traffic, amounting to 5.76 per cent below the figures of the previous year, was recorded. A total of 5,528 vessels passed through the whole canal, the upbound and downbound passages being nearly balanced. In addition to the foregoing, 320 trips were made by vessels to intermediate points on the canal. The largest upbound cargo to pass through the canal was a shipment of 2,854 tons of pulpwood carried by the steamer *Keystate*. The steamer *Shirley G. Taylor* carried the largest downbound cargo, 138,000 bushels of oats and barley, or 2,752 tons. During the past navigation season, a total of 5,214,514 tons was transported through the canal. This figure shows a falling off of 425,784 tons from the records of 1925 or about 7.5 per cent. It may be noted again, however, that the year 1925 showed the largest tonnage record in the history of the canal.

Apart from two instances in which lock gates were slightly damaged, there were no accidents on the canal during the entire year.

Of the various improvements carried out the following may be noted:—

Under contract with J. P. Porter, a shallow portion of Port Dalhousie harbour, on the westerly side below Lock 1, was dredged down to proper grade, a total of 9,956 cubic yards being removed. The regulating weir of Lock 1 at Port Dalhousie, which on its downstream face had become badly undermined under the lower apron, and the three intermediate piers were repaired in concrete. The floor of the Alexandra bridge at Welland was replanked.

*Old Canal.*—Repairs to the old canal included the installation of two new valve stems at the supply weir at Thorold and the riprapping of the banks below this weir. A hole, which had been scoured at the lower end of the hydraulic raceway spillway just below the Canada Haircloth plant, was repaired and a wooden floor and buffer wall constructed.

*Canal Feeder.*—There was no freshet in the Grand river in the spring of 1927. Ordinary repairs only were found necessary.

*Port Colborne Elevator.*—During the past fiscal year the government elevator received 62,535,602 bushels of grain, an increase over the record of the previous year of 8,023,868 bushels, or 3,045,987 bushels more than the highest previous record, that of 1924-25. The year just passed was therefore the best operating year in the history of the elevator exceeding the former record by slightly over 5 per cent. It is also worthy of remark that during the first month of the 1926 navigation season the record for any previous month was exceeded by no less than 41 per cent, the actual quantity of grain unloaded at the elevator in this time being 15,175,710 bushels.

The record of outturn from the elevator for the year, or the amount of grain turned out from the elevator as compared with that received, was also very satisfactory. The net shortage in outturn amounted to only 0.55 bushel per thousand.

Though a large number of minor accidents occurred during the year, more than half of these caused no loss of time nor was the effect in any of the other cases of a serious nature.

There were no delays in operation due either to breakdown of machinery or labour troubles. Delays occurred however at not infrequent intervals during the first month of navigation from lack of space for the reception of cargoes, but the total loss of time from this source amounted to only 101 hours.

A considerable quantity of grain is every year diverted from this port owing to the inability of the elevator to handle all shipments which are, or might be, routed here. Many vessels which leave the head of the Great Lakes bound for Port Colborne are diverted *en route* when it becomes evident that congestion at the port may give rise to undue delays in unloading.

During the winter just passed the storage facilities of the elevator were taxed to their utmost capacity. In all, 3,604,000 bushels were taken in. The winter storage prospects of the elevator have been considerably bettered by the entrance of the Toronto, Hamilton and Buffalo Railway into Port Colborne giving direct connection with the Canadian Pacific Railway.

Extensions and betterments made to the elevator during the year included the completion of the office extension begun in the year previous and the commencement of a new two-story building, 30 feet by 60 feet, to provide accommodation for a workshop, blacksmith shop, plate shop, material rack, rope room, electricians' and general stores and employees' rest rooms. This building is now about 75 per cent completed.

#### (h) WELLAND SHIP CANAL

This work, which has been in progress since the latter part of the year 1913, is now well advanced. A brief summary of the general scheme involved in the undertaking will first be presented.

The proposed ship canal leaves lake Ontario at the original mouth of Ten Mile creek, now known as Port Weller, about 3 miles east of Port Dalhousie, where a harbour of entry is under construction, and follows an entirely different route from the present canal as far south as Allanburg. From here it proceeds in general along the line of the existing canal to a point about one mile north of the village of Humberstone, where another diversion about two and one-half miles in length is made to the east of the present waterway. The route of the present canal is then followed for the final half mile to the lake Erie entrance at Port Colborne. The total distance traversed from lake to lake will be 25 miles. The difference in level between the two lakes,  $325\frac{1}{2}$  feet, will be overcome by seven lift locks, most of which are now well advanced towards completion, each having a lift of  $46\frac{1}{2}$  feet, and one guard lock of variable lift. The locks are 829 feet long and 80 feet wide in the clear and will provide a depth of 30 feet of water over the mitre sills. The width of the canal prism at bottom is to be 200 feet. A new breakwater, at present under construction, will be built at Port Colborne, extending 2,000 feet farther into the lake at right angles to the existing structure. At Port Weller, the lake Ontario entrance, extensive harbour works have now been nearly completed. The route of the new canal has been divided for purposes of construction into eight sections numbered in order from Port Weller southerly. Between Sections Nos. 4 and 5 there is a short stretch of canal prism 1,300 feet in length immediately north of the junction of the new route with the present canal, known as Section 4B. The entire canal is now under contract.

For the past six years, work on the canal, which during the war years and for some time after was, through many causes, greatly retarded or entirely at a standstill, has progressed in a very satisfactory manner.

Following is a brief account of the more important work carried out or still in hand on the various sections of the canal during the year just ended.

*Section No. 1.*—Commencing with the harbour works of Port Weller this section extends in a southerly direction, a distance of nearly three miles inland, and comprises the harbour construction, prism excavation, one lock with weirs, two bridges over the canal, etc.

When work on the present contract with Johnston P. Porter was commenced in September, 1912, about 30 per cent of the entire undertaking still remained unfinished. During the past year all work on this section has been practically completed. The final dredging of Port Weller harbour included the removal, during the 1926 season, of about 176,000 cubic yards of material. Other work carried out in the completion of this section of the canal included the taking up of the connection of the construction railway with the east side of the harbour, the levelling off of the east and west embankments, the placing of concrete mooring posts, the completion of all concrete work at Lock 1, including the slope protection on the east side of the lower entrance and above the regulating weir, the construction of the control house for Lock 1 regulating weir and the intake valve house for Lock 1. All the required grading, sodding of slopes and macadamizing was also completed with the exception of a small area of macadamizing left over till the 1927 season to allow of the complete consolidation of the backfilling along the lower entrance wall.

During the summer a temporary dam was erected above Lock 1, and the reach above filled from the present canal. A trial was then made of the working of the stoney valves of the regulating weir and the discharge taintor valves of the lock. All this equipment was found to function very satisfactorily. The reach has since been fully unwatered and the dam removed to allow of the operations of the Steel Gates Company.

The erection of Bridge 1 over the upper entrance to Lock 1 was commenced in January last by the Hamilton Bridge Works Company and this work is now well advanced.

*Section No. 2.*—The extent of this section is approximately  $4\frac{1}{3}$  miles. The work involved comprises the taking out of canal prism and construction of embankments, the building of Locks 2 and 3 with entrance walls, etc., and the substructures of several highway bridges.

The work on this section is being prosecuted under the same contract as that of Section 1. Under the original pre-war contract about 58 per cent of the entire undertaking had been completed.

As noted in last year's report, the concrete work on Lock 2 has been completed since the 1925 season. During the past year all grading, sodding, macadamizing and slope protection work in connection with this lock was finished.

The substructure of Bridge 3, across the upper end of Lock 2, as also that of the operator's house, was completed in the autumn of 1926. The erection of the steel work, under contract with the Hamilton Bridge Works Company, was then taken in hand and is now complete with the exception of the machinery and the building of the operator's cabin. It is expected that this bridge will be ready for testing during the coming summer. The substructure of Bridge 4 was completed in June, 1926, with the exception of the west abutment and west piers. As a movement of the entire monolith of the west main pier of this bridge took place in the winter of 1925-1926, during the construction of an addition to this structure, it was considered advisable to recondition the foundation. Commencing in November last the work of underpinning the centre monolith was started. It is expected that this work will be completed early in May. The original piles have been jacked down to a satisfactory bearing, additional vertical and batter piles have been driven and the space above the jacked piles filled with concrete. The contract for the superstructure of Bridge 4 has been awarded to the Hamilton Bridge Works Company and it is expected that the entire structure will be finished by the end of the current year.

In the canal prism between Bridge 4 and Lock 3, excavation operations were completed, slopes were trimmed and concrete protection was placed on the west slope. The concrete work at Lock 3 was continued and all that now remains to be done is the placing of the upper gate mitre sill platform and gate recess floor, all of which will be completed this year. The backfilling of the east lock wall and upper east entrance wall, as far south as the present canal was completed in July and the final grading, sodding and macadamizing of the embankments will be completed this year. The portion of the upper west entrance wall which lies south of the present canal was commenced in April, 1926, and by the end of August had been completed. After the close of navigation, the present canal having been unwatered, construction was commenced on the part of this wall which crosses the present canal prism. The foundation of this portion, about 300 feet in length, was fully completed up to within 3 feet of the bottom of the present canal. The entire completion of both the entrance walls at the south end of Lock 3 will be deferred until it is possible to divert traffic from the northerly end of the present canal to that portion of the ship canal which lies between Lock 3 and Port Weller. During the 1926 season, the bottom and west slope of the prism, between the present canal and Bridge 5, at the end of Section No. 1, were trimmed to final lines and concrete protection placed along the west slope. The substructure for Bridge 5 has been completed.

To summarize the work on this section carried out to date it may be stated that of rock excavation, 98 per cent has been finished; of earth excavation, 98 per cent; of concrete work, 97 per cent, and of watertight embankments, 98 per cent.

*Section No. 3.*—This section extends southerly from Section No. 2 for a distance of about 2 miles. The work involved comprises the excavation of canal prism and lock sites, the construction of three twin locks in flight and one single lock together with masonry approach walls, a core wall for a dam, control weirs and other minor structures and the building of a large earth dam at the head of the flight locks.

During the year all work on the lower east entrance wall of Twin Lock 4 was completed. Excavation operations in the prism north of this lock are practically finished. About 350,000 cubic yards of material of all classes were taken out during the 1926 season. At the site of Twin Locks 4, the placing of concrete for the lock was commenced early in April 1926 and by the end of December the locks were well advanced towards completion there remaining only  $5\frac{1}{2}$  per cent of the whole still to be finished. A total of 290,430 cubic yards of concrete was placed in this structure during the fiscal year. The concrete work in Twin Locks 5 is now 96 per cent completed. At Twin Locks 6, the work is also well advanced, being within about 12 per cent of completion. The penstock along the west walls of the three twin locks and along the west entrance wall between Twin Locks 6 and Lock 7 was completed during the year. Considering Twin Locks 4, 5 and 6 as a unit it may be stated that 89 per cent of the concrete work has now been completed. The placing of a further 105,000 cubic yards will complete concreting operations at these structures.

No further work was done on Lock 7 during the year. This structure is now 96 per cent completed and only the intake monolith remains to be built. The back filling of the west wall of this lock is now a little over three-quarters completed. On the upper entrance walls of Lock 7 very little work was done beyond a small amount of excavation.

Under contract with the Hamilton Bridge Works Company, the erection of the steel work for Bridge 7, across the upper entrance to this lock, was completed and the new bridge opened to highway traffic. The operating machinery has yet to be installed and the bridge operator's house erected. With the completion of this bridge ready for traffic, the temporary trestle has been removed.

The general standing of operations on this section may be summarized as follows: Rock excavation, 97 per cent completed; earth excavation, 80 per cent; all classes of concrete, 86 per cent; and watertight embankments, 74 per cent.

*Section No. 4.*—The extent of this section is about 2 miles southerly from the end of Section No. 3 or from the southerly end of the town of Thorold to the northerly end of the village of Allanburg. The work involved comprises excavation for canal prism and for foundations of guard-gates and weir, the construction of Shriner's and Beaver Dams culverts, the relocation of a branch of the Canadian National Railways, and various other lesser undertakings.

This section, as previously stated, is included with Section No. 3 under the P. Lyall and Sons Construction Company's contract.

During the past season, rock and earth excavation have been in progress over the greater part of the section. No work however was carried out over the 1,000 feet at the extreme northerly end. On this portion of the section upwards of 350,000 cubic yards of material, both rock and earth, have still to be taken out. Over the remainder of the prism, about 220,000 cubic yards of earth and 83,000 cubic yards of rock were taken out during the year. About 126,000 cubic yards of material was placed in the east and west watertight banks. A large amount of the rock removed on this section was supplied to the crusher plant.

In the early spring and late autumn of 1926 and in the latter part of February 1927 flood conditions were experienced in the Beaver Dams creek watershed east of the canal prism. On one occasion only, however, did this condition interfere with traffic over the Thorold-Allanburg road bridge across the creek.

The work performed on this section to date may be summarized as follows: Rock excavation, 68 per cent completed; earth excavation, 74 per cent; concrete of all classes, 22 per cent; watertight embankments, 91 per cent.

*Section No. 4B.*—This section, which lies immediately south of Section No. 4, includes a stretch of canal prism one-quarter of a mile in length. It is situated immediately north of the junction of the present canal with the route of the ship canal near the village of Allanburg. The work to be performed consists of prism excavation, the construction of watertight embankments, and the building of a syphon culvert to carry the Davis creek under the canal. A contract for the work to be performed was let to Johnston P. Porter July 28, 1926.

Excavation operations carried out to date include the removal of about 52,000 cubic yards of "Class II" material, and the excavation of about 6,350 cubic yards of rock at the site of the Davis culvert. This work, which was started December 15 last, will be finished by the end of May, when the placing of concrete in the culvert will be proceeded with. It is the intention of the contractor to complete the construction of the culvert before starting extensive operations in the excavation of the canal prism. This mode of procedure will eliminate the danger of probable flooding of the prism from the creek during seasons of high freshet.

The work performed on this section to date amounts to about 8 per cent of that covered by the entire contract.

*Section No. 5.*—This section is about  $3\frac{1}{4}$  miles in length extending from Allanburg to Port Robinson. The work involved comprises rock and earth excavation and dredging, the construction of the substructure of bridges at Allanburg and Port Robinson and small quantities of concrete and stone protection along the canal banks.

The work on this section has been under contract with the Canadian Dredging Company, Limited, for the past four years.

Since the month of March, 1924, no further work has been done on this section and the contractor has removed his entire plant to Section No. 7. Of the whole work covered by the contract only about 3 per cent still remains unfinished. This will be completed with the removal of the swing bridges over the present canal route at Allanburg and Port Robinson and their replacement by new Bridges 11 and 12.

*Section No. 6.*—This section extends from a point on Section No. 5 about one mile north of Port Robinson for a distance of approximately 5 miles southerly to Welland. The overlap on Section No. 5 became necessary on account of some silting which had taken place in the canal prism north of the original northerly boundary of Section No. 6. The work to be performed will include the dredging and enlargement of the present canal prism, the diversion of the Welland river, which crosses the line of the canal at the north end of the town of Welland, by means of a large syphon culvert, the building of watertight banks, concrete protection for slopes, etc.

A contract for the work on this section was awarded to the Atlas Construction Company, Limited, and E. O. Leahey & Company, Limited, October 12, 1925.

Work at the site of the syphon culvert for the diversion of the Welland river was taken in hand immediately after the letting of the work and has proceeded actively ever since. The driving of steel sheet piling for the formation of the cellular cofferdam, described in last year's report, was completed last August and the cells filled, thus forming a watertight wall around three sides of the area in which the six tubes of the culvert are to be constructed. The

pumping out of the interior of this area was completed in October. The construction of the culvert was then commenced by the sinking of a test cofferdam about 40 feet square, located about 60 feet east of the northwest corner of the culvert area. One monolith of the most northerly of the six tubes was completed within this cofferdam early in January of the present year. The driving of steel sheet piling for enclosures east and west of the completed portion of the north tube was then commenced, and the excavation of these enclosures, down to finished grade, was completed during the month of March. The total length of cofferdam completed for the north tube, including the test cell, is about 233 feet. Up to date 1,831 cubic yards of concrete has been laid in this enclosure, or about 2.2 per cent of the total yardage in the six tubes. Piling was also driven for an enclosure along the whole of the east or intake end of the culvert and for an enclosure along the line of the south tube for a length of 175 feet. Excavation in the latter enclosure has been carried to within about 13 feet of finished grade, but no excavation has yet been done in the enclosure along the intake line. The excavation of this portion will be left until concrete work on the north and south tubes has progressed considerably farther. It is expected that both north and south tubes will be well advanced towards completion by the end of the present season. The total amount of excavation work required for the construction of this culvert is now about 40 per cent completed.

Work on the diversion of the course of the Welland river, between Port Robinson and Welland, has been in progress during the year and is now about 76 per cent completed, the total quantity of material excavated amounting to about three-quarters of a million cubic yards. The length of excavated channel for this diversion is  $2\frac{1}{3}$  miles, commencing at Port Robinson. About one mile of this is an entirely new cut, the remainder at the northerly end, consists of a straightening and improvement of the river channel. The diversion follows closely along the line of the canal and to the east of it, a watertight embankment separating the two water courses. The water level of the river diversion will be 6 feet below that of the canal. It is expected that the new river channel will be entirely completed during the coming season.

Excavation operations in the canal prism have been carried on south of Port Robinson over a distance of about two miles and up to date about 20 per cent of the total excavation required on the prism within the limits of Section No. 6 has been completed. The quantity of "Class II" material removed now amounts to about 1,649,000 cubic yards.

The construction of watertight embankments has also been in progress and about 27 per cent of this work, involving the placing of approximately 368,000 cubic yards, has now been completed.

The new highway bridge across the Welland river diversion at Port Robinson, a reinforced concrete structure of six spans having a total length of 246 feet, was commenced a year ago and opened to traffic in August last.

The work now completed on this section may be summarized as follows: Rock excavation, 36 per cent; all classes of earth excavation, 25 per cent; concrete work, 5 per cent; and watertight embankments 18 per cent.

*Section No. 7.*—This section, which is about 6 miles in length, extends from the town of Welland to the northerly limits of the village of Humberstone. The work to be performed will include the dredging and enlargement of the prism of the existing canal to a point about one mile north of the end of the section, where the new line diverges from the old, the excavation of the new line from this point to a junction again with the present canal, the construction of five bridge substructures, the building of retaining and dock walls at both ends of the section, slope protection works, etc.

Since December, 1924, the work on this section has been under contract with the Canadian Dredging Company.

Good progress has been made during the past year on the prism cut at Ramey's Bend, where the new line diverges for a distance of about  $1\frac{3}{4}$  miles from that of the present canal. The excavation of this portion is now practically finished with the exception of some cleaning up along the east side and the removal of a small portion at the south end of this cut at its junction with the present canal. Along the west side of this new channel, 1,530 lineal feet of wall has been placed, this being about one-third of the total length of wall to be constructed on this side. Close drilling has been carried on along both sides of the prism and about 72 per cent of this work has now been completed. The old substructures of Bridges 13, 15, 16, 17 and 18 have been removed, this being included under "Class I" excavation. Up to date about 758,000 cubic yards, or 50 per cent of the total of this class of material on the section, has been removed. The heavy seepage into the rock cut, mentioned in last year's report, has continued but has been successfully taken care of at all times by the pumps. North of the new cut dragline excavators were employed along the west slope of the prism in stripping the earth from the rock surface and in excavating the west slope of the prism at various points, allowing of the completion of the concrete slope protection in advance of the prism dredging operations. Two hydraulic and two dipper dredges were also employed in excavating the prism in various locations over the entire length of the section. About  $1\frac{1}{2}$  miles of the prism has now been excavated to its entire width down to final grade. To the end of the fiscal year 4,708,000 cubic yards, or approximately 48 per cent of the total "Class II" excavation on the section, had been completed.

Concrete slope protection was laid on the west side of the prism over a length of one mile. Stone protection was placed on the west side over a distance of 2,439 feet and on the east side for 200 feet. A small amount of sodding of banks was also done.

The Main Street bridge at Welland was transferred during the past winter to a temporary site one street farther south to allow of the construction of the substructure of new Bridge 13. The west main pier of Bridge 14 was finished early in July, completing this structure in readiness for the steel. At Bridge 16 the west main pier was completed and the concrete caisson for the east pier sunk in position. This pier together with the east abutment will be completed during the coming summer. The substructure of Bridge 17, the crossing of the Wabash Division of the Canadian National Railways at Dainville, was completed by the end of November last. Under contract with the Canadian Bridge Company, the erection of the superstructure was immediately begun and progress has been such that it is expected that this bridge, a vertical lift span, will be fully completed by the middle of May.

The work thus far performed on this section may be summarized as follows: Rock excavation, 50 per cent; earth excavation, 48 per cent; mass concrete, 26 per cent; concrete slope protection, 30 per cent.

*Section No. 8.*—This section, which extends from the north end of the village of Humberstone to deep water in lake Erie, is about 3 miles in length. The work to be performed will consist in the excavation of a new route from the north end of the section for a distance of about  $1\frac{1}{2}$  miles, the dredging and enlargement of the present canal for the remainder of the route, the construction of guard lock No. 8 with entrance walls, etc., the construction of three bridge substructures, the erection of various harbour works and numerous other minor undertakings.

On the land division of this section earth excavation, consisting in the stripping of the prism rock between the harbour entrance and a point about 5,000 feet north, has been in progress during the past year and about 85 per cent or 925,000 cubic yards of this material has been removed since the commencement

of operations. Of rock excavation on the section, about 1,840,000 cubic yards have now been taken out, representing 88 per cent of the total of this work to be performed on the land division. Of this quantity, nearly 25 per cent was removed during the past fiscal year. Drilling and blasting have proceeded in advance of the excavation, and this section of the work is now practically completed.

Work on the east harbour wall was begun in April, 1926, being carried on in a steel sheet pile enclosure, and about 78 per cent of the total length of wall to be constructed, or 953 lineal feet, has now been completed. This work represents the placing of about 26,775 cubic yards of concrete.

The construction of the guard lock, No. 8, has proceeded somewhat less rapidly than might have been hoped owing to the fact that it was necessary to maintain railway tracks through the lock pit until October last for the transportation of excavated rock from the southerly end of the prism. Up to this time, operations were carried on on the east half of the lock pit, after which it was possible to place concrete on the west side also. About 1,340 feet of the north end of the east wall of the lock has been completed to coping level and about 420 feet more partially constructed. On the west wall concrete has been placed from the north end for a distance of about 1,340 feet, but in no case higher than within 20 feet of coping level. The east half of the lock floor has been finished for a length of about 570 feet, the west half for about 450 feet. Thus far 44,222 cubic yards of concrete have been placed. The permanent unwatering pumps for this lock have been delivered and set in place.

As in the year previous, dredging operations in the harbour have been confined to the east half and all drilling on this portion has now been completed out to the line of the old breakwater with the exception of about 800 feet at the site of the Canada Furnace Company's dock. During the year the total amount of drilling done amounted to about 130,000 lineal feet. The quantity of material now dredged in the harbour area amounts to approximately 294,300 cubic yards, being about 43 per cent of the total dredging to be done.

At the site of the new dock for the Canada Furnace Company the removal of old cribs and the preparing of the bottom for the reception of new cribs has been in progress. Everything is now in readiness for the placing of six new cribs, which, it is expected will commence early in April.

The last three concrete cribs of the breakwater extension were placed in June, 1926, and filled with stone. The superstructure of these cribs will be completed during the coming season. The superstructure of the eighteen northerly cribs, commencing at the old breakwater was fully completed during the past year.

The work thus far performed on *Section No. 8* may be summarized as follows: Rock excavation, 77 per cent, earth excavation, 78 per cent; mass concrete, 35 per cent; and close drilling, 85 per cent.

*Construction Railway.*—The construction railway continued in operation throughout the past year but, owing to the fact that excavation operations on the three northerly sections have been nearly completed, the volume of traffic was reduced to about one-third of that recorded for the year 1925. All tracks, buildings, equipment, etc., were, as usual, efficiently maintained. There were no accidents during the past year.

*Bridges.*—The progress of the work on the various bridges now completed or under construction has already been noted in dealing with the sections of the canal on which these bridges are located. When finished, the route will be spanned by twenty-one bridges, two on Section No. 1, three on Section No. 2, three on Section No. 3, two on Section No. 4, one on Section No. 5, one on Section No. 6, six on Section No. 7 and three on Section No. 8. Of these, six are railway crossings, the remaining fifteen highway bridges. Contracts for the

superstructure of Bridges 1, 3, 4, 7, 17 and 19 have already been let. Bridges 1, 3, 7 and 19 are all of the single leaf bascule type, Bridge 4, a double leaf rolling bascule, and Bridge 17, a vertical lift span between steel towers.

An agreement covering the preparation of plans for Bridge 4 has been entered into with the Scherzer Rolling Lift Bridge Company and for Bridges 1, 2, 3, 5, 7, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20 and 21 with Messrs. Harrington, Howard and Ash, of Kansas City, Mo. The design of Bridges 6, 8, 9 and 15 has not yet been finally approved.

*Steel Lock Gates.*—A contract was awarded June 18, 1926, to the Steel Gates Company Limited for the fabrication and erection of thirty-one pairs of steel gates for the various locks. Preliminary work on the erection of the first pair of gates at Lock 1, Port Weller, has just begun.

*Laboratory.*—During the past year 683,866 barrels of cement were received and accepted and distributed to various parts of the canal. Tests were made of samples taken from the bins and from each car as loaded, 3,972 samples being thus tested during the year. Tests have also been made of sand, gravel and crushed stone as well as compression tests of concrete. Various other building materials have also been tested, such as paints, clay ducts, anchor bolts, etc.

*Miscellaneous Contracts.*—Of Ontario white oak for lock gates and wall fenders, 567,000 feet, board measure, or about 97 per cent of the total required, has already been delivered. Other extensive orders of building materials include that of square duct vitrified clay conduits, structural steel, doors, windows, machinery, etc., for the valve houses at various Locks and transformers and other electrical equipment for bridges.

*General Summary.*—For the various classes of work involved in the construction of the entire canal, the following percentages are now estimated as having been completed: Rock excavation, 78 per cent; earth excavation, 69 per cent; watertight embankments, 56 per cent; concrete work, 78 per cent; reinforcing steel, 92 per cent; steel sheet piling, 80 per cent; giving a general average of 75.5 per cent, an increase of 12.8 per cent over the general average of last year's summary.

#### (i) SAULT STE. MARIE CANAL

This canal provides communication between lakes Huron and Superior, surmounting by a single lock the rapids of the St. Mary river. It is  $1\frac{1}{3}$  miles in length between the east and west extremities of the entrance channels and lies entirely within Canadian territory.

The canal was opened to traffic May 1 and closed December 17, a period of 231 days. The total registered tonnage of vessels which passed through the lock showed a decrease of 13 per cent from the figures of the year before; a corresponding decrease was shown in freight tonnage. For the Canadian and American canals taken together, the registered tonnage showed an increase of 3 per cent and freight tonnage an increase of 5 per cent. Traffic in Canadian vessels only through both canals showed an increase of 19 per cent in registered tonnage and 25 per cent in freight tonnage. It will be observed from the foregoing that traffic in Canadian vessels between lakes Huron and Superior was considerably heavier than for the preceding year. The reduction in traffic through the Canadian canal was due to low water and low available draught in the lock. The channel of the St. Mary river is dredged 1.6 feet deeper than the entrance to the Canadian canal and the harbour; vessels loaded to their maximum for the river channel are therefore unable to use the Canadian canal. It is understood that the Department of Public Works now proposes to dredge both the canal entrance and the harbour to a depth corresponding with that of the river channel.

No accidents occurred during the year to cause any delay to traffic.

The work of renewing in concrete the top of the upper south pier was continued. There remain still 200 feet to be completed.

During the months of February and March soundings were taken through the ice over the lower approach to the canal. The bottom was found to be down to grade level in all cases.

## 2. OTTAWA AND RIDEAU RIVERS

### (a) STE. ANNE LOCK

This canal surmounts the Ste. Anne rapids between Ile Perrot and the island of Montreal at the junction of lake St. Louis with the Ottawa river. It consists of two parallel locks, the old and the new, each with a lift of 3 feet. The old lock (now disused) has a depth of only 6 feet, but in the new lock there is 9 feet of water on the sills.

Navigation opened May 1 and closed November 30. There were no accidents or delays to traffic during this period.

Of repairs and improvements carried out during the year the following may be noted:—

The two upper gates of the lock were changed and the old ones repaired sufficiently to make them available in an emergency. All standing gates were scraped and painted.

The ice pier at the Ile Perrot end of Baker's dam was repaired with new timbers and additional stone filling. Pier No. 3 above the lock was demolished to low water level preparatory to the renewal of the upper portion of the pier in concrete.

The fence on the east side of the entrance for a distance of 165 feet was renewed and painted. The remainder of this fence, which did not require renewal, was painted. Lock buildings were painted and repaired where necessary, and the chimney of the Superintendent's house rebuilt in brick and cement tiles.

The derrick and divers scows were hauled up, caulked, painted and relaunched.

### (b) CARILLON AND GRENVILLE CANALS

From the Ste. Anne lock to the foot of the Carillon canal there is a navigable stretch of water 27 miles in length through the lake of Two Mountains and the Ottawa river. The Carillon canal, which is three-quarters of a mile in length, with two locks giving a total lift of 16 feet, surmounts the next rise in the river level produced both by the Carillon dam at the head of the canal and the natural fall of the river below.

The Long Sault rapids, 6 miles above the Carillon canal, are surmounted by the Grenville canal  $5\frac{3}{4}$  miles in length with five locks. Both canals provide a depth of 9 feet of water over the lock sills.

These canals were opened to navigation May 1 and closed November 30. No accidents occurred to delay traffic nor was any damage done to canal structures.

Improvements made on this system of canals during the year have included the following:—

A frame lumber shed on concrete foundation was constructed in the Carillon canal yards. This building measures 35 feet by 72 feet with a height of 13 feet from floor to wall plate, there being a clear space inside of 17 feet between lumber racks. A crane runway extends to the carpenter shop. In the carpenter shop a planer and matcher and a band saw have been installed.

The gates of Locks 2 and 7 were rebuilt with new and old timber and the hollow quoins of Locks 5 and 6 were repaired with steel plates.

New floors were laid on Bridges 1 and 2, the floors of five other bridges were patched and five bridges were painted.

The tow path on the north side of the Grenville canal was raised, widened and gravelled and general repairs made to the south tow path.

The engine of tug *Shirley* was overhauled and her hull scraped, caulked and painted, the usual overhauling and repairing were also done to the gate lifter and flat scow.

### (c) RIDEAU CANAL

This canal connects with the Ottawa river about 56 miles above the head of the Grenville canal and provides a waterway between the cities of Ottawa and Kingston. It consists of a series of natural water-courses joined by artificial cuttings is  $126\frac{1}{4}$  miles long and has forty-seven locks with a minimum depth of 5 feet over the sills. It rises by thirty-three locks to a summit in the upper Rideau lake, from which body of water it descends to the level of lake Ontario by means of fourteen locks. A subsidiary canal, 7 miles in length, known as the "Tay Branch", connects the town of Perth with the north end of the lower Rideau lake. Its minimum depth is 5 feet.

Navigation opened both at Ottawa and Kingston Mills May 1 and closed at both these points November 30.

During the past year an ample supply of water was available for the navigation of all parts of the canal.

The total number of lockages for the season was 16,705, a decrease of 3,995 from the total recorded for 1925.

The principal repairs and improvements carried out during the year may be stated as follows:—

At the Ottawa lock station, the principal work undertaken and still in hand has been the relocation of the basin and wharfage facilities heretofore provided on the west side of the canal between Sparks street and Laurier avenue in a new site off Echo Drive on the other side of the canal between the "deep cut" and the C.N.R. swing bridge. This change, which has been necessitated by the proposed extension of the Government Driveway between Laurier avenue and Sparks street, involves the construction of 2,450 feet of dock wall with backfilling, and the erection of various warehouses and sheds. It is expected that work on the dock wall will be completed next month and that the remainder of the undertaking will be finished by the end of the coming season. At Hartwells lock station, the masonry chamber walls of Lock 10 were taken down, are now being reconstructed in concrete and will be completed before navigation opens. A new timber floor was laid in the waste weir. At Hogsback locks, the ice-breaker cribs, damaged by last year's freshet, were rebuilt in timber, the wooden cribwork on the east side of the river was renewed in concrete, and the large timber pier between the east and west bulkheads was rebuilt and stonefilled. The steel covered dam at Black Rapids, which was badly damaged by last year's ice, has been thoroughly repaired; a large number of steel cover plates were renewed and masonry rebuilt where necessary. The lay-by piers below the lock were rebuilt and a new ice-breaker crib constructed in the river above the dam. At the Long Island lock station, a concrete protection kerb was laid along the top of the curved stone dam and a concrete apron and core walls were constructed at the waste weir, replacing the old cribwork. A cableway and traveller car have been placed across the river below the waste weir to facilitate the taking of hydrometric measurements. The entire flooring of all the spans in the bridges at Kars and Beckett's Landing was renewed and the upper and lower rest piers at Beckett's Landing, damaged by ice, were rebuilt. At Burritt's Rapids, the guard piers above the waste weir were rebuilt, the top courses of the ice-breaker renewed and a concrete core constructed at the junction of the west end of the waste weir with the embankment. The

old lockman's house at Nicholson's locks was replaced by a frame building on concrete foundation. At Clowe's lock, the floor of the waste weir was replanked. At Merrickville, a new plank floor was laid on the north weir bridge. The timber bent in the centre of the bridge across the waste channel at Old Sly's station, having been badly damaged by ice, was replaced by a concrete pier and concrete wing dams were built at each end of the weir. At Smith's Falls, a new floor was laid on the swing span over the upper lock and the mechanism of the span repaired and adjusted. At Beveridge's lock station, the retaining dam at the head of the long cut was rebuilt in concrete. At "The Narrows" lock station, a new floor and stoplog lifter were built at the waste weir. A new floor was laid on the waste weir at Bob's lake reservoir dam. At Jones's Falls lock station, three short concrete walls were built at the approaches to the waste weir; the gate pier recesses and piers of Lock 41 were taken down and rebuilt in concrete blocks and a new plank floor was laid on the long bridge. The gate piers, recesses and recess piers in Lock 43 at Upper Brewer's were rebuilt in concrete blocks. At the Kingston Mills station, the masonry steps below Lock 46 were removed and replaced by a concrete flight; a new concrete apron was built for the lower sill of this lock and a concrete floor was laid in the storehouse.

On the Tay Branch repairs were made to the Drummond street swing bridge in the town of Perth, and a new floor was laid on the Gore street bridge.

The floating plant equipment of this canal, consisting of the dredge *Rideau* and tugs *Agnes* and *Loretta*, with several dump scows, was in constant employment throughout the season. The dredge was employed in placing clay on the dams at Hogsback and Burritt's Rapids, in removing coffer dams at Burritt's Rapids, in deepening the channel between Kingston Mills and Bell's island and in cleaning out stone and debris below the White Horse dam. The tugs were employed either with the dredge or in towing stores to various points along the canal.

### 3. RICHELIEU RIVER NAVIGATION

#### (a) ST. OURS LOCK AND DAM

At a point on the Richelieu 14 miles above the town of Sorel the level of that river has been raised 5 feet by a dam. This difference in level is overcome by the St. Ours lock. There is 7 feet of water on the upper lock sills, but the depth of water on the lower sill is governed by the level of the St. Lawrence river and had been as low as 5 feet 3 inches in October, 1923.

The lock was opened to navigation May 1 and closed November 30.

Repairs and improvements made during the year included the following:—

Owing to the sinking of the lock floor near the westerly lower hollow quoin, an inspection was made by a diver and the space under the chamber wall blocked up. The floor was also patched near the lower mitre sill. Two lock gates, repaired during the previous winter, were sunk in the basin in readiness for emergency.

Smaller repairs included the renewal of steel brackets on the crest of the dam, repairs to booms, fences and buildings and the care of canal grounds.

#### (b) CHAMBLY CANAL

Between the St. Ours lock and Chambly Basin, a distance of 32 miles, the river is navigable with a depth of 7 feet. The Chambly canal, which enters at this point, is 12 miles in length and has nine locks. It surmounts all the rapids between Chambly and St. Johns, thus establishing communication with lake Champlain. The locks, nine in number, provide a depth of 6½ feet of water over sills.

The canal was opened to traffic May 1 and closed November 30.

Among the various repairs and improvements carried out the following may be noted:—

All locks on the canal were gone over and repairs made where necessary. These included the sheeting with steel plates of a portion of the west wall of Lock 1, the refitting of the upper gate of Lock 5 and the replacement of fender timbers at the south end of Lock 9.

Bridge 6, a wooden structure, was demolished and replaced by the steel bridge formerly at Riley's Crossing. Repairs made to Bridge 7 included the rebalancing with concrete weights, the installation of traffic gates, the completion of a new cabin and the resurfacing of approaches. General repairs were also made to six other bridges and to nine small farm bridges.

Along the sides of the canal repairs were made to the rip rap stone protection and leaks stopped in a number of places. The canal reaches were dredged and cleaned out, the excavated material being utilized for filling and widening banks. Drains and ditches were cleaned out and a 24-inch tile drain laid under the approach to Bridge 6.

Various repairs made to canal buildings included the partial renewal of the foundation of the lockmaster's house at Lock 1, repairs to the roof, etc., of the cabin at Bridge 2, and general repairs to the carpenter shop, machine shop, store-house and power house.

The floating plant received the usual attention while laid up for the winter. The tug *Chambly* was generally overhauled and painted, boiler tubes in the engine of the steam derrick were renewed where necessary and the hulls of three flat scows were gone over, repaired and painted.

#### 4. LAKE ONTARIO TO GEORGIAN BAY

##### (a) MURRAY CANAL

This canal, which is an open waterway 80 feet in width, with 11 feet depth at low water, across the isthmus of the Prince Edward County peninsula, connecting the bay of Quinté with lake Ontario, is without locks.

Navigation opened April 8 and closed December 3. No delays, due to accident or other cause, occurred during the season.

Repairs carried out during the year were of a minor nature only and included the renewal of the floor system at the Brighton and Trenton Road bridges, the painting of the Central Ontario Railway bridge, slight repairs to wharves, the cleaning of ditches and repairing of rip rap, repairs to canal roadways and the painting of the canal shops, storehouse, overseer's office and oil house.

##### (b) TRENT CANAL

The route of the Trent canal, as now in operation, lies between Trenton, on the bay of Quinté, where direct connection is made with lake Ontario, and Port Severn, on Georgian bay, from which the waters of the Great Lakes are accessible. The canal is made up of a series of lakes and rivers connected by relatively short lengths of artificial cuttings. Connection between the water levels of the various reaches is effected by locks, except at Swift Rapids and Big Chute where marine railways are employed. The through route may be briefly described as follows: Between Trenton and Rice lake the canal follows the line of the Trent river. Passing through Rice lake it enters the Otonabee river, the route of which is followed to its source in Katchiwano lake. From this lake the line of the canal passes in succession through Clear lake, Stoney lake, Lovesick lake, Buckhorn lake, Pigeon lake, Sturgeon lake and Cameron lake to the west

side of Balsam lake. From here connection is made by an artificial cutting with a small lake about two miles westward, and from the latter lake another cutting makes connection with Cranberry lake. From the south end of Cranberry lake connection is made with lake Simcoe by another artificial cutting. Passing through lake Simcoe the route of the canal continues to the Severn river, the line of which is followed to the Georgian bay outlet at Port Severn. From Trenton the canal rises to a summit at Balsam lake, the level of which is about 597 feet above that of lake Ontario. From Balsam lake to Georgian bay there is a fall of 262 feet. The total length of the route from lake to bay is about 240 miles. It is made up of two main divisions: the Ontario-Simcoe division between Trenton on lake Ontario and the outlet of lake Simcoe and the Severn division from lake Simcoe to Georgian bay.

#### ONTARIO-SIMCOE DIVISION

This division includes, in addition to the main route of the canal, the Scugog branch, 35 miles in length, from Sturgeon lake to Port Perry via the Scugog river and lake, and various other navigable channels aggregating in all about 60 miles. The total extent of canal and canalized waters maintained in operation in this division is therefore about 240 miles.

Included also under this division are various reservoir lakes and dams, taken over from the Ontario Government in 1905, under Order in Council, which are maintained and operated by the department.

Among the principal works under construction during the past year the following may be noted:—

Under contract with Construction and Engineering Limited work on the new concrete dam at Lock 23 about one mile above Nassau, the construction of which was begun in August 1925, was continued during the summer of 1926 and by the end of the season all concrete work had been completed and the stoplog house at the east side of the dam erected. The demolishing of the old dam was begun in February and thus far the deck has been removed and the piers and abutments taken down to within seven feet of final level. To complete the work the services of a dredge will be required.

The new lock at Young's Point, commenced in October 1925 under contract with the T. A. Brown Company, was fully completed by the close of the season and final settlement made with the contractor in February last. The first vessel was locked through June 14, 1926.

The dredges *Fenelon* and *Auburn* were both engaged in deepening and widening the channel at various points, the most extensive operations being carried out at Margaret's island, at the easterly end of Rice lake, in the rock cut north of Scugog, at the shoal near Lindsay, at the upper entrance to Lock 27 and at Buckhorn narrows. A total of 28,810 cubic yards was removed by the two dredges during the working season.

As a capital expenditure, the right of way of the old Cobourg and Peterborough Railway, across Tic island in Rice lake, was acquired together with a small portion of the right of way of the same railway adjoining the canal store house in the city of Peterborough.

Among smaller and less costly improvements and repairs carried out during the year may be mentioned the following:—

At Lock 17, Healey Falls, the disintegrated concrete in the upper south entrance wall was cut out and new concrete with wire reinforcing bonded into the old wall by iron bolts set therein. At the Peterborough hydraulic lift lock, in consequence of the failure of the air supply from the existing automatic air machine, it was found necessary to install a turbine-driven air compressor supplied by the Vickers Combustion and Engineering Company with connection to existing air lines. At the same lock, a leak having developed under the

upper west entrance wall, the reach above was unwatered in November last and the cause of the trouble found to be due to a subsidence of the fill just south of the collecting drain. Thus far temporary repairs only have been made. The hydraulic lift lock at Kirkfield was thoroughly examined and a number of small repairs attended to.

The two west piers of Dam "C", west of Sill's island, Frankford, were extended 8 feet, the dam redecked, new stop logs provided and other smaller repairs attended to. A concrete stop log dam with three sluices was built in the excavated channel below Sill's island by the Canadian Paperboard Company under departmental supervision. All five dams at Lovesick were supplied with new rollers and checks. The river wall below the new lock at Young's Point, which was not sufficiently high, was raised  $1\frac{1}{2}$  feet over a length of 212 feet.

At Elliott's falls on the Gull river, about 30 miles north of Balsam lake, a new concrete dam, 128 feet long between abutments consisting of two 20-foot sluices, a log slide and spillway was commenced last September and is now nearly completed, there remaining still the completion of the log slide and a portion of the spillway and the removal of the old dam, situated about 300 feet farther down the river.

At Hawk river, work was commenced early in December on the construction of a concrete log sluice and dam about 86 feet in length below the existing dam at the outlet of Hawk lake. Beyond the construction of a cement shed and the delivery of materials but little work has as yet been carried out.

The new dam at Scotts Mills, referred to in last year's report, was fully completed, this structure consisting of a main dam 114 feet long with three piers, stop log sluices and log slide.

The coping stones on the pivot pier of the Hastings bridge were reset and the track levelled. At Burleigh bridge the coping stones on the west rest pier were reset and dowelled. Complete new decks were laid on bridges at Bobcaygeon, Victoria Road and Kean's Bridge and new floors laid on the bridges at Hastings-Norwood Road, Warsaw Road, Burleigh Falls, Buckhorn, Wellington Street, Lindsay and Opps, Lindsay.

The plank approach to Dunnett's Landing wharf, which had collapsed, was replaced by a stone fill surfaced with gravel. Lesser repairs were made to wharves at Peterborough, Gore's Landing and several other points.

The floating plant, including dredges *Fenelon* and *Auburn*, steamer *Bessie Butler*, tugs *Bob Hall*, *J. B. McColl* and *Harwood*, a gate lifter, drill boat, gas punt and three scows, was thoroughly gone over and repairs made wherever necessary.

During the 1926 season the number of recorded lockages on the canal was 13,296, a decrease of about 15 per cent from the record of the previous season. The heaviest traffic recorded since the year 1919 was that of 1922 when total lockages numbered 15,383.

#### SEVERN DIVISION

Under this division, as previously noted, is included that portion of the route of the canal which lies between the navigable waters of lakes Simcoe and Couchiching and Georgian bay, in addition to which must also be included the as yet incomplete canalization of the Holland river from Cook's bay, at the southerly end of lake Simcoe, to the town of Newmarket, a distance of about  $12\frac{1}{2}$  miles.

The original scheme for this division provided for a lock and terminals at Honey harbour on Georgian bay connected to Gloucester pool via Go Home bay and lake. This, however, has never been carried into effect. The navigation of this division is now effected by means of the lock at Washago, the marine railways at Swift rapids and Big Chute and the lock at Port Severn.

During the 1925 season dredging operations were continued on the Severn division at various points between Washago and Portage bay, by the Randolph Macdonald Company on a daily rental basis. Since the enlargement of the marine railways to provide for 15-ton boats up to 55 feet in length, the improvement of the river channel at many points has become a matter of urgent necessity. There having been from year to year some uncertainty in the prospect of this work being proceeded with, the policy followed in its prosecution has been to make small improvements at all the more dangerous spots in the channel rather than to complete the work of widening and deepening at any one point. With this end in view, further dredging operations were carried on during the past navigation season.

Between Dunkards island, at the south end of Atherley narrows, and a point about 300 feet north, three areas of the channel were dredged to provide 9 feet of water. South of Atherley bridge the dredging begun last year was continued and this portion of the channel has now a depth of 8 feet. Considerable improvement was also made in the channel along the canal entrance to deep water in lake Couchiching where a depth of 7 to 8 feet has been provided except at one point where a few boulders, submerged 6 feet, have yet to be removed. At Whitesides cut in the Severn river just south of Sparrow lake a rocky ridge was drilled and dredged to a depth of 6 feet. The channel at Sparrow lake chute was greatly improved, being widened to 70 feet with a depth of 8 feet all over except at one point at the side of the channel where a rocky point reduces the depth to 7 feet. A notable improvement was also made at the upper end of Portage bay cut which now has a channel of 70 feet clear width with 8 feet of water. These operations have involved the removal of about 32,688 cubic yards of earth and 5,277 cubic yards of rock as measured on scows.

The new County highway bridge at Atherley narrows, described in last year's report, was opened to traffic May 10, 1926. The steel work and masonry of the old bridge have now been removed. The Dominion Government voted \$40,000 as a contribution towards the cost of this bridge. The swing span will be operated by the department.

At Swift Rapids dam two of the three submerged sluices had been operated with temporary cables pending the arrival of the permanent cable required to complete the installation. The permanent cables were however installed in May 1926, and after a series of careful tests the entire mechanism has been found thoroughly satisfactory.

#### 5. ST. PETERS CANAL

The St. Peters canal, which was reconstructed between the years 1912 and 1917, connects the Bras d'Or lakes with St. Peters bay on the southeast coast of Cape Breton island. It consists of a tidal lock 300 feet in length and 48 feet in width and provides for a minimum depth of 18 feet of water on the lock sills.

During the past season of navigation this canal was in operation between May 10, 1926, and January 15, 1927, and was operated during this time without any serious delay to traffic. The total number of vessels making use of the lock was 1,303, a decrease of 333, or about 25 per cent from the record of the year before.

Extensive repairs were made to the freight shed at the lake entrance to the canal. A new 4-inch hemlock floor was laid, repairs were made to the walls, two new doors placed, the building re-roofed and all crooked walls plumbed up. At both ends of the swing bridge over the canal, new steel wire traffic gates were placed to replace the rope barriers formerly in use. In addition to the foregoing, the usual minor repairs, such as the scraping of lock gates by a diver, repairs to gate valves, the cleaning out of ditches and the keeping in order of canal grounds were given the customary attention.

## 6. MISCELLANEOUS WORKS

## (a) HUNGRY BAY AND STE. BARBE DYKES

These dykes extend westward along the south shore of lake St. Francis from the upper entrance of the Beauharnois canal for a distance of about 7 miles. They are maintained as a protection against the waters of the lake, the level of which was raised when the canal was constructed. It may here be mentioned that since the opening of the Soulanges canal in 1899 the Beauharnois canal has ceased to be used for navigation and is under lease for power purposes only. The Hungry bay dyke has been in existence since 1856. The top of this dyke is maintained as a road. The Ste. Barbe dyke was constructed in 1889. At various places along the lake shore, protection walls have been built outside the dykes.

During the past year no special works of improvement were carried out. All ditches, however, were kept well cleaned, weeds were cut and burned and the roadway along the Hungry bay dyke maintained in good surface.

## (b) ST. LAWRENCE SHIP CANAL

For many years the question of the ultimate enlargement of the St. Lawrence canal system between lake Ontario and Montreal has been studied by the engineers of this department, and much data relating thereto has been obtained.

During recent years the work of completing definite plans for such an enterprise became necessary in order to enable the department to deal intelligently with proposals, by private corporations, for the development of isolated water-powers which might seriously conflict with any reasonable development of the navigation and power potentialities of the river as a whole. Under this impetus, plans were evolved for a comprehensive development of the upper section of the river.

Early in the fiscal year 1924-25 a board of engineers was appointed by the Canadian Government and a similar board appointed by the United States Government for the purpose of jointly reviewing the Wooten-Bowden report of 1921 and reporting on the cost of a through deepwater route from the head of the Great Lakes to the sea. The members of the Canadian board are Mr. D. W. McLachlan (Chairman), Brig.-Gen. C. H. Mitchell, and Mr. Olivier O. Lefebvre. A number of meetings of the board have been held and instructions as to the form and scope of the report to be made were finally agreed upon in joint session at Washington in December, 1924, and forwarded to both the Canadian and American Governments. On January 5, 1925, these instructions, after having been considered by the National Advisory Committee for Canada, were transmitted to the board. Meantime, in anticipation of the eventual receipt of these instructions, much study has been given both to the Canadian and American sections of the river. Ice conditions have been carefully investigated, stream discharges determined, soundings taken, test borings driven, surveys carried out, and numerous plans prepared. As a result, a large amount of valuable information has now been got together for use in the preparation of the required designs and report.

Thirty-seven meetings with the American section of the board have been held since its inception, twenty-five of which took place during the past year. These meetings extended over periods of from two to three days and consisted of a general discussion of the various matters on which the board was preparing to make its report. The main body of the report was eventually signed at Washington, November 16, 1926. Certain appendices, however, have still to be added to this report, seven in all. Five of these have been agreed upon and adopted.

A staff of eight engineers, two draughtsmen and two clerical assistants has been employed at the head office in Ottawa; in the field one survey party and one boring party have been engaged in collecting various data.

The American section was supplied with a fully equipped drill scow with crew which was operated during the early part of the 1926 season at the foot of Barnhart island after which it was returned to the department and utilized in the taking of additional borings at the Little Long Sault and Rockway point, at the head and foot of Vercheres island and at the foot of Boucherville island.

Preparations have also been made for the carrying out of additional borings in the vicinity of Crysler island early next season.

Meter measurements of stream flow were made at the head of the Lachine rapids, at Vercheres island and at Boucherville island.

At the head of the Long Sault and south of Barnhart island in the Little Long Sault a special survey of coffer dam sites was made and the river was cross-sectioned at about twelve places between Morrisburg and Weaver's point.

Between Montreal and Iroquois a careful valuation of lands and improvements in connection with various schemes was made. These included the close valuation of properties along both sides of the St. Lawrence between the head of the Lachine rapids and the town of Lachine, between Cedars and Coteau du Lac and between St. Timothée and Valleyfield as well as on the Canadian side of the International section between Mille Roches and Morrisburg.

Survey work was carried out between the St. Louis river and LaPrairie basin and, on the American side of the river, between Lotus island and Rockway point.

The head office staff has been employed in the preparation of plans, estimates and statements for the appendices to be included in the complete report which it is expected will be handed to the Canadian and American governments before midsummer.

#### (c) HUDSON BAY TERMINALS

The staff maintained at Port Nelson during the past year has consisted of a resident engineer, cook, foreman, from one to six handymen, and Indians as circumstances required.

The staff were employed from October till the end of the fiscal year in oiling machinery, pumping out the floating plant and moving it to new berths when necessary, etc.

The break-up in the estuary was unusually mild in the spring of 1926 and ice floes small. The river was clear to Flamboro Head from May 29 and the Hudson's Bay Company's schooner *Fort York*, which had wintered at the port, sailed on June 9.

Mr. F. Palmer, consulting engineer of London, England, was engaged in October, 1926, to advise upon the relative merits of Fort Churchill and Port Nelson as railway terminals, and as a preliminary step an extensive series of borings, under Mr. Palmer's direction, has been undertaken at Fort Churchill. The materials and men for this work were transported overland by aeroplane. It is expected that Mr. Palmer will personally examine the two ports in the month of August next. Coincident with the investigation of the ports, the Canadian National Railways despatched a party to survey a railway route to Fort Churchill from the Limestone river. The work of this party is now completed.

I have the honour to be, sir,

Your obedient servant,

A. E. DUBUC,

*Chief Engineer.*

OTTAWA, July 27, 1927.

G. A. BELL, Esq., C.M.G.,

Deputy Minister, Department of Railways and Canals,  
Ottawa, Canada.

TABLE SHOWING THE DATES OF THE OPENING AND CLOSING OF THE CANALS FOR THE SEASON OF 1923, 1924, 1925 AND 1926

Canals	1923		1924		1925		1926	
	Opened	Closed	Opened	Closed	Opened	Closed	Opened	Closed
Lachine.....	May 1	Dec. 12	April 21	Dec. 13	April 27	Dec. 11	April 26	Dec. 11
Soulanges.....	" 2	" 12	" 23	" 12	" 26	" 11	" 26	" 11
Cornwall.....	April 30	" 13	" 22	" 14	" 22	" 12	May 3	" 11
Williamsburg—								
Farran's Point.....	" 30	" 14	" 22	" 14	" 22	" 12	" 3	" 11
Rapide Plat.....	" 30	" 15	" 22	" 14	" 22	" 14	" 3	" 11
Galops.....	" 30	" 15	" 22	" 14	" 22	" 14	" 3	" 11
Welland.....	" 25	" 15	" 16	" 13	" 15	" 17	" 1	" 16
Sault Ste. Marie.....	May 1	" 26	" 19	" 15	" 8	" 17	" 1	" 17
Ste. Anne.....	" 1	Nov. 30	May 1	Nov. 30	May 1	Nov. 30	" 1	Nov. 30
Carillon & Grenville.....	" 1	" 30	" 1	" 30	" 1	" 30	" 1	" 30
Rideau—								
At Ottawa.....	" 1	" 30	" 1	" 30	" 1	" 30	" 1	" 30
At Kingston Mills.....	" 1	" 30	" 1	" 28	" 1	" 14	" 1	" 30
Trent—								
Ontario-Rice Lake Division,								
Lower Section.....	" 7	" 11	" 13	" 4	April 25	" 6	" 1	" 6
Trenton Bridge.....	" 3	" 29	" 17	Oct. 4	May 11	Oct. 26	—	" 8
Ontario-Rice Lake Division,								
Upper Section.....	" 7	" 16	" 20	Nov. 29	May 5	Nov. 14	May 25	" 9
Hastings to Rice Lake.....	" 6	" 6			" 5	" 14	" 24	" 6
Hastings to Peterborough.....			May 15	Nov. 18				
Rice Lake to Peterborough.....	April 27	Nov. 27			May 3	Nov. 22	May 24	Nov. 7
Peterborough to Lakefield.....	May 17	" 10	May 12	Nov. 15	" 6	Oct. 29	June 8	" 5
Peterborough Lift Lock.....	" 17	" 8	" 12	" 6	" 6	Nov. 4	" 8	Oct. 31
Lakefield to Bobcaygeon.....	April 28	Dec. 1	April 26	" 26	" 7	" 6	May 17	Nov. 15
Bobcaygeon to Balsam Lake.....	May 4	Nov. 15	" 28	" 3	" 12	" 19	" 11	" 15
Kirkfield Lift Lock.....	" 23	Oct. 25	May 18	Oct. 24	" 9	Oct. 23	" 17	Oct. 23
Kirkfield to Lake Simcoe.....	" 16	" 26	" 18	" 24	" 21	" 31	" 10	" 23
Lake Simcoe to Orillia.....	" 23	" 26	" 12	Nov. 19				
Scugog River to Lindsay Lock.....	April 23	Dec. 4	April 27	" 15	April 8	Oct. 22	May 5	Nov. 15
Murray.....	" 24	" 8	" 15	Dec. 9	" 8	Dec. 3	April 8	Dec. 3
St. Ours.....	May 2	Nov. 30	May 1	Nov. 30	May 1	Nov. 30	May 1	Nov. 30
Chambly.....	" 7	" 30	" 1	" 30	" 1	" 30	" 1	" 30
St. Peters.....	" 7	Jan. 19	April 23	Jan. 7	April 6	Jan. 9	" 10	Jan. 15
		1924		1925		1926		1927

## CANALS OF CANADA

Name	Location	Length in Miles	No. of Locks	Locks		
				Minimum dimensions		
				Length	Width	Depth atordinary low level
				<b>Ft.</b>	<b>Ft.</b>	<b>Ft.</b>
<i>St. Lawrence and Great Lakes</i>						
Lachine.....	Montreal to Lachine.....	8-50	5	270	45	14
Soulanges.....	Cascades Point to Coteau Landing	14-00	5	280	45	15
Cornwall.....	Cornwall to Dickinson's Landing	11-25	6	270	45	14
Farran's Point.....	Farran's Point Rapid.....	1-25	1	800	50	14
Rapide Plat.....	Rapide Plat, Morrisburg.....	3-66	2	270	45	14
Galops.....	Iroquois to Cardinal.....	7-33	3	800	50	14
Welland.....	Port Dalhousie, Lake Ontario to Port Colborne, Lake Erie.....	26-75	26	270	45	14
Sault Ste. Marie.....	St. Mary's Rapids, 47 miles west of Lake Huron.....	1-30	1	900	60	19
<i>Ottawa and Rideau Rivers</i>						
Ste. Anne Lock.....	Junction of St. Lawrence and Ottawa rivers.....	0-12	1	200	45	9
Carillon.....	Carillon rapids, Ottawa river.....	0-75	2	200	45	9
Grenville.....	Long Sault rapids, Ottawa river..	5-75	5	200	45	9
Rideau.....	Ottawa to Kingston.....	126-25	47	134	33	5
	Rideau Lake to Perth (Tay Branch).....	7-00	2	134	33	5
<i>Richelieu River</i>						
St. Ours Lock.....	St. Ours, Que.....	0-12	1	200	45	6-5
Chambly.....	Chambly to St. Johns, Que.....	12-00	9	118	22-5	6-5
<i>Lake Ontario to Georgian Bay</i>						
Murray.....	Isthmus of Murray, Bay of Quinte	5-17	None			11
Trent.....	Trenton to Peterboro Lock, Peter- boro.....	89-0	18	175	33	8-4
	Peterboro Lock to Washago.....	114-6	23	134	33	6
	Sturgeon Lake to Port Perry (Scu- gog Branch).....	35-0	1	142	33	6
	Port Severn Lock.....		1	100	25	6
<i>Miscellaneous</i>						
St. Peters.....	St. Peters Bay to Bras d'Or Lakes, Cape Breton, N.S.....	0-49	1	300	48	18

## APPENDIX

Letter of instructions to Mr. Frederick Palmer, M. Inst. C.E., of the firm of Rendel, Palmer & Tritton, consulting engineers, London, England, as to the examination of the relative merits of Nelson and Churchill as the ocean terminus of the Hudson Bay railway, referred to in the report of the chief engineer immediately preceding, and in the introductory report of the deputy minister:—

OTTAWA, January 5, 1927.

DEAR MR. PALMER,—In order that we may have record of the understandings reached as a result of our several conferences, I beg to advise you as follows:—

In 1911, the Canadian Government commenced the construction of a railway to Hudson bay. In 1912, in order that the road might be placed completely under contract, it became necessary for the government of the day to make immediate choice between the only two possible ports on the west coast, Nelson and Churchill. After a personal visit to both places by the then minister, and consideration of the information available at the time, the minister, on the advice of his engineering staff, recommended the establishment of the railway terminus at Nelson, and plans for harbour terminals were prepared by an engineer specially selected and sent to Nelson for that purpose. Upon consideration of the scheme of development then suggested differences of opinion arose, and the engineer resigned his appointment. A member of the departmental engineering staff was then assigned the task of preparing suitable plans, as a result of which the present scheme of development at Nelson was approved and actively prosecuted by the department during 1914 and the succeeding years, until the fall of 1917, when the work was discontinued owing to war conditions. During the following winter the construction of the railway was also discontinued upon completion of the bridge at the Kettle rapids crossing of the Nelson river, about 92 miles from Port Nelson.

On the railway \$15,245,889 had been expended to March 31, 1926, and on the Nelson terminals \$6,242,114.

At the present time that portion of the railway previously constructed is being reconditioned and it is planned to continue the construction of the railway in 1927. This imposes upon the Government early consideration of the question of harbour development in order that the Hudson bay route may be assured fair trial as an ocean outlet for western grain and cattle, and for such other traffic in agricultural, mineral, forest and manufactured products as may develop.

Controversy has always existed as to the relative merits of Nelson and Churchill as the bay terminus, and notwithstanding the selection of Nelson in 1912-13, controversy has persisted. In 1920, a special committee of the Senate was appointed to examine and report upon the Hudson bay project generally, and upon the character of the ports and their fitness for terminals. Upon the evidence then adduced the committee reached the following conclusion upon the harbour phase of the project:—

“That in the opinion of this committee sufficient care was not taken in the selection of Nelson as the terminus of the railway, and that the government should not make further important expenditures upon this port without first making a new and thorough examination into the relative merits of Churchill and Nelson as a terminus for the railroad.”

In view of the substantial expenditure already incurred at Nelson, and the shorter rail haul to that point, the government is naturally predisposed towards Nelson, but desires, above all things, that the port chosen, and its arrangements, should afford the best possible opportunity for the development of trade through the bay.

The problem of harbour development in the two places differs very widely and, as regards Churchill, the use of that port would involve the construction, maintenance and operation of about 90 additional miles of railway. As to the suitability of the terrain between the Nelson and the Churchill rivers to railway construction we hope to have definite information in the course of the next few months. Should the survey now being made disclose conditions unfavourable to railway construction, this would, of course, dispose of any question as to Churchill, but if a railway is found practicable, we will require your advice concerning Churchill also. If that port should be found to be capable of such early and economic development as would afford better and safer facilities than Nelson, and more readily available, that would be a factor of great importance to the successful development of the Hudson bay route. For these reasons we think it unwise and not in the interests of Canada to restrict your investigation to the port of Nelson only, unless, meanwhile, Churchill should be eliminated for railway reasons.

In the event of Churchill becoming a possibility we should have, in addition to relative costs of construction and maintenance, a comparative estimate of the length of time necessary to provide terminals at either port sufficient to enable a proper test of the route to be made. We consider this element of time a matter of prime importance.

We want, also, your opinion of the design of the existing works at Nelson, and as to whether any change could be made there which would either reduce the cost or the length of time required for development, or improve conditions in any way at that point.

What we have in mind as an initial test development—and this is suggested more for your guidance than as a conclusive and limiting instruction—would be the provision of accommodation in either harbour for six cargo ships in port at one time, with working berth for three of the six, the estimated draft of vessels to be not less than 26 feet. The minimum development projected at each port should, of course, be capable of such progressive extension as future requirements might dictate.

If a railway to Churchill be found practicable, we desire that your report should cover a possible development at both Nelson and Churchill, with estimated cost, your recommendation as to the choice to be made and reasons therefor.

In outlining, in this general way, the matters upon which the Government desires your advice, it is not intended to ask you to consider problems unconnected with port development. We appreciate that, owing to climatic conditions, it will not be possible for you to conduct your personal examination of Nelson and Churchill before next summer. We shall, however, do everything in our power to facilitate your work at both points and would be glad to have your conclusions as soon as possible thereafter, as we are anxious to avoid delay in the prosecution of this important undertaking.

Faithfully yours,

CHARLES A. DUNNING.

## MR. PALMER'S PRELIMINARY REPORT

OTTAWA, August 24, 1927.

Hon. CHAS. A. DUNNING,  
Minister of Railways and Canals,  
Ottawa, Canada.

SIR:

*Hudson Bay Terminal Port*

I am submitting herewith a preliminary report recording the conclusions I have come to regarding the factors governing the choice of a terminal harbour for the Hudson Bay Railway.

The conclusions are based on investigations carried out during the past few months and upon my recent personal visit to the ports of Nelson and Churchill. A full report dealing with the subject in detail will follow as soon as possible.

I am, sir,

Your obedient servant,

F. PALMER.

Encl.

OTTAWA, August 24, 1927.

HUDSON BAY PORT  
PRELIMINARY REPORT

This report is submitted in order that the Government may know as early as possible the results of the investigations made in regard to the selection between Nelson and Churchill of a terminal port for the Hudson Bay Railway.

The "initial test development" suggested in the minister's letter of January 5, 1927, is as follows:—

(1) Working berths for three vessels of 26 feet draft,

(2) Moorings for three more similar vessels,

and it is also prescribed that the site be suitable for extensions.

In the conclusions given later, this suggested initial development, being considered sufficient, has been adopted, and suitability of site for extension taken as a basic condition.

## NELSON

The port of Nelson is a roadstead in the estuary of the river of that name. It is open to the bay and exposed to gales from the northeast, which occur at somewhat frequent intervals during the period of navigation. The work done so far consists of preparing an island site at which a wharf can be built, and nothing of a permanent nature exists to-day beyond the superstructure of a bridge, about 3,500 feet long, leading from the west shore to the island, which constitutes the site referred to. It may be mentioned here that the site selected for the works and the method proposed for providing a wharf afford as satisfactory a scheme for a port on this river as can be devised.

The island is situated 22 miles up the estuary from the 30 feet depth contour in the bay. An irregular shoal extends from mile 19 to mile  $13\frac{1}{2}$  ( $5\frac{1}{2}$  miles) over which the governing depth is  $20\frac{1}{2}$  feet. From mile 13 to  $7\frac{1}{2}$  a deep channel or hole exists with depths varying from 24 to 94 feet. From mile  $7\frac{1}{2}$  to mile  $3\frac{1}{2}$  the governing depth is 18 feet and from mile  $3\frac{1}{2}$  to the downstream end of the wharf a channel is proposed to be cut through depths varying from 18 feet at the lower end to about 2 feet at the wharf. The proposed channel, which is intended to be 300 feet wide and 20 feet deep, will therefore entail dredging not only from the wharf to mile  $3\frac{1}{2}$  but also to mile  $7\frac{1}{2}$ .

The rise of tide above the spring tide low water level ranges from 17 feet at spring tides to  $13\frac{1}{2}$  feet at neap tides at mile 19 while at the wharf the range is from 15 feet at spring tides to 10 feet at neap tides, and high water at mile 19 occurs 40 minutes earlier than at the wharf. Vessels of 26 feet draft entering the river at neap tides would, in order to cross the shoals referred to, have to pass mile 19 at some time between two hours before, and the time of high water whereas outward bound vessels of this draft would, in order to have sufficient depth of water over the outer shoal at mile 19, have to leave the wharf at some time between one hour before, and the time of, high water. That is to say, the period of navigation on one tide for 26 feet vessels is limited at neap tides to two hours on the inward and one hour on the outward journeys.

At the wharf the intention was to provide a depth of 30 feet so that vessels might lie afloat at all stages of the tide. The finished works would therefore consist of working berthage 30 feet deep separated from the 30 feet depth in the bay by 22 miles of estuary with a dredge channel  $7\frac{1}{2}$  miles long and an outer shoal  $5\frac{1}{2}$  miles long. By largely increasing the depth in the dredged channel, to give 24 instead of 20 feet, it would be possible to bring a vessel of 28 feet draft to and from the wharf during periods limited to an hour at the entrance for incoming, and to an hour at the wharf for outgoing vessels. Beyond this draft it would be impossible to bring a vessel into the Port on neap tides excepting at prohibitive cost in dredging. The depths referred to are below low water of ordinary spring tides and the navigational depths are those at high water of neap tides. These are the depths which constitute the controlling factor although at high water of spring tides conditions, of course, are more favourable.

Being so exposed to northeasterly gales it would be absolutely necessary to protect vessels lying in the deep area at the wharf by breakwaters.

Rock, gravel and sand for constructional purposes would have to be obtained from distances of from 20 to 70 miles.

The railway terminal facilities on the shore would be separated from the wharf site by a single line bridge about 3,500 feet long and the limited space on the island would also seriously handicap the working of grain elevators.

#### CHURCHILL

At Churchill nature has provided magnificent breakwaters consisting of rocky cliffs rising to heights of from 40 to 70 feet and the entrance to the harbour consists of a narrow gap between these headlands with a low water width of 1,600 feet, a width of 850 feet at 30 feet depth and 750 feet of width having depths of over 60 feet.

Owing to the position of the entrance the only gales which affect the bay inside are those from the northeast and as the bay inclines to the southeast the only part affected by such gales is a short strip of coast on the west side of the entrance. The rest of the bay is quite unaffected by gales from any direction.

Inside the entrance there exists today an area of about 140 acres with depths of 30 feet and over and a further area of about 180 acres with depths varying from 18 to 30 feet. Beyond this there is a vast area of lesser depth.

The obvious site for a wharf is the completely sheltered east side where it would be situated at a distance of no more than  $1\frac{1}{2}$  miles from the deep water outside the entrance. Borings taken during the past few months on this site disclose the fact that the bed consists of gravel and sand with some clay and some boulders. It is of a nature easily dredged and the proposal is to form a depth of 30 feet at the wharf connected with the 30 feet depth inside the entrance by a short channel 600 feet wide of the same depth. The extent of dredging necessary to afford a not less than 30 feet depth, at low water, throughout is but little more than a million cubic yards.

Rock, gravel and sand for constructional purposes can be obtained in almost unlimited quantities within a mile of the proposed works.

There is a large area of land at a suitable level immediately adjoining the site at which railway terminal facilities can be provided at relatively small cost.

#### CONCLUSION

With these brief descriptive remarks the conclusions come to can be given. They are:

1. That Churchill is undoubtedly the port to be selected as affording a real harbour in which shipping facilities can be provided in calm water protected from all storms by the surrounding rocky cliffs.
2. The estimated costs of corresponding accommodation at Nelson and Churchill disclose marked advantage in favour of the latter, the figures showing that, including interest during the period of construction, the cost at Churchill will be less than one-third of what is required to complete Nelson. Even after adding the cost of the extra 87 miles of railway to Churchill, the cost at this place will be only about one-half of the Nelson port estimate.
3. The time for completion of the works at Churchill, viz, three years, is one-half of the time needed to carry out the Nelson works.
4. That Churchill provides a completely sheltered port for shipping from the moment the entrance is passed while at Nelson no shelter can be confidently reckoned upon until the wharf is reached, and then only by the provision of breakwaters.
5. That the annual charges, including interest, operation and maintainance would be about a million dollars greater at Nelson than at Churchill.
6. That at both Nelson and Churchill the sites admit of considerable extensions, but at much less cost at Churchill than at Nelson. The wharf, either in its initial or extended stage, would at Nelson be governed by the limiting nature of its approach, to vessels of 26 feet draft during a brief period around high water at neap tides unless much increased expenditure is incurred in dredging. It is limited to a draft of 28 feet even after this dredging is done unless till further expenditure of a prohibitive character is undertaken. At Churchill the accommodation proposed will, in the "initial development," admit of 28 feet draft vessels during the 24 hours of each day while for extensions there is no practical limit to the draft of vessels which can be provided for.
7. The evidence regarding ice conditions at both ports is vague and inconclusive and no satisfactory or reliable decision can be given in regard thereto. It has been stated that the river at Churchill freezes over earlier than the Nelson river and, also, that bay ice blocks the entrance to Nelson for a later period than that over which Churchill entrance is closed: but in the absence of any evidence dealing directly with the navigation aspect of the question, it is impossible to say that either port is open to ocean-going steamers for a longer or shorter period than the other.

Following upon these conclusions, it is strongly recommended that Churchill be made the port terminal for the Hudson Bay Railway because it affords by far the best possible opportunity for the development of trade through the bay.