

SUB-REPORT RE SOREL SHIP YARD—No. 2.

BY MESSRS. PRICE, WATERHOUSE & CO.

MONTREAL, April 24, 1912.

The Public Service Commission, Ottawa—

GENTLEMEN,—In accordance with your instructions we have made a preliminary investigation of the books and accounts of the Sorel Shipyard which are kept at the offices in Sorel, and we now have the honour to submit the following report which contains an outline of the present system and methods and the result of certain tests which we have made of recent transactions.

The Sorel Shipyard is situated on the banks of the Richelieu river opposite the town of Sorel. The greater part of the land on which the works are erected is, we are informed, held under lease from the McCarthy estate at an annual rental of \$1,200.

The work carried out by the shipyard may be grouped as follows:—

(a) The construction and maintenance of the dredging fleet operating in the St. Lawrence ship channel.

(b) Miscellaneous construction and repair work for other Government departments and small repair work for private individuals.

(c) Supplying the dredging fleet during the season of navigation.

The operations of the yard are under the direction of the Marine and Fisheries Department in Ottawa, which purchases all materials and supplies, with the exception of certain small purchases which are made locally. The invoices for materials purchased are, as a rule, received in Ottawa and are forwarded to Sorel, where they are certified as to the receipt of the goods and approved, after which they are returned to Ottawa and paid by the department.

The work at the yard is in the charge of a director. This position is at present held by Mr. L. G. Papineau, whom we understand has acted in this capacity for about three and a half years; he is assisted by Mr. H. A. Terreault, who acts as assistant director.

Your instructions to us laid particular emphasis on the necessity of a thorough inquiry into the efficiency of the labour, and the number of men employed at the plant, and in this connection you asked us to co-operate with the investigators, Messrs. W. S. Jackson and T. H. Schwitzer, who are reporting to you upon the operating conditions. We have furnished the investigators with what data they required, and our representatives have rendered them every assistance possible.

PAY ROLL SYSTEM AND METHODS.

The Director engages and discharges the employees and fixes the rates of wages. We would mention in this connection that we have been informed that cases have frequently occurred where men discharged by the heads of departments have later been reinstated in their former positions on application to the Director. We are bringing this condition in regard to the engagement of labour to your notice at the outset of our remarks upon the pay roll system, for the reason that it has an important bearing upon the attitude of the employees towards the heads of the departments and consequently on the efficiency of the work performed. You will readily realize that if

the head of a department, whether operating or clerical, has not the power to discharge a man whose services are unsatisfactory, he can have no proper authority or control over his staff.

As a result of our investigation of the pay roll methods, and of incidents which came to our notice in the course of our work, we are of the opinion that the present conditions are unsatisfactory, more especially in the following respects:—

(a) A number of men are not punctual in reporting for work and they frequently leave work before the proper time, and deductions from their wages for time so lost are not always made. We noticed that at the noon hour it was a common occurrence for men to punch the clock at least ten minutes ahead of time, and in the evening it was not an unusual sight to see a line of men forming at the doors from fifteen to twenty minutes before the closing hour.

(b) Specific instances have come to our notice, both as a result of our independent inquiries and from visits to the shops in company with your investigators, where the men have been found idling.

(c) There are numerous indications that the foremen exercise no proper authority over their men: this lack of authority may result either from the system of engagement or from the incapacity of the foremen themselves.

(d) The pay roll system, which appears to have been well designed originally, is not being properly carried out at present.

Number of Men Employed.

The following is a comparison of the men employed on the shipyard pay roll in the months of March, 1911, and March, 1912:—

	1911.	1912.
Employees in the yard and shops.....	855	874
Foremen.....	10	10
Draughtsmen.....	10	11
General staff.....	4	4
Office staff.....	6	6
Stores.....	11	12
Cost department.....	5	6
Watchmen.....	7	7
Miscellaneous help.....	8	7
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	915	937

Engagement and Discharge Slips.

When men are engaged or discharged, or wages increased, authorization slips are made out by the Director. These authorizations are, however, written on odd pieces of paper, and as there is no system of filing them we could make no satisfactory verification that the rates paid had been properly authorized.

A printed engagement slip should be made out in triplicate, one copy being retained in the Director's office, the second copy being sent to the accountant and the third to the timekeeper's office, and similar slips should be used for increases in pay or discharges.

Time Clocks.

With the exception of the office employees, store-keepers, foremen and a few yard men, all employees are supposed to punch the time clock cards.

There are seven clocks, all of the same design, viz., 'Premier Punches,' manufactured by the Toronto Electric Works Company. The men record their time four times a day in the presence of the punch-keepers, who report twice a day to the timekeeper on rough slips of paper the number of cards not punched or punched late. The punch-keepers are workmen who receive twenty cents per day extra for attending at the punches.

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The time clocks are not kept in good working order and the punch records made on the cards are often indistinct and blurred. In the pay roll, February 1 to 15, 1912, the punches Nos. 1, 2, 3, 4, 6 and 7 were out of order at some time during the period, with the result that it was impracticable to decipher the record of time of the men working in the various departments punching on these clocks. Punch No. 3 was also not in good working order during the succeeding pay roll period, February 16 to 29, 1912.

Two minutes after the hour at which the men are required to enter the shops the punches are supposed to be closed; for example, if a workman were to arrive two minutes after seven o'clock, which is the hour for starting work in the morning, he would find the punch closed (if the rules in regard thereto were strictly carried out) and it would be necessary for him to 'punch' in at nine-thirty o'clock, in which case he would only be credited with three-quarters of a day's work. Further, after the punches are closed they are supposed to be locked by the punch-keeper and the keys handed into the time-keeper's office. We find, however, that the punches are not regularly closed in accordance with the rules and that the punch-keepers often retain the keys in their possession.

Under any proper pay roll system the time-clock cards are sent to the time-keeper's office, and the pay roll is either made up from them or they are used to support time reports received from other sources. Under the system now in operation at the plant the time cards are handed into the time-keeper's office at the end of each pay roll period, but so far as we could find out the time-keeper does not examine them or compare them with his time records.

The time-keeper's office is not sufficiently large to afford filing accommodation for the cards, and it would seem that after two or three months the cards are sent upstairs to a general storage room. The cards in this room were found to be lying about in a most disordered condition and it was found impossible to obtain all cards which are required.

In order to test the methods of the pay roll department, we examined over 8,000 cards, representing the pay rolls of the months of February, March and April in the years 1911 and 1912 and also part of the month of November, 1910. We desired to make some further investigation into the pay roll of the year 1910, but found it was impossible to obtain any satisfactory proportion of the time cards in any one pay roll period.

Time-keeper's Records.

The time-keeper's records are written up from information received from the punch-keepers who, as already stated, report each day on loose scraps of paper the names of the men who are not entitled to full time. These pieces of paper are not filed in any systematic way in the time-keeper's office and it is impossible to go back and state definitely whether the time-keeper's records are in accordance with the reports received. We append hereto (Exhibit 1) a memorandum of errors in entering the punch-keepers reports in February and March, 1912, which have resulted in an overpayment of wages. There are doubtless other errors of a similar nature which cannot now be traced owing to the unsatisfactory state of the records.

The time-book records kept by the time-keeper are somewhat elementary in form and are written up in pencil. They contain the names and identification numbers of the employees on the pay roll, with spaces representing each day of the pay roll period and columns for the total days worked, the rates and amounts due. If no report is received from the punch-keeper that a workman is not entitled to a full day's time, the time-keeper draws a vertical line against that man's name in the time book, but if he receives a report that the man has been absent for a day, or fraction thereof (only quarter days being considered) he makes notations in the spaces provided by means of crosses or otherwise. At the end of the pay roll period the time-keeper enters in the total column the total days worked by each man.

In the periods mentioned above, in which we examined the time-clock cards, we also checked the clerical accuracy of the footings making up the total number of days shown on the time-keeper's records. A number of errors were found, as will be seen on reference to the appended memorandum (Exhibit 2). As these errors showed there had been some overpayment of wages, the overpayments in March, 1912, were pointed out by us to the time-keeper and an attempt will be made to recover these by deductions from future wages. As already pointed out, it is impracticable to ascertain whether there were similar errors in preceding months.

As an example of the careless methods in the recording of wages, we might mention that we came across a case of a workman who was credited with time for two weeks although he had not been in the employ of the yard during the entire period. His time was made up by the time-keeper in the usual way, but when the wages came to be paid the man could not be found, and not until then was it discovered that he had left the employ of the yard.

Overtime.

Overtime in the shops is authorized by the foremen, who report the overtime to the time-keeper. A few other employees, such as electricians, yard labourers, engineers, &c., receive overtime allowances by reporting to the time-keeper, without authorization. Overtime is posted to the time-keeper's book and a report is handed by the time-keeper to the cost department for the distribution of the charges.

It would appear to be the exception for the foremen to be present when overtime is worked, and therefore some additional check should be instituted on the overtime worked in the shops and a more systematic method adopted with regard to the handling of the overtime of the other employees mentioned.

Pay Lists.

Pay lists are made out in triplicate from information contained in the time-keeper's time book. One copy is retained in the time-keeper's department and two copies are sent to Ottawa signed by the Director, time-keeper and accountant.

We tested the clerical accuracy of the pay lists for a period of three months and subject to two small errors, found them correct.

Under a proper pay roll system the accountant should be responsible for the accuracy of the pay rolls, but under present conditions the accountant merely affixes his signature to the pay list without any verification whatsoever.

Payment of Wages.

The amount of the pay roll, when completed, is telephoned to the Marine and Fisheries Department, which notifies Molsons Bank of the amount to be advanced thereupon.

Payment of wages is made by cheques, which are made out in the time-keeper's department.

The paymaster distributes the pay cheques in the presence of a witness, usually the foreman or clerk of the department, who is able to identify the man.

Fleet Pay Roll.

The pay roll of the dredging fleet is kept entirely separate from that of the yard pay roll, and is in charge of Mr. Forneret, who supervises the operations of the fleet. When the vessels are laid up in the yard, however, the crews ring up on the time clocks and the pay lists are made up in the same manner as those of the general works.

The payment of wages is made in cash by the paymaster in the presence of a witness, usually the captain or an officer of the vessel, who identifies the men, the

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paymaster visiting each dredge. The paymaster signs a declaration before a justice of the peace as to the actual payment. The point is not quite clear as to why this formal affidavit is required in the case of the fleet pay roll, while the paymaster's is accepted as regards the yard pay roll.

We have not made any investigation of the fleet pay rolls beyond testing the pay lists with the reports received from the engineers of each vessel, which show the men employed. The system appears to be fairly satisfactory, subject to the remarks that the accountant should be in a position to certify as to the correctness of the wages and that full information should be kept as to the rates of wages, records of services, &c.

As will be noted later under the head of 'Cost Department,' daily reports are received from the foremen of the various departments showing the work on which the men are engaged. These reports are summarized and the total amount of wages charged to the different jobs is balanced approximately with the total wages paid by the pay roll department. If the system is carefully carried out it affords a valuable check as to the correctness of the wages paid, owing however, to the fact that the foremen's reports are not checked against the time book differences between the total as shown by the pay roll and the amount charged to the various jobs were found to exist. We would suggest that in future the foremen's reports should be checked against the time book.

MATERIALS AND SUPPLIES.

We append hereto an outline of the system followed in ordering materials and supplies, passing and approving invoices and handling stores (Exhibit 3). The system if properly carried out should afford a good check that all invoices paid by the Marine and Fisheries Department represent purchases made for the benefit of the yard and should prevent duplication of payments. The system also affords a satisfactory safeguard for the handling of stores, but in one or two essential features referred to later, it is not being carried out as was apparently intended.

We have examined the duplicate invoices on file in the accountant's department for the year ending February 29, 1912, and find that with a few minor exceptions they have been certified as to the receipt of the goods. We have also examined the advices of payments received from Ottawa covering these invoices and have found them correctly recorded in the books. We have not, however, examined the actual receipts and cheques issued for the payments, which are on file in the Marine and Fisheries Department in Ottawa. We would point out, however, some miscellaneous payments for advertising, printing, stationery, &c., which were made by Ottawa were not represented by duplicate invoices on file and we would suggest that such invoices should be forwarded promptly so as to facilitate the distribution of the expense.

In order to determine whether the store-keeping system was being carefully carried out, we checked the requisitions for the issue of stores for the twelve months ending February 29, 1912, and as a result of our investigation into this department we would call your attention to the following points:--

(1) No complete physical inventory has been taken since January, 1905, and we are informed by the store clerk that no real attempt has been made since that date to balance the quantities of any materials or supplies on hand with the book records, and the stock ledgers have not been added for some time. Unless this is systematically done the information afforded by the stock ledgers as to the quantities on hand can hardly be considered of value and the failure to bring the records into accord with physical conditions may result in considerable loss of supplies.

A physical inventory is now being taken. The work was started about the middle of March last, but it is not expected that it will be completed for several

weeks. The store-keeper is in charge of the taking of this inventory, and has several men working under his direction, but the work appears to be proceeding slowly.

(2) A large quantity of timber is used, which is purchased f.o.b. Sorel or other points. The foreman of the sawmill informs us that he has entire control over the inspection of timber, either passing upon its quality at the point of purchase or after its arrival. He also states that if he inspects the timber at the point of purchase and it is floated down the river, which is the usual method of delivery, no systematic verification, either as to quality or quantity is made upon its arrival. The invoices for the purchases of timber are approved as to receipt and quantity by the sawmill foreman.

We would consider it desirable to make a more extended inquiry into the purchase of timber by examining the methods followed in awarding tenders, and also a further investigation into the question of passing upon its quality and the prices charged to the jobs.

(3) Where wood is required for construction in large quantities, timber is purchased and charged direct to the cost of the job and the cost of handling and sawing is subsequently added.

Such a system does not provide sufficient information as to the charges to construction accounts, and it should be changed in order that all timber purchased may be charged to a timber account which would be credited at cost with the lumber used and the job charged.

We have been furnished with reports of the operations of the sawmill, some of which show considerable shrinkage in the cut of logs and timber. As for example, in November, 1910, 22,957 feet of elm cut at the sawmill only produced 12,814 feet of lumber, and in December, 1910, 21,156 feet of elm produced only 11,568 feet of lumber.

(4) Certain purchases of coal are not handled through the stores department, but are charged to a fuel account on the cost department records. When such coal is used by any department requisitions are sent into the office containing an estimate of the quantity taken and the fuel account is credited with the values thereof. The credits to the fuel account are, however, made at prices in excess of cost, and this results in a considerable apparent profit on the handling of coal, and an excessive charge against operations.

We would suggest that the coal on hand be placed under the supervision of the store-keeper and charged out to the various departments at a price which will represent the cost of purchase and handling.

(5) From time to time the Director reports to the Marine and Fisheries Department an estimate of the scrap on hand. Tenders for the purchase are obtained in Ottawa and a copy of the contract of the successful bidder is forwarded to the Director.

When a purchaser takes delivery the scrap is weighed in the yard and a report of the weight is sent to the Director. The Director collects the money due and turns it over to the accountant for remittance to Ottawa.

This system does not afford a proper check and in future we would suggest that when scrap is weighed a report of the weight should be made out in triplicate, one copy being sent to the Director, one to the accountant and the third retained by the store-keeper. The accountant would then be in a position to pass as to the correctness of the amount of cash received in respect of scrap sales.

(6) On reference to the attached outline of the system of approving invoices you will note that the clerical accuracy of invoices is verified both by the store-keeper's department and the accountant's department. This duplication of work would appear to be unnecessary, and it would be better to place the entire responsibility for the verification of invoices on the accountant.

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COST DEPARTMENT.

The Cost Department is in charge of Mr. J. W. Latraverse, who renders monthly statements to the accountant.

Requisitions for supplies issued by the store-keeper are received in the Cost Department and extended as to values. The requisitions are then copied into a day book, after which they are posted to the proper job number in the cost ledger.

The entering of these requisitions in the day book appears to involve an unnecessary amount of work, the only advantage apparently being that the total of the requisitions posted is shown. This information could, however, as readily be obtained by the use of an adding machine.

As already mentioned the Cost Department received daily reports from the foremen of the various departments showing the men engaged and the jobs to which their time is charged. Daily reports are also received in the Cost Department from the time-keeper's office showing the names of those who have been absent for a quarter of a day or more, and these reports are supposed to be checked against the foremen's reports and any discrepancies found investigated. The foremen's reports of the men's time are recapitulated daily by job numbers and at the end of the month the rates of wages are filled in and the amounts extended and posted to the cost ledger.

In order to test the accuracy of the work of the Cost Department we compared the material distribution slips and the foremen's labour reports for the month of February, 1912, and made a similar test for about ten days in February, 1911. So far as we can determine from these tests the work in the Cost Department is being fairly well carried out. At the present time it would seem that attention is being given to balancing the total amount of wages charged to job numbers with the total of the wages actually paid. Under present conditions an exact balance is, of course, not obtainable, but the differences do not as a rule exceed \$30 for a pay roll period.

The reports of time received from either the foremen or the time-keeper are not made out with sufficient care, as we have found numerous instances where men were reported to be engaged on work for a full day, while the time-keeper's records show that the man only worked a fraction of a day, while on the other hand men were reported by the foreman as only having worked a part of a day, while the time-keeper's report showed that they had been at work for the entire day.

The cost system as it now stands, theoretically affords a good check over the wages paid and materials and supplies used in the works, but unless accurate time reports are received from the foremen and physical inventories are periodically taken of the materials and supplies on hand, no actual security is afforded by the system. The cost records furnish complete information in regard to the cost of the various vessels constructed at Sorel. As, for example, the construction of a ten-yard Dipper dredge which is now in progress is divided up into sixty-two sub-accounts, so that the cost of the component parts of the vessel can readily be obtained. This information, however, does not appear to be used in any way, either for the purpose of preparing estimates for the construction of similar dredges or for investigation into the cost of any part which appears excessive.

No private ship building company could afford to start the construction of a vessel without first preparing an estimate as to the cost of the different parts and the total cost of construction, and it seems to us that if only from the point of view of efficiency of operation, a similar practice should be followed at Sorel.

During the course of our examination we have furnished various data as to the cost of vessels and materials manufactured by the yard to the investigators employed by you to report upon the physical conditions. We have not, therefore, considered it necessary in this report to go into any great detail on the question of costs, but should you desire further information in regard thereto, we shall be glad to obtain it for you. We would refer you to the appended comparative statement of construction and other expenditure for the five years ending March 31, 1911, which was prepared from the annual reports (Exhibit 4). This statement shows the total cost

of the vessels constructed in these years, but our examination of the records has not been of sufficiently exhaustive a character to enable us to say whether the costs shown therein are correctly stated.

In arriving at the cost of construction, no provision has been made for depreciation of the plant and equipment which we would consider necessary in order to arrive at the true cost of construction; further we would point out that no fire insurance is carried for the plant and no expenses incurred for liability insurance. All of these conditions would place the Sorel yard at some slight advantage in regard to the cost of construction as compared with private yards, provided the labour conditions and material cost were equal.

GENERAL ORGANIZATION.

We submit herewith a statement showing those employed in the administrative and clerical departments, with the salaries paid to each (Exhibit 5).

In view of the fact that our investigation has not included an examination of the books which relate to the Sorel yard, which are kept by the Marine and Fisheries Department, nor an inquiry into the methods of supervision which that department exercises over the operations of the shipyard, we are not at present in a position to make any recommendation as to the general plan of organization.

It would seem to us that the original plan of the accounting system contemplated that the Director would be responsible for the practical operation of the plant, while the chief accountant would be responsible for the correctness of the books and records and the reports forwarded to Ottawa. As matters now stand, however, the accountant has no real authority over the departments which are supposed to report to him. As, for example, the time-keeper's department takes entire charge of the preparation of pay rolls, and the accountant's signature is only affixed as a matter of form; and the cost and store departments, which should be directly under the supervision of the chief accountant, so far as records are concerned, carry out their work as entirely separate units.

Such a condition of affairs can hardly be expected to give good results, and we cannot too strongly urge the necessity of a re-arrangement of the duties of the clerical departments which would give the accountant direct authority over the work for which he should be responsible.

The principle upon which the general accounting system is based is that all accounts of receipts and disbursements are closed out at the end of the fiscal year without consideration being given to the balances of materials and other assets on hand. Stock records are kept by the store-keeper, which are intended to show the quantities of the different materials and supplies on hand and the value of these stores should be carried in an account on the general ledger and any accounts receivable due to the shipyard should be shown in the same way. A stores account is opened each year in the general ledger, which is charged with the purchases and credited with the issues as they are reported during the year, but at the end of the fiscal year the balance is closed to an account entitled 'Marine and Fisheries Department.' It is possible, of course, that the department carries forward such balances on its books, but even if this is so they should be carried in some way on the books at Sorel, as otherwise the accountant is not in a position to check up the records of the store-keepers and accounts receivable carried forward are apt to be overlooked.

As mentioned at the commencement of this report, our investigation has been of a preliminary nature only, with the object of reporting to you in a general way upon the conditions as they now exist at Sorel. It is possible that there may be several points upon which you may wish further information, and we shall be glad to extend our investigation into the past transactions as you consider necessary.

We have to acknowledge the courtesy and assistance afforded us by the officials and employees at the plant during the course of our investigation.

Respectfully submitted,

PRICE, WATERHOUSE & CO.

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EXHIBIT 1.

MEMORANDUM showing Number of Men allowed Full Day's Time whereas Time Cards show they were only entitled to Three Quarter's of a Day.

Date.	Card No.	Department.	Time as per card.
1911.			
Apr. 11	722	Yard	Left..... 3.11 p.m.
" 28	526	Electrician	Arrived... 2.24 "
Feb. 5	757	Yard	" 9.10 a.m.
" 12	850	Boilermaker	" 9.00 "
" 9	718	Yard	Left..... 3.00 p.m.
" 9	722	"	" 3.00 "
" 9	728	"	" 3.00 "
" 9	733	"	" 3.57 "
" 9	602	"	" 3.00 "
" 9	603	"	" 3.00 "
" 9	604	"	" 3.00 "
" 9	620	"	" 3.54 "
" 9	629	"	" 3.00 "
" 9	636	"	" 3.58 "
" 9	643	"	" 3.58 "
" 1	1188	Boiler shop	" 3.31 "
" 2	1188	"	" 3.29 "
" 3	1188	"	" 3.28 "
" 4	1188	"	" 3.29 "
" 6	1188	"	" 3.29 "
" 7	1188	"	" 4.20 "
" 8	1188	"	" 3.29 "
" 15	310	Paint shop	Arrived... 10.09 a.m.
" 15	315	"	" 10.06 "
" 9	633	Yard	Left..... 3.00 p.m.
1912.			
Feb. 28	719	Yard	Arrived... 9.18 a.m.
" 17	847	Machine shop	" 9.00 "
" 16	1187	Boiler shop	" 9.21 "
" 19	1470	"	" 8.00 "
" 21	1553	Pipe shop	" 9.24 "
" 19	719	Yard	Left..... 9.18 "
" 19	847	"	Arrived... 9.00 "

NOTE.--Work starts 7 a.m. Lunch hour 12 a.m. to 1 p.m. Closing hour 5 p.m. or 6 p.m.

EXHIBIT 1A.

MEMORANDUM showing the Time-Clock Cards not Punched and for which Time was Allowed.

Date.	Card No.	Department.	Date.	Card No.	Department.
1910.			1911.		
Nov. 14.	535	Electrical.	Apr. 27.	277	Paint Shop.
" 8.	526	"	" 25.	279	"
" 9.	77	Machine Shop.	" 26.	279	"
" 8.	72	"	" 24.	282	"
" 2.	71	"	" 25.	282	"
" 3.	71	"	" 23.	282	"
" 4.	71	"	" 27.	282	"
" 2.	38	"	" 24.	284	"
" 5.	38	"	" 25.	284	"
" 15.	21	"	" 26.	284	"
" 3.	255	Asbestos Shop.	" 27.	284	"
" 3.	403	Carpenter Shop.	" 24.	286	"
" 10.	616	Yard.	" 25.	286	"
" 10.	627	"	" 26.	286	"
" 2.	653	"	" 27.	286	"
" 3.	1004	Boiler Shop.	" 24.	290	"
" 4.	1531	Pipe Shop.	" 25.	290	"
" 3.	1549	"	" 26.	290	"
" 11.	1549	"	" 27.	290	"
" 11.	1562	"	" 28.	290	"
1911.			" 28.	293	"
Apr. 14.	69	Machine Shop.	" 27.	293	"
" 1.	94	"	" 25.	295	"
" 14.	112	"	" 26.	295	"
" 14.	141	"	" 27.	295	"
" 10.	277	Paint Shop.	" 29.	295	"
" 7.	482	Carpenter Shop.	" 25.	297	"
" 1.	504	"	" 26.	297	"
" 6.	504	"	" 27.	297	"
" 2.	505	"	" 25.	299	"
" 5.	505	"	" 26.	299	"
" 1.	506	"	" 27.	299	"
" 3.	506	"	" 27.	306	"
" 5.	506	"	" 17.	325	"
" 8.	507	"	" 25.	325	"
" 3.	508	"	" 26.	325	"
" 5.	508	"	" 27.	325	"
" 15.	527	Electrician.	" 19.	419	Carpenter Shop.
" 10.	538	"	" 26.	444	"
" 12.	606	Yard.	" 24.	744	Yard.
" 3.	635	"	" 25.	744	"
" 15.	665	"	" 26.	744	"
" 11.	836	"	" 27.	744	"
" 12.	836	"	" 17.	617	"
" 13.	836	"	" 17.	616	"
" 12.	890	"	" 22.	1502	Boiler Shop.
" 1.	895	Carpenter Shop.	" 21.	1527	Pipe Shop.
" 15.	1161	Boiler Shop.	" 27.	1561	Mould Loft.
" 15.	1162	"	" 27.	1077	Boiler Shop.
" 15.	1163	"	" 27.	1077	Carpenter Shop.
" 15.	1171	"	Feb. 7.	458	"
" 15.	1171	"	" 14.	492	"
" 15.	1176	"	" 15.	506	"
" 15.	1176	"	" 2.	528	Electrical.
" 15.	1187	"	" 14.	32	Machine Shop.
" 17.	21	Machine Shop.	" 1.	48	"
" 29.	28	"	" 10.	60	"
" 24.	277	Paint Shop.	" 15.	94	"
" 25.	277	"	" 12.	115	"
" 26.	277	"			

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EXHIBIT 1A—Continued.

MEMORANDUM showing the Time Clock Cards not punched and for which Time was Allowed—Continued.

Date.	Card No.	Department.	Date.	Card No.	Department.
1911.			1911.		
Feb. 8..	144	Machine Shop.	Feb. 6..	1130	Boiler Shop.
" 15..	603	Yard.	" 7..	1113	"
" 14..	639	"	" 14..	1103	"
" 1..	645	"	" 14..	1104	"
" 13..	667	"	" 8..	699	Yard.
" 1..	736	"	" 7..	703	"
" 7..	1413	Boiler Shop.	" 4..	705	"
" 7..	1431	"	" 11..	706	"
" 7..	1447	"	" 1..	845	Boiler Shop.
" 13..	1549	"	" 2..	845	"
" 10..	1558	Mould Loft.	" 3..	845	"
" 7..	1559	"	" 15..	603	Yard.
" 12..	1197	Boiler Shop.	" 2..	623	"
" 6..	1193	"	" 10..	138	Machine Shop.

Numerous other cards of same nature not listed.

EXHIBIT 3.**FURTHER DETAIL AS TO THE EXISTING ACCOUNTING SYSTEM.****Ordering of Goods.**

With the exception of small purchases which are made locally, materials and supplies are purchased by the Marine and Fisheries Department.

The requisitions for materials required are made out by the store-keeper in duplicate, the original being sent to the Director's office and the carbon retained in the store-keeper's files. It is claimed that before requisitions are made out the stock on hand of the article to be ordered is compared with the balance appearing in the stock ledger, but this practice does not appear to be carried out in any systematic manner.

The requisitions received by the Director from the store-keeper are typed in triplicate, the original being signed by the Director and forwarded to Ottawa. A copy is retained by the Director's office and a copy is sent to the store-keeper.

The Marine and Fisheries Department orders the goods and forwards a copy of the order to the Director. On its receipt the Director's office makes three copies of the order one of which is sent to the 'checker' (the employee who certifies as to the receipt of the goods) and one to the store-keeper.

Certification of Invoices and Receipt of Goods.

Four copies of purchase invoices are received which are first forwarded to the 'checker' for certification.

The 'checker' enters all goods in his goods received book as they are delivered, making notes as to their condition and whether they are to be returned. He retains the invoices until all the goods covered by the invoice have been received and stamps each invoice with a rubber stamp as follows:—'I certify that the above goods have been received in good order and are satisfactory.' The 'checker' retains one copy of each invoice for his files and passes the three remaining copies to the store-keeper. The store-keeper checks the prices shown on the invoices against the copies of the order received from Ottawa, and verifies the clerical accuracy of the extensions, after which he enters the quantities and prices in the store ledger.

Three copies of the invoices are sent from the store-keeper to the Director who approves and signs them.

After receiving the Director's approval the invoices are handed to the accounting department, where the extensions and footings are again checked. One copy of the invoice is retained in the accounting department and the two remaining copies are forwarded to Ottawa. Before the invoices are sent to Ottawa they are entered in a book, kept in ledger form, under the head of each firm or company from whom the goods are purchased, and when Ottawa sends advice as to the payment of the invoice they are marked off as paid in this book.

Reports to Ottawa.

A duplicate list of approved vouchers signed by the Director and accountant, together with duplicate copies of the approved invoices, is forwarded weekly to Ottawa for payment.

The duplicate list of invoices forwarded to Ottawa is later returned to Sorel, together with advice of payment of each invoice. Sometimes, however, the cheques are sent down to the Director for distribution.

On the return of the invoices the accountant's department writes up a voucher folder showing the distribution of the payments. The advices of payments are attached to these voucher folders, while the invoices themselves are separately filed. The voucher folders are numbered numerically and entered in the voucher record where the charges are distributed.

Local Purchases.

Purchases made locally are authorized by Mr. Papineau and the invoices are forwarded to Ottawa for approval. These local purchases are small.

Stores.

Stores are kept for the use of both the fleet and the shops and are in charge of Mr. H. C. Chamberland, who was recently appointed. He is assisted by twelve storemen and two clerks.

Goods are only issued from stores on requisition, which we understand require the signature of a foreman, captain or engineer of the fleet.

Store ledgers are now kept in quantities only, although formerly they were kept in both quantities and values. There are four large loose leaf ledgers containing about 6,000 accounts. The ledgers in use at present are somewhat cumbersome in design, but a new ledger has been approved by Ottawa and is to be installed when the inventory now being taken is completed. The ledgers are posted from the invoices and the requisitions for supplies. The prices are entered on the requisitions and they are sent to the Cost Department to be extended.

Fleet Pay Roll.

In January of each year a circular is sent out to the men employed in the previous year who have a good record.

The engagement of men is in charge of Mr. Blais, who assigns them to their positions on the boats.

While on the boats the time of the men is reported to Mr. Blais by the engineer on regular time sheet forms, the rule being that time sheets must be forwarded on the last day of the month.

The engineers reports of time are entered in time books which are kept in Mr. Blais' office, where the rates of pay are filled in and the amounts of the wages extended.

The pay lists are made up in triplicate from the time books and are certified to by Mr. Fornoret, superintendent of the fleet. The payment is made by the general paymaster and is witnessed by the captain of the boat or some other officer. Wages are paid in cash.

EXHIBIT 4.

COMPARATIVE STATEMENT of Construction Expenditures for the Five Years ending March 31, 1911, as shown by the Annual Statement.

SESSIONAL PAPER No. 57

SOREL SHIPYARD

	1907.	1908.	1909.	1910.	1911.	Total for Five Years.	Appropriations or Credits.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Operating dredging fleet.....	362,677 37	522,682 84	537,638 79	559,438 48	611,394 19	2,533,831 67	
Dredging Montreal harbour.....				45,681 94		45,681 94	
Construction for dredging fleet.....	23,114 55	34,406 57	47,691 03	28,620 68	58,269 68	192,102 51	
Improvements for Sorel shipyard.....	41,336 26	69,169 94	42,758 72	33,366 99	43,421 96	232,043 87	
Stores and materials.....	16,162 45	31,290 09	79,234 04	22,925 26	37,361 67	112,250 17	
	383,290 63	637,549 44	707,322 58	690,023 35	677,724 16	3,115,910 16	3,420,531 28
IMPROVEMENTS TO DREDGING PLANT.							
Dredge for Cap a La Roche.....	3,351 86	96,631 97	73,673 04	85,310 66	27,596 52	286,564 05	261,451 18
Elevator dredge.....			75 54	9,244 27	92,829 09	102,148 90	73,499 38
Stone lifter.....			10,797 93	34,506 29		45,304 22	45,304 22
Twin screw wooden tug.....			5,970 10	31,064 21	29,095 77	66,120 08	56,397 40
Coal barge.....				826 50	38,661 72	39,488 22	12,587 85
Steel dump scow.....				7 05		7 05	7 06
Dipper dredge.....			40,798 70	43,354 18	132,333 74	216,401 62	184,185 04
Seagoing hopper dredge.....	174,418 65	141,413 47				315,837 12	250,000 00
Rock breaker.....					27,397 26	27,397 26	27,397 26
Steel tug.....					2,081 97	2,081 97	482 83
	177,770 51	238,050 44	131,225 31	204,303 15	350,001 07	1,101,350 49	911,312 21
Improvement and repairs to other departments of Government.....	117,742 43	148,827 55	281,471 65	233,880 68	109,662 65	891,584 96	791,696 26
Salaries at Ottawa.....		6,431 98	9,856 44	3,925 00		19,213 42	
Miscellaneous sales—Refunds.....							4,519 28
	\$ 678,803 57	\$ 1,049,859 41	\$ 1,129,875 98	\$ 1,132,132 19	\$ 1,137,387 88	\$ 5,128,059 03	\$ 5,128,059 03

EXHIBIT 5.

STATEMENT of General and Administrative Salaries as at March 31, 1912.

GENERAL STAFF.

L. G. Papineau	Director	\$ 3,000 00	per annum.
H. A. Terrecault	Assistant director	2,100 00	" "
L. Lacouture	Accountant	1,800 00	" "
F. A. Cote	Chief electrician	1,700 00	" "

OFFICE STAFF.

A. Lussier	Time-keeper	\$ 1,200 00	per annum.
H. Emery	Assistant to director	1,200 00	" "
J. Pelquin	Director's typist	540 00	" "
O. Cardin	Assistant accountant	720 00	" "
P. Boucher	Assistant time-keeper	1 75	diem.
A. Desautels	Messenger	0 60	" "

COST DEPARTMENT.

J. U. Latraverse	Chief clerk	\$ 1,020 00	per annum.
H. Viergeau	Clerk	1,020 00	" "
J. E. Rajotte	"	720 00	" "
J. A. Prudhomme	"	540 00	" "
J. Lanciault	"	480 00	" "
H. Champelsine	"	480 00	" "

STORES.

H. Chamberland	Store-keeper	\$ 1,020 00	per annum.
R. Mayer	Receiving clerk	960 00	" "
C. A. Pelletier	Clerk	960 00	" "
T. Boudereau	"	660 00	" "
L. E. Foy	"	660 00	" "
D. Plamondon	"	396 00	" "
P. Vandal	"	2 15	per diem.
A. Paulhus	"	1 60	" "
A. Parenteau	"	1 60	" "
R. Forcier	"	1 40	" "
R. Lavallee	"	1 40	" "
L. Pelquin	"	1 40	" "

DRAUGHTSMEN.

J. P. Hereux	Chief draughtsman	\$ 1,500 00	per annum.
Assisted by ten draughtsmen whose salaries range from \$80 to \$115 per month.			

SUB-REPORT RE SOREL SHIP YARD—No. 3.

BY MESSRS. PRICE, WATERHOUSE & CO.

MONTREAL, May 28, 1912.

Public Service Commission, Ottawa.

GENTLEMEN,—We herewith submit the following report covering some further work done in connection with our investigation of the accounts of the shipyard:—

ACTS OF PARLIAMENT AND ORDERS IN COUNCIL RELATING TO CONSTITUTION OF SHIPYARD.

We have obtained the following information from the files of the Marine and Fisheries Department regarding the transfer of the control of the plant from the Departments of Public Works and of Railways and Canals:—

(a) Act 3 Edward VII, Chap. 53, October 24, 1903. (Exhibit 1). This Act gives the Governor in Council power to transfer the management of any public work, &c., from one department to another.

(b) Act 55-56 Victoria, Chap. 17, April 12, 1892. (Exhibit 2). This Act creates the Department of Marine and Fisheries.

(c) Abstract from Report of the Committee of the Honourable the Privy Council approved March 11, 1904. (Exhibit 3). This recommends the transfer of the control of the Shipyard and St. Lawrence Ship Channel operations to the Department of Marine and Fisheries.

(d) Orders in Council dated May 13, 1910. (Exhibit 4). The Order relates to the appointment of the present Director.

REAL ESTATE.

We have made further enquiry regarding the ownership of the property in which the yard is located. We have been unable to obtain definite information either as regards the ownership of the real estate or the leases; neither the deeds nor leases appear to be on file at the Marine and Fisheries Department.

From a perusal of the correspondence on file (No. 25821) it would appear that the ownership of part of the real estate is in doubt. It is important that definite information be obtained on this subject more particularly if further sums are to be invested in permanent structures at the yard.

With regard to rents paid it would appear that in addition to the \$1,200 paid to the McCarthy Estate for the rent of a portion of the yard proper, a sum of \$700 is paid annually for the use of a wharf on the opposite side of the river which is used for coaling purposes. It would appear that the purchase of this property has been recommended by the Director (letters September 1, 1909, and March 6, 1912, from Mr. Papineau). The correspondence indicates that the wharf requires a considerable amount of repair. It appears that this wharf was rented by the Director and not the Department.

RELATIONSHIP TO THE ACCOUNTING DIVISION OF THE MARINE AND FISHERIES DEPARTMENT.

So far as we can ascertain no responsibility is taken by the Accountant of the Marine and Fisheries Department in Ottawa for the costs of the operations at the yard nor for the accounting methods in force. A statement of the actual cash disbursed last year, made by the Auditor General and the Accountant in Ottawa, shows that all charges were taken up by Sorel, but no values representing the investment in inventories or plant appear to be carried on the books in Ottawa.

PURCHASING METHODS.

The Purchasing Agent in Ottawa states that he makes his purchases under Act 55-56, Chap. 17, sec. 3.

Tenders are advertised for material and supplies except in case of pressing emergency orders in which delay would be injurious, or where, from the nature of the work, the orders can be more expeditiously and economically executed by the officers of the Department.

The Act referred to above does not specify inspection requirements and we are informed that the inspection of the material supplied to the yard is carried out under the direction of the Director. It is stated that usually before a purchase is made a report of quantities on hand and a full statement of requirements are called for by Ottawa.

We have not made any examination of the tenders and requisitions in Ottawa.

INVENTORY.

On the 2nd instant we attended at Sorel with a view to assisting in the completion of the inventory. The inventory which was completed on the 14th instant may be summarized as follows:—

SESSIONAL PAPER No. 57-

General stores..	\$ 44,175 31
Valve store..	14,440 90
Metal store..	2,008 78
Shed No. 7, miscellaneous material..	9,176 78
“ 11, bolts, nuts, rivets, nails, &c..	5,205 40
“ 12, rivets..	7,693 40
“ 13, manilla rope, fleet furniture and oil..	3,316 74
“ 15, lead pipes and sheet lead..	819 09
“ 22, iron and steel castings..	14,984 18
Iron pipe..	4,054 77
Bar iron, machine steel and cast steel..	23,214 74
Pneumatic tools..	8,331 28
Electrical supplies..	6,621 21
Brass and copper castings..	10,873 47
Iron, steel and manganese castings..	43,268 74
Tool steel..	753 16
Structural steel..	21,890 00
Scrap..	2,421 11
Coal..	3,491 53
Logs..	6,506 50
Logs..	11,549 19
Sawn lumber..	47,902 97
Steel shafts and tubes (shed No. 22)..	3,520 15
Chains (shed No. 22)..	3,138 98
Broken stone and sand..	869 26
Asbestos..	1,802 44
Cement..	565 81
Electrical supplies..	39 00
	<hr/>
	\$303,132 82

Owing to the adverse conditions under which the inventory was taken no great reliance can be placed on the figures herewith submitted.

The taking of the inventory was left to Mr. Chamberland who has only occupied the position of Storekeeper since January 22nd last and he was assisted by several of the staff who had little experience in the inventory taking.

The inventory was taken at varying dates between the 14th of March and the 11th of May and only in a few cases was it possible to adjust the quantities as taken to those which were on hand at the end of the fiscal year, March 31, 1912. This was largely due to the fact that the stock ledgers were found to be incomplete, badly arranged and in a most unsatisfactory condition generally. As has already been pointed out only a few of the stock ledger accounts were footed and little attention appears to have been given in the past to the important matter of making regular comparison between the balances of quantities on hand as shown by the ledger and the actual quantities of goods in the bins.

Our representative made an attempt to check the supplies as stated in the ledgers with the supplies as shown in the inventory. Owing, however, to the condition of the ledgers and the lack of arrangement in keeping the account it was found impossible to make even a comparison by commodities. The check which was made however sufficed to show that there was a number of articles carried on the stock ledgers which could not be traced in the inventory; this is no doubt largely due to requisitions having been mislaid and consequently not credited, or articles having been removed without report to the office.

We attempted to prepare a statement showing comparison between a year's issues and the amount of stock on hand. It was found, however, that such comparison would take a long time; but from the work done it is clear that in some cases there are sufficient goods on hand to meet the requirements of several years.

It is claimed that the large quantity of material carried is due to the fact that purchases made some years ago have not been utilized in recent construction work.

With regard to the valuation which is placed on the inventory, it is claimed that it is the invoice cost of the goods delivered at the works, and that it is not practicable at the present time to make an adjustment to bring the inventory to current market values.

With regard to the matter of obsolete and dead stock, the Director informs us that in some cases proper provision has been made, but there can be little doubt that considerable adjustment will be necessary to bring some of the articles to their actual present worth from an operating standpoint.

Whilst the inventory cannot be accepted as a correct valuation of the stores and supplies on hand on the 31st of March, 1912, nevertheless it should serve as a guide to the management and assist in determining whether or not the quantities of any particular class of goods carried are too large.

We would direct your attention to the importance of having a physical inventory taken at least once a year, of both supplies and work in process of construction. It is also of the utmost importance that the stock books be rearranged and subdivided according to the various classes of supplies. In this connection it will be necessary to engage the services of at least one store clerk whose duties should be to agree certain numbers of the quantities as shown by the ledger with the quantities actually on hand each day, so that in the course of a few months the balances as shown by the stock book will have been revised in accordance with the actual conditions. If such a plan were properly carried out the matter of taking a physical inventory at any given date should not prove a difficult task as is now the case.

It would appear to us that statements of manufacturing and cost generally should be rendered to the Accountant in Ottawa monthly, together with a report of the value of materials and supplies on hand and a comparative statement of direct and indirect labour.

The annual statements of account as issued are in a confused form and should be revised.

ORGANIZATION.

It would seem desirable that the management of the yard should be in closer relationship with the Department of Marine and Fisheries, and that it should not be left largely in the hands of the Director as it appears to be at present. It would also appear to us desirable to establish a closer sense of relationship and sense of interdependency between the various local officials. In this connection we would recommend that the Director or Superintendent be made directly responsible to the operating officials of the Marine and Fisheries Department, and that the Accountant at Sorel be directly responsible to the Chief Accountant of the Marine and Fisheries Department.

We would also suggest for your consideration the advisability of establishing a local board of control or management which should meet at least once a week and discuss estimates and current requirements in matters of management in general. Copies of the minutes of the meetings should be forwarded to the Department of Marine and Fisheries so that the Department may at all times keep in close touch with local conditions. This committee or board should be composed of the Superintendent, Assistant Superintendent, Accountant and the Storekeeper, and the Dredging Superintendent might also be included.

SESSIONAL PAPER No. 57;

The statements of cost should be so arranged that they would show clearly the true cost of construction or maintenance, so, if thought desirable tenders could be called for from outside firms and comparisons as to the yard cost and outside cost made.

A study of existing conditions and methods makes it clear that adherence to precedent and lack of individual incentive has brought about conditions such as no private business concern or corporation could follow without a certainty of loss if not financial disaster.

We append hereto various Exhibits dealing with the Acts of Parliament and Orders in Privy Council referred to in this report, and shall be glad to furnish you with any further information desired.

Respectfully submitted,

PRICE, WATERHOUSE & CO.

EXHIBIT No. 1.

EDWARD VII, CHAP. 53.

AN ACT RESPECTING THE MANAGEMENT AND CONTROL OF PUBLIC AND OTHER WORKS.

OCTOBER 24, 1903.

His Majesty by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

(1) The Governor in Council may at any time transfer the management, charge and direction of any public work, or any power, duty or function with respect to any work or class of work, whether public or private, which is assigned to, or vested by Statute in any Minister or Department, to any other Minister or Department; and from the date appointed for the purpose by the Governor in Council such power, duty or function shall be transferred to and vested in such other Minister or Department; and the provisions of the Public Works Act, so far as they are applicable, shall apply to any work or property the maintenance, repair, control or management of which is transferred under the Act.

EXHIBIT No. 2.

55-56 VICTORIA, CHAP. 17.

AN ACT RESPECTING THE DEPARTMENT OF MARINE AND FISHERIES.

Assented to 12th April, 1892.

(1) Department to be called 'Department of Marine and Fisheries,' Minister to have the management and direction of said Department.

(2) The Governor in Council may appoint an officer who shall be called the Deputy Minister of Marine and Fisheries and who shall be the deputy head of the Department of Marine and Fisheries, and the Governor in Council may also appoint

such other officers as are necessary for the proper conduct of the business of the said Department, all of whom shall hold office during pleasure.

(3) The Minister shall invite tenders by public advertisement for the execution of all works except in cases of pressing emergency in which delay would be injurious to the public interest or where, from the nature of the work it can be more expeditiously and economically executed by the officers and servants of the Department, and the said Minister shall also in like manner invite tenders for all contracts for supplies.

EXHIBIT No. 3.

EXTRACT FROM A REPORT OF THE COMMITTEE OF THE HONOURABLE THE PRIVY COUNCIL
APPROVED BY THE GOVERNOR GENERAL ON THE 11TH MARCH, 1904.

On a report dated 7th February, 1904, from the Right Honourable the President of the Privy Council, submitting that an Act passed at the last session of Parliament, respecting the management and control of Public and other works (3 Edward VII, Chap. 53) provides for the transfer by the Governor in Council of the management, charge and direction of any public works, or any power, duty or function with respect to any work or class of works, whether public or private, which is assigned to or vested by Statute in any Minister or Department, to any other Minister or Department.

The Minister recommends as follows:—

(1) With a view to systematizing and facilitating the work in connection with Hydrographic Surveys, the administration of which branch of the public service is assigned to the Department of Marine and Fisheries under the provisions of 55-56 Vic., Chap. 17, and the work whereof has been continuously performed by that Department for many years past, that all the Hydrographic work of the Department of Public Works and of Railways and Canals be transferred to the Department of Marine and Fisheries.

The Honourable the Minister of Marine and Fisheries and that Department alone be charged in future with the management and control of such surveys.

(2) That from and after the first of July next (1904) the management and control of the St. Lawrence Ship Channel together with the dredging and sweeping plant steamers and all other appliances now used by the Department of Public Works in connection with that work be transferred to the Department of Marine and Fisheries so as to place the supervision of the improvements to navigation on the St. Lawrence route under the jurisdiction of the Department which is directly responsible for the aids to navigation on that route.

(3) That all the duties, powers and functions with respect to any work or class of work conferred upon the Minister of Public Works by any of the Acts relating to Harbour Commissioners be transferred to and hereafter exercised by the Minister of Marine and Fisheries.

(4) That any records and plans in the possession of the Department of Public Works or of Railways and Canals which refer to any of the above mentioned works and which may be required by the Department of Marine and Fisheries for its information and guidance upon assuming control of the said works be transferred to the last named Department upon its making application.

SESSIONAL PAPER No. 57.

(5) That all moneys voted by Parliament to either the Department of Public Works or that of Railways and Canals for the purpose of carrying out any of the works under the control of either Department and now transferred to the Department of Marine and Fisheries be placed to the credit of the last named Department.

(6) That the changes as recommended above take effect from this date except as hereinabove otherwise provided.

The Committee submit the same for approval.

J. J. MCGEE,

Clerk of the Privy Council.

EXHIBIT No. 4.

CERTIFIED EXTRACT FROM THE MINUTES OF A MEETING OF THE TREASURY BOARD HELD ON THE 7TH MAY, 1910, APPROVED BY HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL ON THE 13TH MAY, 1910.

Marine and Fisheries.

The Board recommend that Mr. L. G. Papineau be appointed Director of the Government Shipyards at Sorel, to fill the vacancy caused by the transfer of Mr. G. J. Desbarats, with salary at the rate of \$3,000 per annum from the 1st of April, 1910, payable out of the Parliamentary Appropriation 'River St. Lawrence Ship Channel.'

F. K. BENNETTS,

Asst. Clerk of the Privy Council.

SUB-REPORT

RE

MONTREAL HARBOUR COMMISSIONERS

MARINE AND FISHERIES DEPARTMENT

REPORT TO PUBLIC SERVICE COMMISSION BY MESSRS. PRICE,
WATERHOUSE & CO.

MONTREAL, April 29, 1912.

To the Public Service Commission, Ottawa:

GENTLEMEN,—On February 16th last, we had the honour to receive instructions from your Commission to investigate the transactions of the Harbour Commissioners of Montreal. Our investigation has been conducted along the lines indicated by your verbal instructions and correspondence, the object and scope of which may be summarized as follows:—

To audit the transactions of the Harbour Commissioners for the five years ending December 31, 1911, and report thereon.

To prepare such statements of account and statistics as would place before your Commission the nature and volume of the business.

To enquire into the business methods in the several departments for the purpose of suggesting improvements which would result in greater efficiency and economy in operation; and to submit a report dealing with the administrative problem: before the Commissioners, the organization and equipment provided for carrying out the work of the Commissioners and the methods and procedure employed by those in charge thereof.

INTRODUCTORY.

The Harbour Commission of Montreal is a corporate body constituted by Act of Parliament. The Commissioners are appointed by the Governor in Council upon the recommendation of the Minister of Marine and Fisheries. The powers and duties of the Commissioners are set forth in the Montreal Harbour Commissioners Act, 1894 (57-58 Victoria, Chap. 48, and Edward VII., Chap. 33). They receive remuneration for their services out of the revenue of the harbour, as the Governor in Council determines. The following are the names of the present Commissioners, who have held office during the past five years: Major George W. Stephens, President, and Messrs. L. E. Geoffrion and C. C. Ballantyne.

The Corporation has jurisdiction within the limits of the Port of Montreal, which, as defined by the Act, extend along the river front on both banks for about seventeen miles, but do not include the St. Lawrence Ship Channel which is under the direct control of the Department of Marine and Fisheries. The Commissioners in their capacity as trustees for the Government, hold the harbour lands and areas which consist of about 260 acres of frontage and 12,000 acres of river area.

Under Section 18 of the Harbour Commissioners Act, the Corporation appoints the Harbour Master and such other officers as it deems necessary, and allows them such compensation or salaries as the Commissioners determine from time to time. The Harbour Master, Deputy Harbour Master, and the Secretary, are the only officers referred to specifically in the Act.

The Harbour Commissioners have power to make by-laws regarding the shipping and traffic rates, which must be confirmed by the Governor in Council and be published in the *Canada Gazette* before they become effective.

The revenue of the port is derived from wharfages on freight inwards and outwards and from rentals of pier sheds and other harbour facilities.

The Commissioners are required to submit an account annually to the Governor

in Council, through the Department of Marine and Fisheries, in such manner and form as he sees fit to direct, the Act requiring the charges against revenue to be made in the following order:—

- (a) Expense incurred in the collection of revenue.
- (b) Expense attendant on keeping the harbour clean and on keeping the wharves and other works in a state of thorough repair.
- (c) Payment of interest due on money borrowed.
- (d) The repayment of the principal of such sums.

AUDIT OF PAST TRANSACTIONS.

Before dealing with our examination of the cash transactions, pay rolls, and the purchase and distribution of materials, supplies, &c., it may perhaps assist to a clearer understanding of the business and methods of the Commission if we first give some brief description of the receipts and disbursements entering into the accounts of the past five years.

We would refer you to the summarized statement of Revenue and Expenditures by years (Exhibits 2, 3 and 4), which are supported by various subsidiary exhibits of the income and expenditures of the different departments. The following is a summary of the total transactions for the five years under examination:

Gross revenue—		
Wharfage Dues, Rentals of spaces, etc.....		\$2,084,837 15
Elevators, Harbour Railway, Steel Sheds, etc.....		1,578,411 70
		\$3,437,678 85
Deduct—		
Expenses of Operating and Maintenance.....	\$1,054,799 67	
Administrative and other expenses.....	311,194 00	
Adjustment of book inventories, the greater proportion of this loss being apparently chargeable against operations prior to year 1907.....	55,296 34	
		\$1,421,290 01
Net operating Revenue.....		\$2,016,383 84

The interest charges during the same period have amounted to \$2,086,172.95, from which must be deducted the interest on the cost of improvements, etc., during the period of construction which has been charged to capital account, leaving a net interest charge of \$1,675,771.75.

In considering the interest charges, we would mention that a proportion of that charged to the cost of construction, amounting to approximately \$145,000, should properly be credited to the operations of the period prior to the investigation. On the other hand, however, it would appear that the Commissioners are entitled to a further credit on account of interest on construction now in progress, the amount of which cannot be determined at present. On reference to the statement of revenue which we submit (Exhibit 3) you will note that in the year 1909 an amount of \$228,000 was charged to the cost of steel sheds and credited to revenue as representing interest during the period of construction of the sheds. It would appear that this amount includes a charge of \$55,401.20 already made in the year 1907, and the surplus shown should accordingly be reduced by this amount.

It has not been the practice of the Commissioners to provide for accruing depreciation and renewals or to charge revenue with any sinking fund provision for the repayment of outstanding indebtedness. It will be evident, therefore, that the surplus account is subject to considerable adjustment in this respect.

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The gross revenue for the year 1911 shows an increase of 86.5 per cent, as compared with that of the year 1907, the greater portion of this being due to the additional revenues received from elevators, harbour sheds, &c.

REVENUE.

Wharfage Dues.

These may be classified as transatlantic and maritime tonnage dues which are collected by the Customs Department, and those derived from local shipments which are collected by the Paymaster.

Particulars of the tariffs of wharfage rates will be found in a printed circular issued by the Commissioners, the Commissioners being empowered, subject to the approval of the Governor in Council, to fix and revise the tariff on the various commodities from time to time as they see fit. (57-58 Victoria, Chapter 48, Section 28).

The dues in connection with the transatlantic and maritime wharfages are collected by the Customs Department in accordance with Section 33 of the Act above referred to.

The Commissioners employ two inspectors of wharfages who have office accommodation at the Customs Department whose duties are to check the inwards declaration tickets with the bills of lading and in the case of outward wharfages with the ship's manifest and to assess the dues payable.

The Customs Department make payment of wharfages by cheque to the Secretary-Treasurer on the 15th and 30th of each month, the amounts being verified by comparison with the independent register kept by the wharfage inspectors. We submit (Exhibit 26) a statement of tonnage, inwards and outwards, classified according to tariff rates and showing the tonnage on which dues have been collected during the past five years. The maritime and transatlantic dues show an increase of 8.3 per cent in the five years, while the revenue on the tonnage, shows an increase of 11.3 per cent during the same period. The checks surrounding the collection of revenue by the Customs Department appear to be good in that the Customs Department make all collections, the wharfage rates being determined by the clerks of the Harbour Commissioners. We would suggest, however, that the wharfage tickets should be forwarded to the accounting department for audit.

The Customs Department does not receive any remuneration for the work done for the Commissioners, but gratuities have been given to the various employees connected with these collections of revenue each year at Christmas time.

Local wharfage dues are collected by the paymaster who also acts as wharfinger. A comparative statement of the revenues collected will be found in Exhibit 11, the number of local vessels and tonnage and particulars as to this revenue by commodities being also set forth in this and the four following exhibits.

Dues are charged on some of the materials used by the Commissioners in construction and other work. In order that better statistical information may be obtainable, we would suggest that dues on material for the use of the Harbour Commissioners should be kept in a separate account.

Rental of Spaces, Lands, Sheds, &c.

Collections on this account are made by the Secretary-Treasurer's Department, bills being made out as the accounts fall due, but no entry is made in the accounting books until the accounts are paid when the cash is credited direct to the revenue account. A rough memorandum book is kept in which are recorded particulars of some of the bills which are sent out, the bills being made in duplicate. This system is unsatisfactory, as there is little means of maintaining any real check on the collections. Records should be kept containing full particulars of the rentals of

spaces, sheds, &c., and as these rentals fall due they should be charged in a register provided with columns for the various classes of revenue, the total of which should be credited monthly to the revenue accounts.

This remark will also apply to all revenue derived from other sources, such as elevators, cranes, traffic department, &c.

EXPENDITURES.

Repairs and Maintenance.

It will be seen that there has been very little variation in these expenditures during the years under examination. It would not be unreasonable to expect that the repairs would show a tendency to increase in proportion to the revenue, and it is possible that there may be accruing repairs for which provision should have been made against the revenue of the past few years.

Operating.

These expenses represent the direct charges against the revenues of the various departments and consist principally of labour and supplies.

Miscellaneous.

We have grouped under this heading certain miscellaneous charges.

Administrative and Collection.

It will be seen that the total charged to this account shows little variation during the period.

The charges under the heading 'Harbour Expenses' were considerably higher in the first two years, which was mainly due to expenses incurred by the officials in visiting several of the principal ports with a view to recommending improvements at Montreal.

In connection with 'Harbour Expenses' we have made a detailed analysis and generally speaking this account is made up of petty items and also entertaining expenses which have averaged about \$1,300 per annum. It also includes the cost of painting and renovating the harbour offices, amounting to \$2,352.00.

Interest Charges.

We have shown interest paid on debentures separately from interest on bank overdrafts. Interest on bank overdrafts has averaged about \$4,600 per annum.

PURCHASING METHODS.

Generally speaking estimates of material required for construction or maintenance work are approved by the Commissioners and the materials are called for by requisitions of the various departmental superintendents.

These requirements are met either by advertised tender and contract or in the case of the smaller commodities by the Purchasing Agent as described later.

We submit herewith a comparative statement by years showing the values of the principal commodities purchased (Exhibit 17). This statement is necessarily condensed as it is impracticable to give any elaborate analysis.

With regard to the purchases for the construction of Elevator No. 2, which is at present in course of erection, the contractors, Messrs. J. S. Metcalf & Co., make out specifications of the requirements, and requisition the Engineer for the necessary supplies. In the case of the more important purchases calls for tenders are made by

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the contractors. These tenders are received by the Secretary-Treasurer and submitted to the Commissioners and they are then forwarded to the contractors, who report back to the Commissioners with their recommendation as to which should be accepted.

Purchases by Tender.

The system of purchasing by tender, except in the case of Elevator No. 2, is briefly as follows:—estimates of quantities of supplies required are submitted to the Commissioners who instruct the Secretary-Treasurer to advertise in the principal local papers, and the Chief Engineer furnishes inquirers with specification forms. The tenders are addressed to the Secretary-Treasurer in closed envelopes and are opened in the presence of the Commissioners on a stated day. Usually in the case of supplies the tenders are handed to the Engineering Department for tabulation after which they are returned to the Commissioners, through the Secretary-Treasurer, and the accepted tender is initialed on the tabulated statement by one of the Commissioners and the award entered in the minute book. The contracts are prepared by the Secretary-Treasurer for signature. Advertised tenders are not dealt with in any way by the Purchasing Agent.

It is required that tenders be accompanied by a certified cheque for not less than 5 per cent of the amount of the tender and in the case of the accepted tender, this is retained until the contract is completed. Usually an additional amount of 5 per cent of the total amount of the contract is also retained by the Chief Engineer from the first estimate until the satisfactory completion of the contract.

We have prepared, and submit herewith (Exhibit 27), a statement setting forth the names of the parties tendering, quantities called for and prices quoted for the principal commodities during the five years, this statement also showing the names of the firms to whom the contracts in connection with these purchases were awarded.

Generally speaking it was found that when the tenders complied with the specification as prepared by the Engineering Department the lowest tender was accepted.

The system of receiving tenders appears to be regularly carried out by the Commissioners. We would suggest, however, that the tenders after being tabulated, be attached to the tabulation together with the correspondence relating thereto and systematically filed according to commodities. It is customary in the case of large corporations to keep a contract register for the purpose of recording the necessary particulars; at present records of deliveries under the contracts are kept in the Engineering Department on loose sheets which is unsatisfactory.

Purchases by Purchasing Agent.

All purchases in small quantities are made by the Purchasing Agent. These purchases represent—

(1) Purchases made direct by the Purchasing Agent according to catalogue prices or telephone communication.

(2) Purchases for which tenders are asked by letter, signed by the Purchasing Agent.

These tenders are submitted to the Commissioners with the original requisition for the goods, and they initial the tender which is to be accepted. It would appear that it is the practice to accept the lowest tender.

The Purchasing Agent accepts responsibility as to the prices on the invoices and the various storekeepers certify as to the receipt of the goods. Certification as to the correctness of prices and receipt of goods is made by the initials of the employees responsible. It would be preferable to affix certifications by means of rubber stamps containing spaces for signatures.

Testing of Material.

It is the policy of the Commissioners to have the principal purchases passed upon as to quality by outside inspectors, with the exception of timber which is inspected by the Mill Superintendent. In the past five years the contract has been given to the Canadian Inspection Company which tests the material upon the requisition of the Chief Engineer or in the case of Elevator No. 2 of Messrs. J. S. Metcalf & Co.

The following information in regard to the methods of testing has been furnished to us:—

In the case of structural material inspected at the mills, the Inspection Company forward periodical reports of tests, giving details of that accepted as well as that rejected.

In the case of testing cement, the Inspection Company takes samples of cement at the mill, which are submitted to the usual tests as to fineness, specific gravity, breaking, &c.

Sand is occasionally tested for coarseness of grain and impurities. Samples are taken from the barge by the Inspection Company and prompt report made so that the sand may be rejected if found unsuitable.

The inspection of castings is made at the foundry by the Inspection Company and chemical tests are made occasionally.

When considered necessary tests are asked for on certain manufactured goods. Samples are sent out with identifying numbers and all evidence of the origin of the package is carefully removed so that the Inspection Company can have no knowledge of the maker's name.

So far as we could ascertain all timber is passed upon as to quality and accepted by Mr. W. R. Lunan, Superintendent of the saw mill, who is under the Chief Engineer. Owing to the fact that timber is purchased in very large quantities it might be considered more desirable to obtain independent opinion as to the quality, as is done in the case of other purchases.

APPROVAL AND DISTRIBUTION OF VOUCHERS.

Invoices and accounts are received partly by the Secretary-Treasurer and partly by the Purchasing Agent. All invoices are handed to the Purchasing Agent for examination unless they relate to contracts, when they are handed to the Engineer's Department.

The Purchasing Agent checks the invoices against the requisitions and reports of receiving clerks, compares the prices and makes a necessary deduction for discount. He returns the invoice to the department in which the purchase originated, i.e., the Engineer's Department, Traffic Department or Secretary-Treasurer's Department, with a note as to the terms of payment. The heads of the departments certify the correctness of the invoices after which they are sent to the Secretary-Treasurer for payment.

The Engineering Department keeps records in which are entered all invoices passed by that department for payment, and which contain detailed information as to the distribution of the material and the cost of the different work carried out.

The Traffic Department keeps a memorandum record of the principal purchases originating in that department and rough data as to cost.

All invoices received by the Secretary-Treasurer's Department for payment are recorded in a special register as well as being entered in the cash book. Cheques are sent out with the invoice, in some cases a written receipt being attached to the account for signature by the payee. The accounts on being returned after payment are numbered consecutively according to the cash book order and filed, and an index in alphabetical order by years is kept.

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At stated periods the accounts paid or to be paid are initialed by one of the Commissioners. The practice is to make payments both by cash and by cheque.

At the present time all petty payments pass through the general cash book which appears to be unnecessary. We would recommend that the Treasurer or Cashier should have a Working Fund which would be reimbursed from time to time, as required, by cheque drawn from the general cash. All payments entered in the general cash book should be made by cheque. A Working Fund should also be kept by the Paymaster.

Cash discounts obtained are deducted on the face of the invoice, and the net amount entered in the cash book. It would be preferable to show on the face of the cash book the deduction for discount.

When the Commissioners purchase goods which are to be delivered f.o.b. Montreal they sometimes pay freight for the consignors. These payments should be deducted from the consignor's account before settlement, but under the present system it is difficult to obtain conclusive proof that this has been done. Generally speaking the necessary deductions appear to have been made, but there have been several small payments on account of freights which were apparently recoverable, and the refund of which we have been unable to trace. We would suggest that all payments of this character be debited to a clearance account which would be credited as the deductions were made.

At the present time the distribution of expenditures is partly made in the Secretary-Treasurer's Department through the cash book and partly in the Engineer's Department. We would suggest that a voucher record or purchase journal be kept which would facilitate the distribution of expenditures and would record them as they are incurred and not as when paid, as is now the case.

EXAMINATION OF CASH TRANSACTIONS.

We have examined the cash books of the Corporation for the five years ending December 31, 1911, both in regard to revenue and disbursements. We traced all bank deposits as shown by the cash book into the bank pass book and reconciled the balance thereon at December 31, 1911, with the bank balance carried on the ledger.

As already noted herein the records in regard to the collection of revenue, such as local wharfage dues, rents, &c., are incomplete, and while nothing has come to our notice during our examination which would raise doubt as to the correctness of the entries for these receipts, we have been unable to make any satisfactory verification of them. We would also mention here that all cash received is not deposited in the bank intact as is usually the practice in large corporations.

The cash payments for the five years were compared with the vouchers on file, and with the exception of about twenty payments for the year 1907 (for which cancelled endorsed cheques were produced) and a few small items in other years, the payments in the cash book have been fully vouched. In addition to examining the vouchers we examined the paid cheques for the same period, and compared them with the cash book. With a few unimportant exceptions all cheques were produced for our inspection.

Pay Lists.

The pay lists for the five years ending December 31, 1911, were compared with the cash book and were also examined as to certification. Labour pay lists are certified by the Chief Engineer and signed by the Engineering Department Accountant; the administrative staff pay lists are certified by the Secretary-Treasurer and those of the Traffic Department are certified by the Superintendent and signed by the Traffic Department's chief clerk. The general labour pay lists bear the certificates of the Paymaster and a witness (usually the Assistant Paymaster) as to payment, while the pay rolls of the permanent staff are signed by the individuals themselves. The pay

lists in connection with the construction of Elevator No. 2 bear, in addition, the certificate of Messrs. J. S. Metcalf & Co. All pay lists are approved by the Commissioners.

The clerical accuracy of the general labour and administrative pay lists for the year 1907, and for the months of October, November and December, 1908, were verified and the salary increases of the permanent staff during the five years were, with one or two minor exceptions, found to have been properly authorized by the minutes of the Commissioners.

In examining the pay lists it was noticed that those in connection with the new harbour office building, amounting to some \$18,000, had not passed through the Engineering and Paymaster's Departments. In most cases these lists were certified by the Secretary-Treasurer and all bore the approval of the Commissioners, but in a few cases the Commissioners' initial was the only authorization for payment. The contract for the erection of this office building was let to one Charles Thackeray, who assigned in favour of his creditors before starting the work. The Commissioners purchased his plant for \$3,000, and carried on the work with Thackeray as their foreman at a salary of \$150 per month. We direct your attention to these pay rolls as they do not conform to the system of internal check devised for the regular pay rolls, and we would also suggest that you carefully scrutinize the signatures as in several cases there is quite a similarity in the handwriting.

The system in force for the payment of pay rolls appears to be satisfactory if properly carried out, but we would call your attention to the two following defects:—

(a) That the Paymaster certifies that all the persons enumerated on the roll have been paid, but this does not appear to be strictly in accordance with fact, as there are usually some envelopes uncalled for at the time of certification.

(b) That the duties of the Paymaster comprise the collection of local wharfage dues in addition to the payment of wages. It would appear that moneys received for wharfage are at times used to pay wages of employees leaving before the regular date of payment, and apart altogether from this feature, it is undesirable for any employee other than the cashier to be responsible for both the receipt and disbursement of money.

We submit (Exhibit 18) a summarized comparative statement of the wages during the five years ending December 31, 1911, and a comparative statement of rates paid (Exhibit 19); also a schedule of salaries of permanent staff (Exhibit 20).

GENERAL REVIEW OF ASSETS AND LIABILITIES.

We submit a balance sheet (Exhibit 1) setting forth the assets and liabilities of the corporation, as shown by the books at December 31, 1911.

Up to the time of preparation of this report the books had not been finally closed by the Commissioners and the statements submitted herewith for the year 1911 may not, therefore, be in exact agreement with those to be submitted by the Secretary-Treasurer.

CONSTRUCTION AND IMPROVEMENTS OF HARBOUR WORKS.

We may refer here briefly to the methods by which the capital expenditures are financed. A definite plan of construction and improvement is adopted by the Commissioners, and appropriations for this work, approved by the government, are made from time to time by Act of Parliament. Estimates are prepared and the work is commenced, and as the construction progresses, statements of expenditures are forwarded to the Department of Marine and Fisheries and applications are made for advances out of the amount appropriated.

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On reference to the balance sheet it will be seen that the cost of harbour works and improvements, as carried on the books, amounts to \$17,793,971.79, while the Commissioners have borrowed from the government and the public an amount of \$16,607,000. It would appear from the records of the Engineering Department that the Commissioners were entitled to a further advance at December 31, 1911, of approximately \$340,000 on capital outlays during the five years to that date.

We submit herewith a statement showing the position of the Capital Construction Accounts at the beginning and end of the period of our examination (Exhibit 21).

We have examined the vouchers for the payment of labour and material during the five years, but it is not practicable for the purpose of this report to thoroughly investigate the character of each piece of construction work, with a view to stating whether or not it is in the nature of replacement, renewal or reconstruction. No good classification of construction expenditures has been kept and we would recommend that this should be done in future. The expenditures might be classified under the following main groups:—

(a) Those in connection with the purchases of real estate outside the harbour limits.

(b) Those in connection with permanent improvements such as wharves, embankments, &c.

(c) The deepening of harbour channels and basins by dredging.

(d) The construction and dredging equipments such as machine shops, dredging fleet, &c.

(e) The equipment which is operated by the Commissioners with a view to obtaining revenue, such as elevators, harbour railway, wharf sheds, &c.

DEPRECIATION.

It is not practicable to state how much of the total expenditures on capital account represent construction on Harbour Works which has been replaced by modern improvements.

No consideration has been given during the period under review to the question of depreciation on the structures or equipment under the control of the Commissioners. Whilst obviously the corporation stands in a somewhat different position from an industrial company, it would seem that this important factor in the cost of operation should not be omitted from consideration; in fact, the determination of the true cost of operation, which must include a provision for depreciation, would seem to be the first requisite in the establishment of a correct and equitable scale of rates, the formulation of which is one of the principal duties of the Commission.

We quite recognize that the wide benefits to be derived from fostering the commerce of the port and other considerations of policy must necessarily enter into the final determination of the rates to be charged; but we think that it is essential that the true costs of service be first determined, which can only be done after the inclusion of a proper charge for depreciation so that any loss arising from the insufficiency of the rates charged may be compared with the broad benefits attained, and the wisdom of the policy judged accordingly. Much of the property is of a permanent nature, but at the same time there are considerable parts of the investment in structures and the entire investment in equipment which must admittedly suffer depreciation, and in this connection we might point out that the investment in such property having increased materially in recent years the current renewals and repairs cannot be sufficient to make good the accruing depreciation arising through wear or tear or obsolescence.

If it were decided to follow our recommendations regarding depreciation we should be glad to advise as to the rates which might be adopted on the various classes of construction, so that the annual charge against income might be adequate to provide for the reconstruction and eventual replacement of the structures.

REAL ESTATE.

Crown lands lying within the limits of the harbour of Montreal are vested in and held by the corporation (57-58 Victoria, chap. 48, sec. 21) and so far as we understand no value appears in the books for such lands. In addition the Commissioners hold the three following parcels acquired from time to time for the purpose of facilitating traffic operations:—

(a) Land and buildings of Commissioners offices on Common street. This property is carried on the books at \$52,931.90, as compared with an assessed value of \$91,000.

(b) Land in St. Mary's ward, Papineau avenue, purchased from Alex. Mac-laren on March 23, 1903, carried at a value of \$25,239.90. This property was purchased as a site for the old harbour yard.

(c) Land with buildings thereon at Notre Dame street, purchased January 19, 1911, from P. Rafferty for \$72,000. The Commissioners paid \$10,000 in cash, and assumed mortgages in favour of the Montreal Loan & Mortgage Company for \$18,000 at 6 per cent. The balance of the purchase money which is payable within three years from January 1, 1911, bears interest at 5 per cent.

The usual city rates are paid upon the above properties, but no rates are paid on the property within the Harbour limits. The city of Montreal is, however, we are informed, claiming that the Commissioners are liable for rates on improvements.

The Commissioners allot and lease areas of land and wharves or parts of wharves within the port limits from year to year and also for extended periods. All leases, excepting these for wharf sheds (by-law 89) are authorized by by-law approved by Order in Council.

We append to this report (Exhibit 23) a schedule setting forth in summary form the allotments and leases as authorized by the various by-laws. In the case of by-laws 82, 83, 84 and 85 no leases have been granted, but the allottees are occupying the various premises subject to the pleasure of the Commissioners.

DREDGING.

We submit statements of dredging done during the past five years, which we have obtained from the Engineering Department. We are informed that the dredging charged to capital account is of a permanent character and that none of it represents expenses of maintaining the depth of the harbour. On reference to these statements (Exhibits 24 and 25) it will be noted that the cost per cubic yard varies considerably.

ELEVATOR No. 2.

The necessary excavation and preparation of the site for this elevator was completed by the Commissioners. The erection of the elevator is being carried out under contract awarded to Messrs. J. S. Metcalf & Co., in 1910, without tender, under the following conditions:—

(a) The entire construction is subject to the supervision of the Harbour Commissioners, but it is under the direct control of the contractor's superintendent, Mr. F. N. Hodge.

(b) Materials required in construction are furnished by the Commissioners on requisition of the contractors, who, however, recommend the placing of contracts. Wages are paid by the Commissioners, but the men are engaged by the contractors, the rates of pay being subject to the Commissioners' approval.

(c) The contractors supply certain equipment and machinery.

(d) The contractors are to receive 10 per cent on the cost of the construction, 8 per cent being paid as the work progresses and the remaining 2 per cent being held back until completion of the work.

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Up to December 31, 1911, the labour and material cost of construction amounted to \$1,323,593.99, and up to that date the contractors had been paid \$85,593.83.

The entire completed cost of the elevator, including the extension in course of construction is estimated as follows:—

General construction..	\$1,657,207
Excavation and clearing..	235,000
Extension..	290,000
	\$2,182,207

It is stated that this elevator will have a capacity of 2,620,000 bushels.

SHIP CHANNEL EXPENDITURES IN SUSPENSE.

The books show a debit balance against the Government of \$1,112,890.72, which appears to represent expenditures incurred in connection with the ship channel. This expenditure was incurred a number of years ago, and there is no one at present in the office thoroughly conversant with the details, but so far as we can ascertain it is offset by an appropriation of surplus.

The following is an extract from a report of the Finance Committee, dated February 24, 1899, submitted to the board and approved on the 7th March, 1899:—

‘It was decided to open an account in the ledger styled Dominion of Canada Suspense Account, and that it be debited with the following accounts to wit, the above accounts \$3,986,243.72; the above being balance of expenditure on the 20-foot channel, for interest on the loans made for the 271-foot channel and for the buoyage in the channel, these claims being justly due to the harbour of Montreal, and that the said account be credited by Dominion Government. \$2,873,353 of this amount having been received during construction as loans and from the repayment of which the Government discharged the Commissioners by virtue of Act 51 Victoria, Chap. 5, leaving a balance due to the Commissioners of \$1,112,890.72.’

The amounts originally expended on behalf of the Government were as follows:—

New channel operations..	\$2,307,691.70
Lake and river operations..	295,471.00
New dredging plant..	535,236.63
Buoys and beacons..	53,816.44
Dominion Government interest account..	794,027.95
	\$3,986,245 72
Deduct: Amount for which the Government discharge the Commissioners..	2,873,353.00
Leaving the amount referred to above..	\$1,112,890.72

With regard to the special surplus account appearing in the balance sheet—this is made up as follows:

Reserve set up out of surplus for interest account, commencing 1878..	\$794,027 95
Reserve set up out of surplus between the years 1851-1873..	300,000 00
	\$1,094,027 95

ADVANCE ON ACCOUNT OF ELGIN SEWER BASIN.

We are informed that it is necessary to extend the city sewer and that in order to expedite the completion of the work the Commissioners have arranged with the city to share the joint cost pending the result of a friendly action to decide who should pay for the extension.

ACCOUNTS RECEIVABLE.

We have discussed the value of these accounts with the officials of the Corporation and it would appear that balances amounting to about \$32,555.44 are doubtful and \$1,774.78 are irrecoverable. Included among the accounts receivable are three accounts amounting to \$485, which represent advances to employees.

DEFERRED CHARGES.

This asset represents the discount on debentures, series 'H' and 'J,' which were issued to the public. This account is being reduced each year by the addition made to interest account on the basis that the discount will be absorbed during the term of the debentures.

FUNDED DEBT.

The borrowing powers of the Commissioners are set forth in section 35, 57-58 Victoria, chapter 48, and subsequent Acts.

Particulars as to debentures outstanding according to the books at December 31, 1911, will be found in Exhibit 22. Of the total of \$16,607,000 issued, \$1,872,000 was in the hands of the public, and \$14,735,000 is due to the Dominion Government. The balance due to the Government has not been verified by communication with the Minister of Finance.

During the five years the advances from the Government which are represented by debentures issued amounted to \$7,895,000, of which \$100,000 was to retire debentures, Series 'A' which matured July 5, 1910, the remainder being against construction expenditures.

We are informed that the debentures carry no sinking fund obligations, but we are unable to make a definite statement in this respect as no copy of the form of debentures is at present readily obtainable. The debentures Series 'A' which were retired have been destroyed by order of the Commissioners.

DEFERRED CREDIT, RENTAL RECEIVED IN ADVANCE.

This credit of \$100,000 represents the consideration paid by the Canadian Pacific Railway for a lease for forty years of five parcels of land as authorized in by-law 108. This was offset by an agreement to purchase from the railway company 350,000 cubic yards of filling material to be used on the high level railway for a like consideration which has been charged to construction account.

PRESENT ORGANIZATION AND BUSINESS METHODS.

In order that you may readily follow the existing plan of organization of the corporation, we refer briefly in this caption to the duties of the various officers and the departments controlled by them.

The work carried out by the Commissioners, subject generally to the approval of the Governor in Council, may be divided into the following main subdivisions:—

- (a) Construction of Harbour Works.
- (b) Maintenance of Harbour Works.

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- (c) Collection of port dues and rentals.
- (d) Operation of revenue producing equipment.
- (e) Supervision of port traffic.

The various details of the work are in charge of the Secretary-Treasurer, Chief Engineer and Harbour Master, who report direct to the Commissioners. The Manager of the Traffic Department and the Purchasing Agent also report directly to the board, although subject to the direction of the officials named above. The Board is also advised by a Consulting Engineer, Mr. John Kennedy, who was for many years Engineer to the Corporation.

SECRETARY-TREASURER.

This office is held by Mr. David Seath, who acts in the capacity of Secretary-Treasurer and Comptroller of the Corporation. He attends the meetings of the Board, has charge of the usual secretarial duties; and all correspondence, excepting that attended to by the Chief Engineer, passes through his department.

As Treasurer he attends to the general financing of the corporation under the direction of the Commissioners, and to the disbursement and collection of revenue. The general books of account, such as cash book, ledger and journal, are under Mr. Seath's direct supervision, the cost books being in the control of the Chief Engineer. Mr. Seath is assisted by an Assistant Secretary, Mr. W. J. Fennell, and a book-keeper.

A summarized statement of account, certified by independent auditors, is submitted annually to the Department of Marine and Fisheries, copies of which will be found in the annual reports published by the Commissioners.

Mr. Seath has also charge of the Paymaster's and Wharfingers' Departments, and the supervision of the Wharfage Inspection and Wharf Clerks, whose duties may be described as follows:—

• **Paymaster and Wharfinger.**

This department is in charge of Mr. R. A. Eakin, who is directly responsible to the Secretary-Treasurer. He is assisted by an Assistant Paymaster, Mr. D. Stewart, and an Assistant Wharfinger, Mr. H. Sym.

The duties of these officers comprise the disbursement of pay rolls and the collection of local dues, rentals of spaces, local commutation dues, &c.

Pay Rolls.

The Paymaster receives from the Secretary-Treasurer the certified pay rolls of the entire organization with cheque in his favour for the amount of the rolls.

The rolls relating to unskilled workmen are payable weekly and the remainder semi-monthly.

The cheque is cashed and the amount due the individual employee put up in pay envelopes, on the face of which are noted the employee's name, number and amount due. The Paymaster visits each department with Assistant Paymaster and a constable, and the employees are paid in the presence of the foreman or time-keeper of the various departments.

When a pay list is discharged the Paymaster certifies as to the individual amounts in the following form:—

'Each of the above men was individually paid by me the amount opposite his name.'

The administrative staff sign the pay rolls individually in acknowledgment of the receipt of their salary. All officers and employees are paid in cash, excepting the Chief Engineer and Secretary-Treasurer who are paid by cheque.

We enquired into the matter of unclaimed wages and were informed that there were very few amounts outstanding. On further investigation we found that on the 9th March last there were 26 unopened pay envelopes amounting to \$199.91 in possession of the Paymaster, all of which related to the year 1912, these envelopes remaining in the possession of the Paymaster until called for. We would point out that the certificate appearing on the pay rolls covering these envelopes states that these sums had been paid. All unclaimed wages should be handed to the Treasurer's Department for payment and the amounts certified as paid on the roll should be those actually disbursed on the date of payment.

In the case of payment of wages in advance, funds are usually provided by the Secretary-Treasurer and sometimes the cash is taken from the wharfage dues collected, the Paymaster later reimbursing himself from the pay roll cheque.

Collection of Local Wharfage Dues, &c.

The Paymaster in his capacity as Wharfinger collects all dues, rentals, commutations, &c., levied in connection with cargoes of local vessels inwards and outwards.

These dues are handed over to the Secretary-Treasurer from time to time and a settlement is made between the Secretary-Treasurer and Paymaster once a month. The Assistant Wharfinger, during the season of navigation, visits the wharves each morning and reports the various arrivals and departures during the twenty-four hours preceding; particulars of the vessels are recorded in a register showing the tonnage, nature of cargoes, &c. Under a penalty the agent or master of each vessel is required to attend at the Wharfinger's office and fill in a declaration form giving a description and the amount of his cargo. Payment of dues is either obtained at the time of declaration or from the consignee. The Paymaster gives a numbered receipt for payment and retains the stubs of the receipts which serve as his cash book.

Commutations and rentals of spaces are billed for usually once a month by the Paymaster and the amounts are handed to the Secretary-Treasurer.

As a matter of internal check it is undesirable for the Paymaster to be responsible for both the receipt and disbursement of money, more particularly if he does not hand in his receipts intact daily. We would suggest that the office of Wharfinger be entirely separated from that of the Paymaster, or as an alternative that the Wharfinger should make out a slip certifying as to the correctness of the dues, &c., which would be handed to the person making payment, who would present this slip with the cash to a clerk attached to the Treasurer's Department.

Customs Clerks.

Two clerks, Messrs. A. E. Beauvais and P. V. Seath, act as Inspectors of Transatlantic and Maritime Wharfage and have office accommodation at the Customs Department.

Wharf Clerks.

Two clerks are employed on the wharf in connection with the loading and unloading of vessels.

CHIEF ENGINEER.

The Chief Engineer, Mr. F. W. Cowie, is in direct charge of the land and river construction work and the operation of the various harbour facilities excepting the harbour railway. He is assisted in so far as construction and maintenance work is concerned, by a resident engineer, Mr. A. D. Swan, and five Assistant Engineers.

Mr. Cowie is responsible for the estimates submitted and the distribution of the expenditures to the various jobs. He has also direct charge of the records kept in connection with construction and maintenance expenditures and the timekeepers and storekeepers report to him. At the end of June, 1911, the employees directly under this department aggregated about 1,700 men, of which 700 were engaged in the construction of Elevator No. 2.

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Cost Department.

The accountant to the Engineer, Mr. Geo. Smart, has general charge over the records kept in connection with construction and maintenance both at the main office and the shops, but the clerks employed outside the main office are not directly responsible to him. He is assisted by two clerks.

Pay Rolls.

The construction and maintenance pay rolls of the land works are made up by the accountant from the timekeeper's books and he checks the pay rolls of the river works, as to the rates, extensions and footings. He certifies to the correctness of these pay rolls and forwards them to the Chief Engineer for approval. The daily statements of labour expended are received and posted daily by the bookkeeper to the debit of the various jobs and each week the total of these daily statements is agreed with the amount of the pay rolls.

Materials.

All invoices for materials purchased for construction and maintenance are received and approved by the accountant on behalf of the Engineer. A record of these invoices is kept in memorandum form and postings are made direct from the invoices in the cost ledger. The invoices are thereupon returned to the Secretary-Treasurer's Department for payment. Daily statements of issues from stores are received and posted to the cost ledger.

Cost Ledger.

The accounts kept in this ledger may be grouped under three main headings:—

Inventory or Operating Department accounts, such as machine shop, saw-mill, &c.

Construction accounts.

Maintenance accounts.

The charges to the various construction and maintenance jobs may also be grouped as—

Direct labour.

Indirect labour and expense, which is divided between engineering burden and departmental burden.

Direct material charges.

Indirect material charges or issues from shops.

Debits made by the Secretary-Treasurer's Department, independently of the Engineer's Department.

The sales of scrap material, which are relatively small, are made by tender. Adjustments are made at the end of the year bringing the book inventory figures into accord with the physical inventory. The indirect labour and expenses are distributed over the various jobs by charging percentages on the direct labour, these percentages varying according to the department, the machine shop burden being about 50 per cent of the direct labour, and that at the shipyard about 30 per cent of the direct labour.

With regard to the salaries of the Chief Engineer and Superintending Staff, these are apportioned over the various jobs on the basis of gross cost, maintenance jobs bearing their proportion.

The cost records at present appear to be carefully kept and the system of charging the construction accounts well carried out. Some changes in the system could, however, be made with advantage.

Machine Shop and Shipyard.

We visited the machine shop and shipyard plant and examined the accounting methods and the system in force for recording the delivery and supply of materials and recording the time of the employees.

Generally speaking we found the records up to date and well designed to safeguard the interests of the Commissioners. We give below a brief outline of the duties of these departments and the methods employed.

The plant consists of a machine shop fitted with lathes, planes and other necessary tools, storehouse, pattern shop, paint mixing shop and carpenters' shop, the latter being attached to the shipyard section of the work. The shops are located on the Guard Pier which is virtually reclaimed land.

The object of the plant and equipment is to carry out the necessary repairs for dredging, harbour fleet, building scows and dredges and providing a base from which the fleet is supplied. The shops are in most active operation in the winter, many of the mechanics and carpenters, &c., forming part of the crews of the fleet in the summer.

The direction of this part of the work is vested in Captain Yale, who reports to the Chief Engineer, and he has an assistant who superintends the construction work. Mr. Earle is in charge of the stores and the recording of the time of the employees, and he is assisted by two clerks.

The responsibility for repairs and construction work lies largely with Captain Yale who submits estimates from time to time to the Chief Engineer for approval. After approval a duplicate of the estimate is turned over to Mr. Earle who gives it an estimate number and enters it in a subsidiary cost ledger kept at the shops. In addition to estimates there are standing orders for small repairs. Estimates over \$50 must be approved by the Engineer.

Requisition for the Purchase of Material.

The storekeeper makes out requisitions for supplies in triplicate which are approved by Captain Yale. One copy is forwarded to the purchasing agent, and one to the Chief Engineer. As a general rule all supplies, excepting large direct orders, are passed through the store accounts.

Checking of Supplies Received.

When goods are received they are entered in a goods received book and checked against the triplicate of the Purchasing Agent's order. When the invoice has been approved by the Purchasing Agent, the price is entered in the stock book and the invoice initialed as to the receipt of goods and forwarded to the Engineer's Department.

Stores.

The stores are kept under lock and key, and it would appear that no one has access except authorized individuals. The storehouses are accommodated with bins and receptacles for keeping the various kinds of stores separate. All bins are tagged, and when practicable bin cards are kept.

The store ledger is kept in quantities so that the amount of stock on hand of any class of active supply can be readily ascertained and a minimum and a maximum quantity to be carried is established. Inventories of supplies are stated to be physically taken whenever the supply on hand of a particular class of goods runs low.

Physical inventories are now taken at the end of each year, and improvements have been effected in the system in force from time to time within the five years under examination.

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Requisition of Supplies.

Requisitions on the store must be initialed by a foreman and the employee receiving the supplies must sign in full for their receipt.

The requisitions are priced out daily by the clerks and a statement of issues duly priced and extended and approved by the storekeeper, is sent daily to the Cost Accountant of the Engineer's Department, where, as already noted, they are posted daily to the debit of the various construction or maintenance jobs in progress.

Recording and Distribution of Time of Employees.

In the machine shop and shipyard every employee is required to ring up on a time clock four times each day in the presence of the timekeeper or assistant. The time clerk visits the men during working hours and hands them slips or time tickets on which particulars of the work on which they are engaged are entered. These slips are signed by the foreman and returned to the time clerk each evening. The next morning the timekeeper checks these slips with the time clock list, making any necessary deduction on account of late arrival, &c., and he draws the attention of the employee to such correction. The time clerk then prices out the time tickets and enters them to the debit of the different estimate numbers, and at the same time makes out a daily report of wages by job numbers which is sent to the Cost Accountant for entry in the cost ledger.

If a man leaves the Commissioners' employ before pay day he receives a slip which is approved by the timekeeper and countersigned by the Engineering Department. His wages are paid by the Paymaster on presentation of these slips.

The authority for the employment of labour is given by Captain Yale.

Fleet.

In the case of crews of vessels the captain of the dredge or vessel is the timekeeper, subject to the supervision of the general timekeeper.

Coal Barge.

This barge is in charge of a foreman, Captain J. Smith. It is used to convey coal to the fleet during the summer months.

Harbour Yards.

This department was formerly in charge of the Superintendent of the Wharf Stock Department, but since March 1, Mr. J. A. Masse has been appointed to the work. He is assisted by a storekeeper and assistant storekeeper.

The Superintendent has general supervision over the repairing of tools used in construction and maintenance.

Authorizations or orders for work in this department must be approved by the Chief Engineer. When an estimate is approved a job number is allotted and the particulars of the work are entered in a cost ledger kept in this department.

Supplies.

Requisitions for purchases are made in triplicate on the Purchasing Agent, one copy being retained by the storekeeper. All goods upon receipt are entered in a stock book and when the invoice is received the receipt of the goods is acknowledged thereon and the prices entered in the stock book.

Requisition for deliveries of supplies are made out in duplicate and are approved by the foreman. The employee receiving the goods signs the requisition.

In the case of tools which are largely used on the land works a system of charging each workman with tools issued is maintained by means of brass checks, which works satisfactorily.

Daily statements of issues to various jobs, priced and extended are sent to the Engineering Department's Accountant.

Physical inventories of all supplies and tools on hand are taken once a year, and these are stated to be written down to their actual value.

Labour.

A small time clock is kept in this department, and the clock slips are checked with the daily time book. Daily statements of labour chargeable against the different jobs are forwarded to the Engineering Department, and these are checked up with the weekly pay rolls which are prepared by the timekeeper, and approved by the Superintendent.

Timber Boom and Sawmill.

Mr. W. R. Lunan is superintendent of the mill and boom, and his staff consists of two men, a timekeeper and an office clerk who are paid by the day.

The superintendent has charge of requisitioning the Chief Engineer for supplies required, certifying as to the correctness of quantities received at the boom, and also passing upon the grade and quality of the lumber. He also has charge of the operation of the mill and engages the labour.

The equipment was purchased in 1905 for \$6,000, and has since been considerably improved. The mill is equipped with three circular saws and a permanent timber boom is adjacent to the mill where delivery of rafts is accepted.

No proper costs or statistics of operation are kept, but in order to obtain an idea of the work we totalled some weekly returns which serve to indicate the volume of business done in 1911.

Purchases.....	5,000,000 ft. B.M.
Cut.....	5,900,000 ft. B.M.
Mill wages (excluding boom).....	\$10,152

The Manager estimates that the mill cost per thousand feet for labour, &c., to be about \$3.

The lumber is requisitioned by foremen on the approval of the Engineer in charge of the works, the lumber being usually taken away in scows or by tugs. This lumber is charged to the various departments at fixed prices which are claimed to be below market price. The saw-mill showed a profit of about \$10,000 in 1911 which was apportioned to the credit of various jobs.

The supplies for the mill are requisitioned from the machine shop, and the time is kept by Mr. Lunan's assistant. Daily returns both of labour and issues of lumber are made to the Engineering Department.

Wharf Stock.

Mr. Beauregard, the cost clerk is in charge of this section of the work, and his duties consist of comparing the cost of jobs with estimates and so effecting a check on the foremen who are responsible for the goods they receive from the stores. He also has charge of the stocks of cement, stone, sand, &c.

Harbour Repairs and Maintenance.

This section of the work is in charge of Mr. W. Porteous who reports direct to the Chief Engineer on the miscellaneous repairs and maintenance to be carried out on the land works, and he also inspects the work of the gangers.

Tarte Pier Sheds.

Certain sheds are in course of erection at this pier under contract and a representative of the Chief Engineer, Mr. L. DuPlessis, is engaged to look after the work.

ELEVATORS AND CONVEYORS.

This department has charge of the handling and storing of grain in the elevators. It is managed by a Superintendent, Mr. J. Nehin, and an assistant, Mr. J. P. McLean, who report to the Chief Engineer as to the operation and to the Secretary-Treasurer for all accounting records kept in connection with the storing of grain and the collection of revenue. The plant consists of an elevator (No. 1) equipped with an extended system of conveyors to the wharf sheds. A second elevator is in course of construction, but it is not expected that this will be ready for use before June next.

In addition to the above-mentioned Superintendent, the permanent staff consists of one clerk, three electricians, three sworn weighmen, two firemen and ten mechanics. When the elevator is in full operation during the summer months, additional labour is engaged as required.

The grain is received from either barges or railroad cars and is delivered to outgoing steamers or cars for local delivery, as required. For particulars as to the quantities handled we would refer you to the statement of elevator revenue (Exhibit 6); the tariff is set forth in by-law No. 104.

Storage Methods.

For the purpose of illustrating the system in force we outline below the practice followed in handling a grain shipment. When a cargo of grain is received a notice from either the consignor or captain of the transferring vessel is received by this department advising the quantities of grain to be stored, with bill of lading stating the quantity and grade of the grain. A weighman is thereupon assigned to the work of unloading and weighing the shipment, the grain being weighed at the top of the elevator before it goes into the allotted bin. The weighman then makes a report in a tally book as to the quantity received and when stored, which report the Superintendent initials before it is recorded by the bookkeeper. A storage number is allotted to the shipment and it is entered in a stock book and a delivery book. A report giving the total bushels stored is sent to the Secretary-Treasurer, this report being signed by the Elevator Superintendent. The Secretary-Treasurer reports the receipt of the grain to the consignor.

Requests for delivery are received by the Secretary-Treasurer, who forwards the request to the Superintendent. The Superintendent in turn checks it with the stock book and then hands the requisition to a weighman who weighs out the grain and records the delivery in a tally book kept for this purpose. The tally book is handed the bookkeeper who records the quantities delivered in his stock book. A detailed statement of deliveries is made out daily, which is forwarded to the Secretary-Treasurer and he renders bills for the handling and storage charges.

So far as the Superintendent's records are concerned, they appear to be well kept and the system of recording and checking would appear to be adequate.

Daily and weekly statements of grain handled are made out for the Commissioners and a weekly sworn report is sent to the Department of Trade and Commerce at Ottawa and to the Manitoba Grain Inspection Division.

Supplies and Repairs.

Only small quantities of supplies are kept on hand, requisitions being made in triplicate, on the regular forms, to the Purchasing Agent after approval of the Superintendent. In emergency cases repair supplies are sometimes ordered before the

requisition is forwarded to the Purchasing Agent. Requisitions are also made on other departments. No cash is handled at the elevator.

The electric power is furnished by contract by the Montreal Light and Power Company. The rates have been reduced in the past two years as will be seen from examination of the revenue account.

Labour.

The time books are kept by the foreman and scrutinized by the Superintendent. These time books are sent to the time-keeper of the Engineer's Department where the pay-rolls are made up. The Superintendent engages the men, but before doing so he has to apply to the time-keeper for a brass check of identification for payment purposes.

During the winter the operating staff is engaged largely in repair work.

Sheds Maintenance.

This section of the Engineer's Department is in charge of two foremen, Mr. Clermont and Mr. Clifton, and is maintained to look after the general repairs and condition of the sheds.

FLOATING ELEVATORS.

This department is virtually a division of the Elevator Department, and is in charge of Superintendent J. Hunault, who reports to the Chief Engineer so far as the vessels are concerned. The weighmen, who are under the control of Mr. Nehin, report through the elevator office to the Secretary-Treasurer.

The plant originally consisted of 17 floating elevators which were purchased for \$100,000 in the early part of 1910. The elevators are used for transferring grain from one vessel to another and are consequently only in operation in summer, many of the crew being engaged on repair work during the winter months. All supplies for repairs, &c., are obtained through the machine shop. The charges for transferring grain are set forth in By-law 103.

Handling Methods.

Orders for the transfer of grain are made out on the special forms which are signed by the shipper. These orders are handed to the weighmen who proceed to make the transfer and who report to the elevator clerk as to the quantity and kind of grain transferred and the time consumed in handling. The elevator clerk records transfers of grain in a delivery book and notifies the Secretary-Treasurer of each shipment, and in addition he makes out a weekly and monthly report of transfers. The Secretary-Treasurer sends out the bills to the shipper and collects the charges.

Labour.

The time is kept by Mr. Hunault, who reports to the Engineering Department timekeeper, and the rolls are made out in the same manner as those for Elevator No. 1.

TRAFFIC DEPARTMENT.

This department is in charge of a superintendent, Mr. J. Vaughan, who reports direct to the Commissioners as to operations and to the Secretary-Treasurer as to earnings. He is assisted by a yardmaster, Mr. W. Goldsmith, and there is an office force of two clerks.

The operating staff consists of engineers, firemen and yardmen and checkers. This department operates about twenty-one miles of switching tracks located on Commissioners' property along the water front. At December last the equipment consisted of five switching locomotives and two additional locomotives have been purchased during

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the current year. A separate storehouse is maintained for this department and one of the yardmen under the yardmaster is in control of the supplies.

The locomotives of the Commissioners alone operate over these harbour tracks, all cars being hauled from the various railroad yards and returned by the Commissioners. Some cars are also hauled between railroad yards over the tracks of the Commissioners. The tariff and conditions for handling cars are set forth in By-law No. 96. We would refer here to the Revenue Statement of this department (Exhibit 5) wherein it will be seen that in the years 1908 and 1909 the charges for freight on fuel exceed or equal the charges for fuel itself.

Method of Checking Cars.

When cars are delivered, a train report giving out number is made out in duplicate by the conductor of the delivering railroad, which is signed by the representative of both the railroad and the Commissioners. Each evening the checkers send a copy of each report to the Traffic Officer, the railroad retaining the original. The clerk records the number of the cars and the switching charges according to whether the car is loaded or unloaded. When cars are returned the checker makes out a train report in duplicate which is dealt with in a manner similar to the report of incoming cars.

From the office records information can readily be obtained showing the cars remaining on the wharves.

The bills against the railroads for switching and demurrage charges are made out by the Traffic Department clerks and handed to the Secretary-Treasurer for collection, a duplicate copy being retained in the Traffic Department.

Supplies.

All requisitions for purchase of supplies such as oil, waste, coal, &c., originate with the yardmaster and are approved by the Superintendent and forwarded to the Purchasing Agent.

When supplies are received the yardmaster checks and approves the invoice which is returned to the Secretary-Treasurer ready for payment. A requisition has to be made in duplicate for delivery of supplies, the requisition being signed by the yardmaster and the locomotive engineer receiving the supplies. One copy of the requisition is sent to the Traffic Department and the other retained on the department files.

Repairs to tracks are carried out by the Engineering Department upon requisition of the Traffic Superintendent. Repairs to locomotives are now made by outside contractors, but it is expected that when the locomotive shop is completed all repairs can be carried out by the department.

Labour.

Daily time tickets are made out in duplicate, the original being sent to the Traffic Superintendent's office where it is recorded in a time book.

At the end of each two weeks period the pay roll is made out in the Superintendent's office and sent to the Secretary-Treasurer, who provides for payment and forwards it to the paymaster.

HARBOUR MASTER.

The Harbour Master, Mr. J. McShane, who is assisted by a Deputy Harbour Master, has charge of the general supervision of the shipping traffic at the port. He keeps a record of all vessels arriving at and leaving the port, with a description of each.

CONCLUSION.

Our investigation of the transactions of the Commissioners for the five years ending December 31, 1911, has been of an exhaustive character and in concluding our report it may be convenient to summarize the principal results of our inquiry as follows:—

(1) We have satisfied ourselves that the cash disbursements have been made in the regular course of business and are supported by invoices certified by the proper officials as to price, clerical accuracy and receipt of the goods or authorization of the expense, except in a few minor instances where the vouchers have apparently been mislaid.

(2) We have found that the salary lists and pay rolls have been certified by the heads of the various departments and proper safeguards appear to have been adopted in the keeping of time of employees and in the payment of salaries and wages.

(3) While we are unable to definitely state that all local wharfage dues, rentals, &c., have been collected (as the system of accounting does not admit of a satisfactory verification of these receipts) nothing has come to our notice during the course of our investigation which would throw doubt on the honesty of those handling the cash.

(4) In the case of the large purchases of materials and supplies it has been the practice of the Commissioners to call for tenders and to award the contracts to the lowest bidders fulfilling the requirements specified. In regard to the purchase or construction of certain special equipment such as elevators, dry dock, &c., considerations as to efficiency and prompt delivery are such material factors that the award of the contracts is clearly a matter of executive judgment which is outside the scope of our report.

(5) The safeguards at present installed should provide for the correct distribution of materials and supplies, and nothing has arisen in the course of our investigation to indicate irregularities.

(6) Generally speaking the books and accounts have been carefully kept, but the accounting system does not fully meet the requirements of the business, and should be improved in order to provide for an effective check over the work of the various departments and a more complete analysis of the expenditures.

(7) The present organization is defective in the following respects, firstly, that the Secretary-Treasurer, who has charge of both the collection and disbursement of moneys, has also the direct control of the general ledger and certain principal accounting records; secondly, that the Chief Engineer who prepares and is responsible for the estimates has control of the distribution of material and supplies and the keeping of time, and also the engineering cost records.

This plan of organization does not, in our opinion, provide an effective system of internal check, and we would recommend that all the accounting and cost records of every department be placed in charge of a Chief Accountant or Comptroller, who should have the entire responsibility for all the accounting, including the preparation of bills, certification of vouchers, timekeeping and store records, and he should submit periodical statements of account and statistics to the Commissioners and to the other officials as required; he should be directly responsible to the Commissioners and all employees engaged on the accounting records should report to him.

The Secretary-Treasurer should be responsible for the collection and disbursement of all cash and the general financing of the corporation; in addition he should have charge of the general secretarial duties as at present.

The Chief Engineer should be in complete charge of all construction and maintenance work and the estimates prepared in connection therewith, and he should be furnished with information with regard to the actual cost of the work by the accountant.

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(8) The present departmental costs are incomplete in that no consideration has been given to the question of accruing depreciation and the apportionment of general and administrative expenditure.

We have pleasure in stating that we have received the cordial co-operation of the officers and employees of the Harbour Commission, and that every facility has been afforded us in connection with our investigation.

Respectfully submitted,
PRICE, WATERHOUSE & CO.

EXHIBIT 1.

HARBOUR COMMISSIONERS OF MONTREAL.

DECEMBER 31, 1911.

BALANCE SHEET.

ASSETS.					
	\$	cts.	\$	cts.	
Capital Assets—					
Harbour Works and Improvements, including real estate (other than Crown Lands), buildings, dredging, elevators and other operating and construction equipment and interest on certain construction expenditures—					
Balance January 1, 1907.....	9,711,085	06			
Additions during the five years to December 31, 1911 (net).....	8,082,886	73			
			17,793,971	79	
(NOTE—On December 31, 1911, the Commissioners are entitled to an advance of approximately \$340,000.00, excluding interest on work in course of construction, from the Government.)					
Ship Channel expenditures incurred prior to 1893 not reimbursed by the Government (see <i>Contra</i>).....			1,112,890	72	
Advance to City of Montreal on account of Elgin Sewer Basin, the matter being the subject of litigation.....			75,000	00	
Total.....			18,981,862	51	
Current Assets—					
Inventories of material and supplies on hand.....	106,950	16			
Accounts receivable (before provision for doubtful accounts).....	142,186	60			
Cash on hand.....	69,930	02	319,066	78	
Deferred charges—					
Discount on debentures.....			10,016	23	
			19,310,945	52	

LIABILITIES.					
	\$	cts.	\$	cts.	
Funded Debt—					
Debentures issued to Dominion Government.....	14,735,000	00			
Debentures issued to public.....	1,872,000	00			
			16,607,000	00	
Mortgage on Notre Dame Street property.....					18,000 00
Accounts payable—					
Security deposits.....	31,737	15			
Trade accounts, etc.....	2,383	80			
Accrued pay-roll.....	8,753	41			
Interest accrued.....	265,982	97			
P. Rafferty, balance due on purchase of property.....	44,000	00			352,857 33
Deferred credit to operations—					
(Rental received in advance).....					100,000 00
Surplus account—					
Balance carried as a reserve in connection with Construction Expenditures.....	1,094,027	95			
Balance of Harbour Revenue Account (see Exhibit 2).....	1,139,060	24			2,233,088 19
					19,310,945 52

EXHIBIT 2.
HARBOUR COMMISSIONERS OF MONTREAL.
SUMMARIZED STATEMENT OF REVENUE AND EXPENDITURES.

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MONTREAL HARBOUR COMMISSIONERS

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	1907.		1908.		1909.		1910.		1911.		Total.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Revenue from all outside sources (Exhibit 3).....		488,419 36	506,578 25		681,319 34		838,016 46		923,345 44		3,437,678 85
Expenditures (Exhibit 4)											
Repairs and maintenance.....	77,109 53		84,234 55		69,382 23		67,182 59		78,060 53		
Operating.....	67,499 51		85,430 86		144,630 84		163,605 59		205,732 .		
Extraordinary.....	600 00		6,600 00		2,986 25		600 00		15,769 .		
Administrative and Collection.....	61,510 40		65,212 52		52,319 81		58,230 32		59,896 73		
Total expenditures..	206,719 44		241,477 93		268,719 13		289,618 50		359,458 67		1,365,993 67
Revenue surplus before deducting interest charges.....	281,699 92		265,100 32		412,600 21		548,397 96		563,886 77		2,071,685 18
Deduct—											
Interest charges per exhibit attached.....	336,277 86		386,131 16		411,538 78		448,245 57		503,979 58		2,086,172 95
Revenue surplus or deficit*, not including extraordinary revenue	*54,577 94		*121,030 84		1,061 43		100,152 39		59,907 19		*14,487 77
Add or deduct—											
Inventory shortage.....									155,296 34		
Interest charged to capital account.....	55,401 20				355,000 00						355,104 86
Net Revenue Surplus or deficit*.....	823 26		*121,030 84		356,061 43		100,152 39		4,610 85		340,617 09
Add—											
Balance on Harbour revenue account as per books at January 1, 1907.....											798,443 15
As per balance sheet.....											1,139,060 24

Note—No apportionment of Revenue or Expenditures has been made as between years.

EXHIBIT 3.

HARBOUR COMMISSIONERS OF MONTREAL.

STATEMENT OF REVENUE.

	1907.	1908.	1909.	1910.	1911.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Revenue—					
Wharfage dues collected by Customs Department (Exhibit 10).....	321,544 23	293,730 52	305,893 76	351,871 33	357,999 73
Wharfage dues local (Exhibit 11).....	45,330 60	58,849 75	73,674 51	86,798 76	100,855 55
Wharfage additional collected by Treasurer.....	3,823 50	2,311 45	1,962 07	3,417 90	4,296 06
Rental of spaces, Land and Offices, etc., (Exhibit 16).....	13,633 03	8,491 52	9,809 70	9,088 05	9,232 52
Harbour sheds (Exhibit 7).....	14,600 00	29,500 00	101,500 00	100,599 97	100,409 97
Traffic Department (Exhibit 5).....	71,815 23	68,343 45	101,646 45	120,776 86	142,375 14
Elevator No. 1 (Exhibit 6).....	7,970 63	45,351 56	82,463 85	112,039 63	131,025 22
Floating elevator (Exhibit 9).....			2,369 00	50,356 64	53,632 60
Floating crane (Exhibit 8).....				3,067 32	6,617 00
Electric hoist.....	701 44				2,290 48
Miscellaneous.....					12,531 17
Total revenue.....	\$488,419 30	\$500,578 25	\$681,319 34	\$838,016 40	\$923,345 44
Add—					
Interest charged to New Steel sheds and elevator No. 1 during construction.....	55,401 20		228,000 00		
New steel sheds.....			127,000 00		
Elevator No. 1.....	\$55,401 20		\$355,000 00		
	\$543,820 50	\$500,578 25	\$1,036,319 34	\$838,016 40	\$923,345 44

EXHIBIT 4.

HARBOUR COMMISSIONERS OF MONTREAL.

STATEMENT OF EXPENDITURES.

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SESSIONAL PAPER No. 57

MONTREAL HARBOUR COMMISSIONERS

	1907.	1908.	1909.	1910.	1911.
EXPENDITURES.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Repairs and Maintenance—					
Harbour.....	59,898 23	60,833 83	51,290 65	41,848 02	45,123 82
Traffic Department.....	16,598 72	19,915 20	11,894 82	16,598 01	24,674 81
New Sheds.....			134 01	1,268 45	1,753 84
Elevator No. 1.....	612 58	3,435 52	5,170 73	5,798 25	3,635 80
Floating Elevator.....				645 32	2,498 92
Floating crane.....			892 02	1,024 54	373 34
Total Repairs and Maintenance.....	\$ 77,109 53	\$ 84,234 55	\$ 69,382 23	\$ 67,182 59	\$ 78,060 53
Operating—					
Harbour Lighting.....	7,597 68	8,284 97	8,870 25	8,457 66	9,385 45
Harbour Survey.....	1,382 97	1,953 01	2,215 26	1,323 71	2,024 60
Traffic Department.....	38,788 61	35,815 92	39,785 31	50,683 73	63,908 54
New Sheds.....		3,430 00	12,589 69	10,456 35	9,730 70
Elevator No. 1.....	18,792 29	35,589 39	63,649 54	64,908 68	63,839 08
Floating Elevator.....				23,345 41	28,674 00
Floating Crane.....			2,083 43	2,832 27	3,967 77
Buoys and Beacon.....	388 21	217 82	287 87	140 39	576 67
Accident Account.....	549 75	139 75	82 47		6,701 96
Employers' Liability Assurance.....			5,764 84		
Travellers' Insurance.....					3,317 15
Fire protection service.....			8,702 18		11,793 17
New transporters.....				479 87	87 40
Electric hoist.....				977 58	1,816 74
Total Operating Expenditures.....	\$ 67,499 51	\$ 85,430 86	\$144,030 84	\$163,605 59	\$205,732 27
Miscellaneous—					
Hon. John Young, monument.....		6,000 00			
Mrs. John Young, annuity.....	600 00	600 00	600 00	600 00	600 00
Canadian Appraisal Company.....					3,152 10
Professional services.....			1,266 25		
Temporary sheds.....					1,305 08
Sunken barge and dredge.....			1,120 00		4,847 72
Furniture and fixtures.....					5,864 24
Total Extraordinary Expenditures.....	\$ 600 00	\$ 6,600 00	\$ 2,986 25	\$ 600 00	\$15,769 14

EXHIBIT 4—Concluded.

HARBOUR COMMISSIONERS OF MONTREAL.

STATEMENT OF EXPENDITURES.

	1907.	1908.	1909.	1910.	1911.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
EXPENDITURES—Concluded.					
Administrative and Collection—					
Harbour expense.....	15,381 19	11,102 25	5,260 55	7,212 46	8,191 53
Administrative Staff salaries.....	24,572 39	26,017 99	26,433 08	29,788 10	31,597 34
Commissioners' salaries.....	17,000 00	17,000 00	17,000 00	17,000 00	17,000 00
Advertising.....	453 85	124 55	231 25	423 65	253 30
Legal and notarial.....	2,130 50	2,588 55	118 80	1,467 05	1,323 75
Printing and stationery.....	1,524 87	2,865 80	2,105 43	1,324 33	1,310 36
Travelling and incidentals.....	447 60	5,513 38	1,170 70	1,004 73	220 45
Total Administrative and Col- lection.....	\$ 61,510 40	\$ 65,212 52	\$ 52,319 81	\$ 58,230 32	\$ 59,896 73
Interest Charges—					
Debentures.....	325,517 17	378,465 66	409,158 19	443,549 08	497,639 79
Bank overdraft.....	7,182 98	4,450 80	1,072 62	4,530 93	5,982 02
Security deposits.....	3,363 00	3,000 00	1,093 27	58 21	357 77
Miscellaneous.....	214 71	214 70	214 70	107 35	
	\$336,277 86	\$386,131 16	\$411,538 78	\$448,245 57	\$503,979 58

EXHIBIT 5.

HARBOUR COMMISSIONERS OF MONTREAL.

STATEMENT OF EARNINGS AND EXPENSES OF THE TRAFFIC DEPARTMENT.

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SESSIONAL PAPER No. 57

MONTREAL HARBOUR COMMISSIONERS

	1907.	1908.	1909.	1910.	1911.
Cars handled—					
Wharf switching and demurrage.....	\$ 34,940	\$ 20,580	\$ 34,582	\$ 36,278	\$ 39,380
Transfers between railroads.....	864	653	3,304	4,106	7,650
Total cars handled.....	\$ 35,813	\$ 30,233	\$ 37,886	\$ 40,384	\$ 47,030
Gross earnings.....	\$71,815 93	\$68,343 45	\$104,628 45	\$109,503 44	\$135,919 09
<i>Less: Refunds.....</i>	<i>71,815 93</i>	<i>68,343 45</i>	<i>980 00</i>	<i>2,105 34</i>	<i>2,428 00</i>
Add: Miscellaneous earnings, Engineering Department—transportation charges.....			103,646 45	\$107,398 10	\$133,491 09
				13,378 76	8,884 05
	\$71,815 93	\$68,343 45	\$103,646 45	\$120,776 86	\$142,375 14
Expenditures—					
Repairs and minatanence:					
Repairs to locomotives.....		\$ 874 72	\$ 1,182 97	\$ 5,666 08	\$ 8,363 68
Track repairs and maintenance....	16,598 72	19,040 48	10,711 85	10,931 93	16,311 13
Total Repairs and Maintenance.....	\$ 16,598 72	\$ 19,915 20	\$ 11,894 82	\$ 16,598 01	\$ 24,674 81
Operating Expenses:					
Wages.....	\$22,863 63	\$26,207 53	\$29,097 01	\$37,647 10	\$41,815 86
Rental of locomotives.....	12,630 08	725 20	87 66		
Fuel.....	652 80	2,607 81	4,884 68	7,054 65	9,743 09
Freight on fuel.....		4,423 61	3,257 89	2,112 38	2,159 84
Oil and waste.....	14 90	267 18	472 78	496 16	524 63
Water.....		140 74	475 34	409 57	1,485 61
Supplies.....	528 12	539 93	461 98	728 32	719 40
Telephones and Stationery.....	486 88	511 12	518 95	564 10	534 94
Legal expenses.....	75 00		260 00	121 19	889 33
Damage suit.....	500 00			1,500 00	6,000 00
Insurance.....	1,000 00		223 02		
Gas and electricity.....	37 20	61 10	46 00	60 26	35 84

EXHIBIT 5—Concluded.

HARBOUR COMMISSIONERS OF MONTREAL.
STATEMENT OF EARNINGS AND EXPENSES OF THE TRAFFIC DEPARTMENT.

	1907.	1908.	1909.	1910.	1911.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Operating Expenses—Con.					
Freight on locomotives.....		331 70			
Total Operating Expenses.....	\$38,788 61	\$35,815 92	39,795 31	\$50,683 73	\$63,908 54
Total Repairs and Operating Expenses.....	\$55,387 33	\$55,731 12	\$51,680 13	\$67,281 74	\$88,583 35
Profit before deducting Departmental charges.....	\$16,428 60	\$12,612 33	\$51,966 32	\$53,495 12	\$53,791 79
Less: Departmental charges—					
Rent of offices.....	533 24	800 00	800 00	800 00	800 00
Rental of tracks.....	8,985 61	20,742 00	20,742 00	20,742 00	21,580 00
Interest on high level tracks.....					16,787 99
	9,518 95	21,542 00	21,542 00	21,542 00	39,167 99
Net profit or loss*.....	\$6,909	*\$8,929 67	\$30,424 32	\$31,953 12	\$14,623 80

EXHIBIT 6.

HARBOUR COMMISSIONERS OF MONTREAL.
STATEMENT OF EARNINGS AND EXPENSES OF ELEVATOR No. 1.

	1907.	1908.	1909.	1910.	1911.
Bushels of grain delivered.....	932,112	8,683,911	11,436,767	14,193,714	14,269,199
Bushels of grain on hand at end of year.....	169,370	146,809	254,304	712,855	293,131
Earnings—	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Storage and deliveries.....	7,970 63	45,351 56	58,951 20	83,103 70	102,395 38
Shovelling.....			23,512 65	28,845 93	28,629 84
Gross Earnings.....	\$ 7,970 63	\$ 45,351 56	\$ 82,463 85	\$112,039 63	\$131,025 22
Expenditures—					
Repairs and Maintenance:					
Rope.....	37 32	501 35	1,444 85	800 13	-1,022 39
Belting.....	269 32	1,451 94	1,886 38	3,449 37	1,428 11
Buckets.....	165 39	1,220 63	819 05	560 00	244 96
Electrical apparatus.....	140 55	261 60	1,020 45	988 75	940 34
	\$ 612 58	\$3,955 52	\$ 5,170 73	\$ 5,798 25	\$ 3,635 80
Operating Expenses:					
Superintending Staff salary.....					1,803 09
Engineering Staff salary.....	289 10	658 56	2,066 51	1,404 32	891 70
Wages.....	10,506 45	17,938 86	25,734 00	26,782 46	28,160 56
Shovelling.....			16,415 45	26,551 64	18,452 04
Light and power.....	5,381 42	15,245 92	16,689 33	13,461 95	11,540 23
Fuel.....	81 99	95 49	154 31	143 46	147 45
Oil and waste.....	88 08	170 64	281 03	218 99	329 93
Inspection of scales.....	267 94	90 51	91 84	82 35	63 12
Lamps and brooms.....	22 94	23 08	112 02	94 49	74 19
Telephone, printing and stationery.....	34 20	58 75	125 00	121 95	144 70
Supplies.....	882 88	989 58	1,611 52	1,798 09	2,182 07
Insurance.....	237 29	250 00	368 53	248 98	50 00
Total Operating Expenses.....	\$ 18,792 29	\$ 35,589 39	\$ 63,649 54	\$ 64,908 68	\$ 63,839 08
Total Repairs, Maintenance and Operating Expenses.....	\$ 19,404 87	\$39,024 91	\$68,820 27	\$70,706 93	\$67,474 88
Profit or Loss* before charging interest on cost of construction.....	*\$11,434 24	\$ 6,326 65	\$ 13,643 58	\$ 41,332 70	\$ 63,550 34
Deduct: Interest on cost of —					
Elevator.....	21,709 42	21,765 82	21,782 23	34,311 39	34,311 39
Conveyors.....		4,314 20	7,185 59	12,744 63	12,783 82
	21,709 42	26,080 02	28,967 82	47,056 02	47,095 21
Net Profit or Loss*.....	*\$33,143 66	*\$19,753 37	*\$15,324 24	*\$5,723 32	\$16,455 13

EXHIBIT 7.

 HARBOUR COMMISSIONERS OF MONTREAL.
 STATEMENT OF EARNINGS AND EXPENSES OF NEW STEEL SHEDS.

	1907.	1908.	1909.	1910.	1911.
REVENUE.					
Rentals.....	\$14,600 00	\$29,500 00	\$101,500 00	\$100,599 97	\$100,499 97
EXPENDITURES.					
Repairs and Maintenance—		\$ cts.	\$ cts.	\$ cts.	\$ cts.
Painting.....			134 01	918 45	1,341 09
General repairs.....				350 00	412 75
Total Repairs and Maintenance.....			\$ 134 01	\$ 1,268 45	\$ 1,753 84
Operating Expenses—					
Engineering Staff salary.....				156 01	102 36
Wages.....	3,430 00	4,176 32	8,413 37	3,927 44	4,078 34
Insurance.....				6,372 90	5,550 00
Total Operating Expenses.....	3,430 00	3,430 00	12,589 69	10,456 35	9,730 70
Total Repairs and Operating Expenses.....		3,430 00	12,723 70	11,724 80	11,484 54
Profit before deducting interest on cost of sheds.....	14,600 00	26,070 00	88,776 30	88,875 17	89,015 43
Deduct :—Interest on cost of sheds.....			102,079 63	100,200 48	100,200 48
Net Profit or Loss*.....	14,600 00	26,070 00	*13,303 33	*11,325 31	*11,185 05

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EXHIBIT 8.

HARBOUR COMMISSIONERS OF MONTREAL.

STATEMENT OF EARNINGS AND EXPENSES OF FLOATING CRANE.

	1909.		1910.		1911.	
	\$	cts.	\$	cts.	\$	cts.
Revenue—	2,369	00	3,087	32	6,617	00
Expenditures—						
Repairs and maintenance, General repairs	892	02	1,024	54	373	34
Operating expenses—						
Engineering staff salaries	105	28	104	15	77	07
Wages	1,788	15	2,405	62	3,350	70
Fuel	190	00	322	50	540	00
Total operating expenses	2,083	43	2,832	27	3,967	77
Total repairs and operating expenses	2,975	45	3,856	81	4,341	11
Profit or loss* before deducting interest on cost of crane	*606	45	*789	49	2,275	89
Deduct—Interest on cost of floating crane	3,022	24	3,915	19	3,915	19
Net profit or loss*	*3,628	69	*4,704	68	*1,639	30

EXHIBIT 9.

HARBOUR COMMISSIONERS OF MONTREAL.

STATEMENT OF EARNINGS AND EXPENSES OF FLOATING ELEVATORS.

	1910.		1911.		
	\$	cts.	\$	cts.	
Gross revenue—					
Elevating grain	89,732	14	43,032	26	
Shovelling grain	10,624	50	12,600	34	
		\$50,356	64	\$55,632	60
Expenditures—					
Repairs and maintenance—					
Belting			835	09	
General repairs	645	32	1,663	83	
Total repairs and maintenance		645	32	2,498	92
Operating expenses—					
Engine staff salary			367	05	
Wages	10,820	37	14,902	85	
Shovelling	9,163	01	10,521	35	
Fuel	2,420	50	2,714	75	
Inspection of scales	30	45	82	05	
Stationery and printing	42	19	85	95	
Insurance	868	29			
Total operating expenses		\$23,345	41	\$28,674	00
Total expenditures		\$23,990	73	\$31,172	92
Profit before charging interest on cost of equipment		\$26,365	91	\$24,459	68
Less—				3,384	50
Interest on cost of elevators					
Net profit		\$ 26,365	91	\$21,075	18

EXHIBIT 10.

HARBOUR COMMISSIONERS OF MONTREAL.

STATEMENT OF WHARFAGES RECEIVED THROUGH CUSTOMS DEPARTMENT.

	1907.	1908.	1909.	1910.	1911.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Inward.....	225,513 67	200,539 97	208,927 55	258,996 20	256,373 33
Outward.....	96,659 62	95,132 59	97,733 00	94,077 34	103,549 29
	322,173 29	295,672 56	306,660 55	353,073 54	359,922 62
Less: refunds.....	629 06	1,942 04	766 79	1,202 21	1,922 89
	321,544 23	293,730 52	305,893 76	351,871 33	357,999 73

EXHIBIT 11.

HARBOUR COMMISSIONERS OF MONTREAL.

STATEMENT OF COLLECTIONS BY WHARFINGER.

	1907.	1908.	1909.	1910.	1911.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Inwards dues.....	14,812 18	17,454 66	17,983 15	26,889 23	42,394 01
Outwards dues.....	3,061 56	4,555 53	7,291 81	9,395 00	6,743 68
Commutation dues.....	13,846 00	15,305 00	14,292 00	16,240 00	15,936 00
Rentals of spaces.....	22,610 88	21,534 56	34,125 88	35,405 03	35,893 31
	54,330 60	58,849 75	73,692 64	87,930 16	101,017 00
Less refunds and transfers.....			18 13	1,131 40	161 45
	54,330 60	58,849 75	73,674 51	86,798 76	100,855 55
Number of local vessels.....	15,161	13,173	11,661	13,636	11,710
Tonnage.....	5,546,936	5,548,028	5,057,907	4,327,799	4,275,019

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EXHIBIT 12.

HARBOUR COMMISSIONERS OF MONTREAL.

LOCAL WHARFAGES INWARDS.

	1907.	1908.	1909.	1910.	1911.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Coal.....	3,401 82	5,132 52	9,291 66	12,773 94	19,826 10
Stone.....	3,197 60	2,457 44	586 48	1,573 18	5,634 90
Sand.....	2,799 68	3,410 72	112 48	4,610 92	6,007 94
Lumber.....	1,561 80	1,192 62	1,500 58	1,540 53	1,065 11
Bricks.....	1,349 34	1,240 80	1,160 61	1,698 02	1,404 99
Cement.....	715 12	348 48		543 42	2,511 72
Steel.....	546 20	1,819 20		357 48	626 25
Firewood.....	518 68	451 92	370 20	317 68	320 26
Potatoes.....	85 56				175 35
Paving blocks.....	80 64				
Hay.....	245 72	268 20	197 28	171 48	192 72
Cinders.....		142 14			
I.e.....		186 00			
Overcarried goods.....		139 40			
Gas oil.....			321 20		
Machinery.....			138 60	94 75	120 55
Granite blocks.....			120 72		
Sugar.....			663 00	102 88	367 76
Penalties.....			94 00	406 75	404 30
Grain.....				1,912 89	2,033 28
Ice.....				303 90	134 00
Manure.....				102 50	
Pig iron.....					201 60
Oil.....					672 10
Other commodities.....	300 02	665 22	414 86	374 01	695 08
	14,812 18	17,454 66	17,983 15	26,889 23	42,394 01

EXHIBIT 13.
HARBOUR COMMISSIONERS OF MONTREAL.

LOCAL WHARFAGES OUTWARDS.

	1907.	1908.	1909.	1910.	1911.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Sugar.....	2,901 28	4,303 84	4,879 52	5,811 04	4,689 44
Terra cotta.....	58 00	130 00	51 00	43 00	
Mercel. disc.....	23 40		15 72	60 60	
Machinery.....	17 20		7 00	20	
Flour.....	12 36	4 32	52 50	372 18	263 07
Lumber.....	8 13	1 29	2 61	5 35	
Cinders.....	9 90				
Oil.....	5 80	12 06	1 80	2 00	
Groceries.....	3 80	2 40	4 20		
Grain.....	3 03	17 61	921 84	22 65	9 45
Coke.....	2 52				
Scrap iron.....	2 40	33 60			10 32
Steam shovel.....	2 00				
Paint.....	1 80				
Beer.....	1 40				
Cement.....	1 20	1 60	1,238 64	2,309 02	1,044 80
Pork.....	60		12		
Meat.....	60				2 66
Skins.....	24				
Firebricks.....			7 60	1 60	
Coal.....		27 48	11 94	667 32	600 60
Hardware.....		6 80			
Nails.....		2 60			
Wire.....		2 40	40	60	
Tar paper.....		1 20			
Iron.....		1 40	1 40		
Bottles.....		40			
Drain pipes.....		40	40		
Gasolene.....		40			
Vinegar.....		40			
Sundries.....		4 48	4 58	4 06	1 44
Molasses.....		1 00	1 00		
Fertilizer.....			9 82	15 68	25 40
Stone.....			47 04		
Overcarried goods.....			20 00		
Paper.....				66 60	
Empty bags.....				9 00	6 50
	3,061 56	4,555 53	7,291 61	9,395 90	6,743 68

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EXHIBIT 14.

HARBOUR COMMISSIONERS OF MONTREAL.

LOCAL WHARFAGES—COMMUNICATIONS.

Name of Steamer or Company.	1907.	1908.	1909.	1910.	1911.
	\$	\$	\$	\$	\$
Richelieu and Ontario Navigation Company.....	10,000	10,000	10,000	10,000	10,000
SS. <i>Campania</i>	1,000	875	350		
St. Lawrence Canadian Navigation Company.....	960	2,240	1,600		
Canadian Pacific Railway (Retaining Wall).....	500				
Canadian Pacific Railway (Cars at 50c).....	496	1,055	1,112	1,498	1,523
SS. <i>Gaspesian</i>	250	250	220	320	280
SS. <i>St. Louis</i>	250				
Str. <i>Persia</i>	250	125			
Str. <i>Etoile</i>	140	120	140	160	140
Grand Trunk Railway (Winter cars).....		390			
Str. <i>Florida</i>		250			
Str. <i>Louisville</i>			250	250	
Str. <i>Lady of Gaspe</i>			250	250	250
Richelieu Ice Company.....			100		
Charlemagne and Lac Oureau Lumber Company.....			20	20	20
Black Diamond Line.....				1,467	2,840
SS. <i>Caspedia</i>				875	
SS. <i>Préfontaine</i>				600	250
King Edward Park Company.....				250	100
Sorel Ice Company.....				250	250
SS. <i>City of Toronto</i>				150	100
Revillon Bros.....				100	
La Cie Navigation du Canada.....					200
SS. <i>Rene Paul</i>					33
	13,846	15,305	14,292	16,240	15,886

EXHIBIT 15.

HARBOUR COMMISSIONERS OF MONTREAL.

LOCAL WHARFAGES, RENTAL OF SPACES.

	1907.	1908.	1909.	1910.	1911.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Coal spaces.....	5,450 96	14,743 63	12,759 38	15,973 37	14,889 60
Coal Elevators.....	9,750 00		12,208 00	15,230 00	13,830 00
Scale spaces.....	1,400 00	1,300 00	1,350 00	1,300 00	1,950 00
Cattle yard spaces.....	628 08	688 08	2,182 88		2,532 36
Cord wood spaces.....	309 00	309 69	224 70		
Small offices.....	2,976 25	1,830 45	2,403 38	1,420 26	1,366 75
Lumber spaces.....	930 07	1,727 67	853 26	608 00	601 60
Scoria block spaces.....	120 00	120 00	320 00		
Sand spaces.....	672 50	641 25	720 00	640 00	450 00
Stone spaces.....	64 00				48 00
Brick spaces.....	120 00	73 00	18 00		
Small boat spaces.....	50 00	50 00	50 00		30 00
Laurier pier spaces.....	50 00				
Coal platforms.....		51 48	653 38	188 40	
Pillar pig iron.....			330 90		
Space for building dredge.....			50 00		
Lunch counter spaces.....				45 00	145 00
	22,610 86	21,521 56	34,125 85	35,405 03	35,893 31

EXHIBIT 16.

HARBOUR COMMISSIONERS OF MONTREAL.

RENTALS OF TRACKS, LAND, SPACES, ETC.

	1907	1908.	1909.	1910.	1911.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Rental of Office— Department of Railways and Canals.....	400 00				
Total rental of office.....	400 00				
Rental of Tracks—					
Grand Trunk Railway.....	6,823 46	5,091 20	5,340 34	5,340 34	5,340 34
Canadian Pacific Railway.....	1,928 97	159 01	465 82	80 49	241 47
Canadian Northern Railway.....	814 39		738 63	738 62	738 62
Locomotive and Machine Company.....	255 70	255 70	255 70	255 70	255 70
Intercolonial Coal Mining Company.....	192 16	168 14	160 04	192 04	192 04
Nova Scotia Steel Company.....		131 30	242 42	242 42	299 24
Montreal Southern Counties Railway.....			48 75	90 00	90 00
Inyerness Railway Company.....	75 75				
Canada Cement Company.....					182 77
Total rental of tracks.....	10,090 43	5,805 35	7,251 70	6,939 61	7,340 18
Rental of Land and Spaces—					
Dominion Textile Company.....	250 00	250 00	250 00	250 00	1,250 00
E. Chausse Company.....	100 15				
St. Lawrence Sugar Refining Co.....	126 00				
James J. Murphy.....	500 00				
W. J. Sharples.....	187 50			12 00	
Miscellaneous.....	92 51				
Total rental of land and spaces.....	1,256 16	250 00	250 00	262 00	1,250 00
Rental of Coal Towers—					
Dominion Coal Company.....	1,886 44	1,886 44	1,886 44	1,886 44	
Total rental of coal towers.....	1,886 44	1,886 44	1,886 44	1,886 44	
Rental of Laporte Bridge—					
City of Montreal.....		549 73	421 56		632 34
Total rental of Laporte bridge.....		549 73	421 56		632 24
Grand Total.....	13,633 03	8,491 52	9,809 70	9,088 05	9,222 53

EXHIBIT 17.
HARBOUR COMMISSIONERS OF MONTREAL.
ANALYSIS OF MATERIAL, ETC., PURCHASED.

SESSIONAL PAPER No. 57

MONTREAL HARBOUR COMMISSIONERS

	1907.	1908.	1909.	1910.	1911.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Coal.....	24,899 22	19,631 56	18,203 90	34,081 70	58,143 14
Sand.....	3,872 25	6,656 42	1,917 06	10,633 15	18,508 52
Cement.....	15,864 43	36,233 65	8,946 04	45,865 50	61,911 92
Concrete Stone.....	10,273 34	19,993 70	10,088 36	42,692 97	51,365 56
Macadamising Stone.....	6,214 77	4,720 32			3,363 84
Timber.....	14,992 66	51,733 65	38,074 72	170,893 94	111,533 82
Machine Shop Stock.....	24,061 65	16,267 42	14,801 56	44,521 62	63,507 14
Railway Stock.....	22,971 00	3,861 39	6,717 00	24,380 32	22,206 66
Shipyards Stock.....	1,878 82	807 17	1,077 13	2,198 29	3,636 48
Harbour Yard Stock.....	10,753 57	6,839 17	7,658 31	35,421 65	24,313 36
Plant.....	34,627 12	90,682 19	54,345 06	81,852 90	89,170 91
Paving Blocks.....	47,529 00	49,545 49	3,444 00		212 00
Filling C.P.R. (Earth).....					37,000 00
Maintenance, General.....	8,457 98	1,606 66	3,708 83	9,264 35	6,251 24
	\$ 226,395 81	\$ 308,608 79	\$ 168,981 97	\$ 501,806 39	\$ 551,124 59.
Victoria Pier and Market Basin.....					31,372 90
Rent of Dredge (International).....					14,700 00
Elevator No. 1.....	8,578 17	19,861 63	23,372 05	22,167 63	20,054 12
Elevator No. 2.....				190,783 10	424,503 48
Floating Elevator.....					1,280 40
Elevator Conveyor System.....	33,358 57	178,882 76	168,867 72		
Grain Elevator No. 1 (Construction).....	1,880 00				
Electric Hoist.....				9,215 42	9,629 50
Explosives.....	5,702 72	7,646 95	2,317 81	2,833 33	4,204 31
Bridge, King Edward Pier.....					7,879 23
Railway Tracks.....			475 45	2,448 89	6,133 71
Victoria Pier Shed Piling.....					54,613 24
Steel Bridge.....					75,042 96
New Harbour Yard.....					42,912 92
Tarte Pier Shed.....					90,908 78
Lighting Wharves.....	7,597 68	8,284 97	8,870 25	8,457 60	9,385 45
Steel Shed.....	1,185,228 04	755,581 98	40,245 29		
New Marine Tower.....				22,475 95	
Tug <i>Allan</i>					122,707 22
High Level Railway Filling, etc.....				84,164 94	
Construction, General.....	16,684 96	9,542 03	22,846 73	11,928 39	22,424 07
	1,250,030 14	979,800 32	266,995 30	354,475 30	937,842 29
	\$1,485,425 95	\$1,288,409 11	\$ 435,977 27	\$ 856,281 69	\$1,488,966 88

EXHIBIT 18.
HARBOUR COMMISSIONERS OF MONTREAL.

ANALYSIS OF PAY ROLL.

	1907.	1908.	1909.	1910.	1911.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Engineering Staff.....	21,713 61	24,079 76	21,263 60	20,171 06	17,347 78
Superintending staff.....	14,762 31	15,629 65	15,314 44	15,603 31	18,030 38
Harbour extension staff.....				13,288 00	15,221 66
Elevator No. 1.....	10,506 45	17,938 86	25,734 00	26,782 46	28,160 56
Elevator No. 2.....				121,769 11	423,948 84
Harbour yard.....	8,198 02	7,634 64	5,907 35	5,609 53	6,484 25
Ship yard.....	18,850 47	21,310 72	17,190 97	33,660 17	48,533 28
Machine shop.....	17,674 38	17,814 80	18,121 15	30,163 49	43,314 82
Timber room.....	10,237 09	14,466 99	11,989 37	16,269 19	20,431 47
Floating elevator.....				10,820 37	14,902 85
Dredging.....	40,259 90	39,768 66	39,146 04	70,543 79	121,277 95
Shed maintenance.....			4,176 32	3,927 44	4,078 34
Harbour maintenance and repairs.....	48,244 85	48,140 11	34,400 51	25,512 00	26,365 44
Railway maintenance and traffic.....	12,822 30	16,213 29	6,072 68	6,638 24	10,765 14
Electric hoist maintenance.....					890 36
Floating crane.....	6,083 28	18,636 42	1,788 15	2,405 62	3,350 70
Elevator conveyer equipment.....	110,550 05	117,815 45	66,184 99	217,663 58	267,871 36
Construction general.....					
Total engineering department.....	319,902 71	359,449 35	275,771 90	620,733 36	1,070,974 18
Traffic department.....	22,863 63	26,207 53	29,097 01	37,647 10	41,815 66
Administrative staff.....	24,572 39	26,017 99	26,433 06	29,798 10	31,597 34
Commissioners salaries.....	367,338 73	411,674 87	331,301 99	688,178 56	1,144,387 83
	17,000 00	17,000 00	17,000 00	17,000 00	17,000 00
	384,338 73	428,674 87	348,301 99	705,178 56	1,161,387 83

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EXHIBIT 19.

HARBOUR COMMISSIONERS OF MONTREAL.

COMPARATIVE LAFOUR RATE STATEMENT.

	Last week of June.				
	1907.	1908.	1909.	1910.	1911.
	Per hour.	Per hour.	Per hour.	Per hour.	Per hour.
Dredging Fleet—					
Captains.....	† \$60 00	† \$60 00	† \$60 00	† \$60 00	† \$65 00
Engineers.....	† 70 00	† 70 00	† 70 00	† 70 00	0 35
Assistant engineers.....	0 25	0 25	0 25	0 25	0 27½
Firemen.....	0 19	0 19	0 19	0 20	0 20
Deck hands.....	0 17	0 17½	0 17½	0 17½	0 18½
Watchmen.....	* 1 70	* 1 75	* 1 75	* 1 75	* 1 85
Cooks.....	† 14 50	† 14 50	† 14 50	* 14 50	† 15 50
Cranesmen.....	0 32½	0 32½	0 32½	0 32½	0 35½
Foreman-Drill boat.....	† 124 00	† 124 00	† 124 00	† 124 00	† 135 00
Blasters.....	0 25	0 25	0 25	0 25	0 27
Drillers.....	0 22½	0 22½	0 22½	0 22½	0 25
Blacksmiths.....	0 27	0 27	0 27	0 27	0 27
Smiths helpers.....	0 18	0 18	0 18	0 18	0 20
Machine Shop, Ship Yard, etc.—					
Machinists.....	22½-27	22½-27	22½-27	22½-27	25-30
Drillers.....	0 20	0 20	0 20	0 25	0 27½
Riggers.....	0 20	0 22½	0 22½	0 22½	0 25
Handymen.....	0 19½	0 19½	0 19½	0 20	0 22
Firemen.....	0 22½	0 22½	0 22½	0 22½	0 21
Watchmen.....	* 1 70	* 1 75	* 1 75	* 1 75	* 1 85
Blacksmiths.....	26-33	26-33	26-33	26-35	28½-35
Blacksmiths helpers.....	0 17	0 17½	0 17½	0 17½	0 22
Carpenters.....	0 22½	0 25	0 25	0 25	0 27
Labourers.....	0 17	0 17½	0 17½	0 17½	0 18½
Wharves and Shore Work—					
Foremen.....	0 22½-27	0 25-28	0 22½-28	0 22½-30	0 25-30
Sectionmen.....				0 22½	0 25
Watchmen.....	* 1 70	* 1 75	* 1 75	* 1 75	* 1 85
Mechanics.....	0 22½	0 22½	0 22½	0 22½	0 27
Carpenters.....	0 22½	0 25	0 25	0 25	0 27
Handymen.....	0 18½	0 20	0 20	0 20	0 22
Labourers.....	0 17	0 17½	0 17½	0 17½	0 18½
Blacksmiths.....	0 22½	0 22½	0 22½	0 22½	0 27
Carters.....	0 25	0 25	0 25	0 25	0 30

*Per day. †Per month.

EXHIBIT 20.

HARBOUR COMMISSIONERS OF MONTREAL.

SCHEDULE OF SALARIES OF PERMANENT STAFF AT DECEMBER 31, 1911.

	\$	cts.	\$	cts.
Harbour Commissioners—				
G. W. Stephens.....	7,000	00		
L. E. Geoffrion.....	5,000	00		
C. C. Ballantyne.....	5,000	00		
			17,000	00
Harbour Master—				
Jas. McShane, Harbour Master, salary.....	3,500	00		
" allowance, horse keep.....	400	00		
P. Bourassa, Deputy Harbour Master.....	2,500	00		
" allowance, horse keep.....	400	00		
			6,800	00
Pension Roll—				
W. J. Sproul, allowance.....	1,200	00		
Mrs. George Young.....	600	00		
			1,800	00
Administrative Staff— (Secretary's Department)				
D. Seath, secretary.....	4,000	00		
W. J. Fennell, assistant secretary.....	1,800	00		
P. J. Trihey, clerk.....	1,500	00		
F. Massey, clerk.....	900	00		
			8,200	00
Paymaster and Wharfinger—				
R. A. Eakin, paymaster-wharfinger.....	2,300	00		
D. Stewart, assistant paymaster.....	1,200	00		
H. Sy, assistant wharfinger.....	1,200	00		
W. Weir, clerk.....	720	00		
			5,420	00
Customs Clerk—				
A. E. Beauvais, inspector wharfbages.....	2,000	00		
P. V. Seath, asst. inspector wharfbages.....	1,200	00		
			3,200	00
Wharf Offices—				
R. A. Elliott, checker.....	780	00		
J. Harrison, constable.....	780	00		
T. Bazinet, constable.....	780	00		
			2,340	00
General—				
T. Glennon, messenger.....	700	00		
Miss Lurose, operator.....	360	00		
H. Leclaire, caretaker.....	780	00		
			1,840	00
Traffic Department—				
J. Vaughan, superintendent.....	3,500	00		
R. L. Mercier, chief clerk.....	1,200	00		
A. M. Bechard, clerk.....	660	00		
J. P. Flynn, acting yard master.....	1,500	00		
W. Geldsmith, assistant yard master.....	1,500	00		
			8,360	00
Purchasing Agent—				
L. N. Archambault, purchasing agent.....	1,600	00		
			1,600	00
Engineering Department—				
J. Kennedy, consulting engineer.....	4,000	00		
T. W. Cowie, chief engineer.....	5,000	00		
J. E. Primeau, Stenographer.....	900	00		
			9,900	00
Resident and Assistant Engineers—				
A. D. Swan, resident engineer.....	4,000	00		
F. L. Gagnon, asst. resident engineer.....	2,000	00		
E. N. Brietzeke, engineer.....	1,800	00		
F. W. Harvie, engineer.....	1,800	00		
F. G. Ryan, engineer.....	1,500	00		
J. G. Reed, engineers assistant.....	1,200	00		
O. Heroux, chauffeur.....	840	00		
			13,140	00

EXHIBIT 21.

HARBOUR COMMISSIONERS OF MONTREAL.

STATEMENT OF CAPITAL ASSETS BY LEDGER ACCOUNTS ADDITIONS DURING FIVE YEARS.

	Balance Jan. 1, 1907.	Addition during period.	Balance Dec. 31, 1911.
	\$ cts.	\$ cts.	\$ cts.
Land and Buildings--	82,656 90	275 00	82,931 90
Real Estate No. 2.....	37,632 87	25 00	37,657 87
" No. 4.....		13,141 05	13,141 05
" No. 5.....		62,000 00	62,000 00
Balance Rafferty Property.....		66,662 76	66,662 76
Harbour Yard and Engine House.....		7,712 45	7,712 45
Engine House.....		3,000 00	3,000 00
Office Building (advance to Thackeray).....			
	120,289 77	152,816 26	273,106 03
Harbour of Montreal and Dredging--	1,487,652 66	12,144 82	1,499,797 48
Harbour of Montreal.....	1,243,518 46	377,689 54	1,621,208 00
Harbour Improvements.....	75,384 37	3,161 89	78,546 26
New Approach Improvements.....		396,565 07	396,565 07
Eastern Section Improvements.....		8,136 69	8,136 69
Harbour Extension.....	347 02	(Less) 347 02	
Harbour Dredging Fleet.....	843,023 54	10,530 80	853,554 34
Dredging.....	203,119 49	36,233 37	239,352 86
Ship Channel.....		183,609 29	183,609 29
Dredging and Filling.....		12,365 51	12,365 51
Channel through Through Shoals, Sec. 56-59.....	1,766 59	2,257 90	4,024 49
Spoil Bank Sec. 12.....	25,498 86	38,059 99	63,558 85
" " 55.....		10,432 35	10,432 35
Reconstructing Raceway Section 7.....		10,964 12	16,964 12
Raceway No. 1.....			
	3,880,310 99	1,108,007 35	4,988,318 34
Harbour Railway and Tracks--	342,543 61	120,435 65	462,979 26
Harbour Railway.....		594,050 17	594,050 17
High Level Railway.....	35,160 16	1,233 67	36,393 83
Great Northern Ry.....	26,949 27	187 64	27,136 91
Dominion Coal Co's. Tracks.....		12,813 73	12,813 73
Railway Embankment Sec. 56-60.....			
	404,652 04	728,720 86	1,133,373 90
Sheds--	1,297,637 91	2,042,378 23	3,340,016 14
New Steel Sheds.....		69,206 39	69,206 39
Permanent High Level.....		92,387 56	92,387 56
" Tarte Pier.....		11,628 13	11,628 13
Electric Hoist Sheds 11 and 12.....		477 01	477 01
Wiring Sheds.....		Less 48,587 77	less 48,587 77
Customs Duty Refunded.....			
	1,297,637 91	2,167,489 55	3,465,127 46

SESSIONAL PAPER No. 57

HARBOUR COMMISSIONERS OF MONTREAL.—Continued.

STATEMENT OF CAPITAL ASSETS BY LEDGER ACCOUNTS ADDITIONS DURING FIVE YEARS.—Continued.

	Balance	Addition	Balance
	Jan. 1, 1907.	during period.	Dec. 31, 1911.
	\$ cts.	\$ cts.	\$ cts.
Wharves, Piers and Basins—			
Mackay Pier.....	24,340 61	69 12	24,409 73
Victoria Pier.....	60,361 52		60,361 52
Victoria Foot Bridge.....	27 00	8,774 57	8,801 57
" and Market Basin.....		595,075 56	595,075 56
Dominion Coal Co.....	9,453 48	42,990 24	52,443 72
Vulcan Wharf.....		101,093 02	101,093 02
Windmill Point Basin.....	251,717 07	2,700 00	254,417 07
" Wharf.....	372,906 72	20,005 68	392,912 38
" Raising.....	910,278 18	13,410 08	923,688 26
Piling Wharves, Sec. 21.....	7,403 02		7,403 02
New Wharves, Sec. 23-24.....	101,502 02	28,811 54	130,313 56
Longue Point.....	115,409 91		115,409 91
Guard Pier Construction.....	291,529 54		291,529 54
Western Wharf, Longue Point.....	7,886 27		7,886 27
Clearing O. W. Wharf Victoria Pier.....	3,217 54		3,217 54
New Wharf, Sec. 35.....		252,213 47	252,213 47
Piling Wharves.....		2,149 47	2,149 47
Elgin Basin.....		1,273 15	1,273 15
Deep Water Berth.....	78,987 42		78,987 42
Rebuilding Culverts, Sec. 5.....		16,116 68	16,116 68
Hochelaga Construction.....	745,576 22	221 66	745,797 88
	2,980,596 52	1,084,904 22	4,065,500 74
Grain Elevators and Conveyor System—			
Elevator No. 1 Construction.....	723,347 55	420,365 45	1,143,713 00
" 1 Marine Power.....		22,475 95	22,475 95
" 2 Part 1.....		168,693 78	168,693 78
" 2 Part 2.....		1,154,900 21	1,154,900 21
" 2 Accident Account.....		2,687 33	2,887 33
" 2 Insurance Account.....		215 62	215 26
Floating Elevator.....		96,700 00	96,700 00
New Transporters.....		19,143 95	19,143 95
Elevator Conveyor System.....		426,127 47	426,127 47
	723,347 55	2,311,509 76	3,034,857 31
Plant Account—			
Harbour Plant Account.....	295,792 53	26,312 78	322,105 31
Traffic Dept. Plant.....		55,828 03	55,828 03
New Floating Crane.....		130,506 46	130,506 46
General Improvement Plant Account.....		243,076 17	243,076 17
Gilbert Dredge.....		45,050 00	45,050 00
Sunken Dredge No. 1.....		3,545 67	3,545 67
New Lanterns.....		4,822 89	4,822 89
Concrete Screws.....	124 34	(less) 424 34	
Drilling and Blasting.....	182 65	(less) 182 65	
S. S. Marshall for Sunken Dredge.....		(less) 16,691 56	(less) 16,691 56
	296,399 52	491,813 45	788,242 97
Miscellaneous—			
Chart Account.....	2,381 70		2,381 70
McGill St. Flood Gate.....		405 90	2,405 90
Work in Progress.....		23,073 37	23,073 37
New Chart Account.....		2 40	2 40
Maisonneuve Injunction.....		231 00	231 00
R. C. H. Dorian.....		7,371 76	7,371 76
Board of Consulting Engineers.....		3,400 00	3,400 00
Flood Wall Railing.....		467 85	467 85
Dry Dock.....	5,468 06	176 00	5,644 06
Dynamite Explosion.....		217 70	217 70
Signal Service Station.....		249 30	249 30
	7,849 76	37,595 28	45,445 04
Total.....	9,711,085 06	8,082,886 73	17,793,971 79

EXHIBIT 22.

HARBOUR COMMISSIONERS OF MONTREAL.
SUMMARY OF DEBENTURES HELD BY GOVERNMENT AND PUBLIC.

Series.	Date of Maturity	Act of Parliament.	Amount Authorized under Act.	Rate of Interest.	Amount Received to Dec. 31, 1911.	Balance of Amount Authorized
			\$ cts.		\$ cts.	\$ cts.
To the Government:						
"K"	July 1, 1921	Act 59 Victoria Chap. 10 Sec. 3.	2,000,000 00	3 1/2%	2,000,000 00	—
"L"	" 1, 1926	" 61 " " 47 " 2.	2,000,000 00	3 1/2%	2,000,000 00	—
"M"	" 1, 1927	" 1 Edw. VII. " 9 " 3.	1,000,000 00	3 1/2%	945,000 00	55,000 00
"N"	" 1, 1929	" 3 " " 36 " 3.	3,000,000 00	3 1/2%	3,000,000 00	—
"O"	" 1, 1929	" 6-7 " " 30 " "	3,000,000 00	3 1/2%	3,000,000 00	—
"S"	" 1, 1932	" 6-7 " " 30 " "	250,000 00	3 1/2%	250,000 00	—
"P"	" 1, 1931	" 6 " " 35 " "	6,000,000 00	3 1/2%	3,540,000 00	2,460,000 00
"T"	" 1, 1935	" 9-10 " " 40 " "	6,000,000 00	3 1/2%	3,540,000 00	2,460,000 00
			17,250,000 00		14,735,000 00	2,515,000 00
To the Public:						
"A"	July 5, 1910	Act 36 Victoria Chap. 61 Sec. 22.	100,000 00	5 1/2%	100,000 00	—
"B"	" 5, 1913	" 18 " " 143 " 29.	200,000 00	5 1/2%	200,000 00	—
"C"	" 5, 1914	" 18 " " 143 " 29.	200,000 00	5 1/2%	200,000 00	—
"D"	" 5, 1915	" 18 " " 143 " 29.	100,000 00	5 1/2%	100,000 00	—
"E"	" 5, 1915	" 36 " " 61 " 22.	100,000 00	5 1/2%	100,000 00	—
"F"	" 5, 1917	" 18 " " 143 " 29.	235,000 00	4 1/2%	235,000 00	—
"G"	" 5, 1918	" 36 " " 61 " 22.	300,000 00	4 1/2%	300,000 00	—
"H"	" 5, 1921	" 36 " " 61 " 22.	407,000 00	4 1/2%	407,000 00	—
"I"	" 5, 1924	" 18 " " 143 " 29.	330,000 00	4 1/2%	330,000 00	—
			\$1,972,000 00		\$1,972,000 00	100,000 00
		Less Series "A" redeemed July 5, 1910			100,000 00	
					1,872,000 00	
		Total amount of Debentures issued to Public and Government			\$16,607,000 00	

EXHIBIT 23.

HARBOUR COMMISSIONERS OF MONTREAL.

STATEMENT OF ALLOTMENTS, LEASES AND PERMISSIONS GRANTED BY BY-LAWS IN FORCE DECEMBER 31, 1911.

By-Law Number.	Description of Property.	Name of Lessees or Allottees.	Period of Lease.	Date of Maturity.	Consideration.	Remarks.
ALLOTMENTS—						
81	Lower portion of Windmill Point Wharf.	Grand Trunk Railway...	40 years, renewable.	July 4, 1942.....	Grand Trunk Railway to build two Grain Elevators, etc.	
82	Upstream portion of east side Windmill Point Wharf.	Grand Trunk Railway...	10 years.....			No leases granted; property is rented, but held at the pleasure of the Harbour Commissioners. Commissioners are empowered to make Leases for 10 years under By-Laws.
83	Portion of Wharf, east side Windmill Point.	Dominion Coal Co.....	10 years.....			
84	Portion of Wharf; west side Windmill Point.	Intercolonial Coal Co.....	10 years.....			
85	Two areas of Wharf; west side of Windmill point.	Nova Scotia Coal Co.....	10 years.....			
LEASES—						
108	Sundry pieces of land at Sections 21-32.	Canadian Pacific Railway	40 years, renewable.	Sept. 11, 1951...	\$100,000.00.	Consideration payable on or before Sept. 30, 1911.
86	Sections 27 and 28.....	Canadian Pacific Railway	40 years, renewable.	Sept. 11, 1951...		This Lease was cancelled and superseded by Lease under By-Law 108.
87	Two strips of land.....	Dominion Park Co. Ltd.	40 years, renewable.	Dec 31, 1946.....	\$1 per annum.....	
88	Land on Sections 44-45.....	St. Lawrence Sugar Refining Co., Ltd.	40 years, renewable.	Nov. 22, 1947.....	\$1 per annum.....	Consideration payable November 22nd each year.
102	Vulcan Wharf; 450 feet at Sections 71-72.	Canada Cement Co. Ltd.	10 years.....			If wharfrage dues on goods landed on wharf do not amount to \$6,000.00 per annum, the Company to pay any deficiency.
107	Strip of land in Sections 40 and 41.	Dominion Textile Co. Ltd.	40 years, renewable.	April 30, 1951...	\$2,000 per annum.....	Consideration payable in half-yearly amounts of \$1,000 each on May 1st and November 1st.

EXHIBIT 23--Continued.

HARBOUR COMMISSIONERS OF MONTREAL--Continued.

STATEMENT OF ALLOTMENTS, LEASES AND PERMISSIONS GRANTED BY BY-LAWS IN FORCE DECEMBER 31, 1911.--Continued.

Number By-Law.	Description of Property.	Name of Lessees or Allottees.	Period of Lease.	Date of Maturity.	Consideration.	Remarks.
<i>LEASES--Continued.</i>						
111	Areas of land to be reclaimed by the Commissioners, opposite Sections 50-57.	Canadian Vickers, Ltd.	50 years, renewable	1962		Rental to be \$17,500 for the first ten years, such rental to accrue two months after the delivery of the lands in a fit condition. After the first ten years the rental to be \$7,500 per annum, plus an interest in the net profits of the Company.
106	Ferry Wharf at St. Helen's Island.	City of Montreal	20 years	loss of Nav- igation, 1930.	\$1,250 per annum	Consideration payable in half-yearly amounts of \$25 each July 1st and October 1st. This lease has not yet been signed.
112	Piece of land, being the widened portions of Common and Commissioner Streets.	City of Montreal	11 years			This By-Law was passed to enable the Commissioners to act when occasion arose. No lease yet in force.
None	Laporte Bridge at Victoria Pier.	City of Montreal	20 years	1926	5% per annum on actual cost of bridge, which cost not to exceed \$11,000.00.	Consideration payable November 1 and May 1.
None	Railway Track, about 425 feet in length.	Montreal and Southern Counties Ry.	Subject to one year's notice.		\$1,000 per measured mile per annum.	Consideration payable half-yearly.
91	PERMISSIONS-- Permission to construct and maintain on Harbour property the footing of a retaining wall, Sections 23 and 25.	Canadian Pacific Railway	40 years	1948		

PUBLIC SERVICE COMMISSION

EXHIBIT 24.

HARBOUR COMMISSIONERS OF MONTREAL.

COMPARATIVE STATEMENT OF DREDGING COSTS.

	1907.			1908.			1909.			1910.			1911.		
	Days.	Cost per Day.	Amount.	Days.	Cost per Day.	Amount.	Days.	Cost per Day.	Amount.	Days.	Cost per Day.	Amount.	Days.	Cost per Day.	Amount.
		\$ cts.	\$ cts.		\$ cts.	\$ cts.		\$ cts.	\$ cts.		\$ cts.	\$ cts.		\$ cts.	\$ cts.
Dredges—															
Repairs and maintenance.....			18,315 57			12,247 13			8,320 48			18,866 04			30,439 79
Fuel.....			3,727 50			3,864 90			3,558 70			6,212 00			10,455 85
Wages of crews.....			9,683 13			9,616 63			9,265 77			17,017 63			33,835 80
Proportion of salaries of staff.....			1,018 22			918 66			1,180 61			1,802 95			1,966 13
Cost.....			33,043 42			26,647 32			22,325 56			43,898 62			76,497 57
Less Credits.....			660 00			437 50									4,897 50
	350	92 39	32,384 42	362	72 40	26,209 82	352	63 42	22,325 56	648	67 59	43,898 62	1,083	66 11	71,600 07
Hoisting Derricks—															
Repairs and maintenance.....			12,510 19			17,367 11			17,475 48			14,428 24			21,466 35
Fuel.....			4,400 00			3,630 90			3,106 50			7,262 77			9,614 80
Wages of crews.....			15,275 29			15,010 53			11,818 68			26,486 53			37,043 28
Proportion of salaries of staff.....			1,954 22			1,356 47			1,742 11			2,092 93			2,267 41
Cost.....			33,239 61			37,405 01			34,142 77			50,270 47			70,391 84
Less Credits.....			2,505 00			2,222 10			7,695 00			1,519 18			4,240 00
	645	47 65	30,734 61	684	56 63	35,182 91	572	46 24	26,447 77	1,333	36 57	48,751 29	696	41 50	66,151 84
Tugs—															
Repairs and renewals.....			7,175 97			5,682 27			7,982 18			7,918 90			25,001 47
Fuel.....			8,043 75			8,474 70			9,819 80			12,804 55			22,575 53
Wages and crews.....			10,660 73			10,503 15			12,350 70			20,274 75			41,554 17
Proportion of salaries of staff.....			859 92			1,014 67			1,811 63			1,799 83			3,673 07
Cost.....			26,740 37			25,674 79			31,964 31			42,798 03			92,204 24
Less Credits.....			1,400 00			2,168 07			4,500 00			5,656 87			9,976 29
	685	36 99	25,340 37	682	34 43	23,506 72	765	35 90	27,464 31	1,224	30 34	37,141 16	2,529	36 45	82,227 95

EXHIBIT 24--Continued.

HARBOUR COMMISSIONERS OF MONTREAL--Continued.

COMPARATIVE STATEMENT OF DREDGING COSTS. --Continued.

	1907.			1908.			1909.			1910.			1911.		
	Days.	Cost per Day.	Amount.	Days.	Cost per Day.	Amount.	Days.	Cost per Day.	Amount.	Days.	Cost per Day.	Amount.	Days.	Cost per Day.	Amount.
		\$ cts.	\$ cts.		\$ cts.	\$ cts.		\$ cts.	\$ cts.		\$ cts.	\$ cts.		\$ cts.	\$ cts.
Scows and sundry plants—															
Repairs and maintenance.....			24,029 94			22,527 41			15,377 78			38,413 89			38,120 86
Fuel and wages of crews.....						17 05			1,605 12			1,353 50			1,949 52
Proportion of salaries of staff.....			302 32			459 53			326 24			532 65			954 07
Cost.....			24,332 26			23,003 99			17,309 14			40,300 04			41,024 45
Less Credits.....			180 00			1,144 95			1,252 50			1,873 59			3,850 67
			24,152 26			21,859 04			16,056 64			38,426 54			37,173 78
Total.....			112,611 63			106,758 4			92,294 28			168,517 61			257,153 64
Miscellaneous—															
Government dredge, tug and derrick.....			4,899 67			3,577 99									14,065 00
Tug St. Peter employed as fire protection.....			7,562 40			8,093 42									14,860 13
Drilling and blasting boat.....							102 93 76	9,869 46	150 76 45	11,512 46	171 86 90				286,698 77
Less dredging blasting done for the Government.....			125,073 73			118,429 90			102,193 74			179,730 07			286,698 77
								45,081 51							
Grand total.....			125,073 73			118,429 90			56,482 23			179,730 67			286,698 77
Work done by dredging fleet for other Departments.....															

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EXHIBIT 25.

HARBOUR COMMISSIONERS OF MONTREAL.
STATEMENT OF DREDGING AS SHOWN BY THE ENGINEERING DEPARTMENT.
(Cubic Yards).

	1907.	1908.	1909.	1910.	1911.	Total.
Basin Section 12 N-20 N.—						
Trap and Blasted itock.....	1,050.			400		1,450
Gravel, Sand and Stone.....		12,804				12,804
Rock Cleaning Bottom.....			5,434			5,434
Basin Sections 12 S-14 S.—						
Blasted Rock.....	37,201	59,384		54,937		151,522
“ Shale Trap.....			43,914			43,914
Basin Sections 15 x 17 and 18.—						
Silt and Deposit.....	6,900					6,900
Blasted Rock.....	300					300
Basin Section 36 x 39.—						
Gravel, Sand and Stone.....	51,175					51,175
Cribbeats Sections 24 x 30 x 37.—						
Gravel, Sand and Stone.....	34,685	77,520		1,415		113,620
Blasted Rock.....						
Deepening at Coal Towers.						
Silt and Deposit.....	1,350					1,350
Ship Channel Section 33-45—						
Gravel, Sand and Stone.....	44,000					44,000
Hard-Pan, Sand-Silt.....			128,300			128,300
Shoal Section Dry Dock Basin 56 x 59—						
Gravel, Sand and Stone.....	79,460			122,192		201,652
Gravel, Silt, Clay, Hard Pan.....				385,650	818,042	1,203,692
Undermill Point Basin 4-5-11—						
Hard Rock, Loose Stone and Rock...		37,165				37,165
Rock Cleaning Bottom.....			14,287			14,287
Loose Rock.....				3,900		3,900
Section 47.—						
Sand.....			1,200			1,200
Vulcan Wharf Section 71—						
Silt, Clay, Shale Rock.....			42,400			42,400
Diversion of Mackay Pier 15 S-16 S—						
Stones, Sand, Gravel.....				108,140		108,140
Victoria Pier Section 19—						
Stones, Sand, Gravel.....				106,725		106,725
Sand, Clay, Silt and Loose Rocks.....					20,087	20,087
Market Basin Section 20-23—						
Stones, Sand, Gravel.....				11,635		11,635
Stones, Sand and Loose Rocks.....					36,497	36,497
Silt and Deposit.....	1,200					1,200
Guard Pier S. S. 13-19—						
Silt, Stones and Loose Rocks.....					231,915	231,915
South Channel—						
Hard Pan, Stone and Boulder.....					139,545	139,545
General Dredging to obtain Filling—						
Blasted Rock and Mud.....					118,711	118,711
Total Cubic Yards.....	257,321	186,873	283,635	794,994	1,364,797	2,637,520
Total Cost per Year.....	\$ 112,811 66	106,758 49	92,294 28	168,217 61	257,153 64	737,035 68
Cost per 100 Cubic Yards.....	43.76	51.40	39.52	21.17	18.94	25.97

EXHIBIT 26.

HARBOUR COMMISSIONERS OF MONTREAL.

STATEMENT OF TRANS-ATLANTIC AND MARITIME TONNAGE CLASSIFIED ACCORDING TO WHARFAGE RATES.

Rate.	1907.		1908.		1909.		1910.		1911.	
	Inward.	Outward.	Inward.	Outward.	Inward.	Outward.	Inward.	Outward.	Inward.	Outward.
3 Cent.	1,289,922	900,075	852,930	792,514	1,229,616	746,058	1,455,240	746,058	1,845	795,597
6 "	222,986	222,986	206,533	242,412	1,229,616	211,777	1,455,240	211,777	1,608,030	284,856
8 "	128,336	122,300	108,999	124,785	115,270	117,637	152,603	117,637	116,822	96,377
12 "	44,550	113,058	32,389	38,735	38,735	111,455	44,779	111,455	44,270	121,533
16 "	226,410	668	99,095	2,106	157,504	1,927	200,878	1,927	157,490	3,492
18 "	6,458	25,335	4,481	7,528	4,481	7,528	7,528	7,528	7,528	7,528
20 "	471,692	153,066	300,662	254,116	425,873	175,450	531,570	175,450	583,118	183,139
Inward tonnage.....	2,167,968	1,512,153	1,436,524	1,560,501	1,971,479	2,412,598	2,412,598	2,412,598	2,509,775	1,495,136
Outward tonnage.....	3,680,121	3,680,121	3,648,185	3,531,980	3,531,980	3,777,202	3,777,202	3,777,202	4,004,905	4,004,905
Total tonnage.....										
Tonnage inwards as reported by Harbour Master—										
Trans-Atlantic.....	1,339,014		1,436,983		1,436,983		1,658,414		1,695,613	
Maritime Provinces.....	586,972		642,916		474,450		574,808		642,639	
	1,925,986		1,958,604		1,911,413		2,233,222		2,338,252	

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EXHIBIT 27.

HARBOUR COMMISSIONERS OF MONTREAL.

STATEMENT SHOWING TENDERS RECEIVED FOR PRINCIPAL SUPPLIES USED DURING THE FIVE YEARS ENDING
DECEMBER 31, 1911.

(*Name of the firm to which contract was awarded).

SAND.

Parties Tendering.	Quantity.	Price.	Remarks.
1907.			
*J. E. Robillard.....	Cu. yds. 3,600	\$ 75 cts	St. Andre River.
Montreal Sand Co.....	3,600	1 25	" "
1908.			
*J. E. Robillard.....	3,000	65	St. Lawrence River.
Joseph Touzin.....	3,000	1 30	St. Maurice River.
1909.			
*Sorel Industrial Co.....	3,000	70	Richelieu River.
Philip Sansoucy.....	3,000	1 00	" "
Joseph Touzin.....	3,000	75	" "
Montreal Sand & Gravel Co.....	3,000	75	" "
J. B. Bonhomme Co.....	3,000	80	" "
Alfred Beauchemin.....	3,000	90	" "
1910.			
* Joseph Touzin.....	12,000	95	
Montreal Sand & Gravel Co.....	12,000	1 00	
1911.			
*Joseph Touzin.....	12,000	1 00	St. Maurice River.
J. E. Senecal.....	10,000	67½	St. Joseph de Sorel.
J. A. Aybram.....	12,000	1 38	St. Emelie.

EXHIBIT 27—Continued.

HARBOUR COMMISSIONERS OF MONTREAL.

COAL.

Parties Tendering.	Quantity.		Price.	
	Fleet.	Locomotive	Fleet.	Locomotive
1907-1908.				
*The Inverness Coal Co.....	Balance of three-year contract at \$3.25.			
1908.	Tons.	Tons.	\$	\$
*Widnoon Coal Co.....		2,500		3-90
Dominion Coal Co.....		3,000		4-10
Andrew Baile.....		3,000		4-10
1909.				
*Nova Scotia Steel & Coal Co.....	5,000	2,000	3-50	3-50
Dominion Coal Co.....	5,000	2,000	3-85	3-85
International Coal Co.....	5,000	2,000	3-85	3-85
Carberry & Sons.....	5,000	2,000	4-2838	4-9736
Widnoon Coal Co.....	5,000	2,000	4-1072	4-5072
Geo. Hall Coal Co.....	5,000	2,000	3-9972	4-6274
Andrew Baile.....	5,000	2,000	4-3608	4-4774
Farquhar Robinson.....	5,000	2,000		4-47
1910-1911.				
*Nova Scotia Steel & Coal Co.....	Contract awarded to company for one year with the option to continue in 1910 and 1911, which option was exercised.			

EXHIBIT 27—Continued.

HARBOUR COMMISSIONERS OF MONTREAL.

CEMENT.

Year.	Parties Tendering.	Brand.	Quantity.	Price.	Remarks.
				Cts. per	
				100 lb.	
1907.....	*Francis & Hyde.....		18,000 bbls.	53	
	Wm. McNally & Co.....		18,000 "	53	
1908.....	*Dillon's Limited.....	North's Condar, Belgium...	7,050,000 lbs.	35 $\frac{1}{2}$	Plus duty.
	Dillon's Limited.....	" " " " " " " " " "	2,350,000 "	38	" "
	Alex. Bremner.....	International Canada.....	9,400,000 "	56	
	F. Hyde & Co.....	" " " " " " " " " "	9,400,000 "	53 $\frac{1}{2}$	In paper bags.
	" " " " " " " " " "	" " " " " " " " " "	9,400,000 "	55	In cotton bags.
	" " " " " " " " " "	Ironclad, U.S.A.....	9,400,000 "	41	In paper bags.
	" " " " " " " " " "	" " " " " " " " " "	9,400,000 "	42 $\frac{1}{2}$	In cotton bags.
	Lakefield Portland Cement Co.....	Menarch, Canada.....	9,400,000 "	45	To specification.
	" " " " " " " " " "	" " " " " " " " " "	9,400,000 "	45 $\frac{1}{2}$	Commissioners to assume responsibility for bags.
	Stinson Reeb Builders Supply Co.....	Vulcan, Canada.....	9,400,000 "	43	
	" " " " " " " " " "	J. B. White Co., England...	9,400,000 "	39	Plus duty.
	Wm. McNally & Co.....	Johnstons' Elephant, Eng...	9,400,000 "	41	" "
1909.....	*Lakefield Portland Cement Co.....	Helderberg, U.S.A.....	9,400,000 "	44	" "
	" " " " " " " " " "	Lakefield, Canada.....	2,250,000 "	33	In bags.
	" " " " " " " " " "	" " " " " " " " " "	2,250,000 "	34 $\frac{1}{2}$	On cars.
	International Portland Cement Co.....	International, Canada.....	2,250,000 "	38-85	In paper bags.
	Wm. McNally & Co.....	Vulcan, Canada.....	2,250,000 "	39	" "
	Thorn Cement Co.....	Lehigh, Canada.....	2,250,000 "	38 $\frac{1}{2}$	" "
	International Portland Cement Co.....	International, Canada.....	2,250,000 "	37-14	" "
1910.....	*Lakefield Portland Cement Co.....	Lakefield, Canada.....	30,000 bbls.	36 $\frac{1}{10}$	In sacks.
	Canada Cement Co.....	" " " " " " " " " "	30,000 "	36 $\frac{1}{10}$	In paper bags (contract awarded at 36c.)
	Dillon's Limited.....	North's Condar, Belgium...	30,000 "	44 $\frac{1}{10}$	In cotton sacks.
	" " " " " " " " " "	" " " " " " " " " "	30,000 "	36 $\frac{1}{10}$	In bond.
1911.....	*Canada Cement Co.....	Lakefield, Canada.....	8,750,000 lbs.	50	Bags included, returnable and credited, at 10c. each.
	Wm. McNally & Co.....	Vulcan Canada.....	8,750,000 "	37 $\frac{1}{2}$	In bond.

EXHIBIT 27—Continued.

HARBOUR COMMISSIONERS OF MONTREAL.

UNBROKEN CONCRETE STONE.

Year.	Parties Tendering.	Section 23-25.	Section 39-40.
1907..	*Isaac Kent (tenders missing).....		
1908..	*O. Martineau & Fils, Ltd. (tenders missing).....	*1,800—\$1 00	*3,000—\$0 95
1909..	*Hyde & Webster.....	1,800—1 03	3,000—0 85½
	*Rogers & Quirk.....	1,800—1 10	3,000—0 95
	Geo. C. Poupore.....	*1,800—0 98	3,000—1 08
	*Martineau & Fils.....	1,800—1 20	3,000—1 20
	Leger & Co.....	1,800—1 10 on cars	3,000—1 10 on cars
	St. Laurent Quarries.....	1,800—1 20 "	3,000—1 20 "
	Chas. Struble.....		

UNBROKEN STONE. BROKEN STONE.

Year.	Parties Tendering.	Section 19-25.	Section 35-41.	Section 19-26.
1910.	*Bishop Construction Co.....	10,000—\$1 10	*5,000—\$1 10	*12,000—\$1 25
	Hyde & Webster.....	10,000—1 10	5,000—1 10	12,000—1 40
	P. Martineau & Fils.....	10,000—1 10	5,000—1 18	12,000—1 48
	*Jno. P. Dixon.....	*10,000—1 00	5,000—1 05	
	Rogers & Quirk.....	10,000—1 13	5,000—1 13	
	Dominion Quarry Co.....		5,000—1 20	
	Geo. C. Poupore.....		5,000—1 33	5,000—1 40
	Laurentian Granite Co.....	3,000—1 25		

UNBROKEN BANC ROUGE. UNBROKEN CONCRETE STONE.

Year.	Parties Tendering.	Section 4.	Section 20-22.	Section 38-40.	Section 20-33.	Section 39-46.
1911.	Jno. P. Dixon.....	600—\$1 25	1,200—\$1 05	1,200—\$1 05	3,000—\$0 88	3,000—\$0 95
	*Martineau & Co.....	*600—1 24	*1,200—1 04	*1,200—1 05	3,000—0 88	3,000—1 18
	R. T. Heit & Co.....	600—1 15	1,200—1 15	1,200—1 15	3,000—1 04	3,000—1 04
	*Rogers & Quirk.....	600—1 33	1,200—1 23	1,200—1 23	*3,000—0 80	*3,000—0 83
	O. Papiere.....	600—1 70	1,200—1 70	1,200—1 70	3,000—1 70	3,000—1 70
	Jos. Gravel.....			1,200—1 10		
	Geo. O. Poupore.....					3,000—1 20
	R. C. Dixon.....					

EXHIBIT 27—Continued.

THE HARBOUR COMMISSIONERS OF MONTREAL.

Year.	Parties Tendering.	UNBROKEN STONE.				BROKEN CONCRETE			
		Section 53—56.		Section 19—25.		Section 19—25.		Ballast Stone.	
		Tons.	\$ cts.	Tons.	\$ cts.	Tons.	\$ cts.	Tons.	\$ cts.
1911.	R. C. Dixon.....	7,000	1 00						
	• Maisonneuve Quarry Co.....	7,000	1 09	5,000	1 00	13,000	1 50	10,000	1 50
	• Bishop Construction Co.....	7,000	1 24	5,000	1 24	13,000	1 40	10,000	1 40
	Jean Aybram.....							10,000	1 20
	• Standard Quarries Co.....							10,000	1 29
	Reynolds Co., Ltd.....					13,000	1 40	10,000	1 38
	O. Martineau Fils.....			5,000	1 03	13,000	1 48		
	Jno. P. Dixon.....	7,000	1 05	5,000	1 05				
	Rogers and Quirk.....	7,000	1 08	5,000	1 28				
	Jas. Brodie.....			1,000	1 40				

EXHIBIT 27—Continued.

HARBOUR COMMISSIONERS OF MONTREAL,—Continued.

TENDERS RECEIVED FOR LUMBER.

Year.	PARTIES TENDERING.	ROUND HEMLOCK No. 1.		ROUND HEMLOCK No. 2.		ROUND HEMLOCK No. 3.		ROUND PINE No. 4.		ROUND PINE No. 5.		ROUND HEMLOCK No. 6.	
		Quantity.	Rate.	Quantity.	Rate.	Quantity.	Rate.	Quantity.	Rate.	Quantity.	Rate.	Quantity.	Rate.
1908.	Tenders missing.												
1909.		B.M.	\$ cts.	Lin.	Cts.		Cts.		Cts.		Cts.		Cts.
Mar. 3	*O. Martineau Fils.....	287,000	11 75	78,248	9½	26,000	15	1,000	27	4,200	20	35,200	7
	W. H. Kelly & Co.....	287,000	16 00	78,248	14	26,000	24½	1,000	55	4,200	45	35,200	7
	Papineau Lumber Co.....	287,000	20 00	78,248	20	26,000	35	1,000	55	4,200	50	35,200	12
	Geo. Dansereau.....	287,000	16 00	78,248	13	1,000	28					35,200	8
	H. Grier.....	287,000				13,000	30					35,200	8½
1910.			Cts.		Cts.		Cts.		Cts.				
Apr. 26	*W. H. Kelly Lumber Co.....	149,500	15½	37,500	18½	30,000	8	7,500	40				
	*Geo. Dansereau.....	24,750	14	18,750	25	30,000	8	7,500	40				
	Geo. Dansereau.....	10,000	20			30,000	19	7,500	48				
	Jos. Richard & Cie.....												

*Contract awarded to W. H. Kelly Lumber Co. = No. 1, No. 2 and 30,000 ft. of No. 3.
 Contract awarded to Geo. Dansereau = 30,000 ft. of No. 3 and No. 4.

PUBLIC SERVICE COMMISSION

EXHIBIT 27—Continued.
TENDERS RECEIVED FOR LUMBER—Continued.

Year.	Parties Tendering.	ROUND HEMLOCK No. 1.		ROUND HEMLOCK No. 2.		ROUND HEMLOCK No. 3.		ROUND SPRUCE No. 4.		ROUND PINE No. 5.		ROUND ELM No. 6.		ROUND MAPLE No. 7.	
		Quantity.	Rate.	Quantity.	Rate.	Quantity.	Rate.	Quantity.	Rate.	Quantity.	Rate.	Quantity.	Rate.	Quantity.	Rate.
1911.			\$ cts.		Cts.		Cts.		\$ cts.		Cts.		Cts.		\$ cts.
June....	*W. H. Kelly & Co.....	50,000	16 00	450,000	15 1/2	128,810	24 1/2	75,000	22 00	7,500	44	20,000	45	15,000	30 00
	Papineau Lumber Co.....	50,000	15 00	450,000	18	128,810	25	75,000	22 00	7,500	40	20,000	40	15,000	38 00
	*Geo. Dansereau.....	25,000	17 00	150,000	20	64,405	25	37,000	20 00	7,500	40			15,000	40 00
	All. Gamache.....	50,000	25 00	145,000	45	128,810	50	75,000	25 25						

*Contract awarded to W. H. Kelly Lumber Co.
 Contract awarded to Geo. Dansereau for 7,500 ft. Pine No. 7.

DOUGLAS FIR TIMBER.

Year.	Parties Tendering.	4 pieces 21x27x65.		2 pieces 24x24x60.		2 pieces 14x14x56.		3 pieces 21x21x38.		4 pieces 22x22x40.		2 pieces 24x24x70.		4 pieces 26x26x70.	
		Quantity.	\$ cts.	Quantity.	\$ cts.	Quantity.	\$ cts.	Quantity.	\$ cts.	Quantity.	\$ cts.	Quantity.	\$ cts.	Quantity.	\$ cts.
1911.	Cameron & Co.....	12,285	112 50	5,760	47 25	1,797	47 25	4,189	47 25	6,453	47 25	6,720	47 25	49,373	112 50
	*E. H. Lewis Lumber Co.....	12,285	63 00	5,760	85 00	1,797	52 00	4,189	55 00	6,453	52 00	6,720	65 00	49,373	115 00
	Mason, Gordon & Co.....	12,285	59 50	5,760	59 50	1,797	59 50	4,189	59 50	6,453	59 50	6,720	59 50	49,373	130 00

YELLOW PINE TIMBER.

Year.	Parties Tendering.	YELLOW PINE TIMBER.		Year.	Parties Tendering.	YELLOW PINE TIMBER.	
		Quantity.	Price per Sq. Foot.			Quantity.	Price per Sq. Foot.
1911.		Ft. B.M.	\$ cts.	1911		Ft. B.M.	\$ cts.
April	*Shearer, Brown & Wills.....	241,472	35 00	April.	Mason, Gordon & Co.....	241,472	40 50
	G. C. Goodfellow.....	241,472	35 50		J. M. Redfern & Co.....	241,472	39 45
	Cameron & Co.....	241,472	35 75		Geo Dansereau.....	241,472	39 50
	Cameron & Co.....	241,472	35 50				
	Mason, Gordon & Co.....	241,472	39 00				

PUBLIC SERVICE COMMISSION

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EXHIBIT 27—Continued.

THE HARBOUR COMMISSIONERS OF MONTREAL—Continued.

TESTING MATERIAL.

	Parties Tendering.	Mill Inspection	Shop Inspection	Steel Castings	Cement	Sand.
		cts.	cts.			
1907.....	Canadian Inspection Co.	20	25			
1908.....	Canadian Inspection Co.	20	25			
1909.....	Canadian Inspection Co.	20	25			

No tenders asked for during this period, Testing being made by The Canadian Inspection Co.

		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1910.....	* Canadian Inspection Co.	20	20	25	2 75	1 50
	Duckworth & Baynes.	25	25	25	7 00	1 50
	Milton Hersey Co.	25	40	40	8 00	1 50
1911.....	* Canadian Inspection Co.	19	19	25	2 75	1 00
	Duckworth & Baynes.	20	20	25	3 45	1 40
	Robert Hunt & Co.	25	25	40	5 70	1 40
	Milton Hersey Co.				5 00	3 00

EXHIBIT 27—Continued.

HARBOUR COMMISSIONERS OF MONTREAL.

TENDERS FOR CASTINGS.

Year	Parties Tendering.	Mooring Posts and Grate Bars in Green Sand.	Machinery in Green Sand.	Machinery in Dry Sand or Loom.	Machinery in Dry Sand or Loom or Charcoal Iron.	All Scrap Except Grate Bars.	Scrap Grate Bars.	Brass	Bronze	Steel Over 200 lbs.	Steel Under 200 lbs.	Steel Manganese.	Steel Scrap 2,240 lbs.
		cts.	cts.	cts.	cts.	\$ cts.	\$ cts.	cts.	cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1907 Mch.	Rubenstein Bros.							30	33				
	*W. R. Cuthbert & Co.			3	3	18 00	5 00	28	30				
	Estate P. Amesse	24	24	3	3	18 00	5 00						
	*Parker Foundry Co.	24	24			14 00	4 00	28	29				
	The Garth Co.	24	24										
	Jno. McDougall.			3	3	19 00							
	Caledonia Iron Works.	24	3	3	3					4 95	5 50	15	12 00
*Montreal Steel Co.													
1908 Mch. 23	*P. Amesse Foundry Co.	24	24	3	3	18 00	5 00	17	20				
	*Mitchell & Phelan.							21	23				
	W. R. Cuthbert & Co.					15 00	5 00	27	30				
	The Garth Co.	24	24	3	3	15 00	6 00						
	Laurie Engine & Machine Co.	24	24					23	30				
	John Dale.					17 00	9 00						
	Canadian Iron & Foundry Co.	24	24	2 10	3	16 25							
	Mount Royal Foundry	24	24	3		18 00	5 00						
	Parker Foundry Co.	24	24					20	25				
	Rubenstein Bros.									4 95	5 50	15	12 00
*Montreal Steel Works.													
1909	Mount Royal Foundry	24	24	3	3	16 00	7 00						
	*Parker Foundry Co.	24	24	3	3	18 00	5 00						
	P. Amesse Foundry Co.	24	24	3	3	18 00	5 00						
	Standard Foundry Co.	24	24										
	Canadian Iron & Foundry Co.	1 10	24		3	16 00	7 00						
			3 to 4										

