

CANADA

REPORT

OF THE

MINISTER OF PUBLIC WORKS

ON THE

WORKS UNDER HIS CONTROL

FOR THE

FISCAL YEAR ENDED MARCH 31

1918

*Submitted in Accordance with the Provisions of Chapter 39, Section 34,
of the Revised Statutes of Canada.*

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OTTAWA

J. DE LABROQUERIE TACHÉ

PRINTER TO THE KING'S MOST EXCELLENT MAJESTY

1918



*To His Excellency the Duke of Devonshire, K.G., P.C., G.C.M.G., G.C.V.O., etc., etc.
Governor General and Commander in Chief of the Dominion of Canada.*

I have the honour to lay before Your Excellency the Report of the Department of Public Works of Canada, for the fiscal year ended March 31, 1918.

I have the honour to be, sir,

Your Excellency's most obedient servant,

F. B. CARVELL,

Minister of Public Works.

OTTAWA, December 14, 1918.



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REPORT
OF THE
DEPUTY MINISTER OF PUBLIC WORKS
FOR THE
FISCAL YEAR ENDED MARCH 31, 1918.

DEPARTMENT OF PUBLIC WORKS, CANADA.

OTTAWA, November 1, 1918.

Hon. F. B. CARVELL,
Minister of Public Works,
Ottawa, Ont.

SIR,—I have the honour to submit the report of operations of the Department of Public Works during the fiscal year ended March 31, last.

EXPENDITURE.

The total expenditure made by or through the department during the fiscal year 1917-18, on its various works of construction, maintenance, and operation, amounted to the sum of \$14,055,207.70. The details of this amount are classified under the following heads:—

Harbour and river works	\$ 5,551,773 97
Dredging, plant, etc.	1,405,838 16
Slides and booms	64,859 36
Roads and bridges	18,991 41
Public buildings	5,843,288 72
Telegraphs	751,451 48
Miscellaneous	419,004 60
Total	\$14,055,207 70

The department has carefully adhered during the year under review to the policy of retrenchment which has been followed since the outbreak of the war, with the result that the aggregate outlay this year is \$2,106,388.50 less than that of the preceding year; and \$15,228,109.12 less than the expenditure three years ago. The parliamentary grant for this year was \$9,914,057.70 less than that for the year 1916-17 and will be further substantially reduced for the year 1918-19.

REVENUE.

The revenue for the year amounted to the sum of \$424,491.84, and is made up as follows:—

Slides and booms.....	\$ 26,187 92
Graving docks.....	56,484 16
Rents.....	106,205 1*
Telegraphs.....	204,877 13
Casual revenue.....	27,737 23
Total.....	\$424,491 84

It will be noted that there is a decrease of \$71,768.17 from last year's figures, which is practically the difference in the returns from slides and booms. The other items of revenue while showing fluctuation from the preceding year have aggregated about the same amount. The great decrease in slides and booms revenue is attributable to the new arrangement made last year whereby the St. Maurice slides and booms system was leased to the St. Maurice River Boom and Driving Company, Limited, from the first of April, 1917, at a rental of \$1 per annum. The company was to collect the rates of tolls established by Order in Council, and after defraying the cost of maintenance and operation was to pay over the surplus there might be of revenue over expenditure. When this system was operated direct by the department, the practice was not to charge the cost of maintenance and operation against the revenue, but to defray expenditures from certain special appropriations granted for that purpose and return the entire collections as revenue. No payment has so far been made by the company under the existing agreement but, in any event, the change of method by which all expenditure is now deducted from revenue is bound to show a very substantial decrease in the latter.

Reference was made last year to the particularly small returns from the Ottawa River district. This year the collections were \$9,904.38 more than the previous year, and the number of sawlogs 1,059,364 more than last year; the increase being due to the large quantity of logs from tributaries coming out which had been hung up the previous year.

HARBOUR AND RIVER WORKS.

The total expenditure in this branch of the Department of Public Works was \$5,531,773.97, of which \$4,097,211.58 was charged to capital and \$1,434,562.39 to income. This is almost one million dollars less than last year's outlay.

The following is a list of works which have been completed during the year:—

Nova Scotia.—East River—River improvements and lock.

New Brunswick.—Small landings at Bass river, Moudies river, and St. Nicholas river.

Quebec.—St. Zotique—Small icebreaker.

Ontario.—Desbarats, small landing; Fort William, quay walls, Kingston harbour improvements, and Port Arthur pile protection breakwater.

British Columbia.—Sea Otter cove, small landing, Steveston jetty, second section at mouth of Fraser river, and Victoria breakwater.

The following works were under contract but unfinished at the end of the fiscal year:—

New Brunswick.—St. John—Courtenay bay, harbour improvements.

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Quebec.—Laprairie dyke, Rimouski harbour improvements, River St. Charles improvements, and the Champlain dry dock at Lauzon.

Ontario.—Port Stanley extension to western breakwater and Toronto harbour works.

British Columbia.—Vancouver, shed on west side of wharf, and Victoria, wharves and shed.

DREDGING.

The expenditure under this head amounted to \$1,405,838.16, a decrease of \$1,004,575.08 from that of the preceding year.

There were seventeen units of the departmental dredging plant not in commission during the fiscal year 1917-18. This released several Public Works tugs, and advantage was taken of this fact to place them at the disposal of the departments of the Government in need of such vessels; the Naval Service Department making use of the steamer *Speedy*, tugs *Helena*, *Canso* and *Sir John*; and the Customs Department making use of the tug *Canso* prior to this vessel having been taken over by the Naval Department.

The expenditure on the plant has been kept as low as possible, consistent with economic efficiency, and no new plant has been acquired or constructed. The outlay on contract dredging amounted to only \$53,359.07.

The dredging of the channel in the East river, Pictou harbour, Nova Scotia, was completed. This work has been under way by dredge *P. W. D., No. 5 (Northumberland)* since 1908, and the work has involved the removal of 2,972,228 cubic yards.

A channel has been completed in the Saguenay river, giving a least depth of 16 feet and a width of 250 feet from the foot of the battures to Chicoutimi.

A satisfactory commencement has been made in removing shoal patches and points, which have been a source of danger to navigation in the main channel of the St. Lawrence river in Lake St. Louis.

This season saw the practical completion of the West Fort turning basin of the Kamistiquia river, at Fort William. The improvement of this harbour by dredging, to the extent planned, is expected to be finished next season.

The work at Port Arthur harbour during this season consisted in easing the entrance to the Government elevator slip; widening the main harbour south; widening the King's channel; completing the Saskatchewan Co-Operative and Grain Growers' slip and commencing the Richardson's elevator slip.

The close of the year has seen the completion of the widening and deepening of the channel through the First narrows to Vancouver harbour, and the removal of Parthia shoal; there is now a least depth of 35 feet over the First Narrows channel and Parthia shoal, and a least width of 1,200 feet in the channel, which had a width of 450 feet and a depth of 30 feet when the work was commenced in December, 1911. To effect this improvement has involved the removal of 4,139,260 cubic yards.

At Nanaimo, work has been carried on since 1914. By the removal of Rocky shoals the harbour has been greatly improved; no further work being required for presently prospective navigation.

This season saw the completion of the improvement, by dredging, of Victoria harbour. The Rocky shoals obstructing the free passage of the vessels have been removed so that there now exists in the inner harbour the safe depth of 20 feet, which is expected to be sufficient for the accommodation of shipping for some time.

Special reports, to the number of thirty-one, were forwarded during the year to the Departments of Marine and of the Naval Service, so that mariners might be kept acquainted by means of alterations of charts and notices to mariners with such work as has been accomplished.

Dredging operations were also carried on at the following places, where an expenditure of \$10,000 or over was made:—

Nova Scotia.—Liverpool.

Prince Edward Island.—Bridgetown, and Rustico South.

New Brunswick.—Bathurst, Campbellton, St. John channel, St. John West, and Shippigan.

Quebec.—Ile aux Foins, Longueuil, Mission Point, and River St. Maurice.

Ontario.—Byng inlet, Hamilton, Midland, Port Burwell, and Port Stanley.

Manitoba.—Red river and Selkirk Slough.

British Columbia.—Fraser river (North Arm and Sandheads) and Skeena river.

PUBLIC BUILDINGS.

The sum expended on construction, maintenance and repairs of public buildings throughout the Dominion was \$5,843,288.72, which is approximately the amount which was expended during the previous fiscal year. Of this amount, \$2,674,855.88 was expended in the construction and improvement of public buildings; and \$3,168,432.84 in repairs and maintenance.

The following buildings were completed during the year:—

Quebec.—Quebec post office—Minor works were executed to complete the main contract. Partitions were erected to form offices for the Military Service Act officials. Installation of tower clock and post office fittings.

Ontario.—Kingston—Erection of gymnasium at Royal Military College. Trenton—Alterations and additions to post office and post office fittings and new floor in lobby.

Manitoba.—Winnipeg—Alterations to Immigration Hall for Postal Station "A."

Saskatchewan.—Regina—Alterations to Royal Bank building and Customs Express building.

The following buildings were still under contract at the close of the fiscal year:—

Nova Scotia.—Halifax barracks on north common.

Quebec.—Three Rivers public building.

Ontario.—Ottawa Parliament buildings.

Alberta.—Calgary drill hall.

Owing to the shortage of anthracite coal last winter, in order to conserve this class of fuel as much as possible and with a view to setting an example to large private users the department made changes in many of the furnaces in public buildings situated in the Maritime Provinces and in the West so that local or bituminous coal might be used for heating. In this way, a very considerable quantity of anthracite coal was saved for domestic consumption. The results in the public buildings were generally satisfactory, although the soft coal required much closer attention and more careful firing than the anthracite.

The department was very fortunate in not having much damage done to the public buildings in the city of Halifax when the terrible explosion took place in the harbour on the 6th of December, 1917. Outside the roof of the drill hall being

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wrecked, the post office and Customs buildings suffered only from broken windows and temporary dislocation of portions of the heating apparatus all of which was promptly repaired.

RECONSTRUCTION OF PARLIAMENT BUILDINGS, OTTAWA.

The progress made with the reconstruction of the Parliament buildings during the past year has been exceptional, and it may safely be said that a record has been set in its rapid construction. At the same time, the work is of the highest quality, in keeping with a national undertaking of this character.

On April 2, general building operations were resumed for the season of 1917, the masonry of the interior walls on the Senate wing being two storeys high, and an average of four feet above ground level for the balance of the building.

When masonry work was discontinued on December 18, 1917, all exterior and court walls had been completed to the main cornice or roof level; leaving the stone work of the four north ventilating towers, the front pavilions, the chimneys and the pent-houses above the roof to complete the exterior masonry.

The main tower was not proceeded with last year, the contractor devoting his energies to getting the building under roof before winter.

Structural steel-work, which was well started at the opening of 1917, has been completed, excepting minor sections such as pavilion and tower roofs, miscellaneous beams for stair landings, etc.

The sloping roofs are being constructed of Flex-or-Crete, a fireproof concrete nailing composition, while the flat roofs or decks are of terra-cotta arch tile. These sloping roofs have been completed with the exception of the Commons roof, which could not be placed on account of the early frost, while the roofs of the towers and pavilions cannot be constructed till the masonry walls of same are finished.

The terra-cotta arching of the flat roofs has been set, and the placing of the copper and tar and gravel roof covering will be proceeded with as weather conditions permit.

The setting of the terra-cotta arches for the floors of the building was commenced September 25, 1917, and approximately 80 per cent of this work has been completed.

The excavation for the foundations of the central heating plant is well advanced, and the concrete foundations for the north wall of this building have been placed.

Labour conditions have been generally satisfactory, the average daily force on this work for the year 1917 being 495 men.

During 1917, there were fourteen meetings of the Joint Parliamentary Committee and fifteen meetings of the board on the reconstruction work; also meetings of the Speakers, Senators, and Chairmen of the House Committees to discuss the general works of this building and arrangement of accommodation.

The expenditure on the work to March 31, 1918, amounted to \$2,774,873.18.

In addition to the contracts mentioned in last year's report, the P. Lyall & Sons Construction Company, Limited, as general contractors for this work have, with the approval of the Joint Parliamentary Committee, entered into the following sub-contracts since the first of April, 1917:—

On April 25, 1917, the board authorized a contract for sand with R. R. Foster, Ottawa, Ont., for 5,584 cubic yards of sand at 77½ cents per cubic yard.

On April 27, 1917, the Joint Parliamentary Committee authorized that contracts be made for the terra-cotta fireproofing required for the work with the National Fireproofing Company of Canada, for \$104,473.75, the Sun Brick Company for \$17,337.50, and the Montreal Terra Cotta Company for \$14,102.50. These are being executed.

On May 1, 1917, with the Estate of James Davidson, Ottawa, for 5,000 pieces of 2-inch by 10-inch by 16-foot merchantable spruce plank, delivered on the site for \$39 per 1,000 ft. b.m.

Under date of July 20, 1917, a contract was executed with the National Brick Company of Laprairie, Limited, for the supply of 5,000,000 common brick at \$12 per thousand, delivered on the site, as authorized by the joint committee on July 18, 1917. This contract has been fulfilled.

Under date of July 23, 1917, a contract was executed with the Wallace Sandstone Quarries, Limited, of Winnipeg, Man., for the supply of 154,000 cubic feet of Tyndall limestone at \$1.02 per cubic foot f.o.b. cars, Ottawa, as per the authorization of the joint committee of February 7. In reality, this contract was not approved or executed till September 19, 1917; 38,602 cubic feet have been delivered on this contract.

Under date of August 24, 1917, a contract was executed with the Canada Cement Company for 33,000 barrels of cement, at \$2.18½ per barrel f.o.b. cars plant, freight to Ottawa allowed and deducted from the above price with the Canada Cement Company, as authorized by the joint committee on August 22, 1917.

Under date of August 27, 1917, a contract was executed with the Missisquoi Quarries, Limited, Montreal, for the supply of 7,300 cubic feet of grey marble, sawn in 8-inch to 9-inch thickness, sawn two faces, from 8 feet to 9 feet long and 5 feet to 5 feet wide, at \$3.20 per cubic foot; 2,500 superficial feet of 3-inch flag slabs, finished ready to set in position in sizes up to 8 feet by 3 feet to 4 feet for \$1.20 per square foot; 71,000 square feet of 2-inch flag slabs, as above, in sizes 3 feet 6 inches to 4 feet by 1 foot 9 inches to 2 feet, for 87 cents per square foot; 25,000 square feet of Missisquoi black marble, finished 1½-inch thick with "hone finish," cut as required, for 87 cents per square foot. All the above f.o.b. cars Ottawa, as authorized by the joint committee, August 22, 1917.

Under date of August 28, 1917, a contract was executed with Dartnell, Limited, Montreal, for the supply of 3,800 quoins, at \$122.50 per thousand; 19,000 headers at \$106 per thousand, and 37,700 stretchers at \$106 per thousand, the same to be No. 1 quality, American-made enamel brick, English size, manufactured by the Andrew Ramsay Company, of Mount Savage, Maryland, as authorized by the joint committee on August 22, 1917. It was found necessary, however, to cancel this contract on November 9, as the manufacturer could not make the deliveries required to permit the closing in of the building before the end of the season and as the works were being seriously delayed thereby an order was placed with the Don Valley Brick Works, Toronto, to supply, from stock, the balance required.

Under date of September 20, 1917, a contract was executed with the Trussed Concrete Steel Company of Canada, Limited, Montreal, for the supply of 157,000 square feet (more or less) of 24-gauge H-Rib at 10½ cents per square foot, delivered on the site, as authorized by the joint committee on September 18, 1917. This contract has been completed.

Under date of September 20, 1917, a contract was executed with W. J. McGuire, Limited, Toronto, for the plumbing, pipes and fixtures of this building, at \$129,900, as authorized by the joint committee on September 18, 1917.

Under date of September 25, 1917, a contract was executed with the Flexner-Taylor Company of South Boston, Mass., for the supply of 300 tons (more or less) of Flex-or-Crete, at \$25 per ton, delivered on the site, as authorized by the joint committee on September 18, 1917.

TELEGRAPHS.

During the year there have been added thirty-one miles of new line in the province of British Columbia, as follows:—

	Miles.
Kamloops-Mount Olie	2
" Savona	1
" Notch Hill	11
Holley Creek-Upper Louis Creek	8
Merritt-Cainford	7
Golden-Windermere	2
Total	31

There is now a total mileage of 12,047½, and the offices number 1,106. The messages sent during the year aggregated 443,806, as against 411,934 during the preceding fiscal year. The expenditure was \$751,451.48 as against \$775,339.66 in the previous year, and the revenue showed an increase of \$13,424.08 over 1916-17.

The telephone, telegraph and conjoint offices on the system are as follows:—

Telephone	665
Telegraph	389
Conjoint	52
Total	1,106

NATIONAL GALLERY.

The National Gallery being still without premises for the exhibition of its national collection of works of art, has continued to concentrate its energies upon the development of its policy of loan exhibitions to any art gallery or body which has proper facilities for exhibiting them, and it is believed that this policy is having a direct and important bearing upon the establishment of schools of art and design throughout the country. Its popularity is evidenced by the rapidly increasing application for these exhibitions, and without new purchases it will shortly become impossible to meet all requests.

Regular annual loans of works of art were sent out during the year to St. John, N.B., Sherbrooke, Que., Fort William, Ont., Winnipeg, Man., Regina and Moosejaw, Sask.; and special exhibitions were arranged for Halifax, N.S., Montreal, Que., Art Association, Ottawa-Central Canada Exhibition, Toronto Art Museum, and Western Canada Fair Association, the circuit including Calgary, Edmonton, Brandon, Regina, Saskatoon, and Prince Albert, also Vancouver, B.C. Twenty oil paintings were purchased from Canadian artists during the year.

Appended to this report will be found detailed reports from the different branches giving full particulars of the various works carried out by this department during the year.

I have the honour to be, sir,

Your obedient servant,

J. B. HUNTER,

Deputy Minister.

PUBLIC BUILDINGS.

BY R. C. WRIGHT, CHIEF ARCHITECT.

NOVA SCOTIA.

Repairs and improvements were executed on public buildings at the following places: Amherst, Antigonish, Annapolis, Arichat, Baddeck, Dartmouth, Digby, Guysborough, Glace Bay, Inverness, New Glasgow, Liverpool, Pictou, Parrsboro, Sydney, Sydney Mines, Springhill, Truro, Westville, Windsor, Wolfville, and Yarmouth.

At Halifax, the explosion of 6th December, 1917, in the harbour, did considerable damage to the public buildings; instructions were immediately issued to make the necessary repairs, and the buildings were placed in proper order.

PRINCE EDWARD ISLAND.

Charlottetown's old bank building and the Dominion building, Georgetown, Montague, Souris, Summerside, and Tignish public buildings.

NEW BRUNSWICK.

Bathurst, Campbellton, Chatham, Dalhousie, Fredericton, Grand Falls, Hampton, Hartland, Hillsboro, Marysville, Moncton, Newcastle, Richibucto, St. John, St. Stephen, Sussex, and Woodstock public buildings.

The difficulty of obtaining anthracite coal for use in the public buildings in the Maritime Provinces was overcome by changing many of the furnaces so that local bituminous coal could be utilized for heating.

QUEBEC.

Arthabaska, Coaticook, Drummondville, Dundee, Grosse Ile, Knowlton, Granby, Lachute, Longueuil, Magog, and Quebec.

Three Rivers: This building was described in the annual report for 1914. On the 9th of November, 1917, a contract for the fittings and furniture was entered into, which is now completed. Plans and specifications prepared by this department and work carried out under its supervision. Contractor for construction of building, Mr. Joseph Bourque. Contractor for fittings, the T. Shell Company. Work carried out under the supervision of Mr. Stephen Robitaille, of this department, Ottawa.

Quebec Post Office: The construction of this building, which was described in a previous report, is completed. A four-dial tower clock was placed in position, and in full working order. Construction of this building and the various works carried on at the other Quebec buildings were done under the supervision of Mr. Arthur Pouliot, Clerk of Works, Quebec.

ONTARIO.

Acton, Amherstburg, Aurora, Aylmer, Barrie, Belleville, Bowmanville, Bracebridge, Brantford, Bridgeburg, Cayuga, Chatham, Chesley, Clinton, Cobourg, Colling-

wood, Dresden, Deseronto, Dundas, Elmira, Elora, Essex, Galt, Goderich, Grimsby, Guelph, Hamilton, Harriston, Ingersoll, Kincairdine, Kitchener, Lakefield, Leamington, Lindsay, Listowel, London, Midland, Milverton, Mildmay, Mitchell, Mount Forest, Niagara Falls, North Bay, Orangeville, Orillia, Oshawa, Ottawa, Owen Sound, Palmerston, Paris, Parkhill, Peterboro, Petrolia, Picton, Port Hope, Preston, Sandwich, Sarnia, Seaforth, Simcoe, Shelburne, Steelton, Stratford, Strathroy, St. Catharines, St. Thomas, Sudbury, Toronto, Walkerville, Walkerton, Welland, Whitby, Windsor, Wingham, and Woodstock public buildings.

Ottawa: Barns—A new wooden barn on a concrete foundation measuring 47 feet by 20 feet was erected adjoining the sheep sheds at the experimental farm.

A new flax barn was erected adjoining the main building, and measuring 47 feet by 30 feet.

Trenton: An addition to the rear of the building was constructed to provide additional accommodation for the post office.

MANITOBA.

Winnipeg buildings were repaired and improved.

SASKATCHEWAN.

Humboldt, Lloydminster, Maple Creek, Melfort, Moosejaw, North Battleford, Prince Albert, Regina, Saskatoon, Sutherland, Weyburn, and Yorkton public buildings.

ALBERTA.

Calgary, Edmonton, Grande Prairie, Lethbridge, Medicine Hat, Red Deer, Strathcona, and Wetaskawin buildings.

BRITISH COLUMBIA.

Ashcroft, Atlin, Cedarvale, Chilliwack, Cloverdale, Comox, Coutts, Cranbrook, Cumberland, Douglas, Duncan, Fernie, Field, Glacier, Golden, Grand Forks, Greenwood, Kamloops, Ladysmith, Mission, Nanaimo, Nelson, New Westminster, North Vancouver, Port Alberni, Prince George, Princeton, Revelstoke, Rossland, Saanich, and Vernon buildings; postal stations A and B, old post office building, sub-postal stations A, B and C and immigration building at Vancouver; examining warehouse and observatory at Victoria, and the quarantine station at Williams Head.

YUKON.

Dawson public building was repaired.

HARBOUR WORKS.

By E. D. LAFLEUR, Chief Engineer.

NOVA SCOTIA.

CHESTER BASIN.

Dredging.

Chester Basin is a small town situated on the H. & S. W. railway on the shore of Chester basin.

During the fiscal year 1917-18, dredge *No. 15* was in operation at this place. The work, which is the first done here, consisted of cutting a channel from the main channel in to the wharves, and dredging a channel along the front of the wharves for harbourage accommodation.

The area covered was 18,000 square feet, with an average cutting of 6.3 feet, giving an average depth at low water of 10 feet. The channel in to the wharves has a length of 170 feet and an average width of 44 feet, and the channel along the front of the wharves has a length of 218 feet and an average width of 48 feet. The material removed consisted of mud and gravel, with a place measurement of 4,200 cubic yards, and scow measurement of 5,570 cubic yards, showing an expansion factor of 32.6 per cent. Dredge *No. 15* worked here from September 24 to Nov. 14.

CLEMENTSPORT.

Dredging.

Clementsport, Annapolis county, is a village situated on either side of the mouth of Moose river, on the eastern side of Annapolis basin.

In 1917-18, 5,182 cubic yards, place measurement, were removed, at a cost of \$2,110.70, from the left or south side of the channel immediately below the railway bridge. The work was begun on 3rd September and finished 24th November, 1917. It was all done by hand digging, at low water, the material being thrown on to a scow towed out about a mile to deep water, and dumped.

The digging is comprised within a total length of 600 feet by a maximum width of 100 feet; the depth of cut varies from 4 feet to 5 feet and the bottom of the cut is 6 feet above L.W.O.S.T., or 21 feet below H.W.O.S.T.

The excavated area will fill up by deposit of silt at a slow rate and should not require redredging for six or eight years.

EAST LA HAVE—REINHARDTS'.

Dredging.

Reinhardt's East La Have is situated on the western side of La Have river, about 12 miles south of the town of Bridgewater, Lunenburg county.

Work was done at this place during the year 1917-18, by dredge *No. 15*, and is the first dredging done here by the department. A channel was taken out on each side of the wharf so that better accommodation would be available. The area covered was 4,500 square feet with an average cutting of $3\frac{1}{2}$ feet, giving an average depth of 6 feet below low water. The channel on the north side of the wharf has a length of 100 feet and a width of 30 feet, and the channel on the south side has a length of 50 feet with a width of 30 feet. The material removed consisted of mud and bricks. Place measurement, 590 cubic yards. The dredge was engaged here from November 17 to 27.

EAST MIDDLE LA HAVE.

Dredging.

East Middle La Have is a small farming and fishing district on the east side of the La Have river, about 9 miles from Bridgewater.

The work done by dredge *No. 15* during the fiscal year 1917-18, consisted of the cutting of a basin in front of a wharf for the better landing of the steam packet which runs on the La Have river between Bridgewater and the several small villages on the river.

The area covered was 8,000 square feet with an average cutting of 4 feet, giving an average depth of 5 feet at L.W.O.S.T. The basin has a length of 110 feet and a width of 80 feet. The material removed consisted of mud and gravel, the place measurement being 1,200 cubic yards and the scow measurement 1,558 cubic yards, showing an expansion factor of 30 per cent. The dredge worked here from September 4 to September 18.

EAST RIVER.

(This work is described in the annual report for 1915.)

East river is the most easterly of the three branches of Pietou harbour. It is navigable for small vessels from opposite Pietou to the town of New Glasgow.

During the fiscal year 1917-18, the contract let to Messrs. McDougal Bros. was practically completed, the only work still to be done consists of binding several of the dolphins with $\frac{3}{4}$ -inch wire cable. The work consisted of unwatering, common and rock excavation, and timber approach piers.

In September, 1917, Messrs. Roger Miller & Sons, Ltd., finished their contract for the lock gates and operating machinery. The total expenditure on these two contract works amounted to \$583,230.35.

Dredging.

The East river is the most important of the three branches of Pietou Harbour. Since the inception of the work in 1908, the department hydraulic dredge *No. 5* was employed, and the total amount removed to date is 2,972,228 cubic yards of clay, sand, gravel and shells. A detailed description of the whole project to that date is given on page 24 of the annual report for 1915.

During the past season, the dredge operated from June 23 to November 2, and excavated 290,700 cubic yards measured *in situ*. The material was principally soft alluvial clay with occasional areas of harder material near grade. The cutting was dredged to a depth of 21 feet below L.W.O.S.T. and to a width of 150 feet from stations 34+00 to stations 80+00 with the exception of some hard material between station 65+50 and 67+50 which the dredge could not remove.

This material consists of 2,100 cubic yards *in situ*, or 3,120 scow measurement, of tenacious clay that will require a dipper dredge to excavate. This, in addition to some

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overlying soft material not removed by the dredge, will make a total of 5,620 cubic yards scow measurement to be dredged from that area.

In the second reach, station 120+00 to station 239+00 there yet remains 369,000 cubic yards of sedimentation to be removed from the cutting made in previous years.

INVERNESS.

Dredging.

Inverness, Inverness county, is an incorporated mining town situated on the north-western coast of Cape Breton island, about midway between the harbours of Mabou and Margaree, and 60 miles from Port Hastings, on the strait of Canso, with which it is connected by rail.

In April, 1917, the fishermen of Inverness asked the department for a channel across the beach, 15 feet wide in the bottom, and with a depth of one foot of water at low water or 5 feet at high water, to permit them to pass in and out of the harbour at least at half tide, but the channel asked for would extend beyond the protection of the eastern breakwater for a distance of 175 feet, and in order to protect this dredged channel, it was absolutely necessary to extend the eastern breakwater for that distance.

Instructions were received to excavate the channel; operations were commenced July 10, 1917, and continued when weather conditions permitted, until September 25, when the work was suspended.

The depth required was obtained throughout the length of the channel during the progress of the work, but the heavy seas washed the floating sand back into the channel, and on 26th September, when the final examination was made, it was found that the channel had an average depth of 1.2 feet *above low water* instead of one foot *below low water*; and as spring tides rise here 4 feet instead of having a depth of 5 feet at *high water*, as proposed, there were hardly 3 feet of water at that stage of the tide, and it will continue to shoal up until the channel is protected.

The amount of material removed on completion was found to be 3,155 cubic yards in place, without taking into consideration the amount of material removed and washed back into the cut.

The work was done by horses and scrapers.

LIVERPOOL.

Dredging.

Liverpool is a town situated at the mouth of the Mersey river. During the past fiscal year, dredge No. 7 removed 46,610 cubic yards, scow measurement. Work was commenced June 11, 1917, moved to Shelburne in September, and moved back to Liverpool, October 17, and continued operations until November 30, 1917.

From the bridge towards the mouth of the harbour for a distance of 1,110 feet, the nature of the material to be removed consists of mud and sawdust. For a further distance outwards of 1,034 feet the material consists of mud and sawdust mixed with fine white hard sand. In the last 1,089 feet of this channel, the bottom is composed entirely of fine, hard, white sand extremely difficult to remove with a ladder dredge. This dredging has been performed to a depth of 15 feet at L.W.O.S.T.

The bulk of the material removed during the last fiscal year came from that portion of the channel starting opposite the end of the marine slip and continuing seaward as far as the black buoy. A few scow loads at the latter end of the season were removed from the upper portion of the harbour at its northern side. This latter part of the work was 400 feet long and 100 feet wide, the main portion of the dredging over the bar had a common width of 150 feet and a length of about 1,750 feet to a depth of 15 feet at L.W.O.S.T.

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The dredged area was thoroughly swept after the completion of the work, and the full depth of 18 feet at low lake level was obtained everywhere.

SHELBURNE.

Dredging.

Shelburne is a town situated 70 miles northeast of Yarmouth and about 110 miles southwest of Halifax.

During the last fiscal year, dredge No. 7 removed 4,780 cubic yards, scow measurement, of material from portions of the upper part of Shelburne harbour. Work was commenced on September 24 and completed October 17, 1917. The dredging consisted of the removal of mud and some small rocks from the channel and approach to the McKay shipyard, situated at the extreme head of the harbour. The length of the cutting was 445 feet, the portion opposite the launchway being 100 feet long by 150 feet wide, whilst the remaining 335 feet in length was 50 feet width. Different portions of this channel and approach were dredged to a depth varying from 5 feet to 8 feet at L.W.O.S.T. The depth obtained was the greatest that could be practically gotten in the different sections, owing to fact that absolute hard rock bottom lies immediately underneath, but dredging was done in the channel opposite wharf of I. Clow; the frontage between his place and G. A. Cox's wharf; opposite Mr. Cox's wharves; and, at the request of the Shelburne Ship Builders, Ltd., tried to assist that enterprise by dredging in front of their shipyard; here we found an absolute ledge of rock after we had succeeded in removing about 80 yards of round cobble stones. The material in these latter places, from Clow's wharf to the Shelburne Ship Builders yard consisted of a hard clay formation, interspersed with small rocks varying in size from a diameter of three inches to one foot. Below this stratum, which in no place exceeded a foot in thickness, we found soft mud, but with the ladder dredge it was particularly difficult to penetrate the top stratum.

WEST DUBLIN.

Dredging.

West Dublin is an important fishing and farming district in Lunenburg county, about 14 miles from Bridgewater on the west side and near the mouth of the La Have river.

During the fiscal year 1916-17, the departmental dredge No. 15 removed 1,956 cubic yards scow measurement or 1,505 yards place measurement showing an expansion factor of 30 per cent. The work consisted of dredging a channel along the front of the wharves about 275 feet in length, having an average width of 30 feet.

During the fiscal year 1917-18, the work consisted of the cutting of a channel by dredge No. 15, from deep water into and along the front of the wharves. The area covered was 15,400 square feet, with an average cutting $3\frac{1}{2}$ feet, giving an average depth at low water of $4\frac{1}{2}$ feet. The channel has a length of 376 feet and an average width of 41 feet. The material consisted of mud, the place measurement removed being 1,985 cubic yards and scow measurement, 2,881 yards, giving an expansion factor of 30 per cent. The total cost in this fiscal year was \$1,245.94, the dredge working here from July 9 to August 4.

YARMOUTH.

(This work is described in the annual report for 1915.)

Yarmouth Bar. Yarmouth harbour, lies about NNE. and SSW. (true), and from the upper wharves to the mouth of the harbour is nearly 4 miles.

In 1917-18, the sum of \$553.37 was expended in minor repairs to a number of places in the 1,700 feet in length of beach protection, damaged by storms.

YARMOUTH.

Dredging.

In 1917-18, the dredge *Canada, No. 7*, removed 815 cubic yards, scow measurement, 649 cubic yards, place measurement, towed $2\frac{1}{2}$ miles. The work done consists in the widening of the turning berth opposite the Evangeline wharf, belonging to the D. A. Ry., at which the Boston steamers lie. Dredging was begun 7th January, and stopped 19th January, 1918, owing to ice conditions, which were unprecedentedly severe.

The dredging was comprised within a maximum length of 200 feet, by a maximum width of 50 feet; the maximum depth of cut was about 20 feet and the bottom of the cutting had a varying depth below L.W.O.S.T. of a maximum of 18 feet.

PRINCE EDWARD ISLAND.

ALBERTON.

Dredging.

(This work is described in the annual report for 1915.)

The village of Alberton, Prince Albert county, is situated on the northeast coast of the island at Cascumpeque harbour, about 55 miles by rail from Summerside.

While a depth of 10 feet at low water was carried on channel face of the wharf, the area immediately inward of the pierhead was available only for very small boats, being about dry at low tide. In order to provide further shipping accommodation the forming of berths on either side at the outer end of the wharf was authorized, each to have a length of 185 feet and average width of 80 feet, grading in depth from 10 feet up to 5 feet at their inner end at low water spring tides. Work was commenced November 3 by D. P. W. dredge *No. 11* and when suspended, November 20, a berth had been formed on the southern side of the wharf immediately inward of the southern "L"; it has a length of 90 feet and width of about 75 feet carrying an average depth of 7 feet at low water spring tides, providing sufficient protection and shelter for wintering the plant in safety.

The quantity of material removed between the above dates was 2,200 cubic yards, scow, and 1,500 cubic yards, place measurement, of overcasting, which consisted principally of mud and hard sand, all overcasting being dredged and scowed away.

BEACH POINT.

Dredging.

Beach point, Kings county, is situated on the south side of the entrance into Murray harbour. From the "point" a sand and mud spit, which is dry at low water, extends in a westerly direction along the edge of the channel a distance of about one mile and encloses between it and the shore a basin having a depth of from $1\frac{1}{2}$ to 3 feet at low water, affording good shelter and anchorage for fishing boats. To make this shelter available at all stages of the tide, a small channel was dredged during seasons of 1904 and 1905 from the deep water outside into the basin a distance of about 400 feet. As this channel has been found inadequate, further dredging improvements were commenced by "D.P.W." dredge *No. 9* August 20 and carried on until November 3, when orders were received to take up winter quarters. During this period, 12,068 cubic yards, scow, and 13,600 cubic yards place measurement overcasting of sand and mud were removed; practically all of the overcasting being redredged and scowed away.

The improvements undertaken consist of forming a new channel to carry 7 feet at low water spring tides about 400 feet to the westward of the old cut and having a

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total length of 950 feet, including turning basin at inner end, 250 feet in length, parallel to the shore; the width of approach from deep water to the basin being from 60 to 65 feet. When operations were suspended, November 3, about 400 feet of the approach was completed to the depth required.

BRIDGETOWN.

Dredging.

(This work is described in the annual report for 1916.)

The village of Bridgetown is situated at the head of navigation on the Grand or Boughton river, Kings county.

Work was commenced May 21, 1917, and carried on continuously until July 28 when satisfactorily completed; the quantity of material removed was 33,700 cubic yards, scow measurement, of principally soft mud. The improvements made covering the three seasons involving the removal of 57,600 cubic yards, consisted of deepening and straightening the channel from about 1,200 feet below Robertson's creek up to the wharves just below the village a distance of 5,050 feet, the width of cut being 70 feet with exception of the upper 500 feet which was made 100 feet wide to form a turning basin. The average depth carried over all the work on completion was 9 feet at low water spring tides, which here have a range of 5 feet.

McPHERSON'S COVE.

(This work is described in the annual report for 1916.)

McPherson's cove, Kings county, is situated on the south side of the Grand or Boughton river, a short distance within its entrance into Boughton bay.

During the past season some slight settlement caused by storms to the roadway approach was made up with broken stone; commenced work September 22, and completed 29.

Dredging.

To facilitate shipments some improvement has recently been made in size and depth of berths on each side of the pierhead, D.P.W. dredge No. 9 working from July 30 to August 8, removing in that time 4,100 cubic yards, scow measurement, of mud. During progress of work, it was necessary to overcast 400 cubic yards, place measurement, in order to obtain flotation for the plant; this material being afterwards redredged and scowed away. The work done consisted in cleaning up shipping berths on either side of the pierhead, each berth having a length of 100 feet; their entrance being "bellmouthed" to a width of 90 feet in line with outer end of wharf, thence narrowing down to 30 feet at inner end; the depth made grading from 10 feet up to 7½ feet at low water spring tides.

RUSTICO.

(This work is described in the annual report for 1909.)

Rustico harbour is situated on the north coast of Prince Edward Island, about midway between North point and East point, and 9 miles northerly by road from Hunter river, the nearest station on line of the Prince Edward Island railway.

Some strengthening of the beach protection work, situated immediately within the harbour entrance near the back range light, was commenced August 7, satisfactorily completed September 15, and consisted of driving twenty piles along the channel face of the work and making up some small settlement which had occurred in the brush and stone filling.

RUSTICO.

Dredging.

Owing to the shoal depth of water carried over the greater portion of Gauthier's creek, only the smallest class of fishing boats could reach the village at low water. In order to make the head of the creek accessible at all stages of the tide, improvements of the channel approach thereto were commenced by the departmental dredge No. 11, October 26, 1916, but shortly afterwards suspended owing to the plant being ordered into winter quarters. Operations were, however, resumed again May 31, 1917, and carried through to a satisfactory completion, October 17; the quantity of material removed during this time was 29,275 cubic yards, scow measurement, of principally mud, sand, and brick clay. To facilitate the working of the plant in front of the fishing stages at upper end of cut it was necessary to overcast 3,080 cubic yards, place measurement, of mud, about half of which being afterwards redredged and scowed away.

The work done covering the two seasons consisted of forming a channel through the flats from point where abandoned in 1891 up to a small basin near the fishing stages below the village. This channel has a length of 2,350 feet and width of 60 feet, carrying on completion 8 feet at low water spring tides.

Improvement was also made in depth of water along the outer end of fishing stages located at the head of the creek for a distance of 500 feet, the depth now available being not less than $4\frac{1}{2}$ feet off any stage; while the turning basin adjoining was enlarged and deepened to an average of 7 feet at low water spring tides.

Included in the above quantity is 700 cubic yards, scow, and 300 cubic yards, place measurement, overcasting, of hard sand, removed to form berths for small vessels in front of a beach protection work 200 feet in length, situated just within the harbour entrance. The dredge was employed at this work from July 17 to 20; the depth made being 9 feet at low water spring tides.

Some silting in may be expected from time to time, particularly in front of the stages where the material excavated was very soft.

Before the dredge left Rustico authority was given to clean up the area in front of Mr. Joseph Gallant's wharf, which is situated about $2\frac{1}{2}$ miles in a southwesterly direction from the harbour entrance at the village of Rusticoville. The dredge operated here four days, October 23 to 26, removing 700 cubic yards, scow measurement, of mud and sand. The berth formed has a length of 150 feet and average width of 40 feet, carrying a depth of 8 feet at low water spring tides.

NEW BRUNSWICK.

BASS RIVER.

The Bass river is a small tributary of the Richibucto from the west, and enters the latter about 20 miles about its mouth.

Between the 10th and 16th July, 1917, a small landing wharf was built at Bass river at the head of navigation and about 3 miles above its junction with the Richibucto.

The landing is constructed of cribwork 8 feet wide with a frontage of 75 feet and wings extending shorewards 25 feet at each end. The interior is filled and surfaced with ballast and earth and behind the landing an area about 75 to 12 feet wide and extending back about 160 feet to high ground was graded with 2 to 3 feet of brush and about 14 feet of earth. The lower side of this area was protected by a single face timber laid over sills and with several short cross-ties on top embedded in the fill.

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BATHURST.

(This work is described in the annual report for 1916.)

Bathurst, the shire town of Gloucester county, is situated on the south shore of Chaleur bay.

On the main or Nipisiguit channel, about 3.6 miles long from the harbour entrance to the berth and turning basin at the pulp mill, the required width of cut is 200 feet, increased to 300 and 350 feet at the turns, and depth 17 feet at low water.

The turning basin and berth together will have an average width of 450 feet, length of 900 feet and depth of 21 feet at low water.

Dredging is also required in the branch channel at the Gloucester Lumber and Trading Company's and the Geo. Eddy Company's wharves where the proposed cut is 100 feet wide, 2,000 feet long and 12 feet deep at low water; and in the middle river channel about one mile long past the Bathurst Lumber Company's wharves in Bathurst village to the departmental wharf, where 15 feet at low water is required.

The cut across the outer bar is about 1.7 miles long of which the greater part has been dredged to the required width of 200 feet and depth of 17 feet at low water. On this section and also in the main channel inside the harbour a final depth of 25 feet at low water is called for.

Dredge *P.W.D. No. 2* was at work in the past season between 13th October and 7th November on the Nipisiguit bar in the middle river channel, where about 12,600 cubic yards of sand and clay were removed in deepening a section about 500 feet long and 100 feet wide about 1,600 feet above the Forks, where previously were depths of about 10 to 13 feet.

Dredge *P.W.D. No. 3* was at work between 28th August and 27th September and on the 2nd, 3rd, 12th and 13th October on the Ripple and Ballast bars, in general removing sand and gravel, to the extent of about 29,176 cubic yards, accumulated since the dredging was previously done here.

This dredge worked on the Outer bar between 29th May and 27th August, on the 26th and 29th September, and between 5th and 9th and 13th and 16th October, removing about 85,221 cubic yards of sand and gravel, covering the greater part of the channel across the bar and deepening the outer 4,000 feet where filling-in had occurred.

The limiting depth in the channel is now about 14½ feet.

The total quantity removed during the fiscal year was about 126,997 cubic yards barge measurement.

CAMPBELLTON.

Dredging.

Campbellton is situated on the south shore of the Restigouche river about 16 miles above the mouth.

At the deep-water wharves, where berths with 22 feet at low water ordinary spring tides are required to enable lumber steamers to lie afloat and take full loads, dredge *P.W.D. No. 2* was at work between 9th July and 10th August and between 13th and 15th, and 17th and 25th September, 1917, when a total of 27,350 cubic yards barge-measurement was removed. The berth on the outside of the wharves was dredged to about 20 to 22 feet at low water for a length of about 900 feet and width of about 100 feet, and the inside berth was dredged to 19 to 22 feet, for a length of 650 feet and width of 50 to 75 feet.

The material was mud, sand, and gravel.

CHURCH RIVER.

Dredging.

The Church river enters Miramichi bay about 24 miles northeast of Chatham.

A contract was entered into on August 9, 1916, with Mr. F. A. Fowlie for the removal of 14,000 cubic yards barge measurement, at the rate of 35½ cents per cubic yard, in dredging cuts 40 feet wide to 3 feet at low water across the lower shoal and to 2½ feet across the upper shoal. The length of the two cuts was 600 feet and 2,330 feet respectively.

During 1916, 6,568.9 cubic yards were removed in making a cut about 1,900 feet long across the upper shoal.

Dredging was in progress between 23rd May and 2nd August, 1917, when the work was completed.

A total of 14,421.7 cubic yards, barge measurement, was removed, from which a deduction of 311.7 cubic yards was made for dredging below subgrade.

The total place measurement quantity was 12,783.3 cubic yards and the expansion factor was 15.4 per cent in the work of the first season and 27.85 per cent during 1917.

FORD'S MILLS.

Dredging.

Ford's Mills is a farming and lumbering settlement at the head of navigation on the Coal branch, a tributary of the Richibucto river.

Between 17th October and 13th November, 1917, the shoal section was dredged by day labour, a small orange-peel dredge *Farmer's Friend* being procured from the Welsford Agricultural Society at a rental of \$14 per day, including wages of engineer and cost of gasoline, oil, and repairs.

A cut was made about 315 feet long, 20 feet wide and 1 to 1½ feet deep across a sand bar or shoal at the lower end, and in a length of about 1,250 feet at and below the landing. Shoal sections were dredged and a large amount of slabs and other mill refuse, etc., was removed leaving a channel about 20 feet wide with a depth of 1 to 1½ feet at low water, giving sufficient width for the scows and depth at half tide and over.

The material was cast over, being deposited on a scow by the dredge bucket and shovelled off at the opposite side to keep it far enough from the cut.

KOUCHIBOUGUAC RIVER.

Dredging.

The Kouchibouguac river enters the gulf of St. Lawrence about 12 miles north of Richibucto.

Between 17th September and 6th October, work was in progress to reduce a bar below a dam about 9 miles above the mouth which had an area of about 80 by 100 feet and was lowered about 2 to 3 feet.

The dredge used was the *St. Louis Star*, belonging to the St. Louis Agricultural Society, for which a rental of \$15 per day, including wages of engineer and cost of gasoline, oil, etc., was paid.

MIDDLE ISLAND.

Dredging.

Middle island is the quarantine station for the Miramichi river, and lies opposite the lower end of the town of Chatham.

In order to give a sufficient channel between the island and the mainland for the

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small motor-boat used by the quarantine officer and the caretaker, dredging was authorized under an agreement with Mr. Peter England, and was undertaken between 6th and 20th June, when a total of 2,003.1 cubic yards barge measurement was removed with the dredge *Peter England* at the rate of 40 cents per cubic yard barge measurement. The material was mud, firm clay, gravel, etc.

A cut was made about 600 feet long, 20 feet wide and with 2 to 3 feet at low water where was previously a least depth of about 1 foot.

The approach to and berth at the wharf formerly dry or nearly dry at low water were deepened about a foot in a width of 20 to 30 feet and length of about 150 feet.

MOULIES RIVER.

Moulies river, Kent county, is a small branch of the Richibucto, entering the latter from the west about 17 miles above its mouth. It is navigable for small boats and scows for about three miles.

Between 4th and 18th September, 1917, a small wharf, to be used as a landing place and storage ground for shell mud, was constructed at the lower side of a highway bridge at the head of navigation on the Moulies river.

The landing has a frontage of 95 feet, and consists of cribwork 8 feet wide with a wing of the same extending 50 feet to the shore at the lower side.

The cribwork is filled with stone and surfaced with earth and the area behind the cribwork is graded with earth and gravel.

The expenditure for the fiscal year 1917-18, was \$293.52.

RESTIGOUCHE RIVER.

Ship Channel.

On 26th and 27th September dredge *P. W. D. No. 2* removed about 1,200 cubic yards from the channel on the range of the Campbellton lights, about one-half mile below the deepwater wharf.

The least depth on this range which embraces the upper 8,500 feet of the ship channel is now about 13½ feet at low water.

Between 22nd October and 10th November, dredge *P.W.D. No. 3* worked on the Oak Point shoal, removing about 30,247 cubic yards, barge measurement, in a length of about 1,000 feet, giving depths of 16 to 18 feet where previously were about 14 to 17 feet at low water. The dredge did not, however, reach the turn to "The Traverse" or range of the Oak Point lights, where is now a least depth of 12½ feet at low water, the limiting depth in the channel to Campbellton.

RICHIBUCTO CAPE.

Dredging.

Richibucto Cape is a fishing station and settlement on the Northumberland strait, about 6 miles south of the entrance to Richibucto harbour.

Since there is no natural harbour, a breakwater has been constructed giving a sheltered area of about 2.8 acres. Shoaling having occurred in the approach to the area inside the breakwater, dredging was undertaken by day labour between 9th July and 7th September, 1917, when areas about 200 feet square inside the pierhead and 70 feet square at the entrance, where were previously depths of from 1 foot above to 1 foot below low water, ordinary spring tides, were deepened to 2½ to 3½ feet at low water.

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The clam shell dredge *Excavator* and two scows belonging to the McLaughlan Co., Ltd., of Buetouche, were employed at a rental of \$21 per day, including wages of engineer and cost of gasolene, oil, and repairs.

The total quantity removed was 5,071 cubic yards, barge measurement, and 100 cubic yards overcast, and the cost was 29 cents per cubic yard, barge measurement.

ST. CHARLES RIVER.

Dredging.

The St. Charles or Big Aldouane river flows into the northwest arm of Richibucto harbour about 4 miles northwest of Richibucto.

Work was in progress by day labour between 9th and 31st October, 1917, when cuts 9 inches to 2 feet deep and 12 to 15 feet wide were made in a total length of about 1,365 feet across several shoal sections of the river channel and in the approach to the lower landing or Gray's wharf (so called). The material removed, consisting of sand and mud, amounted to 1,265 cubic yards, and the cost per cubic yard was 38 cents.

A small orange-peel dredge, *The St. Charles River*, belonging to the local Agricultural Society, was employed on the work at a rental of \$15 per day, including wages of engineer and cost of gasolene, oil, and repairs.

ST. JOHN HARBOUR.

Berth No. 16.

The contract for the erection of shed No. 16 was completed by the contractors early in June. The contract awarded Messrs. Kane & Ring on December 22, 1916, for 5,000 yards rock ballast to be placed in the rear of the wharf wall to counteract the reaction of the weight of concrete on cribwork, was also completed in June. Periodic observations of alignment and level are being taken along the concrete face of the wharf, and so far no further settlement has occurred.

Shed No. 16 is 788½ by 90 feet, and has a safe floor load of 400 pounds per square foot.

General repairs to wharves, etc.

On account of all structures in the harbour being of timber, the annual maintenance and repair is considerable. The repairs carried out during the season were: shed roofs, floating fenders, vertical fenders on wharves, etc.

Deep-water berths.

During the season, the deep-water berths in the harbour were dredged to a uniform depth of 32 feet. This was performed by contract, 17,159 cubic yards being removed at an expenditure of \$6,924.82.

Grain conveyor galleries, shed No. 5.

On the 13th June, a portion of shed No. 5, on which the grain conveyor galleries, erected in 1914, were placed, collapsed and wrecked about 300 feet of grain conveyor galleries. Work was immediately commenced to salvage as much as possible of the conveyor machinery.

On November 9, a contract was let to Messrs. Grant & Horne for the rebuilding of conveyor galleries, and the work of installing machinery was carried out by the department's forces, by day labour, under the supervision of the Metcalf Company of Montreal.

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Repairs to sheds 14 and 15.

During extreme high tides, accompanied by heavy winds, considerable loss and inconvenience has, in the past, been experienced at sheds Nos. 14 and 15, by the water washing over the berth on to the shed floor. To obviate this damage, the floor on both these sheds has been raised about 6 inches. During two severe storms, since this work was completed, no inconvenience has been felt.

Platform No. 15 shed.

During the severe storm of October 30 and 31, about two hundred feet of platform, No. 15 berth, was torn up; this was replaced at an expenditure of \$660.50.

Fort Dufferin Breastworks.

Two severe storms in January and November, 1916, entirely destroyed two portions of the breastworks. Work of repair was started and was fairly well advanced when the heavy storm of October 30 and 31 last, washed away practically all the work under construction, in addition to about 163 feet of the existing work. One portion of the breastworks, about 110 feet in length, has been completed.

Negro Point Breakwater.

During the season, plans were prepared for the extension of the breakwater. Borings and investigations were made on Partridge island to ascertain if the rock was suitable for the breakwater. It was found that a considerable quantity of suitable rock could be obtained at this place, and the Common Council of the City of St. John, on the 30th January last, granted permission to obtain rock on the island.

PARTRIDGE ISLAND LOW-WATER LANDING.

Authority was given to rebuild the extension to the low-water landing which was constructed to facilitate the landing of passengers, chiefly military, at low stages of the tide; the work has been completed.

ST. NICHOLAS RIVER.

The South Branch is a small stream entering the St. Nicholas river, Kent county, about 4 miles above the mouth of the latter into the Richibucto.

Between 3rd and 17th and on 30th July, 1917, a small wharf was built near the head of navigation on the South branch, i.e., about one mile above its mouth.

The wharf is intended for the landing and storing of shell mud, dredged near the mouth of the river and used as a fertilizer, and is 72 feet long and 5 tiers high on the outer face, with wings carried shorewards about 25 feet; the cribwork of front and wings is 8 feet wide; a strip 14 to 15 feet wide along the front is planked, behind which the wharf is surfaced with gravel, and a right of way about 340 feet long to the public road was graded and fenced.

SHEDIAC BAY.

Dredging.

The site of the dredging is in the approach to the Grandigue wharf in Shediac bay or the northern end of Shediac harbour, 5 miles north of Shediac.

Dredging has been in progress in the last four years in the berths at and approach to the wharf, the total length of the latter being 2,750 feet.

To give a general width in the approach of 35 to 40 feet, a section about 1,300 feet long previously only about 18 feet wide was widened during the past season where the depth is about 5 to 6 feet at low water.

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Work was in progress in broken time between 17th September and 14th November, and the total quantity removed was 2,585 cubic yards barge measurement and the cost 40 cents per cubic yard. Material, mud.

SHIPPIGAN GULLY.

Dredging.

Two sharp bends in the channel inside the gully have made navigation difficult, therefore at different times dredging has been undertaken to give a straight course from the gully inwards towards Shippigan harbour.

During 1917 the removal of the outer point or bend was begun by dredge *P.W.D. No. 13*, an area about 550 by 75 feet being dredged to 9 to 10 feet at low water ordinary spring tides where the least depth previously was 4 to 5 feet.

The lower end of the channel across the inner bend was completed, an area about 600 feet long and 0 to 100 feet wide, starting about 1,300 feet inside the breakwater at the gully, being dredged to about 9 feet at low water. At the upper end of this channel, which has a total length of about 2,800 feet, two partial cuts were made through a shoal section about 1,000 feet long, the larger cut being about 700 feet long by 30 to 60 feet wide and the depth reached was about 8 to 9 feet.

Work was in progress between 9th July and 29th August and on scattered days when the weather permitted up to the 19th October.

The materials removed amounted to 25,662 cubic yards, barge measurement, of mud, sand, and gravel.

SHIPPIGAN HARBOUR.

Dredging.

Between 29th June and 6th July and, at different times between the 1st September and the 12th October, dredging was undertaken by dredge *P.W.D. No. 13* to deepen and extend the berths at the Shippigan public wharf which is situated at the terminus of the Caraquet railway, and 3 miles from Shippigan gully.

The berth along the inside of the pierhead, 75 feet long, was partly dredged to a width of about 45 feet, and beyond the pierhead a foundation for a proposed 100-foot extension and berth was dredged to 10 to 12 feet at low water. Dredging is still required for berths along the inside of the wharf shorewards of the pierhead for a total length of 260 feet.

Along the outer or southern side of the wharf, dredging was done in a length of about 370 feet and average width of about 80 feet to extend the berths shorewards. Dredging is still required close to the face of this section of the wharf which was close piled to prevent settlement of the blocks.

Depths of 7 to 8 feet were given where there was previously $\frac{1}{2}$ to 2 feet at low water.

The total quantity dredged was about 27,041 cubic yards of mud, which includes about 11,731 cubic yards overcast, much of which was afterwards removed in scows and is included twice in the larger figure.

QUEBEC.

BATISCAN.

Dredging.

Batiscan is situated on the north shore of the river St. Lawrence, in the county of Champlain, 101 miles below Montreal.

During the summer 1915, a 12-foot entrance channel to the government wharf was dredged, and the object of the dredging undertaken last fall was to maintain at its

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original depth of 12 feet, the western branch of this entrance channel where filling in took place.

The work performed by La Cie Générale d'Entreprises Publiques, between October 13 and November 7, 1917, consisted in the removal, over an approximative area of 300,000 square feet, of 23,704 cubic yards of sand, scow measurement, at 18 cents a cubic yard.

CAUGHNAWAGA.

Caughnawaga, a post village in Laprairie county, is situated on the south shore of river St. Lawrence,

From September 17 to November 15, 1917, departmental dredge *No. 119* removed some 2,561 cubic yards, scow measurement, in making a temporary channel, leading to government wharf, also removed a few stones in front of wharf.

Dimensions of work done: a channel 168 feet long, parallel with G.T.R. wharf, by 95 feet wide, average, to a depth of 9 feet below extreme low water level, or 0 foot gauge.

Hours of actual dredging, 260½; cut from 15 to 18 feet wide; face removed from 1.6 to 6 feet; distance advanced, 1,474 feet; dumping ground within 1 mile, in a deep place, in river St. Lawrence, opposite Caughnawaga.

CHICOUTIMI.

Dredging.

The dredging between Ste. Anne and Chicoutimi was done by the departmental plant "Steam Derrick."

The object of work is to allow the ferry plying half hourly between Ste. Anne and Chicoutimi, to fulfil the service at any stage of tide.

During the present fiscal year, only 2,680 cubic yards of clay and boulders have been removed near the Basin wharf; more attention was given to the removal of big boulders obstructing the channel on the Chicoutimi side, and near the Ste. Anne where 593 cubic yards of boulders have been removed.

The work consists in the dredging of a channel giving 6 feet of water across the Saguenay between Ste. Anne and Chicoutimi basin wharves.

CONTRECEUR.

Contreœur is an incorporated village and station in Chambly-Verchères county, on the south shore of river St. Lawrence.

From 25th May to 29th June, 1917, departmental dredge *No. 106*, worked here, and removed some 12,078 cubic yards, scow measurement, of clay and a little sand, easy to dredge.

Dimensions of work done: one cut 1450 feet long, by 56 wide average at bottom, to 3 feet below extreme low-water level, or 0-foot gauge at Contreœur wharf, corresponding to elevation 19.09. Hours of actual dredging, 250½; face removed from 2 to 5 feet; distance advanced 1,609 feet; dumping ground 2 miles downstream, in a deep place, north of Contreœur channel, close to a small island, where no damage will result, and material placed to leave 5 to 6 feet at low water.

The site of dredging done is situated 3,500 feet, upstream of Government wharf, at Contreœur, between the shore and Ile aux Rats.

DOUCET'S LANDING.

Doucet's Landing or Ste. Angèle de Laval, Nicolet county, a post village on the south shore of the river St. Lawrence, directly opposite Three-Rivers, to which it is connected by steam ferry.

Dredging was done in front of the Grand Trunk Railway wharf in order to afford sufficient depth of water by removing 2,190 yards *in situ*, or 2,910 cubic yards, scow measurement, expansion factor 33 per cent, of class B material, clay, sand, and small boulders.

The area dredged, of irregular shape, covers 1,550 square yards; the average depth of cut being 4.5 feet.

An agreement was entered into with La Compagnie Générale d'Entreprises Publiques to do the work at the price of 30 cents per cubic yard, scow measurement.

In order not to interfere with the traffic, the work was done during nights by dredge *Welland*, attended by tug *Denisa*, between November 10 and 12, 1917.

GRENVILLE CANAL.

Grenville is located on the north shore of the Ottawa river, about 58 miles below the city of Ottawa.

During the period, June 18 to 23, the departmental dredge *No. 103* worked immediately below the second lock, cleaning the canal of rock which had fallen in from the bank.

An area of 8,150 square feet was dredged to grade 10 feet on a length of 200 feet and 25 to 43 feet in width. From 1 to 1½ feet of limestone was excavated, a total of 455 yards was removed; 333 being cast over on the bank, and 120 spoiled at the old dumping ground outside the canal entrance.

HA HA BAY.

Dredging.

This dredging has been performed at Port Alfred situated on the east side of Ha Ha Bay, between St. Alphonse and St. Alexis, where the Ha Ha Bay Sulphite Company has erected a powerful chemical pulp mill.

The object of this work is to facilitate the approach, by ocean steamers, to the company's wharf.

The dredging was performed by the departmental dredge *No. 115*; work was started on 28th May and continued until 30th June.

The channel, 90 feet wide, commenced in 1916 was continued inwards a further 190 feet and to a depth of 16 feet below low water spring tides.

The material was very soft clay, and some difficulty was experienced in performing the work.

LE AUX FOINS.

Le aux Foins is the most upstream of the group of islands in river St. Lawrence, at the head of lake St. Peter, between Sorel and Berthier.

The area dredged was obstructed during the ice shove of 1916, which had deepened the channel, at some places, from 10 to 18 feet and, at other places, nearly blocked it.

From the 3rd July to 16th October, 1917, departmental dredge *No. 106* worked here and removed 29,067 cubic yards, scow measurement, of sand and clay, in completing a channel for ferryboat and traffic between Sorel and Berthier.

Dimensions of work done: 650 feet long, parallel with range of lights, by 260 feet wide; up-stream of range of lights, or immediately at foot of Le aux Foins, 1,180 feet long, parallel with channel, by from 20 to 100 feet wide, to a depth of 10 feet below extreme low water level, or 30 feet on Marine gauge at Sorel, Que.

LA ST. LOUIS.

The site of dredging is situated at the intersection of St. Lawrence and Ottawa rivers main channels, in lake St. Louis, 3 miles up-stream of Lachine.

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The object of dredging is to facilitate the passage of boats drawing 14 feet of water.

From 16th May to 15th September, 1917, departmental dredge No. 123 worked here, removed some 29,550 cubic yards, scow measurement, in making 14-foot depth, clear at low water on the north side of main channel, completing 41.6 per cent of the whole project.

Dimensions of work done: one ridge situated on the north side of main channel, starting some 1,300 feet upstream of lower light of main channel, 700 feet long, parallel with main channel, by 100 feet wide average to 14 feet clear at low water; a second ridge, situated on the same side of main channel, starting at 2,200 feet upstream of lower light, on a length of 1,200 feet by 80 to 100 feet wide average, to a depth of 14 feet.

Hours of actual dredging 773½; cut, 35 feet wide; face removed, from 1 to 7 feet; distance advanced, 4,846 feet; dumping ground 2 miles downstream, immediately opposite upper light of new range, in a deep place, some 1,800 feet south of main channel, around a buoy, which has been placed by the Marine Department for that purpose.

LAPRAIRIE.

(This work is described in the annual report for 1916.)

Laprairie, a town in Laprairie county, on the south shore of the St. Lawrence, and a station on the Grand Trunk Railway.

(A) Dyke.—Contract.

During the fiscal year 1916-1917, the Duranceau & Poupore contract was cancelled. Total cost of contract, \$75,685.

Another contract was given by the Dominion Government on November 18, 1916, to the Carleton Construction Company to complete the dyke on its improvements at the estimate cost of \$79,420.47. No work had been done by the contractor on this contract during fiscal year 1916-1917.

On May last, the Carleton Construction Company began their work; as the progress of work was not satisfactory, the company was repeatedly warned that their contract would be cancelled, and the company showing no improvement in their progress, their contract was cancelled on August 8, last.

On September 5, a contract was entered into with Quinlan & Robertson Co. to complete the work on the dyke at actual cost plus 10 per cent.

The total expenditure incurred by the contractors during fiscal year 1917-1918, amounts to \$127,079.13, and work done is as follows:—

Western wall excavation.—Stone footing completed for a distance of 4,300 feet; wall extended and rebuilt completed on a distance of 4,000 feet; concrete wall protection completed for a distance of 2,700 feet completed to a height of 7 feet on a further distance of 325 feet.

Curb and Gutter.—Completed on the western side for a distance of 2,540 feet; completed on the eastern side for a distance of 1,620 feet.

Eastern wall.—Completed for a distance of 2,700 feet; and completed to a height of 7 feet on a further length of 400 feet.

Bridge.—The piers were raised about 4 feet, two additional beams were placed; the cross beams were riveted in place, and a new concrete flooring was laid.

No expenditure was incurred on the macadamized roadway this year.

Plank roadway.—During the present fiscal year, the plank roadway and temporary bridge were maintained in good order. Nearly all the planks were renewed by day labour.

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Protection wall.—A wooden crib extension of the concrete completed by the Department in 1906 in front of St. Joseph Academy was rebuilt in concrete on a length of 46 feet, height 12 feet and average thickness 2 feet.

LONGUEUIL.

Longueuil, is a post town, in Chambly-Verchères county, Montreal district, on the south shore of river St. Lawrence, opposite Montreal.

During 1917, the department undertook four different dredging improvements at Longueuil: (a) Canada Steamships; (b) Government wharf; (c) Shoal; (d) Test dredging.

A. Canada Steam.

From the 14th May to 14th July, 1917, departmental dredge *No. 110* removed some 27,095 cubic yards, seow measurement, of material in completing a channel for the ferryboat, plying between here and Montreal, from the beginning of April to the middle of December.

Dimensions of work done: 450 feet long parallel with current, by a few hundred feet wide, to a depth of 12 feet below extreme low water level.

Hours of actual dredging, 266; cut 35 feet wide; face removed, from 1 to 6 feet; distance advanced, 4,267 feet; dumping ground, $3\frac{1}{2}$ miles maximum, on the northwest side of river St. Lawrence; minimum, 2 miles, the whole under the supervision of the Montreal Harbour Commission.

The site of dredging done is some 1,500 feet from Canada Steam Lines wharf, in river St. Lawrence, close to main channel, immediately below Longueuil shoal.

B.—Government Wharf.

From 21st July to 1st October, 1917, departmental dredge *No. 110* removed some 21,130 cubic yards, seow measurement, of material in completing an 11 to 12-foot channel and basin leading to government wharf.

Dimensions of work done: 340 feet parallel with face of wharf and 650 feet outer, by 260 feet wide average, to an average depth of 12 feet below extreme low water level, or 0-foot gauge at Longueuil. The material removed was clay, boulders, and hardpan.

Hours of actual dredging, 320 $\frac{1}{2}$; cut from 35 to 40 feet wide; face removed from $\frac{1}{2}$ to 6 feet; distance advanced, 5,712 feet; dumping ground, 2 and 3 miles downstream, on northwest side of river St. Lawrence.

The site of dredging done is immediately opposite government wharf.

The total quantities removed here from 1913 to 1917, inclusively, are 148,752 cubic yards, seow measurement.

C.—Longueuil Shoal.

This shoal is a permanent obstruction to local navigation, and dangerous to the ferryboat, drawing 11 $\frac{1}{2}$ feet of water, plying between Montreal and Longueuil and making seventy trips daily.

During season 1917, half of the whole project was done, and tugs with tows have used the portion already dredged.

From 16th July to 22nd November, 1917, departmental dredge *No. 110*, removed some 58,950 cubic yards, seow measurement, of clay, sand, and hardpan.

Dimensions of work done: 1,500 feet long, parallel with current, by a few hundred feet wide, to a depth of over 12 feet below extreme low-water level, or 0-foot gauge at Longueuil.

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Hours of actual dredging, 342½; cut, 35 feet wide; distance advanced, 7,699 feet; dumping ground, 3½ miles downstream.

The site of dredging done, is situated some 1,500 feet opposite Canada Steamship Lines wharf, at Longueuil, in river St. Lawrence.

RESTIGOUCHE RIVER.

Dredging.

Champoux Wharf, Quebec: The Champoux wharf lies in Bonaventure county, Quebec, on the Restigouche river, opposite Campbellton.

Dredging is required here every few years to enable shipments of lumber to be made from the Chaleur Bay mills.

Between 13th August and 11th September, 1917, dredge *P.W.D. No. 2* was at work in the berth along the outer face of the wharf covering an area about 450 feet long and 100 feet wide, and giving depths of about 19 to 23 feet at low water ordinary spring tides. The inside berth, about 250 feet long by 75 feet wide, was also dredged to about 13 to 15 feet.

The material removed amounted to 13,600 cubic yards barge measurement of mud, sand, gravel, etc.

RIMOUSKI.

(This work is described in the annual report for 1916.)

The town of Rimouski, chef-lieu of the county of the same name, is situated on the south shore of the St. Lawrence river, 180 miles below Quebec.

The work done during the last nine months consisted in the sinking of the remaining caissons, aggregating a lineal length of 800 feet; building a trestle between the old and new wharf.

The superstructure on the caissons sunk this year has been begun; filling was done to the extent of about 15,000 cubic yards, but work was stopped on account of the sliding out of the new wharf, and dredging was done to the extent of 96,511 cubic yards in the tidal basin.

Expenditure, about \$65,000.

RIVER SAGUENAY.

Dredging.

The channel in the Saguenay river starts from the town of Chicoutimi down to the foot of the Battures, a distance of 8 miles.

The object of the dredging is to provide a channel, 250 feet in width on tangents, 350 to 500 feet in width on the curves and affording a minimum depth of water of 16 feet at extreme low water.

During the present fiscal year, the departmental dredge *No. 115* removed 60,604 cubic yards, scow measurement.

The operations were started 2nd July, and suspended 6th November.

The material was sand and clay, and clay with boulders.

Since the beginning of the enterprise, the channel from Chicoutimi wharf to deep water is clear of all obstructions and affording a minimum depth of 16 feet of water at extreme low water, except on the north side of the intersection of the last two courses, where a lump has been left, but this is not much obstruction, as it may be buoyed, as was done in the fall 1917.

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ST. MAURICE RIVER.

Dredging.

(This work is described in the annual report for 1917.)

The river St. Maurice flows through the Laurentian mountains, a distance of about 360 miles, and discharges in the St. Lawrence river at Les Trois-Rivières. The outlet is divided by islands into three branches called the Eastern, the Middle and the Western Channels.

Between 27th August and 5th October, 1917, the contractor removed, over an area of 234,700 square feet, 94,187 cubic yards of sand, scow measurements at 10 cents a yard, forming a total of 139,821 cubic yards, scow measurements of material removed during the two seasons 1916 and 1917, over a total area of 383,400 square feet, or 107,296 cubic yards, place measurement, giving an expansion factor of 30.3 per cent.

ONTARIO.

BYNG ISLET.

Byng inlet, Parry Sound district, is situated on the Magnetawan river, about 3 miles from the mouth at Georgian bay, and is a village of about 1,500 population.

Dredging was done where required in the channel 6,045 feet in length, 200 feet in width and to a depth of 20 feet below the zero of Georgian bay, elevation 580.0, from the mouth of the river at Clark's island to the Canadian Pacific coal docks. The average depth of cut was 8.6 feet.

The work was performed by the government dredge *P.W.D. No. 109*, and work was commenced June 7 and completed August 11, 1917.

The material removed amounted to 53,336 cubic yards *in situ*, or 74,948 cubic yards, scow measure, class "B" material, and consisted of mud, sand, and clay. All material was scowed out to Georgian bay, an average towage distance of 3 miles.

CARDINAL.

This work consisted of cleaning out an area of 3.06 acres in the Old Cardinal canal to connect the canal basin with the main channel of the river St. Lawrence, in order to provide sufficient depth to allow vessels of 14 feet draught to dock at the Canada Starch Company's wharves at extreme low water. Work was done 26th September to 16th November, 1917, when 16,250 yards, place measurement, or 24,600, scow measure, of clay, sand, and boulders were removed by departmental dredge *No. 123*.

COROUBEC.

Dredging.

Authority was given to accept the offer of the Robert Weddell Company to remove by dredging 7,427 cubic yards, place measurement, from the harbour, at the rate of 39 cents per cubic yard, place measurement, to provide a depth of 20 feet below low water over the shoal areas at the entrance, which said shoal areas extended easterly from east end of west breakwater across harbour mouth, and were a source of considerable trouble to the Ontario Car ferries in entering and leaving the harbour.

An amount of 900 cubic yards, place measurement, was authorized to be removed in the lower end of slip at car ferry dock; this amount to be in extension of the 7,427 cubic yards under contract with the R. Weddell Company.

The work done in the inner harbour consisted in dredging to a depth of 22.5 feet, a section 40 feet in width by 125 feet in length, at entrance to car ferry slip, so as to permit car ferries to submerge their bows and so raise stern in order to make repairs or adjustments to propellers.

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A triangular shoal area, 180 by 120 feet, was dredged easterly from above section to a depth of 18.5 feet below zero.

Work was commenced May 31, by dredge *Trenton*, and was completed July 16, and consisted in the removal of 8,172 cubic yards, place measurement, or 10,847% cubic yards, scow measurement.

DESBARATS.

Desbarats is a village, about 30 miles east of Sault Ste. Marie, situated on the line of the Canadian Pacific railway, and about a mile from the mouth of the small river named Walker river, which flows in a southerly direction and empties into the north channel of lake Huron, opposite St. Joseph island.

Work of constructing a small landing by day labour was commenced on the 15th August and was completed on the 18th of August, 1917.

The work was necessary in order to facilitate the traffic by launches, including mail boats, to and from St. Joseph island. Owing to the high-water level of lake Huron during 1917, the old slab-and-sawdust wall or embankment, which had been used as a wharf, was submerged. The work consisted of an L-shaped platform, constructed on the old slab-and-sawdust landing place, one section of which is 6 feet wide by 36 feet long, 8 feet wide by 43 feet long, and 6 feet wide by 12 feet long, giving the landing a water face 91 feet long. Sawdust and slabs were hauled and spread in the rear to make additional width and dry approaches.

FORT WILLIAM.

Fort William, district of Thunder Bay, a city of 18,000 people, is situated at the mouth of the Kaministikwia river near the northwest end of lake Superior.

The harbour consists of 13.02 miles of navigable channels in the Kaministikwia river and in the McKellar and Mission channels, which for the most part have been dredged to a depth of 25 feet below L.W.L., and have a general width of 500 feet. The harbour frontage available for dockage amounts to 22.45 miles, of which 7.73 miles have already been built up.

Mission River Revetment Wall.—The work of rectification of cribs Nos. 101 to 105, inclusive. Operations in connection with this work were commenced on April 7 and closed down on November 12 last, when the work was accepted from the contractors, subject to their agreeing to perform any minor repairs that might be found necessary after an inspection early this spring.

Two different and yet somewhat similar methods were used in performing this work, viz.: (1) the method used in connection with cribs Nos. 102 and 103, where it had been found necessary to remove all of the old concrete superstructure, and (2) the method used in the rectification of cribs Nos. 101, 104, and 105, where the old concrete superstructure had been left in place.

In the former case, the cribs were raised in timber to the original required elevation of the cribs below L.W.L., the raised sections of cribs not only being secured to the old crib-work, but the lower cross-ties of the raised sections being spaced at 2½-foot centres and projecting beyond the front face of crib-work 15 inches so as to rest on the piling, which was driven as part of the work of rectification at the spacing stated, and was secured by screw bolts and drift bolts to the old crib-work. In addition, an iron stirrup was placed over the top of every alternate projecting cross-tie and was bolted to the old crib-work with drift bolts, after the raised section of these cribs had been secured in place, then two piles were driven to solid foundation through each of the rear pockets of these cribs; heavy rocks and broken concrete were then placed as filling in and along the rear of these cribs to about L.W.L., and the concrete superstructure, including the concrete blocks that had been salvaged, was replaced.

In the case of cribs Nos. 101, 104 and 105, British Columbia fir piling from 80 to 90 feet long was driven at 2½-foot spacing along the front of these cribs and secured to the front face timbers by iron drift bolts, the piles being cut off at an elevation of from 12 to 14 feet below L.W.L.; on the top of these piles a row of waling, 10 by 16 in site, was secured to the face timbers of crib, and in order to assist in transferring the greater part of the weight of the structure to the piles, vertical struts of hard maple, 6 by 12 by 6 feet were secured to the face timbers of cribs above the waling, at about 20-inch centres. These struts were drift-bolted to the crib-work with six drift bolts; in addition, a pair of piles was driven in each of the rear pockets of these cribs to solid bottom, and the stone filling in rear of the concrete superstructure was brought to about L. W. L. with heavy rock and old broken concrete. The concrete superstructure of this section of the work then scarified, the old bollards removed and new mass concrete was poured, in order to bring the work to the established datum, and the bollards were replaced. The waling along the front of concrete superstructure was then renewed.

All of the above work was performed by force account under clause 36 of contract, with the exception of the placing of new concrete, new concrete blocks, new waling, and iron above water.

Mission River Revetment Wall: Repair and renewal of waling along the front face of superstructure of the revetment wall in the G.T.P. terminal basin and slips were performed between 11th and 22nd of November.

Dredging: Dredging was performed in this harbour during the present season, by the Great Lakes Dredging Co., Limited.

The work done, which consists in widening and deepening the Kaministikwia river and Mission channel, was performed by dredges No. 6 and *Dominion*, between the following dates, viz: Dredge No. 6, May 6 and November 27, and dredge *Dominion*, May 15 and June 23, and from July 30 to November 30 last, on which date all operations were closed down for the season.

The total quantity removed during the current fiscal year was 911,977 cubic yards, scow measurement, of which 2,918½ cubic yards scow measurement were of class "A" material, and 909,05½ of class "B" material. The quantities removed per dredge from West Fort turning basin and areas covered by original contract are:—

	Cubic yards, scow measurement.
Dredge No. 6	391,165
" <i>Dominion</i>	520,812
Total	911,977

Kaministikwia River: Practically all of the bank work to be done in the West Fort turning basin was completed, a quantity of 151,810 cubic yards, scow measurement, having been removed in this location by the dredge *Dominion*.

Deepening of the channel in the approaches to the G.T.P. bridge over this river was performed by the dredge *Dominion*, a quantity of 9,325 cubic yards, scow measurement, being removed.

The river was deepened between the G.T.P. bridge and a point opposite the Imperial Oil Company's property, a total quantity of 57,270 cubic yards, scow measurement, being removed. This section of the river was swept on the completion of dredging and was found to be at the depth required under the contract.

A large amount of deepening was performed in that section of the river extending from the Mission channel to a point north of the McKellar channel, the total quantity removed in this location being 143,129 cubic yards, scow measurement. This work included the deepening of the channel in the approaches to and through the C.P.Ry. bridge. Prior to the performance of dredging in the immediate vicinity of this bridge and under a joint agreement between the city of Fort William, the Kaministikwia

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Power Company, Ltd., and the Canadian Pacific Railway Company, all cables belonging to the parties named were removed from the bed of the river, and on the completion of the dredging these cables were relaid in a common trench a short distance above the bridge, at a depth of 30 feet below L.W.L., the trench being backfilled with broken shale and gravel to an elevation of 26 feet below L.W.L. By far the greater part of this section of the river is now practically at the required elevation, and it was endeavoured to establish this point by sweeping to a depth of 25 feet below L.W.L.; it was found, however, that there were several small shoals which will require removal during the coming season.

Certain shoal areas found to exist in that section of the river lying between the Empire elevator and the McKellar channel, and which extended for the most part along and adjacent to the dockage on the north side of the river, were removed to subgrade, a total quantity of 86,404 cubic yards, scow measurement, being dredged in this instance.

The total quantity removed this season in widening and deepening the Kaministikwia river was 447,938 cubic yards, scow measurement.

Mission Channel: Deepening and the removal of a number of shoals was performed over a large section of this channel, extending from its confluence with the Kamiustikwia river to a point opposite the upper end of the Fort William coal dock, the quantity dredged being 74,322 cubic yards, scow measurement.

The major part of the widening required to be performed in this channel, along its northerly side and extending from a point opposite the Fort William coal dock to the shore line of island No. 2. in Thunder bay, was completed during the present season, the total quantity removed being 389,717 cubic yards, scow measurement.

The total quantity removed in the Mission channel during the present season was 464,039 cubic yards, scow measurement.

The following unit prices obtain in the above contract, viz.:

Widening: Rock, \$2.40 per cubic yard, scow measurement. All other materials 10½ cents per cubic yard, scow measurement.

Deepening: Rock, \$2.85 per cubic yard, scow measurement. All other materials, 22½ cents per cubic yard, scow measurement.

Extra haul: 1 cent per cubic yard, scow measurement, per mile over 3½ miles.

Summary of quantities removed by dredging under the above contract in accordance with the respective locations of areas dredged:

	Cubic yards, scow measurement.
Kaministikwia river—	
West Fort turning basin	151,810
G.T.P. bridge	9,325
G.T.P. bridge to Imperial Oil Company	57,270
Mission channel to C.P.Ry. bridge	34,592
C.P.Ry. bridge	1,100
C.P.Ry. bridge to McKellar channel	57,437
McKellar channel to Empire elevator	86,404
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	447,938
Mission channel—	
Kaministikwia river to Fort William coal dock	74,322
Island No. 2 (widening) Fort William coal dock to Thunder bay	389,717
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	464,039
	<hr/>
Grand total	911,977

In connection with the above contract, it might be stated that prior to the current fiscal year a total quantity of 14,352,384 cubic yards, scow measurement, had been dredged, so that the total quantity removed to date under this contract is 15,264,361 cubic yards, scow measurement.

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As a result of the most recent soundings taken, it is found that the following governing depths below L.W.L. in the various portions of the harbour referred to, are available, viz:

	Width. (feet)	Least Depth. (feet)	General Depth (feet).
Kaministikwia River—			
Entrance channel in Thunder bay	550-600	23'2	26'0
From Empire elevator at mouth to City dock.	350-400	23'6	26'0
" City dock to C.P.Ry. bridge	300-350	23'0	26'0
Through C.P.Ry. bridge	119	22'9	26'0
From C.P.Ry. bridge to Mission Channel	300	23'1	26'0
From Mission channel to bend above Elevator "D"	275	23'2	26'0
From bend above Elevator "D" to Imperial Oil Cos dock	175	21'0	23'0
From Imperial Oil Co.'s dock to G.T.P. bridge	400	25'0	26'0
Through G.T.P. bridge	80	21'0	23'0
From G.T.P. bridge to C.N.Ry. coal dock	300	23'2	25'5
At bend in river above C.N.Ry. coal dock	290	21'0	26'0
Over the West Fort turning basin to the Mutual elevator	1,650	21'0	24'0
Mission Channel—			
Entrance channel	450	22'2	26'0
Least depth along revetment wall from wall out 50 feet into channel		15'2	
Least depth along revetment wall over a width of from 50 feet to 150 feet from face		21'0	
From entrance channel, 1,200 feet north of inner end of slip No. 3	300	19'2	24'0
From Fort William coal dock to Fort William starch works	350-400	24'4	25'5
From Fort William starch works to junction with Kaministikwia river	400	23'6	25'5
G.T.P. turning basin west of entrance channel			26'5
G.T.R. turning basin over area 150 feet out from limits		21'0	
G.T.P. Slip No. 1, the most westerly slip west of Turning basin		22'9	25'0
G.T.P. Slip No. 2, west of Turning basin			24'0
G.T.P. Slip No. 2, over area 50 feet from limits		22'3	
G.T.P. Slip No. 3, the most northerly slip west of turning basin			23'6
G.T.P. Slip No. 3, over area 190 feet from limits		21'7	
McKellar Channel—			
From Thunder bay to C.P.Ry. bridge	350-400	23'2	26'0
Through C.P.Ry. bridge	70	22'5	26'5

The work that requires to be attended to under contract No. 7339, which expires in December next, consists almost entirely of deepening or scraping areas dredged in previous seasons, and which more particularly are as follows:—

Kaministikwia River.—(1) The West Fort turning basin and upper section of the Kaministikwia river to and through the G.T.P. bridge.

(2) From Imperial Oil Company's dock to bend in river adjacent to elevator "D." This work includes the widening of the river at the city waterworks crossing, and the performance of same this season depends upon whether the city of Fort William lowers the water mains referred to or otherwise alters their location so as to permit the proper development of the river at this point.

(3) The removal of a few shoals between the Mission channel and the City dock.

Mission Channel.—(4) From the Fort William coal dock easterly to and including the entrance channel in Thunder bay.

HAMILTON.

Hamilton, in the county of Wentworth, is situated on Burlington bay, an inlet at the western extremity of lake Ontario, and is a station on the Grand Trunk and Canadian Pacific railways.

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Authority was given to proceed with dredging required at Wabassa park, the work to be done by departmental dredge No. 114, and the amount to be dredged being 7,714 cubic yards, scow measurement.

Work was commenced April 30, and completed September 1. Part of this material was cast over for filling purposes, 4,318.8 cubic yards, place measurement or 6,838 cubic yards, scow measurement, were removed.

It was necessary to provide a draught of 12 feet for the landing of steamers at this location and two sections were dredged over; first on east side of wharf, a section 85 by 160 feet; and secondly, on west side, a section 70 by 120 feet were deepened.

Authority was given to move dredge No. 114 to Oliver Plow Works, to complete the cleaning up of the section opposite dock, on northeast half of channel.

This work had previously been dredged to grade but on account of filling in, this section constituted a shoal area which was not available for full draught. The section deepened covered a length of 1,000 feet by a width of 300 feet.

Work was commenced May 11 and completed October 9; 24,916 cubic yards, place measurement, or 29,023 cubic yards, scow measurement, were removed. Dredging was carried to a depth of 17.5 and 20.0 feet below zero.

Authority was given to do necessary dredging at revetment wall, foot of Catherine street. Work was commenced June 19, and completed June 20; 285.8 cubic yards, place measurement, or 352 cubic yards, scow measurement, were removed in dredging at this section to 15 feet below zero.

The above work was done to remove a shoal area caused by outlet of Catherine street sewer, which said shoal area caused inconvenience to the landing of the Canada Steamship Company's steamers at their dock. A section, 47 feet by 265 feet, was dredged over in removing this shoal area.

Authority was given to do the necessary dredging at Rock Bay wharf. Work was commenced June 22 and completed July 14; 6,533.3 cubic yards, place measurement, or 6,593 cubic yards, scow measurement, were removed.

Dredging was carried on to 10 feet below zero. A channel 490 feet in length by 85 feet in width, was dredged over to give necessary accommodation.

HAWKESBURY.

Hawkesbury is located on the south shore of the Ottawa river, about 58 miles below the City of Ottawa.

In order to restore the navigable channel to Captain Lawlor's wharf, used for public traffic, departmental dredge No. 103 continued the improvements started in 1915, principally to remove waste pulp which has accumulated in the past sixteen years between the Riordon pulp mills and Cobb's island. The dredge operated here from June 6 to November 20, under an agreement with the Riordon Pulp & Paper Co., Ltd. During this period, the total yardage removed was 58,289 (scow measurement), of which 53,975 was waste pulp, 4,314 cubic yards clay and sand, and 131 boulders (place measurement). Eleven single cuts, 25 feet wide, were made, aggregating 6,159 lineal feet to grade elevation 118, or original bottom.

On August 4, departmental dredge No. 103 also removed 325 yards clay in connection with the laying of a new water main for the R.P. & P. Co., under an agreement with Fuller & Co.

KINCARDINE.

Dredging.

Authority was given to accept the offer of the C. S. Boone Dredging Company to do the necessary work at a rate of 34 cents per cubic yard, place measurement, with a total excavation of 14,668 cubic yards.

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By authority, the total amount to be excavated was increased to 16,332 cubic yards, place measurement.

Work was commenced July 20, by dredge *Kingsford* and completed August 24, and consisted in dredging a channel width of 50 feet between piers for a length of 850 feet, as well as a bell-mouth entrance of 250 feet in length with a maximum width of 150 feet.

In inner harbour a section of 200 feet in width by 405 feet in length was dredged leading to the People's Salt and Soda Company's dock. The excavation was carried to a depth of 14 feet below the zero water level.

KINGSTON.

The completion of the erection of the bascule bridge and installation of appurtenances thereto. Traffic over the roadway and bridges was formally opened on April 16 and the bascule has been in successful operation since July 18, the records showing a total of 776 lifts from July 25 to December 14, when navigation closed.

The object of the work is to provide a highway across the Cataragui river, together with wharfage facilities. The bascule is built over the channel leading into the inner harbour and Anglin's bay and designed to be lifted so as to permit vessels to pass in and out. Depth of channel under lift span 22 feet; depth of harbour inside, not yet completed, 16 feet, both with reference to lowest water of lake Ontario.

MIDLAND.

Dredging.

Authority was given to dredge an area 400 feet in length along the front of the launching face of the Midland Dry Dock Company and out to the 21-foot contour, the depth to be 21 feet below elevation 580.0. This work consisted in the removal of the slab docks, mud, clay, and sand. The total quantity removed amounted to 67,073 cubic yards, scow measurement; authority was given to extend the work an additional length of 215 feet. The quantity dredged amounted to 26,908 cubic yards, scow measurement. The whole work was done by dredge *P.W.D. No. 109* and was completed November 26, 1917. Both areas were swept and found to be 21 feet below zero of gauge elevation 580.0.

POINT EDWARD.

Dredging.

Point Edward is at the entrance of the St. Clair river, south end of lake Huron.

The strong current in the river and lake storms wash sand and gravel into the mouth of the river, making it necessary to dredge each year to maintain a navigable depth.

According to a verbal agreement with the District Engineer Officer of the United States War Department, it is agreed that neither side will permit dredging deeper than 23 feet below the zero of the water gauge, elevation 578.51 at Point Edward and any point in the river between the international tunnel and lake Huron.

The sand and gravel in this part of the river, on the Canadian side, is of a commercial value, and it has been found satisfactory to grant a dredging company permission to remove it free, the gravel becoming their property. For the purpose of giving effect to this agreement, and regulating the dredging, an agreement was made with the Chick Contracting Company of Windsor, permitting them to dredge between Cromwell street, Sarina, and Point Edward, providing they undertake to supply all Canadian municipalities and interests along the St. Clair and Detroit rivers with gravel at a regulated price.

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The place measurement from soundings is 30,800 yards, giving an expansion factor of 16 per cent.

Widening of Main Harbour South: The main harbour south was widened to 150 feet from the concrete breakwater.

Average length	1,000 feet.
Depth made	25 "
Quantity removed	10,459 cubic yards, scow measure, class B.

The place measurement computed from soundings is 9,350 yards, giving an expansion factor of 12 per cent.

Deepening of Main Harbour South: The main harbour south in front of the C. N. R. coal dock was deepened:—

Length	1,700 feet.
Width	250 "
Depth made	25 "
Quantity removed	78,635 cubic yards, scow measure- ment, class B. 8'88 cubic yards, scow measure- ment, class A.

Quantity computed from soundings is 70,800 yards, giving an expansion factor of 11 per cent.

King's Channel: King's channel was also widened and 16,082 cubic yards scow measurement, class B, were removed.

The place measurement from soundings is 13,500 yards giving an expansion factor of 20 per cent.

Depth made, 25 feet.

Slip between Saskatchewan Co-operative and Grain Growers' Elevators: This slip was completed, and 28,375 cubic yards, scow measurement, class B, were removed, and 1,765 yards, place measurement, castover.

Length	270 feet.
Width	150 "
Depth made	25 "

The place measurement from soundings is 24,400 yards, giving an expansion factor of 16 per cent.

Channel and slip to give access to the Richardson Elevator: Advice was received that an extension to Phin's Port Arthur dredging contract had been granted for the excavation of a slip 150 feet wide by 1,200 feet long, and of a basin forming an entrance to the slip for the elevator of Messrs. James Richardson & Sons; also the widening of the channel to the Saskatchewan elevator.

During the year, 48,096 cubic yards, scow measurement, and 898 cubic yards, place measurement, were removed in the Richardson slip.

This work is to be completed before September, 1918.

SUMMARY.

Class B Material.

In front of Government elevator	35,958	cubic yards, scow measurement
Widening main harbour south	10,459	" "
Deepening main harbour south	78,635	" "
King's channel	16,082	" "
Slip between Saskatchewan Co-operative and Grain Grower's elevator	28,375	" "
Richardson slip	48,096	" "
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	217,605	" "

Slip between Saskatchewan Co-operative and Grain Grower's elevator	1,765'70	cubic yards, place measurement
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Total, class B	219,370'70
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Class A Material.

Deepening main harbour south.	8'58 cubic yards, scow measurement.		
Richardson slip.	898	"	"
Total, class A.	906'58	"	"
Total quantity removed.	220,277'58		

All depths mentioned refer to zero of the P.W.D. staff gauge, which is 601.86 M.S.L.

All the class B material consisted of sand and clay and loose shale rock.

Two dredges were employed, *Excelsior* and *Dominion*. The average haul to the dumping ground was 2 miles, and work closed for the season on December 11, 1917.

PORT BURWELL.

Dredging.

Sediment is deposited in the winding basin and between the piers by Otter creek. The channel east and south of the breakwater continually collects sediment and sand drifting on the lake bottom.

Work of dredging began April 9 and stopped July 14; it was resumed on November 12, but owing to a serious break in the dipper on the 14th it was discontinued for the season.

Surveys of the harbour were made April 9 and July 7. The following table is the result of a study of place measurements and scow measurements based on the above surveys:—

Dredging from April 9 to July 7, 1917.

	Average dimension.	C. yds., P.M.	Ex. Fac.	C. yds., S.M.
Turning basin, east side.	235 x 120 x 1'23	1,285	216 %	4,050
Turning basin, west side.	342'5 x 160 x 1'04	2,111	465 %	11,932
Between piers.	1,075 x 86'2 x 2'1	7,210	155'3%	18,411
Channel east of breakwater.	1,160 x 178 x 2'15	16,452	151'8%	41,404
South of outer end breakwater.	580 x 170 x 2'6	9,880	107 %	20,447
		36,938	160'6%	96,244

It will be noted that the expansion factor is unusually large; this is probably due to the large quantity of sediment and sand deposited during the progress of the work between April 9 and July 7. The navigable depth during 1917 was much better than in 1916, owing to the bottom being lower and the lake level unusually high.

Summary Dredging.

	Cubic yards, scow measurement.
Dredging, April 9 to July 7.	96,244
" week ending July 14.	66
" week ending Nov. 14.	2,372
Total dredged during season.	98,682

PORT STANLEY.

Dredging.

Sediment is deposited in the inner harbour and the winding basin by Kettle creek, particularly during freshets, and sand drifts into the dredged channel south of the breakwaters.

Public Works dredge No. 117 began work July 30 and stopped November 10. The quantity removed was 64,101 cubic yards, scow measurement.

During the season, dredge No. 117 was rented to Contractor M. J. Hogan to assist in dredging berths for the extension of the western breakwater, also some other

work. Some of the work performed by the dredge for Contractor Hogan was covered by a schedule of contract price; other work, such as digging ballast stone, was not covered by dredging price, the contractor being paid for the ballast stone in the work.

The total yardage removed for the Government and for Contractor Hogan's work, including crib seats, ballast stone, etc., amounted to 99,311 cubic yards; at a total cost of \$16,670.79, being an average price of 16.9 cents per cubic yard scow measurement.

During the month of June, a contract was entered into with M. J. Hogan, and 465 cubic yards of clay removed in front of the revetment wall on the west side of the harbour near the highway bridge, at a cost of 18 cents per cubic yard, total \$83.70, and the material was placed behind the revetment wall. The dredging was done to accommodate the Cleveland and Port Stanley passenger steamers; when the company undertook to operate its steamers it found that on account of the difficulty in obtaining passports it would be impossible to do so during war time.

The dredging in the entrance channel is not completed, and it is proposed to continue the work during next season.

RONDEAU.

Dredging.

Rondeau is an important port of entry and harbour of refuge at Point aux Pins, north shore of lake Erie.

It was found necessary to deepen the dock; this was done by Public Works dredge No. 117 working from July 21 to July 28. The quantity removed was 11,446 cubic yards scow measurement at a cost of \$1,773.29, equal to 15.4 cents per cubic yard scow measurement.

TORONTO.

(This work is described in the annual report for 1915.)

The city of Toronto, with a population of half a million, and situated near the head of lake Ontario, possesses an exceptionally fine land-locked harbour, known as Toronto bay.

During the past season, one 100-foot crib was sunk and ballasted, 1,490 lineal feet was levelled up and capped, and, of this, 430 lineal feet has been floored with 4-inch hemlock. Some rectification work was also performed, 300 lineal feet of cribwork being made acceptable to the department. Dredging done during the year amounted to 5,679 cubic yards. This section of the work was commenced in May, 1914, and since that date, 4,340 lineal feet of cribwork has been placed and the necessary round piles driven along front and rear faces.

Where extra depth of water was encountered, cribs resting therein were built 20 feet wide at the base and stepped in to the standard 16-foot width on top.

Section "C".—Ship channel and turning basin. On this section of the work excellent progress has been made practically all the old substructure work has been rectified and a considerable length of new wall has been placed. Of the rectification, only about 65 lineal feet of wall have yet to be made to conform with the requirements of the Department, and 5,140 lineal feet of entirely new substructure has been placed. Of the concrete superstructure, 16,033 cubic yards have been poured. Thus, of the total, 13,002 lineal feet in the ship channel, 2,060 lineal feet have been completed, 4,470 lineal feet require only the top lift of the superstructure, 616 lineal feet have the first lift or slab placed, and 5,862 lineal feet require the whole superstructure.

In the turning basin, practically all round piles, caps, and stringers are in place. All this work, or 3,787 lineal feet, has been done during the past season.

It is interesting to note that the contractors, appreciating the difficulty of performing this work under water, have built a levee around the site of the different

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walls, and by the aid of pumps are enabled to hold the water-level at a point 2 feet below the top of bent piles. Thus the structure being exposed to view, the quality and progress of the work are both improved.

During the year, 847,527 cubic yards were removed from the ship channel and turning basin by hydraulic dredge, and deposited as backfill. Dredging necessary to build walls on this section of the work amounted to 32,529 cubic yards for the same period.

Extra work done at corner "K"—Sections "C" and "D".—Owing to the soft material encountered near corner "K", it was found necessary to use piles of greater length than used in other parts of the wall, also to supply additional anchorage 60-foot round piles and 60 and 76-foot sheet-piles were used as conditions warranted; the latter being of such length as to reach the rock, and being shod, have obtained a toe-hold in the rock, thereby preventing any sliding of the wall.

Additional anchorage was also provided by driving piles 50 feet behind the standard anchorage and extending the 2-inch rods back to them, thereby preventing any overturning tendency of the wall.

The substructure of this work has now been completed at an additional cost of \$44,495.59 more than the standard type of walls called for by the plans and specifications.

All of this work has been done in the dry, being within the area where the water has been reduced to 4 feet 9 inches below the ordinary lake level.

Section D.—Retaining walls, northern slip and marginal way.—That portion of the contract known as the northern slip or Don diversion channel was completed ready for back-fill during the fiscal year 1916-17, as was also the north marginal way wall.

On section WW I, known as Polson's extension (924 feet in length), the whole substructure has been rectified. The design of this wall has been altered so that the timber superstructure is now replaced by a combination of concrete and timber.

During this year, the substructure of sections KV and VY known as the south marginal way wall, 1,350 feet in length, has been rectified and the first two lifts of concrete superstructure have been completed, 1,856 cubic yards having been poured.

Work on the 900-foot ventilating channel was started during the year, and all of the substructure on the 1,800 feet of wall has been completed, with the exception of about 100 feet at the north end.

In order to build these walls it was necessary to dredge 60,273 cubic yards of material, of which 33,629 cubic yards were within the channel itself.

MANITOBA.

BIG GEORGE ISLAND.

The object of the work at this place is to provide a harbour of refuge for vessels plying in the northern waters of lake Winnipeg.

During the past season, the approach to the harbour begun in 1916-17 (see report for fiscal year ending March 31, 1917, page 50) was continued, a cut 100 by 30 feet with an average cut of 2.5 being made. Approximately at right angles to this approach and at the outer side of the harbour, a cut 510 by 50 feet, with an average cut of 2.5 was also made.

The proposed harbour will be 500 by 300 feet when complete and the work of the past season still leaves an area of 500 by 250 feet untouched. It will also be necessary to deepen the portion already dredged.

The material removed consisted almost entirely of granite boulders, with some sand; the boulders were cast over towards the lake in order to provide a breakwater, and the amount of material removed was 3,161 cubic yards, place measure.

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P. W. D. dredge *No. 202* was employed from July 30 to October 20, or a possible time of 702 hours. Of this 137 hours were actual dredging hours, the remainder being lost mainly due to storms and towing.

The total cost of the work was \$2,985.58, or a cost per cubic yard of 94½ cents, and was under direct supervision of the office staff.

HINAUSA.

Dredging.

The object of this work is to provide an approach to and a berth beside the Government wharf.

The work consisted of a cut behind the angle of the wharf as a shelter for the dredge and one long and two short cuts for the approach and berth. The total length of these cuts is 822 feet, with a width for each cut of 40 feet, to a depth of 9 feet at low water.

The material consisted of sand, and 6,100 cubic yards were removed, being scowed a distance of half a mile.

Dredge *No. 205* was employed from July 3 to July 16, a possible time of 114 hours, of which 46 were lost due to storms, towing and repairs.

Some filling-in may be expected, but with the maintenance of the present lake level no dredging would be required inside three or four years.

RED RIVER.

Forks.

The work of dredging at this place was to maintain and improve the channel at the forks of the Red river, about three miles from the mouth.

The work consisted of one cut 1,753 feet long, 140 feet wide, with an average cut of 5.2 feet and to a depth of 9 feet at low water.

This channel is on the principal route of navigation in Manitoba.

The material consisted of hard sand, and 47,330 cubic yards, plus measurement, were removed, all being castover.

Dredge *No. 201* was employed from August 17 to October 30, giving a possible time of 630 hours, of which 291 hours were lost time.

The duration of this work will be from two to three years.

Park Point (Crescent Island).

The object of this work was to widen the channel in the Red river between Park Point and Crescent Island.

The work consisted of two cuts of a total length of 4,189 feet, each 40 feet wide, with an average cut of 8.8 feet. A good channel with a depth of 9 feet at low water exists now and the possibility of ice jams affecting the town of Selkirk and the government property, which occurred at this point, is eliminated.

The material consisted of clay and sand, and 64,280 cubic yards were removed. This material was found to have an expansion factor of 15.4 per cent, giving a place measure yardage of 54,548.

Dredge *No. 205* was employed from July 31 to October 10, giving a possible time of 620 hours, of which 125 hours were lost, mainly due to repairs, holidays, and cleaning boilers.

New Channel.

The work at this place was for the purpose of maintaining the channel outside the protection work, widening the channel inside the mouth of the river and filling up

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holes behind the protection work. The outside work has to be done annually, but the inside work was completed this season and will be permanent.

The work consisted of: (a) outside, one cut 954 feet long 140 feet wide, with an average cut of 3 feet; (b) back-filling protection work, one cut 957 feet long 50 feet wide, with an average cut of 5 feet; (c) inside the river, three cuts of a total length of 1,674 feet, each 40 feet wide, with an average cut of 11.6 feet, leaving a depth of 9 feet at low water.

The material consisted of clay, sand, and river silt, and a total of 52,496 cubic yards was removed, of which 23,696 cubic yards, place measure, were eastover by dredge *No. 201*, and 28,800 cubic yards scow measure, removed by dredge *No. 205*.

Dredge *No. 201* was employed from May 31, to August 16, or a possible time of 670 hours, of which 441 hours were lost, due to storms, repairs, etc.

Dredge *No. 205* was employed from May 31, to July 2, and July 17 to July 30, or a possible time of 406 hours, of which 128 hours were lost, due to storms, cleaning boilers, etc.

SUGAR ISLAND.

The object of this work was to remove a middle ground which forms at the down stream point of Sugar island.

The work consisted of one cut 951 feet long, 40 feet wide, to a depth of 9 feet at low water.

The whole work was not completed this year, and there still remains 35,000 cubic yards to be removed.

The material consisted of sand and clay, and 6,500 cubic yards, scow measure, were removed.

This material shows an expansion factor of 8.8 per cent, giving a place measure yardage of 5,933 cubic yards.

Dredge *No. 205* was employed from October 11 to October 22, or a possible time of 100 hours, of which 35 hours were lost due to repairs, storms, and cleaning boilers.

SELKIRK SLOUGH.

Dredging.

The object of this work was to maintain the channel in the slough and provide a turning basin opposite the government shipyard.

The work consisted of two cuts, one in the channel 3,215 feet long, 40 feet wide, with an average cut of 5 feet; the other at the turning basin, 488 feet long, 40 feet wide, with an average cut of 12.3 feet, the whole to a depth of 9 feet at low water.

The material consisted of clay, and a total of 33,063 cubic yards, scow measure, was removed, from the channel 24,131 cubic yards and from the basin 8,932 yards.

Dredge *No. 202* was employed in the channel from June 6 to August 3 and October 20 to October 30, or a possible time of 545 hours, of which 96 hours were lost through storms, procuring fuel, cleaning boilers, etc.

Dredge *No. 205* was employed from October 23 to November 2, or a possible time of 93 hours, of which 15 hours were lost through repairs, etc.

BRITISH COLUMBIA.

BRUNETTE RIVER.

The dredge *King Edward* dredged the booming grounds in front of the Brunette saw-mills, to enable the company to get logs into their small canal connecting the Fraser and Brunette rivers. Work was started March 8 and completed March 14, 1918;

the area dredged was 300 feet long by 100 wide, to 8 feet at low tide; 6,395 cubic yards of material was removed.

BURRS LANDING.

The dredge *King Edward* dredged a channel in front of Burrs Landing, on the Fraser river, about 8 miles below New Westminster.

Work was started on January 22, 1918, and completed March 5, during which time 35,065 cubic yards of sand was removed. The channel dredged was 1,780 feet long, average width 175 and 10 feet deep at low tide.

COQUITLAM.

The dredge *King Edward* dredged in front of the Pacific Construction Company's shipyard, at Coquitlam, who are building two ships for the Imperial Munitions Board. The cut made was 200 feet long, 200 wide, to 12 feet at low tide. Work commenced December 19, but the material was found too hard, and after working some days and removing about 2,035 cubic yards the dredge was removed to other work, and January 28, 1918, the dredge *Mudlark* started work and removed 12,900 cubic yards, and completed the work on March 8, 1918.

COURTENAY RIVER.

The Courtenay river runs in a southeasterly direction into Comox harbour. Courtenay, near its mouth, the northerly terminus of the Esquimalt and Nanaimo railway, is the principal town of the Comox valley.

During 1914 and 1915, the original tortuous channel over the tidal flats between Comox bay and the mouth of the Courtenay river had been straightened by dredging a new channel 3,000 feet long and 10 feet wide by means of the departmental dredge *King Edward*.

During the latter end of the past fiscal year, the orange-peel bucket dredge *Victoria* cut a channel 80 feet in width, by removing numerous boulders and snags and providing additional depth over two bars, at the river mouth and below the town of Courtenay, respectively. The estimated quantity of material which was all overcast to the sides of the channel, from April 1 to July 31, 1917, date when the work was completed, was 6,087 cubic yards.

The total length of channel improved to date is 7,000 feet.

DEAS ISLAND.

The dredge *King Edward* dredged a channel in front of the Deas Island cannery, on the Fraser river, about 9 miles below New Westminster.

The object of this work was to enable fishing boats, etc., to get to the cannery wharf and net racks, at all stages of tide. The length of the cut was 550 feet, the average width 70 and the depth made was 8 feet at low tide. The total amount removed was 12,840 cubic yards.

The work was commenced May 28 and finished June 1, 1917.

EBURNE.

Three wing dams were built on the south branch of the north arm of the Fraser river, about a mile and a half below Eburne, to deflect the current from the bank. These wing dams were 75 feet long, and 300 feet apart, built with two rows of piles 10 feet apart and filled with layers of brush and rock.

This work was commenced November 19, and completed December 31, 1917.

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Dredging.

The dredge *King Edward* dredged material from the channel opposite the three wing dams constructed by the department last November, the material being deposited on each side of the wing dams, and along the shore between them, and 30,895 cubic yards was placed there.

This work was commenced March 18 and completed March 26, 1918.

FOREST GLEN, COLUMBIA RIVER.

As a further improvement to the steamboat channel at this point, two additional cuts were made during the fiscal year 1917-18 west of and parallel to the cut of 1916-17, giving a 300 foot channel between the sand bar and island, with a minimum depth of 8 feet of water at low water. The spoil bank piled to the west of the cut practically cuts off all flow of water on this side at the low-water stage, and this concentrates the full volume of the river through the cut. It is expected that further silting-in of channel at this point will be eliminated.

Work here was commenced by P.W. dredge No. 311 on November 5, 1917, and completed March 31, 1918. During this time, 88,400 cubic yards of sand were handled, 24,600 cubic yards of which were twice overcast.

FRASER RIVER.

Steveston Jetty.

Messrs. Marsh, Hutton & Powers had the contract for the second unit of the Steveston jetty, which they completed in July, 1917.

The Marsh, Hutton & Powers contract for the second unit of the Steveston jetty called for a length of 7,100 feet, but an extension of 1,800 feet was authorized on August 15, 1916, which makes a total length of jetty now completed of 15,800 feet from Steveston out towards the gulf of Georgia.

Dredging.

Work was started on April 12, completed on May 1, 1917, and consisted in deepening the channel in front of the British Columbia Cannery, situated on the south bank of the Fraser river, about 2½ miles below New Westminster.

The length of the cut was 1,520 feet, and the average width was 150; the dredging was done to 9 feet at low tide, which included 1-foot subgrade, and the amount removed was 50,580 cubic yards.

Sandheads.

The dredge 303 (*Fruhling*) has worked all the year at the sandheads at the mouth of the main channel of the Fraser river, from Steveston to the gulf of Georgia, a distance of about 5.5 miles.

During the fiscal year ending March 31, 1918, the dredge removed 684,800 cubic yards of material from various places in the channel; 31,200 yards were removed near buoy 24; 355,200 from the channel between buoys Nos. 1 and 3; 166,400 from channel between buoys Nos. 3 and 5, and 132,000 from channel between buoys Nos. 9 and 11.

North Arm.

The dredge *King Edward* dredged a channel from the main channel in the north arm of the Fraser river up to the Heaps Engineering Company's wharf, and deepened the water in front of Mercer and Dawe's ways, and wharf.

Work was started November 22 and completed December 13, 1917. The length of the cut was 835 feet, width 150, and 8 feet deep at low tide. Total amount removed was 24,740 cubic yards.

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GRAHAM'S LANDINGS.

The lower crossing of the Columbia river at this point was extremely narrow, and to permit of safer passage of vessels, further dredging was necessary. On April 2, 1917, P.W. dredge No. 311 began operations here, and completed work on April 30, 1917.

A cut 1,548 feet long and 75 feet wide was made giving a minimum depth of 8 feet of water at low water. The material, clay, amounted to 12,300 cubic yards, all overcast.

LADNER.

Work consisted in dredging a channel 1,320 feet long, to 10 feet at low tide, and the average width was 174 feet. The total amount removed was 84,830 cubic yards from deep water below the wharves at Ladner up to within about 100 feet from the Braekman-Ker Company's wharf. Work was commenced May 7 and completed August 6, 1917.

LILLOOET RIVER.

The Lillooet river drains the Lillooet lakes, and passes through a flat country known as Pitt meadows, before it empties into the Pitt river about two miles from its junction with the Fraser river.

A request was made and authority was granted to clear and deepen the channel of this river, from the cut made last fiscal year, up to the third bridge, a distance of about 3,500 feet; in this distance the channel was deepened and the bends in the river were straightened, the material being thrown out on each side. About 34,961 cubic yards of material were removed.

To do this work, a dredge was hired, at the rate of \$5 per hour while actually dredging, and delays of more than half an hour for breakdowns or putting on fuel were deducted. The total cost was \$2,266, which included \$245 for inspection. The work was started June 22, 1917, and completed August 15, 1917.

LONG BAY FLOAT.

On September 22, 1917, authority was given to move the government float from Hope point to Long bay; this was done on October 3, 1917, and there was no expenditure in connection with this work, except \$19.15 for some material for small repairs, etc.

NANAIMO.

Nanaimo is on the east coast of Vancouver island. For shipping coal, the main export of the port and many steamers of considerable size call for bunker coal. Two channels connect the harbour entrance with the coal wharves. They are on the north and south sides, respectively, of the middle bank in the centre of the harbour.

The Lobnitz rock breaker No. 2 worked on Nicol rock and blocks H and J, north channel, during the whole of the fiscal year, reporting an estimated quantity of 11,480 cubic yards of rock broken.

The departmental dipper dredge *Jar* removed the following material between June 15 and July 9, 1917, and December 6, 1917, and January 10, 1918:—

	1917-18	1918-19	Total cubic yards removed
Block H	100	—	100
Block J	2,164	—	2,164
North channel	107	—	107
Block H	—	200	200
Block J	—	1,000	1,000
North channel	—	1,000	1,000
Block H	—	1,000	1,000
Block J	—	1,000	1,000
North channel	—	1,000	1,000
Total	2,271	3,000	5,271

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This leaves an estimated quantity of 21,864 cubic yards (place measurement) still to be removed. No further work is required on block I which has now a minimum depth of 29 feet at low water. The present minimum depths at low water on block II is 27.2 feet; on block J, 23.8 feet; and Nicol rock, 21.2 feet.

NITINAT INLET.

The Nitinat inlet is situated on the west coast of Vancouver island about 80 miles from Victoria. The removal of a rock drying $2\frac{1}{2}$ feet at low water in the narrow part of the Inlet leading from the open Pacific to the Nitinat lake has been removed to a depth of 10 feet at low water. The estimated quantity of rock (diorite) to be removed was 243 cubic yards, place measurement. Additional improvement has been made by the removal of rock from two projecting points in the narrows.

The work was undertaken between August 1 and October 28, 1917, and the total payment to the contractor being \$3,645.

OKANAGAN RIVER.

Between 1st April and 22nd October, 1917, the work consisted of completing the dredging required to deepen the navigable channel between stations 51 and 98 (1909 survey) to the established grade line and, where required, repairing the bank protection work when necessary, as the work of dredging was proceeded with. The material moved consisted of gravel and sand, of which 12,717 cubic yards was overcast and deposited on the bank or loaded on to the brush-and-piling protection work.

PENDER HARBOUR.

A channel was made through Canoe pass, which connects Bargain bay with Pender harbour, to enable small craft and fishing boats to go through the pass at a medium stage of tide. The length of the excavated channel was 485 feet, and an average depth of 3 feet was excavated, 10 feet wide at the bottom in the earth excavation, with slopes 2 to 1, and 14 feet wide at the bottom through the rock excavation, with slopes $\frac{1}{2}$ to 1.

The work was started May 7, and was completed July 5, 1917.

PENTICTON.

On 23rd October, 1917, work was commenced at the Pentiction Lumber Company's mill pond, for the purpose of lowering the floor of the pond to the grade line of the Okanagan river at that point. On the 6th November, dredging was suspended, to allow the crew to do some pressing work at the control dam at head of river, was resumed 4th December, and completed 14th December, 1917.

On this work, 2,442 cubic yards was overcast and 364 cubic yards re-overcast, a total of 2,806 yards, the material being mud, some of which was deposited on the east bank of the pond and the remainder dumped on the west side, and, later on, removed by dredge.

POPLAR ISLAND.

The dredge *King Edward* deepened the channel of the north arm of the Fraser river, at the head of Poplar island, to enable the Westminster Construction and Engineering Company to launch the four ships that they have under construction for the Imperial Munitions Board.

The work was started August 10 and completed November 22, 1917. The length of the cut was 1,050 feet, 400 wide, and 12 feet at low tide. The yardage removed was 73,680 cubic yards.

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SEA OTTER COVE.

Sea Otter cove is a small settlement at the northerly end of Vancouver island. During the past fiscal year, a floating landing was built and the sum of \$550 was paid to the contractors, Messrs. James MacDonald & Company for the construction, 20 by 11 feet with floating approach 220 by 6 feet. A portion of the approach and the float were lost while being towed to the site and are being replaced. The contractor is engaged, at the time of writing this report, on completing this work which has been considerably delayed owing to its inaccessibility.

SQUAMISH.

The dredge *King Edward* proceeded to Squamish, at the head of Howe sound; 125,800 cubic yards of material were removed in 1916-17 and on June 13, 1917, work was resumed, but it was found that during the freshet in the Squamish river a great deal of material was brought down and filled up the dredging that had been done. On July 5, instructions were received to remove the dredge and work at Ladner; 43,135 cubic yards were removed during this time; this dredging was done to 8 feet at low tide, but this depth could not be maintained on account of the material that was brought down the river at low tide.

VANCOUVER.

Vancouver is the largest city on the west coast of Canada, has a population of 110,000, and is the western terminus of several railways, also the Canadian shipping point to China, Japan, and all oriental ports.

The dredging done this year, consists in the removal of 234,780 cubic yards from the north side of the Narrows, and 117,910 from Parthia shoal. The object of the work as originally laid out was to widen the Narrows to 1,200 feet, deepen the channel to 35 at low tide and to remove Parthia shoal to the same depth. The work on the north side of the channel was started April 12, and October 18, 1917, operations were commenced on Parthia shoal, which was finished on March 19.

Parthia shoal was dredged to 36 feet, which included 1 foot subgrade, but it was found by sweeping that there were large boulders there which were too big for the dredge to handle. The total amount of material removed from the north shore of the Narrows and Parthia shoal since work commenced is 4,139,260 cubic yards, scow measurement.

VICTORIA.

Piers 2 and 3.

Filling was done between the walls of the piers and behind the bulkheads; 534,482 cubic yards of backfill were placed during the year, completing the work in March.

The rubble walls between the bulkheads and shore were completed by the addition of 8,260 tons of rock.

The extension of the Montreal street surface drain made necessary by the reclamation of the foreshore was carried out at a total cost of \$790,18.

Freight Shed on Pier No. 2.

Work of construction of a freight shed, 201 by 703 feet, to be used by the Imperial Munitions Board as an assembly plant for the installation of machinery in the wooden ships being built on the coast was commenced on 26th September, and virtually completed by the end of January, at a cost of \$217,629.44.

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Ferry Slip and Trackage.

The construction of a ferry slip and the necessary trackage having a total length of 6,600 feet consisting of a main line with tail track, three tracks on approach trestle and apron, surface tracks on both sides of pier 2, depressed track in the centre of pier 2, and storage track.

The slip designed to meet any three-track car barge being operated by either the Canadian Pacific Railway or the Great Northern Railway, was commenced in December and was in operation on March 26, 1918.

Dredging.

The dredging carried out during the past year had as its main object the further improvement of the channel to James bay by the removal of rock to the south of Pelly island, also the removal of rock to the east of Songhees point to provide additional facilities for vessels leaving the Canadian Pacific Railway wharves and the removal of Turpel's rocks in the centre of the upper harbour. The navigable area is being gradually increased year by year, and the grade of 20 feet below low water over areas already covered is maintained. The following plant, working on single shift, assisted with the above work: Dredges *Ajax* and *Mudlark*, and Lobnitz rock breaker *No. 1* worked during the whole of the year, while rock-drill plant *No. 2* worked from April 1 to May 19, and July 25 to October 12. The dredge *Ajax* paid two visits to Nanaimo during the year, also working at Powell river.

Upper Harbour.—Since the establishment of the shipbuilding industries in the upper harbour, the work of the dredging plant has been concentrated to a considerable extent in improving that part of the harbour fronting the launching ways of the Cameron-Genoa Shipbuilders and the Foundation Company, with the result that the areas fronting the launching ways of both these yards have been deepened to 20 feet below low water. The removal of Turpel's rocks Nos. 1 and 2 in the centre of the upper harbour has been undertaken, and where a former depth of 6 feet below low water obtained, there is now a depth of 20 feet below low water. The *Ajax* also dredged to grade a considerable area between the Victoria Machinery Depot and the Esquimalt and Nanaimo Railway bridge from depths of 16 to 19 feet below low water.

Lower Harbour.—Hospital rock, east of Songhees point, was cut back about 80 feet, giving this additional width at the point where the Canadian Pacific Railway ferry boats go astern before leaving the harbour. The channel lying south of the Esquimalt and Nanaimo Railway bridge was deepened where silting up had taken place and additional depth provided fronting the Hudson's Bay Company's wharf. The north side of the main channel between Songhees point and the entrance to West bay has been further improved during the year, resulting in an additional width of 100 feet by the removal of rock from the south of Pelly island, and an increased width of 150 feet has been provided between Pelly island and the entrance to West bay.

The middle of the main channel immediately south of Pelly island was deepened at points where silting-up had taken place. At times when the dredges were not engaged on work of greater importance the work of providing an alternative channel to the north of Pelly island has been undertaken. A further improvement has been made at Shoal point resulting in an additional width of 100 feet and the original sharp turn for vessels entering and leaving the harbour has been greatly improved and has enabled the beacon to be placed 170 feet southwest of its former position. A considerable area in West bay and fronting the outer wharves has been dredged by the Pacific Dredging Company to provide fill for the piers under construction at Ogden point.

Summary.

Upper Harbour	94,683 cubic yards, scow measurement.
Channel south of E. & N. Railway Bridge	4,044 " "
North side of Channel between Songhees Point and West Bay	99,406 " "
Sheal Point	9,150 " "

207,483 cubic yards of hardpan, clay and silt were removed, making a total during the year, scow measurement, of 217,517 cubic yards.

The main channel from the harbour entrance to James bay is now in a good navigable condition and the same applies to the upper harbour. When conditions allow the resumption of operations, the work of first importance is the further removal of rock to the south of Pelly island and the large area of rock between Songhees point and the E. & N. Railway bridge (Hospital and Discovery rocks).

GENERAL.

Work of repair and improvement was executed during the fiscal year on the following wharfs, piers, and breakwaters:—

Nova Scotia.—Amherst Point, Andersons Cove, Annapolis Royal, Antigonish Landing, Arichat, Arisaig, Baddeck, Bakers Point, Bass River, Baxters Harbour, Bear Cove, Bear River, Beaver River, Bluff Head, Boularderie Centre, Broad Cove Marsh, Canning, Cape St. Mary, Carrs Brook, Chebogue, Chipmans Brook, Comeaus Cove, Cow Bay, Descousse, Digby, Eagle Head, East Ship Harbour, Felzen South, Findlay Point, Fox Island, Freeport, Friars Head, Fruids Point, Grand Etang, Grand Narrows, Half Island Cove, Hampton, Harbourville, Hunts Point, Inverness, Iona, Jones Harbour, Kelleys Cove, L'Ardoise, Lingan Beach, Litchfield, Little Harbour, Livingston Cove, Lower West Pubnico, McKays Point, McNairs Cove, Marble Mountain, Margaree Harbour, Meat Cove, Middle East Pubnico, Mill Creek, Moshers Bay, Necum Teuch, Newellton, New Harbour, North East Point, North Ingonish, North River, Nyanza, Ogden's Pond, Owls Head, Parrsboro, Port Dufferin, Port George, Portuguese Cove, Ross Ferry, Sandy Cove, Seotts Bay, Seaforth, Short Beach, Sight Point, Sober Island, South Ingonish, Summerville, Swims Point, Three Fathom Harbour, Tiverton, Trout Cove, West Chezzetcook, Westport, Weymouth, Whycoomagh, Windsor, Wolfville, Voglers Cove, Youngs Landing.

Prince Edward Island.—Anundale, Cardigan South, Georgetown, Hickeys, Hurds Point, Little Sands, Miminigash, Mink River, Mount Stewart, Murray Harbour South, Panmore Island, Pinette, Port Selkirk, Rocky Point, Souris, South Rusties, Tignish, West Point, Wood Islands.

New Brunswick.—Albert, Andersons Hollow, Back Bay, Barkers, Bay du Vin, Beaton Court House, Campbellton, Caraquet, Chockish, Dipper Harbour, Durham, Edgotts Landing, Fairhaven, Gagetown, Glaciers, Grand Anse, Hopewell Cape, Leonardville, Lords Cove, Lorneville, Martins Head, Millerton, Mills Point, Neguac, Oak Point, Quaco, Renforth, Richardson, Richibucto Cape, River St. John, Rothesay, St. Andrews, Scotchton, Seal Cove, Shediac, Shippagan Gully, Shippigan, Stoneham, Treadie Beach, Tynemouth Creek, Welchpool, Whitehead.

Quebec.—Anse aux Grues, Anse aux Griffons, Anse St. Jean, Baie St. Paul, Barabois de Malbois, Beloit, Berthier (en bas), Buckingham, Culano, Cacouna East, Cap Clair, Caps Cove, Casades, Chicoutimi, Clarke City, Cross Point, Desjardins, Donaldtown, East Treponton, Father Point, Fort William, Gaspé Bay, Georgeville, Glen Abound, Graham, Grandetou, Grande Isle, High Falls, Hospital Bay, Hudson,

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Hull, Ile aux Coudres, Ile Perrot North, Isle Verte, Lacolle, Lake Megantic, Long Rapids, Lotbiniere, Magog, Malbaie, Masson, Mont Louis, Newport, Norway Bay, Phillipsburg, Pierreville, Pointe à Brousseau, Point à Elie, Pointe St. Pierre, Point Shea, Pont Laurier, Rimouski River, Rivière au Renard, Rivière des Vases, Rivière Ouelle, Roberval, St. Alexis, St. Alphonse, Ste. Anne, St. Andre, St. Anne de Beaupre, Ste. Anne des Monts, St. Charles, St. Charles de Caplan, St. Denis, St. Eloi, Ste. Famille, Ste. Felicite, St. Francois Sud, Ste. Genevieve de Batiscan, St. Gregoire, St. Ignace de Loyola, St. Irene, St. Jean des Chaillons, St. Jean d'Orleans, St. Jerome, St. John's, St. Laurent, St. Majorique, St. Methode, St. Michel, St. Paul de l'Île aux Nois, St. Pierre les Becquets, St. Roch, St. Simeon, St. Ulric, St. Zotique, Sabrevois, Saguenay River, Sept Isles, Trois Laes, Trois Pistoles, Varennes, Vaudreuil, Woburn.

Ontario.—Bayfield, Beaumaris, Bowmanville, Bracebridge, Bronte, Bruce Mines, Burlington Channel, Charlton, Christian Island, Chute à Blondeau, Cobourg, Cumberland, Desbarats, Goderich, Grand Bend, Haileybury, Kincardine, Kingsville, Lakeport, Leamington, L'Original, Michipicoten, Minaki, New Liskeard, Nipissing, Oshawa, Owen Sound, Pelee Island, Pembroke, Petawawa, Peterborough, Port Colborne, Port Hope, Port Stanley, Rainy River, Rondeau, St. Joseph, Saugeen River, Sault Ste. Marie, Shrewsbury, Silver Centre, Sturgeon Falls, Thornbury, Toronto, Wendover, Wheatley, Windsor.

Manitoba.—Arnes, Gimli, Inausa.

British Columbia.—Bindley's Landing, Bold Point, Campbell River, Clayoquot, Comox, Crofton, Dignans Bay, Eagle Cliff, Gower Point, Grace Harbour, Granthams Landing, Halfmoon Bay, Hammond, Haney, Hatzic, Holberg, James Island, Langley, McDonalds Landing, McKays, Matsqui, Metchosin, Mirror Lake, Mission, Mound Lehmen, Nootka Island, Port Clements, Port Moody, Powell River, Prince Rupert, Quatsino, Riverside, Roberts Creek, Rocky Point, Safety Cove, Sapperton, Savary Island, Sidney Island, Smiths Landing, Sonitula, Ucluelet, Union Bay, Vancouver, Whannock, Williams Head, Willow Point.

DREDGING OPERATIONS.

Contract Dredging, 1917-18.

West St. John, N.B. (Deep water berths.)

Under contract No. 11418 with J. S. Gregory. Dredge *Keta*.

Quantity removed: 17,159 cubic yards, seow measurement, at 40 cents per cubic yard. Class B.

Amount passed for payment \$6,924.82.

Work commenced October 26, 1917; completed December 8, 1917.

Object of work: Improvement of deep-water berths.

Doucet's Landing, Que.

Under agreement with La Cie Générale d'Entreprises Publiques. Dredge *Norwelland*.

Quantity removed: 2,910 cubic yards, seow measurement at 30 cents per cubic yard. Class B.

Amount passed for payment, \$873; inspection \$14; total expenditure \$887.

Work commenced November 10, 1917, completed November 12, 1917.

Object of work: to dredge a basin in front of the Grand Trunk Railway wharf.

Batiscan, Que.

Under agreement with La Cie Générale d'Entreprises Publiques. Dredge *Norwelland*.

Quantity removed: 23,704 cubic yards, scow measurement, at 18 cents per cubic yard. Class B.

Amount passed for payment, \$4,266.72; inspection, \$184.44; total expenditure, \$4,451.16.

Work commenced October 13, 1917, completed November 7, 1917.

Object of work: to improve channel entrance to Bastiean wharf.

St. Maurice River, Que., (Western channel).

Under contract No. 11117 with La Cie Générale d'Entreprises Publiques. Dredge *New Welland*.

Quantity removed: 94,187 cubic yards, scow measurement at 9 cents per cubic yard. Class B.

Amount passed for payment, \$8,476.83; inspection, \$312.05; total expenditure, \$8,788.88.

Work commenced August 27, 1917, completed October 5, 1917.

Object of work: completion of channel in western outlet of river at Three Rivers.

Port Arthur, Ont.

Under contract No. 9490 with W. E. Phin. Dredges *Excelsior* and *Dominion*.

Quantity removed: 220,277.58 cubic yards, scow measurement, at 13 cents per cubic yard. Class B. (927.88 cubic yards, class A at \$2, included).

Amount passed for payment, \$30,294.71; inspection, \$717.25; total expenditure, \$31,011.96.

Work commenced June 12, 1917, suspended for season December 8, 1917.

Object of work: Widening and deepening of main harbour south, widening channel to Kings elevator, completion of dredging of joint slip between Sask. Co-operative and Grain Growers Elevators and dredging of basin and slip at Richardson elevator.

Kincardine, Ont.

Under agreement with C. S. Boone Dredging and Construction Co. Dredge *Kingsford*.

Quantity removed: 16,241 cubic yards place measurement at 34 cents per cubic yard. Class B.

Amount passed for payment, \$5,521.94; inspection, \$113.81; total expenditure, \$5,635.75.

Work commenced July 20, 1917, completed August 24, 1917.

Object of work: to remove material on account of shoaling in the harbour as result of unusual freshet.

Middle Island, Chatham, N.B.

Under agreement with Peter England, dredge *Peter England*.

Quantity removed: 2,003.4 cubic yards scow measurement, at 40 per cubic yard, class B.

Amount passed for payment, \$801.24; inspection, \$35.75; total expenditure, \$834.99.

Work commenced June 6, 1917, completed June 20, 1917.

Object of work: to provide access at all stages of water to the quarantine station on Middle Island by dredging a channel 20 feet wide 2 feet deep across shoal lying between the island and the mainland and by dredging an approach channel 2 feet deep, about 200 feet long and 20 wide with basin 40 by 40 feet at the wharf.

Church River, N.S.

Under agreement with F. A. Fowle, dredge *Fowle*.

Quantity removed: 7,852.8 cubic yards scow measurement, at 75½ cents per cubic yard, class B.

Amount passed for payment, \$2,667.01; inspection, \$234.65; total expenditure, \$2,901.66.

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Work commenced May 23, 1917, completed August 2, 1917.

Object of work: to provide for completion of dredging the channel entrance at Church River.

St. Peter Narrows, N.S.

Under contract No. 11171 with Costal Dredging & Construction Company dredge.

Cadeco.

Quantity removed: 30,553 cubic yards. Place measurement at 26 cents per cubic yard class B and 15 cubic yards class A, at \$5.

Amount passed for payment, \$8,629.84; inspection, \$165; total expenditure, \$8,794.84.

Work commenced May 21, 1917, completed, July 12, 1917.

Object of work: to improve passage through St. Peter's narrows.

Cobourg, Ont.

Under agreement with R. Weddell Company, dredge *Trenton*.

Quantity removed: 8,172 cubic yards, place measurement, at 39 cents per cubic yard, class B.

Amount passed for payment, \$3,187.08; inspection, \$149.05; total expenditure, \$3,336.13.

Work commenced May 31, 1917, completed July 20, 1917.

Object of work: to provide necessary depths in shoal areas at entrance to harbour and to provide necessary depth in additional areas in inner harbour.

Fort William, Ont.

Under contract No. 7339 with Great Lakes Dredging Co., dredges *Dominion* and *No. 6*.

Quantity removed: 911,977 cubic yards scow measurement, at 10½ and 22½ cents per cubic yard, class B.

Amount passed for payment, \$156,381.20; inspection, dragging and sweeping, \$2,601.50; total expenditure, \$158,982.70. Drawback returned, \$15,638.12.

Work commenced May 15, 1917. Suspended for season November 27, 1917.

Object of work: cleaning up of shoals in and widening Kaministikwia and Mission rivers, including Westfort turning basin.

Picnic Island, Ont.

Under contract No. 7816 with C. S. Boone Dredging and Construction Co.

Revision of final estimate, February, 1917.

Amount passed for payment, \$2,787.38.

Completed November 3, 1916.

Port Stanley, Ont.

Under agreement with M. T. Hogan.

Quantity removed: 465 cubic yards, scow measurement, at 18 cents per cubic yard, class B.

Amount passed for payment, \$83.70.

Completed June 29, 1917.

Object of work: dredging along revetment wall.

St. John Harbour, N.B. (Berths 15 and 16.)

Under agreement with J. S. Gregory, dredge *Keta*.

Quantity removed 27,456 cubic yards, scow measurement, at 42 cents per cubic yard, class B.

Amount passed for payment, \$1,138.16; lifting sunken timber, \$100; total expenditure, \$1,238.16.

Work commenced April 3, 1917, completed April 16, 1917.

Object of work: cleaning up deep water berths at new docks.

Tyde Mills, Westwego River, N.B.

By day labour, under District Engineer Stead.

Quantity removed: 412 cubic yards, class B.

Amount passed for payment, \$422.08; total expenditure, \$422.08.

Work commenced October 16, 1917, completed November 13, 1917.

Object of work: Dredging of cut to allow scow to ascend to landing.

Yellow River, B.C.

Under agreement with J. W. Pike, dredge *Beaver No. 2*.

Quantity removed: 34,961 cubic yards, place measurement, class B., \$5 per hour hire of dredge.

Amount passed for payment, \$2,230; inspection, \$36; total expenditure, \$2,266.

Work commenced June 20, 1917; completed August 15, 1917.

Object of work: completion of channel to upper bridge.

Cham Pass, Pender Harbour, B.C.

Under direction of District Engineer Worsfold, by day labour.

Quantity removed: 1,010 cubic yards, solid rock, loose rock, sand, clay and chin shales.

Amount passed for payment, \$1,614.

Object of work: to clean out channel through Cham pass between Bargain harbour and Pender harbour.

Cham, St. Louis, Que.

By day labour under direction of District Engineer Girard.

Amount passed for payment: To rebuild temporary bridge, \$148.56; to construct proper abutments for permanent bridge at Pout Rouge, \$369.40; total expenditure, \$517.96.

Western Harbour, N.S.

By day labour, under direction of District Engineer Bernasconi.

Quantity removed: 3,155 cubic yards.

Amount passed for payment, \$1,500.

Object of work: to dredge cut through sand bar.

Point Isabel, Ont.

Under direction of District Engineer Fuller, by day labour.

Amount, \$670.82.

Object of work: Fitting out sweeping plant and inspection.

Pointe à la Pêche, Ont.

Under direction of District Engineer Stevens.

Amount passed for payment, \$11.25.

Object of work: removal of logs.

Pointe à la Pêche, N.B.

By day labour, under direction of District Engineer Stead.

Quantity: 1,300 cubic yards.

Amount passed for payment, \$1,539.67.

Object of work: Clearing out of entrance channel through sand bar at entrance to harbour and to provide a basin inside new pier-head to extend through to originally built north breakwater.

Pointe à la Pêche, N.S.

By day labour, under direction of District Engineer Bodwell.

Amount, 5,000 cubic yards.

Amount passed for payment, \$2,110.70.

Object of work: to dredge area to complete channel.

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St. Charles River, N.B.

Under District Engineer Stead, by day labour.

About 1,500 cubic yards.

Amount passed for payment, \$481.06.

Object of work: to improve worst sections of the river to provide channel for delivery of shell mud and fertilizer to farmers.

St. John River, N.B.

Removal of snags under direction of District Engineer Goodspeed, by day labour,

81 snags removed; 44 logs removed.

Amount passed for payment, \$1,983.

Shediac bay (Grandigue), N.B.

Under direction of District Engineer Stead, by day labour.

Quantity removed: 25,849 cubic yards, class "B".

Amount passed for payment, \$1,032.59.

Object of work: to provide a minimum width of 36 feet in the cut leading from deep water in Shediac bay to Grandigue and Shediac island wharves in Shediac harbour.

Stave River, B.C.

Under direction of District Engineer Worsfold, by day labour.

Quantity: 3,200 cubic yards.

Amount passed for payment, \$1,752.59.

Object of work: to give sufficient water at log dump to float logs brought down from Stave lake.

Nitinat Lake, B.C.

Removal of rock under agreement with McDonald and Rice.

About 243 cubic yards solid rock.

Amount passed for payment, \$3,645.

Removal of a rock pinnacle in the entrance channel to Nitinat lake.

Dalhousie, N.B.

Under contract No. 9997 with Northern Dredging and Construction Company

Drawback on work discontinued in 1914.

Payment under authority of O.C. April 26, 1918, \$497.21.

DEPARTMENT DREDGES, CALENDAR YEAR 1919

Dredge.	Date.	Locality.	Material.	Quantity.	Locality Cost.		Total Cost.	Cost Per cu. yd.
					\$	cts.		
MARITIME PROVINCES.								
"No. 1"	May 21 Sept. 1. Sept. 3 Oct. 16.	St. John Channel, N. B. Winter Port Berths, St. John, N. B.	Mud and sand. Mud and sand.	160,526 43,682	\$ 44,047 35 18,769 18	cts. .438 .428		
"No. 2"	July 6-Aug. 11. Sept. 19-Oct. 5. Aug. 13-Sept. 11. Oct. 6 Nov. 13	Campbellton, N. B., (Govt. wharf). Mission Pt. (Champlain wharf). Bathurst, Tête-à-Gauche Bar, N. B.	Logs, bark, mud, sand, gravel, roots, brush. Logs, sand, stones, stumps, gravel, sticks, sawdust. Clay, sand, logs, cement.	27,350 13,690 12,690	\$ 15,900 60 9,855 06 10,103 50	cts. .681 .724 802	62,756 53	
"No. 3"	May 28-Oct. 18. Oct. 19-Nov. 12	Bathurst, N. B. Campbellton, Oak Pt.	Gravel, clay, sand and sticks. Sand and gravel.	114,297 36,247	\$ 21,432 34 3,812 19	cts. .213 .127	35,859 16	
"No. 5"	June 19 Nov. 5.	Pictou, East River, N. S.	Mud, stone, clay, gravel, oyster shells, slate rock.	318,449	\$ 28,274 53	cts. .166	33,638 84	
"No. 6"	June 14 Sept. 29. Oct. 18-Dec. 6. Sept. 21-Oct. 17. Dec. 7-31	This dredge was lost. Liverpool Channel, N. S. Shelburne, N. S. Yarmouth, N. S.	Sand, mud, gravel, sawdust, rocks, stones. Mud, sawdust, gravel, sand, rocks, stones. No dredging done on account of weather.	46,610 4,780	\$ 19,543 02 23,685 57	cts. .566 .441		
"No. 9"	May 21-July 28 July 30-Aug. 9. Aug. 10-Nov. 3	Bridge-town, P. E. I. Grand River, McPherson's P. E. I. Beach Point, P. E. I.	Mud. Mud and sand Mud and sand	51,390 33,700 4,500 27,468 65,638	\$ 27,982 21 9,420 98 1,238 15 8,331 31 19,490 44	cts. .544 .294 392 302 298	27,982 21	
"No. 10"	May 31-Oct. 22	Not in commission.	Mud, sand, brick, clay and rock.	32,355	\$ 13,307 38	cts. .411	3,794 68	
"No. 11"	Oct. 23-31	North Rustico, P. E. I. Rusticoville, P. E. I.	Mud and sand	790	\$ 436 80	cts. .624		

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19-4	Nov. 1-20.	Alberton, P. E. I.	Mud, sand, clay, rock and stone.	3,700	1,686 46	15,431 14	455
"No. 12"	June 29-Oct. 20.	Not in commission		36,755		1,330 05	430
"No. 13"		Stippagan, N. B., (Wharf and Gully).	Mud, sand, clay, rock, gravel, stone.	52,703		27,785 88	527
"No. 14"		Not in commission				1,492 39	
Tug "Camso"		Retired during season.				10,702 11	
"No. 15"	July 9-Aug. 4	West Dublin, N. S.	Mud	2,881	1,845 44		513
	Aug. 10-30.	Park's Creek, N. S.	Mud, stone.	1,739	1,108 33		602
	Sept. 4-18	East Middle La Have, N. S.	Mud and gravel	1,558	780 24		36
	Sept. 21-Nov. 14	Chester Basin, N. S.	Mud and gravel.	6,570	2,268 75		407
	Nov. 17-27.	La Have, at Reinhardt's & Boehner's wharves.	Mud, brick and gravel.	775	532 08		761
"Lobnitz No. 3"		Not in commission		12,523		6,095 34	557
"Stonelifter No. 1"		Not in commission				2,922 76	
						497 92	

ONTARIO AND QUEBEC.

"No. 4"	June 28-June 30, July 23-Oct. 17, Nov. 21-24.	Not in commission				1,694 23	286
"No. 101"		Not in commission				1,642 41	
"No. 102"		Pompson, P. Q.	Clay, logs, stumps and boulders.	22,738	6,750 66		
	June 23-27, July 9-14.	La Sallette, P. Q.	" "	3,120	1,119 99		368
	July 16-21.	Biselow Out, P. Q.	" "	1,590	562 60		316
	Oct. 18-Nov. 20.	Long Rapids, P. Q.	" "	2,730	2,382 51		854
	June 4-16, June 25-Nov. 20.	Hawkenbury, Ont.	Clay, pulp, logs, boulders.	30,179		10,735 76	355
"No. 103"	June 18-23.	Grenville, P. Q.	Rock and gravel	59,613	15,299 37		255
	May 14 16	Papineauville, P. Q.	Clay and bark.	455	408 46		897
"No. 106"	May 21-June 30	Contrecoeur, P. Q.	Clay and sand	60,068		15,617 83	26
	July 2-7	Berthierville, P. Q.	" "	990	368 20		308
	July 9-Oct. 15	Ile au Foin, P. Q.	" "	12,078	4,063 33		336
				401	210 90		563
				28,666	11,176 19		389
				12,144		15,758 62	373

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DRAINAGE SYSTEMS, CONCRETE, CALLENDAR YEAR 1917—Continued
CONCRETE AND CURBS—Continued

Project	Date	Locality	Material	Quantity	Locality Cost	Total Cost	Cost Per cu. yd.
No. 100	From 1. Aug. 11 Nov. 13, Nov. 26	Wing Inlet, Ont. Midland, Ont.	Sand, mud, clay, boulders, gravel. Hardpan, clay, logs, slabs and b. lbrs.	cu. yds. 74,948 98,984	\$ cts. 15,006 28 19,881 48	\$ cts. ..... .....	.201 .211
No. 110	May 21, Nov. 23	Longwood, P.Q.	Clay, gravel, rock, boulders and hardpan.	108,929 110,785	.....	34,947 76 57,034 99	.206 .511
No. 101	Not in commission	.....	.....	.....	.....	855 38	.....
No. 112	Not in commission	.....	.....	.....	.....	1,418 66	.....
No. 113	Apr. 20, Oct. 13	Hamilton, Ont.	Clay, sand and hardpan	42,804	.....	14,290 31	.332
No. 114	May 28, June 30	St. Adolphe, P.Q.	Clay, sand and boulders.	16,156	5,207 09	.....	.296
No. 115	July 2, Nov. 6	Saguenay River, P.Q.	Clay, sand and boulders.	60,604	29,585 80	.....	.487
No. 116	.....	.....	.....	76,700	.....	34,802 80	.453
No. 117	April 10, July 11 Nov. 19, 17, July 30, Nov. 10	Not in commission Port Burwell, Ont. Bondeau, Ont. Port Stanley, Ont.	Sand, mud and clay Clay, mud and gravel Sand and mud	98,68, 11,446 98,149	16,565 43 1,773 29 16,670 79	.....	.167 .154 .169
No. 118	Sept. 10, Nov. 17	Not in commission Caulshawaga, P.Q. Not in commission	Stone, hardpan and boulders	2,361	8,612 81	.....	.83,363
No. 119	.....	.....	.....	.....	.....	3,087 72	.....
No. 120	May 16, Sept. 26 Sept. 21, Nov. 17	Lake St. Jean, P.Q. Cardinal, Ont.	Sand, hardpan and boulders. Sand, clay, hardpan and boulder.	29,560 22,100	15,769 37 7,027 52	.....	.333 .317
No. 121	.....	.....	.....	31,650	.....	22,796 69	.441
No. 122	May 28, June 6 Aug. 15, Nov. 3, Jan. 7, Aug. 14	Chicoutimi, P.Q. St. Fulgence, P.Q.	Clay, slabs and boulders. Clay	3,273 6,915	2,908 05 1,902 61915 .288
No. 123	10,188	4,990 61	.489

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MANITOBA, SASKATCHEWAN & ALBERTA.

No. 201	May 31-Aug. 16 Aug. 17-Oct. 30	Mouth of Red River, Man. The Forks, Man.	Mud, sand and clay Sand, hardpan and mud	23,696 47,530	6,481 42 9,394 75	274 203
No. 202	May 31-June 6 June 6-Aug. 3 Oct. 20-30 July 30-July 31 Aug. 1-Oct. 20	Beaver Slips, Selkirk, Man. Slough, Selkirk, Man. Big George Island, Man.	Clay Clay Boulders and sand	71,026 933 26,363 3,161 31,077	16,676 17 732 80 9,970 83 3,042 39 13,746 02	227 709 370 963 112
No. 204	Not in commission	Not in commission				
No. 205	May 31-July 2 July 16-30 July 31-Oct. 10 July 3-July 16 Oct. 11-Oct. 22 Oct. 29-Nov. 2	Mouth of Red River, Man. Park Pt. or Crescent Island Hnansa, Man. Sugar Island, Red River, Man. Slough, Selkirk, Man.	Mud Mud and sand Sand and clay Mud and sand Clay	23,800 64,240 6,100 6,000 6,100 111,780	1,539 44 8,082 87 1,110 27 1,051 13 1,273 69 16,067 68	158 126 163 209 144
No. 208	Not in commission	Not in commission				
No. 210	Not in commission	Not in commission				

BRITISH COLUMBIA.

No. 301	Jan. 1-June 11 July 21-Dec. 3 June 12-July 9 Dec. 1-31 July 10-July 20	Victoria Harbour, B.C. Nanaimo Harbour, B.C. Powell River, B.C.	Mud, hardpan and broken rock Mud and broken rock Mud and hardpan	126,218 8,446 2,334 136,398	44,285 62 9,175 43 983 92 53,444 97	342 1 08 421 309
No. 302	Jan. 1-Mar. 31 Mar. 31-Dec. 31	Kootenay Landing, B.C. Sunshine Bay, B.C.	Sand and silt. Tred up.	18,495 18,495	4,913 26 953 41	317 317
No. 303	Jan. 1-Nov. 28	Sand Heads, B.C.	Clay and sand	706,100	5,866 67 43,297 85	317 961

DEPARTMENTAL DREDGES, CALENDAR YEAR 1917—Concluded.

BRITISH COLUMBIA—Concluded.

Dredge.	Date.	Locality.	Material.	Quantity. cu yds.	Locality Cost. \$ cts.	Total Cost. \$ cts.	Cost Per cu. yd.	
"No. 304"	Jan. 1—Jan. 9.	Kelowna Saw Mill, B.C.	Sand	870	490 13		56	
	Jan. 10—Jan. 11.	C. P. R. Wharf, Kelowna, B.C.	Sand	25	20 64		82	
	Jan. 12—Jan. 19.	Control Dam, Okanagan River, B.C.	Clay	164	128 95		78	
	April 18—Oct. 22.	Okanagan River	Gravel and sand	12,717	6,077 43		47	
	Oct. 23—Nov. 6	Pemberton Lumber Co.	Mud	2,896				
	Dec. 4—Dec. 14	Mill Pond	Sand	483	1,119 52		53	
				17,065		7,886 67	459	
	"No. 305"	Jan. 1—April 11	Squamish, B.C.	Sand and gravel	124,215	13,260 56		106
		June 4—July 14.	Annieville Bar, B.C.	Silt	53,630	4,833 22		99
		April 12—May 5	Ladner, B.C.	Silt and clay	84,830	8,700 70		102
May 7—May 22.								
Aug. 8.								
May 23—June 2		Deas Island, B.C.	Silt, debris	12,840	1,872 49		145	
Aug. 9—Nov. 22		N. Arm of Fraser, B.C.	Coarse sand	73,680	22,384 25		303	
Nov. 23—Dec. 15.		Hopps Eng. Works, B.C.	Coarse sand	24,740	4,560 43		184	
Dec. 17—Dec. 31.		Port Coquitlam, B.C.	Hardpan and boulders	825	2,185 14		2,648	
				374,760		57,792 79	154	
"No. 306"	Jan. 1—Oct. 15.	First Narrows, B.C.	Gravel	400,790	85,100 67		212	
	Oct. 16—Dec. 31.	Parthia Shoal, First Narrows, B.C.	Boulders and gravel	62,920	18,289 77		29	
			463,710		103,390 44	223		
"No. 307"	Jan. 1—Dec. 31.	Victoria Harbour, B.C.	Grey clay	109,050		43,310 46	397	
		Did not work, laid up at Chase, B.C.				24 84		
	Jan. 1—Jan. 31	Forest Glen "A", B.C.	Sand	14,550	1,375 47		995	
	Feb. 1—Mar. 31	Cottonwood Point, B.C.	Sand and gravel	19,650	2,406 94		129	
	April 1—May 7.	Graham's Landing, B.C.	Clay	12,900	1,757 52		136	
	Nov. 6—Dec. 31	Forest Glen "B", B.C.	Sand	33,200	4,146 09		125	
	May 8—Nov. 4	Annual overhaul			1,802 68			
				80,300		11,579 70	144	

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"No. 313"	Jan. 1-Jan. 22	Victoria Harbour, B.C.	Rock and boulders	527 13	1 00
	Jan. 22-Aug. 22	Courtenay, B.C.	Gravel and boulders	8,465 30	931
	Aug. 3-Oct. 3	Nanaimo Harbour, B.C.	Broken rock	1,739 04	289
				13,962	769
Rockbreaker	Jan. 1-Dec. 31	Victoria Harbour, B.C.	Rock	7,084	3 96
No. 1					
Rockbreaker	Jan. 1-Dec. 31	Nanaimo Harbour, B.C.	Rock	6,119	3 76
No. 2					
Drilling	Jan. 1-Oct. 13	Victoria Harbour, B.C.	Rock	2,041	6 25
Plants "No. 1					
and 2					
				10,731 47	
				28,104 72	
				23,049 20	
				12,757 73	

DRY DOCKS.

STAMPLAIN DRY DOCK.

The rock excavation was completed by the end of October, 1917, to its full depth and width, except for little trimmings on top, which will be done next year.

The total quantity of excavation, this year, amounted to 76,100 cubic yards.

The concrete walls of the dock were completed from station 7+25 up to station 0+90, except for the timber slide in the first part of the dock, and from section 0+90 to 0+00, the walls on each side are more than half completed. The bottom of the dock is completed to station 0+90. Early in the spring, they completed the pump-house foundations. The concrete work could have been completed at the head of the dock but owing to unusual cold weather and owing to the testing of the floating caisson which took more time than they expected, they had to stop work for the winter.

During this year, the total yardage of concrete was 37,400 cubic yards in the dock proper and 5,500 cubic yards for the crib superstructure.

During this season, two cribs were sunk, one 75 feet long at the north end of the western guide pier, and the other one at the end of the eastern guide pier. There are two more cribs to be sunk, they were to be set in place this fall, but the dredge did not have time to clean the seats before the ice formation.

The total yardage of cribwork amounted to 5,300 cubic yards.

The Montreal Harbour Commission dredge started work July 2 and stopped November 16. During this period, the channel was dredged out to 30 feet at L.W.O. S.T. After the main dredging was done, cleaning up the channel bottom was started but as it was late the dredge had to leave for the winter.

The only work left on submarine rock dredging for next spring is to complete the cleaning of the channel bottom and to complete the dredging of the two crib seats.

The total yardage taken out this summer amounts to 34,400 cubic yards.

In the boiler room and generator room, the balance of machinery has been all set up but not properly tested yet.

The total work done in power house this year amounted to \$20,980.70.

Early in the spring, the foundations were completed and soon after, pump house was built. During the summer and the fall, the erection of the three main pumps and of the two drainage pumps were carried out. The tile work in pump house is partly finished and will be completed by the spring.

The two caissons were completed this year, except for the floating caisson on which two motors for the pumps are not set and tested yet.

All the sluice gate valves were set and coupled with their motors, and 70 per cent of the underground wiring of all sizes is completed.

ESPLANADE GRAVING DOCK.

During the fiscal year ending March 31, 1918, eighteen ships were docked for cleaning, painting and repairs, occupying the dock one hundred and ten days in all.

Repairs were effected to Nos. 1, 2, and 3, main boilers by the use of an electric welding plant, which will add considerably to the life of each boiler.

The coal bunkers, a building 57 by 32 feet, was removed and replaced by a new building on concrete foundations.

The latrines were also replaced by a new building 31 by 10 feet, constructed on concrete piers.

Corrugated iron was used in the buildings constructed.

The staff has been otherwise variously employed in attending to the docking and unblocking of ships, the care of buildings and machinery, and special attention was given to the inside chambers of the caissons by scaling and painting. With the excep-

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tion of some minor renewals, the plant is now in good working condition. The electrically-driven 6-inch vertical centrifugal pump installed in the past fiscal year has proved very satisfactory. The total expenditure to March 31, 1918, was \$17,811.27.

SELKIRK.

Repair slip.—The repair slip was operated as usual this season. A total tonnage of 4,666 was handled. Of this, 1,284 tons were departmental and 3,382 tons commercial.

Total revenue from this plant amounted to \$1,714.36. The expenditure is \$3,512.21.

LOCKS AND DAMS.

QUEBEC.

OTTAWA RIVER.

Timiskaming reservoir.

Downstream from the Ontario sluices, all holes scoured in the riprap apron were filled with quarried rock at the beginning of the year. The spring flood ran 80,000 c.f.s. maximum, and there was about 58,000 c.f.s. mean flow for June. The result was that scouring in the heavy rock bed again took place, and re-filling was necessary, the work being done between December and March.

The winter was extremely cold, and labour was poor and scarce, so the re-filling was slow until the middle of January. With increased force, better progress was made and as far as possible large rock was used, much of it being $\frac{3}{4}$ cubic yards to $1\frac{1}{2}$ yards. To end of January, 2,800 cubic yards were placed, and in February, 1,500 yards more up to the 18th, when track had to be taken up from below the Ontario sluices in order to feed storage.

During March, 1,200 cubic yards of rock of large size was placed below the Quebec sluices. Some excavation, chiefly boulder material, was done upstream from the Ontario dam in order to clear the approach flow-way of the ridges left by steam shovel. All excavation was closed down in April.

Timiskaming reservoir was filled to elevation 587.9 by May 25, 1917, and remained so till the middle of September. Storage was given out for about a month, the surface falling about $2\frac{1}{2}$ feet. The autumn rains refilled the reservoir to elevation 586, and from December till end of March about 10 feet was drawn off.

Quinze reservoir.

During the spring, arrangements were completed with regard to the flooded timber around the reservoir and, after a conference with the lumbermen and power owners, it was agreed to fill the reservoir to elevation 864 as soon as possible. This meant raising the main road at several points in Latulippe township, and reconstructing the bridges, the work being begun in June. All the bridges were finished by the winter but bad weather in this clay and the difficulty in securing teams and labour delayed the earthwork, so that it could not all be finished before freezing weather.

Six pile trestle bridges were constructed, the total length being 800 feet, and 1,850 feet of approach embankments were made. Besides this, 1,500 feet of road diversion was finished.

The Latulippe settlers asked very unreasonable prices for the land flooded, and refuse to consider the offers made by Mr. Cross. Gradually, however, the greater number have accepted the very generous prices of \$50 per acre for cultivated, \$20 per acre for slash, and \$5 per acre for bush land.

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At Quinze dam itself some repairs were made to the concrete piers, where spalling continues from time to time.

The log drive was passed without trouble in the spring, and then a storage of about 5 feet in depth was held upon the reservoir.

The reservoir was filled to elevation 859.5 by the end of May, 1917. The spring flood ran 42,600 c.f.s. maximum and a mean of 36,000 c.f.s. for June. About 4½ feet of storage was used to October, then the autumn rain raised the surface to elevation 857 in the first week of November, whence it fell, to 1st January, 3½ feet, and another foot to 31st March. The shallow channel between the islands at the head of the river prevented its being drawn down further, although the sluices were wide open.

Kipawa reservoir.

There was no work of any consequence done in connection with the dams. The reservoir was filled to elevation 884.9 on June 6, 1917, and remained about that level to the middle of July, whence it fell 3½ feet to the middle of October. It was then fairly constant till 20th January, 1918, whence it was drawn down 5 feet to the end of March. The greatest outflow was 7,400 c.f.s., June 9, 1917, and the mean for June was 4,700 c.f.s.

Chaudière Falls, Ottawa.

The result of the storage may be judged from the following mean monthly flows at the Chaudière mills:

October.	27,800 c.f.s.	January	21,600 c.f.s.
November.	29,000 "	February	19,300 "
December.	27,000 "	March.	21,300 "

It will be seen that, generally, the flow was over 20,000 c.f.s., which is considered ample for all the manufacturers. Under natural conditions the flow would not have been half the above in February and March, as the winter was one of the coldest on record, and for ninety days there was no thaw. In February, there was a minimum of 17,300 c.f.s. due to anchor ice conditions in the Deschenes rapids. Under natural conditions anchor ice would have affected the flow all through the winter.

Metering.

Flow measurements have been continued at La Passe in order to fix the flow at that point with relation to the height of Coulonge lake. Meterings are also being made to define the relation between the flow in the Calumet and Rocher Fondu channel, and the party also measured Coulonge river, Black river, and the Mattawa summit waters.

From time to time, measurements are taken of the Gatineau, Rideau, and the main Ottawa at Besserer's Grove, the work being done by the party that rates the metering instruments at Dow lake.

Another party is stationed at Carrillon, measuring the main river also the Lièvre, Rouge, and North rivers. The measurements at this point, added to the measurements of the St. Lawrence at Iroquois, are for use in connection with Montreal harbour levels.

In connection with maintaining Quinze reservoir, the flow contour elevation 864, has been surveyed through Beauneville township, and levels required for the road work in Latulippe township have been given by the same party.

RIVIÈRE DU LIÈVRE.

Lock and Dam.

Work during the past year consisted of operating the lock, placing the repairing booms in spring and removing them in the fall, new safety boom was placed in the

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fall, the fence around the property was rebuilt also last fall, renewing sheathing on apron of dam, rebuilding the two centre piers of the dam from low-water line, repairing timber slide, replacing roller and frame to lift stop-logs in slide by a pair of winches. Minor repairs to the Lockmaster's quarters.

Expenditure during the fiscal year, \$5,906.95.

RIVER ST. CHARLES.

Locks and Dam.

Work performed during this fiscal year is as stated below.

The completion of the fabrication of steel for the floating caisson for lower lock entrance.

Excavation for the mattress on the north shore of the river above the dam. The material was removed by a suction dredge and pumped to the government property on the Limoilou side west of the Canadian Northern railway, to raise the surface to make it available for building or commercial purposes in the future.

Permanent steel girders to carry the Canadian Northern and Quebec Railway tracks have been erected over the sluiceway openings in the dam to replace cribwork which has to be removed for the construction of the sluiceway and piers.

Total expenditure for year, \$101,174.56.

YAMASKA.

Yamaska, a thriving village situated on both sides of the Yamaska river, about eight miles from its mouth, where it empties in the St. Lawrence. Two miles below the village is situated the lock and dam built by the Department of Public Works in order to facilitate navigation on this river.

Work of repair done by day labour, commenced on October 11, and was completed October 31, 1917, and consisted in reconstructing the four upper tiers of the dam at the little channel and making a concrete flooring on top of the dam which is used as a roadway.

In the execution of the above works 7,207 feet b.m. of timber, 60 bags of cement, and some iron were used.

During the fiscal year 1917-18, the expenditure was \$671.15.

MANITOBA.

St. Andrews Lock and Dam.

The lock and dam was in operation from May 8 to November 29.

In the month of August, it was found necessary to raise the curtains of the dam to remove brushwood, etc., to facilitate the better operation of the same. Owing to the small discharge of the Red river, canvas was placed at different points on the dam to prevent undue leakage.

During the navigation season, a gross tonnage of 25,635 passed through the lock, and 530 small craft. Passengers to the number of 5,897 were carried.

Excursion boats made daily trips on the water regulated by the dam.

SLIDES AND BOOMS.

OTTAWA RIVER WORKS—ORDINARY REPAIRS.

North Chaudière Station.—A new guide boom was provided for the entrance to the upper slide, the bulkhead of the slide was rebuilt, and the winches for raising the

stop-logs were mounted upon a new frame. A temporary apron of timber was placed at the outlet of the lower slide to prevent the logs from being damaged by striking the rocky bed of the river at stages of low water.

South Chaudière Station.—The expenditure at this station was for materials for repairs to the storehouses and guide booms at entrance to slide; the work having been performed by the slide master and his men.

TIBULIARIES OF OTTAWA RIVER.

Gatineau River.—The repairs on this river consisted in placing extra serew bolts to strengthen the main boom and in repairing the boats and station-house.

Madawaska River.—At the mouth of the Madawaska, the top of one of the piers in connection with the retaining boom was rebuilt. This pier is 14 feet by 17 feet at the water's edge, and 11 feet by 13 feet at top, the height of the new work being 5½ feet. Two fenders of 10-inch square timber were placed on the face of the pier.

At Arnprior the guide booms were repaired, and two of the piers at head of the slide were rebuilt from low water level, a height of 6 feet. One of the piers is 18 feet by 22 feet and the other is 15 feet by 16 feet. A cedar post was placed in each pier, and additional stonefilling was provided to fill the piers.

At the retaining boom at head of Calabogie lake, five piers were rebuilt from the water surface. No. 1, is 22 feet square; No. 2, 24 feet square; No. 3, 21 feet square; and Nos. 4 and 5, each 20 feet square. All the piers are battered so that the size of each is 7 feet less at top than at water's edge, the height of the new work on each pier being 8 feet.

At High Falls, the tops of four piers supporting the guide boom at head of slide were rebuilt. Nos. 1 and 3 are 20 feet square at the water line and 18 feet square at top; No. 2 is 26 feet in front, 12½ feet in rear, and 18½ feet on sides; No. 5 is 33 feet in front at base and 29 feet at top, 14 feet in rear at base and top, the length of the sides being 24 feet. The height of the new work on piers Nos. 1, 3, and 5 is 9 feet, and on No. 2 it is 10½ feet.

A new pier was also built at the lower bulkhead. It is 21½ feet long and 5½ feet wide, the height at lower end is 7½ feet and at the upper end it is 2 feet. The sheeting on the pier dam between the two bulk-heads was renewed in places and some repairs were made to the main controlling dam.

At Ragged Chute extra stonefilling was placed in the pier dam across the blind tunnel at head of chute.

At Chain Rapids the tops of two piers had to be rebuilt. No. 4 is 18 feet by 16 feet at base and 16 feet by 14 feet at top; No. 5 is 18 feet square at base and 14 feet square at top, the height in each case being 8 feet.

Coulong River.—In the spring of 1917, two breaks occurred in the slide at High Falls—one on 27th April and the other on 5th May. On the former occasion, the longitudinal stringers broke while logs were running in the slide, and the superstructure gave way for a length of 48 feet; the other break was caused by a rock slide from the mountain, which carried out a section 50 feet in length. The damage was repaired with all possible haste, so little delay was occasioned, in either case, to those using the slide.

Black River.—A section of the High Falls slide, 137 feet in length, immediately below the fall-wood, was repaired, as the foundation had settled, causing the bottom of the slide to sag as much as 19 inches below grade at the centre of the bow. The superstructure was raised to position and properly blocked underneath, and damaged sheeting on sides and bottom of slide and dunnage posts and braces were all renewed. Iron bars were also placed on the curve to protect the sheeting.

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Petewawa River.—At the mouth of this river, a pier was built to form a gap to allow small craft to pass through the retaining boom. The pier is 16 feet square and 9 feet high. Another pier, the first below the wharf, was patched, as some of the top timbers were decayed.

At Second Chute, the expenditure was for pine plank used in repairing the slide.

At Crooked Chute, the camp house was repaired, and an addition was built. Sections of the floor of slide at the outlet and just below the bulk-head were renewed with 6 inch material. Posts were replaced in the slide; a course of timber was placed on the tops of the foot and entrance piers and five stop-logs were made for the bulk-head. The main controlling dam was repaired, it having been found necessary to renew several of the cross-ties and longitudinal timbers.

At Thompson's rapids, the outlay was for timber for repairs to the retaining dam.

At head of Lake Traverse, the tops of two piers of the boom were rebuilt. They are each 16 feet square, battered to 12 feet square at top and 8 feet in height. Each is supplied with a snubbing post.

At Poplar chute, a glance pier, 48 feet long, 8 feet wide and 5 feet high, had to be restored. The pier is close-work in front and open in rear.

At McDonald's chute, the main governing dam, 110 feet in length, to the south of slide entrance, was rebuilt. This is a flat dam, 9 feet high at rear with an average face of 16 feet. Two piers at the guide boom required attention; the one on south side at upper end of boom, 13 feet by 16 feet and 12 feet high, was altogether renewed, and the other, also on the south side and immediately above the slide, had its top timbers repaired. Four lengths of guide boom were taken out of the water, damaged ends were sawn off and new holes were bored well back in the solid timber for the connecting chains.

The amount chargeable to Cedar lake station was for timber for repairs to the retaining dam.

GENERALLY.

Gatineau River.—Eleven tons of one-inch diameter B. B. iron chain were provided and placed on the government boom near the mouth of this river, to guard against excessive strain, when the water in the river is at spring flood.

Coplonge River.—At five different places, portions of the High Falls slide were rebuilt from the foundations. The old timbers of the latter were removed and laid in the new to receive the bents which vary in height from 10 to 16 feet; twenty-eight new bents were placed and five old ones were repaired and strengthened with extra bracing; 126 posts with the usual braces, 83 cross sills and sheathing in sides and bottom at these five places were all renewed. There were two lengths in the second section, 72 feet and 108 feet; two in the third section, 144 feet and 116 feet; and one in the fourth section, 75 feet. At other places in the slide, it was found necessary to patch the sheathing in sides and bottom, also to replace some of the posts. Three stay chains, 28 feet, 25 feet, and 21 feet in length were set to steady the superstructure. One end of each chain is connected to an eye bolt which passes through the stringers of slide, while the other end is made fast to an anchor bolt sunk in the solid rock on the side of the mountain. The posts supporting the bulk-head of slide were repaired and eleven bars of flat iron were secured to the sides of the head piers, to guard against abraision from passing logs. One of the guide booms, 125 feet long, was water-logged, so two lengths of timber extending the whole length of the boom were placed on top to give greater buoyancy, the upper portion of the boom being planked with 2-inch pine.

ST. MAURICE RIVER.

All movable and immovable government properties used for the purpose of transmission of timber, on this river, is leased to the St. Maurice River Boom and Driving Co., which lease took effect on February 1, last.

Under supervision, the company maintained the whole work in a very satisfactory manner and made several important improvements rendered necessary on account of the constant increasing lumber business on the river.

BRIDGES AND ROADS.

OTTAWA.

BRIDGES AT OTTAWA, AND ROADWAY AND BRIDGE APPROACHES *PE* OTTAWA AND HULL.

Laurier Bridge.—The hand-rail on the top of the guard fence, on northern side, was renewed for the whole length of the bridge, the one on the other side having been treated in a similar manner previously. The old rail was of rolled steel and was so badly corroded that holes were eaten completely through the material. All the guard fence received a coat of paint. Considerable repairs were made to the sandstone pavement on both approaches to the bridge; fully one-third of which was taken up and re-laid to grade on the western approach, while at the other end the worst places were attended to. All the pavement re-laid was grouted with cement.

Chaudière Slide Bridge.—The roadway of this bridge was cleaned, the guard fence on the western side was painted and the pavement was kept in repair. The cast-iron grating and drainage chambers were kept free of debris throughout the season.

Union Bridge.—The roadway of the Union bridge was kept clean, the planking was patched, and the guard fence was repaired.

Roadway and Bridge Approaches between Ottawa and Hull.—The pavement on this thoroughfare was cleaned frequently, and repaired. The wooden guard fence and pipe rail on the eastern side, from Union bridge to Hull, received two coats of paint while the gratings and weeper holes received proper attention throughout the year.

During the winter, surplus ice and snow were removed from the roadways of the bridges and sidewalks, and the latter, when slippery, received a coating of sand to aid pedestrians who had occasion to use them.

In spring, the usual drains were cut to carry off the surplus water.

ONTARIO AND QUEBEC.

Bryson.—The work of repair to this bridge was renewing the roadway at both ends of the two main spans, with 3-inch pine plank. The portion repaired at the Calumet island end was 71 feet long; and that at the Bryson village end, 135 feet, the width of the planking in both cases being 19½ feet. A wheel guard of 6-inch square cedar was laid at both sides and in the centre of the portions renewed. About 25 cubic yards of gravel were deposited at the Calumet island end to bring the roadbed even with the planking on the bridge.

Chapeau.—The work at this bridge consisted in filling in behind the concrete retaining walls, on the northern approach, with stone and gravel, about 450 cubic yards having been used in doing so. The fill on the upper side is 140 feet long, of an average depth of 2 feet and extends up the bank about 16 feet of an average. The fill on the lower side is 104 feet in length, 4 feet average depth and extends up the bank an average of 20 feet.

Rapides des Joachims.—The pipe-rail on the bridge across the main channel of the Ottawa river, having been disconnected through contraction, had to be joined again, and at another place on the same bridge, part of the piping was missing and was repaired by a new piece with a coupling. The wooden guard fences on both approaches to the two bridges were repaired where the boards were broken or defective; 24 pieces of 1- by 5-inch pine having been used for this purpose.

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On the Ontario approach, a culvert collapsed and this necessitated the placing of two pieces of cedar, each 16 feet long. The roadway over the culvert was graded with gravel and stone.

Four sign boards for the regulation of traffic were placed at both ends of the two bridges.

MATAPEDIA INTERPROVINCIAL BRIDGE.

The Matapedia Interprovincial bridge links the two shores of the Restigouche river, thus uniting the provinces of Quebec and New Brunswick.

The work done during the last fiscal year consisted in the repairing of planks in a temporary manner, stopping the most dangerous holes in order to render the bridge safe for winter. More extensive and necessary work could not be done on account of weather conditions.

PITTS BROOK.

Pitts Brook is located in the Matapedia military road, about two miles from Stc. Florence de Beauvillage, in the county of Bonaventure. It is situated in that part of the road where there is no municipality to take care of its maintenance.

The work done during the fiscal year 1917-18, consisted in the reconstruction of a bridge, 48 feet in length by 16 feet in width, placed upon two cedar abutments. The flooring is in 3-inch deals.

HARRICANA RIVER BRIDGE.

Traffic Bridge at Amos, Que.

The Government of the province of Quebec was authorized by Order in Council of the 4th October, 1917, to proceed with the construction of a fixed wooden bridge across the Harricana river, at the village of Amos, Que.

This bridge consists of two spans, continuous over the centre pier, of a total length of 304 feet, with approaches from the two shore piers. The latticed trusses are roofed over. Provision has been made for a clearance of 14½ feet above high-water level, and for lighting the channel span.

The bridge was opened to traffic in the late autumn.

MUSKRAT RIVER (MEATH STATION).

Canadian Pacific Railway Bridge.

The Canadian Pacific Railway Company proceeded with the construction of their new bridge across the Muskrat river, in order to do away with the existing 600-foot trestle built skew to the stream, over twenty years ago, and which intersects the high-way bridge (O. C. June 15, 1912).

Piles were driven to a great depth for the footing of concrete abutments; during the course of placing the ballast fills to said abutments, the work settled down and virtually disappeared while, at the same time, the river bottom on either side was raised several feet. As the new line for this diversion is built through marshy soil, the company found it necessary to purchase additional land and cut a new channel for the river, to which the steel span (plate girder 87 feet 2 inches long) has been removed. This new channel is located some 900 feet from the originally proposed location of bridge, and is to be maintained by the company.

The new bridge and diversion track were completed in July, and traffic was diverted thereto on 15th August, 1917.

GRAND RIVER BRIDGE.

Grand River bridge is a highway bridge over the Grand river at York, situated 7 miles from Caledonia. Seneca flag station is the nearest freight point.

The spring flow of ice injured the upper posts in each bent of the timber trestle at the west end of the bridge; work of repair consisted of renewing broken planks in the decking; of renewing 800 feet b.m. and replacing eight 10 by 10 posts in the trestle, and these posts were braced to the other posts in the bents with 4 by 8 braces.

The work was finished March 30. Expenditure, \$345.52.

ALBERTA.

EDMONTON.

The City carried out repairs to the roadway, which included putting in steel flange rails along the roadway and street car tracks and in making the necessary renewals to the wood block pavement, as well as, some other minor repairs.

The cost of this work to the department was \$536.16, it being one-third of the total cost, as under the agreement with regard to the upkeep of this bridge; in the months of August and September last, this department put a small force of men at work clearing off the debris from the lower chords which had accumulated there from the roadway, and the sum of \$30 was expended, and owing to some extra work which was necessary in repairing the flash boards below the roadway of the bridge there was added the sum of \$31.50.

SPRAY RIVER.

Repairs consisted in rock filling and riprap; the rock was obtained from government quarry, and lumber from the Forestry department.

Work was carried out by day labour at a cost of \$433.72.

GOVERNMENT TELEGRAPH SERVICE

By D. H. KEELEY, GENERAL SUPERINTENDENT.

Location of Lines.	Points connected.	Year	LENGTH OF LINES			Number of Offices.	Messages Sent.
			Land Lines.	Cables.	Total		
			Miles Wire.	Kt's.			
Newfoundland.	Port au Basque—Cape Ray	1883	14		14	2	
Nova Scotia	North Sydney—Meat Cove (with loops).	1880-02	168½				
"	Across Bras d'Or Channel	1880					
"	" St. Ann's Harbour (Englishtown).	1887			170	25	
"	" Ingouish Harbour	1887					
"	" French River	1887					
"	Big Bras d'Or—Kempt Head	1904	20		20	3	
"	Meat Cove—St. Pauls Island	1890		20			
"	On St. Pauls Island	1890	3		23	1	
"	Bay St. Lawrence to Money Point	1907	8		8	4	
"	Mabou—Meat Cove	1887-00	116½		116½	12	
"	Barrington—Cape Sable	1883	16				
"	Across Bear Point Channel	1885		1½			
"	" Lt. House Channel	1883			17½	Leased.	
"	Mabou—Port Hawkesbury	1903	41½		73½	9	
"	Port Hawkesbury—St. Peters	1903	32				
"	St. Peters—Main à Dieu	1904	83½				
"	Main à Dieu—Scatari	1902-09	1	3½	133½	19	
"	On Scatari Island	1904	7½				
"	Gabarus—North Sydney	1904	38½				
"	Little Bras d'Or—Kempt Head	1905	34½		34½	6	
"	North Sydney—Eskasoni	1905	31		31	10	
"	Eskasoni—Grand Narrows	1908	22		22		
"	Grand Narrows—Shemacadie—Beaver Cove	1910	15½		15½	3	
"	Leitches Creek—Steeles Crossing (loop).	1910	28		28	1	
"	Baddeck—Little Narrows	1910	19½		19½	1	22,000
"	North Sydney—Little Bras d'Or (second wire)	1906	6		6		
"	Grand River—Enon	1907	19½		19½	2	
"	Enon—Gabarus	1909	29		29	3	
"	Strathlorne—Wycocomagh	1909	33½		33½	7	
"	S. W. Margaree—Wycocomagh—Little Narrows	1912	38½		38½	8	
"	Loch Ban—Scottsville	1912	7		7		
"	Wycocomagh—Orangedale	1912	8		8	5	
"	North Sydney—Sydney Mines—Florence	1912	7		7		
"	Little Narrows—Washabuck Centre	1912	12		12	4	
"	Loop, Eskasoni—Mc Adams Lake	1912	5		5	1	
"	Baddeck, Nyanza—Big Intervale	1913	39½		39½	6	
"	Brook Village—Glendale	1914	32		32	6	
"	Washabuck Centre—Grass Pond	1916	7½		7½	4	
<i>Port Hood, Island Branch:</i>							
(Length of construction in loop.)							
"	On mainland at Port Hood	1907					
"	Port Hood—Smiths Island	1907		2			
"	On Smiths or Inner Island	1907	4		13½	4	
"	Smiths Island to Henry Island	1907		3			
"	On Henry or Outer Island	1907	4				
New Brunswick.	Chatham—Escuminac—Point Sapin	1885	56½		56½	25	5,000
Carried forward			1010	31½	1,041½	171	27,000

GOVERNMENT TELEGRAPH SERVICE—Continued.

Location of Lines.	Points connected.	Year.	LENGTH OF LINES.			Number of Officers.	Messages Sent.		
			Land Lines.	Cables.	Total.				
	Brought forward		Miles Wire. 1,010	Kt's. 31½	1,041½	171	27,609		
	<i>Bay of Fundy System :</i>								
New Brunswick.	Campobello—Eastport	1880		1½	77½	14	3,660		
"	"	1917		1½					
"	Mainland Eastport	1880-17	1						
"	On Campobello Island	1880-16	11½						
"	Campobello—Grand Manan	1880		8					
"	"	1916		10½					
"	On Grand Manan	1880-16	21½						
"	Grand Harbour—Cheney Island	1880	4½						
"	Cheney Island—Whitehead Island	1880		4					
"	"	1916		4					
"	Woodwards Cove—Nantucket	1914	2½						
"	Nantucket—Duck Branch	1914	8½	1					
"	Partridge Island—Fort Dufferin	1900							
"	"	1910							
	<i>Gannet Rock Branch :</i>								
"	Seal Cove—Big Wood Island	1910		1½	14½	4			
"	Big Wood Island—Little Wood Island	1910	1½						
"	Little Wood Island—Three Sister Island	1910	1						
"	Three Sister Island—Gannet Rock	1910		2½					
"	Three Sister Island—Hay Island	1916		1					
"	Campobello across Lubec Channel	1916		4					
	<i>Magdalen Island System.</i>								
Quebec	Meat Cove, C.R.—Magdalen Islands	1880		55	184½	20	4,574		
"	On Magdalen Island	1881-02	83½	½					
"	Grosse Isle—Brion Island	1902		11					
"	On Brion Island to Dingwalls	1902	1						
"	On Brion, Dingwalls to Lt. House	1909	5						
"	Honar Harbour—Pointe Basse (loop wire)	1902	8						
"	Pointe Basse—South Beach (loop wire)	1905	6						
"	Grindstone—Barachois (loop wire)	1909	6						
"	Amherst Island—Entry Island	1910	2	6½					
	<i>Anticosti System.</i>								
"	Gaspé—L'Anse à Fougère	1881	28		316½	9	1,908		
"	L'Anse à Fougère—Anticosti	1881		44½					
"	On Anticosti Island	1881-90	223½						
"	Anticosti—Long Point Mingan	1880		21					
	<i>Chicoutimi Dist.</i>								
"	Bay St. Paul—Chicoutimi	1881-04	98		98	5			
"	St. Alexis—St. Catherine's Bay	1904	78		78	5			
"	Murray Bay—Bay St. Paul	1904	37		37	3			
"	Bay St. Paul—Petite River	1904	13		13	1			
"	Chicoutimi—St. Charles	1903	31½		46½	10			
"	St. Anne—Lac Clair	1903	7						
"	St. Anne—St. Fulgence	1903	8						
"	St. Fulgence—Sacré-Coeur	1905	73½					73½	4
"	Murray Bay—St. Catherine's Bay (2 wire)	1904	58					58	
"	St. Alexis—Chicoutimi (2nd wire)	1905	14½					14½	
	Carried forward		1,845	709½	2,054½	246	37,751		

GOVERNMENT TELEGRAPH SERVICE—Continued

Location of Lines.	Points connected.	Year.	LENGTH OF LINES.			Number of Offices.	Messages Sent.
			Land Lines.	Cables.	Total.		
			Miles Wire.	Kt's.			
	Brought forward		3,339½	253½	3,593½	400	100,809
	<i>Northwest Lines—</i>						
Saskatchewan.	Qu'Appelle—Onion Lake	1883	402		402		9
"	Moosejaw—Wood Mountain	1885	107		107		4
"	Wood Mountain—Willow Bunch	1904	39		39		2
"	Gravelbourg Loop	1910	38		38		1
"	Leeville Loop	1912	28		28		1
"	Saskatoon Loop	1892	28		28		1
"	Duck Lake—Batoche	1902-10	9		9		2
"	Duck Lake—Indian Agency	1902	3½		3½		3
"	Lloydminster Loop	1904-09	58		58		1
"	Lipton Loop	1906	2		2		1
"	Fort Qu'Appelle—File Hills Agency	1907	28		28		4
"	Kamsack—Indian Agency	1907	6½		6½		2
"	Kamsack—Indian Agency—Pelly	1910	17½		17½		4
"	Battleford—Isle-à-La-Crosse	1912	27½		27½		6
"	Mvota Loop	1912	20		20		1
"	Sintaluta—Assiniboia Reserve	1913	8		8		1
Alberta.	Onion Lake—Edmonton	1883	205		205		8
"	St. Paul—Durlingville	1912	48		48		3
"	Edmonton—Athabaska	1904	98		98		2
"	Athabaska—Mirror Landing	1909	70		70		1
"	Mirror Landing—Peace River	1910	199		199		4
"	Peace River—Dunvegan	1911	74		74		2
"	Dunvegan—Lake Saskatoon	1912	76		76		2
"	Grand Prairie City Loop	1912	16		16		1
"	Lake Saskatoon—Fort St. John	1914-15	115		115		3
"	Fort St. John—Hudson Hope	1915	62		62		2
"	Peace River—Shaftsbury	1911	15		15		4
"	Athabaska—Fort McMurray	1914-15	245		245		4
"	Athabaska—Lac la Biche (Plamondon)	1914	58		58		1
"	Plamondon—Roman Catholic Mission	1915	12		12		1
"	Edmonton—Indian Agency—Stony Plain	1904	32		32		5
"	Edmonton—St. Albert	1887	9		9		1
"	St. Albert—Qui Barre—Alexandre	1902	25		25		3
"	Andrew Loop	1901	10		10		1
"	Lamont Loop	1910	7		7		1
"	Saddle Lake—Industrial School	1900	6½		6½		1
"	Grouard—High Prairie	1912	5		5		12
"	High Prairie—Prairie River	1913-14	13½		13½		2
	<i>British Columbia Lines—</i>						
British Columbia	Kamloops—Vernon—Penticton	1899-11	467½	1½	469		54
"	Kamloops—Mount Olie	1908-10-15	86		86		19
"	Kamloops—Savona	1913	28		28		5
"	Kamloops—Barnhart Vale—Rose Hill	1911	14		14		4
"	Kamloops—Notch Hill—Revelstoke	1914-15	215½	1½	217		31
"	Fairview—Midway	1914	93		93		12
"	Whitemans Creek—Kelowna	1914	29	1	30		7
"	Nelson—Trail	1914	61		61		15
"	Proctor—Sordar—Creston	1914-16	87½	2½	90		16
"	Nakusp—Elgwood	1912	59	1	60		15
"	Golden—Windermere	1901	92		92		23
"	Helfer Creek—Upper Louis Creek	1916	37		37		11
"	Doer Park—Bonets	1916	24½		25		10
"	Merritt—Mamnetto Lake—Camford	1916	37		37		7
"	Kamloops—Goose Lake	1916	14		14		3
"	Enderby—Vernon	1916	26		26		2
	Carried forward		7,228½	262½	7,490½	741	257,846

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GOVERNMENT TELEGRAPH SERVICE—*Concluded.*

Location of Lines.	Points connected.	Year.	LENGTH OF LINES.			Number of Officers	Messages Sent.
			Land Lines.	Cables.	Total.		
			Miles Wire.	Kt's.			
	Brought forward.....		7,228½	262½	7,491	741	257,816
	<i>British Columbia Lines—Concluded.</i>						
Vancouver Island	Victoria—Banfield.....	1891	169	169	15	112,906
"	Alberni—Banfield.....	1899	53	.....	53	2
"	Alberni—Clayoquot.....	1902	95½	2½	97½	6	
"	Clayoquot—Nootka.....	1913	62½	12½	74½	8	
"	Clayoquot Branch.....	1913	1	.....	1	2
"	Toquart—Sechart.....	1907	7½	2	9½	2	
"	Tofino—Mosquito Harbour, Bear River, Clayoquot Sound—Leonard Is. Light.)	1911-14	55	3½	58½	4	
"	Nanaimo—Comox—Campbell River.....	1893-08	118	.....	118	9
"	Parkville—Alberni Branch.....	1895	30	.....	30	1
"	Comox—Cape Lazo Branch.....	1910	6	.....	6	1
"	Union Bay—Denman and Hornby Islands	1907	21	2	23	5	
"	Nanaimo—Gabriola Island.....	1909	16	.....	16½	5
"	Campbell River—Powell River.....	1910	65½	13½	79½	11	
"	Powell River—Vancouver.....	1913	108	12	120	21	
"	Campbell River—Hardy Bay.....	1914	203½	4½	207½	18	
"	Vancouver—Squamish.....	1914	44½	1½	46	6	
"	Salt Spring Island Line.....	1902-14	88	7½	95½	23	
"	Sidney—Ganges Line.....	1910	21	2½	23½	5	
"	Cheaminus—Kuper—Thetis Islands.....	1912	3½	4	7½	5	
"	Saanichton—James Island.....	1912	3½	1	4½	2	
"	Sydney and Sydney Island.....	1910	3	3	6	2	
"	Bamberton Works, Keatings Branch.....	1914	.....	1	1	1
Yukon.....	Ashcroft—Dawson and Boundary.....	1899-12	1,777	1,777	78	78,045
"	Ashcroft—Ques-nelle (local wire).....	1878-87	215	.....	215	.....
"	Ashcroft—Lillooet Branch.....	1896	67	.....	67	12
"	Lillooet—Pioneer Branch.....	1912	66	.....	66	15
"	Lillooet—Lytt-on Branch.....	1913	49½	.....	49½	12
"	Ashcroft—Savonas Branch.....	1914	40	.....	40	5
"	150 Mile House—Quesnelle Forks.....	1902	89	.....	89	5
"	150 Mile House—Bella Coola Branch.....	1912	329	.....	329	28
"	Quesnelle—Barkerville Branch.....	1887	61	.....	61	5
"	Hazleton—Prince Rupert Branch.....	1901-07	218	.....	218	22
"	Terrace—Stewart Branch.....	1910-11	174	.....	174	8
"	Queen Charlotte Island Line.....	1913-14	123	.....	123	13
"	Hootalinqua—Livingstone Creek, Y. T. Branch.....	1907	70	.....	70	2
"	Ashcroft—Highland Valley.....	1916	30	.....	30	5
	Total.....		11,711½	336	12,047½	1,106	448,797

TELEGRAPH SYSTEMS OF THE DOMINION.

As a matter of general interest, pursuant to the statement submitted last year, the latest figures to hand showing the extent of telegraph lines in operation in the Dominion are as given hereunder.

Canada.	LENGTH OF LINES IN MILES.				LENGTH OF CONDUCTORS IN MILES.				No. of Offices
	Aerial.	Under-ground.	Sub-marine.	Total.	Aerial.	Under-ground.	Sub-marine.	Total.	
1917-1918									
Great North Western Telegraph Co.	10,064	7	13	10,084	31,357	192	78	31,627	
Canadian Pacific Telegraph Government Telegraph service	14,617	23	95	14,735	106,143	820	227	107,190	1,519
Grand Trunk Pacific Telegraph	11,711½		336	12,047½	11,711½		336	12,047½	1,106
	5,279	1	1	5,279	19,525	18 25	2 19	19,545	279

REVENUE AND EXPENDITURE.

The revenue and expenditure for each of the Government lines in the several districts hereinbefore mentioned, are given in the following table:—

1917-1918.	Expenditure.	Revenue.
	\$ cts	\$ cts.
Lower St. Lawrence and Maritime Provinces—		
Anticosti lines	9,267 02	1,521 99
Bay of Fundy	3,107 45	1,188 42
Cape Breton	37,252 19	5,855 76
Cape Ray (subsidy)	250 00	
Escuminac	2,168 78	869 96
Father Point (subsidy)	750 00	
Île aux Coudres (subsidy)	200 00	
Magdalen Islands	5,148 60	2,439 67
North Shore, east of Bersimis	28,674 68	8,827 41
North Shore, west of Bersimis	21,193 03	2,386 30
Orleans telephone	1,840 25	569 45
Quarantine system	4,822 51	118 05
Quebec County Lines	5,244 56	1,279 11
Prince Edward Island and Mainland (subsidy)	13,893 32	
Cable ship <i>Tyrstan</i> Maintenance	57,236 75	
Generally—		
Gulf and Maritime Provinces	2,741 16	
Timiskaming District—		
Telephone line	3,288 92	362 05
Ontario—		
Pelee Island telephone	1,574 42	169 85
North West Lines—		
Saskatchewan	59,195 38	8,441 55
Alberta	78,037 55	18,761 95
British Columbia—		
Mainland	78,488 33	30,257 37
Vancouver Island	98,761 90	37,043 14
Yukon—		
Ashcroft—Dawson	219,068 55	85,466 72
Telegraphic service generally	703 12	
Total	732,138 47	205,558 75

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DEPARTMENTAL TELEPHONE SERVICE.

Up to date of this report (April 1, 1918) the telephone connections with the central office of the Bell Telephone Company at Ottawa, listed as chargeable to the special appropriation, numbered 1,270, the annual charge for which amounts to \$50,252.40. The connections are distributed amongst the several departments, as hereunder.

Department.	NO. OF TELEPHONES.		Total.	Cost per Annum.
	Offices.	Residences.		
				\$ cts.
Agriculture.....	41	12	53	2,755 00
Auditor General.....	14	2	16	771 00
Canada Food Board P. B. X.....	32		32	1,554 00
Census.....	1		1	80 00
Civil Service Commission.....	5	4	9	427 00
Clerk of Crown in Chancery.....	1	1	2	85 00
Conservation Commission.....	5	1	6	375 00
Customs.....	25	4	29	1,217 00
Dominion Archives.....	2	2	4	185 00
Dominion Police.....	16	5	21	850 00
Exchequer Court.....	2	1	3	145 00
External Affairs.....	12	3	15	698 00
Finance.....	3	6	9	370 00
" P. B. X.....	31		31	1,650 00
Fuel Controller.....	2		2	96 00
House of Commons.....	16	1	17	685 00
Immigration and Colon'n.....	10	3	13	570 00
Indian Affairs.....	13	2	15	591 00
Inland Revenue.....	15	4	19	793 00
Interior.....	116	10	126	5,584 00
Justice.....	39	15	54	2,249 50
Labour.....	5	4	9	445 00
Library of Parliament.....	3	2	5	185 00
Marine.....	20	7	27	1,160 00
Militia and Defence.....	18	15	33	1,622 00
" P. B. X.....	234		234	9,568 50
Military Hospital Commission.....		1	1	40 00
Military Ser. Council P. B. X.....	12		12	1,107 40
Mines Department.....	22	1	23	1,017 00
" P. B. X.....	36		36	1,349 00
Mounted Police.....	4	3	7	280 00
Naval Service.....	25	7	32	1,366 00
Northwest Territories.....	1		1	35 00
Patriotic Fund Committee.....	1		1	80 00
Post Office.....	42	9	51	2,092 00
Printing and Stationery.....	20	11	31	1,283 00
" P. B. X.....	49		49	1,143 00
Privy Council.....	12	4	16	702 00
Public Works.....	68	24	92	4,106 00
Railways and Canals.....	25	13	38	1,717 00
Rideau Hall.....	5	6	11	460 00
" Private Line.....				123 00
" P. B. X.....	18		18	1,146 00
Secretary of State.....	14	5	19	856 00
Senate.....	15	4	19	812 00
Supreme Court.....	2		2	80 00
Trade and Commerce.....	13	4	17	750 00
War Purchasing Commission, Private Branch Exchange.....	9		9	988 00
	1,073	197	1,270	56,252 40

CAPE BRETON LINES.

The various lines have worked satisfactorily and with little interruption throughout the year. There has been no additional mileage and no changes in staff. Amounts for repoling and general repairs were voted as follows:

North River Bridge loop	}	\$1,400
Marion Bridge-Sydney		
Louisburg-Main-à-Dieu	}	\$1,600
Big Bras d'Or-Upper Kempt Head		
Leitehes Creek-Sydney	}	\$1,600
McCormicks-Brook Village		
aud Whycocomagh	}	\$3,400
Gilliesville-South Side		
East Bay	}	\$3,400
Eskasoni-Grand Narrows		
Grand Narrows-Shenacadie	}	\$3,400
Big Bras d'Or-Englishtown		
Louisburg-Gabarus	}	\$3,400
Gabarus-Marion Bridge		
Gabarus-Enon	}	

The work was carried on under the supervision of the general repairers of the respective sections. The revenue shows an increase of \$1,218 over that of last year.

BAY OF FUNDY.

All land lines have been free from interruptions during the year, except a section of the lines at Grand Harbour consisting of six poles which went down during a gale on October 30-31, but the poles were reset without delay, and there has been no further interruptions on this Flags Cove-Seal Cove telegraph line throughout the year.

On August 11th, cables number two and one, Whale Cove-Meadow Brook, and Longs Eddy-Herring Cove, developed leaks. The *Tyrian* arrived September 8th and found a bad leak at Duuns Beach, Campobello, on cable No. 1 in a splice underneath the cable hut. Mr. McDonald also took out a bad leak in cable No. 2 at Whale Cove at high water mark where the armour had been crushed, the core was exposed through a split in the rubber insulation, this cable would work with the telephones, but only for a few minutes using Morse, the reason I believe, was on account of the electrolytic action caused by the fishermen throwing pickle on the beach where the cable runs by a fish-house door, when the telegraph current was put on caused the copper to corrode and throw a short.

All lines worked well up to December 15th, when interruptions occurred on Three-Sister Island-Gannet Rock, and Duck Island-Nantucket cables both being broken, the former about three-quarter mile from Gannet, and the latter mid-way between the islands. The *Tyrian* completed repairs on Gannet Rock 1st March and Duck Island on 27 March. White Head-Cheneys Island cable reported interrupted on the 21st March, was also repaired at this time.

Cable No. 1 Longs Eddy-Herring Cove was reported heavily grounded on January 21st was restored to working order by Mr. McDonald who found a ground in the cable hut at Herring Cove.

The *Tyrian* left here on March 27th and all cable lines are working good.

The Seal Cove-South Head, and Big Wood Island land lines will need some attention in the way of insulators; and one or two poles which are badly decayed will need to be replaced in the course of the summer.

All lines and cables in this district are working well at the present time.

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MAGDALEN ISLANDS.

The mileage is the same as last year; no new offices have been added except a few private connections:—Dominique Arseneau (agent for the Gorden Pew fisheries) connects at Father Turbide, Mr. Arseneau pays when he uses the line; another box was put at Messrs. Wm. Leslie and Co. who bought Mr. Ballantyne's telephone set. Messrs. Leslie has the connection at my office and Mr. Ballantyne's line formerly connected here is presently unoccupied but demand for the use of this line has been granted Mr. F. W. Leslie who will soon have a connection also to my office. Another private attachment was also made at Mr. Brasset sub-agent for La Banque Nationale.

Meat Cove cable was interrupted October 11, but was repaired by the S.S. *Tyrian* October 27. Again December 7, the Meat Cove cable was interrupted and has remained so. The wireless telegraph is handling the traffic but useless to say that a cable to the mainland principally to Prince Edward Island would be more advantageous.

The Brion island cable has been working well all the year round. It is indeed a great thing for the fishermen to have this telephone connection in good condition, this island being one of our greatest fishing ground.

The Entry island line has been in great working condition except for a month when a gale of wind with thunder and lightning caused trouble which has been impossible to locate yet. The general repairer and linemen are doing everything to clear up the situation and it is expected good communications will soon be established.

Notwithstanding war conditions the traffic is increasing, we have double the business we had when war started that is to say the revenue is twice larger.

There is now a large demand for connections to the mainline, these additional connections must of course add a surplus of work besides every new connection crowds the present system which is already overtaxed and unless a central is established with a bigger staff with better wages given, any further connection of any kind must absolutely be limited if any sort of public satisfaction can be expected.

ANTICOSTI ISLANDS.

No additional mileage since last report; Fox Bay Station still closed during winter months, but in connection by telephone with Heath Point office during the fishing season; from thence, business is transmitted on telegraph line.

Last season, as per agreement with the Department, arrangements were made to build four new camps along the island for the use of repairers, which camps are of the utmost urgency; owing to inability to get suitable boards down here, we were unable to have these camps built. I hope the department will be able to forward, this season, to South Point (being central place where camps have to be erected) the boards, so as to enable us to erect these camps.

Temporary repairs were made to old camps so as to shelter repairers during last winter. However, windows, doors, sashes and frames were made ready and as soon as the boards are landed at South Point, carpenters will be sent down to build these camps.

Stormy weather has again played havoc with our telegraph poles. A few have been washed to sea and a good number fell on the beach. I am pleased to say that our land line has been the whole year round in good working order with the exception of an interruption between Heath Point and South Point stations which lasted from October 23rd to November 13th.

The Gaspé.—South West Point cable, I am glad to say, is working very well ever since repaired by the staff of cable-ship ss. "*Tyrian*" in May, 1913.

The North Shore cable became again interrupted on October 15th, 1917, and is still out of working order. The cable-ship "*Tyrian*" was over last fall, but owing to

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rough weather and lateness in the season, she was compelled to go back without a chance to repair it.

The number of telegraph stations is the same as reported in my last report, viz.: eight in number. All the members of the staff are the same.

NORTH SHORE ST. LAWRENCE LINES.

East of Bersimis.

The line worked continuously, the interruptions being few and of short duration and local character.

No change of importance has been made in the agencies during the year, Miss Mary Chevalier of Bonne Espérance died in January 1917 and was replaced by Miss Hella Chevalier.

The accommodation office at Shelter Bay, 9 miles east of May Islands was temporarily closed on May 10th (1917) and accommodation office at Manitou 3 miles west of Rivière aux Graines has been reopened on October 21st 1917.

A new telephone line was built at Natashquan in the month of September, 1917, to establish communication between the two villages there, a distance of five miles. In October 1917, at Aguanus one mile and a quarter of telephone line was erected on the existing poles, to accommodate the people residing on the west side of the river.

West of Bersimis.

General repairs were carried on throughout this division, the various lines working satisfactorily. No additional mileage and no change in staff. The revenue shows a slight increase over last year.

QUEBEC COUNTY LINES.

The revenue shows an increase of 40 per cent over the previous year. The lines worked satisfactorily and were maintained in good repair.

QUARANTINE LINES.

As in previous years, many of our cables were broken by ice and other causes.

The Crane Island-Montmagny cable raised on November 15, 1916, was relaid on May 11, 1917, and worked well throughout the season.

Under special instructions we proceeded to raise this cable on November 26, 1917, which we were unable to do owing to weather conditions and after much battling with the ice succeeded in reaching the St. François wharf with the bateaux and tug where they remained for the winter. On November 17, the cable was carried away by a gas buoy drifting with the ice.

The Grosse Isle-St. Margaret island cable broken in December, 1916, was repaired in May, 1917. The Ile aux Réaux-Grosse Isle cable was interrupted on December 22, 1916, and being badly damaged throughout its length we reeled it up and repaired it as well as possible and relaid it on May 19.

The St. François-Ile aux Réaux cable was interrupted on December 22, 1916, was repaired in May, 300 feet of new cable having been added.

One of the Ange Gardien telephone cables was interrupted on January 5, 1917, and repaired in May, 150 feet of new cable being added near Ange Gardien. On November 18, the extension of the telephone line from Orleans Island to Grosse Isle was commenced, two spare cables north and south of Ile aux Réaux and a second wire strung on the Réaux pole line completing the circuit to Grosse Isle where connection was made with the Crane Island cable.

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In July and August, 75 new cedar poles were planted on the Ste. Famille section and east of the St. Jean office to replace those broken by sleet storm in March.

During the month of April, the military line was extended from Maheux Bay to St. Laurent wharf, this line being under the control of the Naval Department.

On June 1st, the Agency at Ste. Famille was transferred to Mr. Joseph Premont from Mr. Nap. Pichette who resigned.

PELEE ISLAND.

1st. Re-Cable: When repairing in June 1917, we found the cable damaged, but not parted, by ice shoves about six to eight miles off the mainland shore, where the water is about fifty feet deep. After being repaired it worked well until damaged by vessels on October 24, repair of such damage being completed November 12; it again worked all right until December 9, when it ceased working during a terrific storm when some vessels are supposed to have caught it in their anchors and broken it. By instructions from the Department, I am preparing to repair it as soon as ice and weather permit.

2nd. Re-Point Pelee branch: The Mersea Municipal Telephone system had this branch connected with their system through the Bell Telephone Coy's wires at Leamington during the month of December 1917.

NORTH WEST LINES, SASKATCHEWAN.

There has been a noticeable improvement over previous years in the proper maintenance of the lines, partly due to the keen interest shown by all agents and most of the linemen, as well as to the C.P.R. Dynamo at Saskatoon, which proved most beneficial in attaining this gratifying result.

A few interruptions occurred on the Saskatoon loop, but less frequently and of shorter duration than formerly.

On the Moose Jaw-Wood Mountain line, interruptions were frequent during the month of March, business has been very satisfactory on the whole, especially in view of existing conditions.

Shifting line to roadway.—The sum of \$5,000 was appropriated for the purpose of shifting the line to road allowances, of which \$2,662.88 was expended in removing about 15 miles in the vicinity of Eagle Creek. This work had to be done in the latter part of November when the snow was on the ground, and this accounts for the expenditure being somewhat higher than it otherwise would have been.

Repairs and improvements.—Considerable repairs and improvements to buildings have been made at several points, and out of an appropriation of \$2,400 for the purpose, \$1,984 was spent as follows:—

Green Lake \$100; Onion Lake \$300; Glaslyn \$349.22; Willow Bunch \$87.75, and Battleford \$1,147. Of this latter amount, \$797 was used for the construction of an office for the District Superintendent, and the balance in painting the whole of the buildings on the premises.

Wood Mountain line—re-poling.—An appropriation of \$5,000 was made for the purpose of re-poling the Wood Mountain—Willow Bunch line, of which \$4,681.65 was expended. This amount was only sufficient to purchase the poles and to have same hauled to the ground. A further sum will be required to complete the work.

Battleford—Isle-la-Crosse completion.—The sum of \$811.71 was expended out of an appropriation of \$1,000 to complete the line into the village.

All the high poles were erected and everything else put in readiness; there remains now only the stringing of the wire across the rivers. Owing to the wire, insulators and brackets reaching destination too late to catch the last freighters for the North, it was found necessary to postpone the final work until the rivers open up.

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Saskatoon loop.—The construction of the Saskatoon loop was found to be impracticable on account of the lateness of the season when the money for this purpose became available.

ALBERTA.

No additional mileage.

The usual general repairs were performed and the various lines gave efficient service.

BRITISH COLUMBIA.

Mainland.

Business has been very satisfactory, although not showing quite as large an increase as last year. There were 53,013 messages sent and 80,568 messages received, with total revenue \$30,270.53. This is gratifying, considering that during the year we have closed up twelve telephone offices between Enderby and Vernon and Vernon and Penticton in the Okanagan valley, as per agreement with the Okanagan Telephone Company in April 1917.

Thirty-one miles of new lines were built during the year. There still remains fourteen miles of poles to be set on the Arrow lakes, the poles having been purchased and delivered during the year 1917-18. On account of the appropriation not being available until October, the whole of this work could not be carried out, as the winter weather in that section sets in early and the work had to close down in December.

There is fourteen miles of wire yet to be strung in on the Waneta-Pend D'Oreille line, the wire not being available last fall. This work will be completed just as soon as the wire arrives, and the balance of the appropriation is available.

Thirty-three miles of line was repoled, fifty-two miles of pole line reset.

KAMLOOPS TO KAMLOOPS SECTION—464 MILES.

(Via Nicola—Penticton and Vernon.)

The line from Kamloops to Merritt, 61 miles, is in good shape and has caused very little trouble during the year, as it was all reset in 1916-17, and well guyed. At Merritt and Nicola exchange, repairs and improvements were made to meet the services at these points. The section from Merritt to Princeton seventy-six miles was to have been rebuilt right through, but on account of the lateness of the season before the appropriations were available it was only repoled from Princeton to Otter Valley nineteen miles. The balance of this section will be required to be rebuilt this year as the pole line is in very bad shape. The old poles having been reset twice already and only were twenty five foot in the first place, are now too short to use again. At Princeton on the local exchange several improvements and extensions were made to meet the demand for local service. At Copper Mountain, fourteen miles south of Princeton, a local exchange was established during the year with seventeen subscribers and one pair extra wires strung between Copper Mt. and Princeton for local use. Business has been very satisfactory at both Princeton and Copper Mountain.

The section between Princeton and Penticton is in splendid shape, having been rebuilt in 1916-17.

At Keremeos an extension was built during the year to Similkameen, ten miles, and local improvements and extension on the Keremeos local exchange.

The section from Vernon to Kelowna has been thoroughly overhauled, during the year, all poles that were fit were reset and new poles supplied where necessary. The spur, three miles to Okanagan Landing and the spur two miles to Okanagan Centre, and the branch line three miles to Okanagan Mission were taken down and the poles

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used in the rebuilding of the main line. The commission offices at these three points were closed as the Okanagan Telephone Company are now able to give them all the service required and connection is now made at Vernon to these points from the Government system.

KAMLOOPS—MOUNT OLIE SECTION.

(North Thompson—86 miles.)

Business has been very good from the offices on this section. In the month of September, a severe storm struck a portion of the line near Louis Creek and took down three miles of pole line. Repairs were promptly made and outside of this trouble only the ordinary repairs were necessary. Next year the upper portion of this line between the Barriere and Chu Chua will require overhauling and poles reset.

HEFFLY CREEK—UPPER LOUIS CREEK SECTION—37 MILES.

During the year, the line was extended to Sullivan Valley (a spur six miles) and also to Dominion Forestry Cabin. Several more offices were opened during the year. The only trouble we had over this section was by windfalls, the line running through timber for a considerable distance.

KAMLOOPS TO SAVONA SECTION—25 MILES.

As this section runs through open country most of the way very little trouble has been experienced during the year, and the line has been working very satisfactorily. Connection is made at Cornwallis with the Dominion Forestry Branch line to Green Mountain.

KAMLOOPS—GOOSE LAKE SECTION—14 MILES.

Important connection is made at Goose Lake office with the Dominion Forestry Branch line to Fish Lake at which point we have opened an office. This line is in very good shape as it was only built in 1916. The settlers south of Goose Lake are very anxious to have the line extended to Long Lake District. An appropriation has been asked for to have the work carried out this year if possible.

KAMLOOPS—ROSE HILL SECTION—14 MILES.

All the poles on this line were reset this past year, the line well guyed, and put in good shape.

KAMLOOPS—REVELSTOKE SECTION—218 MILES (via Chase, Salmon Arm and Sicamous).

This section is one of the most difficult to keep up that we have on our system. After it leaves Chase it follows a trail on the northside of Shuswap Lake to Celista, then crosses the lake by submarine cable to Sorrento. After the line leaves Enderby there is very little of this section that there is a waggon road to follow. There has been quite a number of snow-slides to contend with between Taft and Revelstoke, but in face of these difficulties there has not been very many bad interruptions and what there were, were of short duration. To enable us to give a first class service between Kamloops and Revelstoke it will be necessary to extend the metallic circuit from Malakwa to Sicamous to overcome the heavy telegraph induction we get on our single grounded line from the C.P. Telegraph circuits. We were able last year to metallic

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it from Revelstoke to Malukwa, which made a great improvement, and we hope we will be able to extend it through to Sicamous this year. Last fall, the section along the east side of Mara Lake was poled with thirty foot cedar poles and the wire was transferred from the trees, where it was placed when the line was built through in 1915, as, at that time, there was no road but it has since been built.

WHITEMANS CREEK SECTION—30 MILES.

This branch line which is situated on the west side of the Okanagan Lake is connected to the main system at Kelowna. This line has proven to be a great convenience to the fruit growers and shippers on that side of the lake, as they have to depend entirely on boat service for their mail.

PENTICTON—MIDWAY SECTION—93 MILES—(via Osoyoos).

This section of the line runs south from Penticton to Osoyoos at the boundary line, where connection is made with the P.T. & T. lines throughout the State of Washington. At Midway we connect to the B.C. Telephone Co.'s lines through to the Kootenay. There has been a marked improvement in business from the offices on this line during the year.

MERRITT—MAMETTE LAKE SECTION—37 MILES.

This extension which includes Canford Spur was built through from Merritt as far as Steffens ranch in 1916-17. The construction was completed to Mamette Lake P.O. this past year. Three more offices were opened. This line serves a very important district and brings the settlers in direct touch with Merritt and other important points on our system.

NELSON—TRAIL SECTION—61 MILES.

This line is a very important branch south of Nelson running through a timber and mining district, as far as Trail and serves a very useful purpose linking up the several intermediate offices with the B.C. Telephone Co. system at these two points. Very satisfactory business was received during the year. An extension from Waneta, 14 miles, east up the Pend D'Oreille Valley was constructed last fall, but as the wire has not yet arrived, no new offices have yet been opened. As soon as completed there will be five additional offices, therefore, a considerable increase in revenue expected.

PROCTER—CRESTON—YAHK SECTION—90 MILES.

During the year, this line was completed right through to Yahk where connection is made with the Kootenay Telephone Co. linking up the Nelson and the Cranbrook districts. Five new offices were opened. The whole line right through from Procter to Yahk is in good shape and a very fair revenue received, considering the sparsely settled district along the Kootenay Lake between Procter and Creston.

THE ARROW LAKES SECTION—85 MILES.

The line extends along the Arrow Lakes from Nakusp to Edgewood built in 1913 and from Castlegar to Deer Park built in 1916-17. The line was also completed through from Deer Park to Renata last June and offices opened at these points.

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Last fall, construction work was commenced on the intervening link between Edgewood and Renata twenty-nine miles, but only fifteen miles of pole line was completed, as the work could not be undertaken until late in October, the appropriation not being available. The balance of the line will be completed this year and will link up two important sections of our system and will give Nakusp and all intermediate offices connection direct through to Nelson and district. The telephone is a very important utility in a district such as the Arrow Lake, where they have to depend on steam boat service, and where the lakes often freeze up for several weeks during the winter months, but for the telephone service the people would be isolated entirely.

GOLDEN-WINDERMERE.

New telephone and telegraph rates were established last June throughout the districts which have been adopted by the Department. The telephone rates are based on air line mileage and a minimum of a three minute conversation with a minimum of 20 cents call, and 5 cents each extra minute for a distance up to twenty-four miles; for twenty-five miles 25 cents, and for every seven miles over twenty-five miles add 5 cents up to fifty miles; over fifty miles add 5 cents for every ten miles. This makes a very fair rate and is the same rate as adopted by the Okanagan Telephone Co., so that there is not a confliction of rates between the two companies between which there is considerable transfer of business.

VANCOUVER ISLAND.

The revenue shows an increase of 30 per cent over the previous year. No additional lines were constructed.

YUKON.

The work on this system was confined to the usual overhauling by the general repairers. No additional mileage.

Cable Ship "Tyrian," Operations 1917-18.

On April 1, 1917, had 5-50 knots deep-sea second-hand, and 7-50 knots new deep-sea cable on hand. Laid as follows during season in knots: April 2, Whitehead Island, 0-05; April 9, Herring Bay, 0-28; April 16, Duck Island, Nantucket, 1-11; August 18, Port Hood, 0-17; August 30, Harrington, 2-89; September 13, Whale Cove-Meadowbrook, 0-10; October 27, Meat Cove-Old Harry, 0-06; November 13, Long Point, 1-21; February 28, 1918, Gannet Rock, 0-20; March 16, Eastport-Owens Head, 0-46; March 21, Johnston's Cove-Deer Island, 0-58; March 30, Seal Island, 0-04; March 31, Coffin Island, 0-41. Cable on hand, 5-34.

Shore End Cable.—April 1, on hand, 1-38; October 27, laid Meat Cove S.E., 0-05; March 16, picked up Eastport-Owens Head, 0-13; March 27, laid Lubec channel, 0-13. April 1, cable on hand, 1-33. Four-core cable on hand, 1-19. Two-core cable on hand, 1-50.

COLLECTION OF REVENUE.

By E. T. SMITH, COLLECTOR OF PUBLIC WORKS REVENUE.

For the fiscal year ended March 31, 1918, the large deficit in public works revenues dealt with by this office calls for an explanation. The revenue accrued from slides and booms was \$40,122.87 less than for the previous year. In the year 1916-17, the revenue was \$80,150.45 from the St. Maurice works. On the 18th February, 1917, these works were leased to the St. Maurice River Boom and Driving Association of Three Rivers for \$1 per annum. They were to operate and maintain the works, collect the tolls established by Order in Council, and pay over to the Government any surplus of revenue over the expenditures mentioned. At the close of their financial year, their accounts showed that there was due the Government \$30,910.33 for the year 1917-18, leaving, apparently, \$49,240.12 of a deficit, but it must be borne in mind that the \$30,910.33 was net revenue after expense of maintenance, etc., had been paid, while in former years we only showed gross collections, and no deduction for cost of operation. The company, however, contests our claim for this \$30,910.33 on the ground that they have constructed certain works for which they should be allowed \$20,073.25. It is a condition of the lease that any extensions or improvements made by the company were first to receive the approval of the Honourable the Minister of Public Works, and the cause of the dispute lies in this condition because the works for which they claim to be allowed credit to the above amount of \$20,073.25, were constructed by the company, although notified that the cost of the same should not be deducted from the tolls they were to collect. It may be only proper to state here that in 1916-17 we had a surplus of \$28,189.26 and in the previous year also a surplus of \$19,812.10, and the larger surplus of 1917-18 was principally due to the small amount required for repairs owing to the good condition of the works.

On the whole, excepting in the St. Maurice district, where the bulk of the wood is used for pulp and paper, it is not surprising that revenue from slides and booms should be smaller than it really has been for the last two years when we consider how difficult it was to obtain man labour for production in the woods and driving the streams. Private boom companies have been obliged to increase their rates very greatly in order to make ends meet. We are, unfortunately, not in the same position as our rates of tolls are fixed, and as it has not been the practice to display in this report the actual cost of operation as well as of revenue where works have in previous years yielded large profits, these would not be taken into account when considering the losses consequent upon war conditions which have prevailed during the past four years. Many large concerns have gone entirely out of business for the time being because they could not get satisfactory labour even at the high rates of wages and the high cost of subsistence which have prevailed during that period.

In the matter of rents and sales accrued during the year, there was a deficit of \$61,858.92, but the collections showed an increase of \$11,476.07. This increase was due to considerable large sums received in final settlement for properties expropriated in Ottawa. The decrease in the amount accrued is principally due to the properties which formerly yielded considerable revenue having been taken over for Government use, and partially to the fact that in the previous year there was quite a large sum which came to account in the final settlement for many of these expropriated properties.

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The following is a brief summary of the revenue dealt with by this office:—

During the year 1917-18, the revenue accrued from public works shows a decrease of \$103,416.01, being \$188,900.10, while in the preceding year it was \$292,316.11. The collections also show a decrease of \$67,912.39, being \$188,877.18, while in 1916-17 they amounted to \$256,789.57.

The revenue accrued from slides and booms was \$57,073.14, or \$40,122.87 less than for the year ended March 31, 1917. The collections were \$26,187.92, or \$70,954.24 less than for the previous year. The outstanding uncollected revenue from slides and booms is \$30,885.22 greater than in 1916-17.

The graving docks yielded \$56,484.16, or \$1,565.78 more than in 1916-17.

Sales and rents collected amounted to \$106,205.10, being \$11,476.07 more than in the preceding year.

I now submit the particulars in detail, relative to the several services under their respective heads.

SLIDES AND BOOMS.

OTTAWA DISTRICT.

The tolls charged up amounted to \$25,877.65, or \$9,526.68 more than in 1916-17. The number of sawlogs that passed through the works was 3,575,739, or 1,059,364 pieces more than the previous year. Of square timber there was none.

All the revenue accrued during the year was collected. Of the dues accrued since July 1, 1889, when this department took over the collection, there remains uncollected \$9,161.61. Of the dues accrued before July, 1889, there still remains \$56,805.65, all of which should be written off.

The accounts for the Ottawa district stand thus:—

Dues accrued during the year to March 31, 1918..	\$25,877 65
Outstanding, March 31, 1917..	9,200 46
	<hr/>
Collected..	\$35,078 11
	25,916 50
	<hr/>
Balance outstanding, March 31, 1918..	\$9,161 61
	<hr/>
Being composed of—	
Dues of 1889-90..	\$6,903 05
" 1890-91..	28 42
" 1892-93..	379 80
" 1896-97..	196 71
" 1903-04..	637 37
" 1911-12..	723 63
" 1912-13..	251 15
" 1913-14..	25 31
" 1914-15..	16 17
	<hr/>
	\$9,161 61

Balance of dues outstanding prior to July 1, 1889, when this department took over the collection was \$56,805.65.

Herewith are statements in detail.

No. 1.—Statement of the number of pieces of square timber, sawlogs, etc., which passed through the Ottawa works during the year ended March 31, 1918.

No. 2.—Statement of dues accrued from each of the slides and works of the Ottawa district during the year ended March 31, 1918.

Apart from the two accounts amounting to \$1,044.68, all the revenue from the Ottawa slides and booms, since I took charge in 1889, has been collected, excepting such as should have been written off long ago, or a few items in dispute which I expect will have to be forgiven.

The number of sawlogs which passed through the works during the past year was 1,059,364 more than during the previous season, and there were 8,862.32 cords of pulpwood less than in 1916-17.

ST. MAURICE DISTRICT.

The revenue accrued from this district was \$30,910.33, being \$49,240.12 less than in 1916-17. The apparent discrepancy between the decrease in revenue and the large quantity of logs passed through the works is explained at the beginning of this report. With the exception of an item of \$3,709.62 dues of 1909-10, disputed, all the dues accrued in this district since I took it in 1892 have been collected until this year when the above \$30,910.33 is also disputed.

The amount outstanding prior to July 1, 1892, remains unchanged, viz., \$14,481.49, and should be written off.

The number of pieces of all kinds of timber that passed through the works was equivalent to 10,658,533 pulp and sawlogs, or 186,542 pieces less than the previous year.

NEWCASTLE DISTRICT.

The dues accrued from this district amounted to \$8.74, being \$189.35 less than the previous year, which has been collected at this date.

The totals outstanding on March 31, 1918, amounted to \$3,565.63, of which \$3,521.19 should be written off in accordance with a judgment of the Exchequer Court. \$35.70 will also have to be forgiven, the debtor being hopelessly insolvent at the time of his decease.

SAGUENAY DISTRICT.

The dues accrued during the year ended March 31, last, amounted to \$276.42, all paid but \$20, being \$220.08 less than in 1916-17.

GRAVING DOCKS.

ESQUIMALT GRAVING DOCK.

The revenue from this service was \$15,541.65, being \$1,930.43 less than the previous year (*see* statement No. 3). Of the 109 days the dock was occupied during the year, it was used for 27 days by H. M. and C. G. vessels.

The total number of vessels docked was 19, of 52,550 tons.

LEVIS GRAVING DOCK.

The revenue was \$3,013.04 more than for the year 1916-17, being \$29,228.15 (*see* statement No. 4). During the season of navigation, the dock was occupied for 180 days by 20 vessels of 41,665 tons.

During the winter of 1917-18, it was occupied by ss. *John S. Thom* and *Dredge Fruhling*.

KINGSTON GRAVING DOCK.

On May 1, 1910, the Kingston Shipbuilding Co. took possession of this dock under lease, the rental of which, \$10,000 per annum, was payable at the end of each year. One of the conditions of the lease was that they should erect and keep in running order a repair plant, but this business, they claim, did not come up to expectations. On the contrary, it resulted in serious losses, and rent was reduced to \$5,000 per annum from the 1st May, 1917.

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SELKIRK REPAIR PLANT.

During the last fiscal year, the revenue was \$1,714.36, being \$533.17 more than the previous year. The slip was occupied for 67½ days of the season of navigation by 40 vessels of 4,750 tons (*see* statement No. 5).

RENTS.

During the year 1917-18 the revenue accrued from Government properties has been, from rents, sales and interest, \$75,342.80, or \$64,858.92 less than the previous year.

The account stands thus:—

Balances from previous years.....	\$ 69,159 20
Accrued, year ended March 31, 1918.....	75,342 80
	<hr/>
Making.....	\$144,502 00
	<hr/>
Collected.....	\$106,205 10
Balance, March 31, 1918.....	18,954 89
Written off.....	19,342 01
	<hr/>
	\$144,502 00

The amount written off, namely, \$19,342.01, is composed of commission on collection, cost of maintenance, allowed in lieu of repairs, or cancelled on account of poverty, as well as a number of items which have been on the books for years, some of them dating back to 1880, the parties owing the same have disappeared through death and otherwise and leaving no tangible assets.

The amount apparently uncollected, \$18,954.89, seems to be large, but \$10,600.62 of this is composed of two old items, one for Dunnville Bridge, Ont., and the other the Dundas and Waterloo road, which business came to this department from the Inland Revenue Department in 1909. These items will be carefully looked into and possibly before the end of the current year some decision may be arrived at in regard to them. As for the balance, \$8,354.27, much of this has been paid or settled since the close of the last financial year.

In the administration of these properties there are serious obstacles to obtaining as favourable results, rentals, etc., as compared with the same property in the hands of private individuals. The latter can make terms, periods of leases, etc., as they see fit, but we cannot give any assurance in most cases for more than a thirty-day-term, as we do not know when some of these properties may be required for Government purposes. Hence, we cannot expect to obtain as good rentals as parties who can give a lease for one or more years, and I may say here that this condition makes it difficult for our agents to retain the tenants we may have. The four agents who look after the Wellington street property have done their work well, and I do not anticipate much loss of rent, except perhaps from unavoidable misfortune to some of our tenants.

The following is a summary of rents collected from public properties during the year ended March 31, 1918, viz:—

Hydraulic and other rents.....	\$ 3,554 50
Ottawa, Sussex street.....	2,161 00
" Egan Block.....	199 92
" Wellington street, north.....	72,578 13
Toronto Post Office site.....	7,186 83
Province of Manitoba.....	441 00
Victoria and Vancouver, B.C.....	1,537 50
Public Building sites.....	5,647 63
Sundry places.....	2,021 09
Sales and interest.....	2,382 50
Sand dredging.....	8,495 00
	<hr/>
	\$106,205 10

COMPARATIVE Table of Public Works Revenue accrued during the year ended March 31, 1918, compared with that of the Fiscal Year ended March 31, 1917, and amounts collected on account of same.

	Year ended March 31, 1918	Year ended March 31, 1917.	Increase, 1918.	Decrease, 1918.
	\$ cts.	\$ cts.	\$ cts	\$ cts.
Slides and Booms—				
Ottawa district.....	25,877 65	16,050 97	9,826 68	.....
St. Maurice district.....	30,910 33	80,150 45	.....	49,240 12
Newcastle district.....	8 74	498 09	.....	489 35
Saguenay district.....	276 42	496 50	.....	220 08
Net decrease, \$40,122 87.....	57,073 14	97,196 01	9,826 68	49,949 55
Graving Docks—				
Esquimalt, B.C.....	15,541 65	17,472 08	.....	1,930 43
Kingston, Ont.....	10,000 00	10,000 00	.....	.....
Levis, P. Q.....	29,228 15	26,215 11	3,013 04	.....
Selkirk repair slip, Man.....	1,714 36	1,181 19	533 17	.....
Haileybury slip, Ont.....	.....	50 00	.....	50 00
Net increase, \$1,565 78.....	56,484 16	54,918 88	3,546 21	1,980 43
Rents and Sales—				
Hydraulic rents.....	3,487 00	3,487 00	.....	.....
Minor public works.....	26 00	26 00	.....	.....
Other public properties.....	71,829 80	136,688 72	.....	64,858 92
Net decrease, \$64,858 92.....	75,342 80	140,201 72	.....	64,858 92
Accrued—				
Slide and boom dues.....	57,073 14	97,196 01	.....	40,122 87
Graving docks.....	56,484 16	54,918 38	1,565 78	.....
Rents and sales.....	75,342 80	140,201 72	.....	64,858 92
Net decrease, \$103,416 01.....	188,900 10	292,316 11	1,565 78	104,981 79
Collected—				
Slide and boom dues.....	26,187 92	97,142 16	.....	70,954 24
Graving docks.....	56,484 16	64,918 38	.....	8,434 22
Rents and sales.....	106,205 10	94,729 03	11,476 07	.....
Net decrease, \$67,912 39.....	188,877 18	256,789 57	11,476 07	79,388 46

No. 1.—STATEMENT of the number of pieces of square timber, saw-logs, etc., that passed through the Government slides and works on the Ottawa river and its tributaries during the fiscal year ended March 31, 1918.

Square timber.....	Pieces.
Saw-logs.....	None.
Boom and dimension timber.....	3,575,739
Railway ties.....	20,552
Fence posts.....	30,906
Telephone poles.....	11,142
	2,018
	<hr/>
	3,640,757

Also 26,462.4 cords pulpwood.

The revenue accrued on the above was \$25,877.65.

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No. 2.—STATEMENT showing the dues accrued on the undermentioned works on the Ottawa river and its tributaries during the fiscal year ended March 31, 1918.

Main Ottawa.....	\$ 1,806 93
Cheneaux boom.....	2,877 81
River Petewawa.....	3,863 36
Coulange.....	3,678 38
Dumoine.....	252 32
Black river.....	6,722 18
Gatineau.....	6,676 67
	<hr/>
	\$25,877 65

THE DRY DOCK AT ESQUIMALT, B.C.

No. 3.—STATEMENT of Dues and other charges collected during the year ended March 31, 1918.

Name of Vessel Docked.	Tonnage.	Period of Dockage.		Dockage Charges.	Other Charges	Total.
		From	To			
		1917.				
D. G. S. "Lilloet".....	574	April 2...	April 4...	300 00	4 80	304 80
SS. "Don Emelio".....	3651	" 10...	" 13...	565 10	12 00	577 10
SS. "Princess Charlotte".....	3844	" 20...	" 22...	392 20	.....	392 20
SS. "Prince Rupert".....	3379	" 23...	June 13...	5,626 00	224 80	5,850 80
D.G.S. "Malaspina".....	392	July 16...	July 20...	450 00	9 00	459 00
SS. "El Lobo".....	4800	Aug. 15...	Aug. 23...	1,216 00	38 20	1,254 20
D.G.S. "Galiano".....	393	" 27...	Sept. 1...	550 00	19 20	569 20
H.M.C.S. "Rainbow".....	1911	Sept. 17...	" 21...	486 65	5 40	492 05
SS. "Princess Charlotte".....	3844	" 25...	" 27...	392 20	12 60	404 80
SS. "Niels Nielson".....	5729	Oct. 12...	Oct. 25...	2,025 00	119 40	2,144 40
SS. "Princess Charlotte".....	3844	Nov. 10...	Nov. 10...	200 90	.....	200 00
SS. "Princess Charlotte".....	3844	" 25...	" 26...	200 00	25 20	225 20
SS. "Buyo Maru".....	2898	Dec. 21...	Dec. 22...	345 00	1 20	346 20
SS. "Adelaide".....	3090	Jan. 10...	Jan. 11...	200 00	6 00	206 00
C.G.S. "Malaspina".....	392	" 17...	" 22...	500 00	3 00	503 00
SS. "Charmer".....	1044	" 29...	" 29...	200 00	.....	200 00
D.G.S. "Galiano".....	393	Feb. 7...	Feb. 13...	550 00	13 20	563 20
SS. "Princess Charlotte".....	3844	March 4...	March 6...	392 20	13 20	405 40
SS. "Arabien".....	4714	" 9...	" 11...	435 70	8 40	444 10
	52,550	.....	.....	15,026 05	515 60	15,541 65

THE DRY DOCK AT LEVIS, P.Q.

No. 4.—STATEMENT of Dues and other charges collected during the year ended March 31, 1918.

Name of Vessel Docked.	Tonnage.	Period of Dockage.		Dockage Charges.	Other Charges.	Total
		From	To			
		1917		\$ cts.	\$ cts.	\$ cts.
SS. "Carib"	2,118	May 15	May 28..	1,231 24	7 25	1,238 49
Tug "Bartlett"	328	April 25.	May 12	1,050 00		1,050 00
SS. "McVettie"	2,046	Win ter.	Win ter.	823 00		823 00
Dredge "Fruhling"				200 00		200 00
Yacht "Courelette"			Win ter.	200 00		200 00
Dredge "Galveston"			Win ter.	800 00		800 00
Dredge No. 2, Grain Boat	1,474	April 25.	May 12.	50 00		50 00
SS. "Cartier"	556	April 25.	May 12.	1,100 00		1,100 00
SS. "Lady Grey"	738	May 15.	May 28..	650 00	2 50	652 50
SS. Schuilkil	2,440	July 20	Aug. 17..	2,277 20	41 40	2,318 60
SS. "Royal Transport"	4,652	June 21.	July 24..	4,405 12	12 50	4,417 62
SS. African Transport	4,482	June 15	June 21..	896 40	69 50	965 90
SS. Susquehanna	2,782	Aug. 19.	Aug. 27..	1,138 48	16 50	1,154 98
SS. "Kilbergen"			Entry fee.	200 00		200 00
Dredge "Ottawa"			Sundries.		29 56	29 56
SS. Lucerne	3,247	Aug. 28.	Sept. 27..	3,388 44	36 50	3,424 94
SS. "John S. Thom"			Entry fee.	200 00		200 00
Strs. "Levis" and "Lauzon"			Entry fee.	400 00		400 00
Str. "Polaris"	533	Sept. 29.	Oct. 23.	250 00		250 00
SS. "Sincoc"	913	Sept. 29.	Oct. 23	1,300 00	9 00	1,309 00
SS. Mahoning	2,189	Oct. 27.	Nov. 7.	1,150 24	64 00	1,214 24
SS. "Edmunton"	1,985	Nov. 3.	Nov. 9.	1,242 35	52 25	1,294 60
SS. "Saranac"	2,669	Nov. 4.	Nov. 21.	1,433 80	21 00	1,454 80
SS. "Druid"	563	Oct. 27.	Nov. 7.	700 00	16 00	716 00
SS. "Seneca"	2,669	Nov. 23.	Dec. 5.	1,433 80	10 50	1,444 30
SS. "Champlain"	522	Nov. 23.	Dec. 5.	750 00		750 00
SS. "Northern Light"	2,476	Dec. 5.	Dec. 6.	499 52	213 00	712 52
SS. "German"	2,548	Dec. 12.	Dec. 16..	496 96	128 25	625 21
Dredge "Fruhling"			Entry fee.	200 00		200 00
Dredge "Ottawa"			Sundries.		31 89	31 89
	41,665			28,466 55	761 60	29,228 15

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THE REPAIR SLIP AT SELKIRK, MAN.

No. 5.—STATEMENT of Dues and other charges collected during the year ended March 31, 1918.

Name of Vessel Docked.	Tonnage.	Period of Dockage.		Dockage Charges.	Other Charges.	Total.
		From	To			
		1917.	1917.			
Str. "Amisk".....	32	May 10.	May 11.	25 00		25 00
Str. "Grand Rapids".....	438	May 1.	May 14.	118 26		118 26
Str. "Rocket".....	56	May 19.	May 21.	25 00		25 00
Str. "Goldfield".....	56	May 21.	May 23.	25 00		25 00
Str. "Laura".....	30	May 21.	May 23.	25 00		25 00
Str. "Majestic".....	127	May 23.	May 31.	78 74		78 74
Str. "Launa".....	30	June 1.	June 2.	25 00		25 00
Bge. "Saskatchewan".....	219	June 1.	June 4.	59 13		59 13
Str. "Lady of the Lake".....	201	June 5.	June 16.	166 83		166 83
Launch "Victoria".....	278	June 19.	June 21.	35 00		35 00
Str. "Wolverine".....	278	June 29.	June 30.	55 60		55 60
Dredge 205.....	248	May 3.	May 4.	49 60		49 60
Two Mud Scows.....	160	May 3.	May 4.	32 00		32 00
Mud Scow for D. 204.....	60	May 7.	May 8.	25 00		25 00
Str. "Friday".....	26	May 5.	May 7.	25 00		25 00
Tug "Peguis".....	26	May 8.	May 9.	25 00		25 00
Mud scow D. 202.....	60	May 9.	May 10.	25 00		25 00
Str. "Grand Rapids".....	438	July 9.	July 9.	87 60		87 60
Str. "Lady of the Lake".....	201	July 12.	July 12.	40 20		40 20
Str. "Friday".....	26	June 28.	June 29.	35 00		35 00
Bge. Alexandra.....		Aug. 4.	Aug. 6.	25 00		25 00
Str. "Daisy".....	58	Aug. 7.	Aug. 8.	25 00		25 00
Str. "Tempest".....	75	Aug. 7.	Aug. 8.	25 00		25 00
Str. "Goldfield".....	56	Aug. 9.	Aug. 11.	40 00		40 00
Str. "Lady of the Lake".....	201	Aug. 27.	Aug. 27.	40 20		40 20
Tug "Vaughan".....	134	Aug. 29.	Aug. 29.	26 80		26 80
Mud scow D. 204.....	80	Aug. 30.	Aug. 30.	25 00		25 00
Bge. Fort Alexander.....	316	Sept. 10.	Sept. 11.	63 20		63 20
Str. "Cygnet".....	18	8 pt. 18.	Sept. 22.	55 00		55 00
Str. "J. R. Spears".....	34	Sept. 22.	Sept. 24.	25 00		25 00
Str. "Garry".....	120	Sept. 29.	Sept. 29.	25 00		25 00
Dredge 204.....	132	Sept. 25.	Sept. 29.	56 40		56 40
Str. "Phyllis Williams".....	164	Oct. 12.	Oct. 17.	62 80		62 80
Barge "Marvel".....		Nov. 1.	Nov. 2.	25 00		25 00
Str. "Wolverine".....	278	Nov. 5.	Nov. 6.	55 60		55 60
Mud scow D. 205.....	80	Oct. 4.	Oct. 5.	25 00		25 00
Mud scow D. 205.....	80	Oct. 5.	Oct. 10.	55 00		55 00
Mud scow D. 202.....	80	Oct. 20.	Oct. 20.	25 00		25 00
P. W. D. coal barge.....		Oct. 25.	Oct. 26.	25 00		25 00
Dredge No. 201.....	132	Nov. 7.	Nov. 7.	26 40		26 40
	4750			1,714 36		1,714 36

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Inverness post office	383 74	556 16	234 90	384 30	45 00	1,604 10
Kentville experimental farm	646 97			425 43		1,072 40
" " post office, etc.	56 18	572 26	800 61	174 33	50 00	1,633 38
Liverpool post office, etc.	56 30	516 11	372 00	193 04	18 00	1,155 45
Lunenburg post office	56 00	607 91	406 22	617 54	59 00	1,806 69
Napan Experimental farm	3,334 90			251 87		4,221 86
New Glasgow post office, etc.	117 69	578 58	470 90	622 05	100 00	1,850 12
North Sydney immigration building	27 76	125 00	125 00	13 82		166 58
" " post office	330 19	561 56	435 70	685 38	9 00	2,163 03
" " D. P. W. (Dist. Engrs. Office)		150 00		1 00		2,405 10
Parishboro, post office	675 95	455 25	300 00	308 24	52 00	2,465 25
Pictou custom houses, etc.	614 70	32 30		16 21	75 00	1,485 79
Pictou post office	323 43	306 50		152 68	76 00	1,186 03
Shelburne post office, etc.	117 30	303 05	331 25	308 13		1,484 54
Springhill post office, etc.	123 25	602 11	457 00	247 00	30 00	1,357 97
Stellarton post office, etc.	5,073 16	275 00	378 50			6,344 65
Sydney "Post" building (Marine and Fisheries)		549 00				540 00
Sydney post office, etc.	737 94	802 95	479 58	691 56		2,732 03
Sydney Mines post office, etc.	1,519 87	485 97	377 25	438 41	30 00	2,851 50
Trenton post office	381 23	616 13		496 77	32 00	997 36
Turo post office	230 80	524 63	630 00	496 77		2,430 01
Turo public building (new)		536 18	322 30	204 02	21 00	230 80
Westville post office		100 00				1,608 23
Weymouth post office	144 20	588 87	424 43	356 62	50 00	1,564 12
Windsor post office, etc.	573 05	653 79	473 25	262 55	57 00	2,019 64
Wolfville post office	590 81	614 17	623 03	653 74	72 00	2,553 80
Yarmouth post office, etc.	400 00					1,767 82
Minor offices throughout the province						
Total, Nova Scotia	12,662 48	33,645 75	22,018 01	17,258 05	2,554 32	129,178 84
<i>Prince Edward Island.</i>						
Charlottetown experimental farm	281 86		427 61	102 65		812 12
" " "Caameron Block" (Insp. of dredges)				3 15		80 71
" " custom house, etc.		65 63	857 63	226 63	34 00	2,537 90
" " Canada food board		70 00				27 50
" " immigration office		174 96		1 25		176 21
" " post office, etc.	3,471 45	2,774 51	1,678 97	1,722 87	225 00	10,885 07
" " Public Works office (clerk of works res.)		24 00				24 00
(Georgetown post office, etc.		129 36	580 78	29 50		872 85
Montague post office, etc.		296 96	14 07	93 28		535 51
St. Ann's post office, etc.		594 70	545 78	147 00		1,328 00
Summerside post office, etc.		731 45	654 29	592 86	45 00	2,182 37
Tynish post office		1 00	722 28	127 86	8 75	2,575 10
Minor offices throughout the province		5 50				161 30
Total, Prince Edward Island	3,753 31	6,083 41	5,480 74	3,077 05	312 75	22,198 64

Amounts expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918.—Continued.

Name of work.	Construction and Improvements.		Repairs and Furniture.		Rents.		Salaries and Supplies for Caretakers.		Heating.		Lighting.		Water.		Power.		Total.			
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.		
Public Buildings—Con.																				
<i>New Brunswick.</i>																				
Bathurst post office, et.			72	15				597	76	513	43	186	96	33	00				1,463	30
Campbellton post office, etc.			431	02			364	38		652	20	207	20	52	00				2,198	00
Campobello, fisheries office					30	00				17	82								47	82
Chatham post office, etc.			125	52			364	19		599	67	339	56	23	00				1,451	94
Chair immigration office.					130	00													130	00
Hahonnie post office, et.			45	10			521	13		495	41	101	49	26	00				1,103	13
Edmundston immigration office			82	00			584	62		370	17	168	23	16	20				1,291	22
Fairville post office.					40	00													81	00
Fredericton experimental farm post office, etc. (old).	3,252	06																	3,252	06
Grand Falls post office			729	02			680	32		1,048	18	210	49	81	00				2,649	81
Hartland post office, etc.			717	31			867	76		1,100	50	1,025	40	40	80				3,812	16
Hallsborough post office, etc.			89	60			696	15		623	17	152	08	32	00				1,591	00
Highbyrd post office, etc.			53	43			537	42		481	75	139	15						1,211	75
McAdam Junction, immigration office			30	75			515	26		116	75	129	57						830	83
McAdam post office.			30	30															30	30
Marysville post office.			107	75			181	34		92	50	41	20	30	00				383	69
Milton post office.			31	24			537	01		74	06	242	41	12	25				906	99
Newcastle post office, etc.			339	48			662	69		726	25	514	87	134	00				2,896	27
Osoeking (Haupont) post office					25	00				729	36	640	95	35	00				2,441	69
Richibucto post office.			33	50			600	7		335	06	37	04						1,034	48
St. John custom house, etc.			1,946	42			529	55		3,48	90	95	84						1,227	79
immigration building			344	41			202	50		3,042	88	526	34	1,023	17	297	41		13,821	87
Naval Transport (Wireless office) post office, etc. (old).			48	54			41	68		3,638	28	603	04						4,585	73
quarantine station.			275	85			2,929	55		1,112	63	368	05	435	75				5,127	11
West post office			1,453	20			5	00		2,690	28	1,728	39	657	79	946	02		16,871	69
savings bank			83	76			720	00						2,845	10				3,449	86
West post office			422	37			91	50		815	45	244	83	61	50				1,636	25
Stephen immigration office.			136	60			635	38		239	20	131	14	10	50				1,052	82
post office, etc.			32	70			568	36		447	25	265	65	98	81				1,413	77
Bridge post office, etc.			120	01			519	09		557	25	178	57	58	00				1,432	92
Tracadie Lazaretto.			255	01			1,211	93		4,131	95	36	87						5,635	76

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Woodstock post office, etc.	582 97	585 82	621 95	367 88	34 00	2,192 32
Minor offices throughout the province.	950 46			4 19		954 65
Total, New Brunswick	9,956 55	729 76	26,340 27	8,931 47	6,350 65	87,500 91
<i>Quebec.</i>						
Acton Vale post office.	17 84		512 40	244 07	28 00	947 56
Arthabaska post office.	109 45		585 46	398 13	100 00	1,366 16
Armstrong, customs and immigration office.	17 40	200 00		47 50		64 90
Asbestos post office.			139 69	214 22	62 25	200 00
Aylmer post office.	49 73		8 95	142 50		848 39
Beatharons post office.	214 79	295 42		56 31		713 06
Berthierville post office.	24 43	150 00	107 45	184 25		365 76
Black Lake post office.		99 96				150 00
Brownburg post office.	74 36		218 32	312 33	37 20	99 96
Buckingham post office.		50 00				717 86
Cacouna post office.			639 05			150 00
Cap Rouge experimental farm.	5,780 82		685 29	484 34	300 00	6,449 87
Chateauguay post office, etc.	207 43	105 00	539 96	411 88	25 00	2,452 47
Coaticook post office, etc.	5 25	110 00		272 37		1,476 64
Compton post office.	19 69		524 71	252 25	29 00	115 25
Cookshire post office.	461 10		718 71	270 46	75 00	946 17
Drummondville post office, etc.	197 33		20 79	146 69		1,671 90
Dundas custom house.	276 23		619 66	63 00		458 72
East Angus post office.			351 23	299 20		1,546 32
Farnham experimental farm.	1,046 95		315 91	66 00	29 00	1,046 95
" " post office.	195 36		539 58	392 66	200 00	722 61
Fraserville post office, etc.	519 75		536 27	377 25	150 00	1,568 27
Grand Mere public building.	28 20			200 22		1,783 49
Grosse Ile quarantine station, improvements and repairs.	149 17					28 20
Grosse Ile quarantine station, new buildings.	5,354 75		156 00			15,124 88
Hull post office.	1,368 46	675 00	905 67	109 98	357 16	5,354 75
Iberville post office.	11 50		728 72	548 16	38 00	2,393 64
Joliette post office, etc.	869 93	212 67		252 06	110 00	675 00
Joliette, weights and measures office, temporary.			532 70	100 07	21 12	3,038 87
Jonquières post office.	51 55		329 00	109 24	91 00	1,025 44
Knowlton post office, etc.	888 26		399 76	162 94	21 00	1,025 44
Lachine post office.	22 38		251 00	161 85	52 06	1,025 44
Lacabe post office.	104 23		557 60	447 96	37 50	1,591 65
Lacolle immigration office.	34 00	96 00	36 60	12 00		1,446 29
Laprairie post office.	65 70		249 84	61 81	45 00	178 00
L'Assomption post office.	45 24		325 40	113 01	65 00	606 23
Lemnoxville experimental farm.	6,010 90		17 25	76 85		785 22
Lewis post office.	30 90		843 94	221 05	138 50	6,579 42
Longueuil post office.	49 55		501 08	206 67	61 40	2,163 64
				69 20		887 90

AMOUNTS EXPENDED BY THE DEPARTMENT OF PUBLIC WORKS OF CANADA DURING THE FISCAL YEAR ENDED MARCH 31, 1919.—Continued.

Name of Work.	Construction and Improvements.	Repairs and Furniture.	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Power.	Total.
PUBLIC BUILDINGS—Continued.									
Quebec—Continued.									
Lionsville post office.....	770 94	102 85		608 94	352 35	185 85	20 00		2,040 93
Massey post office, etc.....		310 42		563 07	402 42	245 57	78 56		1,900 54
Mansonville immigration office.....		25 00							25 00
Marisville post office.....		122 38		549 50	351 79	122 49	28 00		1,174 27
Mataane post office.....		81 04		629 31	531 06	45 35	60 00		1,346 70
Montreal post office.....		15 03		637 04	274 29	344 70	10 50		1,281 47
Montmagny post office, etc.....		50 33	89 00	628 16	675 55	198 50	50 00	20 40	1,609 94
public works storage.....			25 00						25 00
Montreal custom house, etc.....	2,575 12	634 81	42 75	158 77	1,984 69	323 38	426 80		6,146 32
" " (casual office).....					29 16	25 58	11 64		66 38
" " "Drummond Bldg." (Canada Food Board).....		149 17	210 00						359 17
examining warehouse (old).....		1,737 05	26 25	203 40	5,858 57	2,920 43	1,258 74	690 62	12,695 06
forest products laboratory.....	6,920 42		8 75	1,559 47	10,220 46	2,060 11	2,328 00	3,546 62	26,643 83
immigration building.....	3,919 23	70 41		553 21	2,674 14	67 62	372 83	1,820 82	8,421 01
inland revenue building.....		436 55		376 10	722 55	118 52	97 00		1,750 72
ordinance stores.....	14,405 68	323 17	250 00						15,001 85
post office, etc.....		213 30	365 32	2,171 69	7,877 20	10,280 56	3,076 70	5,633 38	43,781 52
" annex (old "Herald Bldg.").....		722 91	8,062 00	10 30	741 16	130 75	232 80	434 00	9,854 71
postal station "A," etc.....	10,616 53		8 28	54 26	975 81	269 39	205 70	447 95	13,304 83
" "B".....	74 79			742 88	562 76	544 40	368 00		2,526 40
" "C".....		553 17	72 73	168 10	803 93	510 91	726 82		3,286 66
" "D".....	30 93	68 05		801 65	552 86	172 98	116 40		1,742 88
" "E".....		290 02		625 65	372 05	289 05	80 12		1,566 89
" "F".....		182 78	17 36	64 00	911 34	239 96	130 80		1,546 24
" "G".....	8 32								8 32
" "H," etc.....		1,031 08	134 50	197 03	2,930 69	634 07	1,303 05	2,958 62	9,395 28
" "L".....	1,466 98		8 75	40 10	595 35	344 50	174 30		2,745 22
" "M".....		78 31	575 00	25 35	136 80	64 43	16 00		895 89
" "N".....		275 22		4 29		62 80			1,618 50
" "N" new.....		276 20	5,111 10			45 00			5,432 30
" "O".....	100 85	21 60		607 20	425 72	144 88	68 00		1,267 40
" "S".....		134 42		4 20	356 80	78 68	50 44		725 48
Hochebaga.....		48 02		304 70	575 12	96 83	93 12		818 69

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" " Mount Royal East	354 81	910 00	4 40	71	55 69	38 80	3,690 15
" " Ste. Camille	1,750 00	1,750 00	26 29	313 26	177 73	83 30	1,750 00
" " St. Henri	231 57	213 00					852 06
" " Windsor station mail room	11 25						224 25
" " "Shaughnessy building" (Marine, etc.)	127 18	12,014 40	+135,855 65	117 96	76 40	263 84	12,481 82
Mont Joli post office	676 88	240 00	6 65	79 90	2,953 74		139,604 27
Murray Bay post office, etc.	11 35		624 41	685 17	270 59		363 41
Nicolet post office, etc.	283 50		533 11	288 53	136 69		1,894 83
Nonington immigration building	58 67	1 00	390 60	117 00	15 00		1,389 38
Porbonka immigration building	13 65		139 32	90 00	5 15		368 72
Pierreville post office	189 60		177 52	171 33	47 11		685 36
Pleasantville post office	7 85		140 59	167 25	290 50		638 84
Quebec archives office	393 00	393 00	390 60	23 00	6 30		812 30
citadel (Gov. Gen.'s quarters)	2,764 80	34 00	4,164 19	1,050 17	331 00		4,861 32
custom house, etc.	1,718 72	98 25	4,164 19	2,060 76	748 65		10,369 97
drill hall			3,400 24	1,645 62	216 85		15 85
examining war-house	249 32	485 83					6,862 63
immigration office (101, St. Jean)							495 83
immigration buildings (Louise embankment)	497 24			423 29	1,047 69		3,344 38
immigration detention hospital (Saward Park)	131 50			1,123 31	217 18		1,471 99
immigration detention hospital (Medical subject's res.)		690 00		633 79			660 00
marine agency (King's wharf)	5 75						1,449 54
observatory	190 63				48 49		289 12
post office, etc. (Upper town)	948 95	288 11	12,022 82	5,162 46	780 96		84,246 89
postal station "B"	54 48	95 83			72 71		3,127 19
Quai des post offices							45 83
Quai des St. Jean post office	49 80	873 00	7 50				832 50
St. Roch post office	63 52	27 00	1,065 74	538 15	265 60		2,469 01
Quebec post office case examiner's office	434 26	240 00	473 53	354 96	165 69		1,662 69
Quebec seeds office		250 00					240 00
Quebec war tax office	13 25	329 83	54 00		6 77		354 85
" weights and measures office				171 08	5 62		176 70
Richmond post office, &c.	163 02		5,488 13		367 25		5,948 40
Rigaud post office, &c.	292 55		690 10	496 31	318 91		1,722 90
Rimouski post office, &c.	82 50		339 05	332 67	180 48		925 65
Roberval immigration building	28 33		371 10	591 26	108 30		1,398 99
" post office, &c.	11 30	25 00	109 92	240 00	17 50		512 47
Rock Island post office, &c.	81 86		679 12	462 50	388 50		4,284 56
Stc. Agathe des Monts, post office	30 64				86 20		413 80
Stc. Anne de Bellevue, post office	202 39	250 00	545 66	325 30	223 44		1,418 11
					21 00		297 60

† This sum indicates the total wages of caretakers, firemen, elevator men and cleaners for all buildings in Montreal. Owing to system of organization of these staffs, it has been practicable to assign proper share to each building.

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Construction and Improvements.	Repairs and Furniture.	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Power.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS—Continued.									
<i>Québec—Continued.</i>									
Ste. Anne de la Pénitence, experimental farm	4,584 49				235 60	49 41			1,815 50
St. Fintache, post office		65 90	300 00			44 99	22 50		433 39
St. Felix de Valois, post office		83 57	138 75	556 13	518 34	116 44			1,587 75
St. Gabriel de Brandon, post office		37 60	150 00	548 91	267 24	20 32			1,274 48
St. George de Beauce, post office		148 29		718 88	365 42	179 16			1,411 75
St. Hyacinthe, inland revenue building		258 34		392 77	180 00	69 75	55 00		1,411 75
St. Jean, custom house		193 95	25 00	311 59	406 54	104 94	83 34		1,290 97
St. Jean de Mathas, post office		58 90		538 45	420 07	91 35	59 95		1,158 73
St. Jerome, post office, &c.		159 60	200 00	536 74	310 15	19 41	9 00		398 01
St. Joseph de Beauce, post office		81 46				101 86	26 52		1,056 73
St. Laurent, post office	61 69								61 69
St. Rose, post office			135 00	627 48	414 00	212 12			1,351 00
St. Theresa, post office, &c.		107 87	900 00		110 25	23 31			1,333 46
St. Titre, post office, &c.	926 61	73 29	130 21						1,330 31
Sayabec Station, post office		105 90		555 20	652 56	130 45	22 92		1,476 63
Shawigan Falls, post office		27 68		351 08	369 83	369 83			1,186 67
Shawville, post office		363 35	67 00	1,024 09	952 84	492 27	51 98		3,001 53
Sherbrooke, post office, &c.		119 86	996 00			18 36			1,134 22
post office inspector's office			1,400 00						1,400 00
engineer's office (D.P.W.)		372 00	65 50	704 12	755 88	433 72	250 00		2,860 22
Sorel, post office, &c.					360 77				360 77
Spirit Lake, Pontiac Co., post office		130 73	75 28			6 44			212 45
Stanstead Plain, post office		254 10		342 54	271 72	105 36	17 00		1,060 72
Terrebonne, post office, &c.		263 32		208 87	447 32	297 15	45 00		1,262 25
Thetford Mines, post office, &c.			125 00						125 00
Trois Pictoues, post office		233 75		1,092 18	934 08	394 81	50 37		2,635 19
Trou-Rivière, post office, &c.—temporary new	97,626 26								97,626 26
pay-master's office		240 00		130 00		15 54			240 00
post office inspector's office		8 10	420 00	790 76	731 65	195 30	90 00		573 64
Valleyfield, post office, &c.		1,305 83							3,112 94
Verdon, post office		86 50	355 00						441 50

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Victoria, post office, &c.		130 89	336 93	475 09	149 47	112 50	1,205 98	
Minor offices throughout the province		8,558 42	201,087 16	57 75	78 15	8,794 32	
Total, Quebec		53,223 19	201,087 16	79,258 73	39,323 35	20,164 34	689,941 68	
Total, 1907-8		231,927 78	45,332 23	79,258 73	39,323 35	20,164 34	689,941 68	
Name of Work.		Construction and Improvements.	Sundry Maintenance.	Salaries and Supplies.	Heating.	Lighting.	Power.	Total.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
OTTAWA BUILDINGS.								
Departmental buildings—								
† "Connaught building" (formerly Custom House)	24,891 95	.....	.....	.....	.....	.....	.....	24,891 95
Eastern block, new fire proof roof	3,643 01	.....	.....	.....	.....	.....	.....	3,643 01
Parliament buildings, restoration	1,197,272 91	.....	.....	.....	.....	.....	.....	1,497,272 91
Parliament and departmental bldgs generally— (Library of Parliament, East, West, Langevin and Connaught blocks).	3,555 00	.....	13,415 42	51,523 40	44,496 58	16,991 67	.....	113,011 65
Fire escapes	.....	.....	.....	840 00	.....	.....	.....	3,555 00
Grounds, including Major's Hill Park.	.....	.....	.....	.....	.....	386 19	.....	16,046 61
Macerating plant, Currency Br. Dept. Finance.	8,171 35	.....	.....	.....	.....	.....	.....	8,171 35
Power for elevators	.....	.....	.....	.....	.....	.....	28,712 25	28,712 25
Re-wiring of buildings	20,014 16	.....	.....	.....	.....	.....	.....	20,014 16
Repairs and furniture	462,371 72	.....	.....	.....	.....	.....	.....	462,371 72
Steel fittings	101,035 61	.....	.....	.....	.....	.....	.....	101,035 61
Telephone service	.....	54,000 58	.....	.....	.....	.....	.....	54,000 58
Sites for new departmental buildings—								
Acquirement of properties, Wellington street west	6,157 30	.....	.....	.....	.....	.....	.....	6,157 30
Maintenance of acquired properties—								
Sussex street	.....	711 36	.....	840 00	654 62	46 06	.....	2,262 04
Wellington street east	.....	11,570 32	.....	430 00	933 01	237 22	.....	1,500 23
" " west	.....	.....	.....	5,659 44	16,648 79	2,883 87	.....	36,732 36
Archives building	.....	.....	.....	1,740 00	1,839 11	201 61	.....	3,280 72
Astronomical observatory	.....	.....	.....	.....	.....	.....	.....	5,482 14
Biological laboratory	.....	.....	.....	.....	.....	.....	.....	921 03
Experimental Farm	.....	.....	3,742 23	.....	967 71	772 20	.....	42,181 62
Fisheries museum	.....	.....	.....	.....	755 16	165 87	.....	628 74
Fuel testing building	34,480 37	.....	.....	.....	6,367 36	733 60	.....	5,100 15
Geodetic building	.....	.....	.....	.....	463 75	164 99	.....	739 73
Mines building (Sussex street)	.....	.....	.....	.....	4,448 62	651 53	.....	8,583 78
National art gallery	9,749 05	.....	8,122 10	3,300 00	3,339 40	1,944 38	.....	17,871 15

AMOUNTS EXPENDED BY THE DEPARTMENT OF PUBLIC WORKS OF CANADA DURING THE FISCAL YEAR ENDED MARCH 31, 1918 *Continued.*

Name of work.	Construction and Improvements.	Repairs and Furniture.	Sundry Maintenance.	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Power.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
OTTAWA BUILDINGS—(Con.)									
Pavements—									
Sussex street	20,985 50								20,985 50
Wellington street	22,012 95								22,012 95
Post office			6,920 00			2,900 70	1,442 26		11,262 96
Printing bureau						15,979 05	5,348 43		21,327 48
Freight elevators	4,014 48								4,014 48
Public Works (Work-shop)					1,920 00	2,484 49	520 30		4,924 79
Ridgway Hall	2,461 56	47,460 87							49,922 43
Grounds,									
Snow	5,377 64								5,377 64
Fuel and light, 17,000 00									17,000 00
Wachman,									
Royal mint	1,019 32		25,615 00		840 00	5,971 79	182 50		25,615 06
Supreme court					1,420 00	1,967 91	198 75		8,013 61
Victoria island shipyard					420 00		227 22		3,546 66
Victoria memorial museum					13,373 50	13,493 00	4,661 54		31,527 04
Sundry rented buildings				527,150 14	36,369 94	25,628 31	20,426 04		609,574 43
Total, Ottawa buildings	1,750,573 72	522,153 27	104,865 39	527,150 14	126,166 28	150,966 09	58,223 26	28,742 25	3,277,900 40

+ Salaries, heating, lighting, included in Parliament and Departmental buildings.

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1919—Continued.

Name of Work.	Construction and Improvements.		Repairs and Furniture.		Rents.		Salaries and Supplies for Caretakers.		Heating.		Lighting.		Water.		Power.		Total.		
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
Elmira post office, etc.	2,018	00	59	70	634	35	306	25	52	30	11	29					3,081	89	
Elora post office.			314	58	222	60	116	47	116	47					6	00	881	25	
Essex post office.			386	65	571	12	294	00	37	50							1,484	21	
Fowler post office, etc.	3	00																3	00
Fergus post office.			45	96			21	50	128	32							802	30	
Fort William Dist. Engineer's office.			34	50					1,863	08					202	50	1,056	76	
" examining warehouse, etc.			282	23	3,253	54	766	25	174	35					214	55	5,990	25	
" "			153	15	737	41			268	67					90	00	2,015	48	
Galt drill hall, grading.	350	54															350	54	
" post office, etc.			261	70					266	58					48	59	1,368	28	
Mananogue custom house.			300	12					46	14					20	15	629	70	
" post office.			303	86					409	50					42	62	1,545	75	
Blencoe post office, etc.			26	88					292	05							1,490	70	
Coderich post office, etc.			237	90					14	50							1,016	42	
Crimaby post office, etc.			21	15					187	68							1,016	42	
Crimab post office, etc.			227	21					221	00							1,932	78	
Cumby post office, etc.			2,534	77					143	82							1,439	13	
Hamilton post office, etc.	4,721	32							2,070	53							21,439	72	
" postal station " B.			109	07					23	21							1,440	68	
Hanover post office, etc.			109	23					183	58							1,962	38	
Harrison post office, etc.			144	73					139	35							1,064	17	
Harrow, tobacco curing station.									75	35							62	49	
Hawkebury post office, etc.			266	72					178	90							1,211	15	
Hepler post office.	5	91															5	91	
Ingersoll post office, etc.	223	72	184	10	711	49	546	47	244	34							1,959	03	
Kapuskasing (Algonia) experimental farm.			30	86					557	78							588	64	
Kempville post office, etc.	53	35	113	87	103	97	244	84	179	88							1,241	91	
Kenora post office, etc.			1,382	02					736	20							3,460	82	
Kincardine post office.			44	70					644	79							1,034	57	
Kingston (Bank of Toronto) (Militia & Defence)					60	00			437	08							60	00	
" custom house.			221	75					429	00							1,783	57	
" immigration office.					180	00			39	50							225	63	
" inland revenue office, etc.			422	14					487	75							4,244	65	
" ordinance stores.					1,000	00			210	81							1,000	00	

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Kingston post office	704 91	775 39	945 21	705 29	114 51	3,305 31
" block						2,686 25
" R. M. C. enlargement of educational block						4 42
Kingsville post office	87 46	1,219 52	17 50	13 89	1 13	1,339 41
Kitchener examining warehouse, G. T. Ry. station mail room.	50 00	50 00				50 00
" post office, etc.	474 44	621 11	408 51	196 37	32 24	1,732 67
Lakefield post office, etc.		646 54	176 75	311 65		1,176 90
Leamington post office	25 00		44 67			69 67
Lindsay post office, etc.	2 70	524 91	343 00	157 50	24 00	1,052 11
Lindsay post office, etc.	333 65	706 90	532 10	302 80	26 10	1,601 55
Listowel post office, etc.	100 10	578 91	382 85	156 02	17 59	1,215 47
London custom house, etc.	838 82	1,847 68	2,075 24	397 69	103 70	5,567 83
" immigration office	4 60					4 60
" post office, etc.	176 65	2,834 01	3,043 30	728 54	138 50	8,344 50
war tax office	1 00	41 40		11 66		245 48
L'Original post office	123 00	650 00	134 66	51 50		123 00
Markham post office	290 38	628 83	35 02	238 50	23 45	200 00
Merrickville post office	4 75	69 95	51 99			836 16
Midland post office, etc.	7 40	646 74	228 93	100 92	15 67	200 00
Milford post office, etc.	101 95	738 54	255 00	187 40		136 69
Milton post office	69 38	604 65	2 25	66 35	82 00	959 66
Milverton post office, etc.	237 30	501 25	382 64	184 57	12 75	2,415 94
Mitchell post office						824 63
Mount Forest post office	841 19					1,338 51
Napanee drill hall						841 19
" post office, etc.	89 80	678 13	401 14	198 38	72 41	1,440 46
Newmarket post office, etc.	7 66	986 75	238 35	74 10	10 62	1,317 48
Niagara Falls post office, etc.	165 14	740 89	556 68	136 65	54 97	1,614 33
North Bay post office, etc.	1,404 38	943 85	793 32	271 17	36 00	3,462 72
North Bay post office, etc.		674 03	390 33	135 28	25 00	1,224 94
Norwich post office, etc.	38 95	668 60	184 37	76 35	18 00	986 27
Oranville post office, etc.	629 66	717 32	759 12	295 67	23 40	2,437 32
Oshawa post office, etc.	214 10	786 58	468 59	137 81	37 16	1,084 24
Owen Sound post office, etc.	290 11	705 77	890 03	196 46		2,132 37
Palmerston post office, etc.	36 75	648 63	389 16	173 64	50 00	10,233 73
Paris post office	30 72	647 08	331 25	48 32	45 00	1,182 00
Parthill post office, etc.	265 72	942 08	313 35	73 72		1,894 87
Pembroke post office, etc.	338 06	640 48	736 23	344 07	40 00	2,118 84
Perth post office	23 73	489 28	373 64	97 33	50 00	37 94
Peterboro custom house	255 11	948 15	691 19	294 63	75 00	1,034 18
" post office, etc.						2,264 08
" weights and measures office						212 50
Petrolia post office, etc.	10 63	529 40	245 40	147 81	47 76	974 00
Pictou post office, etc.	150 23	540 77	366 00	222 52	31 25	1,340 80
Port Arthur examining warehouse, etc.	87 25	5,572 31	2,329 22	344 33	100 15	9,170 94
" immigration building	10 00					12 30
" post office, etc.	86 41	629 34	867 24	308 88	2 30	2,011 66
Port Colborne post office	6 50	549 07	71 80	168 52	29 00	815 89
Port Hope post office, etc.	130 05	654 00	406 50	417 75	11 43	1,619 73

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Manitoba—Continued.									
	Construction and Improvements.	Repairs and Furniture.	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Power.	Total.	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
Emerson post office, etc.		20 78	700 00	686 22	557 55	91 50			1,356 05	
Lac du Bois post office		10 00	690 00		101 50				711 50	
Medora post office		69 88	163 00						163 75	
Minnedosa post office, etc.				881 64	1,031 53	301 20			2,214 25	
Morden experimental farm	975 40								975 40	
New-pawa post office, etc.		117 15		87 71	558 50	150 08			1,233 74	
Portage la Prairie examining warehouse		16 16		368 30	539 70	95 05	26 96		1,036 17	
" " armoury, etc.		1 90	384 34	45 00		55 60	19 00		505 84	
" " post office		19 70		631 07	741 88	49 84	50 25		1,495 44	
Rest in post office		165 05	70 00	906 10	775 46	460 82	25 25		2,322 68	
Roblin forestry office			247 50						247 50	
Selkirk post office		522 36		861 92	564 98	61 07	17 91		2,028 24	
Shovel Lake post office			180 00						180 00	
Souris post office, etc.		264 60		753 05	641 07	132 92	73 70		1,805 34	
St. Boniface post office		928 80		806 50	828 10	71 66	30 65		2,665 76	
Stonewall post office		18 85		324 75	272 38	45 92			671 90	
Transcona post office			650 00						650 00	
Virden immigration building			250 00		53 15				303 15	
" " post office, etc.		47 05		827 55	662 12	18 15			1,554 87	
Winnipeg "Boyd Bldg." (archives, Ry. Com'n., etc.)		8 00	2,170 00						2,283 84	
Winnipeg "Chamber of Commerce bldg." (Int. Dept., etc.)		119 75	5,235 00						5,416 44	
Winnipeg custom house, etc. (old post office)		1,844 32		7,841 90	1,823 46	712 81	171 77	130 61	12,634 37	
" " examining warehouse.	82 74								82 74	
" " grain warehouse		30		8,473 36	7,004 02	255 28	447 03	150 57	17,792 88	
" " immigration building (new)					38 50				38 50	
" " Notre Dame Investment Bldg. (D.P.W.)		1,933 60	37 51	265 00	7,540 85	1,201 99	1,003 78	253 82	14,919 07	
" " post office, etc.		548 55	1,873 30						2,449 79	
" " postal station "A"		1,846 80	189 00	14,024 49	7,328 30	3,443 80	908 42	575 47	22,843 05	
		60 18	1,745 73	19 97					2,376 78	

ACCOUNTS EXPENDED BY THE DEPARTMENT OF PUBLIC WORKS OF CANADA DURING THE FISCAL YEAR ENDED MARCH 31, 1918.—Continued.

Name of Work.	Construction and Improve-ments.		Repairs and Furniture.		Rents.		Salaries and Supplies for Carpenters.		Heating.		Lighting.		Water.		Power.		Total.		
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
PUBLIC BUILDINGS.—Continued.																			
Saskatchewan—Concluded.																			
Regina inland revenue office.			15	00		360	00					5	85					390	85
old lands office (Customs dept.)	2,922	24						312	65	460	76			7	25			2,922	24
old Royal bank bldg. (rent producing).																		804	16
parcel post.						1	00											1	00
post office, etc.			1,924	67			35	00	3,955	41	2,462	72	2,165	94	368	85		11,691	65
post station "A"			8	00		1,080	00											1,088	00
Rosethorn experimental farm										617	80	10	19					3,696	24
Saskatoon "Canada bldg." (Inland Rev., etc.)	3,058	25				4,200	00					118	45					4,318	66
customs house.						1,186	00					27	18					1,163	18
examining warehouse.			108	48						757	12							965	60
forest nursery station.			20	05						233	70			15	33			297	84
immigrants' building.			183	50			2,400	00						63	34			2,583	50
lands office									2,375	72	1,658	97	607	48				6,747	38
post office, etc., (old)	1,437	32																1,294	00
post office, etc., (new), (str.)																		720	00
weights and measures office							720	00		289	46							3,865	91
Scott experimental farm.	3,017	97																1,482	13
Sutherland, forest nursery station.	1,482	13																1,292	62
Swift Current lands office.																		1,310	02
post office.			55	21														102	80
Unity immigration building.										101	80							227	15
Wadena immigration building.			3	00			2	00		191	55							2,307	84
Weyburn post office, etc.			254	70			1	00	862	20	773	18	333	84	102	92		196	16
Wilkie immigration building																		2,384	64
Yorkton post office, etc.			111	01					768	55	1,016	18	649	40	39	50		1,871	57
Minor offices throughout the Province	1,871	57																	
Total, Saskatchewan.	29,394	56	13,871	27	18,534	28	21,062	89	23,377	43	9,428	95	1,879	23	744	73	118,231	34	
Alberta.																			
Athabasca immigration building																		131	30
"Pavillon Freres" (ma.l. room.)																		30	00
Banff post office, &c.			5	00		1	00			130	80							5	00
Bassano post office, &c.			55	35				564	90									1,241	87
Calgary Asst. Rec. Gen'l's office.			145	95														153	45

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	26 25	628 70	91 00	49 06	24 00	819 01
Ladysmith post office	343 17	1,517 75	404 37	583 33	36 00	2,944 62
Nanaimo post office, etc.	565 64	923 56	793 72	77 89	72 00	3,186 81
Nelson engineer's office (D. P. W.)	379 48	778 95	187 61	36 27	40 10	1,642 41
Nelson post office, etc.	790 95	2,777 65	782 67	546 29	65 24	5,897 70
New Westminster Indian and fisheries bldg.	73 15	925 75	290 00	124 42	10 80	1,394 12
North Vancouver post office	68 30	2 00	100 58	92 97	195 55	1,955 55
Pacific Highway immigration office	4 00	695 26	253 60	114 31	28 89	1,160 86
Port Alberni post office, etc.	718 15	118 45	600 00	801 86	4 00	600 00
Prince George post office	6 40	6,985 00	653 33	463 33	8,624 46	463 33
Prince Rupert examining warehouse.	168 45	224 74	5 00	15 20	251 34	251 34
" " Fisheries office					1,201 51	1,201 51
" " immigration building					45 00	45 00
" " "Can. Bank of Commerce bldg."					1,917 90	1,917 90
Revelstoke " (Int. Dept.)					112 00	112 00
" " post office					9 75	9 75
Rosland post office, etc.	45 00	742 22	700 15	312 40	83 73	1,917 90
Salmon Arm post office	4 00					112 00
Squamish post office	9 75					9 75
Sitka experimental farm	1,381 43					1,797 17
Sumnerland experimental farm	51 00					51 00
Union Bay post office	6,301 45					6,301 45
Vancouver dredging office (D. P. W.)	7 15	262 90	158 00	102 09		530 14
" " examining warehouse	192 60					1,335 00
" " fisheries office, 519 Pender St.	1,037 09	8,923 16	1,604 12	329 83	163 55	12,798 75
" " fumigating plant						33 00
" " immigration detention building						24 00
" " "Molson's Bank" (War Tax office)	1,459 77	27 60	1,053 61	1,172 25	298 40	4,272 63
" " new post offices, etc.	534 00	15,068 00	1,895 87	2,950 92	146 85	634 00
" " old post offices (Assay office)	1,361 82	1,973 00	770 73	182 78	51 50	26,486 32
" " postal station "A" (C. P. R.)	477 65	1 60				4,339 83
" " " " "B"	269 48	2,039 55	427 50	337 16	63 90	3,558 63
" " " " "C"	260 87	1,468 25	497 34	101 01	27 25	10,277 60
" " " " "C" (new)	76 70					1,558 21
" " " " "C" (Military Service)	511 50					1,870 55
Vernon post office, etc.	171 99	941 52	590 79	291 94	41 25	511 50
Victoria "Annes-Holden bldg." (examining warehouse)	149 99	975 00		161 21	13 56	1,569 11
" " astronomical observatory (Little Sa-						2,057 49
" " anich Min)	1,262 78	441 34	129 00	478 11	183 22	5,082 98
" " Dominion bldgs. (Taxes re local im-					166 18	2,477 41
" " fumigating plant (C. P. Ry. wharf)	2,817 50					2,817 50
" " immigration building	447 70	5 50	532 64	81 68	83 28	1,190 80
" " meteorological observatory	83 15	963 80	163 98	151 41	16 98	1,369 32

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Dredging.		Construction and Improvements.		Repairs.		Staff and Maintenance.		Total.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
HARBOURS AND RIVERS.										
<i>Nova Scotia—</i>										
Amherst Point, wharf.....					700	52			700	52
Anderson's Cove, breakwater.....					207	00			207	00
Annapolis Royal, pier.....					1,825	99			1,825	99
Antigonish Landing, wharf.....			200	09					200	09
Arichat wharf.....					597	75			597	75
Arisaig, breakwater.....					54	38			54	38
" wharf.....					123	75			123	75
Baddeck, wharf.....					104	87			104	87
Bailey's Brook, protection piers.....					598	47			598	47
Baker's Point (East Jeddore) wharf.....					692	34			692	34
Bass River, wharf.....					933	78			933	78
Baxter's harbour, breakwater.....					471	20			471	20
Bear Cove (Halifax Co.) boat skid.....					190	94			190	94
Bear River, repairs to warping pier.....	25	00			1,319	69			1,344	69
Beaver River, north breakwater.....			399	70					399	70
Bluff Head, breakwater.....			400	03					400	03
Boularderie Centre, wharf.....					624	96			624	96
Broad Cove Marsh, wharf.....					111	08			111	08
Canning, wharf.....					2,340	88			2,340	88
Cape St. Mary, breakwater.....					2,956	55			2,956	55
Carr's Brook, breakwater-wharf.....					878	73			878	73
Chance Harbour, breakwater.....					54	60			54	60
Cheboque Beach, protection.....					149	90			149	90
Chester Basin (Lunenburg Co.).....	2,322	75							2,322	75
Chipman Brook, breakwater.....					257	46			257	46
Clementsport.....	2,110	70							2,110	70
Comeau's Cove, breakwater.....					141	62			141	62
Cow Bay (Port Morien), breakwater.....					1,559	82			1,559	82
Cribbin's Point, wharf.....					1,524	50			1,524	50
D'Escousse, wharf.....					74	92			74	92
Digby, pier renewals.....					1,997	07			1,997	07
Eagle Head, breakwater.....					1,645	02			1,645	02
East Ferry, breakwater.....					20	00			20	00
East Pubnico, wharf.....					398	24			398	24
East River (Pictou Co.) improvements.....			140,187	54					140,187	54
East Ship Harbour, wharf.....					117	54			117	54
Ecum Secum (Halifax Co.) wharf.....			127	81					127	81
Feltzen South, breakwater-wharf.....					261	07			261	07
Finlay Point, wharf.....					100	00			100	00
Fox Island, breakwater approach.....					2,700	07			2,700	07
Freeport, wharf.....					68	53			68	53
Friar's Head, breakwater.....					1,169	27			1,169	27
Fruids Point wharf.....			569	23					569	23
Georgeville, wharf.....					76	75			76	75
Glouce Bay, protection works.....					243	36			243	36
Grand Etang, wharf.....					200	27			200	27
Grand Narrows, wharf.....					104	75			104	75
Half Island Cove, breakwater.....					600	51			600	51
Halifax graving dock.....			18,545	82					18,545	82
Hampton, breakwater reconstruction.....			1,332	06					1,332	06
Harbourville, breakwater (bed for vessels).....			151	90					151	90
Head of Chezzetcook, wharf.....			24	25					24	25
Hunts Point, breakwater.....					149	47			149	47
Inverness, harbour improvements.....	1,500	00	562	80					2,062	80
Iona, wharf.....					396	90			396	90
Jamesville, breakwater.....					1,354	05			1,354	05
Jones Harbour, breakwater-wharf.....					779	16			779	16
Kelly's Cove, breakwater.....					392	35			392	35
Kraut Point, wharf.....			20	00					20	00
L'Ardoise, breakwater.....					466	19			466	19
La Have river, Reinhardt.....	442	90							442	90
" " East Middle.....	708	59							708	59

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS.					
<i>Nova Scotia—Continued.</i>					
Lingan Beach, protection works.....			616 22		616 22
Litchfield, breakwater.....			142 70		142 70
Little Harbour (Pictou Co.), wharf.....		892 75			892 75
Liverpool channel.....	\$27,597 48				
Less, work done for private firms.....	545 32				
	27,052 16				27,052 16
Livingstone's Cove, wharf.....			135 22		135 22
Lower Kingsburg, skidway and breakwater.....		285 70			285 70
Lunenburg.....	39 39				39 39
Malignant cove, wharf.....			26 00		26 00
Marble Mountain, wharf.....			319 03		319 03
Margaree, breakwater.....			936 08		936 08
Margaree harbour, improvements.....	112 08	4,789 38			4,901 46
McKay's point (Judique), breakwater.....			591 62		591 62
McNair's cove, breakwater.....			899 97		899 97
Meat cove, boat harbour.....			50 01		50 01
Middle river (lower) shear dams.....			149 96		149 96
Middle river (upper), shear dams.....			199 63		199 63
Mill creek, wharf.....		299 41			299 41
Morrison's landing, breastworks.....			199 98		199 98
Mosher's bay, breakwater.....			335 95		335 95
Necum Tench, wharf.....			1,619 70		1,619 70
New Harbour, breakwater.....			584 29		584 29
Newellton, wharf.....			398 99		398 99
North-east point, wharf.....			40 08		40 08
North river (St. Ann's), wharf.....			599 41		599 41
North Ingonish, wharf.....			366 30		366 30
North Sydney, ballast wharf.....			1,317 49		1,317 49
Nyanza, wharf.....			79 83		79 83
Oglen's pond, protection work.....		37 04			37 04
Owl's head, wharf.....			128 57		128 57
Park's creek (Lunenburg co.).....	970 20				970 20
Parraboro, wharf.....			2,016 02		2,016 02
Pictou, Abercrombie channel.....	34,768 38				34,768 38
Poirierville, wharf.....			111 60		111 60
Port Dufferin, wharf.....			49 83		49 83
Porter's lake, outlet.....			104 64		104 64
Port George (Annapolis co.) breakwater.....			1,477 47		1,477 47
Port Hastings, wharf.....			142 90		142 90
Port Iliford, breakwater.....			289 58		289 58
Port Hood, wharf.....		64 75			64 75
Portignese cove, breakwater.....			812 79		812 79
Ross' ferry, wharf.....			96 14		96 14
Sandy cove, breakwater.....			1,925 62		1,925 62
Scott's bay, breakwater.....			1,300 00		1,300 00
Seaforth, breakwater.....			371 07		371 07
Shellburne harbour.....	2,445 09				2,445 09
Short beach, breakwater.....		4,676 17			4,676 17
Shubenacadie, warping piers, etc.....		23,000 00			23,000 00
Sight point (Inverness co.) wharf.....			299 33		299 33
Solber island, wharf.....			264 81		264 81
South Ingonish, breakwater.....			44 75		44 75
South side (Donald's Head), breakwaters.....		30 57			30 57
South Wallace, wharf.....			605 04		605 04
St. Peter's narrows.....	8,794 84				8,794 84
Summersville, wharf.....		174 80			174 80
Swinn's point, wharf.....			656 09		656 09
Sydney harbour, south bar, (cribwork).....			180 00		180 00

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS.					
<i>Nova Scotia—Concluded.</i>					
Three Fathom harbour, beach, protection works, etc.			810 18		810 18
Tiverton, breakwater.			1,416 28		1,416 28
Trout cove, breakwater.			1,495 70		1,495 70
Vogler's cove, wharf.			125 02		125 02
West Arichat, wharf.			566 48		566 48
West Chezzetcook, breakwater.			199 65		199 65
West Chezzetcook, wharf.			198 81		198 81
West Dublin.	1,282 54				1,282 54
Westport, wharf.			208 71		208 71
West Pubnico (lower), wharf.			199 49		199 49
Weymouth, wharf.			150 65		150 65
White point, breakwater.		104 13			104 13
Whyocmagh, harbour.			254 12		254 12
Windsor harbour, "Goudge" wharf.			449 82		449 82
Wolfville, wharf, (shed).			200 00		200 00
Yacmonth harbour, improvements.	4,596 78	509 12	44 23		5,150 15
Young's landing, wharf.			74 92		74 92
Generally.	7,929 05			2,932 47	10,931 52
Totals, Nova Scotia.	95,170 45	197,385 05	58,665 06	2,932 47	354,153 03
<i>Prince Edward Island—</i>					
Alberton.	1,909 22				1,909 22
Annandale, wharf.			172 62		172 62
Bridgetown, (King's Co.).	10,598 39				10,598 39
Cardigan South, wharf.			20 00		20 00
Georgetown, (Queen's wharf).			40 00		40 00
Grand river, (McPherson's wharf).	1,314 54				1,314 54
Hickey's wharf.			29 75		29 75
Hurd's point, wharf.			295 00		295 00
Little Sands, wharf.		1,101 41			1,101 41
Mimingash, breakwater, etc.			2,134 70		2,134 70
McPherson's cove, pier.			40 00		40 00
Mink river, wharf.			118 28		118 28
Mount Stewart, wharf.	8,919 96		16 60		8,936 56
Murray harbour, south wharf.			8 69		8 69
Panmure island, wharf.			40 00		40 00
Pinette, pier.			73 45		73 45
Port Selkirk, pier.			643 88		643 88
Rocky point, wharf.		115 11			115 11
Rustico, south pier.	15,019 16		115 13		15,134 29
" beach, protection works.	493 76	224 72			718 48
Souris harbour, breakwater.			876 36		876 36
Tignish, breakwaters.			1,993 79		1,993 79
West Point, wharf.			67 28		67 28
Wood island, breakwaters.			340 42		340 42
Generally.	3,999 52			1,630 28	5,629 80
Totals, Prince Edward Island.	42,254 55	1,441 24	7,025 95	1,630 28	52,352 02
<i>New Brunswick—</i>					
Albert, berth for vessels.		375 29			375 29
Anderson's hollow, wharf.			544 89		544 89
Baie du Vin, wharf.			10 32		10 32
Barker's wharf, (River St. John).			36 14		36 14
Bas river, wharf.		226 16			226 16
Bathurst, harbour impts.	41,041 50				41,041 50
" Tete a gauche.	10,664 93				10,664 93
Buctouche.	129 99				129 99
Burton Court House, wharf.			223 50		223 50
Campbellton, wharf.	16,846 49		1,292 78		18,139 27

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS.					
<i>New Brunswick—(Concluded.)</i>					
Caraget, wharf.....			39 85		39 85
Chatham, Middle island.....	835 49				835 49
Chockfish, breakwater.....			139 25		139 25
Church river.....	3,134 88				3,134 88
Dalhousie.....	497 21				497 21
Dipper harbour, breakwater-wharf.....			294 11		294 11
Durham, wharf, (Restigouche Co.).....			244 03		244 03
Edgett's Landing, wharf.....			70 12		70 12
Fairhaven, (Deer island), wharf.....			64 88		64 88
Fort Dufferin, breastworks.....			9,998 63		9,998 63
Ford's Mills, (Kent Co.).....	422 08				422 08
Gage-town, wharf.....		465 09			465 09
Glasier's wharf, (Sunbury Co.).....		33 97			33 97
Grand Anse, breakwater.....			1,723 43		1,723 43
Grandigue.....	1,032 59				1,032 59
Hopewell cape, wharf.....			9 75		9 75
Leonardville, wharf.....			150 02		150 02
Lord's cove, wharf.....			49 95		49 95
Lorneville, wharf approach.....			75 20		75 20
Lower Jemseg, high water wharf.....			7 21		7 21
McLean's Gully, (Kent Co.).....	21 65				21 65
Martin's Head, breastworks.....		597 83			597 83
Millerton, wharf.....			379 60		379 60
Mill's Point, wharf.....			545 01		545 01
Moulie's river, wharf (Kent Co.).....		421 02			421 02
Neguac, wharf.....			1,931 25		1,931 25
Oak point, wharf.....	4,311 33		19 99		4,331 32
Quaco (St. Martin's) eastern breakwater.....		369 85	570 70		931 55
Renforth, wharf (River St. John).....			39 66		39 66
Richardson, wharf.....			39 75		39 75
Richibucto cape, breakwater.....	1,539 67	1,719 57	123 19		3,462 23
River Kouchebouguae.....	454 00				454 00
River St. Charles.....	481 06				481 06
River St. John, removal of snags.....	1,983 00				1,983 00
Rothsay, wharf.....			49 63		49 63
St. Andrews, Market wharf.....			541 26		541 26
St. John harbour improvements:—					
Channel.....	48,953 80				48,953 80
Courtney bay.....	179,444 04	102,369 10			281,813 14
Negro point, breakwater.....			1,777 91		1,777 91
Partridge isld. quarantine sta., deep water wharf.....		1,288 98			1,288 98
St. John West, piers, sheds, etc.....	28,857 38	132,144 45	24,894 56		185,896 39
St. Nicholas river, wharf.....		359 52	735 02		1,094 54
Scotchtown, wharf.....			30 75		30 75
Seal cove, west breakwater.....			33 00		33 00
Shediac, wharf.....			78 59		78 59
Shippegan gully, breakwater, etc.....			3,672 24		3,672 24
Shippegan, wharf.....	29,274 89	1,895 59			31,170 48
Stonehaven, breakwater.....			483 55		483 55
Tracadie beach, breastworks.....			403 50		403 50
Tyne-mouth creek, breakwater.....		1,524 29			1,524 29
Welsford, wharf.....			30 61		30 61
Whitehead, wharf.....			185 31		185 31
Generally.....	8,170 50			2,770 91	10,941 41
Totals, New Brunswick	378,096 48	243,861 51	51,529 17	2,770 91	676,258 07

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS.					
<i>Quebec—</i>					
Anse a Beaulfs, wharf.....			45 00		45 00
Anse a l'Eau (Tadoussac), wharf.....			6 00		6 00
Anse aux Gascons, wharf.....			568 63		568 63
Anse aux Griffons, piers.....			1,499 78		1,499 78
Anse St. Jean, wharf.....			50 77		50 77
Baie St. Paul (Cap aux Corbeaux,) wharf.....			1,270 54		1,270 54
Rarchois de Malbaie, training pier.....			1,198 96		1,198 96
Batiscan, upstream channel.....	5,095 14				5,095 14
Beloeil, new boom.....		618 07		241 73	859 80
Berthierville, wharf.....	206 14				206 14
Berthier en bas, wharf.....			994 40		994 40
Bic harbour, wharf at Pointe à Cote.....			73 35		73 35
Bigelow cut, River du Lievre.....	468 13				468 13
Brewer's creek (Labelle), landing float.....			12 00		12 00
Buckingham (Lal-elle), landing float.....			95 58		95 58
Cabano, wharf.....			200 65		200 65
Cacouna, wharf.....			154 70		154 70
Cap Chat, pier.....			168 54		168 54
Cap de la Madeleine, wharf.....				50 00	50 00
Cap St. Ignace, wharf.....			145 15		145 15
Cape Cove, pier.....			1,549 91		1,549 91
Caugbnawaga.....	88,902 12				88,902 12
Less, work done for private firm.....	532 00				532 00
	8,370 12				8,370 12
Cascades rapids, anchor pier, reconstruct.....		1,360 31			1,360 31
Champlain, wharf.....				26 00	26 00
Chicoutimi, channel.....	2,932 17				2,932 17
" wharf.....			1,745 37	1,004 77	2,750 14
Clark City, wharf reconstruction.....		4,155 44			4,155 44
Contrecoeur, wharf.....	4,035 11			55 60	4,090 71
Cross point, wharf.....			767 65		767 65
Desjardins, wharf.....			2,409 82		2,409 82
Dodd's landing (Labelle), float.....			7 50		7 50
Doucet's landing.....	1,012 00				1,012 00
Douglstown, wharf.....			271 82		271 82
East Templeton, wharf.....			400 67		400 67
Father Point, wharf.....		1,051 68			1,051 68
Fort William, wharf, Ottawa river.....			51 13		51 13
Gaspe, wharf.....			1,244 52		1,244 52
Georgeville, wharf.....			69 60		69 60
Glen Almond (Labelle), landing float.....			12 00		12 00
Graham, wharf.....		3,553 31			3,553 31
Grande Bergeronnes.....			121 75		121 75
Grenville.....	401 46				401 46
Grande Vallee, wharf.....			16 00		16 00
Grindstone (Magdalen islands), break-water.....			1,665 47		1,665 47
Gronclines, wharf.....			53 27		53 27
Grosse Isle (Magdalen islands), break-water.....			16 00		16 00
Grosse Isle, (Quarantine station) Eastern wharf.....			2,373 19		2,373 19
Grosse Isle, (Quar. station) Western wharf.....			1,783 71		1,783 71
Grosses Roches, removal of boulders.....		499 68			499 68
High Falls (Labelle Co.) landing float.....		50 75			50 75
Hospital Bay (Magdalen islands), breakwater.....			148 35		148 35
Hudson, wharf, reconstruction.....		4,799 91			4,799 91
Hull, wharf.....			167 57	45 50	213 07
Ile aux Coudres, wharf.....		474 15			474 15

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS.					
<i>Quebec—Continued.</i>					
Ile aux Foins	10,944 80				10,944 80
Ile Perrot, North, wharf			1,627 24		1,627 24
Ile Verte-Notre-Dame des Sept Dou- leurs, wharf.		199 85			199 85
Ile Verte Village, wharf.			2,465 58		2,465 58
Kamouraska, wharf			12 50		12 50
Lacolle, wharf			2,887 80		2,887 80
Lake St. Louis	19,584 27				19,584 27
Laprairie, protection works		147,602 00			147,602 00
La Salette (Riv. du Lievre) landing boat	1,074 15		6 00		1,080 15
Lauzon—"Champlain" dry dock		953,670 81			953,670 81
Lauzon—"Lorne" dry dock				28,318 30	28,318 30
Lavaltrie, wharf.				47 49	47 49
Levis, deep water wharf		560 00		1,507 11	2,067 11
Long Rapids, Riv. du Lievre	2,279 28				2,279 28
Longueuil	45,407 05				45,407 05
Lotbinière, wharf			1,109 98		1,109 98
Magog, wharf			91 41		91 41
Malbaie, pier			902 70		902 70
Masson, wharf			814 33		814 33
Megantic, wharf.			56 01		56 01
Mission Point	10,410 76				10,410 76
Mont Louis, breastwork		273 04			273 04
Montreal, dry dock				105,000 00	105,000 00
Murray Bay, wharf			202 69		202 69
Newport, breakwater			907 82		907 82
Norway Bay, wharf (Ottawa riv.)		4,703 70			4,703 70
Papineauville, wharf	301 28		64 96		366 24
Phillipsburg, wharf reconstruction		2,007 28			2,007 28
Pierreville, wharf			108 30		108 30
Pointe à Brousseau, wharf			228 99		228 99
Pointe à Elle, breakwater (Magdalen islands)			129 34		129 34
Pointe aux Esquimaux, wharf			22 39		22 39
Pointe aux Trembles (Portneuf Co.), wharf		719 94			719 94
Pointe Claire, wharf				150 00	150 00
Pointe-Fortune, wharf.			10 00		10 00
Pointe Piche (Timiskaming), wharf.				40 00	40 00
Pointe Sheba (Magdalen islands), wharf.			1,298 75		1,298 75
Pointe St. Pierre, breakwater.			603 29		603 29
Poltimore (Riv. du Lievre), landing boat			26 50		26 50
Poupart (Riv. du Lievre)	6,292 60				6,292 60
Quebec Harbour (Riv. St. Charles), improvements to navigation		137,357 18			137,357 18
Repentigny, wharf			10 00		10 00
Rimouski, harbour improvements.		59,228 04			59,228 04
Rimouski, wharf			195 57	1,222 81	1,418 38
Riv. aux Renards, wharf			175 00		175 00
Riv. Bonaventure, training pier		10 00			10 00
Riviers des Vases (Timiscamata Co.), pier			999 50		999 50
Rivière du Lievre, lock				5,938 70	5,938 70
Rivière Gatineau, bank protection			15 00		15 00
Rivière Ouareau, ice breaker.			1,379 99		1,379 99
Rivière Ouelle, wharf		5,503 69			5,503 69
Rivière-St. Louis	517 96				517 96
Rivière-St. Maurice	10,502 80				10,502 80
Rivière Saguenay, protection work.	32,254 16	498 38			32,752 54
Roberval, wharf.			211 90		211 90
St. Alexis, wharf			2,916 25		2,916 25

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance	Total.
	§ cts.	§ cts.	§ cts.	§ cts.	§ cts.
HARBOURS AND RIVERS.					
<i>Quebec—Concluded.</i>					
St. Alphonse (Chicoutimi Co.), Wharf	5,212 03		706 14		5,918 17
St. Andre de Kamouraska, wharf.			1,178 85		1,178 85
St. Anicet, wharf			132 75		132 75
Ste. Anne de Beupre, wharf.			674 68		674 68
Ste. Anne de Bellevue.	90 00				90 00
Ste. Anne des Monts, landing pier, etc.		7,546 15			7,546 15
Ste. Anne de Chicoutimi, wharf.			2,760 24		2,760 24
St. Charles de Caplan, wharf.		1,142 43			1,142 43
St. Charles de Richelieu, wharf.			287 77		287 77
St. Denis de Richelieu, wharf.			149 98		149 98
St. Eloi (Teniscouata Co.), wharf			155 40		155 40
Ste. Emelie (Leclercville), wharf			16 00		16 00
Ste. Famille (Ile d'Orleans), wharf.			193 38		193 38
Ste. Felicite, wharf			599 13		599 13
St. Francois (Ile d'Orleans, south side), wharf.			134 20		134 20
St. Fulgence, wharf.	1,948 82		280 95		2,229 77
Ste. Genevieve de Batiscan, approach to wharf		219 90			219 90
St. Gregoire de Montmorency, revetment wall.		231 18			231 18
St. Ignace de Loyola, dykes.			660 51		660 51
St. Irene les Bains, wharf.			588 22		588 22
St. Jean des Chaillons, wharf			631 29		631 29
St. Jean (Ile d'Orleans), wharf.			114 28	12 05	126 33
St. Jerome, wharf.			1,801 69		1,801 69
St. John's ice-pier, etc.		739 47	18 80	28 80	787 07
St. Laurent (Ile d'Orleans), wharf.			1,852 25	105 93	1,958 18
St. Majorique, wharf.			400 88		400 88
St. Mathias, wharf.				15 00	15 00
St. Methode, wharf.			300 70		300 70
St. Michel de Bellechasse, wharf			1,599 67		1,599 67
St. Ours, wharf.		50 08			50 08
St. Paul, Ile aux Noix, wharf.			777 56		777 56
St. Pierre les Becquets, wharf.			37 20		37 20
St. Roch de Richelieu, wharf.		952 15			952 15
St. Simeon, wharf.			95 14		95 14
St. Ulric, wharf			1,200 00		1,200 00
St. Zotique, reconstruction of wharf.		2,039 14			2,039 14
Sabrevois, wharf.			1,481 39		1,481 39
Seven Islands wharf, derrick.		280 95			280 95
Sorel deep water wharf		7 00			7 00
Trois Lacs (Meganic Co.), wharf approach			96 88		96 88
Trois Pistoles, wharf and breakwater.			999 37		999 37
Varennes, protection work		1,232 81			1,232 81
Vaudreuil wharf.			74 75		74 75
Woburn, wharf.			195 50		195 50
Yamachiche, landing.			40 00		40 00
Yamaska, lock and dam.			671 15	1,951 73	2,622 88
Generally	12,374 08			36,807 79	49,181 87
Totals, Quebec.	181,714 37	1,343,338 47	61,745 84	182,569 31	1,769,367 99
<i>Ontario—</i>					
Abram's Chute (Kenora dist.), removal of boulders		486 90			486 90
Arnprior, wharf				22 50	22 50
Bayfield, piers.			1,356 44		1,356 44
Beaumaris, wharf.			75 38		75 38
Belleville, wharf, (shed)		200 00			200 00
Big Bay Point, wharf.			719 62		719 62
Bobcaygeon, floating wharf.				7 50	7 50

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
	\$ cts.	8 cts.	8 cts.	8 cts.	\$ cts.
<i>(HARBOURS AND RIVERS—Continued).</i>					
<i>Ontario—Continued.</i>					
Bowmanville, piers.....			3,322 83		3,322 83
Bracebridge, wharf.....			109 06		109 06
Bronte, pier.....			1,047 38		1,047 38
Bruce Mines, wharf, etc.....		346 40			346 40
Burlington Channel, bridge.....			189 58	5,855 03	6,044 61
Burlington Channel, pier.....			1,050 00		1,050 00
Burlington, revetment wall.....		10,441 59			10,441 59
Byng Inlet.....	18,056 10				18,056 10
Cardinal.....	8,039 91				8,039 91
Charlton (Nipissing), wharf.....			113 48		113 48
Christian Island (Simcoe), wharf.....			554 97		554 97
Chute a Blondeau, wharf.....			45 53		45 53
Cobourg, east pier.....			13,227 95		13,227 95
" harbour.....	3,711 18				3,711 18
" Langevin pier.....			2,491 70		2,491 70
Collingwood graving dock No. 1.....				15,000 00	15,000 00
" graving dock No. 2.....				9,208 96	9,208 96
Cumberland, wharf.....			298 23		298 23
Desbarats, landing float (Algoma).....		99 55			99 55
Fighting island.....	319 33				319 33
Fort William, harbour improvements.....	163,913 04	62,854 07	616 37		227,383 48
French River, dam.....			2,745 17		2,745 17
Goderich, harbour improvements.....			1,094 55		1,094 55
Grand Bend, piers, etc.....			181 95		181 95
Haileybury, wharf.....			1,389 86		1,389 86
Hamilton harbour, improvements.....	12,877 99				12,877 99
Hawkesbury.....	14,825 15				
Loss, work done for private firms.....	8,150 01	6,675 14			6,675 14
Juniper Island (Stoney Lake) wharf.....				20 00	20 00
Kenora, wharf.....				180 00	180 00
Kincardine, breakwater.....	6,260 75		2,195 68		8,456 43
Kingston dry dock, revetment walls.....			8,732 11		8,732 11
" harbour, improvements.....		45,011 93			45,011 93
Kingsville, piers.....			198 29		198 29
Lakeport, wharf approach.....			119 22		119 22
Leamington, wharf.....			951 05		951 05
L'Orignal, wharf.....			199 17		199 17
Michipicoten river, wharf.....			607 99		607 99
Midland.....	22,939 79				22,939 79
Minaki, wharf.....		18 20			18 20
Montreal river (Latchford dam).....				2,633 99	2,633 99
Nipissing, wharf.....			178 50		178 50
New Liskeard, wharf.....			689 09		689 09
Osawa, pier.....			1,219 68		1,219 68
Owen Sound, wharf.....			3,906 79		3,906 79
Pelee Island, dock.....			539 29		539 29
Pembroke, wharf.....			1,679 33		1,679 33
Peterborough (George St), wharf.....			580 02	12 07	592 09
Petewawa, wharf.....			598 59		598 59
Picnic Islands (Georgian Bay), improvements.....	3,830 35				3,830 35
Port Arthur, dry dock.....				35,641 50	35,641 50
" harbour improvements.....	38,089 58	40,353 40			79,042 98
Port Burwell, piers.....	19,148 99		1,910 83		21,059 82
Port Colborne, west breakwater.....			398 50		398 50
" east breakwater.....			1,959 00		1,959 00
Port Hope harbour, piers.....			6,046 75		6,046 75
Port Maitland.....	9,684 37				9,684 37
Port Stanley, groynes.....		16,770 18			16,770 18

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work	Dredging.		Construction and Improvements.		Repairs.		Staff and Maintenance.		Total.
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	
HARBOURS AND RIVERS.									
<i>Ontario—Concluded.</i>									
Port Stanley harbour improvements	19,354	46							
Less, work done for private firms	3,119	67							
	16,234	79	55,081	98	123	85			71,440 62
Rainy River, protection works					719	96			719 96
River Thames, removal of boulders, at mouth				11	25				11 25
Robin's Landing, wharf							25	00	25 00
Rondeau Harbour, erosion in harbour bar, piers, etc.	2,049	87	2,737	75	3,698	39			8,486 01
St. Joseph (Huron Co.), wharf					400	00			400 00
Sault Ste. Marie, wharf			1,140	72	505	30			1,646 02
Seven Mile Narrows, breastwork-cribs					109	76			109 76
Shrewsbury, pier					187	95			187 95
Silver Centre, wharf					1,030	66			1,030 66
Southampton, piers					2,987	56			2,987 56
Sturgeon Falls, wharf					213	73			213 73
Thornbury, wharf					737	01			737 01
Tobermory glance booms							136	61	136 61
Toronto Harbour Improvements—									
Canadian-Stewart contract			875,586	54					875,586 54
Fisherman's Isld (new building)				745	07				745 07
Queen's wharf							50	00	50 00
Wendover, wharf			3,457	20	124	75			3,581 95
Wheatley, wharf					227	50			227 50
Windsor, dock			664	42	51	60	1,200	00	1,916 02
Generally	7,080	22					14,859	58	21,939 80
Totals, Ontario	339,502	40	1,116,007	15	74,538	86	84,852	74	1,614,901 15
<i>Manitoba—</i>									
Arnes, wharf					1,218	24			1,218 24
Assiniboine river, protection work			1,508	45					1,598 45
Big George island	2,977	38							2,977 38
Giimli (Lake Winnipeg), wharf					519	60			519 60
Giimli " protection work					689	26			689 26
Hnausa (Lake Winnipeg), wharf	1,077	56			1,260	63			2,338 19
Killarney dam						34	44		34 44
Little Pembina river, diversion into Pelican lake			125	00					125 00
Minette, wharf				12	87				12 87
Red River, dredging at mouth	11,520	09							11,520 09
" Park Point, Crescent isld.	7,839	39							7,839 39
" Sugar island	1,029	93							1,029 93
" The Forks	10,457	79							10,457 79
St. Andrews rapids, lock and dam					300	00	14,189	77	14,489 77
Selkirk shipyard, including arrears of rental thereon	717	11	7,347	33			3,512	21	11,576 65
Selkirk, slough	10,632	51							10,632 51
Generally	1,209	60					3,186	52	4,396 12
Totals, Manitoba	47,461	36	9,083	65	4,022	17	20,888	50	81,455 68
<i>Saskatchewan and Alberta—</i>									
Generally	822	50					2,041	27	2,863 77
Totals, Saskatchewan & Alberta	822	50					2,041	27	2,863 77

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS & RIVERS.					
<i>British Columbia—Continued.</i>					
Mirror lake, wharf.....			335 94		335 34
Mission, wharf.....			100 50		100 50
Mount Lehman, wharf.....			200 33		290 33
Naas river.....	5,224 50				5,224 50
Nanaimo harbour, impts.....	39,469 24				39,469 24
Needles, wharf approach.....			49 96		49 96
New Westminster, b'ne yard.....	234 12				234 12
Brunette saw mills.....	1,372 82				1,372 82
Heaps engineering works.....	3,875 08				3,875 08
Nitinat.....	3,650 80				3,650 80
Nootka island, wharf.....			2,489 00		2,489 00
Okanagan river, improvements.....	7,157 88	1,332 34			8,489 42
Pender harbour, float.....			7 60		7 60
Port Coquitlam.....	5,110 18				5,110 18
Port Clements (Queenston), wharf.....			1,596 56		1,596 56
Port Moody, wharf.....			241 99		241 99
Powell River, wharf.....			998 46		998 46
Prince Rupert graving dock (insp.).....				2,533 36	2,533 36
" " quarantine station, wharf.....			2,000 00		2,000 00
Pritchard (Shuswa' lake), wharf.....		15 60			15 60
Quatsino, wharf.....			4,316 20		4,316 20
Renata, wharf.....			39 75		39 75
Riverside, wharf.....			309 70		309 70
Revelstoke, mattresses.....		1,995 57			1,995 57
" " extension to wing dam.....		59 84			59 84
Robert's Creek, wharf.....			495 96		495 96
Rocky Point, wharf.....			349 52		349 52
Roy, float.....			8 85		8 85
Safety Cove, wharf.....			32 00		32 00
Sapperton, wharf.....			814 42		814 42
Savary Island, wharf.....			248 50		248 50
Sidney Island, wharf.....			1,246 50		1,246 50
Skeena river.....	11,803 48				11,803 48
Smith's Landing (Cortez island) float.....			10 00		10 00
Spintula, float.....			16 00		16 00
Squamish.....	4,129 41				4,129 41
Stave river.....	1,755 41				1,755 40
Syringa Creek, float.....			51 00		51 00
Ucluet, wharf.....			580 00		580 05
Union Bay, wharf.....			6,688 25		6,688 20
Vancouver, False Creek.....	1,121 70				1,121 78
" " First Narrows.....	59,264 48				59,264 44
" " Harbour improvements.....	228 41	6,515 35	1,692 18		8,435 96
" " Parthia shoal.....	55,181 46				55,181 40
Vargas island, wharf.....			10 00		10 00
Victoria harbour.....	121,206 24				
Less, work done for private firms.....	1,389 51				
	119,816 73	1,370,005 04			1,489,821 77
West Demars, wharf.....			194 63		194 63
Whonock, wharf.....			298 71		298 71
William's Head, quarantine station.....		3,471 44			3,471 44
Willow Point, float.....			449 27		449 27
Generally.....	2,492 15			8,749 51	11,241 66
Totals, British Columbia.....	455,466 92	1,899,966 31	41,867 16	48,364 48	1,945,664 87

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS.					
<i>Yukon Territory—</i>					
Yukon river, improvements to navigation.....		4,272 45			4,272 45
Total, Yukon Territory		4,272 45			4,272 45
<i>Generally—</i>					
General expenses of staff, etc.				10,329 67	10,329 67
Salaries of district engineers, assistants, etc.				384,016 65	384,016 65
Test borings for sundry projected works		9,588 26			9,588 26
Totals, Harbours and Rivers generally		9 588 26		394,346 32	403,934 58
<i>Dredging Plant—</i>					
Ontario and Quebec.....		21,989 42	30,399 10		52,388 52
Total, Dredging Plant		21,989 42	30,399 10		52,388 52
Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.	
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
SLIDES AND BOOMS.					
River Saguenay			9,027 51	9,027 51	
<i>Ottawa District—</i>					
Black river		1,451 28		1,451 28	
Coulouge river.....	542 49	1,779 58		2,322 07	
Gatineau river.....	75 85	1,831 09	600 00	2,506 94	
Madawaska river		5,853 05		5,853 05	
Ottawa river.....		841 64	28,134 46	28,976 10	
Potawawa river.....		5,860 70		5,860 70	
Trent and Newcastle district	2,069 97		204 98	3,204 95	
Collection of slide and boom dues			5,656 76	5,656 76	
Totals, slides and booms.	3,618 31	17,617 34	43,623 71	64,859 36	
ROADS AND BRIDGES.					
<i>Quebec and Ontario—</i>					
Bryon bridge		595 41		595 41	
Chapman bridge		363 13		363 13	
Des Joachims bridge		91 05		91 05	
Matapedia road		118 95		118 95	
" " Pitt Brook bridge		399 03		399 03	
Ottawa City bridges and streets maintained by government					
Chaudiere bridge, Laurier bridge, etc.		5,031 19		5,031 19	
Connaught Place and Wellington street			9,091 80	9,091 80	
Lighting all above			1,794 75	1,794 75	
Minaki, right of way	1 00			1 00	
York bridge (Grand river)		370 52		370 52	
<i>Alberta—</i>					
Banff, old bridge		436 72		436 72	
Edmonton bridge		697 86		697 86	
Totals, roads and bridges	1 00	8,103 86	10,896 55	18,901 41	

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—*Continued.*

Name of Work.	Construc- tion.		Repairs.		Staff and Maintenance		Total.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.
TELEGRAPH LINES.								
<i>Newfoundland—</i>								
Cape Ray (subsidy).....					250 00		250 00	
<i>Maritime Provinces—</i>								
Bay of Fundy lines.....					3,107 45		3,107 45	
Cape Breton lines.....			4,504 55		32,747 64		37,252 19	
Escuminac line.....				2 07	2,166 71		2,168 78	
Prince Edward Island, cable and mainland.....					13,893 32		13,893 32	
<i>Quebec Mainland—</i>								
Father Point (subsidy).....					750 00		750 00	
North Shore, East of Beramias.....					28,674 68		28,674 68	
" West of Beramias.....					21,193 03		21,193 03	
Dorchester County, lines.....	3,699	88					3,699 88	
Quebec County, lines.....	2,372	25			5,244 56		7,616 81	
Tiniskaming, lines.....					3,288 92		3,288 92	
<i>Quebec Island—</i>								
Anticosti system.....					9,267 02		9,267 02	
Cable ship "Tyrian".....					57,236 75		57,236 75	
Groese Isles, Isle aux Coudres & Island of Orleans system.....					6,862 76		6,862 76	
Magdalen islands system.....					5,148 60		5,148 60	
Maritime Provinces and Gulf generally.....					2,741 16		2,741 16	
<i>Ontario—</i>								
Pelee Island cable.....					1,574 42		1,574 42	
<i>Saskatchewan Lines.</i>	2,662	88	7,373	33	51,822 05		61,858 26	
<i>Alberta Lines</i>	1,559	29	3,093	14	74,944 41		79,596 84	
<i>British Columbia and Yukon—</i>								
Ashcroft-Dawson system.....	674	30			219,068 55		219,742 85	
British Columbia, mainland system.....	7,574	41	19,176	97	59,311 36		86,062 74	
British Columbia, Vancouver island system.....					98,761 90		98,761 90	
Telegraph service generally.....					703 12		703 12	
Totals, Telegraph Lines.....	18,543	01	34,150	06	698,758 41		751,451 48	

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
MISCELLANEOUS.				
Surveys:—				
Maritime Provinces			15,597 77	
Quebec			24,297 85	
Ontario			11,265 72	
Manitoba			992 44	
Saskatchewan and Alberta			1,656 26	
British Columbia			8,824 25	
Generally			2,008 00	64,642 29
Upper Ottawa Storage Dams:—				
Brodeur's Township	328 61			
Kippewa dam	531 00			
Latulippe township	15,574 58			
Metering flow	30,027 36			
Quinze dam	17,296 81			
Timiskaming dam	42,185 03			
Generally	28,796 51			134,739 00
Accounts Branch:—Salaries and travelling expenses of agents, clerks &c of outside service			20,134 01	20,134 01
Georgian Bay Ship Canal Commission			5,137 89	5,137 89
Gratuities to widows or other representatives of 32 deceased employees, under Civil Service amendment Act, Sec. 41			5,901 36	5,901 36
Compassionate allowance to the widow of the late R. J. Barnhart of C.G.S. "Cingalee"			2,000 00	2,000 00
Compassionate allowance to the widow of the late C. Gee of C.G.S. "Petrel"			2,000 00	2,000 00
Compassionate allowances to the widows or other representatives of the late members of the crew of Dredge No. 6 wrecked on 17th January, 1917			17,000 00	17,000 00
Gratuity to Onesime Chayer permanently injured while working on Timiskaming dam			500 00	500 00
Paid Robert Dunbar for reporting proceedings at Coroner's Inquest re fire of Parliament Buildings			74 40	74 40
Legal services re cases before International Joint Commission			3,371 09	3,371 09
Monument to His late Majesty King Edward VII	2,702 61			2,702 61
Operation and maintenance of inspection boats			40,970 87	40,970 87
River gauging and metering			26,842 29	26,842 29
War Appropriation:—Salaries in connection with Military Service			92,987 89	92,987 89
Totals, Miscellaneous	137,442 51		281,562 09	419,004 60

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—*Concluded.*

Recapitulation.	Dredging.		Construction and Improvements		Repairs.		Staff and Maintenance.		Total.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Totals Public Buildings—										
Nova Scotia			12,662	48	25,827	98	90,688	38	129,178	84
Prince Edward Island.....			3,753	31	3,122	79	15,322	54	22,198	64
New Brunswick.....			5,406	36	9,956	55	72,138	08	87,500	99
Quebec.....			231,927	78	53,223	19	404,790	71	689,941	68
Ottawa buildings.....			1,759,573	72	522,153	27	996,173	41	3,277,900	40
Ontario (excluding Ottawa).....			279,866	86	35,342	58	313,241	54	628,450	98
Manitoba.....			69,611	46	14,122	46	126,714	79	209,848	71
Saskatchewan.....			29,394	56	13,871	27	74,965	51	118,231	34
Alberta.....			237,384	43	9,348	49	169,945	96	356,678	88
British Columbia.....			38,364	39	16,421	84	141,543	06	196,329	23
Yukon Territory.....							40,006	17	40,066	17
Public Buildings generally.....			7,510	53			79,512	33	87,022	86
Totals, Harbours and Rivers—										
Nova Scotia.....	95,170	45	197,385	05	58,665	66	2,932	47	354,153	03
Prince Edward Island.....	42,254	55	1,441	24	7,025	95	1,630	28	52,352	02
New Brunswick.....	378,096	48	243,861	51	51,529	17	2,770	91	676,258	07
Quebec.....	181,714	37	1,343,338	47	61,745	84	182,569	31	1,769,367	99
Ontario.....	339,502	40	1,116,007	15	74,538	86	84,852	74	1,614,901	15
Manitoba.....	47,461	36	9,083	65	4,022	17	20,888	50	81,455	68
Saskatchewan and Alberta.....	822	50					2,041	27	2,863	77
British Columbia.....	455,496	92	1,399,966	31	41,867	16	48,364	48	1,945,664	87
Yukon Territory.....			4,272	45					4,272	45
Harbours & Rivers generally.....	9,588	26					394,346	32	403,934	58
Totals, Dredging plant.....			21,989	42	30,399	10			52,388	52
“ Slides and booms.....			3,618	31	17,617	34	43,623	71	64,859	36
“ Roads and bridges.....			1	00	8,103	86	10,886	55	18,991	41
“ Telegraph lines.....			18,543	01	34,150	06	698,758	41	751,451	48
“ Miscellaneous.....			137,442	51			281,562	09	419,004	60
Grand totals of expenditure...	1,550,677	29	7,171,805	96	1,093,054	99	4,240,269	46	14,065,207	70

CONTRACTS, DEEDS AND LEASES.

By J. A. CHASSÉ, LAW CLERK.

STATEMENT No. 1.—Contracts let by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918.

Works.	Names of Contractors.	Date of Contract.	Amount.
PUBLIC BUILDINGS			
<i>New Scotia.</i>			
Amherst	Coal per ton.—Bit.	W. A. Fillmore	\$ cts.
Annapolia	"	J. H. Edwards	6 50
Antigonish	"	E. J. Halley	8 50
Arsicat	"	C. P. Ferris	7 50
Baddeck	"	S. W. McDonald	8 50
Bridgewater	"	J. S. Forthby	7 50
Canoe	"	A. N. Whitman & Son	9 00
Dartmouth	"	Dartmouth Coal & Supply Company	9 45
Digby	"	Dartmouth Coal & Supply Company	8 00
Glace Bay	"	Dartmouth Coal & Supply Company	8 00
Guysborough	"	W. E. Van Blarcom	8 50
Halifax	"	Dominion Coal Company	5 45
"	"	Lewis Hart & Company	8 00
"	"	H. D. Mackenzie Company	7 75
"	"	H. D. Mackenzie Company	14 50
"	"	S. Conard & Company	7 75
"	"	H. D. Mackenzie Company	7 75
"	"	The Maritime Bridge Company, Ltd	7 75
Inverness	Coal per ton.—Bit.	Inverness R. & C. Company	5 00
Kentville	"	C. L. Dodge	7 45
Liverpool	"	Kentville Coal Company	8 00
Lunenburg	"	Southern Salvage Company	8 00
New Glasgow	"	A. H. Anderson	9 35
North Common (Hall-Two (2) barracks for accommodation of two battalions of Infantry. Construction of.	"	Acadia Coal Company	7 00
North Sydney	Coal per ton.—Bit.	Bate, MacMahon & Company	249,624 00
"	"	H. G. Campbell	5 00
Parsons	"	H. G. Campbell	5 00
Pictou	"	W. J. Perry	7 00
"	"	D. W. English	6 50

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March 19, 1918 Unit prices.

March 27, 1918

SESSIONAL PAPER No. 19

Shelburne	Post office	Bit	D. W. English	8 50
Shelburne	"	Bit	Shelburne Shipbuilders	8 90
Springhill	"	Bit	G. W. McKnight	9 00
Sydney	"	Bit	Dominion Coal Company	5 10
"	"	Bit	H. G. Campbell	5 00
"	"	Bit	J. H. Kent & Company	6 00
Truro	"	Bit	G. E. Munro	7 00
Westville	"	Bit	F. W. Dimock	6 77
Windsor	Post office	Bit	A. M. Wheaton	8 40
Wolfville	"	Bit	Killam Bros.	8 50
Yarmouth	"	Bit		
<i>Prince Edward Island.</i>				
Charlottetown	Old bank building	Coal per ton—Bit	C. Lyons & Company	8 45
"	Experimental farm	Bit	Geo. E. Full	8 69
"	"	Bit	C. Lyons & Company	8 90
Georgetown	Post office	Bit, nut	C. Lyons & Company	9 50
Montague	"	Bit	J. A. MacDonald	8 40
Souris	"	Bit	Poole & Thompson	8 45
Nanmerside	"	Bit	Matthews & McLean	9 00
Tignish	"	Bit	R. S. Holman	8 50
"	"	Bit	R. S. Holman	9 65
<i>New Brunswick.</i>				
Bathurst	Post office	Coal per ton—Bit	A. C. Branch & Company	9 00
Campbellton	"	Bit	R. K. Shives	8 50
Chatham	"	Bit	H. B. McDonald	9 00
Dalhousie	"	Bit	Chas. Powell	9 00
Fairville	"	Bit	Colwell Fuel Company	8 50
Fredericton	"	Bit	S. L. Morrison	8 25
"	Experimental farm	Bit	S. L. Morrison	9 25
"	New building	Bit	S. L. Morrison	8 25
Grand Falls	Post office	Anth, nut	S. L. Morrison	12 00
"	"	Anth, egg	J. L. White	12 00
Hampton	"	Bit	J. L. White	8 00
Hartland	"	Bit	J. W. Smith	9 35
Maryville	"	Bit	S. L. Morrison	9 25
Newcastle	"	Bit	Burt Hardware Company	8 00
Richibucto	"	Bit	The Stothart Mercantile Company	
St. John	Old post office	Bit	Richard O'Leary	7 75
"	Post office	Anth	R. P. and W. F. Starr	7 75
"	New post office	Bit	R. P. and W. F. Starr	14 75
"	Savings bank	Bit	R. P. and W. F. Starr	7 75
"	Immigration building	Anth, egg	J. S. Gibbon & Company	13 75
"	"	Anth	J. S. Gibbon & Company	13 75
"	Custom house	Bit	R. P. and W. F. Starr	8 15
"	Post office	Anth, egg	R. P. and W. F. Starr	7 75
St. Stephen	Post office	Anth, egg	McGivern	15 00
"	"	Anth—Egg	Jos. McVay & Son	12 00
"	"	Anth—Nut	Jos. McVay & Son	12 75

STATEMENT No. 1.—Contracts let by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.
PUBLIC BUILDINGS.—Continued.			
<i>Nes-Brunswick—Concluded.</i>			
St. Stephen	Immigration building.....	Anth-Stove.	12 75
Sussex	Post office.....	Bit	8 75
Tracadie (Lazaretto)	"	Anth-Egg	17 00
"	"	Bit	11 00
"	Docker's Residence.....	Anth-Egg	17 00
"	"	Anth Nut	17 00
Woodstock	Post office.....	Anth-Stove.	13 50
"	"	Anth Nut.	13 50
<i>Quebec.</i>			
Acton Vale	Post office.....	Anth-Egg	9 50
Arthabaska.	"	Anth-Egg	10 00
Aylmer	"	Anth-Egg	9 50
Berthierville	"	Anth-Stove	9 75
Buckingham	"	Anth Nut	8 55
Cap Rouge.	Experimental farm.....	Anth-Furn.	9 70
Chicoutimi	Post office.....	Anth-Egg	10 00
Coaticook	"	Anth Nut	8 90
Cookshire	"	Anth-Egg	9 15
Drummondville.	"	Anth-Egg	11 00
Dundas.	Custom house.....	Anth-Stove.	9 00
"	"	Anth Nut.	9 25
East Angus	Post office.....	Anth-Egg	10 00
Farnham	"	Anth-Egg	10 00
Fraserville	"	Anth-Egg	12 50
Granby	"	Anth-Egg	9 00
Hochelaga	"	Anth-Furn.	9 50
"	"	Anth Nut.	9 50
Hull.	"	Hull Coal Company	9 50
Iberville	"	John Donaghy	9 00
Joliette	"	Ephrem Bolduc	9 25
Jongueville	"	J. P. Marcotte.	9 00
Knowlton	"	A. E. Ralston	12 00
Lachine	"	Loehms Wood and Coal Company	9 50
"	"	Loehms Wood and Coal Company	9 75
Lachute	"	J. D. Campbell	12 00

PUBLIC BUILDINGS.—Continued.

Nes-Brunswick—Concluded.

Anth-Stove.
Bit
Anth-Egg
Bit
Anth-Egg
Anth Nut
Anth-Stove.
Anth Nut.

Jos. McVay & Son.
Sussex Mercantile Company
The Stohart Mercantile Company
The Stohart Mercantile Company
The Stohart Mercantile Company
The Stohart Mercantile Company
Fleming C. & W. Company
Fleming C. & W. Company

12 75
8 75
17 00
11 00
17 00
17 00
13 50
13 50

Quebec.

Anth-Egg
Anth-Egg
Anth-Egg
Anth-Stove
Anth Nut
Anth-Furn.
Anth-Egg
Anth Nut
Anth-Egg
Anth-Egg
Anth-Stove.
Anth Nut.
Anth-Egg
Anth-Egg
Anth-Egg
Anth-Egg
Anth-Furn.
Anth-Stove
Anth-Egg
Anth-Egg
Anth-Furn.
Anth-Egg
Anth-Furn.
Anth-Egg
Anth Nut.
Anth-Stove.

V. J. Mongeau
L. O. Pepin & Fils
Aylmer Coal & Supply Company
F. Contu-Lamarelle
Hartt & Adair
Hartt & Adair
Cook, Boyvin & Company
B. P. Smith & Son
B. P. Smith & Son
S. T. Osgood & Son
J. A. Gendron
Mrs. A. S. Matthews
J. A. Planché
A. B. Comeau
Les Cie de Charbon de Fraserville
Phoenix & Girard
Hartt & Adair
Hartt & Adair
Hull Coal Company
John Donaghy
Ephrem Bolduc
J. P. Marcotte.
A. E. Ralston
Loehms Wood and Coal Company
Loehms Wood and Coal Company
J. D. Campbell

9 50
10 00
9 50
9 75
8 55
9 70
10 00
8 90
9 15
11 00
9 00
9 25
10 00
10 00
12 50
9 00
9 50
9 50
9 00
9 25
12 00
9 50
9 75
12 00

PUBLIC BUILDINGS.—Continued.

Nes-Brunswick—Concluded.

Anth-Stove.
Bit
Anth-Egg
Bit
Anth-Egg
Anth Nut
Anth-Stove.
Anth Nut.

Jos. McVay & Son.
Sussex Mercantile Company
The Stohart Mercantile Company
The Stohart Mercantile Company
The Stohart Mercantile Company
The Stohart Mercantile Company
Fleming C. & W. Company
Fleming C. & W. Company

12 75
8 75
17 00
11 00
17 00
17 00
13 50
13 50

Quebec.

Anth-Egg
Anth-Egg
Anth-Egg
Anth-Stove
Anth Nut
Anth-Furn.
Anth-Egg
Anth Nut
Anth-Egg
Anth-Egg
Anth-Stove.
Anth Nut.
Anth-Egg
Anth-Egg
Anth-Egg
Anth-Egg
Anth-Furn.
Anth-Stove
Anth-Egg
Anth-Egg
Anth-Furn.
Anth-Egg
Anth-Furn.
Anth-Egg
Anth Nut.
Anth-Stove.

V. J. Mongeau
L. O. Pepin & Fils
Aylmer Coal & Supply Company
F. Contu-Lamarelle
Hartt & Adair
Hartt & Adair
Cook, Boyvin & Company
B. P. Smith & Son
B. P. Smith & Son
S. T. Osgood & Son
J. A. Gendron
Mrs. A. S. Matthews
J. A. Planché
A. B. Comeau
Les Cie de Charbon de Fraserville
Phoenix & Girard
Hartt & Adair
Hartt & Adair
Hull Coal Company
John Donaghy
Ephrem Bolduc
J. P. Marcotte.
A. E. Ralston
Loehms Wood and Coal Company
Loehms Wood and Coal Company
J. D. Campbell

9 50
10 00
9 50
9 75
8 55
9 70
10 00
8 90
9 15
11 00
9 00
9 25
10 00
10 00
12 50
9 00
9 50
9 50
9 00
9 25
12 00
9 50
9 75
12 00

Works.		Names of Contractors.	Date of Contract.	Amount.
Public Buildings.—Continued.				
Quebec—Continued.				
Quebec	Immigration-building.....	Coal per ton—Anth., egg, furn	Canadian Import Company	10 90
"	Post office.....	"	"	10 90
"	Gov. General's quarters.....	"	"	10 90
"	Weights and measures.....	"	"	10 90
"	(Faubourg St.-Jean).	"	"	10 90
Richmond	Public building.....	Fittings	Joseph Bourque	1,250 00
Kingard	Post office.....	Coal per ton—Anth., egg	E. J. Pearson	9 50
"	"	"	B. Desroche	10 00
"	"	"	"	10 00
Kimouski	"	"	Thibaut Lel	10 50
Roberval	"	"	Cole, Borvin & Company	9 50
Rock Island.	"	"	Frederick Young	9 00
"	"	"	C. H. Flammann	8 75
Shawinigan	"	"	Hartt & Adair	11 00
Shawville.	"	"	Coderre & Son	9 50
Sherbrooke	"	"	Hartt & Adair	8 35
Sorel	"	"	Alexis Martin	12 25
Spirit Lake	Experimental farm.....	"	Hartt & Adair	11 00
St. Agathe	Post office.....	"	O. C. Glen	9 80
St. Anne de la Pica.	"	"	"	9 50
St. Hyacinthe	Experimental farm.....	"	Hartt & Adair	8 50
St. Henri (Montreal)	Post office.....	"	A. Cadorette	10 00
St. Jerome	Inland revenue	"	A. Cadorette	8 50
St. Johns	Post office.....	"	J. D. Fournelle	9 00
"	"	"	J. Donaghy	9 00
"	"	"	J. Donaghy	9 00
St. Lambert	Custom house	"	J. Donaghy	9 25
"	Post office.....	"	C. W. Smiley	9 25
St. Laurent, Montreal	Post office.....	"	C. W. Smiley	10 75
St. Roch, Quebec	Coal per ton—Anth., egg	"	Albert Hodice	10 90
St. Saiveur, Quebec.	Anth., furn	"	Canadian Import Co	10 90
St. Therese	Anth., egg	"	"	10 90
St. Yve	Anth., stove	"	A. Blanchard	12 00
"	"	"	M. Leblanc	12 00
"	Interior fittings	"	The J. T. Scheil Company	778 00
				June 29, 1917.

STATEMENT No. 1. Contracts let by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Works.		Names of Contractors.		Date of Contract.	Amount.
PUBLIC BUILDINGS (Continued).					\$
Ontario—Continued.					cts.
Cornwall	Post office	Coal per ton—Anth.	nut.	Jas. Broderick	8 50
Dover-nto.	"	"	furn.	The Deseronto Coal Company	9 00
Dresden	"	"	egg.	Garnet Wells	9 00
Dundas	"	"	nut.	W. Cooper & Company	8 90
Eden-ville	"	"	egg.	John Lusk	10 50
Elora	"	"	stove.	C. Fisher	9 00
Fergus	"	"	"	A. E. Nichol	9 50
Fort William	Examining warehouse	"	egg.	Fort William I & F Company	9 85
"	"	"	nut.	Fort William I & F Company	9 85
"	"	"	egg.	Jas. Murphy	10 00
Galt	Post office	"	nut.	W. A. Smith	9 00
Gananoque	Customs house	"	egg.	Jas. Taylor & Son	9 75
"	Post office	"	furn.	Jas. Taylor & Son	8 15
Glencoe	"	"	nut.	McAlpine Bros.	8 40
"	"	"	egg.	McAlpine Bros.	9 00
Goderich	"	"	stove.	H. J. A. MacEwan	8 50
Grimsby	"	"	nut.	H. J. A. MacEwan	9 00
"	"	"	egg.	J. H. Gibson	8 50
Guelph	"	"	nut.	J. H. Gibson	9 00
Hamilton	"	"	egg.	Kloepfer Coal Company	8 50
"	"	"	Bit	Gillies-Guy	9 00
"	"	"	Anth.	Gillies-Guy	9 00
Ilanover.	Weights and measures	"	egg.	W. H. Eyrdt	8 75
Harrison	Post office	"	furn.	John Howes	9 25
"	"	"	nut.	John Howes	9 25
Hawkesbury	"	"	egg.	W. Wilson	9 00
Ingersoll	"	"	nut.	Scott & Daniels	10 70
Knapokasing	Experimental farm	"	furn.	Fort William Coal Dock Co.	8 25
"	"	"	nut.	Fort William Coal Dock Co.	11 00
Kemptville	Post office	Coal per ton—Anth.	stove.	L. C. Patterson	8 75
"	Gov't property	"	nut.	"	9 00
"	"	Levelling of lot, building of retaining walls, etc.	"	James Todd	425 00
Kenora	Post office	Coal per ton—Anth.	egg.	Murphy Bros.	11 00
Kincardine	"	"	furn.	J. W. Wilson	9 00

STATEMENT No. 1.—Contracts let by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.	
			\$ cts.	
ONTARIO—Continued.				
PUBLIC BUILDINGS—Continued.				
Ontario—Continued.				
Dept. of Militia & Defence— (Mobilization office).....	Metallic four cap drawer vertical filing cabinets.....	The Steel Equipment Co., Ltd.....	May 3, 1917	2,630 00
Public buildings.....	Metallic four cap drawer vertical filing detachable end sections.....	Office Specialty Mfg. Co., Ltd.....	May 4, 1917	10,600 00
Parliament buildings.....	Fire-proofing, etc.....	Montreal Terra Cotta Company.....	May 7, 1917	14,102 50
"	"	Sun Brick Company.....	May 7, 1917	17,357 50
"	Supply of 5,000 pieces of spruce planking for.....	Estate of James Davidson.....	May 7, 1917	5,200 00
"	Supply of Arch tile terra cotta for.....	National Fireproofing Co. of Canada, Ltd.....	May 7, 1917	104,473 75
Dept. of Militia & Defence— (Mobilization audit office).....	Metallic cases.....	Office Specialty Mfg. Co., Ltd.....	May 14, 1917	8,405 00
Dept. of Inland Revenue.....	Filing sections.....	The Steel Equipment Co., Ltd.....	May 25, 1917	629 00
Post office Dept.—(Money Order branch).....	"	"	June 7, 1917	4,075 00
Interior Dept.—(Immigration branch).....	"	"	June 7, 1917	445 00
Dept. of Militia & Defence— (Record office).....	Metallic card index drawer.....	"	July 9, 1917	675 00
East block (Departmental building).....	Fire escapes.....	The Campbell Steel & Iron Works Ltd.....	July 18, 1917	3,450 00
Post office Dept. (Postage stamp branch).....	Metallic fittings.....	The Steel Equipment Co., Ltd.....	July 18, 1917	435 00
Victoria Memorial Museum building—(National Art Gallery of Canada).....	Metallic cases for.....	The Steel Equipment Co., Ltd.....	July 20, 1917	1,138 00
Parliament buildings.....	Supply of 5,000,000 common brick.....	The National Brick Co. of Laurier, Ltd.....	July 25, 1917	12 00 p.m.
Public buildings.....	Supply of coal for 1917-18.....	John Henry & Son Ltd., and The C. C. Hay Co., Ltd.....	Aug. 7, 1917	Sched. of prices.
Dominion public buildings.....	Supply of 200 four cap drawer vertical filing sections No. 14CV.....	Office Specialty Mfg. Co., Ltd.....	Aug. 22, 1917	8,200 00
Parliament buildings.....	Supply of 33,000 barrels of Portland cement.....	Canada Cement Company, Ltd.....	Sept. 8, 1917	\$2 14½ per bbl.
"	Supply of enamelled brick.....	Dartnell Ltd.....	Sept. 8, 1917	6,500 00
Departmental buildings.....	Supply of tungsten lamps for.....	The Canadian Tungsten Lamp Co., Ltd.....	Sept. 18, 1917	5,798 50
Parliament buildings.....	Plumbing pipes & fixtures.....	W. J. McInnis, Ltd.....	Sept. 20, 1917	129,900 00
"	Supply of Tyndall stone.....	Wallace Sandstone Quarries, Ltd.....	Sept. 22, 1917	150,708 00

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SESSIONAL PAPER No. 19

Ottawa.....	Parliament buildings	Supply of marble for stairs, landings and corridor paving.....	The Missisquoi Marbles, Ltd.....	Sept. 22, 1917.	109,880 00
"	"	Alterations and additions to Post office and Money order office fittings.....	"	"	"
"	"	Supply of Hy-Rib.....	Jos. Bourque.....	Sept. 24, 1917.	5,450 00
"	"	Wellington street roadway.....	The Trussed Concrete Steel Co. of Canada.....	Sept. 26, 1917.	16,480 00
"	"	Parliament buildings.....	Ottawa Construction Co., Ltd.....	Sept. 27, 1917.	of prices.
"	"	Dept. of Militia & Defence--(O.A.A.C. building, Record office).....	W. E. Dillon, Ltd.....	Oct. 1, 1917.	76,100 00
"	"	Dept. of Militia & Defence--(O.A.A.C. building, Record office).....	The Steel Equipment Co., Ltd.....	Oct. 9, 1917.	1,095 00
"	"	Public buildings.....	Office Specialty Mfg. Co., Ltd.....	Oct. 9, 1917.	2,695 00
"	"	Dept. of Militia & Defence--Metallic card index drawers and fittings.....	The Steel Equipment Co., Ltd.....	Oct. 19, 1917.	16,320 00
"	"	(O.A.A.C. build.) Rec. office, cases S. 1813.	Office Specialty Manufacturing Co., Ltd.....	Oct. 29, 1917.	10,400 00
"	"	Finance Department.....	Doran and Devlin.....	Nov. 5, 1917.	7,400 00
"	"	Dominion buildings.....	The Two Macs, Ltd.....	Dec. 6, 1917.	30 00 p.sunt.
"	"	Customs building (Assistant Registrar Secretary of State).....	Office Specialty Manufacturing Co., Ltd.....	Dec. 17, 1917.	4,152 00
"	"	Finance Department--(War loan vault).....	"	Jan. 4, 1918.	949 00
"	"	Secretary of State--(Commaught Building) Room 512.....	"	Jan. 14, 1918.	549 00
"	"	Dominion Public buildings.....	"	Jan. 25, 1918.	5,600 00
"	"	"	"	"	"
"	"	"	"	"	"
"	"	Supply of 300 four cap drawer vertical filing sections No. H.C.V. S.1950).....	The Steel Equipment Company, Ltd.....	Feb. 1, 1918.	8,160 00
"	"	Supply of 1,000 trays for storage, case style "E".....	The Brockville Lumber Company, Ltd.....	Feb. 4, 1918.	880 00
"	"	Dept. of the Interior--(Lands patent branch).....	Art Metal Construction Company.....	Feb. 20, 1918.	473 00
"	"	Government Printing Bureau.....	Otis-Fensom Elevator Co., Ltd.....	Mar. 5, 1918.	7,565 00
"	"	Canadian building.....	McKinley and Northwood.....	Mar. 5, 1918.	2,690 00
"	"	Alterations and additions to toilet accommodation in.....	W. G. Edges, Ltd.....	Mar. 28, 1918.	385,000 00
"	"	Heating and ventilating equipment.....	"	"	"
"	"	Two traction elevators for office blocks.....	Otis-Fensom Elevator Co., Ltd.....	Mar. —, 1918.	3,194 00
"	"	Coal per ton--Anth., egg.....	Davis-Smith-Malone Co.....	"	8 70
Owen Sound.....	Post office.....	" Anth., egg.....	E. B. Warren.....	"	10 00
Palmerston.....	"	" Anth., egg.....	O. B. Henry & Co.....	"	9 00
Paris.....	"	" Anth., stove.....	Paris C. & L. Company.....	"	9 00
"	"	"	"	"	"

STATEMENT No. 1.—Contracts let by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.
			\$ cts.
Public Buildings—Continued.			
Ontario—Continued.			
Parkhill	Wm. Leary		8 50
Pembroke	Dunlop & Company		8 50
Peterborough	H. B. Taylor & Son		10 10
Pictou	W. H. Lake		10 00
	Hyatt & Ralston		10 00
	Louis Walsh Coal Co.		10 00
Port Arthur	Thimder Bay L. & F. Company		9 75
			9 75
			9 75
Examining warehouse.	The Public Utilities Commission of the City of Port Arthur	Oct. 19, 1917	\$1.00 per month per kil. hour first 50 hours, 0-013c. for 2nd 50 hours and 0-0015c. for bal. ancv.
Port Colborne	D. W. Carter		8 65
Port Hope	J. M. Rosevear & Company		9 00
Port Perry	C. L. Vickery		10 25
Prescott	James Buckley		9 00
Preston	Joe. Gillies & Son		9 50
Renfrew	James Ward		11 75
Sandwich	Eng. Breault		8 50
Sarnia	Clark Coal Company		8 75
Sault Ste-Marie	Sault Ste. Marie C & W Company		9 00
Seaforth	W. L. Keys		9 75
Shelburne	Jelly & Mowatt		9 50
			9 00

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Sidburne.....	Post office.....	Coal per ton—Anth., stove	Jelly & Mowatt.....	9 00
Smiths Falls.....	"	" nut.....	C. H. Crozier & Company.....	10 00
Steeles.....	"	" stove.....	Sault Ste. Marie C & W Company.....	10 00
Stratford.....	"	" egg.....	"	10 00
Strathroy.....	"	" nut.....	Fielig & Hegy.....	9 50
St. Catharines.....	"	" stove.....	R. W. Nicholson.....	8 25
St. Marys.....	"	" egg.....	"	8 50
St. Thomas.....	"	" nut.....	Cloney & Winton.....	9 25
Sudbury.....	"	" egg.....	A. Deveney.....	9 50
Toronto.....	Custom House.....	" nut.....	F. J. Moore.....	9 50
"	"	Grate.....	W. H. Cox Coal Co.....	9 50
"	"	Anth., nut.....	P. Burns & Company.....	9 50
"	"	" stove.....	"	9 50
"	Express Building.....	" egg.....	"	9 50
"	"	" nut.....	"	9 50
"	"	Grate.....	"	9 50
"	Examining Warehouse.....	Anth., egg.....	"	9 50
"	"	" furn.....	"	9 50
"	Post Office.....	" stove.....	"	9 50
"	"	" nut.....	"	9 50
"	"	" egg.....	"	9 50
"	52 Adelaide St.....	" nut.....	"	9 50
"	"	" stove.....	"	9 50
"	22 Adelaide St.....	Coal per ton—Anth., nut.....	"	9 50
"	Postal terminals.....	Anth., egg.....	"	9 50
"	Postal station.....	Anth., egg.....	"	9 50
"	"	Anth., egg.....	"	9 50
"	"	Anth., nut.....	"	9 50
"	"	Anth., egg.....	"	9 50
"	"	Anth., egg.....	"	9 50
"	"	Anth., egg.....	"	9 50
"	"	Anth., egg.....	"	9 50
"	"	Anth., egg.....	"	9 50
"	Revenue office.....	Anth., nut.....	"	9 50
"	"	Anth., nut.....	"	9 50
"	"	Anth.....	"	9 50
"	P. O. garage.....	Anth., furn.....	"	9 50
"	"	Anth., egg.....	"	9 50
"	"	Anth., egg.....	"	9 50
"	59 Victoria St.....	Anth., egg.....	"	9 50
"	"	Anth., nut.....	"	9 50
"	"	Anth.....	"	9 50
Trenton.....	Post office.....	Anth., egg.....	J. G. Squire.....	8 50
"	Public building.....	Alterations, etc., to P.O., fittings, etc.....	J., R. J., J. F. & R. E. Whitley.....	4,666 00

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Emerson.....	Post office	Coal per ton—	Bit., Can.	Western Coal Company	11 60
Le Pas.....	"	"	Anth., stove.	Lake Lumber Company	14 60
Minnedosa.....	"	"	Anth., Egg	Western Coal Company	11 85
Morden.....	"	"	"	"	11 25
Neepawa.....	"	"	"	"	11 75
Portage La Prairie.....	"	"	"	"	11 90
"	"	"	"	Wm. Richardson.....	12 50
"	"	"	"	"	12 80
"	"	"	"	"	13 65
"	Armoury.	"	Bit., Can	Western Coal Company	11 35
"	"	"	Anth., Egg	Wm. Richardson.	13 65
Selkirk.....	Post office	"	Bit., Egg	Thos. Reid	12 00
Souris.....	"	"	Bit.	T. H. Patrick	9 50
"	"	"	Anth., Stove	"	13 45
Stonewall.....	"	"	Egg.	Winnipeg S. & F. Co.	12 50
St. Boniface.....	"	"	Egg.	Western Coal Company	12 00
Virden.....	"	"	Egg	"	12 45
Winnipeg.....	Immigration hall No. 1	"	Egg	J. G. Hargrave	12 00
"	"	"	Egg	"	12 00
"	Immigration hospital "3"	"	Egg	Winnipeg S. & F. Company	12 00
"	Post office.	"	"	Western Coal Company	12 00
"	Custom house.	"	"	Winnipeg S. & F. Company	12 00
"	New examining warehouse.	"	"	J. G. Hargrave.	12 00
"	"	"	"	Western Coal Company	12 00
"	Postal station "B"	"	"	"	12 00
"	"	"	"	"	12 00
"	Immigration building.	"	Stove.	Winnipeg S. & F. Company	12 00
"	Incline mail elevator.	"	"	Canadian Mathews Gravity Carrier Co., Ltd.	1,375 00
"	Old immigration building	"	Alterations in basement for postal station.	W. J. Hood	4,088 00
"	Immigration building	"	Alterations for accommodation of postal station "A."	"	2,373 00
"	Postal station "A"	"	Supply of one electric freight elevator.	Otis-Fensom Elevator Company, Limited	973 50
"	"	"	"	"	4,140 00
"	"	"	"	"	5 00
Athabaska Landing.	Immigration office	Coal per ton—	Bit., Can	Athabaska Fuel Company	8 60
Bassano.....	Post office.	"	Galt	Atlas Lumber Company	5 45
Calgary.....	Examining warehouse.	"	Bit.	Frank R. Riley	8 75
Castor.....	Immigration office	"	Bit	A. D. McCormick	4 50
Edmonton.....	"	"	Lignite	Dawson Coal Company	4 50
"	Post office.	"	"	"	8 10
Edson.....	Immigration office	"	Bit	"	5 75
Entwistle.....	"	"	Anth., Stove	"	7 50
Grande Prairie.....	Immigration Offices.	"	Bit.	Guthrie & Kitchen	3 50
High Prairie.....	Dominion Laps Office.	"	Bit	Sturgeon Con. Collieries.	8 25
LaCombe.....	Experimental Farm.	"	Semi-Anth.	H. A. Day	6 00
"	"	"	Bit.	"	8 25
"	"	"	Anth., egg	"	8 25

Alberta.

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Moosejaw.....	Immigration building.....	Coal per ton—Bit-Can.....	W. Hannah.....	Feb. 16, 1918..	8 75
"	Public building.....	Extension to observat. gallery in.....	H. E. Forbes.....	"	1,028 40
North Portal.....	Immigration building.....	Coal per ton—Anth., nut.....	F. R. Waddington.....	"	15 50
"	"	"	"	"	12 50
Regina.....	Post office.....	Anth., furn.....	Whitmore Bros.....	"	12 50
"	"	"	"	"	9 25
"	"	"	"	"	9 25
"	Receiver General's office.....	Bit.....	"	"	8 50
"	Alter. to Customs express-off. & e'l'g w'house in Don. Lands b'ld'g.....	Bit.....	Wilson & Wilson, Ltd.....	Oct. 5, 1917..	2,785 00
"	Old <i>Boyal Hawk</i> building.....	Electric elevator in.....	Otis-Fenslow Elevator Co. Ltd.....	Nov. 7, 1917..	1,195 00
Roathorn.....	Experimental farm.....	Alterations for post office purposes.....	Wilson & Wilson, Ltd.....	Dec. 12, 1917..	7,900 00
Shakatoon.....	Post office.....	Coal per ton—Bit.....	Reliance Lumber Company.....	"	9 50
"	Immigration building.....	Anth., egg.....	McKenzie & Thayer.....	"	9 50
"	Experimental farm.....	Anth., egg.....	"	"	9 50
"	"	Anth., egg.....	Beaver Lumber Company.....	"	11 50
Sutherland.....	Nursery station.....	Water service.....	"	"	8 50
Unity.....	Immigration building.....	Coal per ton—Bit.....	The Corporation of the Town of Sutherland.....	May 30, 1917..	11c. p. 100 c. ft.
Wadena.....	"	"	Unity Lumber Company.....	"	7 00
Weyburn.....	Post office.....	"	Prince Rupert L. Co.....	"	8 75
Wilkie.....	Immigration building.....	"	Critenden & Gilchrist.....	"	8 50
"	"	"	Reliance Lumber Company.....	"	10 00
Yorkton.....	Post office.....	Anth., stove.....	"	"	15 50
"	"	Anth., egg.....	C. S. Hiltgen & Company.....	"	14 00
"	"	Bit.....	"	"	9 00
<i>British Columbia.</i>					
Ashcroft.....	Temporary Public building.....	Construction of addition to.....	Edward Hunt.....	Sept. 26, 1917..	957 00
William Head.....	Supply of water from Sooke Lake, B.C., for "Quarantine stn.".....	"	C. H. Rush & Corporation of City of Victoria.....	Feb. 20, 1918..	6c. p. 1,000 galls. during 21 years. (Renewable.)

The following contract was received too late for insertion in last year's (1916-1917) annual report.

Shawinigan Falls.....	Public bld'g...Concrete paving, repairs to sidewalk, levelling, etc.....	Moise Boisvert.....	Aug. 15, 1915..	438 40
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STATEMENT No. 1—Contracts let by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.
HARBOURS AND RIVERS			
<i>Nova Brunswick.</i>			
Hardwick (McLean's Gully). Dredging	F. A. Fowlie	Feb. 4, 1918	8 cts.
St. John (Sand Point Slip). Train conveyor at shed No. 5. Rebuilding of.	J. A. Grant & Ern. G. Thorne	Nov. 19, 1917	41 35
St. John West. Tracks for Gov't. to serve shed No. 16 on west side of Harbour. Construction of.	Canadian Pacific Railway Company.	April 12, 1917	7,000 00
St. John West. Cleaning up deep water berths. Class "B" per cu. yd.	J. S. Gregory	Nov. 2, 1917	Actual cost plus commission of 10 p.c. of such costs for overhead charges including original construction and annual maintenance. 0 40
<i>Quebec.</i>			
Laprairie. Protection works (improvements and completion of protection dyke).	Quinlan & Robertson Ltd.	Sept. 24, 1917	Actual cost of said works plus 10 p.c. 3,693 00
Lanzen. Transmission pole line between new and old dry docks.	Wright & Lomeran	" 12, 1917	
St. Charles River. Steel plate girder bridge over the sluiceways.	Dominion Bridge Company, Limited	Nov. 5, 1917	Actual cost of work plus 10 p.c. not to exceed 31,966 00
St. Germain de Rimouski. Extension of water service to Government wharf.	Municipal Council of Town of St. Germain de Rimouski	Feb. 15, 1918	6,000 00
St. Germain de Rimouski. Supply of water to Government wharf.	"	" 15, 1918	900 00 p. annum during 10 yrs.

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<i>Ontario.</i>					
Fort William	Dredging	Additional quantity of 184,285 cu. yds. Class "B" in Main River	Great Lakes Dredging Company, Limited	Mar. 28, 1918	0 22 1/2
"	"	For cutting away point of bend in Kaministiquia river, Ont. Class "B" p.c. yd.	"	"	28, 1918 0 10 1/4c. plus 0 5c. overtime.
Point Edward	Removal of any obstruction which may form in bed of river St. Clair, Ont.		The Chick Contracting Co. Ltd.	Aug. 17, 1917	2 00
Fort Arthur	Additional dredging at wharf.	Class "A" p. cu. yd.	W. E. Phin.	" 17, 1917	0 13
"	Temporary pile protection break-water	Construction of	The Thunder Bay Harbor Improvement Co. Ltd.	Dec. 31, 1917	Schedule of prices.
<i>Manitoba.</i>					
Selkirk	Supply of electric power to Government shipyard.		Town of Selkirk	Mar. 1, 1918	Minimum charge \$30.00 p. m th , during 18 m ^{ts} from Mar. 1918 600 00 p. annum
St. Andrews Locks	Supply of electric power for lighting public works on Red River, Man.		The Winnipeg Selkirk & Lake Winnipeg R'y Co.		
<i>British Columbia.</i>					
Vancouver	Wooden freight shed and fireproofing of grain conveyor supports on west side of wharf.		J. P. Hodgson & F. T. Ring	Mar. 5, 1918	128,274 00
Victoria	Shed required for accommodation in connection with piers Nos. 2 and 3. Construction of.		Grant Smith & Co. & Melbournell Ltd.	Sept. 12, 1917	Actual cost of said works plus 10 p.c.
VESSELS DREDGES AND PLANT.					
Supply of brooms and brushes for departmental dredging plant for Ontario and Quebec, for 1917-1918.					
"	"	rubber hose for departmental dredging plant for Ontario and Quebec, for 1917-1918.	The Brockt Bros. Company, Limited.	April 18, 1917	Schedule of prices.
"	"	"	Canadian Consolidated Rubber Co. Ltd.	" 18, 1917	"
"	"	"	Goodyear Tire & Rubber Co. of Canada Ltd.	" 18, 1917	"
"	"	"	Dunlop Tire & Rubber Goods Co. Ltd.	" 18, 1917	"
"	"	"	The Canadian Fairbanks-Morse Co. Ltd.	" 18, 1917	"
"	"	"	The Imperial Oil Company Limited.	" 18, 1917	"
"	"	"	The Garlock Packing Company.	" 18, 1917	"
"	"	"	The General Supply Co. of Canada, Ltd.	" 18, 1917	"
"	"	"	Ottawa Paint Works Ltd.	" 18, 1917	"
"	"	screened coal for departmental dredging plant for Ontario and Quebec, for 1917-1918.	Southern Salvage Company Ltd.	" 18, 1917	7 50 per ton.
"	"	wicks, for 1917-1918.	The Canadian Fairbanks-Morse Co., Ltd.	" 18, 1917	Schedule of prices.
"	"	metallic hose for departmental dredging plant for Nova Scotia and New Brunswick, for 1917-1918.	"	"	"
"	"	wicks, for 1917-1918.	Goodyear Tire & Rubber Co. of Canada Ltd.	" 18, 1917	"
"	"	rubber hose for departmental dredging plant for Nova Scotia and New Brunswick, for 1917-1918.	"	"	"

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" hose	" "	" "	" "	18, 1917	"	"
" oils and grease	" "	" "	" "	18, 1917	"	"
" packing	" "	" "	" "	18, 1917	"	"
" paints and paint oils	" "	" "	" "	18, 1917	"	"
" coal	" "	Victoria	" "	18, 1917	"	"
" fuel oil	" "	" "	" "	18, 1917	"	"
" gasoline and coal oil	" "	" "	" "	18, 1917	"	"
" oils and greases	" "	" "	" "	18, 1917	"	"
" packing	" "	" "	" "	18, 1917	"	"
" paints and paint oils	" "	" "	" "	18, 1917	"	"
" 1,700 tons of "run of mine" coal for departmental dredging plant for Montreal, Que., for 1917-1918, net per ton.	" "	" "	" "	18, 1917	"	"
" 300 tons of coal for departmental dredging plant for Chicoutimi, Que., for 1917-1918, per ton.	" "	" "	" "	May 21, 1917	"	\$ 7 75
Docking, cleaning, painting and repairing Dredge "Maatodon," No. 306.	" "	" "	" "	21, 1917	"	\$ 8 75 plus freight charges
Chipping, re-riveting lip rivets in buckets, etc., Dredge "Maatodon," No. 306.	" "	" "	" "	Sept. 7, 1917	"	\$1,338 00
Supply of 500 tons of Old Sydney screened coal for departmental dredging plant for Lewis, Que., for 1917-1918, per ton.	" "	" "	" "	" 7, 1917	"	Unit prices.
Docking, cleaning, painting and repairs to Dredge No. 303, "Fruhling"	" "	" "	" "	" 8, 1917	"	\$ 9 95
Supply of uniforms for officers of S.S. "Tyrian"	" "	" "	" "	Dec. 6, 1917	"	\$19,969 00, and 75c. per sq. ft. for any extra cement work..
				Jan. 17, 1918	"	\$446 50

The following item was received too late for insertion in last year's annual report, 1916-1917.

Gracetown—Wharf, warehouse and shed, Construction of.....	John W. Buckley.....	Dec. 27, 1915	\$7,200 00
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STATEMENT No. 2.—Properties purchased or sold by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918.

Date of Conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price.
1917.						\$ cts.
April 5	Achille Verhelst	His Majesty	Release for all claims, etc., re damages caused by flooding of lots 26, 27 and 28, Range 2, Township of Fabre, District of Timiskaming, Que.	Timiskaming Reservoir Dam.		200 00
" 23	Provincial Government of New Brunswick.	Dominion Gov. Eugene Frigon.	Transfer of wharf site, St. George, N.B.	Government purposes.		Free transfer.
" 23	His Majesty	W. S. Logue Co., Ltd.	Grant of tract of land being part of lot No. 1 Subdivision of lot No. 380, La Malbaie, Que.	Private enterprises.		Free grant.
" 24	"	Wm. G. Rogers.	Judgment re lands and property conveyed, Shippegan, N.B.	Wharf.		350 00
" 25	"	Bruno Perreault	Grant of land, being parts of lots Nos. 13 and 14, Block "O" Gananoque, Ont.	Private enterprises.	60 ft. x 60 ft.	2,510 00
" 25	"	Mrs. Eugene Frigon	Release for all claims, etc., re damages caused by flooding of lot No. 52, Township of Gunguis, Que.	Timiskaming Reservoir Dam.	47 acres.	47 00
May 1	"	"	Conveyance of land, St. Etienne de La Malbaie, Que.	Government purposes.	101 25 feet.	Exchanged for parcel of land transferred to her by the Crown Free transfer.
" 5	Department of Public Works.	Department of Militia and Defence.	Temporary transfer of Martello Hotel, St. John, N.B.	Quarters for troops.		"
" 8	Provincial Government of New Brunswick.	Dominion Gov. Eugene Frigon.	Transfer of water lot, St. Nicolas River, South Branch, N.B.	Wharf.	0 07 acre.	"
" 9	"	"	Transfer of wharf with site thereof and approach thereto, Leonardville, Deer Island, N.B.	Government purposes.	23,400 sq. ft.	"
" 12	Halcyon Hot Springs Co., Ltd.	His Majesty	Transfer of part of lot No. 100, Group 1, Halcyon, B.C.	Wharf.	0 28 acres.	1 00
" 14	Certificate of Title	"	Sale of land, most westerly 78 feet through out of lots Nos. 36, 37 and 38, Block 13, Townsite of Lloydminster, Sask.	Site for Public Building.		"
" 18	Hudson Bay Company	His Majesty	Sale of lot No. 1 Block 4, Dunvegan, Alta.	Telegraph offices.		175 00
" 24	Provincial Government of New Brunswick.	Dominion Gov. Eugene Frigon.	Transfer of water lot on western side of Base River, N.B.	Government purposes.	0 1 acre.	Free transfer.

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" 29	Notice of Expropriation.		Expropriation of land being part of lot No. 44, Range IV and lot No. 44, Range III, Township of Guigues, Timiskaming, Que.	Timiskaming Reservoir Dam.	119 96 acres.	
" 30	His Majesty	Toronto Harbour Commissioners	Quit claims, 1st re water lot "B," north of new western channel, and 2nd re water lot "C."	Harbour improvements.	Lot "B" 48.7 acres-Lot "C" 9.70 acres.	
" 31	Notice of Expropriation.		Expropriated land at township of Guigues, Timiskaming, Que.	Timiskaming Reservoir Dam.	14,500 sq. ft.	Free transfer.
June 15	Provincial Government of New Brunswick.	Dominion Gov- ernment.	Transfer of wharf with site thereof and approach thereto, Bayside, N.B.	"	19,200 sq. ft.	"
" 15	"	"	Transfer of wharf with site thereof and approach thereto, Beaver Harbour, N. B.	"		100 00
" 16	Frederick C. Danae, et ux	His Majesty	Sale of part of lot No. 8, Block 3, Plan 5A, Shelburne, Ont.	Public Building Drainage		
" 20	Provincial Government of New Brunswick.	Dominion Gov- ernment.	Transfer of wharf with site thereof, Kennebecaup Island, N.B.	Government purposes.	17,070 sq. ft.	Free transfer.
" 20	"	"	Transfer of wharf with site thereof, Bayswater, N.B.	"	13,600 sq. ft.	"
" 21	The Grand Trunk Pacific Railway Company.	His Majesty	Conveyance of a strip of land, 30 feet in width, forming part of portion of Fort William, Ont., Indian Reserve.	Kanamiatiquis and Mission River Improvts.	13-85 acres.	1 00
" 22	Provincial Government of New Brunswick.	Dominion Gov- ernment.	Transfer of Hatfields wharf, Springfield, N.B.	Government purposes.	9,236 sq. ft.	Free transfer.
" 22	Notice of Abandonment.	"	Transfer of water lot on Moules River, N. B.	Landing wharf.		"
July 16	"	"	Abandonment of land, being lot No. 14, north side of Beach road, Windsor, Ont.	Government wharf		
" 28	His Majesty	Ottawa Car Mfg. Co., Ltd. His Majesty	Sale of Bollock motor generator set.			790 00
" 28	Estate Edouard Ruel.	His Majesty	Sale of lot No. 5 east part of village of Lauzon, Que.	Lauzon Dry Dock.		1,200 00
Aug. 17	Government of Prince Edward Island.	Dominion Gov- ernment.	Transfer of that piece of land and land covered by water near north eastern end of Ferro road, Cardigan South, P. E. I.	Government purposes.		Free transfer.
Sept. 13	Alex. Caya.	His Majesty	Release for all claims, etc., for damages caused by flooding of lot No. 41, R. II, Tp. of Fafre, Timiskaming, Que.	Timiskaming Reservoir Dam.	106 acres.	100 00
" 14	City of Quebec.	"	Conveyance of land being part of lot No. 513, 64, parish of St. Roch Nord, Que.	St. Charles River Improvements.	5,688 sq. ft.	Free grant.
" 26	Notice of Expropriation		Expropriation of land being lot No. 44, Natashquan, Que.	Site for wharf.	5 acres.	
" 29	D. G. Stewart	His Majesty	Release for all claims, etc., re contract for re-erectment wall, Burlington, Ont.			10,441 69
Oct. 1	Sarah E. Leacy (widow).	"	Grant of part of village lot No. 1, R. I of village lots, Cardinal, Ont.	Site for Post Office.		4,000 00
" 2	Notice of Abandonment.	"	Abandonment of land on east side of Natashquan harbour, Que.	Site for wharf.	10 acres.	
" 17	Notice of Expropriation.		Expropriated land, Tp. of Lamplips, Pontiac Co., Que.	Quinze Lake Reservoir.		
Nov. 7	Katherine A. McKay (widow).	His Majesty	Release for all claims in re sale of property, Stellarton, N.S.	Site for Pub. Bld'g.	12,740 sup. ft.	5,037 14

STATEMENT NO. 2.—Properties purchased or sold by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Date of Conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price.
1917.						8 cts.
Nov. 7	His Majesty	J. A. Carignan.	Sale of building at Grand Mere, Que.	Private enterprise		800 00
" 8	David John Barker.	His Majesty	Right and privilege to dig and excavate a trench across, under and through a portion of his land, Victoria, Ont.	Drainage of Pub. Bldg.		100 00
" 12	The Watrous Engine Works, Ltd.	"	Bill of sale re steam tug "Dorothy Symons"			1 00
" 17	Eusebe Boucher	"	Release for all claims for damages caused by flooding of lot No. 49, R. IV, Tp. of Guigues, Timiskaming, Que.	Timiskaming Reservoir	71 46 acres.	71 46
" 20	Archie McLaren.	"	Release for all claims for damages caused by flooding of Lake Quize, Que.	"		250 00
" 21	John David Pyc and Stella May Pyc.	"	Flooding of Lake Quize, Que.	"		75 00
" 21	Eugene St. Pierre.	"	Sale of land, Ecum Secum, N.S.	Site for wharf.	0 57 acres.	30 00
" 27	E. V. Dodge.	"	Release for all claims for damages caused by flooding of lot No. 42, R. IV, Tp. of Guigues, Timiskaming, Que.	Timiskaming Reservoir	50 03 acres.	77 50
" 29	Thomas Lawson & Sons, Ltd.	"	Purchase and removal of old shed standing on post office property at Cardinal, Ont.			1,342 10
Dec. 17	His Majesty	"	Sale of soap house and wrought iron, Victoria Island shipyard Ottawa, Ont.	Drill Hall Site		Exchange of property.
" 19	Certificate of Title	"	Certificate of title re portion of lot No. 57, St. James parish, Winnipeg, Man.	Reservoir		
" 19	Certificate of Ownership.	"	Certificate of ownership re portion of block 335, 340 and 341 on north side of Melville St., and lots Nos. 330, 335, 338, 339 and 342 on south side of Scott St., New Liskeard, Ont.	Timiskaming Reservoir		
" 24	Notice of Expropriation.	"	Expropriation of land being part of lot No. 8, lot Cons., Tp. of Neebing, Fort William, Ont.	Kaministiquia River Im- provements.	2 61 acres.	
" 31	Alphonse Letellier.	His Majesty	Sale of part of lot No. 5, Village of Lauzon, Que.	Dry Dock	28,555 sq. ft. eng. measure.	8,747 49

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Date	Buyer	Description	Property	Area	Value
1918. Jan. 2	John L. Murphy, et al.	Grant of land being composed of lot No. 14 on north side of Sandwich St., Windsor, Ont.	Government Wharf		1 00
" 4	Dept. of Indian Affairs	Transfer of portion of lot No. 29, Richibucto Indian Reserve, N.B.	Moulins River Wharf	0.56 acres	Free transfer.
" 17	Dept. of Public Works	Permission to improve portion of roadway running through Government property, Port Credit, Ont.			
" 19	Notice of Abandonment	Abandonment of land forming part of lots Nos. 2, 4 and 5, Village of Lauzon, Que.	Drill Hall Site	137,269 sq. ft. Eng. measure.	Exchange of property.
" 28	Certificate of Title	Certificate of title re lot No. 195, being portion of lots Nos. 57 and 58, St. James parish, Winnipeg, Man.		During pleasure.	
" 28	Pacific Telephone & Telegraph Co.	Agreement to operation of line from Ouyosos to Kamloops, B.C., via Fairview, Hodgey, Princeton and Nicola, B.C.	Drill Hall Site		Exchange of property.
" 29	Certificate of Title	Certificate of title re portion of lot No. 57, St. James parish, Winnipeg, Man.	Site for Office Building	29,799 sq. ft.	
Feb. 6	Notice of Expropriation	Expropriation of westerly 3 ft. of lot No. 10, northerly side of Albert St., Ottawa, Ont.	Quinze Lacs Dam	20.15 acres	440 00
" 6	Joseph Paquin	Release for all claims for damages caused by flooding of lot No. 13, R. IX, Tp. of Latulippe, Timiskaming, Que.	Quinze Lacs Dam		
" 7	William Hamel	Release for all claims for damages caused by flooding of lot No. 1, R. II, Tp. of Latulippe, Timiskaming, Que.	Timiskaming Reservoir Dam	4-10 acres	60 50
" 18	Bruno Beaudet	Release for all claims for damages caused by flooding of lot No. 36, R. V, Tp. of Latulippe, Timiskaming, Que.	Quinze Lacs Dam	86-04 acres	500 00
" 20	Chas. Rbcault	Release for all claims for damages caused by flooding of lot No. 5, R. IX, Tp. of Latulippe, Timiskaming, Que.	Timiskaming Reservoir Dam	47-75 acres	640 00
" 20	J. A. Fugere (P.P.)	Release for all claims for damages caused by flooding of lot No. 21, R. VII, Tp. of Latulippe, Timiskaming, Que.	"		228 25
" 21	James K. Green	Release for all claims for damages caused by flooding of part of lot No. 9, Tp. of Casey, Timiskaming Ont.	"	4-35 acres	287 50
" 25	Wm. R. Reay	Release for all claims for damages caused by flooding of lot No. 3, on east side of Lake Shore-road, Tp. of Dymund, Ont.	"	38-5 acres	400 00
" 27	North Coast Land Co., Ltd.	Sale of lot No. 15, Block 29, Telkwa, B.C.	Site for Telegraph Office		150 00
Mar. 4	Omer Hamel	Release for all claims for damages caused by flooding of lot No. 1, R. I, Tp. of Latulippe, Timiskaming, Que.	Quinze Lacs Dam	68-25 acres	975 00
" 11	Ovila Brosseau	Release for all claims for damages caused by flooding of lot No. 28, R. VI, Tp. of Latulippe, Timiskaming, Que.	"	88-50 acres	900 00

STATEMENT No. 2.—Properties purchased or sold by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918.—*Concluded.*

Date of Conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Prices.
1918						\$ cts.
.. 12	Notice of Abandonment...		Abandonment of easterly 2 feet of lot No. 10 on south side of Queen St., and easterly 2 feet of lot No. 10 on northerly side of Albert St., Ottawa.		396 sq. ft.	
.. 16	His Majesty	Canadian Pacific Railway Co.	Grant of land in vicinity of Last Mountain Lake, Sask.	Right of way of Regina and Bulyea Branches of C. P. R. Co.		
.. 20	Wong Joad	His Majesty	Surrender of lease and release for all claims for damages caused by removal from lots Nos. 10 and 11, north side of Albert St., Ottawa, Ont.	New Government Office Building.		50 00

The following items were received too late for insertion in last year (1916-1917) annual report.

1901						
June 27	Thomas Smith	His Majesty	Sale of portion of river lot No. 103, between River road and Red River, Man.	St. Andrews Rapids Lock and Dam.		
1915						
Nov. 15	Carter-Halls-Aldinger Co., Ltd.	"	Receipt in full settlement of all claims re Winnipeg, Man., drill hall contract.			5,463 56
1916						
May 15	Certificate of Title	"	Transfer of portion of s. w. ¼ of Sect. 20, Tp. 5, R. 16, N. 30, 20, Man.	Site for wharf		Free transfer.
Dec. 4	La Cie des Pères Oblats de Marie Immaculée.	His Majesty	flooding of lands between lots Nos. 1-582, 1-583, Ville-Marie, Que.	Timiskaming Reservoir Dam.		160 00
.. 3	Louis Pilon	"	Release for all claims for damages caused by flooding of lot No. 584, Ville-Marie, Que.	"		50 50

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1917.					200 ft. x 100 ft.	Free grant.
Jan. 16.	J. L. Légaré			Grant of west 1/3 of lot No. 7, block 5, Willow Bunch, Sask.		120 00
Feb. 27.	Joseph Pelchat.			Release for all claims for damages caused by flooding part of lot No. 46, R. 5, Tp. of Fabre, Timiskaming, Que.		
Mar. 6.	Margaret Hunting.			Release for all claims, etc., in re 1st that certain parcel of land being part of lot No. 24, on n. w. cor. of John and Main Sts, and 2nd, of certain parcel of land being part of lot No. 24, on w. cor. of John and Main Sts, Hamilton, Ont.		85,530 00 plus interest 1/2%
" 20.	Notice of Expropriation.			Expropriation of land at Port Hastings, N. S.	1/4 acre,	
" 28.	Cyprien Descargues et al.	His Majesty		Institution of servitude on part of lot No. 37, R. 3, Tp. of Guigues, Timiskaming, Que.	Reservoir 22 1/2 acres.	370 00
					Telegraph Office.	
					Reservoir	
					Dam.	
					Site for Public Building.	
					Reservoir	
					Dam.	

STATEMENT No. 3.—Properties leased to and from the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918.

Date of Lease.	Lessor.	Lessee.	Description of Property.	For what purpose.	Duration of Lease.	Rental.
1917.						8 cts.
Apr. 4	La Banque Nationale	His Majesty	Lease of room N. 68 on 5th and room No. 52 on 4th floor of building, Rideau st., Ottawa, Ont.	National Service.	From month to month from Mar. 25, 1917	125 p. month (monthly).
" 9	Nova Scotia Trust Co. Ltd.	"	Lease of 425 sq. ft. on 2nd floor of "Travel Bldg.", Calgary, Alta.	Inspector of Weights and Measures.	1 year from Apr. 30, 1917.	361.25 p. ann.
" 14	Levee-Martin Company, Limited.	"	Lease of four floors of "Levee-Martin Bldg.", 175 Nepean st., Ottawa, Ont.	Militia and Defence.	5 years (area 20,040 sq. ft.) per sq. ft.	0.40c. p. ann.
" 16	Thomas C. Rice.	"	Lease of building at Weymouth, N.S.	Post Office.	1 year from June 1, 1917.	200 per annum.
" 19	Okanagan Telephone Co.	Public Works Department.	Rental of space on Co.'s pole line, Vernon to Penticton, B.C.	Gov't purposes.	During phase (84 miles at 8¢ per mile.)	336 p. annum.
" 24	Capital Storage Company, Ltd.	His Majesty.	Lease of 3rd floor of building, cor. Emmett & Lewis sts., Ottawa, Ont.	Militia and Defence.	1 yr. from Apr. 17, 1917.	1,520 p. ann.
" 28	La Cie d'Imprimerie et de Publicite de Trois-Rivieres.	"	Lease of 170 sq. ft. on 1st floor of bldg No. 27 Platon st., Three Rivers, Que.	Public Works Dept.	From 1st May 17 and thereafter from month to month.	20 per month (monthly.)
" 30	Jarvis Verner McLellan.	"	Lease of two rooms and vault in bldg 94 Prince William st., St. John, N.B.	Naval Service Dept.	From 1st Dec. 17 to 1st May 17.	20.84 p. month (monthly.)
May 1	Eugene Gravel	"	Lease of a two storey frame bldg, Donnelly (Falkner), Alta.	Immig. Hall.	3 yrs. from 1st May, 1917.	50 per month.
" 1	The Edmonton, Dunvegan & B. C. Ry. Company.	"	Lease of lots Nos. 22, 23 and 24, block I, Spirit River, Alta.	Immig. Hall.	5 yrs. from 1st May, 1917.	5 per annum.
" 8	The Royal Bank of Canada	"	Lease of ten rooms on top floor and part of basement in bldg, cor. Sparks & Metcalfe sts., Ottawa, Ont.	Geological Survey.	1 yr. from 7th Apr., 17.	3,056.50 p. ann. and 6% on cost of vault.
" 11	C. Jackson Bath	"	Lease of 3rd, 4th and 5th floors of "Standard Bank Bldg.", Sparks st., Ottawa, Ont.	Auditor General	5 yrs. from date of occupation.	5,670. p. ann.
" 11	Canada Life Assurance Company.	"	Lease of rooms on 3rd, 4th and 5th floors of "Canada Life Bldg.", Ottawa, Ont.	National Service.	1 yr. from 8th Apr., 17.	188.62 p. mth.
" 14	W. Buckvale & S. T. Hooper.	"	Lease of offices 200 and 208 on lots 23 and 24, block 14, Medicine H. st., Alta.	Immigration	1 yr. from 1st June, 17.	23 per month.
" 16	Richard Atabek.	"	Rental of premises on corners of International Boundary and Meridian Roads, Blaine, Wash., Douglas, B.C.	Immig. Inspector		3 per month.
" 19	Aleido Plouffe	"	Lease of 302 sq. ft. of lot No. 67, St. Felix de Valois, Que.	Post Office.	1 yr. from 1st Jan. 17.	125 p. annum.

STATEMENT No. 3.—Properties leased to and from the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Date of Lease.	Lessors.	Lessees.	Description of Property.	For what Purpose.	Duration of Lease.	Rental.
						\$ cts.
1917.						
Aug. 26	Dunlop Tire and Rubber Co., Ltd.	His Majesty	Lease of two-story building Nos. 306, 308 and 310 Sparks St. and Garage, No. 309 Queen St., Ottawa, Ont.	Insp. of Artillery Stores.	From date of occupation to end of present war.	5,100 p. ann.
26	J. G. Butterworth	"	Lease of 2nd floor of "Bank St. Chambers," cor. Bank and Albert Sts., Ottawa, Ont.	Food Controller and staff.	1 year from date of occupation.	2,500 p. ann.
31	The Notre Dame Investment Co., Ltd.	"	Lease of offices 705, 706, 707, 708, 709 and 710 in building on Notre-Dame Ave., Winnipeg, Man.	Public Works Dept.	29 months from 1st Aug., 1917.	1,500 p. ann.
1	His Majesty	The Edmonton Children's Aid Society.	Lease of lots Nos. 14, 15, 16 and 17, Block 51, Strathcona, Alta.	Home for Children	1 year from 1st Aug., 1917.	1 p. annum (renewable).
7	Imperial Canadian Trust Co.	His Majesty	Lease of suites Nos. 412 and 415 in building cor. 21st St. and 1st Ave., Saskatoon, Sask.	Supt. of Railway Services.	1 year from 1st Sept., 1917.	631.20 p. ann.
9	Ephraim Humphreys	"	Lease of rooms on ground floor with use of basement in building, Trenton, N.S.	Post Office.	5 years from 22nd March, 1918.	600 p. annum (renewable)
9	His Majesty	The Municipal Council of the Town of Lacombe.	Lease of lot No. 240A and part of lot No. 285, Lacombe, Que.	"	During pleasure, 1 p. annum.	"
9	Royal Bank of Canada	His Majesty	Lease of 1,600 sq. ft. on ground floor and 450 sq. ft. of basement in building, cor. 13rd Avenue and York Sts., Ottawa, Ont.	Printing Bureau and Stationery Branch.	From date of occupation to 2nd Jan., 1919.	1,321.60 p. ann. (renewable)
10	Chas. Edward Allyn	"	Lease of ground floor of building, St. John St., Quebec, Que.	Postal Station	5 years from date of occupation.	2,100 p. ann.
13	His Majesty	Leonard Allynne Doid.	Lease of property known as "Government Reserve," Yale, B.C.	Private purposes	10 years from 1st Oct., 1917.	5 p. annum.
14	Andrew Holland	His Majesty	Lease of premises Nos. 396-404 Wellington St., Ottawa, Ont.	Storage of Exhibits—Agriculture.	From month of 15th August, 1917.	210 p. month (monthly).
15	R. L. & R. Blackburn	"	Lease of rooms Nos. 707 and 710 and vault on 7th floor of "Union Bank Building," Ottawa, Ont.	Board of Pension Commissioners of Canada.	2 years and 107 1/2 months, from 1st March, 1917.	5 p. month.
23	Imperial Canadian Trust Company.	"	Lease of suite No. 212 in building cor. 21st St. and 1st Ave., Saskatoon, Sask.	Inland Revenue Dept.	1 year from 1st Nov., 1917.	486 per ann.

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" 24	Robt. L. Blackburn	His Majesty	Lease of 5th, 6th and 7th floors of "Plaza Building," Rideau St., Ottawa, Ont.	Militia & Defence.	1 year from 24th 8,519 p. ann. Aug., 1916.
" 27	Alexandria Realty Co., Ltd.	"	Lease of two offices and storage room for fuel in "Syndicate Block," Emerson, Man.	Immigration	From month to 5 p. month (monthly).
" 31	Sydney Post Publishing Co., Ltd.	"	Lease of rooms 4 and 3 in "Post Building," Dorchester street, Sydney, N.S.	Insp. of Fisheries	1 year from 1st 360 p. annum. Oct., 1917.
Sept. 1	James H. Thompson	"	Lease of premises near "Federal Building," Prince Rupert, B.C.	Examining Warehouse	3 years from date of occupation. (renewable).
" 1	Northern B. C. Development Co., Ltd.	"	Lease of room on 2nd floor of "Federal Building," Prince Rupert, B.C.	Steamship Inspector	From month to 17 p. month. Oct., 1917.
" 6	The Topley Company	"	Lease of two top floors in building Nos. 130-132 Sparks St., Ottawa, Ont.	Military Service Branch of Justice Dept.	From month to 100 p. month. From month to 7th Sept., 1917.
" 6	Wilson Bros.	"	Lease of premises on n.e. corner of 3rd Ave. and 22nd St., Saskatoon, Sask.	Dominion Lands Office	1 year from 1st 200 p. annum. Oct., 1917.
" 13	His Majesty	Quinlan & Robertson	Lease of parts of lots Nos. 513 and 514, Parish of St. Roch (St. Charles River), Que.	Private purposes	18 months from 1 p. annum. date of occupation.
" 19	Canada Life Assurance Company	His Majesty	Lease of premises Nos. 43 and 44 in company's building, Sparks St., Ottawa, Ont.	Fuel Controller	Month to month 39,39 p. month (monthly). From 14th Aug., 1917.
" 20	Robt. L. Newman	"	Lease of four rooms in "Stephen's Block," Prince Rupert, B.C.	Insp. of Fisheries (Dept. of Naval Service)	1 month from 50 p. month (monthly). 22nd June, 1917, and thereafter from month to month.
" 21	D. M. Finnie and Wm. D. Morris	"	Lease of premises in "Old Union Bank Building," Wellington St., Ottawa, Ont.	Federal Government	5 years from 20th 4,000 p. ann. Nov., 1917.
" 24	A. E. Sjoquist	"	Lease of part of ground floor and two vaults in building n.e. cor. of 4th Ave. and Seymour St., Kamloops, B.C.	Dominion Lands & Crown Timber Serv.	3 years from 1st 125 p. month. Sept., 1917.
" 25	Norlite Realty Company, Limited.	"	Lease of building on lots Nos. 11 and 12, south side of Wellington St., Ottawa, Ont.	Government office	5 years from date of occupation.
" 26	R. L. & R. Blackburn	"	Lease of additional space in basement of "Union Bank building," Ottawa, Ont.	Interior Department	From 21st Aug. 87,20 p. annum '17 to 16th July '18.
" 26	R. L. & R. Blackburn	"	Lease of room No. 414 in "Union Bank building," Ottawa, Ont.	Dept. of External Affairs	1 yr. from 9th 371 p. annum. Nov., 17.
" 29	J. H. Cameron & Annie M. Johnstone	"	Lease of 2 rooms in building on lots Nos. 24 and 25, Block 156, Saskatoon, Sask.	Insp. of Weights and Measures	1 yr. from 11th 60 p. month. Nov., 17.
Oct. 1	The Canadian Pacific Railway Company	"	Lease of lots Nos. 17 and 18, Block 1, Townsite of Conita, Alta.	Immigration	21 yrs. from 1st 1 p. annum. Oct., '17.
" 1	Jno. D. McArthur & The Edmonton Dunvegan & B. C. Railway	"	Lease of lots Nos. 28, 29 and 31, Block 10, River lot 7, Peace River, Alta.	Immigration Hall	5 yrs. from 1st 5 p. annum. Oct., '17.
" 3	Imperial Canadian Trust Co.	"	Lease of suites Nos. 512 and 513 in building cor. 21st st. and 1st avenue, Saskatoon, Sask.	Supt. of Ry. Mail Service	1 yr. from date of 885 p. annum. occupation.

STATEMENT No. 3.—Properties leased to and from the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Date of Lease.	Lessor.	Lessee.	Description of Property.	For what purpose.	Duration of Lease.	Rental.
1917.						\$ etc.
Oct 9	J. A. Yeager	His Majesty	Lease of space on ground floor of building, Swift Current, Sask.	Post Office.	2 yrs. from 26th Nov. '17.	150 p. annum.
" 11	R. L. & R. Blackburn.	"	Lease of room 308 in "Union Bank building," Ottawa, Ont.	Interior Department	from date of occupation to 15th July '17 (Floor area 167 sq. ft.)	1 00 p. sq. ft. p. annum.
" 18	Imperial Realty Company, Limited.	"	Lease of rooms in "Canadian & Militia buildings" on Slater st. and premises in building on Queen st., Ottawa, Ont.	Militia and Defence.	5 yrs. from 1st May '18.	88,711.84 per annum.
" 18	G. B. Terrill.	"	Lease of rooms in building, Stanstead Plain, Que.	Post Office	3 yrs. from 1st Aug. '17.	113 p. annum.
Nov. 2	J. Paul Tardivel	"	Lease of building No. 85, Chemin Ste Foye, Quebec, Que.	Canada Post Station.	5 yrs. from 1st Sept. '17.	250 p. annum.
" 5	Archibald Galbraith	"	Lease of two stores on ground floor of building on s. ½ of lot 8, Block 49, Swift Current, Sask.	Interior Department.	1 yr. from 17th Nov. '17.	120 p. month.
" 7	Canadian Bank of Commerce	"	Lease of 3 rooms in building, Revelstoke, B.C.	Chf. Fire Ranger of Interior Department.	1 yr. from 16th Dec. '17.	40 p. month.
" 15	Wm. M., John H. & G. W. Birde.	"	Lease of rooms 614, 615, 616, 617 and 618 on 6th floor of building, Vancouver, B.C.	Sup't. of Dredges	1 yr. from 1st Dec. '17.	506 p. annum.
" 16	Notre Dame Investment Company.	"	Lease of office in Co's. building, Winnipeg, Man.	Insp. of heating and plumbing.	from mon. to mon. from 15th Nov. '17.	30 per month (monthly.)
" 19	The Canada Life Assurance Co.	"	Lease of rooms Nos. 13 and 14 on 1st. floor of building, Ottawa, Ont.	Chf. Medical Off. Branch.	1 yr. from date of occupation.	480 p. annum.
" 20	Alexis Plouffe	"	Lease of premises, St. Felix de Valois, Que.	Post Office.	1 yr. from 1st Jan. '18.	125 p. annum.
" 27	The Grand Trunk Railway Company.	"	Lease of certain lands contained in lot No. 14, fronting channel bank of Detroit river, Windsor, Ont.	Govt. Dock Site.	21 yrs. from 1st Nov. '12.	70 p. annum.
" 27	Horace Hazard	"	Lease of room on 1st floor of "Caucasian Block" Richmond st., Charlottetown, P. E. I.	Insp. of Dredges.	1 yr. from 23rd Oct. '17.	150 p. annum.
" 27	John Freeman Smith.	"	Lease of the eastern portion of ground floor and basement of building on lot 13, Block 20, Victoria st., Kamloops, B.C.	Post Office.	5 yrs. from 1st Sept. '17.	1,200 p. annum.

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" 29	Hood Bros.	"	"	Lease of rooms in building No. 519 Pender st., Vancouver, B.C.	Railway Commission	from 20th Nov. 17 to 31st Mar. 18.	Nov. 22 per month.
" 30	The Royal Bank of Canada	"	"	Lease of ten (10) offices on top floor with portion of basement and vault in building cor. Sparks and Metcalfe sts., Ottawa, Ont.	Geological Survey Branch Dept. of Mines.	1 yr. from 7th April '18.	3,081.60.
Dec. 1.....	Canadian Pacific Railway Company.	"	"	Lease of room on ground floor of "Station building," Regina, Sask.	Postal purposes.	1 yr. from 1st Dec. 17.	3,240 p. annum.
" 1.....	Jarvis Verner McLellan.	"	"	Lease of 7 offices and vaults in "Stockton building," 94 Princes William st., St. John, N. B.	Naval Transport Officer.	month to month from date of occupation.	46.85 p. month (monthly.)
" 3.....	The Chester Thompson Company, Limited.	"	"	Lease of ground floor with room in basement of building near cor. of 23rd st. and 2nd ave., Saskatoon, Sask.	Customs Department.	3 yrs. from 12th Dec. 17.	350 p. month.
" 4.....	James Hope & Sons.	"	"	Lease of 3rd floor of building, cor. Sparks and Elgin sts., Ottawa, Ont.	Railway Mail Service.	2 yrs. from 29th Jan. '18.	2,500 p. annum.
" 8.....	Wm. James Southam.	"	"	Lease of rooms Nos. 896 to 899 inclusive on 8th floor of "Herald building," Calgary, Alta.	Railway Commission.	1 yr. from date of occupation.	105 p. month.
" 12.....	The Bell Telephone Co. of Canada.	"	"	Agreement re leasing to Government one galvanized iron metallic circuit on Co's poles between limits of City of Quebec and Notre Dame des Laurentides, Que.	Government purposes.	1 yr. from 20th Sept. 17 and to continue and remain in force from yr. to yr. until cancelled month to month from 1st July 17.	194 p. annum.
" 14.....	Leon R. Belanger.	"	"	Lease of room in building, Edmundston, N. B.	Immigration.	1 yr. from 1st Jan. 18.	5 per month (monthly.)
" 20.....	J. L. & Wm. J. Hopwood.	"	"	Lease of 3 rooms with front and rear entrance on ground floor and lavatory in basement of building, 366 Water st., Peterborough, Ont.	Weights and Measures.	1 yr. from 1st Jan. 18.	250 p. annum.
" 27.....	Robert Kerr.	"	His Majesty	Lease of 1,050 sq. ft. of "Kerr building," Le Pas, Manitoba.	Lands and Mining Recorder—(Int. Dept).	1 year from 1st Feb. 1918.	50.00 p. month
1918.							
Jan. 4.....	Canada Cement Company, Limited.	"	His Majesty	Lease of 2 bins in "Stock House building," Pointe aux Trembles, Quebec.	Storage of cement for Parliament building.	1st Jan. 1918 to 1st Sept. 1918.	Per bbl. of cement 2c. per month.
" 7.....	Hope Realty Limited.	"	"	Lease of rooms Nos. 509, 510 and 511, in building No. 63 Sparks st., Ottawa, Ont.	Director of Public Information.	From month to month from date of occupation.	40.00 p. month (monthly.)
" 7.....	C. Jackson Booth.	"	"	Lease of 2,426 sq. ft., 10 inches on 1st and 2nd floors of "Standard Bank building," Sparks st., Ottawa, Ont.	Auditor General Staff.	From 25th Oct. 1917 to end of year.	1,820.12 per annum.
" 8.....	R. L. & R. Blackburn.	"	"	Lease of stores Nos. 49 and 51 with 1st floor over store No 51 Bank st., Ottawa, Ont.	Recruiting offices.	From 14th Dec. 1917 to 1st May 1918.	100.00 per month.

STATEMENT NO. 3. Properties leased to and from the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Date of Lease.	Lessor.	Lessee.	Description of Property.	For what purpose.	Duration of Lease.	Rental.
1918.						\$ cts.
Jan. 9	"Canadian Northern Town Properties Co., Limited.	His Majesty	Lease of lots Nos. 5 and 6, Block 23, cor. of Railway ave. 3rd street, Tourist of Windsor, Sask.	Immigration	5 years from 1st Jan. 1918.	1.00 p. annum.
" 14	William Randolph Goulton	"	Lease of "Grindlen building" s. e. cor. of Sussex and Water sts., Ottawa, Ont.	Board of Historical Publications.	5 years from date of occupation.	1,680.00 p. ann.
" 18	His Majesty	The Capital Brewing Co. Ltd	Lease of portion of government property on Wellington st., Ottawa, Ont.	Private purposes	5 years from 10th Aug. 1916.	5,600.00 p. ann.
" 18	Miss Margaret White.	His Majesty	Lease of 3 rooms, 1 vault and a vestibule in building St. Louis st., Quebec, Que.	Archives Dept.	1 year from 30th April 1918.	33.00 p. month
" 21	Elgin Realty Company Ltd.	"	Lease of building on s. w. cor. of Elgin and Queen sts., Ottawa, Ont.	Depts. of Customs and Militia and Defence.	5 yrs from date that the whole of building is taken possession of.	23,000.00 p. an.
" 25	Louis Brucker	"	Lease of building, Gotzen gen st., Halifax, N.S.	Postal Station in north end of City.	1st Dec. 1917 to 30 April '19.	35.00 p. month.
" 31	R. L. & R. Blackburn.	"	Lease of rooms Nos. 411, 412 and 413 in "Union Bank building" Ottawa, Ont.	Board of Pension Commissioners.	31st Jan. 1918 to 1st Dec. 1919.	1,200.00 p. ann.
Feb. 4	Canadian Bank of Commerce.	"	Lease of rooms Nos. 1, 4 and 5 on 2nd floor of building on lot 15 and south 20 ft. of lot 16, Revelstoke, B.C.	Lands Branch (Interior Dept., Area 500 sq. ft.)	1 year from 1st Feb. 1918.	60.00 p. month.
" 5	Edmond Wood Clark.	"	Lease of residence No. 12, w. side of Kamnett and s. side of Liagar st., Ottawa, Ont.	Militia and Defence.	1 year from 30th April 1918.	50.00 p. month.
" 8	Royal Bank of Canada	"	Lease of 2nd floor of building s. w. cor. of Sparks and Metcalfe sts., Ottawa, Ont.	Militia and Defence.	From 1st Feb. 1918 during pleasure.	900.00 p. quart.
" 12	Imperial Realty Co., Ltd.	"	Lease of office on e. side of ground floor of "Canadian building" 12 and 14 Slater st., Ottawa, Ont.	Federal Administration of Dom. Government.	From date of occupation to May 1923.	186.19 p. ann.
" 18	Quebec Railway Light, Heat & Power Co., Ltd.	"	Lease of 2nd floor and toilet room in building St. John st., Quebec, Que.	Colonization Office	1 year from 1st May 1918.	500.00 p. ann.
" 25	John James Garland	"	Lease of building on Tupper st., Portage La Prairie, Man.	Customs Department	1 year from 8th April 1918.	35.00 p. month.
" 27	Horace Haszard.	"	Lease of 2 rooms on 1st floor of "Cameron Block" Charlottetown, P.E.I.	Supt. of Dom. buildings.	1 year from date of occupation.	150.00 p. ann.

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March 1.....	Hope Realty Limited.....	"	"	Lease of 1 room and vault in building cor. of Sparks and Elgin sts., Ottawa, Ont.	Chief Censor.....	From date of occupation to 5th Feb. 1918 and from month to month until end of war.	From date of occupation to 5th Feb. 1918 and from month to month until end of war.
1.....	John A. Blakeman.....	"	"	Lease of room in building on lot 2, Block 100, Virden, Man.	Immigration.....	12 months from 1st March 1918.	12 months from 1st March 1918.
2.....	Canadian Cottons, Ltd.....	"	"	Privilege to excavate for and lay a line of water pipe through Co's land at Marysville, N.B.	Pub. building.....	For 7 years.....	For 7 years.....
"	Edward Seybold.....	"	"	Lease of "Eclipse building" No. 72 Albert st., Ottawa, Ont.	Militia & Defence.....	3 years from date of occupation	3 years from date of occupation
"	Royal Bank of Canada.....	"	"	Lease of mezzanine floor in building s. w. cor. of Sparks and Metcalfe sts., Ottawa, Ont.	Militia & Defence.....	From 6th March 1918 (during pleasure).	From 6th March 1918 (during pleasure).
11.....	Royal Bank of Canada.....	"	"	Lease of 5 rooms in Quebec Bank building, Wellington st., Ottawa, Ont.	Statistical Branch of Railways & Canals.	1 year from 1st May 1918.	1 year from 1st May 1918.
12.....	John Best.....	"	"	Lease of store in building n. w. cor. of Johnston road and Elizabeth st., Albert, B.C.	Post office.....	1 year from 1st April 1918.	1 year from 1st April 1918.
14.....	Wm. James Boyd.....	"	"	Lease of part of 2nd floor of "Boyd building" cor. of Edmonston st. and Portage ave., Winnipeg, Man.	Railway Commission.....	1 year from 1st June 1918.	1 year from 1st June 1918.
14.....	Miss Louisa Parks.....	"	"	Lease of three story b'd'g known as "Parks Convalescent Home" Sandy Point Road, City of St. John, N. B.	".....	For duration of war from 14th March 1918.	For duration of war from 14th March 1918.
"	Donald J. McDougal.....	"	"	Lease of 3rd floor of b'd'g. No. 527 Sussex St., Ottawa, Ont.	Central Appeal Judge, Judge Duff.	4 m. from date of occupation and thereafter from month to month.	4 m. from date of occupation and thereafter from month to month.
15.....	His Majesty.....	Hugh Pick.....	"	Lease of lot 18, block 18, Townsite of Gravelbourg, Sask.	Private enterprise.....	2 years from 15th March '18	2 years from 15th March '18
"	D. McInnes.....	His Majesty.....	"	Permission to dig and excavate a trench under and through a portion of his land at Antigonish, N. S.	For conveying sewerage of Post Office.	During pleasure.	During pleasure.
"	Edw. Rupert McNeill.....	"	"	Lease of 2,888 sq. ft. on 2nd and 3rd floors of b'd'g. No. 292 Queen St., Ottawa, Ont.	Soldiers' Settlement Bd.	1 year from date of occupation.	1 year from date of occupation.
18.....	Thomas C. James.....	"	"	Lease of ground floor and basement in b'd'g. cor. Bank and Laurier avenues, Ottawa.	Insp. of Taxation (Dept. of Finance).	1 year from 1st Feb. '18.	1 year from 1st Feb. '18.
"	Sir Rodmond P. Roblin.....	"	"	Lease of premises No. 103 Osborne St., Winnipeg, Man.	Postal Station "C".....	1 year from 1st June '18.	1 year from 1st June '18.
22.....	Thomas C. Rice.....	"	"	Lease of b'd'g. on w. side of main road and s. side of bridge, Weymouth, N. S.	Post Office.....	From month to month from date of occupation.	From month to month from date of occupation.
26.....	Hope Realty Limited.....	"	"	Lease of rooms Nos. 606, 607, 608, 609, 610 and 611 in building No. 63 Sparks St., Ottawa, Ont.	Director of Information.....	5 years from 1st June 1918.	5 years from 1st June 1918.
28.....	The Governor & Company of Adventurers of England	"	"	Lease of portion of land in Hudson's Bay Reserve, Athabasca Landing, Alta.	Immigration.....	5 years from 1st June 1918.	5 years from 1st June 1918.

STATEMENT No. 3.—Properties leased to and from the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918.—*Concluded.*

Date of Lease.	Lessor.	Lessee.	Description of Property.	For what Purpose.	Duration of Lease.	Rental.
1918						§ cts.
March 30	Sarah A. Batson	His Majesty	Lease of 1 room in b'ldg. at Campobello, N. B.	Insp. of Fisheries (Naval Service.)	1 year from 31st Dec. '17.	129 p. annum.
" 30	Post Publishing Co., Ltd.	" "	Lease of room No 5 in " Post Building," Sydney, N. S.	Sub-Agent of Marine and Fisheries.	1 year from 1st May '18.	180 p. annum.
" 30	World Newspaper Co. of Toronto, Ltd.	" "	Lease of 2 flats (4th and 5th), in " World Building," 40 W. Richmond St., Toronto.	For Staff of Military District No. 2.	For duration of war and 1 year after.	8,500 p. ann.
The following items were received too late for insertion in last year's annual report (1916-1917).						
1915						§
Sept. 30, 1915	The Dartmouth Manufacturing Co. Ltd.	His Majesty	Lease of wooden building, cor. of George and Bedford Row, Halifax N. S.	Inland Revenue Dept. (Gas-Electricity, Weights and Measures Insp. Office).	1 year from 1st Oct. '15.	1,000 p. ann.
Dec. 29, 1916	Hubert Tupper Warner	" "	Lease of 2 rooms on 2nd floor of building, Digby, N. S.	Insp. of Fisheries.	3 years from date of occupation.	129 p. ann.
1917						
March 3, 1917	Arthur Congdon	" "	Lease of building on lot No. 3, near cor. of Portage Ave. and Lipton St., Winnipeg, Man.	Postal Station "D"	5 years from 3rd March '17.	1,660 p. ann.

LIST of some of the Public Acts of the Parliament of the Dominion of Canada, passed at the First Session of the Thirteenth Parliament, begun and holden at Ottawa, on the Eighteenth day of March, 1918, and closed by Prorogation on the Twenty-Fourth day of May, 1918, and having reference to the Public Works Department or works under its charge (8-9 George V) and Orders of the Governor General in Council, having force of law.

Subject.	Full Title of the Statute.	Chapters.	Page in Statute Book.
Construction of works in navigable waters.	An Act to amend the Navigable Waters Protection Act.....	33	115
Power to dredge, etc., beds of navigable waters.	An Act to amend the Public Works Act.....	37	125

N.B.—By proclamation dated the 28th day of February, 1918, the tariff of tolls to be levied by the Upper Ottawa Improvement Company, Limited, for the use of their works during the season of 1918, was approved. *Vide Canada Gazette*, vol. li, p. 3044.

By proclamation of the 28th February, 1918, the tariff of tolls to be levied by the Rouge Boom Company, of Montreal, for the use of their works during the season of 1918, was approved. *Vide Canada Gazette*, vol. li, p. 3044.

THE NATIONAL GALLERY OF CANADA

By ERIC BROWN, Director.

Owing to the continued occupation of the premises of the National Gallery by the Houses of Parliament, the work of the National Gallery has again been concentrated upon the development of its policy of loan exhibitions of works of art to any art gallery or body which has proper facilities for exhibiting them, and of thus utilizing to the fullest extent the possessions of the National Gallery for the furtherance of artistic knowledge throughout the Dominion.

The previous grant of twenty-five thousand dollars (\$25,000) had enabled a limited number of Canadian works of art to be purchased, so that the loan exhibitions had not suffered from lack of material. The application by the trustees for an appropriation of thirty thousand dollars (\$30,000) for the current year, however, was not granted, and the main Parliamentary Estimates included no more than eight thousand dollars (\$8,000), sufficient for the running expenses of the National Gallery, including salaries and upkeep of possessions. Upon further application by the trustees an additional sum of ten thousand dollars (\$10,000) was appropriated in the Supplementary Estimates and the annual grant totalled eighteen thousand dollars (\$18,000).

The following regular annual loans of works of art were sent out during the year: St. John, N.B., twenty-seven pictures; Sherbrooke, Que., twenty-six pictures; Fort William, Ont., twenty pictures; Winnipeg, Man., twenty-five pictures; Regina, Sask., twenty-one pictures; Moosejaw, Sask., twenty pictures.

Arrangements were also made for a regular annual loan to Halifax, but this had to be cancelled owing to the Nova Scotia Museum of Fine Arts building being seriously damaged in the explosion.

The following special exhibitions of works of art were arranged:—

Loan of thirty-three lithographs to Halifax, N.S., November, 1917. This loan was on exhibition only four days owing to the building in which they were exhibited being destroyed by the explosion. Fortunately only slight damage was done to the lithographs.

Loan of sixty-nine drawings to the Art Association of Montreal, December, 1917, to February, 1918.

Loan of "Charity" by Frank Brangwyn, A.R.A., P.R.B.A., to Madeleine de Verchères Chapter, I.O.D.E., for their exhibition of paintings at the Chateau Laurier, November 29 to December 3, 1917.

Loan of nine pictures to the Central Canada Exhibition at Ottawa, September 8 to 15, 1917.

Loan of seventy-five Steinlen lithographs to the Art Museum of Toronto during February and March, 1918.

Loan of thirty-one pictures to the Western Canada Fairs Association from June to August, 1917. The circuit included Calgary, Edmonton, Brandon, Regina, Saskatoon, Prince Albert. This loan afterwards went to Vancouver in August, 1917.

Loan of "Dieppe, The Beach, Grey Effect," by J. W. Morrice to the Los Angeles Modern Art Society, Los Angeles, California, March, 1918.

These exhibitions were all eminently successful, and the rapid increase of applications for them is sufficient evidence of the growing desire for artistic knowledge throughout the country.

The National Gallery Travelling Scholarship of one thousand dollars (\$1,000) was judged for the fourth successive year by the Council of the Royal Canadian Academy, and was awarded with the trustees' concurrence to Mr. Manly E. MacDonald, Pointe aux Roches, Ont.

SESSIONAL PAPER No. 19

The following by-law, made under the terms of the National Gallery of Canada Act, received the approval of the Honourable Minister of Public Works:—

ARTICLE 5. The Board may, subject to the approval of the Minister of Public Works, make by-laws.

SECTION D. For the protection of its property and the property in its care and charge,

All reproductions of works of art which are the property of the National Gallery of Canada shall bear the legend: The property of the National Gallery of Canada.

The trustees met formally on two occasions, and the following works of art were acquired by gift or purchase:—

GIFTS.

Jane Catherine Cummins	Water colour "Sketch." Presented by S. S. Cummins:
Charles Dana Gibson	Two pen and ink drawings— "Tragic Moments. The Rev.— reads his latest comedy to his niece." "He: Who is that tramping around overhead? She: Oh, that's only papa. He always gets restless towards morning."

DIPLOMA PICTURE.

Horatio Walker, R.C.A.	Autumn.
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PURCHASES.

Oil Paintings—

Grier, E. Wyly, R.C.A.	The Master of Northcote.
Challener, F. S., R.C.A.	Aphrodite's Realm.
Johnston, F. H., O.S.A.	A Northern Night.
MacDonald, J. E. H., A.R.C.A.	Asters and Apples.
Reid, Mary H., A.R.C.A.	Study in Rose and Green.
Coburn, F. S.	Danville Roses.
Earle, Paul B.	The First Snow.
Gagnon, Clarence A., A.R.C.A.	Street Scene, Quebec at Night.
Harris, Robert, C.M.G., R.C.A.	My Old Montreal Model.
Rosaire, Arthur D., A.R.C.A.	The Garden of Light.
Shore, Henrietta M.	Negro Woman and Children.
Barnsley, James MacDonald.	In the Fields.
Barnes, Wilfred M.	A Summer Storm.
De Belle, Charles.	The Sisters.
FitzGerald, L. L.	Late Fall, Manitoba.
Knowles, E. A. McG., A.R.C.A.	"Drink to Me Only with Thine Eyes."
Lismer, Arthur, O.S.A.	Winter Camouflage.
MacDonald, J. E. H., A.R.C.A.	Cattle by the Creek.
Neilson, H. Ivan, A.R.C.A.	Spring's Garland.
Wrinch, Mary E., O.S.A.	Snow Magic.

Drawings, Prints—

Steinlen, M.	Eighty-six lithographs.
Russell, Gyrth, R.B.A.	The White Barn.
Raine, Herbert, A.R.C.A.	The Old Courtyard.
Cotton, John Wesley.	The Open Cut.
Beaupré, Eugène L.	Child Study.
Phillips, Walter J.	Winnipeg River No. 3.
"	The Reader.
Crockart, James.	Stirling from Millhall.
Smith, Lewis.	Barges at Hammersmith.
"	Unloading Thames Barges.
Sutherland, Fred. W.	Sleeping Lion.
"	New Road, Boston Suburbs.
Greene, T. G., O.S.A.	The Fisherman.
Bartolozzi.	The Drawing Lesson.
"	Portrait of Annibale Carracci.
Schiavonetti.	Madonna and Child.
"	Pieta.

Drawing Prints—Continued.

Wolf, Henry	Morning Star.
" "	Self Portrait.
" "	The Wood Gatherer, after Innes.
" "	Lady with Shawl, after Chase.
" "	Young Woman at a Window, after Vermeer.
" "	Don Balthazar Carlos, after Velasquez.
" "	Boy with a Sword, after Manet.
Daubigny	Autumn in the Morvan.
Whistler, James McNeill	En Plein Soleil.
" "	La Retameuse.
" "	Annie Standing.
" "	Liverdun.
Lismer, Artbur	The Transport, Halifax.
Maw, Samuel Herbert	Siena Cathedral, Nave.
" "	Tilbury.
" "	The Lagoon, Venice.
Sterner, Albert	Seated Dancer
" "	The Blind.
Copley, John	Footlights.
Gabain, Ethel	La Toilette.
Pilot, Robert	Ten Sketches, Witley Camp, Surrey.
Barnsley, James MacDonald	Too Late
" "	Sketch in Holland No. 1
" "	Sketch in Holland No. 2
Phillips, W. J.	The Golden Hour.
Fosbery, Ernest, A.R.C.A.	The Storm.
Lapine, André	The Wind Mill
Lalande, E.	The Sunningdale Golf Links, Berks.
Fawcett, George	A Deserted Indian Camp, Minaki, Ont.
Stevens, Dorothy, O.S.A.	Paddy.
Johnston, Francis H., O.S.A.	The Magic Pool.
Raine, Herbert, A.R.C.A.	The Pilgrims, St. Anne de Beaupré.
Keagey, James W.	Old Muski, Cairo.
Burnside, J. T. M.	Three Sketches in Sepia.
Veresmith, Daniel	The Little Sackmenders.

Water Colours—

Johnston, Francis H., O.S.A.	The Guardian of the Gorge.
Holmes, Robert, A.R.C.A.	Mocassin Flowers.
Jefferys, Charles, A.R.C.A.	Rocks of Georgian Bay
McGillivray F. H., O.S.A.	Midwinter, Dubbarton, Ont.

Pastels—

Brownell, Franklin, R.C.A.	Frozen Meat
" "	Potatoes.
" "	The Blue Sledge
" "	Hay Sleds
" "	Weigh Scales.
Perrigard, Hal Ross	Breaking for the Tunnel

Sculpture—

Wyle, Florence	Sun Worshipper
Hahn, Emanuel	The Indian Scout (Bronze)

Medici Prints—

Durer, Albrecht	Hands in the Act of Prayer
Ghirlandajo, Domenico	The Vision of St. Fina after Fresco.