

COAST TO COAST.

Victoria, B.C.—The water report for the council of this city will be completed within a few days.

Port Arthur, Ont.—The past year has been a season of activity in the municipal engineering department, and the expense account for general work totals \$584,027.

Calgary, Alta.—Colon bacilli has been found in certain sections of the water supply on this city and the medical health authorities have issued warnings to the citizens concerning the same.

Hamilton, Ont.—Mr. C. H. Mitchell, of Toronto, and Prof. Hutt, of the Ontario Agricultural College, Guelph, addressed a large gathering in this city recently on the subject "The Beautification of the Mountain Park."

Montreal, P.Q.—The Harbor Commissioners of Montreal have awarded the John S. Metcalf Company, Limited, a contract for a 1,500,000-bushel addition to the Harbor Commissioners' Elevator No. 1 at Montreal. It will be of reinforced concrete and steel and will cost approximately \$700,000. This will make the capacity of Elevator No. 1, 2,500,000 bushels, as compared with 2,600,000 bushels' capacity in the new Elevator No. 2 recently completed by the John S. Metcalf Company.

Eastern Central Canada.—Col. Greenwood, assistant chief engineer of construction on the Canadian Northern's eastern lines, states that rapid progress is now being made on the company's four large bridges now being constructed between Montreal city and Pembroke, at a total cost of about \$1,250,000. They are being built over the rivers Laprairie or Back River, the Mille Isles, and the Ottawa at Shaw Falls, and at Portage du Fort. All the sub-structures of these bridges are of concrete, while the superstructure will be of steel, and which will be placed in position during the coming summer. No. 1, which crosses the Back River near St. Genevieve, has eight spans, and is about 1,400 feet in length, while No. 2 has thirteen spans in all, and strikes the Mille Ile after crossing the upper end of Ile Jesu, which at this point is about one and a half miles wide. The structure at Shaw Falls will be 1,800 feet in length, and that at Portage du Fort some 1,300 feet, so, taking the whole four, they make a series of very formidable structures and will all be on the C.N.R.'s main line from Montreal to the harbor of Prince Rupert.

GASOLINE ROAD ROLLERS.*

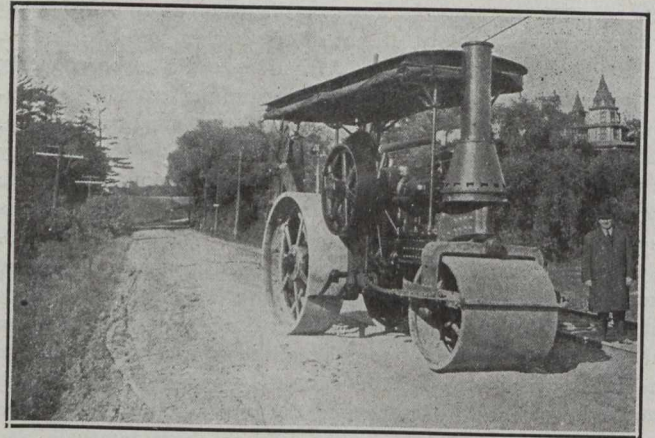
As far as Ontario is concerned, Gasoline Road Rollers are an innovation in road building machinery.

When making their purchases in 1911, the Commission were recommended to purchase Steam Road Rollers. The Engineer for the Commission took the stand that the steam machines were better known and operators for steam machines could be more easily procured, and, further, that the life of the Gasoline Road Roller was not yet known.

During 1911, and the spring of 1912, all the available information on Gasoline Road Machinery was studied, and when the purchasing of machinery for 1912 was under advisement, Gasoline Machinery was carefully considered, with the result that it was decided to purchase one 12-ton 2-cylinder Gasoline Road Roller.

The advantages claimed by the sales agent for Gasoline Road Rollers are outlined in the catalogue. Amongst them may be found the absence of smoke, sparks, and the risks of boiler explosion. The expense of teams for hauling coal and water is

done away with. There is a saving of an hour in the raising of steam and half an hour in closing down. There is some saving through the day, because the engineer has not to fire and take on water. Claim is made by some salesmen that the machinery is much quieter, and not so apt to scare horses on the highway and the grade, as a steam roller; but we might say that in our short experience we do not find much gain in this connection.



Double Cylinder Gasoline Roller Working on the Kingston Road.

We have now had two seasons in which to compare the cost of operation of the steam and gasoline machinery, and the following table will give the comparison of cost, as nearly as can be judged, both rollers working under similar conditions:

COST OF OPERATING STEAM ROLLER.

For Ten-hour Rolling.

| | | |
|---|--|--------|
| Fuel— | | |
| Kindling wood | | \$0.05 |
| Coal, 380 lbs. at \$6.85 per ton | | 1.30 |
| Water— | | |
| 600 gallons—Hauling three hours at, per hour, 50c.. | | 1.50 |
| Oil, etc. | | 0.05 |
| Engineer— | | |
| 11½ hours at 30 cents per hour | | 3.45 |
| | | <hr/> |
| | | \$6.35 |
| Cost of rolling, 63½c. per hour. | | |

For Ten Hours' Spiking and Scarifying.

| | | |
|---|--|--------|
| Fuel— | | |
| Kindling wood | | \$0.05 |
| Coal, 480 lbs. at \$6.85 per ton | | 1.64 |
| Water— | | |
| 800 gallons, hauling | | 2.00 |
| Oil. | | 0.05 |
| Engineer— | | |
| 11½ hours at 30c. | | 3.45 |
| | | <hr/> |
| | | \$7.19 |
| Cost of spiking and scarifying, 71 9/10c. per hour. | | |

COST OF OPERATING A GASOLINE ROLLER.

For Ten Hours' Rolling.

| | | |
|---|--|--------|
| Fuel— | | |
| 12 gallons of gasoline at 15c. per gallon | | \$1.80 |
| Water— | | |
| Cooling quarter hour | | 0.12½ |
| Oil. | | 0.07 |
| Engineer— | | |
| 10¼ hours at 30c. | | 3.07½ |
| | | <hr/> |
| | | \$5.07 |
| Cost of rolling, 50c. per hour. | | |

* Abstract from 1912 report of the Board of Highway Commissioners, York County, Ontario.