

RAILWAYS—STEAM AND ELECTRIC.

Quebec.

MONTREAL.—It was learned on good authority that, although no actual decision had been arrived at, there is every probability of the Canadian Pacific Railway Co. building a railway to Cowganda, the new silver field. The Canadian Pacific is prepared, it is said, to construct the road without a subsidy from its system at Sudbury. The road would run in a north-easterly direction into the heart of the new silver country.

Ontario.

BRANTFORD.—The city council passed a by-law allowing the Street Railway Co. an extension of time in which to fulfil its former agreement with the city, its franchise, granted a year ago, to be sustained on condition that the agreements stated in the previous by-law and somewhat amended, be carried out. The company is to give the city, within two months, a bond for \$25,000 as a guarantee that the agreement will be adhered to.

COCHRANE.—The National Transcontinental Railway is about to put in a large storage yard at Cochrane, the junction with the Temiskaming and Northern Ontario Railway. It will be in readiness, it is expected, some time next month. There will be capacity for thirty or forty thousand tons of rails and fastenings. At the new town site there are already some settlers.

PORT ARTHUR.—Taylor & Mercier have received a contract to transport one hundred tons of supplies into the Grand Trunk Pacific right-of-way from Jackfish. Contractor Davis, of Ottawa, has a contract for that portion of the line north of Jackfish. It is the intention of the contractors to build a tramway from the right-of-way to Jackfish, and this work has already commenced, and it is likely that by next summer the line will be under operation.

PORT ARTHUR.—General Manager McLeod, of the Canadian Northern, states that the company will make large additions to the terminal facilities here. Some are definitely arranged and others are in contemplation. To increase the freight storage capacity at the docks a shed is now being built over the steel dock. A new dock is to be built just south of the present dock, and on it work will be started as soon as feasible. It will be used as a steel dock during the early summer and for freight when the fall rush commences. New tracks will be laid through the yards, including lines to the new elevator to be built by Piper & McWilliams.

SAULT STE. MARIE.—The Canadian Pacific Railway has ordered 20,000 tons of rails from the Algoma Steel Co. at Sault Ste. Marie.

WELLAND.—A copy of the electric railway by-law announced by George H. Bugar has been handed to each member of the council. The by-law sets forth that the rights and privileges granted are to be held by Harry D. Symmes, of Niagara Falls, as trustee. The franchise is to date from October, 1909, for twenty years, the work of construction to begin before the date named, and the road is to be in operation before October 1st, 1910. The franchise is to apply to East Main Street, Muir and South Main Streets, and "such other streets as may be deemed advisable." The company is to lay a 56-pound rail, and agrees to maintain the roadway between the tracks and for eighteen inches on either side. There are the usual clauses relative to the preservation of the interests of the corporation in the streets.

British Columbia.

PRINCE RUPERT.—The railway ferry barge Georgian arrived here with two steam shovels and four Davenport locomotives. The whole outfit has been unloaded and distributed at convenient points along the first mile of construction, where big bluffs, aggregating 300,000 cubic yards of rock, will have to be removed. The largest of these bluffs, containing over 200,000 cubic yards, is now being bored with "coyotte" holes. There are eight of these tunnels, and they are not big enough for a workman to stand erect. When bored to a length of 75 to 100 feet, they will be cross-cut at the end and huge pockets blasted out of the rock. These chambers will then be filled with tons of dynamite

and the tunnel filled with broken rock and cement to keep it from blowing out. They will all be connected by wires with a galvanic battery and exploded at the same time. When this blast has been fired it is expected the rock will be so shattered that the steam shovels will have no difficulty in handling it.

LIGHT, HEAT, AND POWER.

Ontario.

BOBCAYGEON.—The wheels for the municipal power-house have arrived. The wheels, which were manufactured by the Madison Williams Foundry Co., Lindsay, are of the Triumph turbine type, and each is capable of developing 80 horse-power with a five-foot head and about 100 horse-power with a six-foot head, the two weighing over fourteen tons. The dynamo and other apparatus has already been transferred to the new power-house and the poles have been changed, so that the wheels and line shaft are now the only things to be fixed.

NEWMARKET.—The Electric Light Committee brought in a report based on actual figures, in which it was shown that the cost of electric light this year was 7.95 cents per 1,000 watts, and domestic water 2.39 per 1,000 gallons.

OTTAWA.—The emptying of the final bucket of concrete into the forty-ninth pier of the Chaudiere dam of the Ottawa River on Saturday afternoon completed one of the quickest pieces of concrete work ever done in the Dominion. The contracts call for the dam to be finished in every detail and handed over by December 1st, 1909. It is likely that it will be done now by about midsummer.

PORT STANLEY.—The electors will, on January 4th, vote on the question of bringing Niagara power to this town.

Manitoba.

WINNIPEG.—City Electrician McCulloch is now prosecuting an inspection of the water mains of the East End to ascertain the extent of the probable injury to the pipes through currents of electricity leaking from the tram rails. Following the route taken by the Grandview cars from the tram office it is found that the leakage of the current varies with every block, and as Venables Street is reached the variance increases. Along the head of False Creek there seems to be a tendency of the current to go toward the creek, with the result that the nearer to the coves of the basin the tracks run the less leakage is shown by the tests on the mains. Another curious fact is found by reason of the varying nature of the soil in different parts of the city. In certain sections where the ground is impregnated with carbonates the effect of the leakage of the current has been to set up a chemical action, which coats the mains and renders them passive to the effects of the current. In the central portion of the city, however, where the soil is filled with chlorine from the salt water, a distinctly increased harmful effect is noticed on the pipes.

SEWERAGE AND WATERWORKS.

Ontario.

BRANTFORD.—The Brantford waterworks continue to be successfully operated under municipal ownership commission. The annual report shows this year to be the best in its history. The net earnings are \$51,793.68, being \$5,600 in excess of last year. The Commissioners, Messrs. Alfred Watts and William Whitaker, were reelected by acclamation.

SIMCOE.—The electors will vote on January 4th to place the Simcoe waterworks under a commission.

ST. THOMAS.—On January 4th the electors will vote on a by-law to raise funds with which to install a septic tank.

TORONTO.—New Toronto township have for some time back debated the question of sewerage their district. The population is only small, and the amount of domestic sewage small compared to the trade effluents from certain works, consisting principally of leather and paper works, with a large effluent from G.T.R. roundhouse. The problem of sewerage the district is not a serious proposition. On the