

us to keep a constant check on our water supply, and will be of the greatest assistance to the health department." At the present time the water that is being pumped into the mains from the Bow River is chlorinated to destroy harmful germicidal life. The chlorine, however, to a certain extent favors the propagation of harmless bacilli, as shown by the Edmonton test. The water taken direct from the Bow showed 7,400 bacilli to the cubic centimeter, while that treated with chlorine showed 8,800 of the harmless bacilli to the cubic centimeter. The fact that the water samples have to be sent to Edmonton by train also permits the water to stand for a time, with the result that the propagation of bacilli is favored. The complete result of the analyses of water taken direct from the Bow River and the chlorinated water is as follows:—

	Direct from Bow River.	Chlorinated.
Hardness . . . . .	120	114.2
Total solids . . . . .	215	243
Loss on ignition . . . . .	82	120
Alkalinity . . . . .	132	120
Ammonia, free . . . . .	.008	.026
Ammonia, albuminized . . . . .	.032	.006
Nitrites . . . . .	None	None
Nitrates . . . . .	.04	.04
Chlorine . . . . .	1.8	2.7
Sulphate . . . . .	None	None
Colon bacillus . . . . .	Negative	Negative

**Edmonton, Alta.**—City Engineer Latornell has submitted to the Commissioners blue prints showing the proposed sewage purification works to be erected on Ross Flats. As he pointed out, for some time past it has been proposed to erect a disposal plant there to purify the sewage from that portion of the city, which, roughly speaking, lies south of Jasper Avenue, between First and Twelfth Streets. In 1912 an appropriation of \$30,000 was set apart for the construction of such a plant. But further study of the question has led Mr. Latornell to the conclusion that it would be an advantage if the city could bring across to this side of the river the sewage from that part of the South Side, which is already provided with drainage, and treat this South Side sewage in the plant located on Ross Flats. The new drawings are for that plant. A larger plant is in consequence required than was originally intended, but the ultimate economy in having one plant instead of two will be considerable, in the opinion of the city engineer, even though the new arrangement will necessitate one very expensive item, namely, a syphon under the river.

**Ottawa, Ont.**—On the suggestion of City Engineer Currie, a recommendation will be made to the city council by the board of control with a view to improving the manner of laying pavements. The main point aimed at is to prevent pavements sinking over where water or sewer pipes have been laid, and also to avoid having public services companies cut up a pavement the next day or so after it is laid. The proposition is that no permanent pavement be laid on any street till six months after the work has been passed by the city council. This will give the city time to do its underground work on the street and allow the earth used for filling in to settle. The public service companies will also be notified to do their work under the same conditions. The board discussed the matter, and all were agreed that the suggestion of the city engineer is a good one. So far, the Ottawa Gas Company has been cutting up pavements whenever it wished, claiming that under its charter it has a right to do so without asking the permission of the city. The board is of the opinion that recent legislation by the Dominion Parliament gives the municipality more control over the streets and pre-

vents future work without the sanction of the city. At any rate, if the board's report is approved, the companies will be so notified.

**Montreal, Que.**—Chairman Drayton, of the Canadian Board of Railway Commissioners, and a small party recently witnessed a demonstration in London by the South Western Railway at Hamilton Court Station of the Prentice system of automatic wireless traffic control. It was invented by a young Canadian telegraphist, and is claimed to be an ideal scheme. The essential factor is that if any obstructive vehicle is on the track it interrupts wireless operations. A highly insulated wire is laid in the casing of the middle track. Normally, electric waves are constantly discharged, but the green and red signal lights are automatically shown when there is any danger on the track. The demonstration was entirely successful. A special train automatically was brought to a stop when a light engine was on the track some distance ahead. The cost of installation has not yet been indicated.

**Vancouver, B.C.**—An instrument that is expected to save the city of Spokane, Wash., \$1,000 every day in the year by preventing a daily loss of 15,000,000 gallons of water from the system of mains, is being set up under direction of Water Superintendent Alexander Lindsay. It is a new leak detector, purchased by the department after a thorough investigation by Mr. Lindsay showed that 15,000,000 gallons of water was being lost each day by defects hard to locate in the complex system of underground mains. "We have just received the instructions for setting up the rather complicated piece of apparatus," Mr. Lindsay said. "The meter is attached to a single lead running into a given district, and all other inlets are cut off. It records every gallon of water sent into the pipes at the hour pumped. Then we trace the flow, and if it is found that much water is going into the district between the hours of 1 a.m. and 3 a.m., when the use of water is at the minimum stage, we can tell that there is a leakage. Then the district is made smaller, parts of it being cut off, until by a process of elimination we find just where the section is that is causing the waste. It will take some time to test out all of the mains in a city of 120,000 population, but our regular force will start the work immediately, and we hope to be able to reduce a great amount of waste in the very near future."

**Quebec, Que.**—Interesting forecasts of the business to be brought up at the next session of the Provincial Legislature, when a further loan for the good roads work, aid for the Canadian Northern Railway, in the Province of Quebec, and the question of a new court house for Montreal will be dealt with, were made by the Hon. Mr. L. P. Berard, Legislative Councillor, of Quebec, in an interview recently. The Highways Bill, passed in the early part of the year, authorized a loan of \$10,000,000 for the improvement and building of roads in the province. About \$3,000,000 of this has already been secured. So much work is in progress, however, says Mr. Berard, that more funds will be needed before long, and an additional loan floated towards the end of this year. Another important measure for consideration at the next session will be financial aid for the Canadian Northern Quebec lines. Mr. Berard does not anticipate any serious opposition in this matter, as he believes it to be generally recognized that the railway is entitled to the same benefits received by other great systems in the Dominion. Such assistance on the part of the Provincial Government will, of course, only provide for lines in the province. A proposition for the erection of Montreal's new court house, so long the subject of discussion, Mr. Berard states, will be introduced at the next session. The bench and bar of the city are practically unanimous on the question, and Sir Lomer Gouin is in favor of a new building also. Consequently, there is a good prospect of definite action being taken before the spring of 1914.