

COAST TO COAST.

Montreal, Que.—The Great North Western Telegraph Company will install in June next between this city and Toronto the Wheatstone high-speed automatic apparatus, which will transmit 400 words a minute, or 24,000 an hour, as compared with 5,000, the record for Morse operators under quadruple operation. The system has been used extensively by the British post-office and the Western Union Telegraph Company, of the United States. Mr L. S. Hume, local manager, recently stated that no reduction of operators would be made on account of the Wheatstone installation. At present, he stated, the growing demands of patrons of the company, both in Montreal and in Canada generally, required increased facilities for handling telegrams. The new arrangement will enable the Great North Western to better cope with their largely increased business. It is learned that one circuit of the new installation will require a staff of twenty-six persons to properly operate one wire only. Three operators will look after a perforating electrical machine run from a typewriter keyboard. A punched tape, which is fed by a "transmitter" working at high speed, where the signals are transferred to a tape by a "receiver." The tape is then handed to typewriter operators, who copy them.

Ottawa, Ont.—Mr. W. A. Legge, the British engineer sent here by Sir Alexander Binnie, has started work in connection with the proposed water supply from the Gatineau lakes. He is first getting the information which may be gleaned from plans and reports in the city engineer's office and from information given Dr. King by the Government parties of surveyors. About the end of this week he will go to the lake district and take charge. There are two Government parties out. One is working around Little Whitefish, Thirty One Mile and Pemichangaw Lakes, and the other is taking levels between Gracefield and Ottawa. After looking over the ground, Mr. Legge will direct what particular work he wants done first and the areas covered. He is **not** a member of Sir Alexander Binnie's firm, though sent here by him. He is prepared to stay all summer, if necessary, but says no time will be lost. He hopes to get the required information so that Sir Alexander Binnie may make his final report before the winter.

Selkirk, Man.—George H. Bradbury, member for Selkirk, introduced for a second reading to the Dominion Government his bill to prevent the pollution of navigable streams. Mr. Bradbury, in opening, pointed out that Canada had spent millions in the material development of the country, in building railways, canals and public works, while little had been done for the health of the people of the Dominion. Providence had been lavish in providing waterways for Canada, but we had neglected to protect these waterways, and they were now proving a menace. Twenty-five years ago the Ottawa River was pure, and to-day one glass of its water contained misery and death to those who had the temerity to drink it. The records of death from typhoid was an awful record for a city like Ottawa. Mr. Bradbury quoted figures prepared by Dr. Charles Hodgetts, of the Conservation Commission, to show the toll of death from typhoid in Ottawa, Winnipeg and other Canadian cities. In Canada the death rate from typhoid was 35.5 per hundred thousand of the population. In Germany it was only 7.6; England, 11.2; Belgium, 16.8; Austria, 19.9; Hungary, 28.3, and Italy, 35.2. In the face of these figures surely it was time that Canada did something, and put an end to the abominable practice of dumping sewage and offal into streams. Typhoid, Mr. Bradbury said, was a preventable disease, and he quoted several sanitary experts on the subject. It was

time, in view of the epidemics which had taken place in Ottawa and other Canadian points, for drastic action. During the past ten years there had been no less than 5,796 deaths from typhoid in Ontario alone. He did not believe loss of life could be estimated by money. But, placing each life at \$3,000, this meant a total of over \$17,000,000. There had been in that time 50,000 cases in Ontario. Each patient lost on an average ninety days, which, at \$1.50 a day, meant \$6,500,000 in wages. Nursing is placed at five million more, making a total loss in Ontario of \$28,000,000. This amount would have been sufficient to give a proper system of sewerage to all the important cities of Canada. On this basis of reckoning the city of Winnipeg had lost five million dollars. Mr. Bradbury explained the situation at Winnipeg. There were two rivers which united at Winnipeg. The Assiniboine flowing from the west carried down the sewage of Brandon and Portage la Prairie. It emptied into the Red River in the heart of the city, and the Red River flowed north with the sewage of Winnipeg, with all its manufacturing plants, and the sewage of Brandon and Portage. Four or five years ago the Government built a dam at St. Andrew's Rapids. Previously the current of the Red was fairly swift, and, while the river was contaminated, it carried the nuisance away. Now the Red consisted of a large basin twelve miles long and one hundred yards wide. The Red, with all this sewage, flowed through Selkirk, and at that point the water was unfit even for cattle to drink. Men could not water their horses in it. Lake Winnipeg had been contaminated for eight or nine miles, and nearly every year there was an outbreak of typhoid among the men who work on the dredges.

Sydney, N.S.—One million four hundred thousand gallons of creosote could have been produced in Western Canada in 1910 if the coal that was converted into coke had been coked in by-product ovens. This is the somewhat startling statement made by the Dominion Commission of Conservation. With the exception of the creosote produced from the by-product ovens at Sydney, N.S., and at Sault Ste. Marie, Ont., no creosote is produced in Canada. This valuable wood preservative is imported from Britain and the United States, but the high cost of the imported article has restricted its use very materially. In view of the steady and even rapid rise in the price of almost all classes of wood products, the importance of creosote is readily seen. For example, there is the problem confronting Canadian railways in obtaining timber from cross-ties. There were 13,683,770 ties purchased in Canada in 1911, an increase of 48.5 per cent. over the figure for 1910. When it is considered that the annual replacement of ties on existing lines amounted to about 10,000,000, it is evident what enormous quantities of tie material are required in order to supply the demand. This demand will not remain stationary, but, on account of the increased mileage of railways being constructed in Canada, will increase each year. Owing to the other demands for lumber and wood products, the price of cross-ties has been steadily increasing. The cost of tie maintenance is now a large item of expense, and the higher prices of the better grades of wood have forced the railway companies to use inferior woods. In 1908 cedar ties constituted 40 per cent. and jack pine (an inferior wood) 10 per cent. of the total used on Canadian railways. In 1911, the proportions were, cedar, 5.3 per cent. and jack pine, 39.9 per cent. In order that the lower grades of wood may be economically used for ties it will be necessary to creosote those species that fail through decay. In order, also, to utilize ties of the softer woods, it is necessary to use tie-plates. When it is remembered that the average life of an untreated tie is seven years, while the life of a treated tie is seventeen years, the importance and value of creosote is readily seen.