

linquents is largely preventive, and on the whole it is successful.

An industrial farm has been provided to which to send prisoners from the city jail, in order that regular and healthful work may restore them to physical vigor and enable them to overcome their craving for drink. Incidentally, they earn the cost of their maintenance.

A few years ago we established a public bath house. This has been so successful in a central location that baths have been demanded for other sections of the city.

The people call for band concerts in the public parks in the summer as well as free bathing facilities at the Island, and in the winter they call for skating rinks and toboggan slides in the parks.

We are establishing a public abattoir at a large expenditure for building and equipment.

In connection with street cleaning, the great area to be cleaned and swept, and the extensive system of garbage collection require the erection and equipment of incinerator plants at different points in the city, and a reduction plant outside the limits of the city where garbage is to be reduced and by-products utilized. The initial expenditure for all these plants will total about one million dollars.

Education is widening out. To the former common and high schools are added those for technical instruction, with a very large expenditure for building and equipment.

Public ownership of public utilities is the new order of the day. It began with the acquisition of the waterworks. It has extended to the establishment of a municipal electric lighting and power plant in close affiliation with the hydro-electric system of the province of Ontario, and the construction of street car lines by the municipality, and my hope is that before long we shall have ownership and control of street railway transportation and electric power distribution on every street and in every part of our city.

Main drainage, sewage disposal, storm overflow sewers, bridges and viaducts, waterworks problems and extensions, are all subjects which require careful thought and the employment of skilled engineers and experts. These are important matters with which the municipal rulers of earlier days were not required to deal.

All this increasing complexity of municipal government demands the service in the Council of men who have had some special training in municipal administration. It must be apparent to any thinking person that a man cannot approach this work, and render substantial service until he has had a chance of making a study of at least some of the problems with which a large city government has to deal in these days.

This ever-widening range of responsibility will compel the men who are elected to administer the affairs of the great cities, to specialize in the different departments of civic government. It is only by special application to particular problems on the part of a group of men sharing this responsibility that the best results can be attained.

When Toronto was a city of under 100,000 people, thirty-five years ago, one man was city commissioner and health officer. He inspected works in course of construction, and had charge of health, street cleaning, street watering, public markets, public halls, and other miscellaneous work. No city in Canada of a population of 100,000 would dream to-day of putting such a load on any official, because the duties of each branch have been so amplified that it would be a physical and mental impossibility for the official to carry the responsibility.

The people demand that our municipal government shall protect them and their property against criminals and fire. They ask for protection against disease, whether it comes from diseased persons or from food or water. They ask to be cleansed by public baths, and to be amused in summer and winter. They ask also to be provided with books and periodicals to read. In short, they ask to be guarded at almost every point, and as in the last analysis, they rule as well as provide the funds, their demands must be complied with. The experience of Toronto is, I believe, similar to that of other cities.

NEW HIGHWAY BRIDGE AT LYTTON, B.C.

The accompanying illustrations refer to a proposed structure to cross the Thompson River, just above its junction with the Fraser, at a site between the present bridge which is also shown, and the crossing of the Canadian Northern Railway. The new bridge will carry the main highway from Hope and Lytton in the direction of Lillooet and other northerly points.

The sub-structure is of concrete, and steel is being used in the superstructure, the whole resting on a good rock foundation.

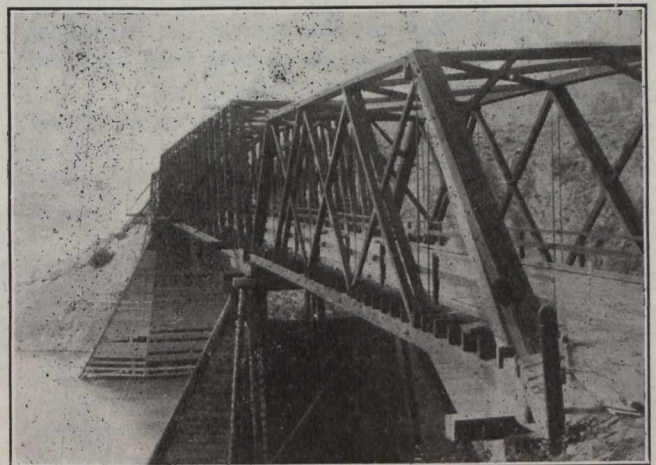


Fig. 1.—Bridge at Lytton, B.C., Which is Being Replaced.

There will be 209 feet of timber trestle approach with a similar length of grading on the southeastern bank of the river. Over the bridge the roadway will be 16 feet in width, and will be constructed of 4-in. plank protected on either side by a 4-foot hand railing with posts 7 feet $7\frac{1}{8}$ inches apart. The roadway plank will be supported on 6-inch joists of varying depth, according to camber, on steel I-beam stringers. A crowning one inch thick will be applied to the top of the floor.

The bridge itself will consist of a 250-foot truss span, 35 feet deep, together with two 70-foot plate girder spans, one on either side and an additional 50-foot plate girder span carried on steel bents and concrete abutments. The large truss span will rest upon concrete piers seventy feet above low-water, while the distance of the resting surface of the truss above the extreme high-water level will be $7\frac{1}{2}$ feet.

The bridge is designed to carry a live load of seventy-five pounds per square foot on the 250-foot truss, and one hundred pounds per square foot on the shorter spans, together with a concentrated load of a 16-ton road roller.