tension will be carried on when the filling behind the harborhead wall is completed. The discharge from the sewer will be taken care of in the meantime by a temporary outlet.

The outlets between Spadina Ave. and Cherry St. vary in size from 1 ft. to 5 ft. As the construction of the harborhead walls proceeds eastward, special studies will have to be made of the extension of these sewers from their present outlets to the new bulkhead line.

Cherry St. outlet emptied into the old Don Channel, and after the diversion of the Don had been completed, it had to be extended to the new channel. This extension was carried through solid ground containing very little water and presenting very few constructional difficulties. Up to the point of the old outlet, the section was an egg-shaped brick sewer, 2 ft. 8 ins. x 4 ft. The section of the extension as carried south on Cherry St. was a horseshoe section 4 ft. 5 ins. x 4 ft. 6 ins.

The only other outlet of importance now under consideration is at Carlaw Ave. This sewer, which is a concrete twin section 3 ft. 6 ins. x 5 ft. 4 ins., is now discharging into

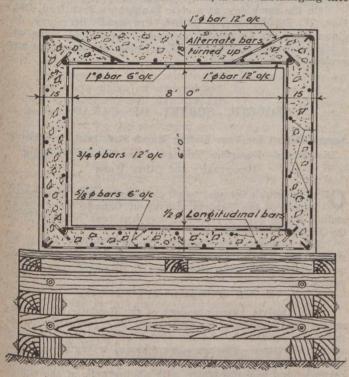


FIG. 4-SPADINA AVE. EXTENSION

Keating's Channel. In addition, there are three 18-in. outlets at Booth, Logan and Morse avenues discharging into the same channel and requiring to be provided for before the filling in this vicinity can be brought up to grade.

The plan as at present outlined is to collect the flow from these smaller outlets and carry it, together with the discharge from the larger one, to the turning basin at the end of the ship channel. The section required is a twin section 6 ft. x 8 ft. 6 ins. The type of construction proposed is reinforced concrete, similar in design to Fig. 3, owing to the fact that the bearing value of the soil is not considered sufficient to carry the estimated load.

The concrete in all cases consisted of 1 part of portland cement, 2 parts of sand and 4 parts of 1-in. trap rock.

The design and construction of this work was carried out by the staff of the Toronto Harbor Commissioners.

In the city of Manchester, Eng., there are 42 refuse destruction furnaces and 21 boilers. Last year 3,312 tons of mortar were made from the clinker obtained from these furnaces.

The Moose Jaw Electric Railway Co. have presented a report to the city council in which they offer to sell out to the city, and state that if this offer be not accepted, it will be necessary for the city to grant certain concessions in order that an adequate service may be maintained.

## TOWN-PLANNING INSTITUTE FORMED

## Announcement Made at Annual Meeting of Dominion Land Surveyors—Thomas Adams Explains Its Objects— Probationary Members Only First Year

A<sup>T</sup> the annual meeting of the Association of Dominion Land Surveyors, held January 30th at Ottawa, announcement was made of the formation of a Town-Planning Institute.

The idea was conceived at the last annual meeting of the association, when a committee was appointed to form such an institute. The members of the committee were J. D. Craig, W. H. Norrish, F. J. Wight and H. L. Seymour (chairman), all of whom are also members of the topographical surveys committee of the association.

# Lack of Education

The committee decided that the most pressing phase of town-planning work is lack of education in the movement, so a meeting was arranged with Thomas Adams and Noulan Cauchon and with the three members of the D.L.S. Board of Examiners, namely, Dr. E. Deville, Dr. O. Klotz and M. Tobey. The committee then decided that town-planning had assumed sufficient importance to warrant the formation of a town-planning institute.

Mr. Adams addressed the association last week, stating that the main object of the institute would be "the promotion of scientific and artistic town-planning both in town and country. The three professions that are primarily interested are architects, engineers and surveyors," said Mr. Adams. "The Town-Planning Institute will bring together the members of these three classes in one united group. To form an institute without a sufficient number of men presented a difficulty to those who have been considering the problem. It has been decided that the institute for the first year will consist of probationary members only, each of whom will undertake to prepare a special thesis or to pass an examination before a board before being qualified for full membership.

## **Branches in Large Cities**

"A committee of ways and means, consisting of Dr. Deville, surveyor-general; R. H. Millson, president of the Ottawa Chapter of Architects; and myself, have been appointed to prepare a draft prospectus and to submit a list of prospective members to an early meeting. Local branches will be formed in the larger cities, one in Ottawa having already been formed.

"It is desirous to have legal and non-professional members, so the institute will be divided into three groups-

"First, members and associate members (architects, engineers and surveyors); second, legal members; and third, honorary members and associates (non-professional class).

"I believe that the time will come in Canada when our public authorities will appoint engineers to study engineering problems, architects as members of committees for choosing sites, and surveyors will be considered fit to sit on land settlement boards"

In conclusion, Mr. Adams drew attention to the progress made by the British Institute, formed in 1909, and exhibited a series of slides.

#### **Comprehensive Policy of Reclamation**

The association held a luncheon at Chateau Laurier at which the guests were Hon. A. Meighen, Dr. Deville and Mr. Roche. President J. M. Wallace was in the chair. Mr. Meighen told the surveyors that he had received a report drafted by the special committee of the association, outlining a comprehensive policy of reclamation, not only by drainage, but also by other means, particularly clearing by fire. He said that the government is giving this report very careful consideration.

E. M. Dennis read a paper on "Honors to Dominion Land Surveyors in the War," and J. H. MacKnight on "Light Railways," telling of their use in France, and also in the peaceful pursuits of lumbering, mining and surveying.