

Fire Alarm Service of Montreal

The City of Montreal has just completed the installation of an underground system for fire alarm service on St. Catherine and Bleury Streets.

Before the specifications were drawn up covering this system, the matter was given considerable study, and the experience and success which other cities had had in connection with underground fire alarm signal circuits was thoroughly investigated. The result is that Montreal has, without a doubt, the finest fire alarm underground installation on the North American Continent.

When the specifications were drawn up it was decided, in order to make the system as efficient as possible, and to provide for future growth of the City of Montreal, that it would be necessary to run two cables on St. Catherine Street, east and west from Fire Alarm Headquarters, which would be known as feeder cables. These feeder cables were so arranged that the boxes to be fed by them would be alternate on the cables, i.e., feeder No. 1 would feed the first box, feeder No. 2 the second box, feeder No. 1 would feed the third box, and feeder No. 2 would feed the fourth box, and so on. In addition to these feeder cables, there was installed a trunk cable running east and west from Fire Alarm Headquarters on St. Catherine Street. It is proposed that this trunk cable will feed the outlying districts of Montreal on the eastern and western sides. On Bleury Street the installation was practically the same, except that there was but one trunk cable running from Fire Alarm Headquarters south, but no trunk cable running from Fire Alarm Headquarters north. The cable used for the main feeders and trunk was of a special design, lead covered, rubber insulated, 20 pair cable, the size of the conductors being No. 16 copper wire.

The boxes installed on this installation are of the latest Positive Non-Interfering Succession Type, which is conceded to be the most efficient type of box known to the art of Fire Alarm Telegraphy.

As is well known, the City of Montreal has numerous private alarm boxes, and it was a debatable question as to how it was best to connect these boxes to the main circuit. It was finally decided to connect to the main cable by means of a 6-conductor special fire alarm cable which would connect to the main feeder cable at the nearest fire alarm box pedestal, thus if anything happened to the private installation it could be immediately cut off the main circuit without interfering with the main circuit in any way. This could not have been done if the main feeder cables had been looped into the private institutions.

For mounting the fire alarm boxes on the streets and to provide cable terminals for the feeder cable, a special metropolitan design post was used, the post supporting the fire alarm box and cable terminal box on the back of it. The cables are all "looped in," no taps being made in the entire installation. It was decided that as the installation was to be all underground, and telephoning over the fire alarm circuit would be made possible because of this fact, that all fire alarm boxes should be equipped with a telephone jack and special equipment for telephone signalling, so that the



trouble man, box inspector or fire chief could immediately get telephonic connection with the Fire Alarm Headquarters from any fire alarm box on the circuit, thus saving a great deal of time over the former method of going to the nearest private telephone. It was necessary to install special telephone receiving apparatus in the Central Office, and the result of this particular part of the installation is a credit to the designer, and will no doubt prove to be an indispensable adjunct to all underground fire alarm systems in the future.

The preparing of specifications and the supervising of the installation of the entire job has been under the direct supervision of the present Acting Superintendent, Mr. L. A. Charest. Mr. Charest has been in the employ of the Fire Alarm Department for thirteen years, starting in as an operator, and owing to his ambitious attention to the work, he has worked his way up to the position of Acting Superintendent.

The cable, telephone equipment, fire alarm boxes and miscellaneous apparatus have been furnished by the Northern Electric Company, Limited, and installed by that company.