## MONTREAL UNDERGROUND FIRE ALARM SYSTEM.

THE city of Montreal has just completed the installation of an underground system for fire alarm service on St. Catherine and Bleury Streets. When the specifications for it were drawn up it was decided, in order to make the system as efficient as possible, and

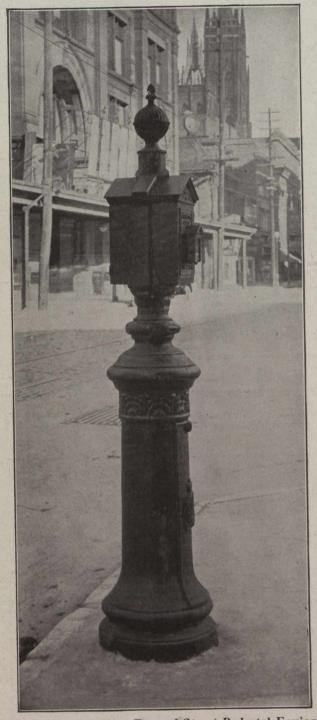


Fig. 1.—Metropolitan Type of Street Pedestal Equipped With Fire Alarm and Cable Boxes.

to provide for future growth of the city of Montreal, to run two cables on St. Catherine Street, east and west from fire alarm headquarters, which would be known as feeder cables. They were so arranged that the boxes to be fed by them would be alternate on the cables. 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 one trunk cable running from fire alarm headquarters south, but none running north. The cable used for the main feeders and trunk was of a special design, lead-covered, rubberinsulated, 20-pair cable, the size of the conductors being No. 16 copper wire.

The boxes installed on this installation are of the positive non-interfering succession type which is conceded to be the most efficient type of box in fire alarm telegraphy.

The city of Montreal has numerous private fire 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



Fig. 2.—Central Office Panels With Operator Receiving Calls.

pedestal. Thus, if anything happened to a private installation it could be immediately cut off the main circuit without interfering with the latter 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 system was to be all underground, and telephoning over the fire alarm circuit would be made possible because of this fact, 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

(Continued on Page 52.)