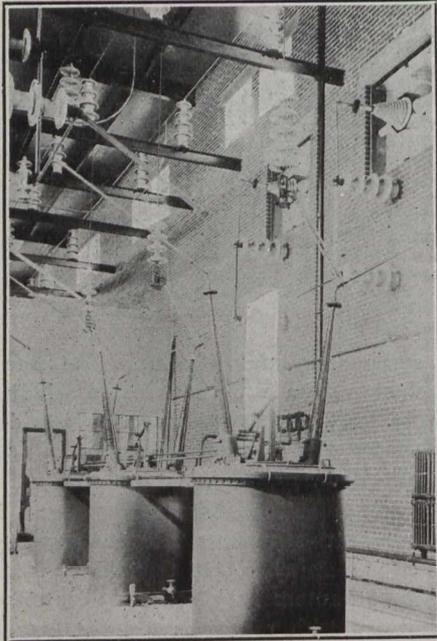


The mechanical and cooling equipment in general is the same as in the step-up station.

Condenser bushings are used in both the Niagara Falls and the Dundas stations on all high-tension switches and transformers. The Canadian Westinghouse Company furnished and installed the entire equipments, with a few exceptions, of these two stations. Arrangements are being made at the present time for the installation of an additional bank of transformers and the necessary switches. (Fig. 28).

**Toronto Station.**—This station (Fig. 29) is divided into three rooms,



**Fig. 27.—110,000-Volt Breaker Unit, Dundas Station.**

each running the entire length of the building, and consisting of the high-tension switching, transforming, and the low-tension switching sections.

The incoming lines are protected by electrolytic arresters placed within the building, and provided with horn gaps mounted on steel structures outside. The hoods for the outlets are built with a floor, upon which the entrance bushings, consisting of stacked porcelain rings with a pronounced petticoat, are mounted.

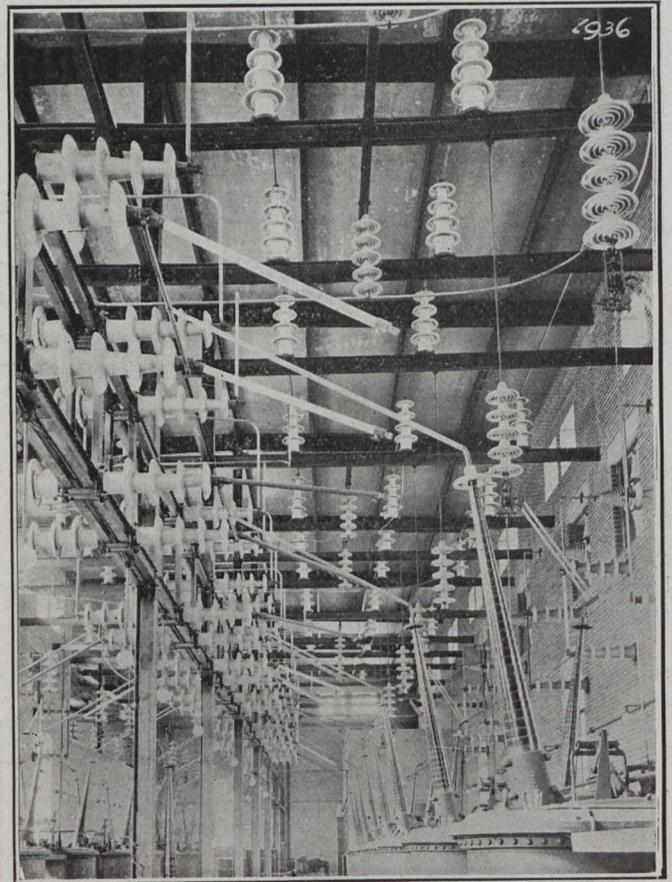
The different sections of the bushings are clamped together with a brass bolt extending through the centres, the intervening spaces between the brass and porcelain being filled with concentric fibre rings and insulating compound. Since the arresters are placed inside and the horn gaps outside the building, six bushings are required for each line. Spiral choke coils are employed and are inserted in the power lead on the inner side of the entrance.

The 110,000-volt oil switch equipment consists of two line and two transformer switches, each in the busbar circuits. The general arrangement of the 110,000-volt buses and connections

are similar to those at Niagara Falls and Dundas, with the exception that the insulators used are of a corrugated rather than a petticoat type. General Electric oil switches and transformers are employed and provided with bushings built

of annular ringed sections of compound clamped together, the interior space being filled with concentric cylinders of treated fibre compound. (Fig. 30).

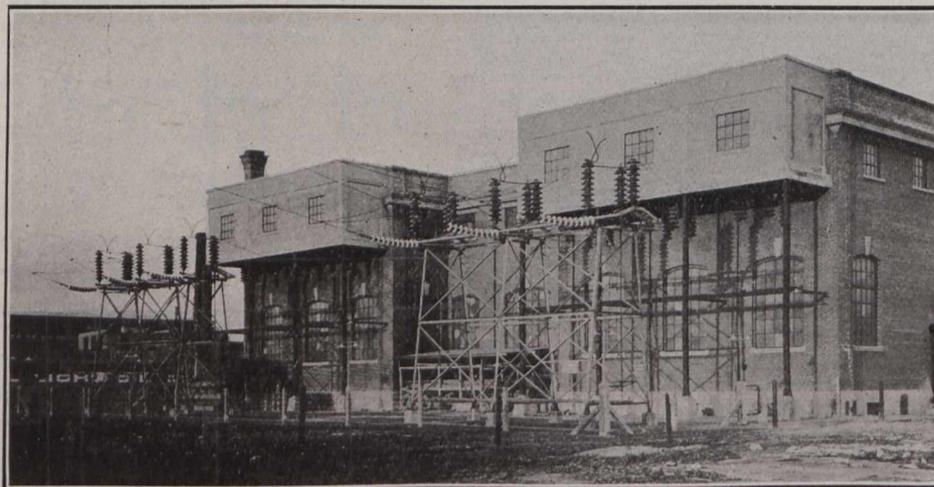
The transforming equipment consists of two banks of 1250 kv-a. transformers stepping down the transmission



**Fig. 28.—General View of 110,000-Volt Layout, Dundas Station.**

voltage to 13,200 volts. The low-tension leads branch and run through the oil switches to two sets of buses, each of which is divided into two parts. The cell work is built with pressed brick walls and concrete shelves. Ultimately, two ring buses will be installed, each being divided into four sections. At the present time there are eight feeders installed, each provided with automatic oil switches for connecting to either set of buses. The oil switches and buses are located in two rows on a gallery while the potential and series transformers

are placed in compartments on the main floor immediately beneath the switches. The buses are protected by aluminum cell surge protector sets. The outgoing feeders to the five municipal sub-stations in different parts of the city leave



**Fig. 29.—Toronto Station.**

are placed in compartments on the main floor immediately beneath the switches. The buses are protected by aluminum cell surge protector sets. The outgoing feeders to the five municipal sub-stations in different parts of the city leave