

## CANADIAN WESTINGHOUSE WORKS.

The advancement of Canada as a commercial nation has been remarkable during the past few years. The new impetus has been felt in development of water powers, in mining, agriculture, transportation and manufacture, and the increment of each has reacted to swell the contribution of others until at present Canada finds herself on a rising tide of prosperity, all the more marked in comparison with the hesitancy and stagnation apparent in many other portions of the business world. Among the various fields of activity, that of manufacturing has more than held its own. Not only have resident Canadians been alive to the opportunities of the period, but also individuals and corporations of other countries have been led to establish manufactories within the country, to aid in supplying the growing consumption of their products.

A highly interesting installation of the latter sort is the new plant under construction at Hamilton, Ontario, for the manufacture of the well-known types of the Westinghouse Electric & Manufacturing Company. From the time when electrical apparatus was first made use of in Canada, the Westinghouse Electric & Manufacturing Company, of Pittsburgh, has furnished a large and increasing portion of this apparatus in the Dominion, until now the time has arrived when in justice to their customers it is found advisable to establish a distinctively Canadian factory, to secure that intimacy of relation which is so advantageous alike to the manufacturer and client. Passing in review the various sites suitable for the location of such a factory, it was natural that the choice should fall on Hamilton, not alone from the natural advantages of that city from the standpoint of a manufacturer, but as well from the fact that for a term of eight years another Westinghouse interest, the Westinghouse Manufacturing Company, Limited, had been located in that centre, engaged with marked success in the manufacture of the Westinghouse Air Brakes for the equipment of Canadian rolling stock.

To join under one management the existing air brake business and the electric business to be instituted, a new organization was formed under the name of the Canadian Westinghouse Company, Limited, and, leaving the air brake factory in its present state of efficient equipment, work was at once started to provide a plant of modern excellence and completeness for the manufacture of electrical apparatus. Notwithstanding an unusually severe winter, construction work has been pressed throughout, until at present writing it is safe to say that an operative condition of the plant will be reached this fall. The Canadian company will operate under the enjoyment of an agreement with the Pittsburgh companies, by which all designs and processes of the older companies will be at its disposal, and thus fortified with the results of years of successful experience, equipped with a plant than which no better can be found, and aided by the co-operation of many of Canada's most representative citizens, an assured future stands before the company, and the Canadian user is assured of the best obtainable apparatus. The lines of manufacture to be taken up comprise alternating and direct current generators; alternating and direct current motors, including railway motors; controllers, transformers; switchboards and switches; rheostats; instruments; meters; arc lamps, and various subsidiary apparatus included in the general line of Westinghouse equipment.

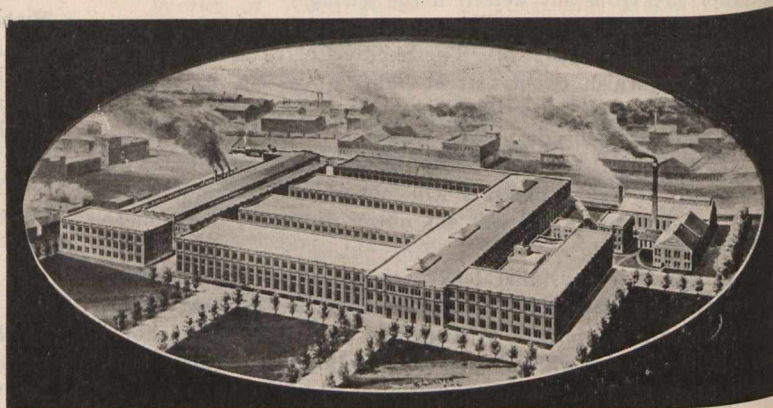
The new buildings provided consist of foundry, pattern shop, pattern storage, general machine shop, detail machine shop, warehouse, insulation treating building, boiler house and transformer building. On the diagram of the property shown in the illustration, these are lettered from "A" to "I" inclusive, in the order just recited, "L" is the brake plant, and "K" the office building, enlarged to accommodate the increased force of the new company.

In laying out the manufacturing buildings on the

property two cardinal points were kept in view—the first, that progress of material from raw to completed state should, as far as possible, be in a continuous direction; and the second, that the plan adopted should lend itself to an initial installation which would constitute a complete unit, and also be capable of reproduction along its own lines to an extent limited only by the total available property. On the latter point it may be said that something less than half of the total installation shown in the illustration is at present under construction, the northern half of the foundry and warehouse, along with corresponding machine shop wings being left for future extensions. Regarding progress of material through the plant, it may be pointed out that with raw material received on track west of the foundry, progress is in general from this point to the warehouse, from which all shipments are to be made over tracks conveniently located within the building for this purpose.

The foundry is of monitor roof construction, with middle and two side bays. In the west bay are located the cupola house, the core room, and the brass floor, while just inside, along the west wall are located the bins for pig, sand, limestone, etc. A portion of the east bay is separated by partition from the foundry space to serve as blacksmith shop. The main bay is served by a 20-ton crane, the length of the building being also traversed by travelling jib cranes, operating at a lower level. A mezzanine floor over a portion of the core room provides suitable toilet facilities without reducing productive floor space. An electrically driven elevator is provided to deliver iron from yard to charging floor, and a coke conveyor, also electrically driven, receives coke from railroad car and deposits it in an appropriate bin on the charging floor.

The pattern shop, located conveniently near the foundry, is three stories in height, besides a basement to accommodate shafting for machinery on first floor. The first floor is devoted to carpenter and cabinet shop uses, while the second and third floors are for pattern making. An electric elevator serves this building from basement to top floor. The pattern



Bird's eye view, Canadian Westinghouse Co.'s new works, Hamilton. The small cluster of buildings around the smokestack represent the present plant of the Westinghouse Air Brake Co.

storage building adjoining is similar in construction, except the basement, which is unnecessary.

The general machine shop is arranged with a high bay covered by 20-ton crane, and low bay with 5-ton crane. In the former the heavier machine tools are located, and it is here that mainly the stationary parts of generators and motors will be finished, while the low bay will be devoted to preparation of rotary parts, and the gallery floor above the latter will provide space for the manufacture of commutators, brush-holders, bearings, etc., also for tool room and controller department. Toilet rooms and heating and ventilating fans are placed on a narrow mezzanine floor between high and low bays, the same being reached by stairways from both the ground and gallery floors. The elevators also pass up through this floor and industrial tracks run under the mezzanine, along by the foot of the elevators on the ground floor. After the completed rotary part has received its winding at the eastern end of the low bay it is passed by