

concrete is waterproofed and covering omitted. The cupola is 107 feet high above the bin walls, and 220 feet above the base of the rail. This means that there are very few, if any, higher reinforced concrete buildings in existence.

Above the storage addition the cupola is but two stories high, as the only machinery above those bins is the conveyers and spouts for filling the bins.

**Marine Tower.**—A marine tower for unloading boats is placed on a jetty projecting into the neighboring slip. The tower is so placed in order that two vessels may be unloaded simultaneously, one lying along each side of the jetty. The tower is 340 feet from the elevator. It is built of structural steel, this material being adopted instead of concrete because it is expected that, in the event of the Georgian Bay Canal being built and 600-foot vessels being brought to Montreal for unloading it may be desired to extend the jetty farther and move the tower to such a distance from shore that 600-foot vessels may be unloaded without interference. As the shorter jetty is, however, better adapted to present congestion in the harbor, it has been adopted until such

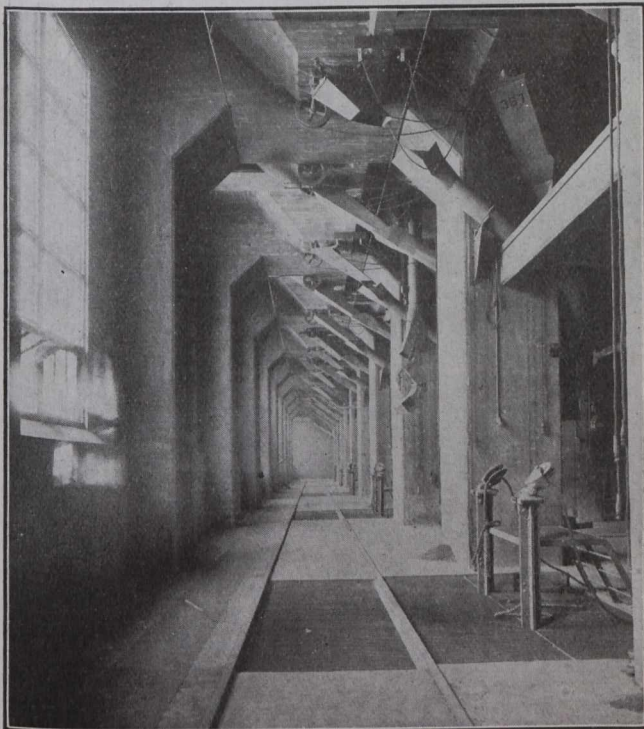


Fig. 2.—A View of the First Floor.

time as the increased size of lake boats coming to Montreal shall require its extension.

A steel gallery runs from the marine tower to the elevator, and contains the conveyer belts for taking grain received by boat to the elevator.

**Shipping Conveyer Galleries.**—Study of the accompanying diagram will show the extensive system of shipping galleries built and contemplated. Those already built in connection with elevator No. 1 were two miles in extent. Those to be added in connection with elevator No. 2 will bring the total to 2½ miles, using 10 miles of rubber belt. All galleries are of steel with concrete floors and roofs and corrugated steel side-covering.

**Miscellaneous Structures.**—A reinforced concrete building is provided for a grain dryer and its boiler plant, and a similar structure for the transformers and switchboard.

#### Equipment.

**Receiving from Cars.**—There are four receiving tracks, 24 track hoppers, and twelve receiving legs. Each leg is fed from two hoppers, one on either side, interlocking

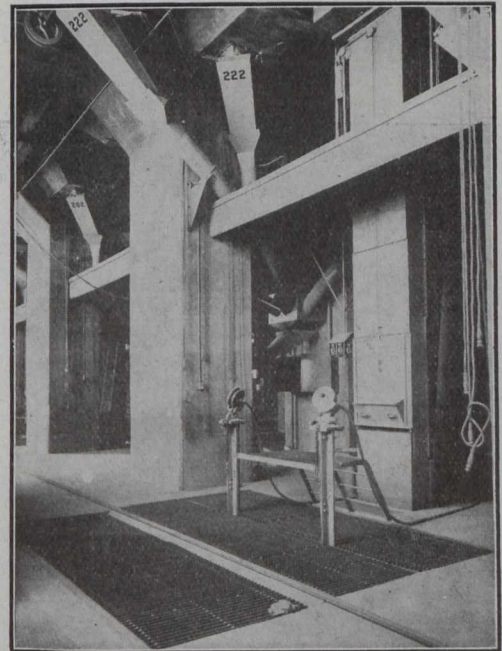


Fig. 3.—A Detail of the First Floor.

valves being used so that it is impossible for grain to reach the leg from more than one hopper at a time. Track hoppers are of large size, and a pair of power shovels is provided at each. Thus the unloading of a car on one side of the leg is independent of that on the opposite side, and

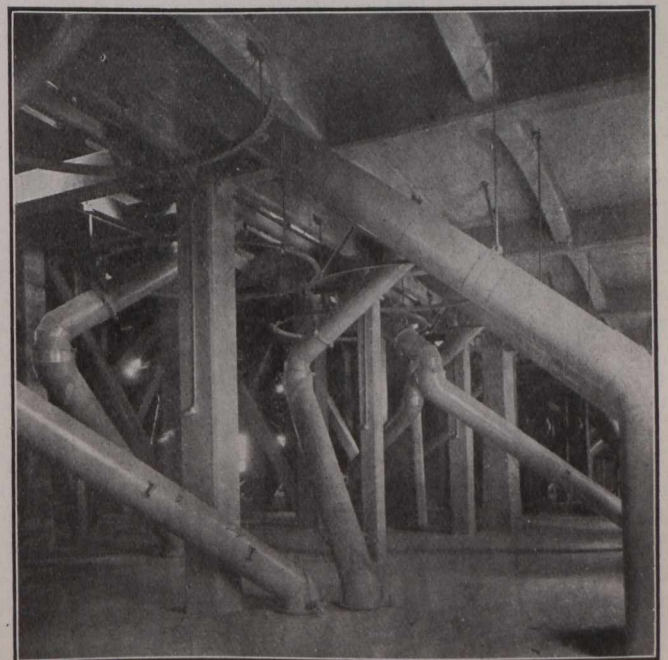


Fig. 4.—View of Distributing Spouts in Story Over Bin.

unloading from both cars may proceed simultaneously, as the legs are of sufficient capacity (12,000 bushels per hour each) to quickly elevate the contents of either hopper as soon as the elevation of the contents of the other has been completed. The elevator will receive 240 cars in ten hours