

with the ordinary complement of men, and with extra men can better this in emergencies.

Cars are handled by heavy carpullers using $\frac{3}{4}$ -inch wire cable.

Each receiving elevator discharges to a 2,500-bushel garner over a 120,000-pound Fairbanks hopper scale, whence the carload is sent by spouts, or belt conveyers and spouts, to the desired bin.

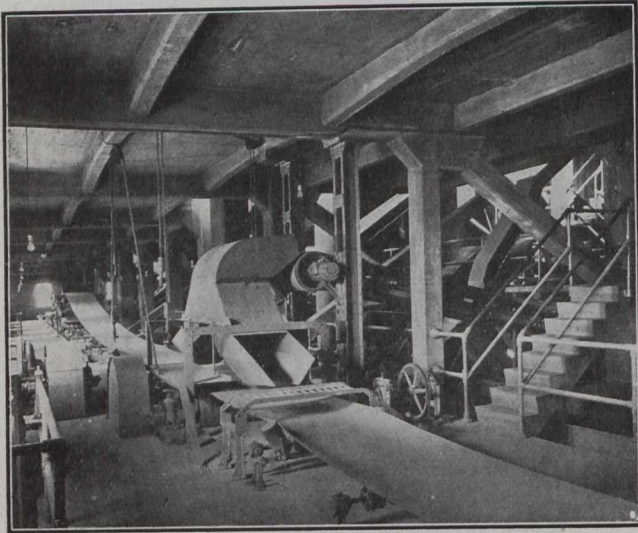


Fig. 5.—Belt Conveyers in Second Story Over Bin.

Receiving from Boats.—The marine tower is equipped with two marine legs, each of 20,000 bushels hourly capacity on the dip. One leg operates on each side of the tower, so that two boats may be unloaded simultaneously. The grain from the legs is weighed by two pairs of 6,000-pound Fairbanks continuous automatic weighing machines. Complete ship shovel and clean up shovel apparatus, operated by

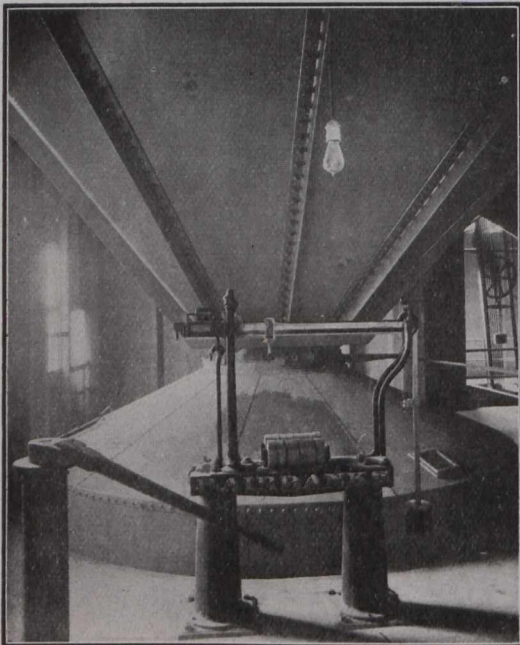


Fig. 6.—View of 2,000-Bushel Hopper Scale.

air, and the best of equipment for raising and lowering the legs, and adjusting them horizontally to the position of the boats is provided.

The marine legs are of steel, 115 feet long between centres of pulleys, and are the longest marine legs ever constructed.

The 40-inch belt conveyers carry the grain to the elevators, where two lofter legs elevate it to the cupola. There a system of 40-inch conveyers distributes it to the double-jointed spouts leading to the bins.

The maximum hourly capacity for receiving from boats will be 40,000 bushels.

Distributing.—Two reversible longitudinal conveyers in the cupola receive from the scale and distribute grain longitudinally of the elevator.

Cleaning.—While Montreal is not a cleaning point, two large steel cleaning machines are provided for emergency cleaning and separating.

Shipping to Cars.—Four carloading spouts are provided so that cars may be loaded if desired. This sometimes becomes necessary in order to get grain to a winter port farther east after the port of Montreal has closed.

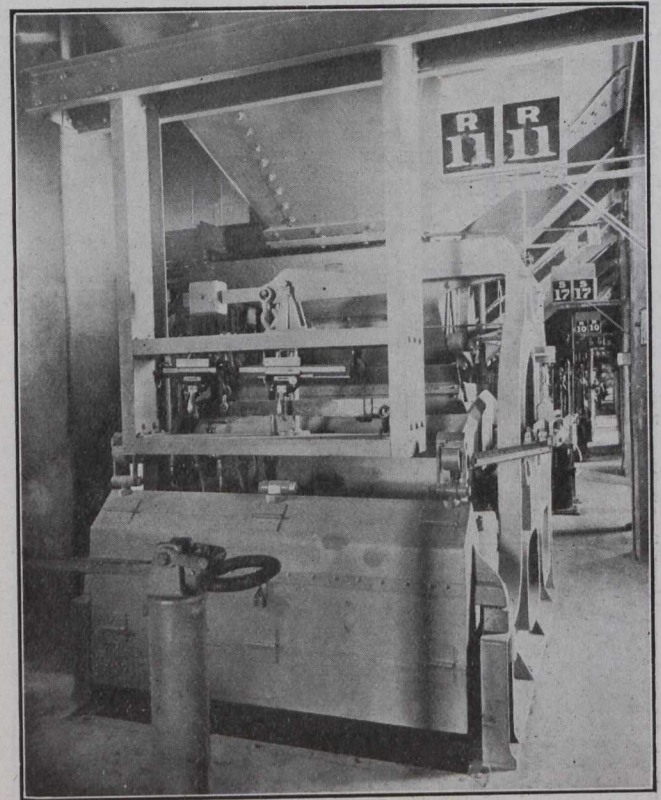


Fig. 7.—Automatic Weighing Machine, 5,000 lbs. per Draft.

Shipping to Ocean Vessels.—In connection with elevator No. 1 the shipping conveyers served 14 vessel berths on King Edward, Alexandra and Jacques Cartier piers and the neighboring shore wharves. Five berths are being added on the new Victoria pier.

The side shipping gallery of elevator No. 2 contains six shipping conveyers. Two will extend north to serve the Victoria pier, and four will run south to connect with the conveyers to the present 14 berths. It will be possible for either elevator to ship to any of the nineteen berths.

The shipping system of elevator No. 2 will be served by five shipping legs, each with a capacity of 16,000 bushels per hour. The total shipping capacity of elevator No. 2, starting with the shipping bins full, will be 90,000 bushels hourly for ten hours.

Grain for shipment by boat is weighed through five pairs of 5,000-pound Fairbanks automatic weighing machines, each provided with automatic registers, printing devices, and electrical counters in the weighman's office. As