## THE GRIMSBY PRE-COOLING AND EXPERIMENTAL FRUIT STORAGE WAREHOUSE.

## **OBJECTS AIMED AT.**

The Grimsby "Cold Storage" was erected in the spring of 1914 by the Dominiou Department of Agriculture under the direction of Mr. J. A. Paddick, Dairy and Cold Storage Commissioner, for the purpose of—

- (a demonstrating the value of pre-cooling fruit for shipments to the Northwest and other distant markets;
- (b) determining the most desirable equipment and methods to be used in precooling fruit in the Niagara District; and,
- (c) carrying on scientific experiments with fruit in cold storage.

The scientific work is undertaken for the most part separately from that which is purely commercial. The commercial work is intended to demonstrate the value of certain practices in the handling and shipment of fruit. As soon as records that are reliable and valuable are secured in the scientific division, they will at once be put into practice in the commercial work at Grimsby and will also be published for the general information of Canadian fruit growers.

During the season of 1914 the plant was thoroughly tried out, and though it was not used to its full capacity, owing to the short fruit erop, it saved a great deal of money to the growers near Grimsby. During the coming season the plant will be ready to operate at full capacity, so that all of the advantages found in pre-cooling fruit in other districts will be reaped by the fruit growers and shippers in the district.

## METHODS OF HANDLING.

Exclusive of corridors, passageways and experimental space, there are 27,000 cubic feet of refrigerated space, sufficient to pre-cool forty-four tons of fruit per day, ith auxiliary storage to assemble eight additional cars of fruit.

The fruit is loaded on specially designed trucks when brought from the orchard. run into the pre-cooling rooms and cooled on the trucks by a blast of cold air introduced through a perforated false floor. The air is cooled by being driven over coils containing brine held at 10 degrees F., the brine being chilled by the rapid melting of ice mixed with salt. During warm weather the plant uses between eight and eighteen tons of ice per day.

The fruit is cooled to 40 degrees F., after which it is ready to load in iced cars. The fruit is not exposed to warm air after once being cooled and remains in a cold condition until it arrives on the market.

Loading and shipping is done by trained men at the cold storage. For distant, shipment the cars are provided with slatted floors and the fruit is securely braced, which goes a long way to insure its arrival in good condition.

## ADVANTAGES.

The advantages of such a plant include-

(a) the assembling of carloads of cherries, peaches, plums, or other tender fruits
er two or three days and shipping by refrigerated freight while in good condition (\$250 per car may be saved in transportation charges to Winnipeg over express rates);