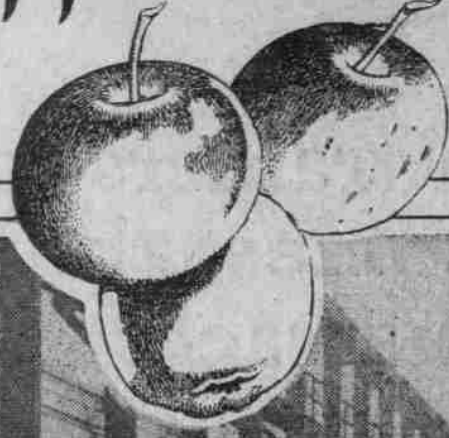
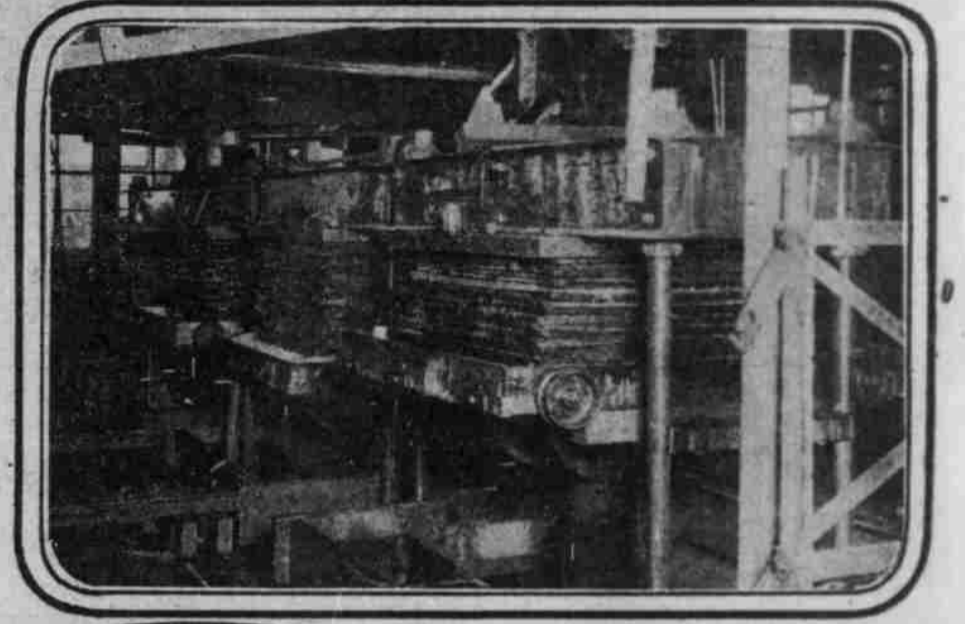


Apples Reach Europe Like they Leave the Tree

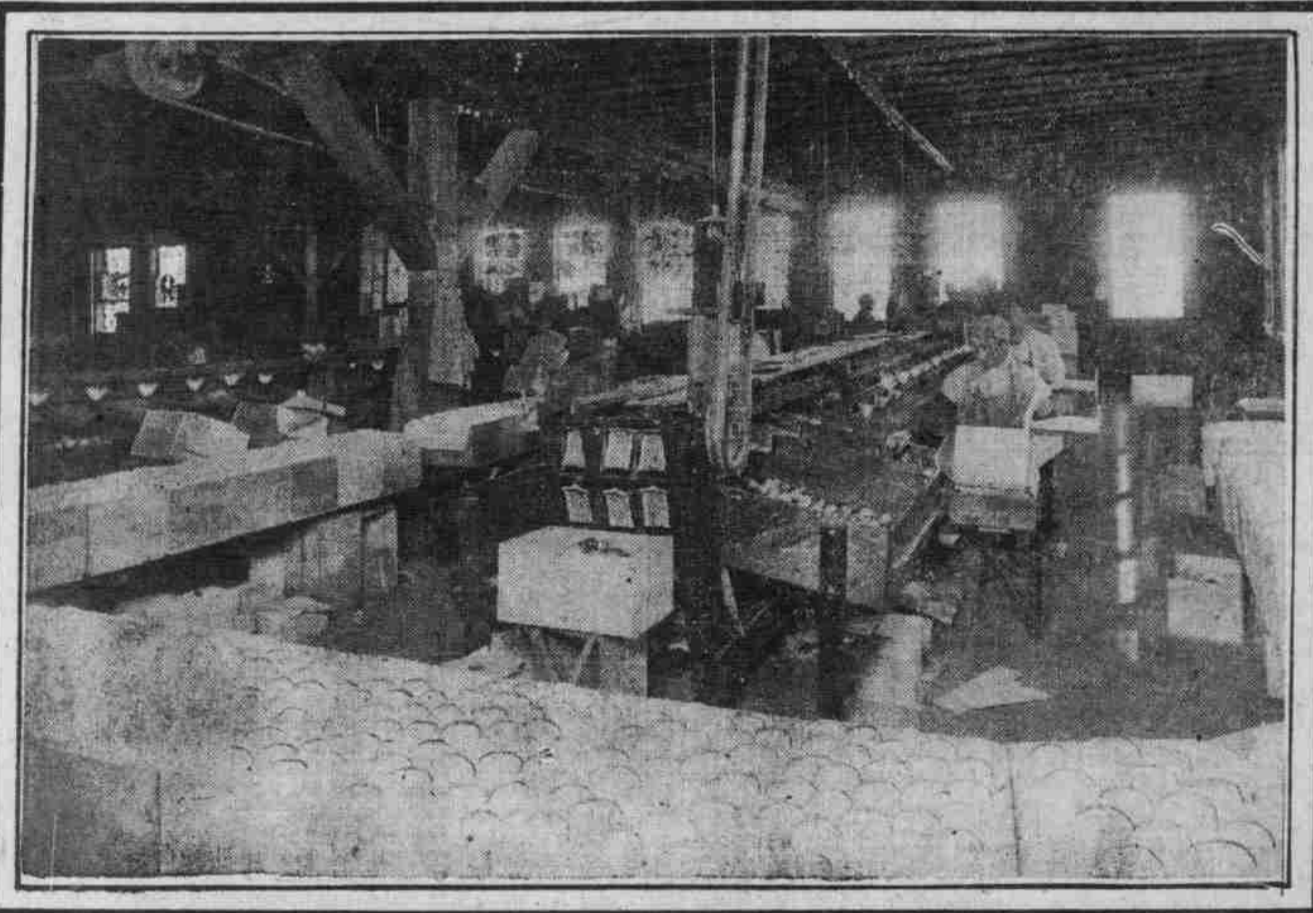
Rapid Dispatch, Refrigerator Ships and Careful Packing Put Prize Fruit on Market Many Thousands of Miles Away.



Loading Refrigerator Ship at Portland for Europe.



Battery of Cider Presses in Vinegar Factory.



Sorting and Packing Apples.



Packing Fruit is a Careful Job.

BY DEWITT HARRY.

AN ASTOUNDING gain in traffic has been the record of the Port of Portland during the past several years. This has caused other cities not so fortunate to cast envious glances this way. To say that they would like to pull some of this business to their localities is putting it mildly. They would do and dare anything, for the majority of coast ports are in a shipping slump, both of imports and exports. Of course, locality has had the world and all to do with Portland's success in this line, and the officials who have the present and future of the port in charge are not asleep at the switch. They are going after business with both hands, grabbing all they can reach and then extending the reach.

The biggest new thing in the exporting line is fruit, apples mostly, from this section of the country. It is with bated breath that men discuss this new export development. If they are informed they know that the possibilities of apple export, and this means all other fruits that are successfully grown in this district, are only scratched. So the port, alive to the opportunity, is on the job with refrigerated storage. And that's the secret of it all—refrigeration. Any commodity must be kept in condition during the time it is aboard ship. For some export cargoes, such as lumber, this is a simple matter. But when it comes to handling perishables, especially those so delicate as fruit, and such fruit as the northwest produces, then care is the big element. Just think of it—an apple—you who have ice boxes know—will absorb flavors. Stow the

boxed fruit in a hold that formerly held herring and apples will taste gloriously of kippered fish. So careful handling of this article for export is essential.

Fruit a Major Industry.

Ever since fruit growing has been a major art in the west the producer has faced a bristly hedge of market difficulties, not the least of which was transportation. Until recent years the only way to reach a market was to send the fruit pounding over thousands of miles of railroad and threatened by extremes of heat and cold. But with the advent of the refrigerator ship this has been changed. Last year Portland received calls from a dozen vessels in the fruit trade, and they handled about 2 per cent of the fruit from this territory. Apples pack an average of 756 boxes to the carload, so something can be realized of the amount of fruit carried by such ships as the Gothicstar, now loading in the harbor. This Blue Star liner has one hold that will take care of 100,000 boxes of fruit, enough to fill 132 refrigerator cars.

Last year the combined fleet to call in Portland was in a position to care for something like 1000 cars of fruit. The production of the district in 1922 was 42,000 carloads. To care for the 1000 cars of fruit from the northwest ports took a dozen ships, each of which loaded all or a goodly portion of its cargo in Portland. In addition to the fruit consignments, every one of these ships loaded other commodities from here and helped materially to stimulate traffic. It is hoped, within a few years, to handle 10 to 15 per cent of the fruit traffic by water. This will mean 100 or more ships engaged in this special trade. Import-

ant? Well, anyone can see it is. And yet so many unsuspecting residents of the port district fail to take fruit into consideration when thinking of Portland's export line, confining their major thoughts to lumber and grain.

Already the Merchants' Exchange lists begin to show the refrigerator ships on their way or with their dates booked. The 1923 crop will be lighter than the 1922 one—about 3000 boxes less—this year's figures being set in advance at 40,000 boxes. With the indications pointing to a larger tonnage of vessels in the trade, a greater proportion is certain to be taken to market by water. The dock commission is getting ready for the rush of fruit from the interior to tidewater here. At municipal terminal No. 4 they are building protected sheds to care for the shipments. Last year the fruit had to be handled by hand from the regular open docks. This season there will be a special shed for its reception and power conveyors are being constructed to handle the boxed apples, pears, etc., doing away with the slow and laborious system of trucking.

The northwest is beginning to cater to world markets, is widening the scope of her activities. Trade emissaries have recently visited the principal distributing centers of the world in the interest of the local grower, and representatives of great foreign brokerage industries, interested in the fruit trade, have returned the calls. They are beginning to visit each other and study out the possibilities for themselves. It has finally occurred to both the purchaser and the producer that they might well know what conditions were at each end of the line, and they are familiarizing themselves with

the business from start to finish. The indications are that the grower of this section is getting away from his cramped viewpoint and facilities of the past many years.

Grower Had to Take All Risks.

For years the fruit grower has labored under a severe industrial handicap. This is no less than the absence of an accepted bill-of-lading marketing system. In other lines it has been possible for the producer to receive his money the moment his goods were delivered at the ship and stowed. Banks advanced the sums due and commercial paper went through the usual trade routes in matters of exchange, with due bills recognized as negotiable when the shipments were inspected and accepted on ship. But, while this applied to the lumber, grain, fish and other shippers, it did not affect the fruit shipper. He sold on consignment; received but an advance payment of a small portion of the value of his shipments and then had to take a chance on getting the remainder when the produce arrived at the market in good condition. The result was that many thousands of dollars were tied up and held back and frequently the fruit rejected for some reason, or enough damages charge set against it to skim the cream off the profits. Here the water-shipment has again scored over the all-rail and trans-ship system, for the fruit usually arrives in better condition and commands a higher price, with less proportionate loss. This has been proved and is certain to bring a resulting increase in this way of shipping and has warranted the dock commission getting in readiness for its future development.

The first shipments of apples since the war were sent from this port aboard the

Holland-American liners Kindeldyk and Moerdyk. Of this same line the Kindeldyk is due here October 26 with a refrigerated capacity for 45,000 boxes. These vessels have one of their six holds refrigerated by the dry-air method, especially for the carrying of fresh fruits. This kind of cargo is one of their notable successes, their trips nearly always resulting in capacity consignments of this nature, assuring a nice profit. The first shipments after the cessation of hostilities on these ships were an unqualified success and made a fine profit for both the ship and the producer. The result has been to attract many more vessels into the trade. This year the Holland-American and Royal Mail Steam Packet lines will dispatch many additional bottoms from Portland, the majority of the vessels being especially designed for this service. The shipping board has also assigned what possible cargo capacity of this nature may be available to this part of the country, and the Nebraska, able to handle 175,000 boxes, will be in port the day after the Kindeldyk arrives.

Fruit Care Delicate Matter.

The Norton-Lilly interests, with their Blue Star liners, have some good equipment. Their coming here is made possible through the slump in the meat trade. Fresh-meat traffic has engaged a fleet of 17 ships between Great Britain and European ports and Australia and Argentina for years, but the demand has fallen off. While the majority of these ships are fitted for low-temperature refrigeration, they can be made to care for fruits with some few changes. Fruit demands dry storage, the air being circulated by fans over the brine pipes outside the hold

proper and the moisture kept away as much as possible. Then it is also necessary to have plenty of fresh air to change the whole body frequently. In the low-temperature ships for the meat trade the brine pipes are right in the hold and moist storage is the result. Ventilation changes are essential in converting the liners for fruits, as the fresh air is essential to keep the full flavor in. Just a little moisture and apples will spoil. Fruit must not be frozen, while meats can be kept in a sub-zero temperature without injury.

In the big fruit game of today it's just a lineup of the Panama canal against the refrigerator car. In international trade the factors essential to success are time, rates and condition. Ships succeed in all these points where rail frequently fails. Fruits, especially, have been found to be in better condition when laid down at eastern seaboard points via the all-water route. Rail rates have to be placed high enough to absorb the losses, some years amounting to \$100,000,000 in damaged shipments. Heat and frost claims have injured perishable tonnage to such an extent that railroad claim departments have always figured on heavy adjustments. This not only harmed the shipper and producer in the matter of reliability of shipments, but worked lasting injury to the trade name of the product. Tasteless fruits, overheated or frost-bitten, did not stimulate any market.

Speculator Enemy of Trade.

With proper refrigeration, like that offered by the specially equipped liners now in the trade out of this port, northwest fruits are laid down in London in the same condition as they leave the tree.