

after all, it being estimated that average-sized, well-loaded trees can be thinned for from 5 cents to 10 cents per barrel, where competent labor is employed. The time to thin the fruit is as soon as it is of sufficient size that the best-shaped and largest apples of the clusters can be easily pointed out. It is always important to leave the finest specimens, and the time to do the best work is generally from six weeks to two months after the blossoms fall. A good plan is to commence at the bottom branches first, and, in thinning, never leave the fruit too thick. It is sometimes better to remove the entire cluster, if these clusters are too thick, or if there is not a well-formed, healthy specimen in the cluster. Some growers recommend that the apples be left from six inches to a foot apart, claiming that better fruit can be produced at this than at other spacings. The advantages to be gained by thinning are several, and should more than counterbalance the cost of getting it done. When the fruit has been systematically thinned, there is little or no time lost in handling low-grade or useless culls, as is often the case where trees are overloaded, and much of the fruit is, on account of this, too small or misshapen to be of any use. Thinned fruit is also freer from codling moth and fungous diseases, and is usually more uniform in size, shape and quality. In fact, where thorough spraying has been supplemented by systematic thinning, the very acme of quality should result. It is the highest quality fruit that is the most profitable, and fruit-growers are all endeavoring to produce fruit that reaches the high-water mark in this respect. If any growers who have not as yet tried this scheme, and have an orchard or a number of trees that are heavily loaded, they could improve the quality very much, and reduce the expense of handling, and be able to market a higher class of fruit by doing a little systematic and thorough thinning of the apples, being careful to leave only the finest specimens and to give them plenty of room for the best development.

Citrus Industry of California.—II. THE CALIFORNIA FRUIT-GROWERS' EXCHANGE.

By W. R. Dewar.

[A co-operative organization which has marketed for the citrus growers of California, oranges and lemons amounting to \$132,785,500, gross, but has never declared a dividend or accumulated one penny in dividends to its stockholders.]

Such is the summary of success that this organization is able to publish for the good of its many members. It is not a statement that any corporation, as generally understood at the present time, would care to send out to its stockholders; but to the citrus growers of California who are members of the Exchange it is a signal of triumph and a sign of greater hope.

ORGANIZATION.

It is built from the ground upwards. First, the growers in a certain district who are favorable to the project combine to form a local association. Each member has one vote, and only one, no matter what acreage he owns or whether his output is one car or one hundred cars a season. This gives the smaller grower confidence that he will have the same treatment as his wealthier neighbor. A board of directors are elected by the members to run the affairs of the association. Each association owns its own packing-house, usually situated at a shipping-point. Its duties are principally to receive the fruit from the members, grade and pack it, and load it on cars for shipment. Here the responsibility of the association practically ends.

Secondly, all the associations of a locality form a district or sub-exchange, each association sending a representative. From these a president and directors are chosen to conduct the affairs of the sub-exchange, which consist mainly in selling the fruit and in combining or standardizing the efforts of the associations under their charge.

Thirdly, representatives from the sub-exchanges (one from each) form the directorate of the big exchange—The California Fruit-growers' Exchange. Its duties are, theoretically, really only advisory, but it practically does the marketing for the whole organization, and acts as its clearing-house. For two years before 1895 there was no central exchange, but it was soon evident that such a body was necessary to bind the sub-exchanges more closely together and to harmonize their efforts.

Thus, the Exchange is a threefold organization, built from the ground upwards. At present there are about one hundred local associations and fourteen sub-exchanges, all united under one big central exchange.

MEETINGS.

The Exchange directorate meets weekly; the sub-exchanges meet monthly, or semi-monthly; the associations meet less frequently. "A copy of the minutes of the meetings of the Exchange directorate is sent out after each meeting to each one of the sub-exchanges, and is read to the di-

rectorate of the sub-exchanges at their first meeting thereafter. A copy of the minutes of each sub-exchange meeting is sent to each of its affiliating associations, thus keeping every branch of the business in touch with each other."

FINANCING.

All associations are formed with the agreement that everything is to be done at cost, and that there is to be no profit accruing to any part of the organization. Consequently, there is practically no capital stock issued—no more than one share to each director, so that associations and exchanges may be incorporated in legal form.

Each local association has to build its own packing-house. The money required for this is usually advanced by some of the wealthier grow-

ers, and they are reimbursed later on by levying a tax of so much per box on all members' fruit. So much per box is charged for packing-house management. At the end of the season, any balance which may be left over is refunded to the makers pro rata. A certain amount per box is also reserved for the expenses of the sub-exchange, and the central exchange, and any balance in these cases is also pro-rated at the end of the season. It is evident, then, that the financing problem is comparatively simple, and becomes mainly a matter of bookkeeping.

RULES AND REGULATIONS.

All agreements between any parts of the organization are very elastic. The sub-exchanges agree to market all their fruit through the central exchange, and contract to that effect for ten years, yet they reserve the right to withdraw on

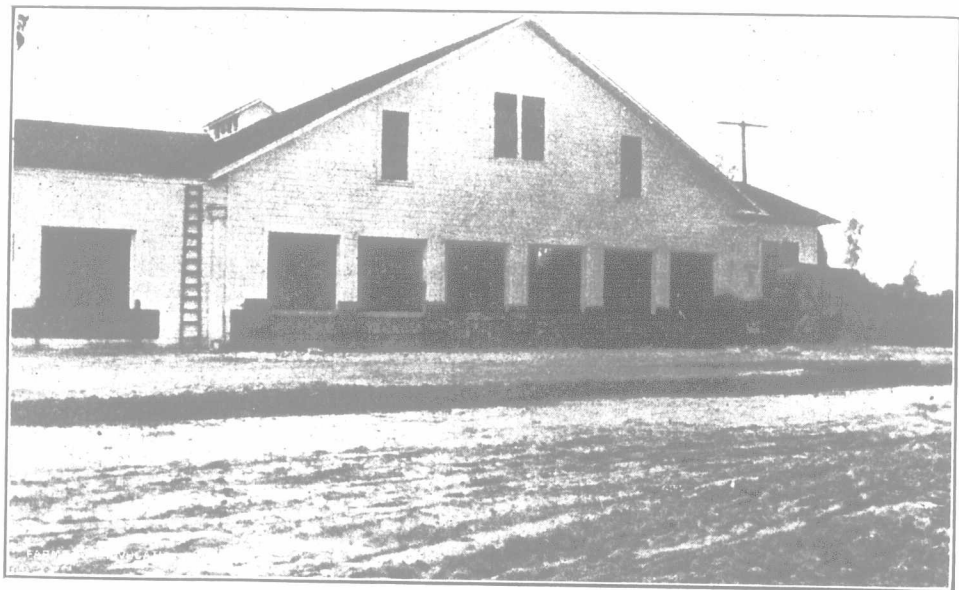
management. Suppose a local association consigns a car of oranges to the exchange agent in Cincinnati. Upon the arrival of this car, the agent telegraphs the central exchange in what condition the fruit is, and what is offered. The central exchange advises the sales agent of the sub-exchange, who at once communicates with the shipper, advising what he considers should be done. The sales agent may advise to sell. The shipper thinks otherwise, and considers that it will obtain a better price in Boston. Consequently, the car is sent on to Boston for an additional charge of only five dollars for diversion. Arriving at Boston, it is found that decay has increased considerably, and the price obtainable is lower than the first offer from Cincinnati. Word comes back to the shipper through the same channel, and the Boston offer is accepted. The shipper has lost money, but he has exercised his prerogative of using his own judgment, and cannot blame any part of the organization but himself. Obviously, the sales agent was in much the better position to give advice, and in time the shipper comes to learn this, and allows him full scope in selling the fruit. Thus, an apparent weakness becomes a point of strength, greater because not bound by too strict rules. The object is attained by education and good-will, rather than by force and trouble.

SALES.

The culminating point is the system employed for fruit. The whole system is controlled from the offices of the central exchange in Los Angeles, where the general manager is to be found, with a competent office staff. Operating under his control in the East is a strong staff of sales agents, employed solely by the exchange, and also at the principal diversion points west of the Missouri River inspectors are stationed, who make detailed daily reports showing the percentage of decay and general condition of each car, and the hour of leaving, and any information of value in regard to the shipment. The sales agents are stationed in important centers, with surrounding districts to supervise. They act as salesmen, inspectors, and general informa-



A Motor Truck Used for Hauling California Fruit.



"Receiving" Side of an Orange Packing House.

The wagons are backed up to the doors for unloading.

the first of September of any year by giving ten days' notice in writing. Local associations enjoy the same elastic privileges, and "each shipper reserves to itself the right to regulate and control its own shipments; to use its own judgment, and decide for itself when and in what amounts it shall ship, to what market, where its products shall be sold, and, except at auction points, the price it is willing to receive." In this agreement considerable freedom is allowed to the individual, whether a person or an association, and on the surface it might appear to constitute a weakness, but the exchange has found that this elasticity of agreement has proved to be a strong point. As a matter of fact, very few take advantage of the