

for emptying. The workmen will adjust the length of this tackle to correspond to his own length, and should be forbidden to throw the sack over his head. In apple picking, time is too precious for unnecessary movements.

When apples are barreled in the orchard, the packing gang, with portable sorting table keeps even pace with the pickers, the latter emptying their sacks as fast as filled directly upon the table. The sorting table is constructed with a slat bottom, slats half round, one inch by two inches, set one inch apart. A good size for the table is three feet by six feet. Sometimes they are made even longer, up to twelve feet in length. The sides of the table are six inches high. Its outlet is provided with an apron, which enables the packer to let the apples drop into the barrel without bruising. A piece of plank for the barrel to stand on while being filled and on which it may be frequently jarred, is an essential part of the equipment. The great advantage in this method of packing lies in the fact that it involves less handling than any other possible device. Its advantages, as compared with a permanent or temporary packing-house, are serious. With a packing-house the barrels are kept dry; the work of barreling is not interrupted by a slight shower; the culls are brought to one place, and, most important of all, the grade of the stock can be made to run much more evenly than with the orchard pack.

It is more and more apparent that where any considerable quantity of apples is raised there should be a permanent structure for receiving the apples, if not for storing a portion of them. A common form of apple house intended for storage is two storied—one story above ground and one partially below. The underground story will, of course, be frost proof; the upper story must be made practically so by hollow walls, sawdust packing, air spaces, or whatever method is used. In both stories bins are arranged on each side of a central alley. If the bins

are single decked, the apples are often piled up four feet deep by six to ten or twelve feet wide, according to the width of the bin. Such houses are often constructed double or triple decked. In such cases two and one-half feet is a common depth for the apples in the bins. Such a building must be fully equipped with ventilators and double sashed windows. If the ventilators are carefully kept open at night and shut by day, the temperature can be surprisingly controlled, and in ordinary seasons apples are often carried through to January 1 or even to March 1 without extraordinary loss.

Where apples are placed in farm storage the gathering is much simplified. Supposing the picking to be done in sacks, the hauling is done in barrels having but one head, on wagons fitted with barrel bottoms. The barrel bottom is made of two-inch planks bolted to crosspieces. It has no sides, but instead poles are secured to the top rings of the wagon stakes, in such wise as to be instantly detached, if desirable to have the pole out of the way for unloading. The ends of this rig are secured by ropes. If the "barrel bottom" is fourteen feet long it will hold sixteen barrels, which is enough for a load.

To make the apple harvest "go" with economy, each picking gang should consist of sixteen men and a boss. They will take four rows of trees at a time, and at each remove will take four trees in each row—sixteen trees, with a man for each tree. The wagon will keep along with the pickers, taking its stand every time in the center of the sixteen trees. The boss and driver will receive the apples from the pickers and carefully pour them in barrels. There should be wagons enough so that the work may not be interrupted for want of transportation. The boss may take charge of the wagon while it is loading and turn it over to the driver when loaded. In that way one team can be run without a driver. The manner