VI. Uniformity of Maturity and Size. The shipper of fancy stock, who indeed is the successful fruit farmer of the near future, must not only see that he grows and ships good stock, but in the same package he should have uniformity in size, color and maturity. Whether to some extent this can be more economically done in the picking or only in the packing will be for each individual to decide, but where a grower is handling his own stock and knows how things should be, we think much can be done in gathering to save after handling.

Powell, of the U. S. Department of Agriculture, says on this subject of "Cold Storage":

It is not possible to secure a uniform degree of maturity and size when all the apples on a tree are picked at one time, as fruit in different stages of growth is mixed together on the same tree. The apples differ in size and maturity in relation to their position, the upper outer branches producing the large, highly colored and early ripening fruit, while the apples on the side branches and the shaded interior branches ripen later. Greater uniformity in these respects is approached by proper pruning and by other cultural methods, but the greatest uniformity can be attained when, like the peach or the pear, the apple tree is picked over several times, taking the fruit in each picking that approaches the desired standard size and maturity.

Summer apples, like the Yellow Transparent, Astrachan, and Williams, are usually picked in this manner, and fall varieties, like Twenty Ounce, Oldenburg, and Wealthy, are sometimes treated similarly. In recent years a few growers of winter apples have adopted the plan for the late varieties, with he result that the size, color and ripeness of a larger proportion of the fruit are more uniform.

Immediate Storage. The keeping quality of all kinds of fruit is seriously injured by the common methods of handling. Peaches and plums are gathered in baskets and set down for hours in the hot sun before shipment; pears and apples are sometimes left in piles in the orchard, heating and ripening, or held in a warm packing house, with no cool storage to prevent the progress of ripening. No wonder, after such conditions previous to shipment, that we should hear much of slacks and wastes in our export apple shipments; or that peaches, plums and pears should reach Winnipeg in a disgraceful condition.

Powell's remarks under this head are also pertinent. He says:

The removal of an apple from the tree hastens its ripening. As soon as the growth is stopped by picking, the fruit matures more rapidly than it does when growing on the tree and maturing at the same time. The rapidity of ripening increases as the temperature rises, and is checked by a low temperature. It appears to vary with the degree of maturity at which the fruit is picked, the less mature apples seeming to reach the end of their life as quickly or even sooner than the more mature fruit. It varies with the conditions of growth, the abnormally large fruit from young trees or fruit which has been overgrown from other causes ripening and deteriorating very rapidly. It differs with the nature of the variety, those sorts with a short life history, like the summer and fall varieties, or like the early winter apples, such as Rhode Island Greening, Yellow Bellflower, or Grimes Golden, progressing more rapidly than the long-keeping varieties like Roxbury, Swaar, or Baldwin.

Any condition in the management of the fruit that causes it to ripen after it is picked brings it just so much nearer the end of its life, whether it is stored in common storage or in cold storage, while treatment that checks the ripening to the greatest possible degree prolongs it.

The keeping quality of a great deal of fruit is seriously injured by delays between the orchard and the storage house. This is especially true in hot weather and in fruit that comes from sections where the autumn months are usually hot. If the apples are exposed to the sun in piles in the orchard, or are kept in closed buildings where the hot, humid air can not easily be removed from the pile, if transportation is delayed because care for shipment can not be secured promptly, or if the fruit is detained in transit or at the terminal point in tight cars which soon become charged with hot moist air the ripening progresses rapidly and the apples may already be near the point of deterioration or may even have commenced to deteriorate from scald, or mellowness, or decay when the storage house is reached.

On the contrary, the weather may be cool during a similar period of delay and no serious injury result to the keeping quality, or the ripening may be checked in hot weather bq shipping the fruit in refrigerator cars to a distant storage house.

The fungus diseases of the fruit, such as the apple scab (Fusiciadium dendriticub), and the pink mold (Cephalothecium roseum) which grows upon the scab, the blue mold (Penicillium glaucum) which causes the common, soft, brown rot, the black rot (Sphaeropsis malorum) and the bitter rot (Glaeosporium fructigenum) develop very fast if the fruit becomes heated after picking. The conditions already enumerated which