

that the farmer will offer them to one of his competitors, and will in consequence be likely to give that competitor the bulk of his trade. For the same reason the merchant believes that he must accept the eggs as they run, good or bad, fresh or stale, clean or dirty; for, if he does not, his competitors will. This system of buying by the storekeeper is known as the case-count system.

The merchant holds the eggs until he has enough to make a shipment to some egg-dealer or shipper from whom he gets regular quotations. The delay here may be anywhere from two days to a week, or even two weeks. Usually, the conditions attendant upon the shipment of these eggs up to the time they reach the packing house are such as to cause a still further deterioration in the eggs. After they reach the packing house, they are assembled in great enough numbers so that more attention and care is given their handling, and, although the eggs go through one or more sets of hands from this point before they are placed in storage or reach the consumer, the deterioration which they undergo is not so great proportionately.

DELAY IN MOVING EGGS.

It will be observed that the one unfavorable factor which stands out most prominently in this system of marketing is the delay in moving the eggs. There is delay in gathering the eggs, delay in taking them to town, and delay on the part of the storekeeper. Whenever these delays are co-incidental with high temperatures, serious loss and deterioration result. This is evidenced by the poor quality of summer eggs.

The spoiled and deteriorated eggs compose several well-recognized classes, most common among which are the following: Heated eggs, those caused by the development of the embryo in fertile eggs; shrunken eggs, those in which a part of the water has evaporated from the white, causing a large air-cell; rots, those which are totally spoiled; spots, those with localized areas of bacterial or mold infection; dirty eggs, those soiled with mud, droppings, or the contents of broken eggs; and checks, those slightly cracked.

While there is some deliberate delay in the fall, caused by farmers holding their eggs on a rising market, the majority of the delays are due simply to indifference, and consequently are preventable. The country stores are directly responsible for the delay, both on their own part and on the part of the farmer, because of the case-count system of buying which they employ. This system has nothing to recommend it, aside from the fact that it is a little less trouble to the storekeeper. On the other hand, it encourages carelessness and delay on the part of the farmer, because it inflicts no penalty for poor or bad eggs. It has even bred in some farmers (who would not expect to sell damaged vegetables or grain for full value) a feeling that an injustice is being worked on them if a buyer candles the eggs and refuses to pay for those which are rotten.

As a result, therefore, of the delays and carelessness, coupled with high temperatures, there is, in connection with the handling and marketing of eggs in the Middle West, a great loss, which, because preventable in a great measure, is a wanton waste. This loss is borne both by producer and consumer, but falls mainly on the former. The consumers suffer considerably in being unable to secure good palatable eggs in sufficient quantity, and, in consequence, there is a curtailment of consumption. It is only fair to state, also, that these inferior eggs which find their way to the tables of city consumers, are often mistaken for a cold-storage product, and the storage industry is thus unjustly discredited.

SUGGESTIONS FOR IMPROVEMENT.

The following suggestions for the various persons interested in the egg trade are given:

For the Producer.

1. Improve your poultry stock.
2. Keep one of the general-purpose breeds, such as the Plymouth Rock, Wyandotte, Orpington, or Rhode Island Red.
3. Provide one clean, dry, vermin-proof nest for every four or five hens.
4. Conclude all hatching by June 1st, and sell or confine male birds during the remainder of the summer.
5. Gather eggs once daily during ordinary times, and twice daily during hot or rainy weather.
6. In summer, place eggs as soon as gathered in a cool, dry room.
7. Use all small and dirty eggs at home.
8. Market eggs frequently—twice a week, if possible during the summer.

In taking eggs to market, protect them from the sun's rays.

10. In selling, insist that the transaction be on a loss-off basis, for, if care has been given the eggs, this system will yield more money to the producer.

For the Country Merchant and Cash Buyer:

1. Candle, and buy on a loss-off basis.
2. Allow the producer to see you candle his

eggs occasionally, and return those rejected, if he wishes them.

3. Pack carefully in strong, clean cases and fillers.

4. Do not keep eggs in a musty cellar or near oil barrels or other odoriferous merchandise.

5. Ship daily during warm weather.

For the Railroad:

1. Provide a covered portion of station platform where egg cases can be stacked, and see that the agent stacks them there.

2. Provide refrigeration for the eggs on the local freight.

3. Where refrigerator cars are used on local freights, see that the doors are kept closed when not loading.

4. If refrigeration cannot be supplied, provide stock cars for this purpose during the summer.

5. Where box cars are used for eggs, do not allow freight, which may hurt their quality, such as oil barrels, to be loaded in the same car.

For the Car-lot Shipper.

1. Buy strictly on a loss-off basis.
2. Encourage the small buyers to trade on a loss-off basis.
4. Co-operate with other shippers and with officials in bringing about this system of buying.
5. Keep the subject agitated and before the people; in other words, educate them.

Frozen and Dried Eggs.

Frozen and dried eggs intended for human consumption are largely used for cooking purposes where inferiority may be concealed, as in baking cakes or making custards, omelets, pies, etc. The traffic in eggs sold for drying and freezing has greatly increased in the past few years. Strictly fresh, marketable eggs in the shell command a high price, and there is difficulty in meeting the demand for them; but large quantities of questionable eggs, often bought at very low prices, have been broken out for cooking purposes by disreputable firms, being preserved by freezing or drying until ready for use. Some dealers, however, manufacture a satisfactory product by the use of good eggs handled under proper conditions.

There is no objection to drying or freezing good eggs under proper sanitary conditions; in fact, there are some advantages to be gained by preserving eggs in this manner, although the manufacturing processes devised by man, as a rule, do not improve the quality of nature's work. Conditions of modern life and commerce must, however, be met, and dried eggs or eggs in a frozen condition may be shipped long distances, and require less space for transportation and storage than do eggs in the shell.

As a result of investigations instituted by Secretary Wilson, the United States Department of Agriculture has recently issued two publications that give practical suggestions for correcting some of the existing practices and conditions which are at least partially responsible for the unsatisfactory products now found on the market. These publications are Bulletin 158 and Circular 98 of the Bureau of Chemistry, entitled, respectively, "A Bacteriological Study of Shell, Frozen and Dried Eggs," and "Practical Suggestions for the Preparation of Frozen and Dried Eggs."

GARDEN & ORCHARD.

Box Packing Fruit.

If there is any one phase of the Western orchardist's work that has tended to bring him to the front ranks of the fruit-growers, it is the boxing of all his fruit. Catering to the tastes of the purchasers in a way which pleases their "fancy" and at the same time meets their needs or fits their peculiar circumstances, is one of the basic principals of trade.

This the Western orchardists have done, and by so doing they have gained for their fruit a name which has back of it not only the meeting of the superfluous demands of the exacting consumer, but also a quality that has been fully self-advertising to these customers.

It is principally due to box packing that this is the case. If we look at the market to which the fruitman is catering, we will see that it is really not the big packers, jobbers, not even the wholesalers, but really to the city consumer, his needs and wishes must first be catered to. His needs should have first consideration, and then, as far as possible, cater to his tastes, even though they may seem exacting.

The consumers of apples have long been accustomed to packaged goods. These packages are neat, sanitary, and in sizes that lend themselves to the peculiar conditions of the majority. But they are also attractive, and help the goods they contain to advertise their own worth. If the manufacturers cater to these people in this way, they do it because it pays. If it pays them to put up their goods in this way, will it not also pay the farmer? His orchard is really a great factory, turning the elements of nature into a

form in which they become of value to man as a food. Then, if the farmer is a manufacturer, he must keep abreast of the times and market his goods as a business man, in a businesslike way.

These statements being true, let us see how far the box-packed fruit meets the demands of its own selling agent.

The consumers' needs must be the paramount consideration (and we shall deal with the apples, as they are the big crop). The consumer needs his fruit in small packages, as his storage room is limited. Many not having cellars are compelled to use pantries, etc., and there his needs are met exactly by the box. It is small and easily stored, not cumbersome to handle or move; if it is necessary, easily carried up successive flights of stairs, none of which demands the barrel meets, and without the box he must buy in paper bags, which he has come to, shall we say, detest.

Not only does the box meet these, the first demands of marketing, it also insures to the customer good fruit, as each apple must be placed in the box separately by the packer, who will easily see and reject a decayed or poor-quality specimen. He gets the apples all one size, for a packer can't pack an apple that goes 125 to the box along with one that goes 80, 88, or 96 to the box. This has an economic advantage for the consumer. If there are children in the family, they will not waste half the fruit, for a youngster will invariably pick the biggest apple he sees, even if he can only eat about one-third of it. Then, too, grown people don't care, as a rule, to start in on a large apple after a hearty meal or late in the evening.

The consumer not only wants small apples for these reasons, but also because the small apple packing 2-3, running about 125 or a little less to the box, is more likely to have better color and better grain. The large apple is inclined to be coarse and poorer in color, less of them in a box, and therefore fewer pounds of fruit for the price paid, all of which appeals to the town and city customer.

Not only do we need to consider the consumer, but also the retail merchant. His object is to get goods for which he can secure a sale, with as little advertising as possible. Hence, if his stock, through its real value or the condition in which it is marketed, is an effective self-advertiser, that means money to him.

Will boxed apples do this? They most assuredly will. Apples in barrels he can't display in his window to advantage, because the package is too cumbersome. If he opens a barrel in his store, he must place it in front of the counter, and he loses considerable there through customers helping themselves. If he can't display them, he has to talk about them in order to make sales, and that makes fewer sales. Boxes he can open on the end, side, top or bottom. He can put them in his window and on the shelves behind the counter. The fruit is all wrapped, and looks neat, clean, and each apple sound. The fruit is in even rows, all apples are the same in size, and their color is even, owing to the selection by the packers. He has an article that may be displayed in many places in his store, and because of all these qualities helps a great deal to sell itself.

The Westerner has boxed his fruit, and by so doing he pleases the retail merchant, he satisfies the needs as well as the tastes of even the over-particular customer, he sells a better quality of fruit because he selects each apple. Consequently, he gets more for his goods. He sees it has paid him to box pack, and so he continues to hold his ground on any market he cares to enter.

B. C.

WALTER M. WRIGHT.

The Apple Situation.

By Peter McArthur.

Sir Jingo McBore, when he's gay,
Is a jolly old soul, so they say.
He gives his big purse
A "Ride a cock horse,"
Then pets it and puts it away.

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The farm work has made me lose a lot of fun this year. I suspected it all along, but it was not until the young ducks forced themselves on my attention by falling into an open well, or, rather, a discarded well, that I realized how much I was missing. Sh-h-h! I know I shouldn't have an open well on the place, but I have been busy, and I am in no humor to take a lecture from anyone. I'll get it covered some time—and there are a whole lot of other things that are being neglected that I shall attend to about the same date. The other day I refused to take a scolding from Mr. Clement—though I deserved it—for not getting in a cover crop in the orchard. But I hadn't the time myself, and I couldn't hire anyone. I did my best, and I am not going to take any back talk from anyone. But to get back to the ducks. This summer, the most motherly Buff Orpington on the place brought out eleven ducklings, and her life is one round of worries and surprises. They pay no attention to her, except when they want to snuggle up to her to keep