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DOMINION OF CANADA  
DEPARTMENT OF AGRICULTURE  
DOMINION EXPERIMENTAL FARMS

DIVISION OF POULTRY HUSBANDRY

PREPARING POULTRY PRODUCE  
FOR MARKET

BY

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*Dominion Poultry Husbandman*

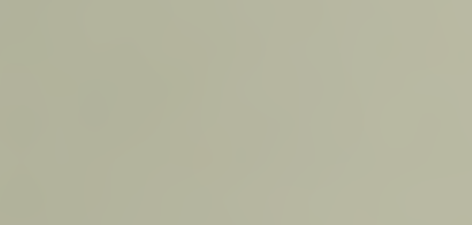
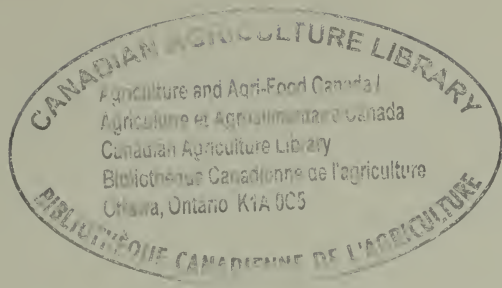
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## HOW TO KILL

*From the original drawing by Dr. A. B. Wickware,  
Biological Laboratory, Ottawa, Ont.*

The illustration represents the roof of the bird's mouth and the veins, the lower jaw being removed. The white mark across the vein on the left side of the bird's neck is the place to cut to bleed. The white mark in the roof of the mouth indicates the place to enter the blade to strike the brain.

# CONTENTS

PREPARING POULTRY PRODUCE FOR MARKET—	PAGE
Preparation—its need.. . . . .	3
Preparation—its value.. . . . .	4
Systems of marketing.. . . . .	4
The old system—its defects.. . . . .	4
Inferior Produce—who loses thereby?.. . . . .	6
Inferior Produce—who is to blame?.. . . . .	6
The improved system—its methods and advantages.. . . . .	7
Conditions are improving.. . . . .	7
Packages.. . . . .	8
Egg packages.. . . . .	9
Dressed poultry packages.. . . . .	10
Breeding stock and hatching eggs.. . . . .	11
Marketing—	
Distribute the produce over the twelve months.. . . . .	13
Broilers, fowl, ducks.. . . . .	13
Geese and turkeys.. . . . .	14
Capon.. . . . .	14
Which hens to market.. . . . .	14
Distance from market.. . . . .	15
Consumer pays highest price.. . . . .	15
Protect and advertise yourself.. . . . .	15
Private delivery expensive.. . . . .	16
Extra price a profit.. . . . .	17
Private trade requires time and tact.. . . . .	17
How to fix the yearly price.. . . . .	17
Consumer settles breakage claims.. . . . .	18
Dressed or live poultry.. . . . .	18
Crate feeding.. . . . .	18
Value of the system.. . . . .	18
Treat for lice.. . . . .	18
How to make a crate.. . . . .	18
Feeding batteries.. . . . .	20
Most suitable birds.. . . . .	20
Most suitable weights.. . . . .	21
Strong constitution essential.. . . . .	22
The feeding.. . . . .	22
Number of meals per day.. . . . .	23
How long to feed.. . . . .	23
Mixing the ration.. . . . .	23
Milk very important.. . . . .	24
Oats.. . . . .	24
Indian Corn.. . . . .	24
Buckwheat.. . . . .	24
Shorts and middlings.. . . . .	24
Bran.. . . . .	24
Beef tallow.. . . . .	25
Cooked foods.. . . . .	25
Have it palatable.. . . . .	25
Killing.. . . . .	25
Plucking.. . . . .	25
Cooling.. . . . .	25
Packing.. . . . .	25

CONTENTS—*Concluded*

LIST OF ILLUSTRATIONS

	PAGE
Breeding eggs, Packages for.. . . . .	12
Broiler Carton.. . . . .	5
Cooling Rack.. . . . .	21
Dressed poultry Cases.. . . . .	11
Egg for Hatching, Wrapper for.. . . . .	12
Feeding Crate.. . . . .	19
Feeding Battery.. . . . .	20
Hanging Device.. . . . .	22
How to Kill—Coloured Plate.. . . . .	Frontispiece.
New Laid egg Wrapper.. . . . .	9
One Dozen Eggs. Cartons for.. . . . .	10
Pair of nice Roasters.. . . . .	3
Standard Egg Case.. . . . .	26
Seal, the.. . . . .	9
Thirty-dozen Cases.. . . . .	3

# PREPARING POULTRY PRODUCE FOR MARKET

## PREPARATION—ITS NEED\*

Putting the finishing touches on a product before offering it for sale yields the greatest proportionate return of any labour done on the average farm. This lack of "finish" is nowhere so clearly seen as in our poultry products as shipped to market.

To prove that producers do not put the care they should on their poultry products before offering them for sale, one may visit any market and he will find that a large proportion of the poultry and eggs exposed for sale exhibit a carelessness that no other business could stand. Good farmers who follow a systematic crop rotation, who conserve all the available moisture in the soil,



A PAIR OF NICE ROASTERS

One before it is drawn, one ready for the oven.

who never market a bullock except in a finished condition, seem to forget all their business principles when poultry and eggs are being disposed of, and think only of getting rid of them in the quickest and easiest way possible.

The bulk of the eggs marketed come from the farm, and to the same source we must look for future developments. Farmers could make considerably more revenue from both eggs and poultry if they would take even ordinary care in their preparation.

\* Copies of Canadian Standards for Eggs and for Dressed Poultry prepared by the Poultry Division of the Live Stock Branch, may be obtained upon application to the Publication Branch, Dept. of Agriculture, Ottawa.

## PREPARATION—ITS VALUE

The time it takes to prepare produce before it is shipped from the farm is time well spent. No matter what is being sold, be it breeding stock, hatching eggs, live or dressed poultry or market eggs, it should never be sent from the farm until it is in the best possible condition. Especially is this true when produce is intended for table use.

Well-finished broilers or roasters cost less per pound to the producer than those that are poorly fleshed, and they are much more palatable to the consumer. Though he may have to pay from 25 to 50 per cent more per pound for such, as a rule the edible portion really costs less.

Dirty eggs, eggs that are not strictly new-laid, eggs that are not neat and tidy, will not bring as high a price as those that are clean, fresh and put up in attractive parcels.

No matter what is sold, see that the finishing touches are added. It not only pays in dollars and cents, but one has the satisfaction of sending out something in which he may take pride.

## SYSTEMS OF MARKETING

### THE OLD SYSTEM—ITS DEFECTS

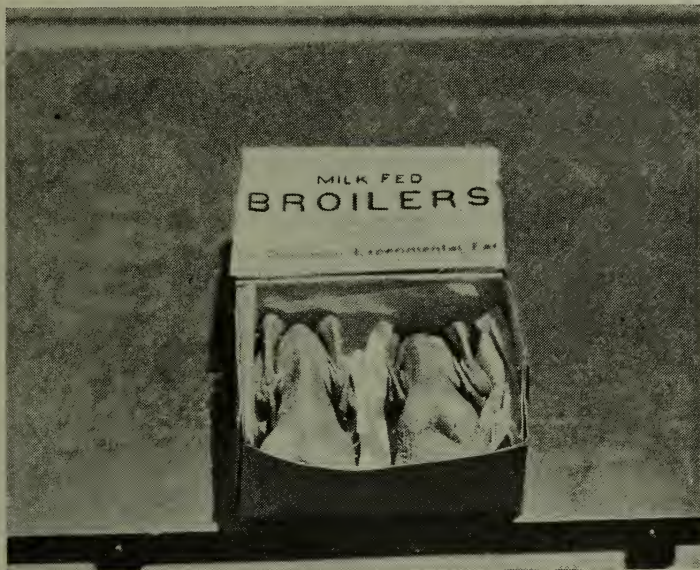
Probably nine-tenths of all the eggs produced have found their way to market through what is sometimes called "the system," the outstanding feature of which has been the lack of system. The peddler or country store was the first handler; there was no encouragement to be careful, for the same price was paid for all, good and bad. Conditions in the dressed poultry trade were little better; only a small percentage of that which was marketed was really first-class. In some cases the producer broke away from the system and shipped direct to the dealer but did not prepare his birds as he should. In many cases the birds were bought by a middleman on a commission basis, and too often the quality was not good and there was absolutely no grading. This system, or rather lack of system, in selling meant, and still means, a lower net return to the shipper, because of lack of uniformity, poorer quality and numerous commissions.

This old system of selling eggs does not encourage the production of a good article, and it is not likely that the quality will be improved until the system is changed.

It is almost needless to follow the system from the poultry yard to the consumer's table. It is very often a long and tedious trip, and in the warm weather must be very trying. Probably 90 per cent of the eggs marketed are produced on the farm, where the general rule has been, and too often is yet, to dispose of them to the weekly egg peddler or to take them to the store where they are sold or traded for goods. In each case there is little or no discrimination. The peddler drives into one farm and gets 20 dozen good eggs that have been gathered during the week. The farmer's wife receives, say, 25 cents a dozen. The next farm is visited, where they are not so careful, and very often the hunting of the week's eggs is left until the day the peddler comes. Upon arrival he finds all kinds of eggs, for which he pays 25 cents a dozen, the same as for the good eggs. Many producers do not care as long as they can sell the eggs, and the collector does not care, as he is paid by the dozen for collecting them; his theory and practice are the more eggs the better. A peddler buying for a Canadian firm was fond of telling his customers that he would take anything with a shell on, dirt and all, as they all had a bath. So long as buyers will accept these there are farmers who will sell them, and as long as farmers produce them there will be a buyer. At an institute meeting, a woman asked, "What is to be done with stale or rotten eggs, if I cannot sell them?" A case of new-laid (?) eggs was



shipped to a wholesaler which, on examination, was found to contain 360 eggs. There were 90 new-laid, 20 rotten and the rest ran from stale to bad. On investigation, the producer, though at first he declared his eggs were fresh, finally admitted that he had put in some that may not have been good, but he didn't think it made any difference as the eggs were being shipped away.



A CARTON PACKAGE

Cartons may be used for a pair of broilers or one roaster.

Fortunately such producers are becoming fewer every year, but they have been responsible to a large extent for the condition in which produce arrived on the market and for the state in which it has been exposed for sale, even in some of our larger cities.

On one of these markets visited by the writer there was hardly a bird young or old that could not, by a very little attention, have been improved, at least in appearance. Chickens were there in dirty crates, chickens of all colours and sizes. There were old hens that were lousy, hens with scaly legs and some that looked as if they might die before the axe came. There was not one live bird in the lot that one could relish on the table after seeing it as it was. Nor were the dressed birds much better. They lacked that neatness and finish that makes one wish he were carving one for his dinner. Many were thin and those that were fairly well fleshed were poorly plucked. The skin was torn or blotched from scalding, some were bled, some had lost their heads, and some had their necks dislocated.

The condition of the eggs was not much more satisfactory. True, the outside of the egg-shell was better, but there were cases that, if they had had to undergo inspection, would have certainly been placed in the third or fourth grade—eggs that if the seller had only been a little less grasping and looked further ahead might have been more valuable. They should have been marketed earlier and if the dirty and small eggs had been kept out, a better grade would have been made. People that market such are doing the poultry trade much harm, and they are so short-sighted that they cannot see that they themselves are participating in the loss.

If all the dressed poultry and eggs that go into the market were of an appetizing appearance and of good quality, the producer would get a better price, and the consumer would be willing to pay for something he could enjoy eating. It is a good object lesson for the producer to see what his produce looks like just before it goes into the consumer's hands. If he saw it, he would sometimes wonder how it brings as big a price as it does.

Warm weather and long hauls, coupled with rough handling in transit all have a share in depreciating the quality, but it must be borne in mind that produce never arrives on the market in better shape than it leaves the shipper.

Why intelligent farmers will persist in selling their poultry and eggs in anything but the best of condition is hard to explain. Since eggs have been eggs, they have been doubtless used more or less as a sort of currency, counted out by the dozen, one egg just as good for food as its neighbour, a new-laid egg of no more value in the eye of the corner grocer than one well on to the broiler stage. Possibly such conditions could not help but create a carelessness that has left the trade in its present state.

There is, however, no reason for letting it remain there. The careful producer should get a higher price for his good quality products than does his neighbour who cares nothing about how his are produced or where they are marketed.

#### INFERIOR PRODUCE—WHO LOSES THEREBY?

There is less reason every year why producers should put up with this state of affairs. By more care in production, through co-operation or direct communication with better markets, better prices may be received by the producer and more satisfaction given to the consumer, but the first step is for the producer to produce a higher and more uniform quality, for all producers, whether their product is good or bad, lose on any bad produce that goes on to the market.

*The producer loses on this because* the dealer loses on the poor quality and he cannot pay as much for the good, for on it he has to make good his loss on the poor; the bad produce has already cost for transportation which comes out of the producer; these partly bad eggs and poor quality birds are retailed and the producer again loses by the decreased consumption. Every off-flavoured egg put on to the consumer's table hurts the trade. Not a package of eggs or dressed poultry is offered for sale but either helps or hurts the selling.

It is quite probable that many a chicken dinner has been changed to beef because of the way these products are exposed for sale and the producer is first responsible for this, and is the heaviest loser.

#### INFERIOR PRODUCE—WHO IS TO BLAME?

Though it has been pointed out that the producer might improve his product and his methods of selling, it must not be imagined that he alone is guilty. Each person who handles the product even to the consumer is sometimes at fault. Though it is possible to improve the quality delivered by the producer, it too often happens that stuff that is good when it leaves the farm is spoiled before it is eaten.

The peddler or gatherer is not as particular as he might be and mixes good and bad together, drives over rough roads, and too often leaves eggs standing for too long a time. The wholesaler in turn may keep the eggs longer than is necessary and frequently he keeps them in a room too hot or where vegetables or other material having a strong odour is stored. The retailer is certainly not free from blame, for you can often see eggs exposed for sale in his window where a thermometer would register almost incubating temperature. Even eggs that have been specially prepared, marked as strictly new laid and

infertile can be spoiled in a few hours with methods such as some retailers adopt. Eggs are not even safe when they reach the consumer, for instead of keeping them in a cool place until they are eaten, they are sometimes stored where the temperature is too high and in some cases kept for weeks before they are consumed.

Most of the eggs are purchased by or for the wholesaler or the man who stores them and though he is anxious to get a product of high quality, as a rule he does not pay a sufficient difference between the high quality and the low quality, nor does he insist upon his buyers using that discrimination which they should and which, if they did, would help improve the quality materially. It is quite possible that, outside of the producer, the wholesaler could do more to improve the quality than any other person, for if he insisted upon receiving nothing but a high-class quality, it is not likely that the lower qualities would be produced or purchased for very long.

It might therefore be noted that all, from the producer to the consumer, are more or less to blame for the condition of the poultry market and every link of the chain should be strengthened, though the wholesaler and the producer are the two most important. However, as it is the producer that we are writing this information for, it is his responsibility that we are emphasizing.

#### THE IMPROVED SYSTEM—ITS METHODS AND ADVANTAGES

The necessary improvement must start with the producer and the first thing to see to is more care in having healthier flocks, more sanitary houses, cleaner nests, more frequent gathering of eggs, better care until shipped, more prompt shipments, and all eggs guaranteed new-laid and non-fertile.

Flocks that lack in constitution should never be allowed to reproduce, and should be disposed of just as soon as possible. They are unprofitable in every way, they do not lay as they should, the eggs hatch poorly, there is a large mortality in the chicks and what do live do not thrive nor make good breeders. Healthy, vigorous cockerels fatten up quickly if properly fed, while those lacking in vigour are never in condition for marketing.

Keep the houses clean and well ventilated. Do not shut the houses up tight to keep the hens warm, but open up the south side to keep them healthy. Have plenty of nests but so arranged that the hens cannot roost on them, see that there is plenty of clean litter in the nests, use only porcelain nest eggs, and gather twice a day at least during the summer months. Keep the eggs in as dry and cool a place as possible, retain all dirty, small or cracked eggs for home use and ship as regularly as possible. The males should not be allowed to run with the flock outside of the breeding season and even during breeding season it is better to mate only the best of the hens. This would permit the shipment of infertile eggs at all times, which, as a rule, will ensure a better price to the producer and better satisfaction to the consumer.

#### CONDITIONS ARE IMPROVING

Thanks to demonstrational work and to co-operation among the producers, better business methods are being adopted. Conditions in some sections are greatly improved, but the work has only started, and this improvement must become more general if producers are to get the returns they ought. The demand for good stuff is steadily increasing and with it the price. Fifteen years ago one cent an egg was considered a good price, and farmers occasionally sold poultry for 6 to 8 cents a pound. Now, eggs seldom go lower than 30 cents a dozen to the farmer. In early winter, for strictly new-laid, anything one has the conscience to ask is generally paid. Dressed poultry sells for 25 to 40 cents a pound and in some cases higher. There seem to be few industries that promise brighter prospects to the farmer than poultry, managed on a business basis.

In some sections farmers are co-operating, thus putting on the market a more uniform product in better condition and at less expense; more care is being taken in the production and finishing, and consumers are discriminating more in the quality they purchase. Some of the middlemen's commissions are being



TWO THIRTY DOZEN CASES

Showing methods of packing with and without cartons.

eliminated and the producer and the consumer are coming closer together. Buyers are buying now according to Canadian standards, and many of them through co-operative circles, which is a big step in advance, though still there is plenty of room for improvements.

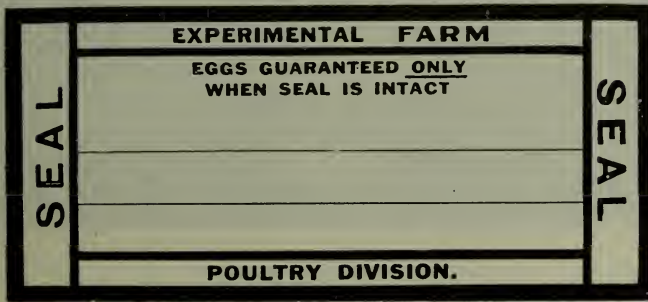
### PACKAGES

A neat, attractive package is a good investment. First appearances go a long way in determining the price of eggs and dressed poultry. The person who will take the trouble to make a neat box or crate and have it tastily addressed and marked, will, in all likelihood, have something good to put into it. The name and address of the producer on each package is a good advertisement and will tend to sell both eggs and poultry in the best homes at the highest price. The time is fast approaching when consumers are looking direct to producers for their eggs and poultry.



#### NEW LAID EGG WRAPPER

The exact size of this wrapper is 8" x 8" and is made from stock similar to that used on oranges but white in colour.



#### THE SEAL

The exact size of the seal is  $1\frac{1}{2}$ " x  $3\frac{1}{2}$ " and fits over the box as shown on page 10.

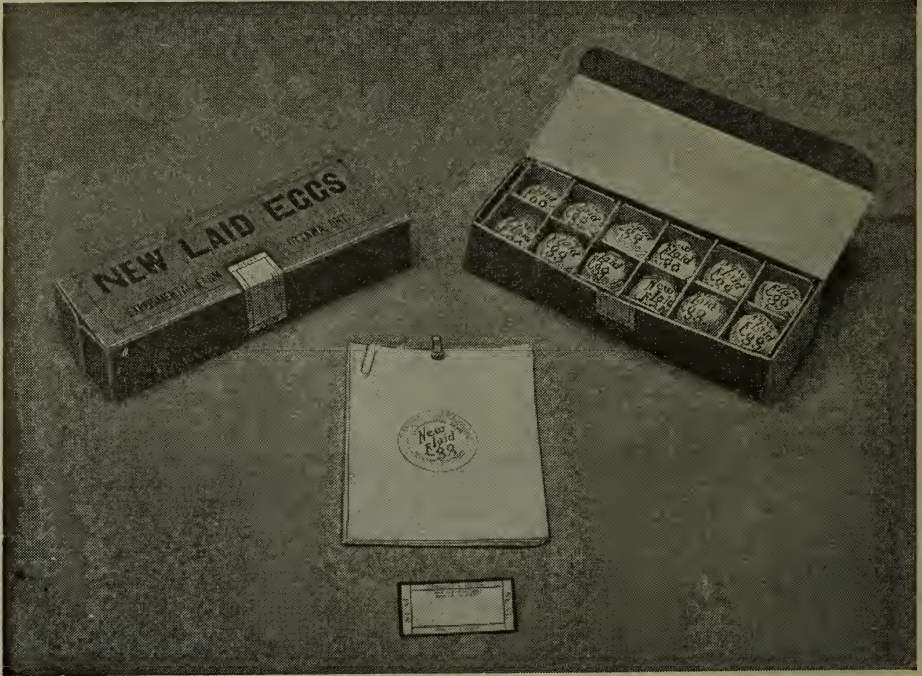
Really good produce is sometimes sold for less than it is worth because it is packed in unattractive packages. The neat package will always help sell the contents. It, therefore, is good business to have produce not only of the best quality itself, but packed in containers that will indicate the prime quality of the contents.

#### EGG PACKAGES

The ordinary packages in which eggs are shipped to market are not always attractive. The outside is frequently dirty, lacks neatness and is too often more or less flimsy. Even though the contents of such packages are of high quality they do not bring the price they should because of the unattractive container.

The best size package for ordinary shipments is, no doubt, the 30-dozen case. For private or special shipments, packages to hold 15, 12, or even 6 dozen eggs may be made. It is an advantage to make all packages similar in size except the height, so that in placing them into a car or vehicle, they fit in square and fill up the space.

Wooden packages of half-inch sides and seven-eighths ends serve the purpose very well. There are corrugated paper boxes made for this purpose which, though they may not last quite so long as a wooden box, have the advantage in that they are collapsible and may be returned in bundles at less expense than when returned individually.



ONE DOZEN EGG CARTONS

Eggs non-fertile, wrapped, neatly packed and sealed.

There is another style of package for the private or retail trade. This is the carton which holds one dozen eggs. There are different styles of cartons, but the most convenient is that in which there are two rows of eggs, six in a row. This carton will fit into any of the above boxes and carry very safely. Many shippers of the first quality use this style of carton even in their large shipments, and they give excellent results. On the carton is printed the label or brand and in order to insure that the consumer gets the same eggs that the producer puts into the carton, it is sealed with a label which may bear the words, "Not guaranteed if seal is broken."

#### DRESSED POULTRY PACKAGES

The old style of shipping dressed poultry in barrels and large packing boxes is being discouraged in the best trade. The most popular package for dressed poultry is the box holding one dozen. These boxes are made in definite sizes to contain similar-sized birds, but in packing them for shipment, it is necessary to see that the birds fit tight, else they may become bruised and spoil in the journey.

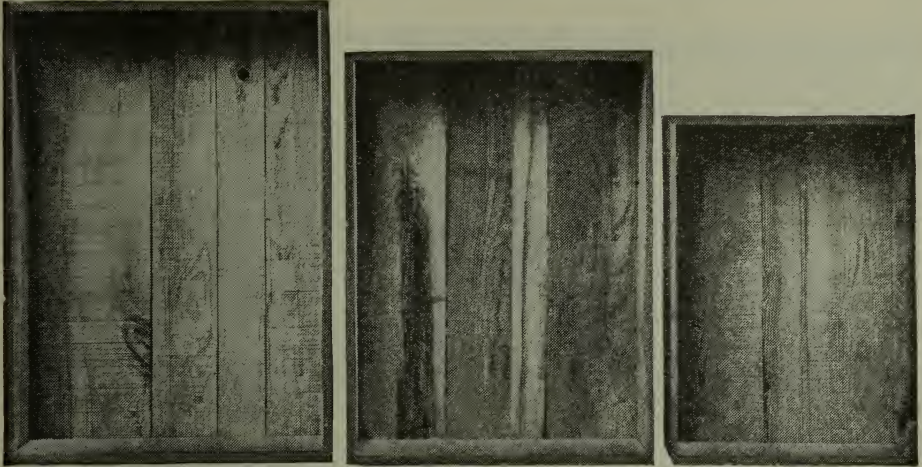
SIZES of box required for various weights of chickens—twelve (12) in each box:

Weight of chickens (lb)

$2\frac{1}{2}$  to 3  
 3 to  $3\frac{1}{2}$   
 $3\frac{1}{4}$  to 4  
 4 to  $4\frac{3}{4}$   
 $4\frac{3}{4}$  to  $5\frac{1}{2}$

Inside measurements in inches

$19\frac{3}{4}$  x  $15\frac{1}{4}$  x 4  
 $21\frac{1}{2}$  x 16 x  $4\frac{1}{4}$   
 $23\frac{1}{4}$  x  $16\frac{1}{2}$  x  $4\frac{1}{2}$   
 $24\frac{3}{4}$  x  $17\frac{1}{4}$  x  $4\frac{3}{4}$   
 $26\frac{1}{2}$  x 18 x  $5\frac{1}{4}$



DRESSED POULTRY CASES  
 Various sizes, the tops missing.

The boxes should all be lined with parchment paper, and for fancy quality each bird may be wrapped in the paper before being placed in the box. Too much care in this matter cannot be taken, as it not only adds to the appearance, but helps to keep the birds fresh.

The carton system is being introduced with dressed poultry and in some cases a small pasteboard box is used for special trade. A carton 6 inches high, 6 inches wide, and 11 inches long will hold a five or six-pound roaster or two broilers. If the birds are wrapped nicely in parchment paper, they open satisfactorily at the end of the journey.

The poultry packages, the same as egg packages, should be marked with the producer's name and the brand, if he has one. It is also well to include in the outside marking, the grade of the contents, the number and the weight.

#### BREEDING STOCK AND HATCHING EGGS

Probably no two persons agree as to the best package for shipping eggs for hatching. There are a number of different styles on the market which are more or less satisfactory and, should persons be shipping large quantities, it might pay them to procure some of these, or, if it is preferred, ordinary strong baskets with the eggs wrapped in soft paper or excelsior and the basket covered over with cotton, and plainly marked "eggs" will answer very well.

In all shipments mark very plainly the address of the consignee so that there can be no mistake in the delivery. Also note from whom the shipment is made and if prepaid have the "prepaid" notice conspicuously placed.

When breeding stock is to be shipped, see that the consignee is notified as to just when the birds will leave, what route they will take and approximately the time they will reach their destination. Have coops well and neatly made,

not too heavy, but sufficiently strong to stand the journey. If the birds are going any distance, provide a cup in each coop into which water may be conveniently poured by the express man, and in plain view put a note asking him to keep water in the cup. If feed will be required on the trip provide this in a small, neat cotton sack tied to the crate, and give instructions as to the feeding of the birds.

With hatching eggs the same care should be taken in notifying the consignee when the eggs should arrive. Pack them securely, and be sure that eggs only from the breed that is desired are included in the package. Nothing



BREEDING EGG PACKAGES



EGG FOR HATCHING WRAPPER

The same paper as is used for New Laid Eggs, but it should be larger, 10" x 10" is a suitable size.



is more annoying to the buyer than to find, when the hatching eggs for which he has paid a good price are incubated, that he has several chicks in the lot of a different colour from those which he purchased, and still this often happens when the shipper is careless in his packing.

## MARKETING

### DISTRIBUTE THE PRODUCE OVER THE TWELVE MONTHS

As a rule, the most of the market poultry sold is marketed from August 1 to December 30. As a result prices suddenly fall when farmers are about ready to sell. This cannot be wondered at, because when more poultry comes into the city than can be consumed as it arrives, it is necessary to put it into storage. Cold storage, unfortunately, adds to the cost which must be paid either by the producer or the consumer and moreover, produce once stored is not appreciated as is the fresh quality, so that poultry sold when it is not necessary to go into cold storage will bring a higher comparative price to the producer for these two reasons.

Again the remedy for this to a certain degree is in the hands of the producer. He should endeavour to distribute his produce over more of the twelve months than he does. To do this requires different methods of handling his poultry than he has practised in the past, but such a change of methods will mean more money for the seller at a less cost of production and better satisfaction to the consumer. For instance, instead of keeping the spring chicks all summer long and marketing them in the fall, some of them at least might be marketed throughout the season as broilers. Broilers bring two or three times as much per pound in May and early June as they would bring as roasters in the fall. If, therefore, cockerels that were large enough to be marketed at this time of the year were sold they would command, in most cases, as much per bird as they would bring if kept until fall, and the cost of production would be materially lessened. The same obtains with hens. Hens that have completed their second laying winter and have passed through the breeding season should be marketed as soon as the breeding season is over rather than be kept until the fall. Hens in June bring from 50 to 100 per cent more than they do in October and, if marketed in June or July, do not come into competition with the cockerels which are marketed as roasters in October and November. The reason that old hens bring 10 to 15 cents a pound in the fall is because people do not want them when they can get chickens, but, if the hens are marketed in the spring when there are no fresh roasters, the demand is good and prices in proportion to the demand.

### BROILERS

Broilers are chickens weighing under  $2\frac{1}{2}$  pounds. Sometimes those that weigh less than  $1\frac{1}{2}$  pounds to the pair are called "squab broilers". The best way to feed broilers is to give a palatable mash in a clean yard, mix the mash with milk if possible, give some green food and keep everything clean and the chicks free from lice.

Bleeding through the mouth and dry plucking are advised before selling, though, if the weather is warm and local killing facilities not good, it may pay to ship alive.

### FOWL

Hens that have passed their second laying season if well fleshed make excellent eating. If they have a week or ten days in the fattening crate so much the better. In selling them much depends upon the market to which you ship. In many of the larger cities the Jewish trade is considerable, they take

large quantities of hens but they want them *fat* and *alive*. For other markets it is usually the best to kill before selling. Usually any female that has laid is classed by the buyers as "fowl."

#### DUCKS

The same may be said of other lines of poultry, especially ducks. Green ducks, that is, ducks that have just completed their first coat of feathers, should be marketed at that time rather than be kept until fall. In an experiment conducted at the Central Experimental Farm with 65 young ducks, it was found that where sold as green ducks, at 10½ weeks of age, they brought on the local market about 200 per cent more than it cost to feed them, or in other words they cost for feed \$20 and at 10½ weeks of age they brought \$60. Similar ducks that were kept until fall and were sold as ducks are usually sold did not pay for the cost of feed. Large produce dealers claim that they cannot get a sufficient quantity of green ducks and are advising people to sell their ducks at 10 to 11 weeks rather than keep them until they are matured.

#### GEESE AND TURKEYS

Geese and turkeys are not raised in such quantities that they glut the market materially but, in geese especially, it may not be long until they will be sold green as are ducks and will bring a larger margin to the producer. It has usually been considered that turkeys were only fit to eat when matured, but at the Central Experimental Farms several young turkeys weighing 3 or 4 pounds each were killed and eaten and the consumers reported that the flesh was so much better than the matured bird that there is no saying what might be done with green turkeys if they could be raised in quantities.

#### CAPONS

In order to lengthen the period of marketing, the question of capons is being considered more and more every year. A caponized or de-sexed cockerel not only produces more palatable flesh than a cockerel, but it has this added advantage that it is ready to market when practically nothing else in the fresh chicken line is available; at a time when the broilers, green ducks, hens and roasters have all been marketed, and nothing but cold storage stuff is procurable. For those who can keep their birds for ten months the capons will help to lengthen the season and as consumers are willing to pay more for the superior product, caponized cockerels and probably caponized turkeys will find a place among the high-priced delicacies.

#### WHICH HENS TO MARKET

There are some who want a limited number of eggs throughout the summer months, but do not want to keep all their hens through the warm weather. The question arises as to which hens should they kill off and which keep. To help answer this question, an experiment was tried to determine which hens would lay best during the summer months, also if there is any relation between winter and summer laying; that is, will a hen that lays well during the winter be more likely to lay better or worse during the summer than the hen that fails to lay during the winter months? It has been claimed time and again that it does not make any difference when a pullet starts to lay; that she will lay just as many eggs whether she starts in November or April. Our records show that the pullet that does not start to lay until near spring never catches up to her sister that begins in November or December. In this country the winters are so long that if a pullet does not lay until spring she has little more than six months to make up her number, which is a handicap she can never overtake.

It is also generally conceded that the bird that lays late in the fall, that is, that does not moult till near winter, is the heavy layer, and when killing in the fall is practised it is not a good plan to kill those hens that are not fully feathered, as they are usually the best layers. Write your provincial department for a culling demonstration.

#### DISTANCE FROM MARKET

It is a good plan to be near your market. This, however, is a relative term and does not always mean near in the sense of distance. Some people 100 miles from the market are really nearer than others within a few miles in that it does not cost as much to deliver and the produce arrives in better shape.

Distance from market should be considered not in miles, but in time, condition, and in expense in getting produce from the farm to the market. Two miles of rough road from the farmer to the railroad station may be a greater distance than 200 miles from the railroad station to the consumer. One can be miles distant yet close enough. In the country, land is cheap, help is reasonable, feed can be bought at first cost, and there is always the additional advantage of handling the produce of one's neighbours.

Many farmers who consider themselves out of reach of the best markets may be nearer than they think. In such cases a little co-operation may make their position ideal.

#### CONSUMER PAYS HIGHEST PRICES

The nearer the producer can come to the consumer, (that is the fewer middlemen there are) the higher will be his prices, but the greater will be the labour and expense of marketing. The best paying customers—those who are willing to pay five to twenty cents per dozen above the highest retail prices—are the private families who want the best of everything and who are willing to pay for it. More attention must be given to this class, however, and all producers are not so situated that they can cater to it. Next to the family trade comes the hotel or restaurant trade, which also requires a producer close enough that produce can be shipped or delivered frequently at not too high a cost. After the hotel trade, probably the next highest prices are paid by the retail store. There are good retailers in large towns that are looking for the person who will furnish eggs regularly each week the year round at several cents per dozen above the retail store price. Some stores in cities frequently are willing to pay considerably above the highest wholesale price for the right kind of eggs, delivered with regularity throughout the year. The only time, however, to get this or any of the other trades mentioned so far, is during the time of scarcity, not when eggs are plentiful, and it must be remembered that in these private or retail trades there will be a surplus of eggs in the spring that may have to be sold elsewhere.

The wholesale trade has received and probably always will receive the bulk of shipments. As a rule this trade will purchase any quality and quantity, though now most of them claim to be paying according to quality. It is to this market that most producers will cater, but some who are more careful in their production and who are better situated may take on the more discriminating trades as noted above.

#### PROTECT AND ADVERTISE YOURSELF

Where the producer is convenient enough to a good market such as a city or a large hotel, more care should be taken in getting the eggs directly on the consumer's table, and in such cases it is generally advisable to use the dozen egg cartons. Grade the eggs according to colour and size, and if they can be shipped the day they are laid so much the better. It is also a good plan for such a market to make a specialty of guaranteed strictly fresh, non-fertile eggs

and to say so on the outside of the carton. In case this guarantee is printed, it is just as well to seal the carton, and as a precaution state that the eggs are guaranteed if the seal is unbroken. Should there be any likelihood of the eggs being held in the consumer's hands any length of time before being eaten, it is advisable to state that the eggs are guaranteed if eaten before a certain date, and in catering to such a class of customers the producer should candle all his eggs, for even strictly new-laid, non-fertile eggs may have a blood spot, and one such egg opened on the breakfast table will often condemn the source of supply.

Date.....

Poultry, pounds .....

Eggs, dozen .....

Mr.....

*Received from*.....

.....pounds poultry

..... dozen eggs

*Received by*

.....

Date.....

#### FOR PRIVATE DELIVERY

Where eggs or poultry are delivered and a receipt for their delivery is necessary, the above form is convenient. The top edge is gummed and stuck to the parcel. Below the perforated line the name and amount is written and the consignee signs at the bottom. All below the perforation is retained as a voucher by the messenger.

The producer that is specializing in this new-laid egg trade and markets through the retailer should advertise himself instead of the middleman who may handle the goods, and for this purpose it is well to have the name or brand prominently but attractively placed on all the packages.

Of course, every producer is not so situated that he can cater to the highest class trade, nor is every producer qualified for taking care of such a trade. It means strict attention to detail, absolute honesty and ability to send a stated amount at stated intervals. Because of this latter fact such producers should not contract to supply every week more eggs than they have at their lowest production season, and usually during the season of high production there will be quantities of eggs that will have to be disposed of in other ways. It will, therefore, be advisable, especially for producers so situated, to endeavour to have as large a proportion of their eggs produced during the slack season as possible; this will necessitate early pullets for the late fall and early winter supply of eggs.

#### PRIVATE DELIVERY EXPENSIVE

As a rule, the poultry producer cannot afford to deliver every week to private customers even though his place of business be close by. There may be an exception to this in the case of the poultry man being in the milk business where the eggs can be delivered at the same time as the milk. But to make a trip for the sole purpose of delivering a few dozen eggs is too expensive to be considered. Sending shipments by express and parcel post will be found to be less expensive, and as a rule, more satisfactory.

## EXTRA PRICE ALL PROFIT

The extra price per dozen which is paid for extra quality is almost clear gain. There is a fair profit in producing eggs at the regular market prices. The largest profit must come from superior marketing and from special market advantages in selling eggs and stock. A difference of only a few cents per dozen makes a large increase in the income when several hundred fowls are kept. For example one man who has 100 laying hens from which he gets ten dozen eggs a year, may take the wholesale price or he may send them to one of the other markets and get a premium of five cents up per dozen. Five cents on each dozen means fifty cents per hen or fifty dollars per year on the flock, which is practically clear gain, the result of good business methods, neat packages, uniformly good quality and honest dealings.

## PRIVATE TRADE REQUIRES TIME AND TACT

Working up a first-class private trade requires time and tact. The "best advertisement is a satisfied customer." Trade grows by one satisfied customer recommending your product to another. Farmers who can reach guests at summer resorts, and those who live in communities where summer boarders are taken on the farms have a good opportunity to secure summer customers for eggs. Frequently summer hotels, restaurants, hospitals and, in some cases, large retail dealers, will pay nearly or quite as much as private families. The wholesale trade on the other hand is easier to get and easier to serve, in fact it may be taken as a general rule that the nearer you come to the consumer the greater tact and business knowledge are required and the greater the profit.

## HOW TO FIX THE YEARLY PRICE

In catering to a private restaurant or hotel trade, much misunderstanding may be avoided by fixing the price for the year. There are different ways of doing this. One can agree upon a stated price per dozen throughout the year and the number of eggs to be delivered each week. Sometimes the latter clause is necessary in order to insure fairness, and to leave either party the temptation to take advantage of the other. This might be done by a dishonest producer who could sell eggs to outside parties when he could get more for them than his contract price, or to the dishonest buyer who would purchase elsewhere when he could get eggs for less than his contract price.

Another plan is to decide upon a certain increase over the prevailing market price; for example a figure equal to 10 to 15 per cent above the highest market quotation each week. This sliding scale proves satisfactory and there is not the incentive to either party breaking faith.

An excellent plan for every producer to adopt is to sell direct to the consumer, either by personal delivery, or by sending by express to the consumer each week, four, six, eight or twelve dozen eggs. The time is not far distant when one, two or more dozen can be sent by mail with perfect safety.

A scale of prices on this basis and one which would be eminently fair both to producer and consumer would be:—

January and February.. . . . .	55c. to 65c. per dozen
March and April.. . . . .	40c. to 50c. "
May, June and July.. . . . .	35c. to 40c. "
August and September . . . . .	40c. to 50c. "
October and November.. . . . .	50c. to 60c. "
December.. . . . .	60c. to 75c. "

By this system there is an incentive for the customer to eat more eggs when there are lots of them and the price low, and to find less fault if he should not get his full supply when they are scarce and the price high.

## CONSUMER SETTLES BREAKAGE CLAIMS

In order to adjust claims for breakage with the express companies, it will be found more satisfactory to have the consumer pay the express charges. The consumer will then hold the express company responsible for rough handling. The one who is on the spot and finds the eggs broken can deal direct with the man who delivered them much more easily and satisfactorily than through a third party living at a distance. With strong, convenient, conspicuously stencilled crates, the breakage should not be serious and, if possible, avoid shipping to points where the eggs must be handled by two express companies, as each company lays the blame on the other.

## DRESSED OR LIVE POULTRY

Practically all the suggestions that have been given concerning eggs will apply to poultry, live or dressed.

The marketing of poultry, especially dressed poultry, has materially improved in Canada during the past few years, but there is a good deal yet to be done before conditions are ideal. By far too large a percentage of market poultry is shipped off the farm in a thin condition. It is the last pound or two on the carcass that makes the profit; this is also the cheapest weight to produce on the whole frame and is the part of the bird that increases the selling price anywhere from 25 to 100 per cent. Market poultry whether sold live or dressed should always be specially prepared, and for this purpose the feeding crate is a great advantage.

## CRATE FEEDING

## VALUE OF THE SYSTEM

No poultry intended for eating should be marketed without being fleshed. The easiest way to do this is by crate feeding, the advantages of which are recognized by the dealer and the consumer, in that better prices are offered for the product. The work entailed is less than in any other system, and it is the last few weeks of feeding that pay the farmer best.

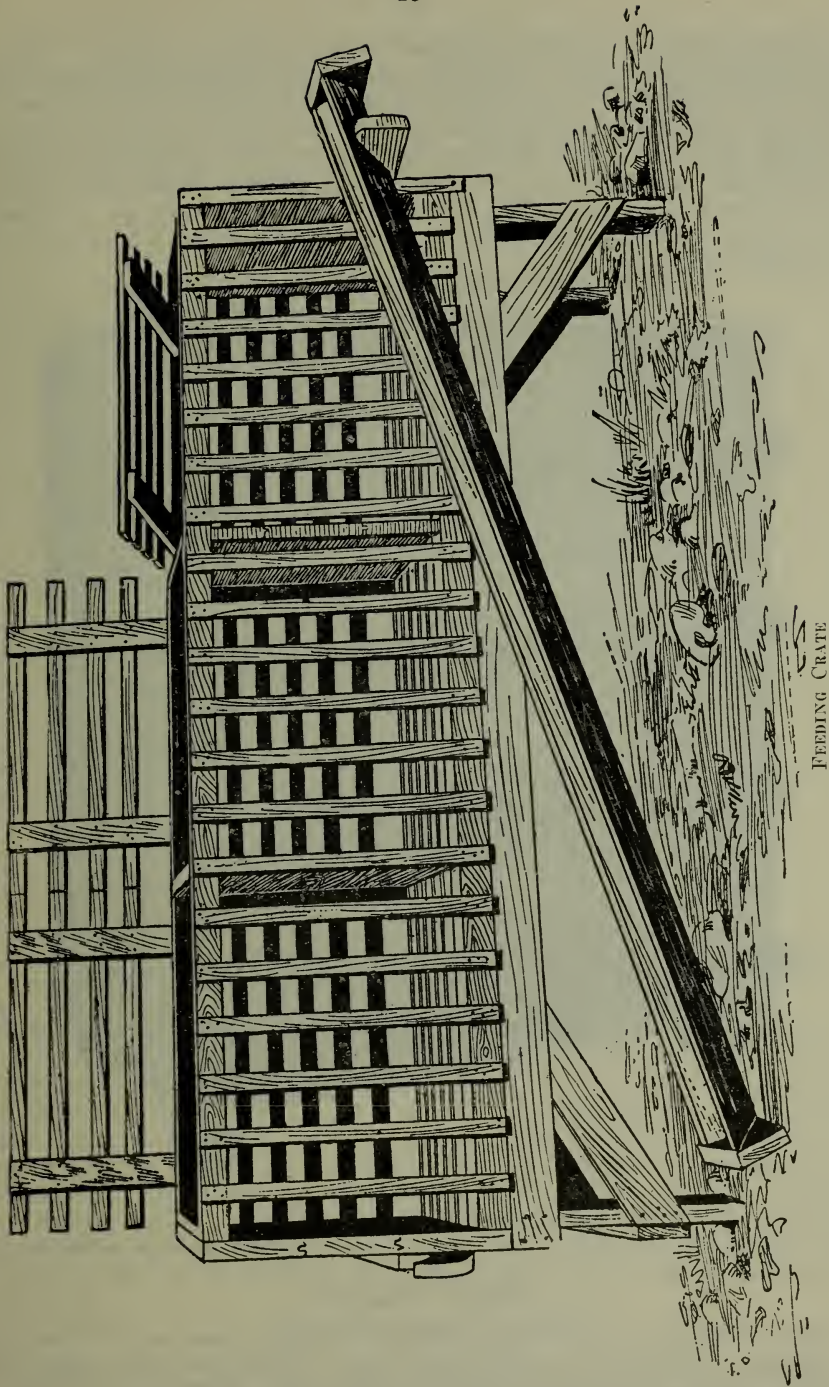
Cockerels especially should be crate fed before marketing. It will also pay to finish the pullets and hens the same when they are sold for eating purposes. Two weeks may be sufficient time to crate feed females, but cockerels may be fed for three or even four weeks to advantage. (See fattening crate page 19).

## TREAT FOR LICE

Before putting birds into the crate they should be treated for lice. Dry sulphur or lice powder of any kind will answer. It should be thoroughly sifted into the feathers. If necessary the operation should be repeated once or twice during the feeding period. The crate should be kept clean and disinfected by whitewashing or spraying. Large feeding establishments disinfect the crates by dipping them into vats of whitewash, Zenoleum or other disinfectant.

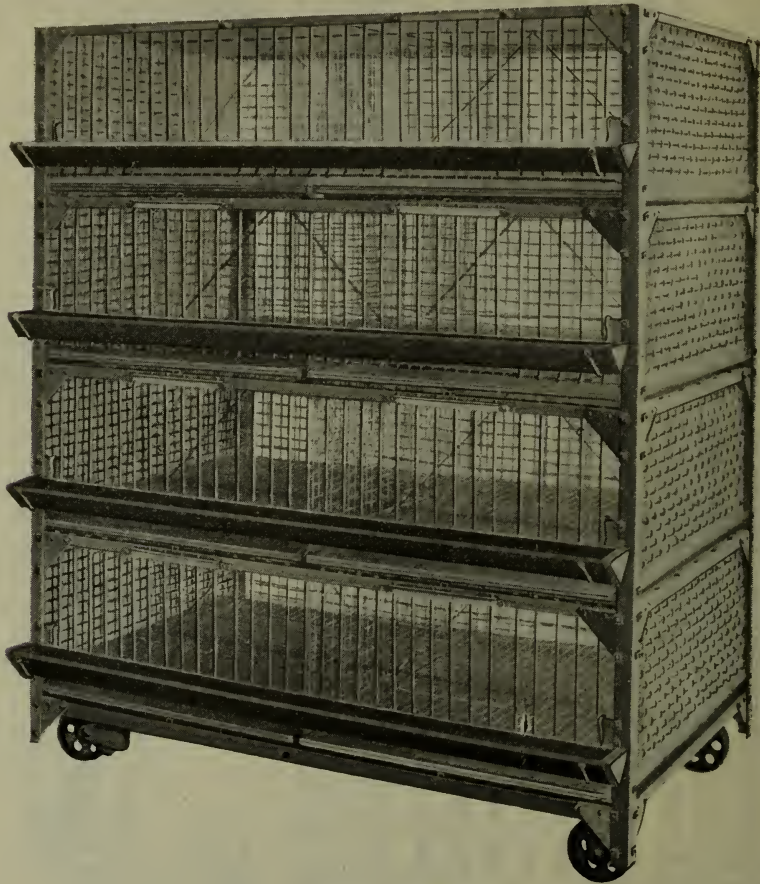
## HOW TO MAKE A CRATE

The fattening crates in general use are 6 feet long, 16 inches wide, and 20 inches high, inside measurements. Each crate is divided by two tight wooden partitions into three compartments, and each compartment holds four chickens. The frame pieces are 2 inches wide by seven-eighths inch thick. This frame is covered with slats. The slats are placed lengthwise on three sides, bottom, back and top, and up and down in the front. The slats for the bottom are seven-eighths inch wide and five-eighths inch thick; the back, top, and front



slats are the same width but only three-eighths inch thick. The spaces between the slats in front are 2 inches wide to enable the chickens to feed from the trough. The bottom slats are put  $1\frac{1}{2}$  inches apart; the slat nearest the back of the crate is  $2\frac{1}{4}$  inches from the corner of the frame, to prevent the chickens' feet from being bruised when the crate is placed on the ground. The top slats are cut above each partition, and six strips, 2 inches wide, are nailed under them. The three doors so formed are hinged to the rear corner piece.

The crates may be placed on stands 16 inches from the ground. The droppings from the chickens are received on sand or some other absorbent material. A light "V" trough  $2\frac{1}{2}$  inches inside is placed in front of each crate. The bottom of the trough is 4 inches above the floor, and the upper inside edge is 2 inches from the crate. If it is desirable to place the crates in tiers one above the other, the door will have to be placed in front of the crate and a pan or board placed under all but the bottom tier to catch droppings. Crates may be made from old packing boxes, but a properly made crate will be found much more satisfactory.



#### FEEDING BATTERY

The commercial feeding battery.

(Courtesy Collis Co., Clinton, Iowa.)

#### FEEDING BATTERIES

Large commercial plants have discarded feeding crates as described above and in place of them use "feeding batteries." These are large cages, usually on castors or small wheels. They are divided into flats and compartments. They are built in various sizes to hold from 60 to 100 or more birds.

#### MOST SUITABLE BIRDS

Medium-sized birds belonging to the general-purpose breeds give best results in the crates. Large coarse specimens of any variety are unsatisfactory, and,



as a rule, the light breeds are not profitable feeders. Leghorns make good broilers, but poor roasters, and are too nervous to take to crate feeding. Frequent experiments have shown the relative values of the American and Mediterranean classes for this purpose. In one experiment two representative crates of chickens were selected out of a lot of several hundred feeders. One of the crates held fifteen pure-bred Barred Plymouth Rock cockerels. The other held



COOLING RACK

A rack for cooling fresh dressed poultry used where poultry is killed in quantities.

fifteen Leghorn cockerels. The thirty were from four to six months old when they were weighed in the crates. Both lots were fed for four weeks, in which time the Leghorns made a gain of eight pounds and the Rocks made a gain of thirty-eight pounds. The average gain of the Leghorns was about one-half pound. One pound of gain on the Leghorns cost four times as much as one pound of gain on the Rocks. Practically all of the gain the Leghorns made was during the first two weeks, while the Rocks gained right up to the last of the feeding period. Had the Leghorns been killed at the end of the two weeks, the increase which they made would have cost less, but even then the increased weight would have cost double what the increase of the Rocks amounted to.

#### MOST SUITABLE WEIGHTS

Cockerels of the general purpose varieties give best results when put into the crates at from four to five pounds weight. Smaller birds when crated fail to flesh as they should. They either cannot stand the forced feeding and confinement and therefore lose their appetite or they put the feed into growth of bone instead of flesh. Birds heavier than this do fairly well, but the cheapest gains are usually made when they are put into the crate less than five pounds, or before they are five months of age.

## STRONG CONSTITUTIONAL ESSENTIAL

If the best results are to be obtained in crate feeding, the birds must have strong constitutions. To expect a bird to thrive and put on flesh in the feeding crate is about the same as to expect a pullet to give eggs during the winter season. Without a strong constitution results cannot be obtained in either case.

One of the first things for the feeder to know is how to pick out the bird with a strong constitution. Briefly, he is the bird that in the flock appears lively, a bird which at the slightest commotion is awake with his head up looking for trouble. He may often be seen fighting; in fact, a good fighter is rarely without a good constitution. If he has learned how to crow, he crows often and lustily. If he is picked up and examined more closely it will be found that his head is well coloured, comb, wattles, etc., are bright and of a fair size only. His beak is short, slightly curved and strong at the base. His eye is bright, large and full. His head is short and gracefully joined to a strong pair of shoulders. His back is wide, and the width is carried well toward the tail, where there is no pinched effect. His body is oblong, the top and bottom lines being practically parallel, fairly deep and wide. The keel is straight, long and comes well forward. He stands on two strong, but not coarse legs, straight and well set. There is an absence of coarseness throughout the bird, and that snaky, crow-like appearance is never possessed by the bird with the strong constitution. Such a bird will have the ability to eat heartily and to put on flesh for weeks. Large, upstanding specimens are not desirable. Medium-sized, fairly long bodied, well put together birds give best results in the crates, and not only stand feeding longest but produce the best quality of flesh.

## FEEDING

The beginning of the feeding period is most important. If the birds have feed in their crops they should miss a meal on being put in the crates, and then feed should be given sparingly for several days. To feed birds all they will eat



HANGING DEVICE

A hanger to hold birds while being plucked. Other contrivances somewhat similar are often used.

for first day means indigestion and thin birds. They have been accustomed to free range and somewhat limited food, and the change to cramped quarters and unlimited food is more than the healthiest can stand and as a result they lose their appetite and get thinner instead of fatter.

Persons who have attempted crate feeding have complained that the birds eat well for the first few days, when, in spite of all that can be done, they refuse to eat, and leave the crates thinner than when they went in. This is the fault of feeding too heavily at the start. As a rule, it is better to leave the birds without food for the first twenty-four hours after entering the crates. Those that have been shipped a distance, however, are pretty well starved when received, and they may be fed earlier, but care must be taken that the feed for the first two or three days is given sparingly.

The aim should be to keep the birds fairly hungry, never satisfied, until they become used to the confined quarters. After that as much feed as they will take, two or three times a day, should be given. After each feed, however, the trough should be cleaned. If the weather is warm, it may be advisable to give plenty of water to drink, and a feed of grit might be allowed several times a week.

#### NUMBER OF MEALS PER DAY

Whether two or three meals should be given depends upon circumstances. During the long days, or when artificial light is used, and the first feed is given at six o'clock in the morning and the night feed at six o'clock in the evening, another meal may be given at noon. When the days are shorter and no artificial light is used, two feeds a day will be sufficient. Give the morning meal as soon as it is light enough to see to eat, and the evening meal while there is still plenty of daylight to see to eat up all that is required.

#### HOW LONG TO FEED

Just for how long a period the crate feeding should be continued depends upon the birds and the market. Some birds will stand feeding longer than others. As a rule it takes at least three weeks to change the texture of the flesh. There may be birds, however, that will not stand more than ten days. These should be taken out just as soon as it is noticed that they are not eating well. Other birds will stand it for four or five weeks, and for a special market it might pay to feed this length of time. But as a rule the best gains made during the first three weeks, and many prefer to feed no longer than this time. Large feeders claim that the cheapest gains are made during the first ten or twelve days, and some may feed for a shorter time than this.

Birds fed ten or twelve days on a milk diet may be called "milk-fed", but the quality of the flesh is by no means as good as that of birds so fed for three or four weeks. It is quite possible that in order to make it pay, a better price would have to be received for the birds that have the longer feeding period, but they are worth it. Feeders who cater to an extra fancy market have to feed three or four weeks at least to get the quality. The time is coming when consumers will demand the better quality produced by the long feeding, and will gladly pay for it.

#### MIXING THE RATION

There are different rations that may be fed to birds in the crate. Never, however, should whole grain be given. All feed should be ground just as fine as possible. A mixture of grains gives the best results in that the birds do not tire of a variety as soon as they do of one feed. Their feed should all be given in a wet state, mixed to the consistency of porridge, so that it can be poured from a pail or dipped out with a flat ladle or shingle. The best mixing

material is buttermilk. Skim milk comes next. Better results will be obtained when the milk is sour and mixed one feed ahead. A little salt added to the mash makes it more palatable, and the chickens will eat more of it. Corn, oats, barley, buckwheat, wheat, etc., all can be used to advantage, but should be ground just as fine as possible and the coarser hulls removed. If the milk is not procurable and water has to be used for mixing, 5 to 10 per cent of animal foods, such as beef scrap or blood meal, might be added to the grain mixture. Soup made from boiling beef heads can be used in this connection, but none of these gives as good results as the milk, and they are advised only when the milk is not to be had.

#### MILK VERY IMPORTANT

In the production of flesh of the best quality, milk is of prime importance. The birds are not only fond of feed mixed with milk, but can take more of it, and will stand heavy feeding for a longer time if milk is used for mixing. Milk gives a white or bleached colour that some American markets do not like; but there is no doubt that the white flesh as it becomes better known will be more appreciated.

#### OATS

Where the white flesh is not objected to, oats, finely ground, are often used as the principal food. Oats add to the whiteness and produce a flesh with the globules of fat evenly distributed throughout the tissue. This being the case, oat-fed flesh will not waste in the oven as much as flesh that has been produced from foods rich in fat, such as Indian corn.

#### INDIAN CORN

This is a very popular feed, the price in most cases is reasonable, it is palatable, and it produces the weight. If the yellow corn is fed, the flesh is a rich yellow colour which many markets prefer; but when corn is fed alone it does not produce as good quality flesh as when it is mixed with oats. The corn-fed flesh is really more fat than flesh, and in roasting will shrink more than the oat-produced product.

#### BUCKWHEAT

Buckwheat is very palatable and a good fattener. If fed alone, or when it is the chief ingredient of the ration, the tendency is for the flesh to become more or less flabby, and the bird when dressed lacks the lustre and finish that crate-fed birds should have.

An experiment in feeding wild buckwheat screenings to birds in the crates was conducted at the Experimental Farm, at Ottawa, and it was found that they were a very superior feed for that purpose.

#### SHORTS ANN MIDLINGS

As a small part of the ration make a good feed. When fed in larger quantities they make the feed too pasty.

#### BRAN

It is not popular for crate feeding. It is laxative in character, and contains too much fibre to amount of fat.

## BEEF TALLOW

Is sometimes used during the last four or five days of the feeding period. It has been thought to improve the quality of the flesh. This, however, is doubtful. It produces the surface fat that helps round out the carcass, but owing to its cost, the trouble of feeding, and its doubtful value, many feeders have discontinued its use.

## COOKED FOODS

Cooked foods as a rule should not be fed. Experiments have shown that they are not as economical as those fed raw.

## HAVE IT PALATABLE

In mixing a ration for crate-feeding one of the first things to consider is the palatability of the food. If the birds do not like it, they will not eat enough to put on the flesh. Next to this comes the compositions of the foods and their cost. The ration must be palatable and one that will produce fish without costing too much.

## KILLING

The only method of killing poultry for the market is to bleed and then to pierce the brain. The best method of bleeding is to cut the jugular vein within the mouth as noted in the illustration. (See Frontispiece.) After the cut is made and the bird is bleeding freely, the brain should be pierced. To do this the blade of the knife should be inserted in the groove in the roof of the mouth as indicated in the illustration. Practice only will make perfection in the killing. A knife for this purpose can be purchased, though if this is not available, any sharp-pointed knife with not too large a blade may answer.

It is a good plan to hang the bird by the feet before killing, and a small pail, or cup as shown on next page, with a sharp hook which may be attached to the beak is suitable for catching the blood.

## PLUCKING

In plucking, commence just as soon as the brain is pierced and while the blood is still flowing. The ease with which the feathers come off will depend largely upon the successful piercing of the brain.

## COOLING

In Canada, water cooling is not encouraged, as the dry cooled birds keep longer and look better. To cool they may be placed on a shaping board which gives the bird a compact appearance or they may be hung by the legs in a cooling rack, which is now the most common method, especially in large killing establishments. Be sure that the animal heat has left the birds before they are packed for shipment.

## PACKING

The package is very important. The most popular is the size for one dozen birds though other packages holding more or less are often used. Whatever the package is, however, see that the birds are placed in perfectly tight so that whether the journey is long or short there will be no shifting and consequent bruising of the contents. For special trade, parchment paper should line the boxes and even wrap the individual birds.

It is a good plan to wrap the heads as it is almost impossible to have them entirely free from blood. A satisfactory wrapper is made from parchment paper and wrapped so as to hold itself. Some use for this purpose paper about 8 inches by 10 inches, or a strip of paper 6 inches wide is cut so that one side is about 6 inches and the other 12 inches.

All packages should be marked very plainly with the destination, the number of the birds and net weight, the classification and grade, and it is also a good plan to put on each package the shipper's name and address.



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