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PROFITABLE SQUAB BREEDING

HOW TO MAKE MONEY

EASILY AND RAPIDLY WITH A SMALL
CAPITAL BREEDING SQUABS

With Full Directions How to Build Lofts, Mate Pigeons for the
Largest and Best Squabs, Feed and Keep in Health and Secure
the Largest Profits from the Business, with Many Illustrations.

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By FRANK FOY
DES MOINES, IOWA
1909

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INTRODUCTORY.

No business has had such a surprising growth within the last few years as the raising of squabs for market. Only a few years ago the use of squabs for food was confined to a few of the most wealthy families. Game was plentiful and cheap and those who were not very well off preferred to buy quail and other game birds to paying the high prices asked for the few squabs which were sent to market.

Gradually the demand for squabs grew larger, as more people became acquainted with their delicacy and good qualities as food, and this led to larger numbers being produced. Soon all the larger markets furnished squabs and then the smaller ones began to supply them and now many a comparatively small market is not complete without squabs as a part of the supplies of food kept on hand or provided on order.

Game birds have become scarce and high-priced, and squabs have taken their place in such a manner that the demand for game is not so large as it was, while the demand for squabs continually increases.

The rearing of squabs for market is immensely profitable as well as easy. Squab-raising can be conducted on a scale large enough to make it worth while in the back yard of a town lot, or it can be conducted on a scale large enough to require several acres with equal profit on every dollar invested in the business.

Squab-breeding is a business which is profitable when conducted as a side line on a small space and all the work may

be done by women, children, or those who are not strong enough for the more laborious occupations of life. At the same time it is a business which men of affairs need not hesitate to undertake as there are squab farms on which pigeons are kept by tens of thousands with great profit.

The squab business may be commenced with small capital and rapidly increased from the increase of the flock, as each pair of breeding birds will produce at least twelve in a year so the increase is very rapid.

So great has the demand for a book which would give all the details of the business of squab-raising become, that we have felt compelled to publish this book. In it we have tried to answer all the questions which a beginner would ask and give all the details so plainly that any one can begin breeding pigeons and raising squabs with success. The instructions given are based on actual experience in raising squabs and we have tried to write so plainly that any one can understand just how to begin and continue in the business.

Those who follow the instructions here given, may look forward with confidence to a successful career as pigeon-breeders provided they begin with the right kind of breeding stock—the Frank Foy kind, the kind which produces heavy-weight, plump, white-fleshed squabs.

FRANK FOY.

Des Moines, Iowa.

CHAPTER I.

THE BEST BREED FOR SQUAB RAISING—THE KIND TO BUY —ABOUT MATED PAIRS.

The very best breed of pigeons to use for squab-raising is American Homers. These produce heavy squabs, full breasted, plump and meaty. The American-bred Homer is a hardy and prolific bird and will produce more heavy-weight squabs in a year than any other breed which has ever been tried. They are good "workers", that is they breed regularly, feed their young carefully and are less liable to disease than almost any other breed.

The American-bred Homer is not so pretty as some other varieties, or as imported Homers, but it is a practical utility bird which makes more money for its owner than can be made out of any other breed.

The beginner should never buy imported Homers. They are bought in Belgium from farmers, without regard to their quality, at about 25 cents a pair. They are boxed up and shipped to this country and sold as imported birds which are highly praised by the sellers as being just the thing.

Let these birds alone. They must become acclimated after they get to this country before they begin to work. Often they will not breed for six months or more after being landed, and very frequently they sicken and die when going through the process of acclimation.

Besides this, imported Homers do not produce as heavy or as light-colored flesh in their squabs as do the American-bred birds. If imported Homers are sold at \$1.50 a pair, good straight, mated pairs of American-bred birds are well worth \$3 a pair.

In buying, always buy of a reputable breeder whose word may be taken for the quality of his birds. The reputable breeder sells in the hope of selling again and sells only such birds as he can recommend and knows will give satisfaction.

If the reputable breeder says the pairs he sells are mated, it may be depended upon that there are an equal number of each sex in a purchase and that these pairs are already mated and ready to go to work almost as soon as they are in their new homes.

Some very reputable breeders sell young birds with the understanding that they are sold just as they come from the nests, the buyer knowing when he buys the birds that they are not mated and that he must wait until the birds have arrived at mating age and get ready to mate themselves.

When birds are bought just as they come from the nests, there are almost always more cocks than hens among them, as about nine times in ten when only one bird is reared in a nest that bird is a cock; but there is nothing unfair in this sort of a sale, as the buyer gets his birds at a lower price than he would have to pay for mated pairs ready to go to work.

WHAT IS MEANT BY MATED PAIRS?

When we say mated pairs, we do not mean simply an equal number of birds of each sex. We mean pairs which have mated and married and are ready to go to work and rear squabs without further waiting after they have been received.

Pigeons mate in pairs and remain constant to each other for life, as a rule. When a pair have gone through the court-

ing stage and have mated ready to build a nest and hatch young, they remain true to each other as long as they live or as long as they are allowed to remain together. If a mating is broken by death or separation, the birds will mate again with other birds. This rule of constancy is rarely broken and may be depended upon.

Some big dealers are rather cautious about talking about mated pairs but speak about selling pairs of pigeons without saying anything about matings. Insist upon getting mated and married pairs when you buy squab-raisers.

Birds which have mated and married may be shipped long distances without breaking the matings, although occasionally a pair breaks their mating from this cause.

Some pigeon books say that the beginner can do as well with the common pigeons that fly about the streets as with straight Homers. This statement is absurd on the face of it. The common pigeon has bred miscellaneously and inbred until the squab produced by it is thin, light in weight, skinny and dark-fleshed to such a degree that they sell for about \$1.50 a dozen in the markets. Most people would willingly pay three times that for the plump, meaty squabs from straight American-bred Homers.

The beginner who secures the right kind of stock has made the first long step toward success as a squab-breeder and he should not hesitate to pay the price which good breeding stock is worth, for poor breeding stock means failure and loss in the end.

REMEMBER THIS.

Your success depends upon the kind of stock you buy. It is much better to buy good stock at a fair price than it is to get poor stock for nothing. No man can tell by looking at a lot of breeding pigeons whether they are good breeders or not. No man can tell whether they will produce squabs with white flesh or dark, squabs that will weigh ten pounds to the dozen or six pounds. No one can even guess at the age of a pair of pigeons and those which are old and worn out look just as well as those which are only a year old.

The whole future of the beginner depends upon getting stock which is right in every way. Imported birds are of all ages and qualities. American-bred birds, if bought of a reputable breeder, may be depended upon to produce a large proportion of heavy, light-fleshed squabs and properly selected and mated pairs will go to work and breed regularly as soon as they have become accustomed to their new home.

CHAPTER II.

THE CONSTRUCTION OF HOUSES.

Pigeon House Plans—Nests—Water Fountains—Bathing Dishes—Keeping the House in Sanitary Condition.

No doubt many a one has been deterred from making a start in the business of raising squabs on account of the fancied expense of building suitable houses. No one should make the mistake of thinking that a costly house is necessary. To be sure a well built, nicely painted house is ornamental and adds to the appearance of a squab-breeding plant; but this will come before long if the beginner has the proper qualifications and the ability to increase the size of his flock as rapidly as he may with good care and attention to his business.

The writer has traveled all over the great squab-breeding sections of the east and has seen about every kind of a pigeon house that the ingenuity of man has ever been able to build. We have seen houses which cost thousands of dollars and those which were built of the odd boards that were picked up about a farm. We have seen as fine birds and as large squabs in a house improvised from piano boxes as we ever saw in any of the great squab-breeding plants.

It is not so much a question of looks in a house as it is of comfort and good care. One of the finest squab-breeding plants in this country has grown up from a few birds which were housed at first in a corner of the barn. The owner persevered and kept adding to his flock as he made money from it, and now he has fine buildings and thousands of birds, all earned from an initial investment of something like \$25. Not a cent was ever added to the original investment,

all the increase and improvement in buildings having been paid for out of the earnings of the birds themselves.

Before we go further, let us say that pigeon-breeders do not talk about pigeon houses. A house or room in which pigeons are kept is called a "loft", whether it is on the ground floor or in the peak of a barn. The pigeon house is a loft and the flock of pigeon kept in a loft is called a loft of pigeons. It is just as well to get the proper terms used in the business at first, as pigeon-breeders always use them. To return to our pigeon loft. A loft may be made in the corner of a stable or other outhouse, with a fly outside. We might explain for the benefit of the beginner that a pigeon "fly" is a wired-inyard, a sort of big cage in which the pigeons can get out in the sun and still be kept within limits. The flies are made by setting up posts about eight feet high and stretching two-inch mesh poultry netting on them. A fly is usually about ten feet wide and from twelve to thirty feet long. This is covered over the top with the same kind of poultry netting that is used on the sides.

We have seen as good pigeon loft as any one would need made in the loft of a stable, the fly being on the roof. Posts were so set up on the roof that their tops were even with the peak of the roof. This enclosure was then shut in, sides and top, with poultry netting and the birds had a roomy and dry fly which was always clean, as the rains washed the drippings off the roof at frequent intervals.

In Chicago, we saw an extensive pigeon loft on the top of a flat-topped building high above the street; and a very well-known squab breeding establishment in a southern state is on top of a big hotel, the owner breeding the squabs, he needs for his hotel in this high-placed situation.

A Pigeon Fly—Showing How One is Built.

From the foregoing it will be seen that the question of housing the breeding pigeons is not a very complicated one, as there is a wide latitude for action.

Some breeders even allow their birds to fly at large, not using flies at all; but this practice is not recommended. In the first place, the birds do not produce so many squabs as they do under confinement and they are liable to accidents, such as being caught by hawks, shot by boys, or some other mishap which causes the owner to lose them and often to lose squabs which such birds have in their nests.

It has been found best to keep the birds strictly confined. One well-known squab-raiser has a pen of fifty pairs of birds in his lofts which have been confined in the same place for seven years and are still working well. The writer visited this loft at the end of the seventh year of their confinement and noticed that they were producing squabs at a good rate.

For the convenience of beginners, we give ground plan and elevation of two styles of pigeon lofts, pp. 17, 19, 21 and 24. The loft designated as No. 1, may be built at a cost as low as \$15 for one room, or it may be made to cost \$50 or even more. It will be seen that the plan is for two rooms, but this is not the limit of size that is possible. We have seen lofts with a dozen rooms in them, but would recommend about four rooms as the most convenient limit where pigeons are kept extensively. Where a four-room house is built for lofting purposes, the plan should include a storeroom unless the owner has a room which conveniently can be used for a storeroom for feed and as a place for dressing and packing the squabs.

Ground Plan of House No. 1.

In House No. 2, it will be seen that an alleyway is built in the house back of the lofts. The partition between this alleyway and the lofts is made of two-inch poultry netting, but the partitions between the rooms are solid and as air-tight as the outside walls.

A good many breeders are now using stout muslin instead of glass in the windows, as this gives light, lets the warmth of the sun enter the rooms and provides a good system of ventilation. Houses in which cloth windows are used are found to be fully as warm as those having glass windows.

On the side of the house next the fly, a series of openings is made near the roof, but low enough to open under the top of the fly. These openings may be about eight inches square with a six-inch wide shelf even with the bottom inside and outside. These are the doors through which the pigeons go back and forth to and from the fly, and the shelves beneath them are the lighting boards. These openings should be provided with a sliding door so that they can be closed when it is desirable to shut out the cold or to confine the birds for any reason.

NESTS.

In providing nests for a loft, at least two nests for each pair of birds should be provided. This gives the birds a chance to find a nest to use while the squabs are maturing; in another, as after the birds begin to breed they will have eggs in one nest while they have a pair of squabs to feed in another. Some breeders provide 120 nests for fifty pairs of birds, but this is rather more than is absolutely necessary;

The nest boxes are easily made. The illustration on page 28 shows very clearly the manner of constructing

End View of House No. 1.

them. In practice, boards one foot wide on which cleats one inch square are nailed across one foot apart are set against the wall and firmly secured, the edge being to the wall, of course. This leaves the cleats opposite each other. Then boards one foot square are cut and laid on these cleats. When the work is done, we have a series of nests one foot every way, each shelf forming the bottom of a nest and the top of the one under it. If nappies are not used, a cleat should be nailed on the front edge of the shelves in order that the nesting material will not be worked out by the birds. Nests made in this way are very easily cleaned, as the shelves may be drawn out and cleaned without trouble.

NAPPIES.

Nappies are earthen dishes of a peculiar shape which are made for pigeon nests. The shape of them is shown in the illustration showing squabs at various ages. These nappies are used by a great many pigeon-breeders, but we have not found them necessary as the birds are perfectly able to build their own nests and will do so if the nest boxes are provided.

Where only a few pairs of birds are kept, we have seen boxes used for nest boxes. Boxes about the size of orange boxes are used, these being divided into two compartments and fastened to the wall by nails driven through the bottom. We recommend that regular nests be provided as they give a neater appearance to the lofts and are more easily cleaned.

NESTING MATERIAL.

A good supply of nesting material should be provided for the pigeons. This may be short straw, or coarse hay in short lengths, but the best material is tobacco stems which

Fig 12 by 24ft.

Fig 12 x 24ft.

may be bought at about one cent a pound from stores that keep pigeon and poultry supplies. These tobacco stems prevent insects from being harbored in the nests and save a great deal of trouble in this way.

WATER FOUNTAINS.

Pigeons are great water drinkers and should be watered at least twice a day as they need a plentiful supply of pure fresh water. The best way to supply this is by using the regular water fountains which are made for this purpose. These may be bought through almost any breeder who sells pigeons. If the one of whom the pigeons are bought does not keep them for sale, he will give the name of a firm which handles them. These fountains cost only a small sum and they keep the water clean, whereas if open water vessels are used, the water becomes foul with dirt and dust.

BATHING.

Pigeons must be provided with facilities for bathing, as they will not keep in good health if they can not have a bath very regularly. They delight in getting into the water and bathing themselves all over. An ordinary big dishpan makes a good bath-tub for pigeons, or a barrel so cut off as to be three inches deep makes a good tub for bathing purposes. Empty the bath-tub as soon as the pigeons have finished their baths to prevent them from drinking the foul water.

SANITATION.

A pigeon loft must be kept free from insects and disease germs by carefully attending to sanitary conditions. The free use of lice-killers, cleaning the nests out as soon as the squabs are taken from them and whitewashing the whole

interior of the loft at least twice a year will keep the enemies of the birds from gaining a foot-hold, as well as destroy stray disease germs which may be floating in the air.

DRYNESS.

Pigeons must have a dry loft or they will fall victims to disease. To keep the houses dry, they should have the floor at least a foot from the ground and the location should be such that water does not stand around the house or under it. Make the floor double, so that it will be air-tight and let the air circulate under the house freely. Two objects are accomplished by having the floor off the ground. The rooms are kept dry and rats will not burrow under the house.

FLOOR COVERING.

The floor of the pigeon house should be kept covered with about an inch of sand, if this can be procured handily. Otherwise keep it covered with chaff, which should frequently be renewed.

CLEANLINESS.

It is necessary to keep the pigeon lofts clean. Some breeders advocate cleaning them every week, but we think a good cleaning once a month will do. Every time the lofts are cleaned, the birds must be disturbed more or less and this results in some little loss, so the matter of cleanliness should not be carried to the extreme. If the house is dry and light, the droppings will quickly dry up and will not become offensive for several weeks.

FLOOR COVERING FOR FLIES.

A good floor for the flies is well-packed earth covered with gravel to the depth of two inches. This gravel will need renewing spring and fall.

End View of House No. 2.

CHAPTER III.

FEEDS AND FEEDING—BREEDING HABITS.

Pigeons are exclusively grain-eaters. They do not require animal feed of any kind, nor is green feed necessary for them. Occasionally a nice tender head of lettuce may be given to each loft and they will eat it with relish, but such green feeds as grass, lawn clippings, or cut clover should never be given to them. The lettuce is not necessary but may be given by way of variety, but not more than one head to fifty pairs of birds.

The principal feeds are red wheat, sifted cracked corn, Canada peas, kaffir corn, hemp seed and German millet seed. Besides these, buckwheat, barley and canary seed may sometimes be given; but the first-named constitute a good variety and should be used as the main feeds. It will not do to feed wheat, corn, or peas as a constant feed. All of them are necessary and they should be properly rotated.

SOUND GRAIN NECESSARY.

We want to emphasize the fact that all grain used for feeding pigeons must be sound and wholesome. It is the very poorest kind of economy to feed shrunken, musty, or damaged grain of any kind.

WHEAT.

The wheat used should be sound red wheat which has been thoroughly dried. New wheat should never be used. Good No. 2 red wheat, at least six months out of the straw, should be selected.

CRACKED CORN.

Sound, well dried, No. 2 sifted cracked corn should be used for pigeons. By well dried, we mean that the corn should be of the crop of the previous year. It should be cracked so that the pieces will be about the size of wheat grains. It should be sifted to separate the fine meal, as the pigeons will not eat the meal and if it is left in the food troughs it will sour and produce bowel troubles in the birds, old and young.

CANADA PEAS.

Canada peas should be well dried out, selecting those of the previous year as these are thoroughly dry and sound. They are the costliest feed the pigeon-keeper will need to buy but are not fed largely, being used on account of their great nutritive qualities, which cause squabs to grow rapidly and make heavy breast meat.

KAFFIR CORN.

Kaffir corn has become a regular article of sale and can be bought almost anywhere. It is between wheat and corn in value and makes a very good pigeon feed. Buy seed of the previous year when buying for pigeons.

HEMP SEED.

But a small quantity of hemp seed is used. If too much were given the birds, they would soon become very fat and get lazy. A good plan is to throw a handful of hemp seed on the floor once a week on a stated day, say Wednesday. Never put hemp seed in a feed trough, as the first birds to get to the trough would "hog" all the seed.

MILLET SEED.

The seed of the German millet makes an excellent pigeon feed. It also is quite fattening and must be used sparingly.

It is usually quite cheap, compared with its feed value, and should be kept on hand at all times.

BUCKWHEAT.

Buckwheat is very fattening and should be fed sparingly. The pigeon-breeder need not take any special pains to get it for his birds, but in some localities buckwheat is raised and in these places this grain may be used sparingly.

CANARY SEED.

Canary seed is too costly to use as a regular feed, but birds relish a small feed of it once in a while. In some parts of this country canary seed might be grown very easily and it would find a large sale if enough of it were produced to meet the demand which would soon grow up.

OTHER FOOD REQUISITES.

Pigeons require, besides the grain they eat, salt, grit and charcoal. These should be kept in the lofts constantly, so that the birds can get at them at any time.

GRIT.

The birds require grit, and this should be kept in a box where they can get it when they need it. The best grit is the pigeon grit, sold by poultry-supply houses. This costs very little and is exactly what the birds require. If this is not handy, use very coarse sand or fine gravel, keeping it in a box about like a cigar box and renewing it every week.

SALT.

Salt is absolutely necessary to the health of pigeons. It should never be given them in the form of table salt, because they will eat too much of it. If rock salt can be secured, it is the best form in which to give salt to the

pigeons. If this is not procurable, buy a five-pound bag of table salt and wet it. Then put it in the oven and dry it, when it will become almost as hard as the original rock salt. Put a bag in each loft and let the pigeons pick out the salt through the bag.

A Series of Nest Boxes.

CHARCOAL.

Charcoal keeps the birds in good condition and a cigar box full of charcoal, broken into bits about the size of wheat grains, should constantly be kept before the birds. This crushed charcoal is to be found in poultry-supply stores. If none of these are within reach, the pigeon-breeder may make his own charcoal by burning wood to a coal and then extinguishing the fire with water. Corn

cobs, charred in this way, make an excellent charcoal for pigeons.

HOW TO FEED.

Pigeons should never be fed in hoppers. They should be fed twice every day. In summer, feed at 7:30 a. m. and at 4:30 p. m. In winter, feed an hour later in the morning and an hour earlier in the evening. Of course, these hours may be varied, but the feeding should be done at the same hour every day, morning and evening, as the birds soon become accustomed to the feeding hours and if not fed on time become very restless.

FEED TROUGHS.

Feed troughs should be ten inches wide, six feet long and three inches deep. These are easily made and are much better than any of the automatic hoppers on the market. Where the feed is given in hoppers, the birds will first eat the kind they like best and waste much of the rest of the feed.

MIXTURES RECOMMENDED.

For the morning feed, mix equal parts of wheat, cracked corn and Canada peas. Give three quarts of this mixture to each fifty pairs of birds.

For the evening feed, kaffir corn, cracked corn, millet and Canada peas, equal parts. Give three quarts to each fifty pairs of birds.

Every third day, substitute hemp seed for the millet, or feed a little less of the regular ration and throw a handful or two of hemp seed on the floor as recommended above. If broken rice can be bought cheaply, a small feed of this may be substituted for one of the feeds of hemp seed each

ALWAYS FEED INDOORS.

Never feed pigeons out of doors, as any feed left over is likely to be damaged by the weather; and in bad weather they must be fed indoors, so it is best to feed them there always.

ECONOMICAL FEEDING.

The pigeon-breeder should always feed his birds, so he will know that it is properly done. If at any time any of the grain from a previous feed is left in the troughs, the ration should be reduced a little. If the troughs are emptied in a way that shows the birds have not plenty to eat, add a little to the quantity given to them.

Pigeons which are feeding squabs require more feed than those not working, as they must eat enough for themselves and for the squabs also.

HOW SQUABS ARE FED.

Squabs are fed by the parents in a most peculiar way. The old birds, male and female, eat the grain and drink water freely. This is partially digested until it is formed into a milky liquid mass. Then the squab puts its beak inside that of the parent bird and the parent by a peculiar jerking motion of the head and neck "pumps" this liquid food into the crop of the young bird. This feed is called "pigeons' milk" and is very nutritious, young squabs growing more rapidly than any other kind of young birds.

BREEDING HABITS.

The breeding habits of pigeons are peculiar. When a male has selected the female he desires for his mate, there follows a course of true love-making in which the male struts around his favorite, coos to her and evidently tries to show her what a grand bird he is. The female, if at-

tracted to her wooer, becomes friendly with him and the two "bill" each other very much as if they were exchanging kisses. *

The two then select a nesting-place and build a nest therein and the cock bird becomes very anxious for the hen

Squabs One Day Old.

to begin laying. If she does not promptly take to her duties, he undertakes to drive her into the nest, talking angrily to her and striking her with his wings.

Finally the hen takes to the nest and deposits an egg. Then she misses a day and deposits a second egg, this being all that are laid at one time.

As soon as the first egg is laid, brooding begins. The hen occupies the nest from about 4 in the afternoon until 10 the next forenoon. The cock then sits while his mate eats and rests. In this order the brooding goes on and at the end of about seventeen days the egg first laid hatches, and in due course the last one also hatches, if no accidents have happened to it.

In this way it happens that one of the young birds is two days older than the other and almost invariably the one first hatched is a male, the latter one being a female.

The old birds now begin to feed the young, and they grow marvelously. They are kept stuffed full of "pigeons' milk" and on this they seem to grow while one watches them.

In a few days the hen is ready to lay again, and if there is a spare nest box the pair make another nest and the hen lays two eggs, after which the couple are kept very busy brooding one pair of eggs and at the same time feeding a pair of rapidly growing squabs.

When the squabs are about four weeks old, they are heavier than they ever will be again in their lives, as they have reached full size and are very fat. It is at this time that they are taken from the nest and sent to market.

If not taken from the nest about this time, the old birds, desiring to start in with another pair of eggs, turn the squab out and they fall on the floor of the loft so fat they can hardly get about. Here they become lean while learning to eat for themselves, and soon become sleek and trim, instead of being unwieldy with fat.

This doubling up with families shows the necessity of providing at least two nest boxes for each pair of pigeons

in a loft. It is even better to have more than two nests for each pair, as this gives them some liberty of choice and often saves quarreling between two couples.

As pigeons mate for life, it is very important that only mated and married pairs are kept together. If an odd cock or an odd hen is left in a loft, there are family troubles without end; and the quarrels which arise from this cause result in broken eggs and squabs killed in the fights.

Squabs One Week Old.

It sometimes happens that a pair will not produce young. This is because the hen is barren. In such a case the hen should be disposed of and a new mate for the cock furnished. It is best to shut the two in a box with a wire partition between them until they become acquainted with each other, after which they will usually mate, although they do not invariably do so.

Six Squabs Weighing Six Pounds.

CHAPTER IV.

INCREASING THE FLOCK—SELECTING FUTURE BREEDERS.
BANDING—MATING.

Almost everyone who raises squabs finds that he must constantly increase the number of breeding pigeons in his lofts, in order to keep up with the increasing demand for squabs.

The most economical way to increase a flock is to save the best squabs from the first breeding stock bought; and to do this it is necessary to select squabs for this purpose as they are hatched, the object being to improve the quality of the flock by keeping only the best of the squabs.

Where a flock is being increased, it is a good plan to buy some new stock which has been banded and mate the cocks which have been bought with home-raised hens and the hens which have been bought with home-raised cocks. This saves inbreeding.

Close inbreeding soon runs down the vitality of a flock and should be avoided. This matter will be taken up further on.

As we have said, the first pigeon to hatch in a nest is almost invariably a cock and the last one a hen. This rule is so constant that it may be depended upon.

In selecting squabs for breeding stock, always select those from the nests of pairs which produce squabs most regularly. Such squabs are more likely to be good producers themselves.

Select the squabs which grow most rapidly and weigh the most at the time they are ready for market. Such squabs are from pairs which are good feeders and will be most likely to become good feeders themselves.

Be sure to select squabs which have light-colored flesh, as these will produce squabs like themselves and light flesh brings the highest price in the market, unless they are sent in too soon.

When we say that light color in flesh of a squab denotes that it will produce light-fleshed squabs, it is to be understood that this will be the case if the parents are properly fed according to the directions given in a previous chapter. Pigeons which are kept confined and properly fed always produce more and better squabs than those allowed to run at large.

Having selected the squabs which are to be retained for breeding purposes, band them at once. Open pigeon bands can be bought at about a cent each. The best plan is to band cocks on the right leg and hens on the left, using consecutive numbers for each pair.

Thus 111 might be a cock and 112 a hen. In making matings, the owner would know at once that these two were not to be allowed to mate together, as they would be brother and sister. If, in any case, nest mates show an inclination to mate together, they should be shut away from each other and forced to mate with non-related birds.

A forced mating is made by using a mating pen. This is a cage with two compartments in it, separated by a wire screen, such as two-inch mesh poultry netting. Put the cock in one side and the hen with which you want him to mate in another, and leave them in the pen until they are acquainted with each other. Then shut them in the same compartment and usually they will mate up with each other all right.

Squabs which are to be kept for breeding should be taken away from older birds as soon as they have learned to eat for themselves. Feed them well all the time, and at the age of about six months they will begin to mate and then require regular attention, as they should be kept under close supervision at this time.

As soon as a male bird is seen "driving" a female, both should be caught and their bands examined. If they are

Squabs at Four Weeks Old.

nest mates, they should be separated as recommended in the beginning of this chapter and forced to mate with other birds. It will only be necessary to remove the cock bird, substituting another cock in his place.

If the cock and the hen he is driving are not nest mates, their band number should be recorded in a book kept for this purpose. Such a record gives the owner an opportunity to keep account of the number of squabs a given pair pro-

duces and to pick squabs for breeding in the future, knowing what the parents have done.

The record should give the number of the cock and hen and a brief description of each. The following form is recommended:

Cock 111—Red Check.

Hen 222—Blue Bar.

Each pair should have a space in which to keep account with it. After the number and description may be a ruled space in which to keep account of the number of squabs the pair produces month after month. If they regularly produce and raise two squabs of good size and light color, they are valuable as the parents of breeding stock and should be kept.

If a pair does not produce squabs, the chances are that the hen is barren and she should be sold for what she will bring in the market and the cock mated with another bird. If the eggs are infertile, the trouble is likely with the cock and the mating should be broken and the two birds tried again. If the eggs still are infertile, the cock should be sold in market.

Usually there are more cocks than hens in a given lot of squabs and it is easier to give a hen which lays infertile eggs a new mate and sell the cock without experimenting further.

Barren hens and impotent cocks are not common in well-bred birds, and very little trouble may be anticipated from such causes.

When one pair of squabs dies, the chances are about nine out of ten that the female of the pair dies. This is because

she is two days younger than her brother and has less chance to get a start. Thus it happens that every loft produces more cocks than hens, a circumstance which has led some of the hucksters who sell pigeons as squab-raisers to send out lots of birds in which there were many more cocks than hens. This is why we have insisted that the buyer should buy from a reliable breeder and buy mated pairs.

In a loft containing fifty young cocks and fifty young hens, it almost always happens that the matings are not all made up, as some birds refuse to mate with certain other ones, and there may be a few birds which have not mated. In this case the odd birds may be put among other young birds and so find mates that suit them.

In catching pairs at the time they are being recorded, or when they are to be sold as breeders, two people should do the work. A catching net, which is a netted bag the mouth of which is fastened to a hoop with a long handle, is used. The pigeon breeder soon gets so expert that he can trap a pigeon in such a net without fail and without disturbing the other birds in the loft.

When a couple of pigeons is found driving, the one who does the catching traps one of them with the net while his helper keeps watch on the other one of the pair. The captured pigeon is examined and its band number put on record. Then the helper takes the net and catches the one he has been watching and the band number is taken, always remembering that a bird with a band on the right leg is a cock and one with a band on the left leg is a hen.

If the method here recommended is followed, the pigeon-keeper will be able to know just what each pair of birds

is doing and keep a pedigree of every bird in his flock by a simple method of bookkeeping, as follows:

When the squabs that are to be kept as breeders are being banded the band numbers of the parent birds should be taken and set down in this way:

Squab numbers.	Parents' numbers.
Cock 111.	84-67.
Hen 112.	84-67.

In making this record the number under the head "Parents' number" is always set down in the same way, the name of the father first and the mother next.

It is but very little trouble to keep such records and the value of them is very great, for the pigeon-keeper can refer to his records at any time and find how any bird that was hatched in his lofts has been bred.

This enables him constantly to select the best producers and feeders and improve his stock all the time, selling off the inferior ones and keeping up a high standard, which will in time give him a reputation for squabs or breeding stock that will be valuable to him, as he will get higher prices than he could get for ordinary stock.

CHAPTER V.

MAKING A MARKET—PREPARING SQUABS FOR MARKET.

We make one of the sub-heads of this chapter, "Making a Market," although the market for squabs is already established and the demand for them in all the large cities is constantly increasing.

Notwithstanding this, the enterprising squab-breeder will make his own market and get better prices than he can get if he sends his squabs to the largest cities.

In the beginning he may be obliged to ship to the cities, but he can build up a home trade among those who like to have the best the market affords and by degrees this home demand will grow until he will find a ready sale nearby and will be saved freight and commission charges as well as the cost and trouble of packing and icing for the longer shipments.

We know of numerous cases where squab-breeders have built up a home demand which takes all the squabs and brings them high prices the year around.

Very often the enterprising beginner will turn his attention to raising squabs to sell to others for breeding purposes and find this very profitable, although a good market for squabs is about the same as a good demand for breeding stock. Other squab-breeders arrange to sell their young stock to those who do breed pigeons to sell as breeding stock and thus have a regular and constant demand for their young birds.

All these ways of disposing of the increase of the loft are open to the beginner, but the food market is the one that should be cultivated. We know of a case where a beginner

A Well Arranged Squash Loft.

started in with a view to selling breeding stock only, as he thought he was not so located that he would have any demand for his squabs in the handiest market, a small interior city, where squabs had never been put on sale.

After he got started he found that he could sell a few pairs of squabs to one or two restaurants and the best hotel in the town. He began supplying orders from these places and others began to call on him for squabs for special occasions, such as local banquets, receptions and other social functions.

He started with fifty pairs of breeders. He selected his best squabs to keep for the purpose of increasing his flock and sold the others in his nearest market.

At the end of a year he had saved another fifty pairs for breeding and found he had sold squabs enough to pay for a new house and all the feed he had bought during the time.

Then he concluded to begin advertising squabs for sale as breeders. He received quite a number of orders, but the demand for squabs for the market became so strong that he gave up the breeding part of the business and began to sell in the market only. At last so many were sold in the town that a prominent provision firm came to him and made him a flat offer of \$4 a dozen for all the squabs he would raise. He refused this offer, as he was getting more than this for a good many of his squabs and did not think he could afford to make a binding contract on a market where the price was increasing all the time. This same breeder now has a thousand pairs of breeding pigeons and hires a man to take care of them, while he attends to his own business, and makes about \$500 clear money from his pigeons every year.

Another way to build up a private trade is to introduce nicely dressed squabs among the wealthier families of a town. This can be done by presenting them with two or three pairs, nicely put up in a box, and asking them to try them. One breeder who started out in this way now sells all his squabs at \$1 a pair. He dresses them neatly, puts a pair in a nice white box and ties the box with a colored bit of "baby ribbon." He has a demand for all he can get at \$1 a pair, although he lives near a large city where the price is often much lower than this.

The enterprising squab-breeder will be able to find a market for the product of his loft, no matter where he lives. The express companies carry squabs at the regular dressed-poultry rates, and in many places there are fast freight lines which take butter and eggs to distant markets in the shortest possible time.

Squabs properly packed may be sent 1,000 miles to market and yet be profitable, but there is hardly a place in this country where a good market can not be found within 200 or 300 miles, and even a thousand miles is not a long distance for an express train.

The trouble will not be so much where to find a market as to how to produce squabs enough, once the breeder has been in the business long enough to make a name for himself.

If any breeder sends squabs of good size and color and keeps up the quality regularly, it will not be long before there will be a call for his particular brand of squabs, and after that it will be a question of meeting the demand, for this will grow all the time.

DRESSING AND PACKING SQUABS.

Squabs are usually ready to send to market when four weeks old. Some well-fed ones, or those bred from the best parents, will come to market condition a few days earlier and some a few days later. As a rule, it will be about four weeks from the time they are hatched until they are ready to send to market.

They should be dressed just about the time they are ready to leave the nest, for they are heavier and fatter at that time than they ever will be again.

They should be dressed just at the time all the pin feathers are out. They then have a solid feeling about the abdomen and the breast is plump and full. It is very easy to learn the exact time that squabs should be sent to market, and anyone can learn it at once.

Go over the nests in the evening and select the squabs which are to be dressed the next day. These should be put in a coop by themselves, where they can not get anything to eat, so their crops will be empty when they are dressed. If they are sent to market with full crops, the contents of the crop will sour and ferment and spoil the squabs for food purposes in a short time, while when dressed with the crops empty and properly iced in warm weather, they will remain fresh until they can be sold in the market.

A "killing rack" should be made before dressing begins. This consists of a frame not quite shoulder high, a 2x4 scantling making a good cross-piece for the top. In the side of this cross-piece drive ten-penny nails about six inches apart, leaving half the length of the nail protruding.

Make loop of stout cord, looping it over both feet of the squab, and by this string hang it on one of the nails. Then

cross the wings over the back in such a way that they are locked. This prevents fluttering and is painless. To lock the wings, turn the pigeon with the back to you and cross the hands. Then take a wing in each hand and pass one under the other in such a position that the "elbows" lock together.

A Typical Homer.

With the small blade of a pen-knife in the right hand, take the head of the squab in the left hand in such a way that the thumb and forefinger may be used to hold the mouth open. If held in the right way, the shoulders of the bird will be in the palm of the hand.

Run the blade of the knife up through the top of the mouth into the brain and immediately pass to another squab, letting the one just killed bleed, as it is necessary for the bird to be free from blood to prevent red spots from appearing along its back after it has been killed a few hours. These red spots are called "blisters" and injure the selling qualities of a squab which shows them.

After the birds are thoroughly bled, carefully pick the feathers from them, being careful not to tear the skin in any place, as this also lowers the value in the market.

When a squab is plucked clean, throw it into a tub of water from a spring or well of the normal temperature. It may be left in this water from thirty minutes to an hour. Then it should be thrown into a tub of ice-cold water to further cool and solidify the flesh, for all the animal heat must be chilled out before a squab is packed or it will not keep well, arriving in the market soft and unattractive in appearance.

Be very careful to have the second chilling water almost cold enough to freeze the birds. In cold weather they soon cool out in water which has been exposed to the air, but at any time in the year put first in well or spring water of normal temperature.

Picking a squab is a matter of sleight and experience. It may go awkwardly at first, but one soon becomes expert, and boys and girls soon learn to pick them rapidly without tearing the skin.

After the squabs are picked and cooled, pack them in ice in barrels or boxes. We prefer rather small boxes, say about the size of soap boxes, but many thousand pairs are

sent to market in clean barrels. Empty apple barrels or cracker barrels may be used.

In the bottom of the packet put a good layer of cracked ice. A good many times the ice is not cracked as small as it should be. It should be broken into pieces about the size of a hickory nut, so the pieces will work down through the spaces between the birds. After the bottom is covered with ice, put in a layer of squabs, pack down and closely packed but not squeezed together. Over these put another layer of ice and again a layer of birds until within two or three inches of the top. Fill the remaining space with cracked ice and fasten the package.

Be liberal about using ice, for it is necessary that the birds should be kept cold and the express companies make allowance for the weight of the ice in weighing squabs packed in this way.

If any grain has been found in the crop of a squab as it is being dressed, it should be removed. Cut a very small slit in the breast over the crop and wash out the grain. If a small hose can be used, it is a good plan to use this.

Before packing the birds, carefully wash all the blood from them and wash the feet and legs until are bright and red.

If there is a shade of difference in the quality of the squabs, select the best for the top of the package and take pains that the top layer is very carefully laid in so that it will look nice when the package is opened.

If there happens to be a number of dark-fleshed or rather light-weight squabs in a killing, these should be packed by themselves and sent on in anticipation of receiving a low price for them. Nothing is gained by putting some poor

squabs among a number of good ones, for they will depreciate the price of the whole package. If fine ones are put by themselves and marked "Firsts" and the poorer ones sent without any particular mark, the price obtained for the whole shipment will be larger than it would have been if good and poor had been packed together.

It is best to kill on a certain day in the week, the day depending on the distance to market. In South Jersey they kill on Monday or Tuesday, send the squabs to New York and usually get a check for them by Saturday. Some kill Thursday in order to catch the Saturday markets, but as a rule it is best to reach the market Friday morning so as to give the commission merchant two days in which to sell the birds. Often an early shipment gets the best price.

At the same time the squabs are sent to market, mail a letter to the commission man, advising him of the number of birds you send to him and by what express company or freight line. Give him any particulars which may help him to make a good sale, if you think of anything that might interest him.

In the Eastern market squabs are graded by weight and quality. They are called 10-pound, 9-pound, 8-pound, 7-pound and 6½-pound, and the prices range accordingly. When 10-pound squabs are worth \$6 a dozen, those weighing 6½ pounds will sell for from \$1.50 to \$2.25 a dozen, according to the state of the market, the high-priced ones always selling first, unless a buyer has a special reason for securing a lot of light-weight ones.

When breeding straight Homers, one can reasonably expect 80 or 85 per cent which will run 8 pounds or over to

the dozen. About two-thirds of the remainder will run close to 7 pounds to the dozen and one-third will be classed among the lowest quality.

When 10-pound squabs are selling for \$6 a dozen, a lot weighing more than 10 pounds to the dozen will bring a premium of from 50 cents a dozen up; but as a rule the best birds are classed as 8-pounders.

In picking squabs, some leave them hanging where they are killed, while others take them in the hand. The weight of practice is in favor of holding them in the hand.

CHAPTER VI.

THE PROFITS OF SQUAB-RAISING.

The one who is thinking of beginning squab-raising invariably asks how profitable the business is under average conditions.

In another place in this book we have shown how easy it is to arrange a place in which to keep squabs. Hundreds of people are so situated that they could raise squabs who could not possibly take care of a flock of chickens, because they lack both time and space.

In raising squabs the cost of attendance is reduced to the minimum. There are no eggs to be gathered, no setting hens or incubators to be looked after, no young birds to be fed and looked to.

The pigeon-breeder simply puts his birds in the loft, feeds and waters them and they build their own nests and feed their own young.

The space that would be needed by a dozen hens will comfortably keep fifty or a hundred pairs of pigeons, and the revenue from a pair of pigeons in a year is about the same as from a good laying hen.

The squab-breeder gets his money in four weeks, while the man who raises chickens must wait at least twelve weeks before he can sell young chickens.

The manure from a loft of pigeons can be sold as a garden fertilizer for enough to pay the cost of feeding the birds. In many cities and towns florists consider pigeon manure the very best fertilizer they can get for flowers and garden crops and large tanneries use tons of it in tanning leather. It usually sells for about 50 cents a bushel in town for fertilizing lawns, flower and vegetable gardens.

It will cost just about \$1 to keep a pair of pigeons one year. When the writer visited the great squab farms of South Jersey, he particularly inquired about the cost of feeding a pair of pigeons one year. In that country most of the grain used is shipped from the West and from Canada. The wheat comes from New York, Ohio, or States farther west, the kaffir corn mostly from Kansas and the hemp seed from Kentucky. The peas come from Canada. All these

A Back Yard Loft.

grains are sold with the freight added to the initial price and the feed dealer's profit, of course. In the mid-west the freight charges would be much smaller than they are in the East, so the cost of keeping a pair of pigeons would be considerably reduced.

In the South Jersey squab district we found that the cost of keeping a pair of breeding Homers one year ranged from

\$1.10 to \$1.25 a year. If a certain loft contains pigeons of extra breeding qualities, it will cost more for feed, as the old birds have more squabs to feed than would be the case where less productive birds were kept.

It should be understood that when we give the cost of keeping a pair of breeding pigeons a year, the feed consumed by all the squabs produced is included. That is when we say it costs \$1.10 to \$1.25 to keep a pair of pigeons a year, we mean it will cost these sums to keep the pair and all the squabs they produce in a year.

NUMBER OF SQUABS TO THE PAIR.

Some enthusiastic—or dishonest—sellers of breeding pigeons talk about their birds producing eight or nine pairs of squabs a year. There are very select birds which will do this, but they can not be bought at any reasonable price. No pair of birds will raise two squabs every time they hatch, for accidents will happen and one squab, or both, in some brooding periods, will die. Occasionally an egg will be broken, and once in a while an egg will prove infertile. These accidents, which happen in the best cared-for lofts, come to every pigeon-breeder.

If a loft of pigeons averages six pairs of pigeons a year, it will do as much as can be expected of it. More will fall below that than run above it, because there are more careless pigeon-breeders than careful ones.

Say, for the sake of a basis from which to argue, that a loft of a good strain of Homers, properly housed and fed, will produce an average of six pairs of squabs a year. As pigeons breed ten months in the year, this average should be easily made. This would be an even dozen squabs for each pair of pigeons in the loft. These we will put at the

very low price of \$3 a dozen, a price they will bring in a country town of any size, and we have \$3 as the gross returns from a pair of sub-breeding Homers.

Deducting from this the highest estimated price for the feed of a pair of pigeons, we have \$1.75 left. This will be the returns from which the pigeon-breeder must get his profits. The manure will pay well for the labor of feeding the birds, so this item is eliminated from the bill of cost.

It will not cost more than 25 cents to pay for the other labor of caring for a loft of pigeons where any number above 100 pairs are kept. The owner of such a loft could do all the work before working hours in the morning and after hours in the evening, so the birds would not interfere with his regular work.

The cost of ice, the cost of killing and picking the birds and the cost of packages may be put at 25 cents a dozen, which is a very liberal estimate. This leaves \$1.25 clear profit, after paying all expenses and paying the owner for the time he puts in feeding his birds, this work having been done when he would otherwise have been idle or not earning money.

Say it costs \$1 for each pair of birds kept in a house and the birds cost \$2.50 a pair. The interest on this investment at 6 per cent a year would be 21 cents, thus leaving \$1.04 as absolutely net profit from a pair of pigeons in a year, after paying all expenses at a liberal rate and paying good interest on the investment.

There is no other business open to those who have a small capital which will give such large returns. For every 100 pairs of pigeons kept, it is perfectly safe to say that a clean

and clear profit of \$100 may be made. Where a large number are kept, it is not uncommon for the owner to realize \$1.50 net profit from a pair of Homers.

The one who begins with ten, twenty-five, or fifty pairs of birds will get proportionate returns from his investment in the way of increased number in his flock and will soon be in a position to consider himself an extensive pigeon-breeder, because he may expect to have at least four pairs of first-class breeders from each pair he started with at the beginning of any year, having kept only the best and sold the poorer of the squabs.

The business is only in its infancy and those who start in now or any time soon may expect to reap a rich reward in the way of profits.

A Prize Winner.

CHAPTER VII.

DISEASES OF PIGEONS.

The very best way to escape trouble from diseases among pigeons is to prevent them by always keeping the lofts and flies in first-class condition. Carelessness is the worst disease that affects pigeons, and this is always manifest in the owner before it has any effect on the birds.

If the lofts are kept clean, the feed supplied is sound and sweet, the water pure and the feeding regular, the birds themselves will not often be troubled with disease of any kind.

However, with all possible care, diseases will appear at times, and it is well to know what to do to prevent them from spreading and causing serious loss.

Epidemic diseases will never appear in a flock which has been properly cared for, unless it is brought in through putting newly purchased birds among healthy ones.

It is just as well to use caution when introducing new birds, even if there is not the least suspicion that they are not perfectly healthy.

When new stock is bought, it should be kept by itself for a week to determine if it is free from any disease. Not once in a hundred times will birds bought of a reliable breeder be found unhealthy, but prevention is better than cure any time, so precautions should be taken. In such cases it is much better to be overcautions than to have accidents occur through lack of precaution.

GOING LIGHT.

"Going light" is the common name for tuberculosis in pigeons. It is brought on by drinking impure water, eating

unsound feed, lack of a good supply of grit, or from natural lack of vitality. This disease never attacks healthy and vigorous birds, but takes for its victims those which have become weak from any reason. If it is not taken in hand at once, the bird wastes away and becomes nothing but "skin and bones" and dies. The first symptoms are usually diarrhoea, the droppings being thin and watery. The birds does not eat, but sits around with its head drawn down and really starves to death because it has no appetite to eat.

If a bird which has started to go light is taken in hand at once, it is very often possible to save it for future usefulness. Give it a dose of castor oil, giving about five or six drops. Put it in a coop by itself and the next day give ten drops of cod liver oil. Repeat the dose of cod liver oil every day until the bird is cured. Give it hempseed every day and be very certain the seed is sound and free from mustiness.

CANKER.

Canker is a disease of the same nature as diphtheria in human beings. It appears occasionally in lofts where it never before has been found, and seems to be contracted from germs which float in the air. It often attacks the birds in one nest and not in the one next to it, although if it is not taken in hand it will soon spread to all the birds in the loft.

It no doubt comes from a cold very often and birds which show symptoms of having caught cold should be carefully watched. The first appearance of the disease shows little yellowish white blisters on the lining membrane (mucous membrane) of the mouth and throat. These rapidly in-

crease in size and spread to other parts of the throat until they show outside around the mouth, and the bird chokes to death.

When canker appears in a squab only and the parent birds show no signs of it, the best thing to do is to kill the squab, disinfect the loft and stay the disease in this way. It may be cured by using a little patience, unless it has gone too far before it is discovered.

Remove the sick bird from the loft and keep it in some place not adjacent to the pigeon house. Take a small sharp splinter of wood, such as a sharpened match, and scrape the cankers off, doing this as gently as possible. This will leave a raw red spot, which should be gently swabbed with a solution of peroxide of hydrogen and water, half and half. The solution will foam as if it were boiling, but it is entirely painless and does not hurt the bird in the least. Repeat the swabbing, putting on plenty of the solution, until it ceases to foam. It does not matter if a little of the solution goes down the throat of the bird, as it is perfectly harmless when swallowed by man, beast or bird, and is the best germicide known, being non-poisonous and odorless.

Some good authorities recommend painting the cankers with lemon juice and water and putting a piece of alum in the drinking water, but we prefer the peroxide of hydrogen treatment. Do not return a bird to the loft until it is entirely well, and always disinfect the loft when a case of canker is found in it. Directions for disinfecting are given further on in this chapter.

ROUP.

Roup sometimes appears in a loft, especially during damp weather, or when the birds have not had proper housing. It is shown by the discharge from the nostrils, which has a very offensive odor. It is highly contagious in its later stages, and if not cured before it takes on the contagious form is incurable. When a bird has reached the last stages it should be killed and burned or buried far from the loft.

If a bird is noticed to have a discharge from the nostrils, it should be attended to at once as the disease is very easy to cure at that time. Put some coal oil in a sewing-machine can and spurt some of the oil up each nostril and in the slit in top of the mouth. This usually effects a cure, but if it is not better in a few hours use camphorated oil in the same way. Any druggist will supply the camphorated oil.

CHOLERA.

Cholera is a dreadful disease to contend with, but no pigeon-breeder who keeps his birds properly need fear it, as it is caused by cold, dampness and filth in nine cases out of ten. It is very contagious and is very hard to cure. Happily, the disease does not worry the careful breeder, but once it gets started in a loft it may kill off every bird in it unless vigorous measures are taken to stop its progress.

When a bird is attacked with cholera it presents a very miserable appearance. Its plumage is ruffled up, its crop fills with water, which has a very offensive odor, and diarrhoea appears. The disease runs its course rapidly and soon the victim is dead.

To stop the progress of cholera in a loft, put ten drops of carbolic acid in the drinking water for two days. Feed

only the very best feed. Follow the carbolic acid by putting a tablespoonful of tincture of gentian in each gallon of drinking water for ten days. Disinfect the house thoroughly twice a week until the disease disappears.

VERTIGO.

Vertigo is a brain affection which is incurable, although it does not usually kill quickly. It is characterized by turning the head over the shoulder and convulsions. These convulsions often occur when anyone enters the loft, while at other times the bird is quiet.

The only cure is killing the bird to put it out of its misery, as it will never again be of any use as a breeder.

EGG-BOUND.

Young hens are often afflicted by becoming egg-bound; that is, they are unable to force the passage of the egg from the ovaries to the nest.

When a hen shows signs of distress, catch her and carefully feel of her abdomen. If she is egg-bound, the eggs can be felt. Anoint the passage with vaseline and introduce the finger as far as possible, being careful not to break the egg. Then hold the hen over steam as hot as can be borne without scalding, until the parts are thoroughly steamed and relaxed. After this, carefully put the hen on the nest and usually she will be able to pass the egg.

PIGEON POX.

Sometimes a disease similar to smallpox in human beings and chickenpox in poultry appears in a loft. This is known by small sores which appear about the head and face.

When this disease appears, wash the sores with a solution of conner sulphate or a solution of peroxide of hydrogen and

water, equal parts. Either of these solutions will cure the disease in a short time.

SUDDEN COLDS.

Sometimes a pigeon will sit out in a cold rain or sleep in a stray draught and catch cold. This makes it sick and stupid, and it should be cared for at once.

To cure a cold of this kind, give five drops of castor oil and the next day a one-grain capsule of quinine. Follow this with ten-drop doses of cod liver oil for a few days, and the bird will be as lively as ever.

LEG WEAKNESS.

Leg weakness is usually caused by inbreeding or an accidental injury. There is no certain cure for it, because we never know just what caused the trouble. If a bird seems weak in the legs, rub some camphorated oil on the hock joint and repeat the operation as long as necessary. The short-legged varieties like the Homer very seldom have any trouble with their legs.

WING DISEASE.

Wing disease is a trouble of the "elbow." It is caused by a hurt, and the injured bird becomes lame in the wing. Presently a lump forms on the elbow and this increases in size, filling with a yellowish cheesy matter, causing the bird to drag the wing.

The only thing to do is to run camphorated oil on the injured spot, and when the swelling has reached full size cut it open. Usually the bird is not injured as a breeder, but it must make its nest on the floor, as it can not fly. If the disease is noticed at the very start, it sometimes may

be cured; but if the trouble is neglected, a crippled bird is the result, and for the sake of appearance such birds should not be allowed to remain in a loft.

WORMS.

Worms sometimes bother pigeons. If a bird has a varying appetite and seems to be "running down," watch its droppings and it is likely that worms may be found in them. If the worms are not found, it is not conclusive evidence that they are not sapping the vitality of the bird, and it should be treated.

A bit of garlic every morning will usually cure the disease. The piece of garlic should be about the size of a pea. A pill of powdered areca nut mixed with butter is also an effective remedy, or a pill as large as a small pea of gum aloes will kill the worms. Give any one of these remedies and expect a cure. Give the remedy before the bird has eaten in the morning.

LICE.

Lice are not a disease, but they can do more damage than any disease. If they once get a start in a pigeon loft, it requires heroic treatment to get them subdued. If attention is paid to cleanliness, old nests taken out and burned as soon as they are empty, insect powder sprinkled in the nest boxes and tobacco stems are used for nesting material, lice will never get a foothold in the loft. If it should happen that lice get a start, take the birds out of the loft and clean it thoroughly. Then paint walls and nest boxes with kerosene and afterward whitewash every part of the inside with thick whitewash.

DISINFECTANTS.

Any druggist will supply a good disinfectant and give directions how to mix it for use. This should be sprinkled about the floor once in two or three weeks, and always mixed with the whitewash which is used on the loft. A mild disinfectant should be sprinkled on the floor at least once a week, and twice a week is better. Go quietly into the loft and gently sprinkle the solution on the floor, but not on the nests, as this frightens the birds. Keep the air of the lofts always smelling sweet and pure and there will be no trouble with disease.

DOUGLAS MIXTURE.

Douglas Mixture is an old-time tonic, much esteemed by a good many breeders of pigeons and poultry. It is made by dissolving eight ounces of iron sulphate (copperas) in two gallons of water and then very slowly adding one ounce of sulphuric acid. Put in jugs and it will keep indefinitely. If a tablespoonful of this is put in the drinking water occasionally, it will act as a tonic and make the blood richer. It is especially recommended for use during the molting season.

GENTIAN AS A TONIC.

Compound tincture of gentian is highly recommended as a tonic for pigeons. If the birds seem out of condition, a teaspoonful of this in the drinking water will tone them up and give them good appetites again. When the birds are molting during the months of September, October and November, a tablespoonful of compound extract of gentian in the drinking water every Sunday morning will keep the birds in condition, but this should not be used if the Douglas Mixture is used as a tonic.

SWEET FERN TEA.

For looseness of the bowels, sweet fern tea has been found a very good remedy. Looseness of the bowels occurs from feeding too much wheat that has not been well dried. It also comes from impure water or unsound feed of any kind. To cure it, a good handful of the leaves is put into three gallons of water and boiled down to one-half. Put a tea-cupful of this in two gallons of drinking water.

NUX VOMICA.

Some breeders recommend nux vomica very highly as a tonic, and we mention it so those who follow the directions in this book may have their choice. Sixty drops of the tincture of nux vomica is given in two gallons of the drinking water twice a week, during the molting season. At other times in the year it is given when the flock seems to lack liveliness or to be droopy for any reason.

This tincture of nux vomica is about the easiest of all the tonics to use, as enough for a year can be kept in a small bottle and put into the water without trouble at any time it is needed.

THE MEDICINE CHEST.

Every pigeon-breeder should have a small box in which to keep a supply of the medicines which may be needed. This box should contain a pot of carbolated vaseline to use on cuts or bruises, as in wing trouble. There should be a four-ounce bottle of peroxide of hydrogen, a small bottle of camphorated oil, an ounce or two of carbolic acid, a few quinine capsules, a bottle of cod liver oil and a bottle filled with kerosene. There should also be a medicine dropper,

such as is used to fill fountain pens, and a small sewing-machine oil can to use in cases of roup. Such a medicine chest will come handy many times in a year.

DON'T DOSE YOUR BIRDS.

Don't get into the habit of dosing your birds for every imaginary trouble. If pigeons are given a dry, light house, good sound grain, plenty of grit, salt, charcoal and perfectly pure water to drink, with good facilities for bathing, there will be little call for the use of medicines. Only doctor sick birds when necessary, and then take them out of the loft and keep them out until they are well. The careful pigeon-breeder will always learn to know his birds by sight and will notice any symptoms of disease as soon as they appear. Once any disease is noticed, apply the remedy at once without giving it an opportunity to become chronic.

If the directions given in this book are followed, the pigeon-breeder, although he may start without any practical knowledge of the business, will be able to carry his birds along in good health and promote productiveness in such a manner that he may anticipate the best results from his work.

CHAPTER VIII.

MISCELLANEOUS INFORMATION—CATCHING MATED PAIRS.

When it is desired to catch mated pairs, take the catching net into the fly with you. Drive all the pigeons out into the fly and shut them out of the house. Then take another person with you and go into the fly. Watch until a cock begins to drive a hen and trap him in the net, while your helper watches the hen. Take the cock out of the net and hand it to your helper, who will catch the hen. Then band the two, putting the band on the right leg of the cock and on the left leg of the hen. If squabs are banded in the nest, nearly all of them will be found banded correctly if the band has been put on the right leg of the squab first hatched and the left leg of the one hatched later.

STARTING A LOFT.

Buy from ten to fifty mated pairs, according to the amount with which you decide to begin. Keep all the best squabs hatched during the year, so cross-mating them as not to have nest mates mated up for breeding. Dispose of all under-sized squabs, and when the birds have grown up sell all those which prove inferior. In this way you will learn to manage your loft and get your breeding stock at the lowest possible cost.

THE PRICE OF BREEDING STOCK.

It does not pay to start with poor breeding stock. Buy of a reliable breeder and pay a fair price. No one can afford to sell first-class breeding stock at less than \$2 a pair in large numbers or \$2.50 a pair when from ten to twenty-five pairs are sold in a lot. It is poor economy to buy common pigeons as squab-breeders at any price and just

as bad management to buy cheap Homers and run the risk of getting old and wornout birds.

BEST WEIGHT FOR SQUABS.

Squabs that weigh less than eight pounds to the dozen are not desirable, as they sell at a price which drops rapidly

A White Homer.

as they run below eight pounds to the dozen. It costs just as much to raise a dark-fleshed and light-weight squab as it does to raise a big plump bird with white flesh; and a pair of pigeons which produces dark squabs of light weight should be disposed of. Select all the time for heavy weights in your squabs and get the top of the market.

LENGTH OF BREEDING PERIOD.

Pigeons will breed regularly for seven or eight years, so it is to the interest of the breeder to keep only the best in his lofts. The good breeder watches what kind of squabs each pair produces and keeps selecting the best from time to time until he has a loft full which may be depended upon.

DON'T OVERCROWD.

Don't overcrowd your lofts. It is better to waste a little room than to have too many birds together. Give each fifty pairs a room eight by ten feet and a fly at least ten by twenty-four feet.

SQUAB HOMERS.

Health and vigor are the foundations on which success must be built. The well-bred squab Homer carries its head erect, its plumage is smooth and sleek, and its neck carries the colors of the rainbow. When it stands still, it seems on wires and when you go into your loft in the morning and look over the flock the bird which does not in turn give you a looking over is not fit for a breeder. The eye is the index of health in pigeons. If the eye is dull or the bird sits winking in a listless manner, there is something wrong about it. Sickly birds shun society and mope in dark corners. The droppings should be noticed. If the birds are healthy, there should be a fair proportion of pure white in them, and they should be rather firm. The squab Homer in health is a beautiful bird, alive every moment and noticing keenly everything that passes.

INCREASING PRICES.

Squabs have constantly increased in price in the larger markets for several years, and hundreds of new towns have

come in with a call for good squabs. Everyone who begins to raise squabs for the market makes the demand for them larger. There is no danger of overdoing the business, and it will continue to grow larger as game birds decrease in numbers. Many restaurants now serve squab when there is an order for quail on toast, and those who like good things usually go back and want some more of that same kind of "quail." Good restaurants now keep squabs on hand and put them on their tables under their proper name, having learned that it pays to do so.

THE SOUTH JERSEY SQUAB DISTRICT.

The great business of raising squabs which is carried on in South Jersey started with one man and has spread out until almost everyone in the country for miles around Bridgeton keeps pigeons and sells squabs. About 7,000 squabs are sent out of this district every week, equal to 365,000 in a year, and there is never a time but these squabs sell as soon as they reach the market at prices which makes it very profitable to produce them. Men, women and children raise squabs in this district, nearly every one of them being sold in New York City.

THE PROFESSION OF SQUAB-BREEDING.

Only a few years ago the man who spent his time breeding pigeons was thought to be engaged in a small business. Now it has become a profession and is followed by all sorts of men as a profitable way of putting in spare time. The professional man raises squabs as a diversion, the clerk or shop operative keeps a loft to help out on his income, young men pay their way through college on the profits of the squab business, old men who have got beyond the harder

work of life make a good living from squabs; and still the insistent food markets call for more squabs at better prices. There is no risk in going into the squab business, if the birds are properly cared for.

REGULARITY.

Have a certain time to do all the work and work to the schedule you have prepared. Clean the house on a certain day in the week, kill the squabs on the day which best suits your market. Feed as nearly at the same time every day as possible, for the birds soon learn to know when feeding time comes, and the squabs even learn to know when to look for the parents to feed them. Keep everything going like clockwork, and the work will be properly done and the birds thrive the better for the regular habits they learn.

GO QUIETLY.

there will always be a number of birds sitting, others will be feeding the young, and quick motions or loud noises disturb them and cause them to stop feeding or to leave their nests. Keep the birds tame by going among them, but go quietly.

FOREIGN BIRDS.

Never buy imported stock for breeding unless you know it has been at least a year in this country. Birds from across the ocean are hard to acclimate and often die before they get accustomed to the new conditions.

We have a friend who imports choice pigeons from Germany, Belgium and France constantly and he says he can not afford to pay the prices he is asked for good birds in Europe and sell them on this side for less than about three

times that for which he sells American-bred birds. The talk about imported birds being better than American stock has no foundation, in fact.

THE BEST AGE.

A pair of pigeons begins to breed at about six months of age, but young birds are not very profitable as breeders. After they are one year old they are in full working condition and for the next seven years may be depended on to produce regularly, if they are the right kind of stock.

DON'T KILL TOO YOUNG.

Do not kill your squabs too young. They should be killed just before they are ready to leave the nest, but not before their flesh has become firm and solid. A squab which is killed too young never brings a good price, as the buyers in the cities know such a one immediately they have felt of it, and a few squabs which have been killed too soon decrease the price of the whole package. Remember that the price paid for the squabs in a given package is made on the basis of all of them being as poor as the poorest in the package.

MICE IN NESTS.

If you find some of your squabs smashed flat in the nests, look out for mice. These little pests like to nest with a pair of pigeons, and particularly in cold weather have a fashion of crawling between the parent bird and the squab. This causes the parent to move about and kill its young. To kill the mice, take a large cigar box—or any box of about that size—and cut a small hole in one end. Put under this box a mouse-trap baited with bits of toasted cheese and on top

of the box put a heavy weight so the pigeons can not get at the trap. Set a few traps around the feed bins also, and it will not be long until the last mouse is caught, as they like the cheese better than the grain which brought them to the pigeon house at first. A good cat kept around the feed room is often a good investment, but do not forget that a cat likes squab very much and must be carefully kept outside the breeding lofts.

FEED A VARIETY.

In the proper place we have given directions for mixing feed. We refer to it again in this place to emphasize the necessity of feeding a variety of grains and the mixtures we recommend on previous pages will be found such as will produce the proper results. Never feed one grain for the reason that it is cheaper than another. It does not pay to economize in this way. True economy in feeding is to feed the proper kinds and just as much as the birds will eat without wasting. They always pick out the kind they like best first, but they should be compelled to eat the whole of the feed each time and fed just as much as they will clean up from one feed to another.

VENTILATION.

Most pigeon-breeders keep their houses closed too tight during the winter. If cloth is used in the windows instead of glass, there will be good ventilation all the time as the muslin used for windows allows the air to get in and keeps it pure inside; but where glass is used, the fly holes should be left open nearly every night during the winter or the air will become so impure that it will be likely to breed disease. Pigeons,

when they are not breeding, do not mind cold weather, but breeding birds should have a tight house on account of the squabs. See to it that the ventilation is attended to.

TESTING PIGEON EGGS.

If you want to know whether an egg is going to hatch after the hen has been sitting for some time look through it. If it is clear, it will not hatch and might as well be thrown away. If it is partly clouded, the egg will hatch but not for several days. If it is dark all over except at the large end, the young bird will hatch in three or four days, or it has died. To find if it is alive, put some water in a pan having it as warm as the hand can be held in it without burning. Set the pan down and let the water become still, then put the doubtful egg in to the water, little end down and let it float. If the bird is alive, it will struggle in the egg and cause it to bob around in the water. Testing eggs is not necessary unless it is noticed that a certain setting has been set on for a suspiciously long time.

SELECTING A SITE.

In selecting a site for the home of pigeons, as much care and judgment should be exercised as in choosing the location of one's own home. An unhealthy location for man would most likely prove unhealthy for the birds. A damp place, or one exposed to extremes of heat, cold, or wind, is to be rejected. The spot selected should be well drained, should be facing the south or east, should be free from obstructions which shut out the rays of the morning sun and be sheltered either by trees or buildings from the north and west winds. Such a place, with a shallow stream of pure

running water for drinking and bathing—so essential to the health of pigeons—will be an ideal site, and will require a minimum of expense and daily work in caring for the stock. Of course such sites can only be obtained in the country.

In no case should a house be built for more than 250 pairs, nor more than 50 pairs be kept in each section. It must be so designed as to be well ventilated and easily kept clean, secure from attacks of mice, rats, and other animals, and not subject to drafts of air.

FEEDS AND OTHER SUPPLIES.

In these receptacles should be kept a generous supply of sifted cracked corn, Canada peas, wheat, German millet, Kafir corn, and hemp. These are the six principal feeds.

On the floor of each pen keep about a peck of clean sand evenly spread. Procure three boxes about the size of small cigar boxes; fill one about one-third full of fine table salt, the second with cracked oyster shells, pigeon size, and the third with ground charcoal, about as fine as ground coffee. These three substances are very essential to the health of pigeons. Clean out and replenish each of these boxes weekly. Do not fail to keep the salt box filled and before them all the time, for the health of pigeons demands it.

A room 8 by 10 feet will accommodate 50 pairs very comfortably. The fly should be extended 32 feet if possible.

Pigeons should be fed twice a day—in the summer time at 6:30 a. m. and 4:30 p. m., in the winter at 7:30 a. m. and 3 p. m.

The best kinds of feed to use are cracked corn, red wheat, Kafir corn, millet, peas, hemp, and rice. In the morning

give wheat, cracked corn, and peas in equal parts; in the afternoon give equal parts of cracked corn, peas, Kafir corn, and millet. The birds should be fed in the pen rather than in the fly.

Water the birds every morning before feeding, using nothing except fresh pure water. Always clean out the fountain before filling.

Bathing is very essential to the health of pigeons. In summer they should have an opportunity to bathe at least every other day. In winter the bath should be given only on bright, sunny days. It is essential to clean house once every week. After cleaning the nests, put powdered carbolated lime in all cracks, corners, and damp places. Sprinkle the floor with lime and sprinkle a bucket of sand evenly over the lime.

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