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# Squah Culture

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# Squab Culture

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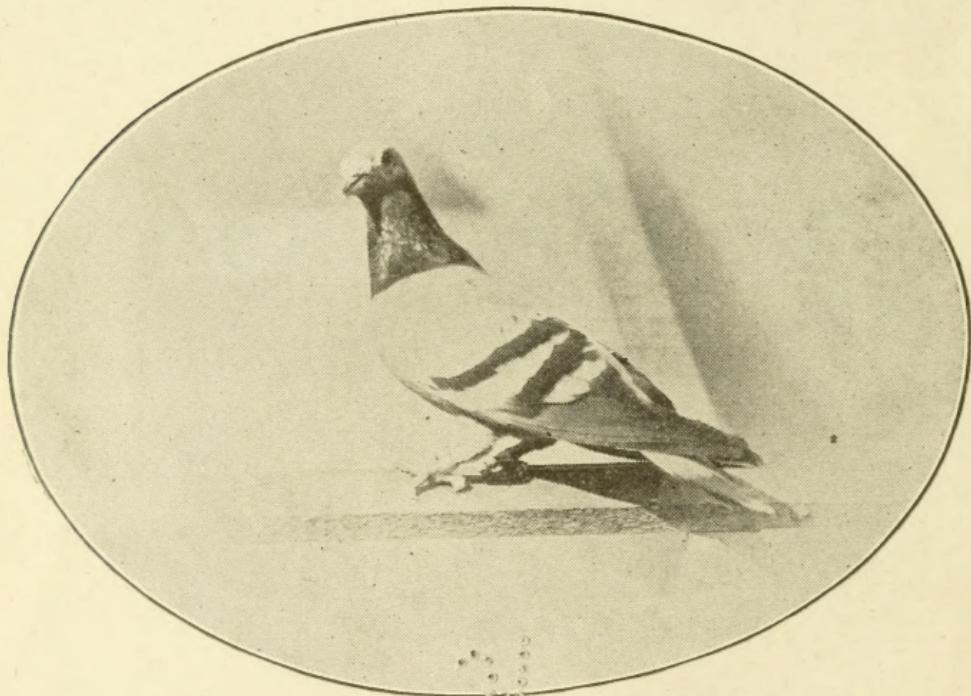
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## Prefesis

The information contained in this manual has to do entirely with squab breeding pigeons. It is written with the idea in mind of helping those already interested in this rapidly growing industry, or those about to embark in it. It is written and compiled by one who has experienced all the difficulties encountered by the beginner, and has learned from those experiences how to properly and profitably care for and raise pigeons and squabs.

At the present time there are two breeds of pigeons extensively being used for squab breeding purposes. The Homer pigeon and the Carneau. (Plural spelled Carneaux, and both pronounced alike: "Car-No.") Runts and Crosses are not used as squab breeders to any very great extent.



HOMER PIGEON

The Homer and Carneau are both of Belgian origin, and you will frequently hear the Homer referred to as Antwerp. The Carneau pigeon as a rule is somewhat larger than the Homer, and as a natural result produces a slightly larger squab. This was the situation a few years ago, when the first Carneau were imported into this country, but the difference in size of these two kind of birds

seems unfortunately to be gradually disappearing. Unscrupulous pigeon dealers have played havoc with the true Carneau, and you will find all kinds of funny looking pigeons being masqueraded about the country as real Carneaux. There are, fortunately, still a few reputable dealers from whom it is safe to purchase this stock.

Unlike the Homing pigeon, the Carneau may be permitted to fly at large after having been confined in a new home a couple of weeks. Turn an adult Homer loose and it is, as a rule, not many minutes until it has started in the direction of the place of its birth.

Which—Homers or Carneaux? This question has been asked the writer many, many times. Both breeds are fine producers of squabs, if given proper care and food. Both breeds of birds will produce practically the same number of squabs in twelve months. The Carneau would probably have a little the best of it in the amount of actual weight produced. The writer believes the Homer will, in the long run, prove the most profitable squab raiser; he is certainly by far the handsomer bird of the



CARNEAU PIGEON

two. Numerous experienced squab raisers have experimented with both breeds, and hold to about the same view. The Homer is decidedly a more intelligent bird and can be taught to race, which of course is impossible in the case of the Carneaux as they possess but little, if any, Homing instinct.

Complete failure has unfortunately been the only reward of the person who has attempted to profitably breed squabs from the common barn loft variety of pigeon, such as you see flying about your town and nesting in the eaves of buildings. They are quite small when compared with the Homer or Carneau and produce a small, generally dark meated, squab. Neither are they prolific. Good Homers and Carneau produce on an average about 8 pairs of squabs to every mated pair of birds per year. Common pigeons seldom if ever produce quite half that number. Common pigeons can be purchased for as little as 10 cents each. Good Homers and Carneaux are in big demand at from \$2.00 to \$4.00 per pair.

The writer remembers very distinctly starting into the pigeon and squab business with but one pair of good Homers in an old barn loft. Yes, and he made a success of that barn-loft venture, too, or he wouldn't now be the president and manager of one of the largest pigeon and squab plants in the country. This is said in passing to set aside the theory that an especially built pigeon house is essential to success. It's all right to have such a building, if one's means will permit, but nothing is further from the truth than to say that such a building is a positive necessity. Any kind of an old building or barn loft will suffice, if it can be so arranged as to keep out dampness, cold winds and rats. Barn lofts as a rule make fine squab houses because of the fact that they are high and, as a rule, dry. Some unused out-building of course makes a much more convenient place.

—THE AUTHOR.

## CHAPTER I.

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### THE UNIT HOUSE.

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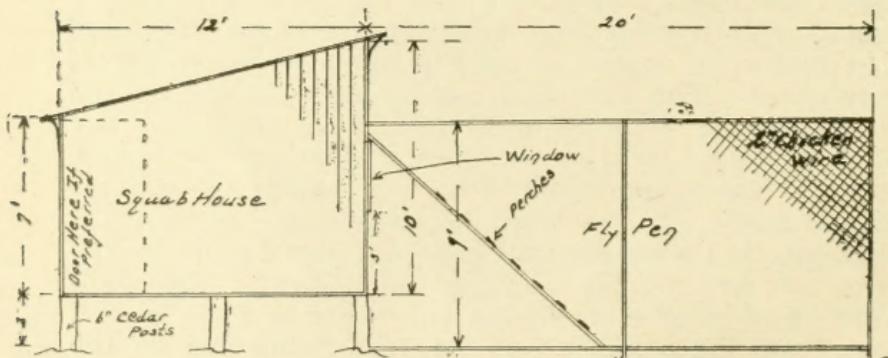
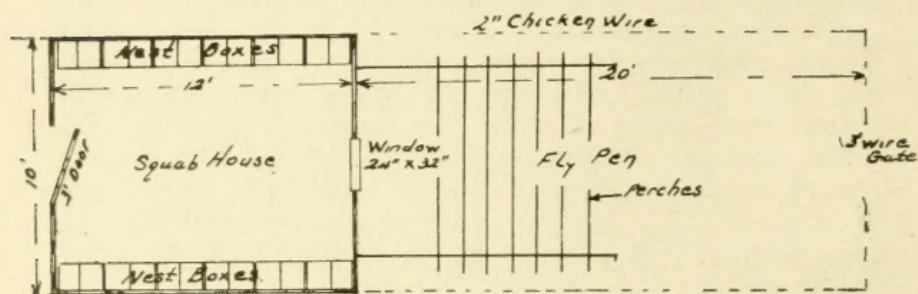
#### How It Is Built—Its Size—General Specifications Covering Construction and Equipment.

The unit house can be one unit or twenty units in length just as one's funds and ground will permit. The modern unit house is built upon posts which protrude from the ground about two feet. Six inch cedar posts being most generally used. Upon these posts is built the floor. A double floor with ordinary building paper between the thicknesses is preferable. Use 2x4 stock for joists, ordinary sheeting for the first floor and shiplap for the second floor. No. 2 stock is amply good. The frame work and rafters are also 2x4 stock. The roof is of ordinary sheeting, covered with a good grade of prepared roofing. The entire house inside is lined with tar paper in order to keep out drafts and dampness. The roof can be of the ordinary shed variety, with just sufficient pitch to carry off the water, or it can be of the hip shaped variety if preferred. The size of a single unit should not be less than 10 feet wide, 12 feet from front to rear and the roof not lower than 7 feet at its lowest point. Make provision for one window, in size about 24x32, in the front of each unit. If you are building but a single unit the door can be put in the side or rear of the building as desired. The window is of course to enable the birds to pass in and out from the squab house into the flying pen on the outside. The window should be arranged so that it may be opened or closed as desired. A sliding sash is the simplest, and permits the window being only partially open in cold weather.

If more than one unit is to be built then a change in the dimensions of the building is necessary. It should be built 15 feet in dimensions from front to rear and an additional 10 feet added to the length for each additional unit it is proposed to erect.

Three feet is added to the depth of the building to permit of a passage way at the rear of the various units. Two inch chicken wire is used for dividing the building into 10 by 12 foot units. A wire door is placed at the rear of each unit along the passage way, and each unit has a window in front opening into the flying pen, as previously stated. Build your house so that the windows are facing the south. Your flying pen will then extend in that direction and at all times the pigeons will get the sun.

## AN INEXPENSIVE SINGLE UNIT SQUAB HOUSE.

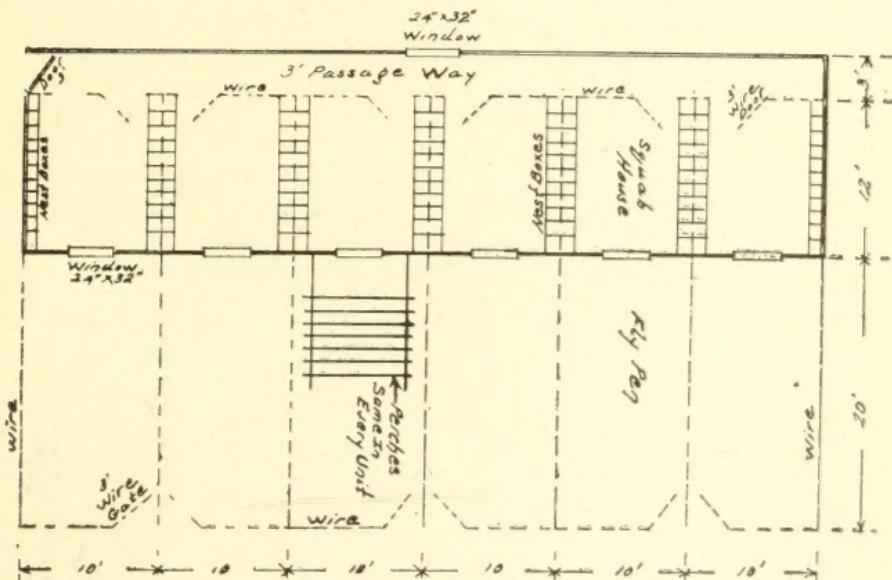


In the case of a house of more than two units it is desirable to place one small window in the rear of the building along the passage way. One window for every 5 units is plenty. In extremely hot weather, or in warm climates, both the front and rear windows can be left open continually and permit a thorough circulation of fresh air through the

squab house. The pictures printed in this book will give you a very good general idea of both the interior and exterior arrangement of both the single unit and the multiple unit squab house.

Where or whenever possible it is desirable to use empty orange, egg or grape fruit boxes for the pigeons to build their nests in. You will find them much cheaper than to use lumber for the purpose, and in addition to that they are easily taken down and cleaned. They should be laid on their sides one upon the top of the other from the floor up, around the walls of your squab house. The openings should be turned toward the center of the squab house as illustrated.

### A MULTIPLE UNIT HOUSE.



These crates consist of two parts which are about 12 inches square. Just the proper size for pigeon nests. If these crates are not obtainable in your town in sufficient quantities you can of course build your nest boxes out of inch or one-half inch lumber. They can be built any place along the sides of your squab house, and will largely resemble pigeon holes in a desk when completed. Do not run your nest boxes up higher than six or seven feet. If you do you will experience considerable difficulty when cleaning time comes. It is not necessary to nail a slat across the front of the opening at the bottom of the nest box, with the idea in mind of keeping the eggs or squabs from tumbling out. This

was done in years past, but has proved a waste of time and material, and makes cleaning the nests difficult. Squabs are not given to falling from their nests. If they did there would not be so many common pigeons flying about, for their nests as a rule are up under the eaves of houses and barns, and it is not often you find a dead squab lying upon the street. Pigeons build their nests very much in the shape of a saucer, and the little ones nestle down pretty closely in the nest for the first few weeks of their existence. Sometimes they are knocked out of the nest because of fighting among the older birds, and there is really little one can do to prevent an occasional domestic misunderstanding among his flock.

In addition to the nest box many breeders equip the nest box with a nest bowl. This is a small saucer shaped object, about 9 or 10 inches in diameter. Some of them are made from wood, some from wood pulp while some breeders use a nest bowl made from earthenware. The wood and wood pulp bowls are as a rule fastened upon a small piece of wood about 8 inches square with a screw or with nails. This keeps the bowl from being upset. The writer uses nest bowls, and strongly recommends them to others. They can be purchased from most squab and pigeon companies.

If you use the crates as suggested above for nest boxes, you should be sure not to have less than one double section crate for every pair of pigeons in your squab house. If you build your nest boxes from lumber be sure and have two nests for every pair of pigeons. This is made necessary by the fact that after the first set of youngsters are between three and four weeks of age the old birds will build a second nest, and if there are not ample nest boxes for them to build in the hen pigeon will lay her eggs in the same nest with the young squabs, where they are very apt to be crushed by the youngsters. This sometimes occurs no matter how many extra boxes there may be. In other words have two nesting places for every pair of birds in your squab house. Ten or a dozen extra nesting places is far better than too few. This will answer the often asked question, "how many pairs of pigeons can I put in a house that measures so many feet one way by so many feet another?" Theoretically, you can place in your squab house one pair of working pigeons for every two nests you can crowd in. Practical experience has proved this to be unwise. Pigeons work far more advantageously

when there are not too many pairs of them together. Fifty pairs, one hundred pigeons, is the usual number placed in a pen together by most squab breeders. The single units described heretofore in this manual will comfortably take care of 50 pairs, and also allow the use of 60 orange or egg crates, which would give that many pigeons ample nesting room.

#### NEST BOXES AND NEST BOWLS.



This photograph shows you the arrangement of the nest bowls in the nest boxes. The nest boxes in the picture are empty orange crates. The nest bowls are of the wood pulp variety. Each bowl is securely fastened with a screw to a small block of one inch lumber 8 or 9 inches square. The bowl can be easily removed at any time it becomes necessary to clean out the nest box.

## CHAPTER II.

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### FLYING PEN—NESTING MATERIAL.

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**Any Size Flying Pen Will Do—Tobacco Stems Good Nesting Material.**

To succeed with squab breeding pigeons they should not be permitted to fly at large. They must be pretty closely confined so their thoughts are continually on their household duties and little else. They must, however, have plenty of warm sun light and fresh air. For this purpose you should attach to your loft or squab house a wire flying pen, which may be extended out as far as practicable. The framework of this flying pen can and generally is made from some light material. This frame is covered with 2 inch chicken wire which is not expensive and can be purchased at any hardware or general store. A small wire gate should be placed at some convenient place about the flying pen to permit you to get in or out as desired. In the case of the model squab house, heretofore referred to, the flying pen would of necessity be but 10 feet wide. In the case of a barn or an out-building it can be as wide as the building. Fifteen to 20 feet is a good length, and it can be as high as your needs may require. In connection with the model squab house it is as a rule about 9 feet high, and the gates are in the end of the flying pen. The flying pens in connection with the multiple unit house are, of course, divided every 10 feet with the 2 inch chicken wire.

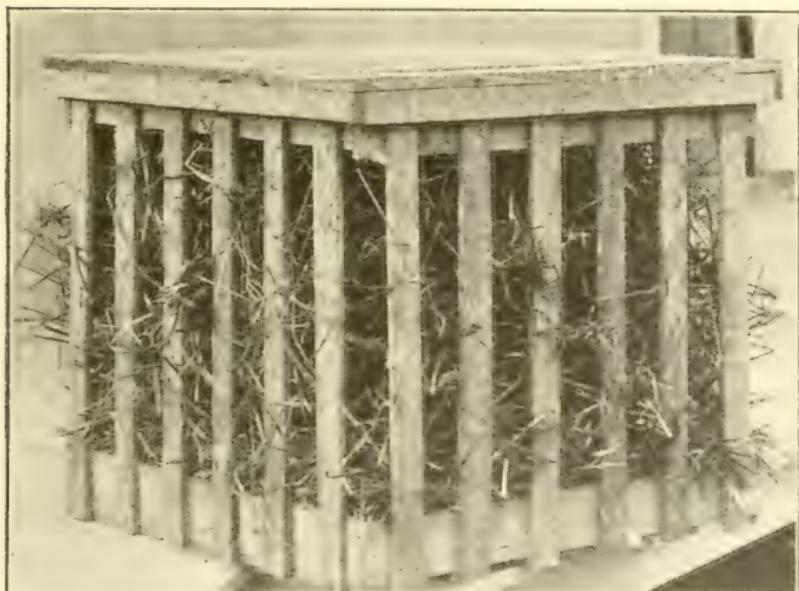
Seven or eight perches should be placed in each flying pen in order to provide a place for the birds, not busy on the inside of the house, to roost and sun themselves, which they dearly love to do. These are easily and quickly made by leaning a couple of small pieces of board about 2 inches square by 12 feet long against the front of the building and allowing them to extend out into the

flying pen at an angle of about 45 degrees. Tack upon these two pieces six or seven slats from six to seven feet long, and about 18 inches apart, and you have a fine set of perches. (See illustration.)

The bottom of the flying pen should be covered with gravel or sand to a depth of 3 or 4 inches. Not only do the birds greatly enjoy picking out and eating the small bits of gravel, but your flying pen is kept free from pools of water and mud. The real necessity of the gravel is dealt with more at length later on. By all means face your flying pen to the south if possible. The object of the flying pen is to enable the birds to get outside into the sun. It is not erected with the idea in mind of giving them a place to fly about in. The author does not agree with those who advocate confining the birds entirely within the squab house, and never allowing them to get outside. They need and must have plenty of fresh air and sun, or eggs will be few and sick pigeons plentiful.

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#### BOX FOR NESTING MATERIAL.



This box is two feet square and two feet high. All four sides and the bottom are made of lath. The top is constructed of half inch lumber, with a small rim around the edges as illustrated. The top lifts off. It is not hinged. One of these boxes filled with nesting material should be placed in the center of your squab house, and in the case of a multiple unit house, one should be placed in the center of each unit. They are easily and quickly made, and cost but little. Not only is your nesting material kept clean and fresh, but it is also very easy for the birds to get such nesting material as they desire.

Pigeons build their own nests from bits of straw, hay, tobacco stems, pine needles, etc. As a rule the hen pigeon sits in the nest and the cock bird flies to the place where the nesting material has been placed, picks up with his bill the piece that suits him best and carries it back to the nest box where the hen arranges it to suit her. This process is frequently reversed and the hen pigeon does the carrying while the cock sits on the nest.

There are many varieties of nesting material. Tobacco stems seem to be more generally in use than all others because they have a great tendency to keep away lice. Pigeons seem very fond of them and are able to build splendid nests by their use. They absorb dampness very easily, however, and in damp climates or the winter time it is best to mix them with some other nesting material. Equal parts of straw and tobacco stems make a fine all year round nesting material. Your nesting material should not be carelessly thrown upon the floor of your squab house for the pigeons to make filthy with their droppings and the manure on their feet. An ordinary berry crate which has slatted sides and ends make a splendid place in which to place nesting material. The birds will stick their heads through the slatted openings and pick out the bit of nesting material they wish.



## CHAPTER III.

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### DRIVING—LAYING.

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#### When the First Egg Is Laid and When It Will Hatch.

After the nest has been completed to the entire satisfaction of the pigeons the cock bird will begin to drive the hen about the squab house and flying pen. He will keep everlastingly at her, picking her upon the head and back with the object in view of compelling her to return to the nest and lay the first egg. He never appears entirely satisfied until this has been accomplished. A hen pigeon in order to lay a fertile egg, must of necessity had the attention of the cock bird. You will see a pair of birds billing, and treading follows as a rule. The hen pigeon as a general rule lays her eggs late in the afternoon, along about 4 o'clock. There are exceptions to this rule, of course, but it is generally the case. It is presumed that she will lay but two eggs, the second one putting in an appearance after an interval of one day. There are many cases where a hen pigeon has laid three eggs but you might pass through years of the pigeon business and not encounter a single case. The rule is but two eggs.

The real process of incubation does not begin until the second egg has been deposited in the nest. The hen pigeon does little but hover over the first egg just keeping it warm enough not to become chilled. After the second egg has been laid the hen and cock go methodically about the process of turning it into a squab. The hours that each shall sit upon the eggs are proportioned about as follows: The hen pigeon from about 4 in the afternoon until about 10 o'clock the next morning, and the cock bird during the day time between these hours. The cock bird apparently gets a little the best of the arrangement. He does for the time being only.

After the young are hatched and are from three to four weeks old, he has double duties to perform, as you shall see later on. On the seventeenth day from the day the second egg was laid the young pigeons should begin to make their appearance in this world. They break their way through the shell in much the same manner as chickens, picking away at the shell from the inside until they are enabled to squirm out. There is nothing particularly beautiful about a newly born squab. Just a little, yellow looking object with tight shut eyes, which do not open for a week or ten days after birth.

Do not make the mistake of handling your pigeons' eggs too much, especially at about the time they are due to hatch. Above all do not assume you can assist nature any by picking away parts of the shell with your finger tips in an effort to hurry the newcomers advent into this world. If a squab is destined to live it will get out of the shell all right without any assistance from you. In the early stages of the author's experience with pigeons he attempted this several times before he learned better. With proper care and food, each pair of your breeders should produce between 7 and 9 pairs of squabs each year.

You have absolutely nothing to do with the feeding of the young more than to supply the old birds with the proper kind of food. A carefully prepared chapter on that particular portion of pigeon culture is contained in this manual. It is possibly the most important of all the information given in this volume, and should be read carefully. During the first week or ten days of a squab's existence its diet consists entirely of what is termed "pigeon milk." Possibly you have heard of such a thing, but in all probability you never believed such an article existed. It is a milky appearing fluid, rather thick, which the old birds have sequestered in their crops during the last ten days of the incubation period. The old birds take the bill of the young ones inside their bill and force this liquid down the throat of the young pigeon. To all appearances they pump it in, as they do with all other substances which they feed their young. After ten days have elapsed the old birds begin to "pump" whole bits of grain into the squabs.

## CHAPTER IV.

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### FEEDING AND WATERING.

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#### Clean, Dry, Hard Grain a Necessity—The Various Grains Used—The Protected Drinking Fountain.

A flock of pigeons can be more quickly ruined by being fed improperly and improper foods than in any other manner the author can call to mind. This statement, of course, applies entirely to squab breeding pigeons which are confined, and are not permitted to fly at large. Pigeons out in the open apparently have ample opportunity to pick up the various articles so necessary to their healthy existence. Those confined inside a squab house and a flying pen must of necessity be furnished with all that will keep them well, busy and contented.

Clean, dry, hard grain is an absolute necessity. No progress whatever will be made with a flock of pigeons that are carelessly fed, or are given things which long experience has proved are detrimental to their health.

The writer has found corn to be the great staple food for pigeons, and recommends nothing but the whole grains of corn. Not cracked corn. Cracked corn absorbs dampness, and in many cases the cracked corn you purchase has been made up from moldy whole corn, which if used will give the birds a sour crop, and tends toward canker. Be extremely careful about buying any of the innumerable poultry feeds so extensively advertised. What will do for chickens will not do for pigeons, and the greater percentage of the advertised feeds are prepared by those who devote almost their entire time and energy to chicken feed, and know but little of the needs of the confined squab breeding pigeon.

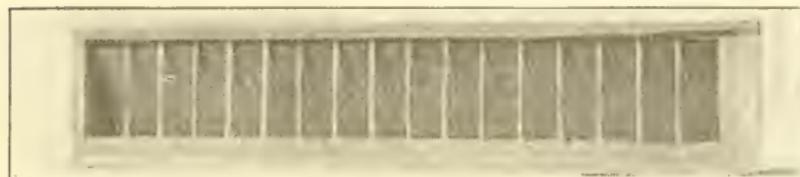
Your flock of pigeons should not continually, month in and month out be fed the same mixture of feed. Like yourself they greatly enjoy a change of diet. By far the safest procedure in feeding is to purchase the various grains you propose to feed your birds and mix them yourself. In extremely hot weather it is a good plan to cut down on the amount of corn fed. If you purchase mixed feed from some dealer this cannot be done. If you are so situated that it is impossible for you to purchase the various kinds of grain so necessary, then of course, you must resort to the ready mixed variety of feed. In this case, however, buy from some pigeon or squab company. There are plenty of them about the country, and their pigeon feed, even though mixed, is pretty apt to be just what you want. Most of them have mixed pigeon feed for sale, although there are some, of course, who do not. The average man in charge of the average feed store in the average town knows absolutely nothing about what should or should not be fed to pigeons. It is very dangerous to act upon any suggestions he may care to offer, unless of course he has personally had considerable experience in handling pigeons himself, which is not frequently the case.

Kaffir corn is another grain very greatly relished by pigeons, and can be fed to them in large quantities without the slightest fear of difficulty. It is a very small grain, hardly the size of first class hemp seed. Being comparatively soft it is easily digested by the birds. It costs but little more than whole corn and in mixing feed about equal parts of both are used.

Wheat is a very dangerous grain for the beginner in the pigeon business to experiment with. Too much wheat has a very weakening effect upon pigeons, and if fed to them in too large quantities will weaken them to such an extent they will be unable to fly from the floor of the squab house. Pigeons are very fond of it, and will eat it to the exclusion of whole corn and kaffir corn if given the opportunity. A very small proportion of it mixed with other grains is recommended. Do not use new wheat, damp wheat or the so called white wheat. Old, hard, dry red wheat is what should be used exclusively. If you were going to mix up, we will say, an ordinary bucket of feed, out of the three grains so far mentioned, a good proportion would be two-fifths of whole corn, two-fifths of kaffir corn and one-fifth of wheat.

Canada peas, and a mixture of them with the ordinary cow or field pea, is being very extensively fed to squab breeding pigeons. They contain a big percentage of protein which is so essential in producing big squabs. At the present writing the price of Canadian peas has so advanced they have almost become prohibitive, and the ordinary field pea is being used in many cases as a substitute. They can be fed to pigeons in various ways. Mixing a small proportion of them with the other grains, is

#### FEEDERS.



The top illustration is of a dowel-hopper feeder. This style of feeder is extensively used where feeding is done from a passage way at the rear of the units. The front of the feeder protrudes just inside the units through an opening left for that purpose at the bottom of the wire partition which separates the units from the passage way. The front board of the V-shaped trough does not reach the bottom by about  $\frac{3}{4}$  of an inch. This permits the grain to drop down into the space immediately back of the row of dowel pins, where the birds can easily reach and consume it. The feeder illustrated above is 36 inches long. The bottom board is 1-in. by 8-in. The trough is made from 1-in. by 6-in. boards. One-quarter inch dowels are used, and they fit into 1-in. by  $1\frac{1}{2}$ -in. pieces at the top and bottom. There is no cover over the trough portion of the feeder, which extends out into the passage way. One of the galvanized drinking fountains illustrated elsewhere can be set along side of this feeder, and in this manner both feeding and watering can be done from the passage way without the necessity of entering the units.

The lower illustration is of a trough feeder for use inside the units. The bar running across the top of the feeder is fastened with but one nail at each end. A hole is bored in the end pieces through which these nails are driven into the bar. The bar is made from one inch square stock, and will revolve at the slightest touch. Birds are thus kept from alighting upon it and making the feed filthy with their droppings. The trough is three feet long, four inches wide, and the side pieces are four inches high. This same style trough, in shorter lengths, is frequently used for grit and oyster shell. The construction is extremely simple, and one can be made in a few minutes time.

the course most usually pursued, although many breeders feed them as a delicacy, and scatter a few hands full of them on the floor of the squab house at feeding times where they are quickly gobbled up by the birds.

It should be kept in mind at all times that the grains and mixtures recommended here are for pigeons that are producing squabs. It is, of course, not necessary to feed as expensive a mixture to a lot of young birds you are raising to breeding age. Feed such birds extremely fatty foods, and too much of the same, and they will become indolent and lazy and not begin to mate up and lay eggs as promptly as they should. It has been truthfully said that pigeons as a rule do not over eat, as is the case with chickens. This is no doubt true, but too much rich food placed in front of a lot of young birds, who have nothing else in life to do but sit about and fuss with one another, will make them mighty fat and lazy in a very short time. Your old birds, with squabs in the nest, are kept busy supplying the wants of their incessantly hungry off-spring, and few of them will suffer from over feeding.

Peanuts have come into their own in the pigeon world. By peanuts is meant the peanut kernel, not the salted kind, nor the roasted peanut. Just the ordinary raw peanut with the shell or husk removed. And it is not necessary that they be ground up or that they be the little small Spanish variety. The author has fed to his private flock of birds, the birds that have been the subject of all of his experiments, raw peanut kernels larger than the ordinary piece of shelled field corn and the rapidity with which they made them disappear was astonishing. Instances of pigeons choking themselves to death on whole shelled corn or large peanut kernels must be of rare occurrence, because the writer has yet to hear of a single case, much less have one come under his personal observation. Another thing: Grain which goes down the throat of the older birds will also pass down the throat of the squabs without causing any discomfort.

Peanuts contain a greater percentage of protein than peas. For this reason, and also because of the fact that peas have so rapidly advanced in price, they are universally being used now as a splendid substitute. They cannot be purchased in every community, that is true. The author lives in a community of nearly one hundred thousand souls and has to send away for what he needs. Dealers who handle pigeon feeds, however, can and will

quickly supply your needs, and those who are fortunate enough to be in the pigeon business and at the same time dwell in or near a peanut raising district will of course experience no difficulty in getting all they need at a very reasonable price.

If you have ever been the owner of a canary bird you will of course quickly call to mind how vigorously these little bits of humanity scatter their feed about. This is not done with the idea in mind of littering up their cage and the floor of the room in which their cage hangs. There is a motive in this apparent extravagant waste of good seed. They are after the hemp seed which is usually found in all prepared bird seeds. Hemp is the one delicacy that pigeons love above all others. Mix a little of it with your feed and you will quickly witness the canary bird habit in a very magnified form. The balance of your grain will be scattered about the floor of your squab house, not to be touched until all vestige of hemp has disappeared. Unless you are fond of a disorderly looking squab house floor, do not mix hemp seed with other grains. Treat it as a luxury and a delicacy, for it most assuredly is, as it costs from 5 to 6 cents a pound. A good big double handful of hemp seed scattered upon the floor of your squab house once each day is ample for a flock of fifty pairs, and will keep them happy, lively and contented. Do not feed your birds an excess of hemp seed. It is bad for them.

The five staple pigeon grains have been mentioned. That is the five which the author feels are the staples. Others may disagree with him, and probably do. His experimental flock is a marvel for beauty, strength and productive qualities, as all have had to admit who have seen it. They raise squabs which weigh anywhere from 9 pounds to 12 pounds to the dozen at four weeks of age. They are all Homers. Their staple diet has been whole corn, Kaffir corn, peas or peanuts, a small amount of red wheat and their daily ration of hemp scattered upon the floor of their house, and their average production has been between 7 and 9 pairs of squabs per year for every pair of mated, working birds. Many breeders feed from time to time small proportions of millet, buckwheat, milo-maize and sunflower seed, while certain mixtures of wild seeds are used. All have their good qualities, and as they offer an excellent opportunity for a change in diet they can be used in small quantities if desired. Scraps and refuse from the table should never be

fed to pigeons. A hand full of green stuff such as lettuce or grass can occasionally be placed before the birds and will be greatly relished by them.

Pigeons are not possessed of any teeth. A substitute is necessary, and grit is that substitute. Pigeons demand and must have a certain proportion of grit if they are to be kept in a healthy and vigorous condition. The bottom of your flying pen should at all times be thickly covered with gravel or sand. A depth of 3 to 4 inches is sufficient. Occasionally take a rake and thoroughly turn this gravel over. After a few months' use the old gravel should be entirely removed and replaced with fresh gravel. Your birds will at all times have plenty of grit if this is done, except in parts of the country where snow covers the ground for any great length of time during the winter months. If you live in a part of the country where snow is pretty general throughout the winter months, you can supply your birds with ample grit by placing a small box of gravel or sand on the floor of the squab house. Do not worry about your birds eating too much grit. They will only consume what is good for them.

Salt is very greatly relished by pigeons and they will gorge themselves upon it if given the opportunity. A little of it is splendid for the birds. It is extremely dangerous to feed them too much. Granulated or pulverized salt should not be fed to them. Rock salt, the kind a horse loves to lick with his tongue, is the proper kind of salt to place before pigeons. Place a large lump of it out in your flying pen. Whenever you empty your bath pan turn the contents on top of this piece of salt. Every rain storm will naturally diminish its size. The gravel under and around it, however, becomes saturated with the salt water, and if you will take occasion to notice you will find the gravel in this portion of your flying pen disappears far more rapidly than elsewhere. In the winter time, when your flying pen is covered with snow, place a small piece of rock salt in the box of gravel in the squab house, and occasionally pour a little water over it. The same effect will then be gained as if the birds had access to the bottom of the flying pen.

There are many forms of prepared pigeon grit. Nearly every dealer in pigeons and pigeon supplies has his own mixture of pigeon grit which, very naturally, he extensively advertises as the only really for sure pigeon grit, the kind that makes big, fat squabs. As a matter of fact most of these prepared grits are good, and will prove beneficial

to your birds. Oyster shell is quite an important factor in the successful development of pigeons. The older birds must have access to a certain amount of it or the shells of the eggs which they lay will be tough and hard, and the young squabs will be unable to force their way through into this world. A small box of oyster shell placed in the squab house is all that is required, and one hundred pounds of it will last a good sized flock of birds a very long period. Purchase what is generally termed the finely ground oyster shell. Pigeon size. Not the big coarse pieces. It can be purchased from all wide awake pigeon and squab breeders at about 75 cents to \$1.00 per one hundred pounds. You may get squabs without the use of oyster shell, but many a one just ready to hatch will die in the shell because of its inability to break through its tough outer covering.

You have been told of the various kinds of feed good or bad for pigeons. The manner in which they are fed is quite as important as the food they get. The finest mixture of pigeon grain in the world can not only be entirely ruined but made very dangerous to feed to pigeons if handled in a careless and slovenly manner. There are two places grain should not be placed for the birds to eat. One is the floor of the squab house, and the other is outside on the ground in the flying pen. Any great quantity of grain carelessly thrown upon the floor of the squab house will soon be made absolutely unfit to eat by the continued droppings from the birds and from the manure that gathers upon their feet. If it be thrown upon the ground in the flying pen it will quickly absorb the dampness from the ground, becoming sour and again a dangerous food for the pigeons to eat. The grain your birds consume must at all times be absolutely dry and clean. All feeding should be done inside the squab house, where there is not the slightest possibility of any of it becoming damp, and as a result turning sour.

Of course nothing of a disastrous nature would occur if a few hands full of feed were scattered upon the floor of your house, and it was quickly picked up by the pigeons. Hemp seed should always be fed this way. What the author desires to impress upon the mind of the beginner is that no large quantity of feed should be allowed to stand where the birds can walk about upon it making it filthy and unfit for consumption.

There are two excellent ways of feeding pigeons. Many breeders use a small trough which is placed

in the center of the squab house floor and just enough grain placed in it to satisfy the birds for that one feeding. A little experimenting on your part will soon demonstrate how much feed your flock will clean up at any specified time of the day. A couple of 4 inch boards fastened together with wood cleats on the bottom, and with a small strip tacked around the edges affords another excellent place in which to feed. The strip about the edges of your little platform keeps the birds from scattering the grain to any very great extent. Pigeons will throw their feed about in a most discouraging sort of manner, in an effort to get the portions of it which best suits their taste. Feeding in a trough or upon a board is the manner in which most of those interested in squab culture handle their flock when they are in a position to give their birds attention oftener than once each day. Birds fed in this manner generally get grain twice daily. First thing in the morning and during the early afternoon. Just sufficient grain so there is none left to be trampled upon after every bird has gotten his or her share.

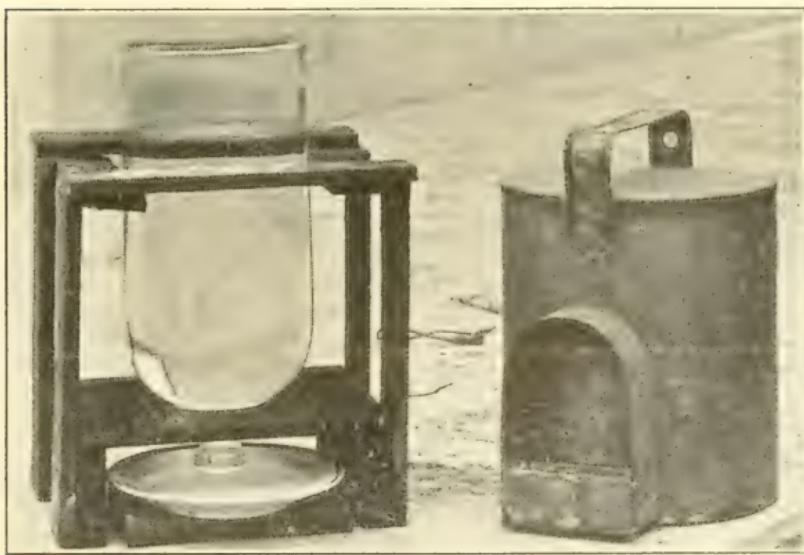
The hopper system of feeding is very generally used by those operating large squab plants. It saves time and those who use it will of course argue that it is the only proper way to feed squab breeding pigeons. Their claim always is that pigeons with squabs in the nest should have grain before them at all times, if big, fat squabs are desired. As has been previously stated pigeons as a rule do not over eat, so of course there is no danger in adopting the hopper system of feeding. There are innumerable appliances in use for feeding in this manner. Many of them are very ingenious and of home made variety. There are several patented feeders that possess splendid features. The idea of the hopper system of feeding is to enable one to place a large quantity of grain in the squab house, but at the same time arrange it so the birds must eat up what is in front of them before more puts in an appearance. A little thought and a few minutes work will result in a pretty sensible automatic feeder.

More sick pigeons come as a direct result of being improperly watered than in any other way. They positively must at all times, have before them plenty of cool, fresh drinking water. The water they drink can only be kept clean of course by being protected. Pigeons dearly love to get into a pan of water and take a bath, and if their drinking

water is placed before them in an open pan or dish it will be made absolutely filthy within a few minutes by the manure from their feet and from their droppings. There are a great many protected drinking fountains made, and there is little choice between any of them. They are arranged so that fresh water takes the place of that consumed by the pigeons. The two accompanying illustrations show a galvanized drinking fountain which is for sale by nearly all pigeon and squab companies, or can be made by any tinner, and also a fountain of home made design where a large bottle is used. One serves the purpose quite as well as the other. The metal fountain with the handle is of course more convenient to carry about, and to fill. In extremely cold weather, provided you do not provide artificial heat in your squab house, your drinking fountains should be removed in the late afternoon and placed in your house, or some other warm place. If allowed to remain in the squab house the water inside of them will of course freeze, and may result in breaking your fountain. They can be put back into the squab house again in the morning at feed-

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#### DRINKING FOUNTAINS.



The photographs show two splendid drinking fountains. The one with the large bottle is of the home-made variety. The second one is made of galvanized iron. The galvanized fountain can be purchased from any squab company or poultry house. The cost, as a rule, is about 75 cents each for a two gallon fountain. The home made one will serve the purpose as well, although it is more trouble to fill it.

ing time. There are several makes of patented water fountains that have a small lamp attachment which keeps the water from freezing in the coldest of weather. These can be used if desired, and can be purchased from most poultry supply houses.

Many large squab plants do both their feeding and watering from the passage way at the rear of the units. In this case both the front of the hopper feeder and the front of the drinking fountain protrude into the unit at the bottom of the wire partition which separates the unit from the passage way. In this manner both feeding and watering is done without entering the unit, and the old birds are only disturbed when it becomes necessary to clean, or take out the squabs for killing.

It might be well to add at this point that in many plants that have the multiple unit house, with the passage way at the rear, the wire partition separating this passage way from the various units is covered with burlap or other material. This is done so that one may pass up and down the passage way without unnecessarily disturbing and frightening the birds.



## CHAPTER V.

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### CLEANLINESS ESSENTIAL.

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#### Keep Floor and Nest Boxes Free of Manure—Scald Your Drinking Fountains.

Your pigeons and the place in which they are kept must at all times be kept clean and sanitary. If this is not done success is impossible, and failure an absolute certainty. Pigeons are not subject to lice, mites or any of the numerous parasites which are so prevalent among chickens, and given any degree of care you need never have fears along this line. Pigeons will always be as clean as you will permit them to be or as dirty as you force them to be. It's always up to you. They are naturally very clean and will keep themselves in that condition if given the opportunity. You will seldom find pigeon droppings in a newly made nest, nor will you find much of it there until the youngsters are born, and are a week or ten days old. The older birds are very neat about themselves during the incubation period, and retain their droppings until their turn to leave the nest arrives. They are not, however, so particular when it comes to other parts of the squab house or the next door neighbor's nest box.

Your squab house floor, the nest bowls, the nest boxes in fact every place where manure accumulates, should be thoroughly scraped at least twice each month. Once each week is not too often if the weather will permit. On extremely cold days it is not advisable to disturb your flock by entering the squab house for the purpose of cleaning. Wait until a warm day if possible. Cleaning in the winter time can not, of course, be done with the same degree of regularity as in the warmer periods of the year.

When you enter your squab house the majority of your birds that are sitting on eggs or small squabs will, in all probability leave their nests and seek a perching place out in the flying pen. Don't worry, they will come back as soon as you leave the house and continue their household duties. Do all your cleaning as promptly as possible, spending as little time as possible in the squab house. If the weather be extremely cold and you keep those that are setting off of their eggs any great length of time, the eggs will become chilled and will not hatch as a result.

Scrapers of various designs and sizes are used for cleaning both the floor, nest boxes and nest bowls. It is much easier to remove pigeon manure which is still slightly moist, than it is to remove it after it becomes dry and hard. This you will discover to your entire satisfaction after having tried both ways. The scrapers most generally used for cleaning purposes are illustrated in this book, and can be purchased of any squab company, hardware or general store, or if you are of a mechanical turn of mind one can be fashioned out of ordinary bits of sheet iron.

The author has always used nest bowls in connection with his own private experimental flock of pigeons, for the very simple reason that it unquestionably makes the cleaning portion of the pigeon industry much more agreeable and not so tiresome. If you use nest bowls in connection with your nest boxes it is advisable to proceed as follows:

Some pairs of your pigeons will build a very large nest, one that scarcely leaves them room to get in and out of the nest box. Others appear to get along with but a few bits of nesting material, in fact the author has one exceptionally productive pair whose nest, when completed to their entire satisfaction, generally consists of about two short tobacco stems. After the first egg is laid a little additional nesting material is placed in the nest bowl of this particular pair of birds by hand. This pair never appears to object to having others than their immediate family take part in the nest building, and proceed with the laying of the second egg, and the hatching of both eggs in due time.

After the squabs are two weeks of age they should be lifted from the nest for a few minutes while you empty out all the nesting material in the bowl and give it and the nest box a thorough scraping and cleaning. Place the cleaned nest bowl back in the nest box and put back into the nest bowl

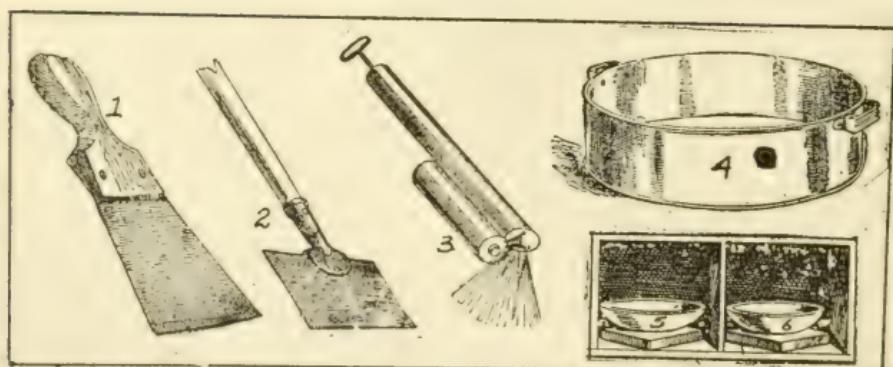
the squabs you removed while doing the cleaning. At two weeks of age the squabs are sufficiently developed and quite sturdy enough to not longer demand any nesting material upon which to sit. This is particularly true during the summer months, although putting into the nest bowl a small amount of new fresh nesting material after you have thoroughly cleaned the nest bowl, during extremely cold weather, is not objectionable and assists in keeping the youngsters warm and comfortable. If you use the earthenware nest bowls you should not attempt to act on this suggestion. It can only be done with the wood and wood pulp bowls. The earthenware bowls are entirely too cold and damp.

After you have cleaned your nest bowls as indicated above, and have placed the squabs back in them, you will discover from that time on little if any of the youngsters manure in the nest bowl. If you observe closely you will notice that before venting they will back up to the edge of the bowl and deposit their droppings into the nest box around the edges of the bowl. A circular pile of manure will gradually accumulate and it is a simple and easy matter to temporarily remove bowl and squabs whenever desired and scrape out this manure, which is of course free from all foreign substances, and as you will see later on, is quite valuable and well worth saving.

Your water fountains should be scalded out occasionally so that they are at all times sweet and clean. The board upon which you feed, or the trough in which you feed, or the hopper in which you feed must of course always be kept perfectly clean. Occassionally stand them out in the sun. In fact do all that is necessary to keep your squab house and the things that are in it as clean and free from filth as it is possible to do, and in addition to this give your birds a bath every day the weather permits. This is as a rule done outside in the flying pen. You will find many specially advertised pigeon bath pans, all of which are good. An old dish pan will serve the same purpose if you do not wish to invest in the specially prepared article. Set the pan in the middle of your flying pen, fill it with about 4 inches of water, retire from the flying pen and in a mighty short period of time all the birds in that particular house, who are not inside attending to domestic duties, will be exerting every effort possible to either get into the pan of water, or stand near the pan's edge and allow those in the pan to shower them with the water as it is

scattered about. Pigeons certainly enjoy taking a bath, and as it greatly assists in keeping them free from parasites of all kind, they should not be denied a bath once each day the weather will permit. In extremely cold weather they should not be given a bath. Sometimes it is necessary to deny them this pleasure for a number of weeks owing to weather conditions. They will only make a quicker rush for the bath pans when given the opportunity after a temporary let up. Bathing your birds is but little trouble if the work is done in a systematic manner. Fill the pans with water the last thing in the evening, after the birds have gone inside the squab house for the night. It will be there for them early in the morning, and by the time you are up and about they will have completed the bathing and you can enter the flying pen, throw out the dirty water still remaining in the bath pans, stand the bath pan on edge some place inside the flying pen where it will be handy for use again that evening.

#### TOOLS FOR CLEANING.



No. 1—Hand scraper for cleaning out the nest boxes and nest bowls. No. 2—Floor chisel for scraping the floor of a squab house. No. 3—Insect sprayer used for spraying all parts of the squab house, nest boxes, nest bowls, etc. No. 4—Galvanized bath pan. Sixteen inches wide. Not more than 4 inches high. One pan for every 15 pair of pigeons is recommended. Nos. 5 and 6—Nestbowls in nest boxes.

## CHAPTER VI.

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### KILLING.

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#### Varieus Ways to Do It—Bleeding and Dry Picking the Best.

Squabs are killed when about four weeks old. There are several ways of killing squabs preparatory to sending them to market. In some localities their necks are simply broken, their legs tied together, and they are shipped in bunches with the feathers on. Some buyers of squabs will accept them after their necks have been broken and they have been scalded by being dipped in hot water and the feathers removed. If you sell your squabs to persons in your home town it will also no doubt be necessary for you to remove their entrails. It is essential therefore that you fully advise yourself exactly how your customer wants his squabs killed and dressed.

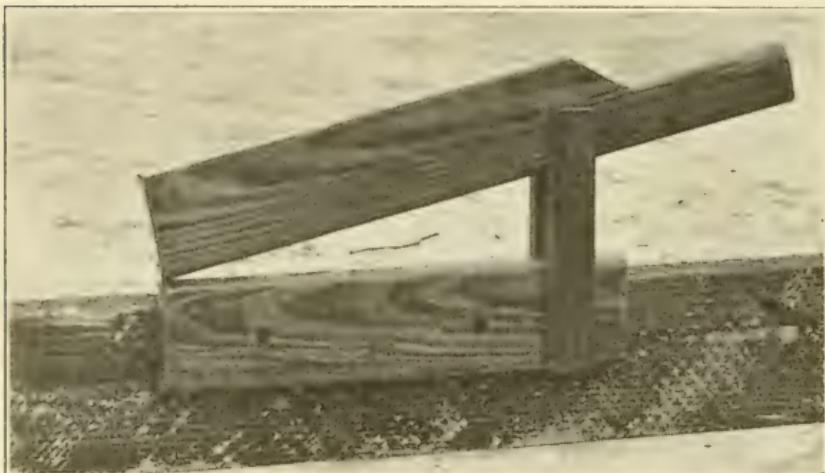
Bleeding and dry picking is the universal manner in this section of the country in which squabs are prepared for market. This is done by suspending the squab to be killed by his legs, locking back the wings, and inserting a sharp knife into the mouth of the squab and with an upward cutting motion penetrate the brain of the squab. This cuts the jugular vein and permits a free and uninterrupted flow of blood. It also loosens the feathers, which should be plucked while the squab is still hanging and the body yet warm. It is absolutely essential that all animal heat be removed from the body of the squab no matter in what manner it may be killed. If squabs are packed or thrown together while yet warm with animal heat, they will be ruined. After having bled and plucked a squab, if the weather is not excessively hot, it may be allowed to hang until entirely free of all animal heat, or can be thrown into a tub of ice or cool spring water. Squabs that you may ship to the larger

centers have their heads and feet left on, and the entrails are not drawn.

There are several ways of breaking a squab's neck. Wringing its neck is frequently done, but care must be exercised in doing this or the head will be wrung from the body. If you take the neck of the squab between the thumbs and first fingers of both hands you can easily break a squab's neck by a slight pressing and pulling motion, which causes instant death. Some use a machine for killing. A very simple arrangement which can be put together in a few minutes.

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### KILLING MACHINE



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It consists of two small pieces of board about one inch thick, two inches wide, one being eighteen inches long, the other about 14 inches long. Round off one of the edges of each piece. These two pieces are fastened together at the end by a small strap hinge as indicated in the accompanying picture. Nail the lower strip to the side of a box. The upper strip acts as a lever. Two small strips at the unhinged end act as guides for the lever. Place the neck of the squab on the lower piece of wood and press down the upper piece, not too severely. The neck of the squab will be broken instantly. The two pieces of wood are rounded off on the contact sides in order to prevent cutting the flesh on the squab's neck.

After you have killed a squab in this manner it is best to pluck it at once, if it is to be plucked, and then get the animal heat out of the body by either allowing it to hang suspended over night or by tossing it into cold water to remain until thoroughly cooled. Care should be used not to allow squabs that are being cooled to remain any place where they may be reached by cats or rats.

The killing and preparing of squabs for market is not a difficult or repulsive operation, and with a little practice and the adoption of some well regulated system, becomes but a small part of the squab industry. In large plants where many squabs are killed women or boys are employed to assist with the plucking.



## CHAPTER VII.

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### BANDING.

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#### How It Is Done and What It Is Done With.

In order to know at all times the exact number of squabs each pair of your breeders is producing it is essential that you keep a record of the activities of each pair. This information can not be carried in one's head. It is well to know at all times just what every pair of birds you have is doing. A pair of birds that are producing but few squabs will eat as much as a pair that is keeping well up to the average. They will take up the room which could be given to a productive pair. You wish to know these facts, and there is but one way to arrive at them. Every pair of birds in your squab house should be banded on the leg with a number band. If you have fifty pairs of breeders in one house then the numbers should start with one and end with fifty. The cock bird should be banded on the right leg and the hen on the left leg. There are a great many kinds and makes of pigeon leg bands. There are several which are called the double number band. These are an aluminum band which comes to you in a flat condition, but which you shape by folding around a pencil or small piece of wood about the size of a pencil. They are easily placed upon the legs of the pigeon, and as each band has the same number on it in two different places, and the numbers are of a good size, it is an easy matter to read them at quite a distance. Pigeons that you purchase from reputable squab and pigeon companies will come to you already banded. The bands are not as a rule, however, of the double or single variety. They are simply a small aluminum band which is placed on the birds to enable you to tell the cocks from the hens when you receive them. They are amply good for that purpose, but for the purpose of keeping records of your birds are of little value, as it is necessary to catch the actual

bird and examine the small number on the band. This takes a vast amount of time, and in addition to that keeps your flock in a very wild state. It is poor policy to be continually catching your pigeons.

The double or single number bands are not expensive, and a sufficient number to band 50 pairs can be purchased from almost any squab or pigeon company for about \$1.25. Having your birds all properly banded it is then necessary that you have fifty small cards, one for each pair. Keep these cards at some convenient place in the squab house. Put the pair number at the top of the card. When the second egg has been laid give that particular pair credit for two eggs on the card. Mark down the date laid. Seventeen days from that date the squabs should be putting in an appearance. Make a note of whether one or both eggs hatched on the card. If you care to make a note of what disposition you made of the squabs later on, put that on the card also. In fact write on the card anything pertaining to that particular pair of birds which may come to your notice. If you do this in six months' time you will know exactly what may be expected of every pair of birds in your house, and if there be any poor workers their shortcomings will have evidenced themselves amply by that time.

If you are going to save any of your young birds it is of course very essential that you know who their father and mother was. There are squab bands as well as bands for the old birds. You can purchase small numbered bands if you wish, but the author has used exclusively in banding his youngsters, and recommends what is generally termed the flat blank or open aluminum band. In connection with the use of these bands it is necessary for you to have a set of steel dies with numbers on them from 1 to 0. These dies can be purchased at any hardware store, or from squab and pigeon companies. We will say, for example, you have a pair of youngsters about 4 weeks old out of a pair of old birds that have proved wonderfully hard working pigeons, and realizing, as you will, that like begets like, you wish to save that pair of squabs. The old pair of birds, are, we will say, No. 28. Take two of the open V-shaped blank flat bands and place them on a smooth surface. At the extreme left end of the band stamp the number "28." That indicates the pair from which the squabs were raised. The youngsters, we will say, were born in February. In the middle of the band stamp the number "2." That indicates the number

of the month in the year in which the pair were born. At the extreme right end of the band stamp "16" if that happened to be the year in which they were born.

Your band would then read "28 2 16." Shape the band into a ring by using a round pencil, and then re-open it sufficiently to admit of it being slipped about the leg to the squab, after which, of course, it should be pressed together again. In about 5 months from the time these young birds have been placed in the rearing pen they will begin to mate up with others of opposite sex in the same pen. When you find a pair mated you can catch them and by an examination of their bands you will know exactly from what old pairs they came and the month and year of their birth. You can then remove the small bands and replace them with the double number bands, provided of course they are mated up to suit your wishes. You will then give them a regular pair number and on their card you will put the information about their parentage and month and year of birth. In this manner you will have a complete card index of every bird in your house, and can absolutely prevent any inbreeding, a subject which is dealt with further along in this volume.

You no doubt will from time to time run across persons who will tell you that banding your flock is all foolishness, a waste of time, and that just as good results can be obtained without bothering about banding. The author absolutely disagrees with any one making such a statement, unless of course the flock be limited to a few pairs of different plumage, and no effort is made to increase the number of birds. With flocks of any size, however, banding is the only manner in which you can keep an accurate record of what each pair is doing. By the use of bands you can mighty quickly tell whether you have a pair of birds who are not worth the grain they consume, and can get rid of them.

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### DOUBLE NUMBER LEG BANDS.



## CHAPTER VIII.

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### THE REARING PEN.

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#### How to Arrange It—When to Wean the Young.

If it is your intention to raise some of your young birds with the idea of adding to your flock, or of selling them when they reach adult age, it is necessary that you have a separate pen in which to place them when they have reached the weaning age. The rearing pen should be equipped in every particular just as is your breeding pen. As your youngsters grow they will become familiar with the general arrangement of nest boxes, drinking fountain and feeder, and when later on removed to the breeding pen there is little delay in their going to work. You will understand, of course, that it is not absolutely necessary that rearing pen and breeding pen be exactly alike in every particular, but simply that it is better if such an arrangement can be made. If you construct your own house, you can make it of two units, one for breeders and one for young stock, with but little more expense than is necessary to construct a single unit. The author's first rearing pen was a small portion of an old barn loft, and he had excellent success with it, but since building a modern unit house, in which every unit is exactly alike, he finds the young birds go more promptly to work after they have been mated up in the rearing pen and are for the first time released among the older birds.

Young birds should not be left among the old birds in your breeding pen any great length of time. Between six and seven weeks of age is a good time to remove them and put them in the rearing pen among the other young birds. They have by that time learned to hustle for themselves and will get along all right. At five weeks of age, you will frequently find the old cock bird still willing to give them an occasional meal, and as long as this is the case it is best for them to remain among the

old birds. They will get many a peck from the older birds as soon as they leave their nest, which is at about the age of five weeks. You will find them aimlessly wandering about the floor of your squab house, apparently getting in every other pigeon's way, and in place of increasing in size apparently getting smaller. Squabs for market are, as has been previously stated, killed at the age of about four weeks, just before they leave their nest. Frequently at this time of their existence, they are larger than their father or mother. For four weeks they have sat quietly in their nest with their crops bulging with grain, and their little bodies have become plump and round. This condition rapidly changes when they leave the nest. The parent birds will, in all probability, have another nest with eggs in it by this time, and they give but little attention to the young birds. The cock bird apparently does not so soon forget his off-spring as the hen, and he will from time to time feed them. His fatherly administrations begin to dwindle toward the end of the fifth week and the young pigeon must then hustle for himself, and in so doing he meets with many rebuffs from the older pigeons, just as it is among human beings. He grows thin and rangy looking, as a consequence, and does not become a thoroughly rounded out pigeon again, until he has mastered the art of getting his share of grain, grit, water, etc.

As a general rule young pigeons will begin to mate up with one another, at between the ages of five and six months. Some will start sooner, but not many. They are somewhat awkward, as well as slow about the building of their first nest, and the laying of the first setting of eggs, and in a great many cases either one or both of the first eggs will prove infertile. It has been found advisable, to allow a young pair to hatch, and raise their first setting of eggs before they are removed to the breeding pen. They have more confidence in themselves by that time, and will apparently get off with a better start, when first released with the older birds. It may be necessary to destroy a setting of their eggs, when they are removed, but if they are the right kind of birds, and have had the proper kind of attention, they will in all probability have another set of eggs in their new home within 10 days or two weeks. Some times you will have a nest in your breeding pen in which there may be one egg, caused by some accident, and if it has been laid within a day or two of the time the eggs of the

young were laid, you can put one of the eggs of the young pair in this nest, and thus save losing at least one of the eggs. Of course, if you can find places for both eggs, save them. Pigeons make no objection to having additional eggs put in their nest, and will continue setting quite the same as if nothing had happened. You can switch your eggs about as much as you please, provided of course, the eggs you put under one pair of birds were both laid within a day or two of each other. Also, you should not place a pair of eggs which have but recently been laid, under a pair who have been setting for a week or ten days. A few days one way or the other, will make little difference, but after a pair has been setting the necessary 17 days, and they find their eggs are not hatching, they are very apt and generally do, desert them and start building elsewhere.

Sometimes it becomes necessary, rather than to destroy an odd egg, to place it in a nest where there are already two eggs, making a total of three. This can also be done, and there is little doubt, but that the pair in whose nest you have placed the three eggs, will go right along taking good care of them. If the three eggs hatch, and you have another nest in your squab house, with but a single squab in it of about the same size, take one of the three and put it in the nest with the single squab. Neither of the pairs of old birds will complain about the decrease or addition to their respective families, and you will get better results than if you burden one pair with three youngsters to feed and look after. The author has experimented by placing four squabs in one nest. The old birds will do the best they can with such a large and unusual family, but it is both hard on the old birds and the squabs, and should not be attempted unless necessity absolutely demands. In case of the death of a pair of old birds with squabs, through some unlooked for happening, it sometimes might become necessary.



## CHAPTER IX.

### HOW TO TELL THE SEX.

It Can't Be Done By Examination—Only By Observation.

You cannot tell the sex of pigeons by catching them, and making an examination of their bodies. You might do so if you killed the pigeon and cut it open, but it can't be done by any outside observation. There are, however, numerous ways in which you can tell the cock bird from the hen bird, but they must all be done by observation. It is true that the bones at the vent of a female pigeon are wider apart than they are on the male, but if you should happen to catch two females one after the other, or two males one after the other, for examination this bit of information would prove of no avail. If you knew for a certainty, that one bird was a hen and the other a cock, this bit of information could only be used to prove what you already know. Birds which you purchase from squab and pigeon companies, will in almost every instance come to you properly banded, cocks with bands on the right legs, and hens with bands on the left legs. There is therefore no necessity for you to worry yourself about the sex of your first lot of old birds. It might well be said here in passing, however, that it is a good thing for you when purchasing pigeons from dealers, to absolutely demand that they are both banded and mated. You would hardly have to ask this of reputable concerns, but like every other business, the one of selling pigeons has its generous number of unscrupulous dealers.

When your young pigeons begin to mate up with one another, watch them carefully whenever you have the spare time. If you do you will witness a number of things, which will quickly tell you the cock bird from the hen. About the first thing you will witness is the process termed billing. One

of the birds will take the bill of the other one inside its bill and the two of them will go through a sort of pumping process, very similar in every respect to the motions you see when the older birds feed their squabs. The bird that has its bill inside the bill of the other is almost invariably the hen. The other pigeon must, therefore, of necessity be the cock. Occasionally, but not often, two cocks will temporarily decide to make a fruitless effort at mating. In that case you could tell nothing about the sex by witnessing them billing. Such occurrences are not frequent, however, and as a general thing, the above rule holds good.

As a general rule, treading immediately follows billing. It is presumed that the cock will tread the hen, and not the hen the cock, but such is not always the case. The cock as a rule treads the hen first. Generally that ends the treading, but not always. The hen will sometimes tread the cock in turn. If you have witnessed the billing you can with a great amount of certainty pick the cock bird, as he is generally the first to tread.

A cock bird as a rule does a vast amount of cooing and strutting about the loft, and when making advances to a hen pigeon, will drag his tail about on the floor, ruffle up his neck feathers, and turn round and round in an effort to attract the hen's attention to his many superior qualities. A hen pigeon will strut about and coo a bit at times, but does not find it necessary to turn around in a circle several times in order to attract attention. She seldom goes more than half way around.

It is a mighty easy matter to tell a cock pigeon from a hen pigeon, after the first set of eggs have been laid, and have been in the nest a couple or three days. When you enter your squab house early in the morning, the pigeon that is sitting on the nest at that time is the hen. Her time for sitting on the eggs is not up until about 10 o'clock in the morning, and unless she has been frightened off when you enter the squab house, or by some one else before you entered, she will be right where she belongs. Catch her and band her on the left leg. The other pigeon of that pair is of course the cock.

It has been said that the surest way to tell the sex of young birds, or for that matter old ones too, is to watch them when they are driving one another around the squab house or loft. The one being driven

about is the hen, and the one doing the driving is the cock. As a general rule this holds absolutely true, but there are sometimes drivings going on in your pens that tax your patience, to say nothing of confusing you, especially a beginner. Sometimes two cock birds will decide to mate up with the same hen, and they will both proceed to make her life somewhat miserable by driving her about. That's possibly not so bad, for you can catch one of the cocks, and remove him from the pen for a few days, until he has changed his mind. Two cocks will sometimes, however, take a sudden and unexpected liking for each other, and go galavanting around the squab house and flying pen, even going so far as to build a nest and sit in it. Lots of good it does them, for of course, no eggs put in an appearance.

When the author first started in the pigeon business, he had unloaded upon him just such a pair of birds. They billed, they treaded, they built nests and they industriously sat in them, but as the small boy says, "there was nothing doing." This kept up for several months until one day a gentleman visited the loft and his attention was called to this particular pair of birds. He was an experienced pigeon fancier and immediately surmised the difficulty. As a result of his visit, the two birds were taken from the loft and each one placed in a mating coop with a young female. They both mated up in a few days, with the hens which had been provided for them, and when put back into the loft began life all over again, but each with a different partner, and they billed, and they treaded, and they built nests, each in company with his new mate, and best of all both of the pairs had eggs and raised squabs. So you see there is an exception to the rule about being able to tell the sex from watching the birds drive.

Little can be told about the sex of pigeons by witnessing any fights among them in your squab house. The cocks as a rule get into more arguments than do the hens. A beginner may experience some difficulty in applying all of the above general rules, but within a short time he should and will be able to tell the cocks from the hens, by watching them but a minute or two when they are active about the squab house or flying pen..

## CHAPTER X.

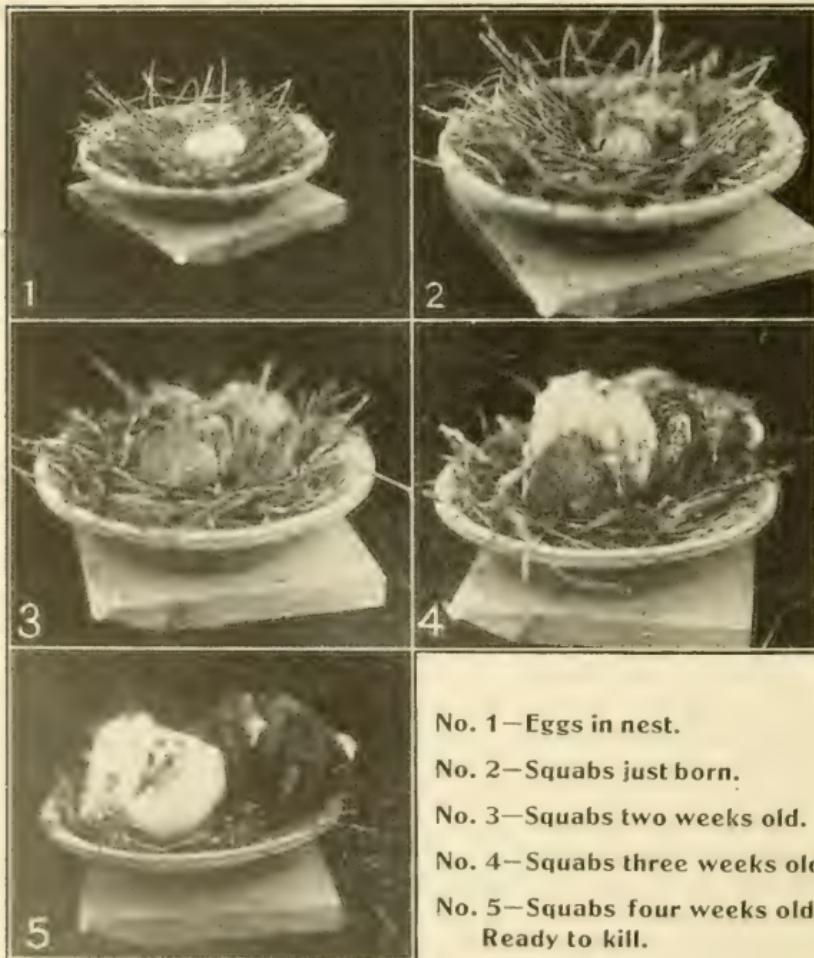
### PIGEON PECULIARITIES.

#### Many Valuable Points About Their Habits.

You will find as you go along in the pigeon business there are many things you can do with your birds, which at first will appear out of the question, and foolish to attempt. Pigeons once mated to one another, will remain so indefinitely, if they are left together in the same pen. The hen takes unto herself a cock and the cock takes unto himself a hen, and that ends it, unless human beings decide to interfere. Two or three roosters is sufficient for a small flock of chickens. In raising pigeons, however, you must have one cock for every hen. An excess of cocks or an excess of hens in your breeding pen will cause you no end of trouble and expense. Particularly is this true of extra cocks. One or two odd cocks in a pen of working pigeons will be continually fighting with cocks already mated in an effort to steal that particular cock's hen. Nests will be destroyed, nest bowls upset, eggs knocked out upon the floor and broken and many a young squab but recently born will be trampled to death. Enough squabbling occasionally takes place among evenly mated pairs without adding to the difficulty by having any odd birds to join in. Keep nothing but evenly mated pairs of birds in your breeding pen. The youngsters you may be saving, and who are only 5 or 6 weeks old, will not cause any trouble among the older birds, except to take up room and apparently get in every other bird's way. You will be removing them soon, however.

Suppose you possess a fine pair of Homers or Carneaux and you are particularly anxious to get as many of their young in one year as it is possible to raise. The average number of squabs raised in one year by a working pair of good Homers or Carneaux is somewhere between seven and nine pairs.

You can increase this number by a little manipulation of the eggs of any particular pair. Having decided upon the pair from which you desire to raise as many squabs as possible, wait the time until the second egg of any particular setting has been laid. Look up your cards and find another pair of birds who have laid their second egg within a day or two of the same time. Take these two eggs and destroy them. Take the two eggs from the nest of the pair you are anxious to raise the additional squabs from, and put them in the nest where the eggs were which you have destroyed. In due time they will of course be hatched out by their foster parents. The fine pair of birds will lay two more eggs within the next ten days or two weeks. Go through exactly the same process again, taking their eggs away from them and placing them under some other pair. In



No. 1—Eggs in nest.

No. 2—Squabs just born.

No. 3—Squabs two weeks old.

No. 4—Squabs three weeks old.

No. 5—Squabs four weeks old.  
Ready to kill.

ten days to two weeks your fine pair will again lay two eggs. Allow them to sit upon and hatch out this third setting of eggs and raise the squabs to weaning age. As soon as another setting of eggs has been laid you can again begin your process of removing the eggs and placing them elsewhere. Allow them to sit on every third setting of eggs, if you do not they might become discouraged and stop laying entirely for a time. Anyhow they are entitled to occasionally enjoy the pleasures of motherhood and fatherhood.

You may not find it necessary every time to destroy two eggs of some other pair in order to accommodate the change you contemplate. Possibly from time to time you can find a pair of birds in your squab house with only one egg in the nest, and provided this egg was laid within a day or two of the time the eggs you contemplate destroying were laid you can place an additional one in that nest. Birds that have only one egg make no objection whatever to having an additional egg put in their nest. As a matter of fact they will go right on with their setting if they return to their nest and find two additional eggs, three in all. If all three eggs hatch they will do their best to raise the large and unusual family. Through unlooked for mishaps the author has had as many as four small squabs in one pair's nest at the same time.

You can exchange eggs from one pair to another just as much as you please provided always, of course, that all eggs so exchanged have all been laid within one or two days of each other. It is hardly fair to put two newly laid eggs under a pair of birds that have been sitting, we will say, for two weeks, and expect them to go ahead and sit all the additional time which would be required for them to hatch out the new eggs. They, in all probability, wouldn't do it anyhow and would probably become discouraged and desert the nest and its eggs. If eggs upon which a pair of birds have sat for the necessary 17 days do not hatch within a day or two of the proper time, instinct seems to tell the pigeons that the eggs are infertile and they soon desert them. Something about infertile eggs is told you later on in this volume.

Frequently you will find that one of the squabs in a nest is apparently not making the progress the other is. He is being cheated out of his proportion of the food furnished by his father and mother. His nest mate is in all probability a little the

stronger squab of the two and crowds the weaker squab to one side when the older birds fly to the nest to feed. You cannot, however, lay the blame upon the apparently stronger squab in every case of this kind. The older birds will sometimes, for some absolutely unaccountable reason, show partiality themselves, and feed one squab more than they do the other. When you discover a condition of this kind hunt around your squab house a bit and see if you can't make a change of some kind. Possibly you will find a nest with but one squab in it and that squab the same size as one of those in the nest where your trouble exists. Place in the nest with the single squab the squab from the other nest which nearest equals his size. Again you may discover another nest in which there are two squabs, one of which is apparently getting the best of the feeding argument. Make a change here by placing the two small squabs in one nest and the two larger ones in the other nest.

You can switch squabs about with as much certainty as you can eggs. The older birds seem to care little about the new make-up of their family, and will generally go right ahead just as if nothing had been done to their original household arrangements. This information is of great value to any beginner, and if he is familiar with these facts at the beginning, he will save many an egg and squab which would ordinarily be lost.

Here is another piece of very valuable information: The first egg laid by a pair of pigeons generally contains the germ which when incubated the necessary seventeen days will turn out to be a male squab. The second egg generally turns out a female squab. It must not be assumed that this rule holds absolutely true and that every pair of eggs laid will result in one male and one female, nor that the first egg laid is always the egg in which the male will develop. In about every seven cases out of ten, however, the first egg will contain the male squab and the second the female. Also as a general rule, whether they come in the order named or not, one of the squabs is a male and the other a female. Sometimes both squabs will prove to be males and sometimes both females, but not as a rule and generally they are of opposite sex.

The information about the first egg containing the male squab is of great value if it is desired to raise more hens than cock pigeons or more cock pigeons than hen pigeons. You do this in this man-

ner. We will assume you are anxious to raise a surplus number of hens. As the first eggs are laid in the various nests mark them in some manner with a pencil. The second eggs will appear after an interval of one day. Put two of the eggs you have marked with the pencil in one nest and two of the eggs which are unmarked, which will be the second eggs laid, in another nest. Be sure and note the changes on your record cards so you can kill and sell the two supposed cocks and save the two supposed hens when they reach killing age. It is simple and very easily done and will very greatly increase the number of hens or cocks as desired.

From what has been said regarding the moving of eggs and squabs, one should not gather the impression that you can move the nest and eggs, or the nest and squabs, of any particular pair of birds, about the squab house and expect the old birds to continue to look after this nest and its contents no matter where you place it. Such a thing cannot be done. You can change their eggs and change their squabs apparently as much as you like, but you cannot change the location of their nest and expect them to follow it.

Occasionally you will run across a pair of birds that will greatly tax your patience by building their nest upon the floor or upon the top of the nest boxes, in place of in them, in fact most any place other than in the boxes you have provided for nesting purposes. This will frequently occur even though your squab house has been provided with a surplus of nest boxes. It is impossible to completely satisfy the demands of some pigeons. It is not an unusual thing to find a pair of birds who will insist upon laying their second setting of eggs right in the same nest box with their squabs, who are probably not more than two to three weeks of age. With young squabs in the nest the old birds are not given much opportunity to carry additional nesting material into this nest. What little they do carry is generally thrown out upon the floor by the squabs. You cannot possibly provide against such contingencies as this.

An occasional nest upon the floor of your house or upon the top of your nest boxes is not objectionable, and rather than run the risk of losing the eggs, nests of this kind had best be left alone. You can clean up that particular spot pretty thoroughly after the squabs have been removed or killed, and no serious harm will have resulted from the transaction.

In case a pair of birds lay eggs in the same nest with the squabs it is of course best to change this situation if possible. The eggs might hatch, or they might get crushed by the squabs which is far more of a certainty. A good plan is this. If there be an empty nest to the right or left of the nest in which the eggs have been laid with the squabs, put the squabs in that nest. They will be close enough to the old birds so they can hear their cries for food, and they will take just as good care of them as before.

Pigeons appear to have quite a habit of doing just the opposite at times from what you expect them to do. As a rule, after having built their first nest in a squab house a pair is very apt, from that time forward, to build all of their nests in nest boxes within a few feet of the point where they built their first nest. This rule is subject to change upon the part of the birds without notice. They may suddenly decide to build a nest in entirely another section of the squab house. This may prove only a temporary move, and for a year thereafter they may build quite close to the original nest box, in fact in it as often as possible.

Some breeders advocate the use of double nest boxes in order to overcome this habit of the birds, and also the occasional habit they have of laying eggs in with their squabs. A double nest box is nothing more than a nest box which is twice as wide as the single box, and has no partition in the middle. An orange crate with the center partition knocked out would be a double nest box. It is argued that by using this style box there is ample room at all times for two nest bowls in the same box, if you happen to use, nest bowls, and of course always room for two nests. The birds in this case would naturally have room for squabs in one side of the box and eggs in the other. The plan no doubt has some merit, and no possible objection can be offered to its use. If you can get your birds to feel the same way as you do about it, it is all right. The author's experiments along this line were not particularly satisfactory. The pigeons still nested exactly where it suited them. Theoretically it is an excellent idea, but practically it does not result in much improvement. You cannot make pigeons occupy a nest box for which in its own mind it has some slight, possibly only temporary, dislike.

Pigeon eggs are not sold by the dozen as is the case with chicken eggs. Squab and pigeon com-

panies frequently receive letters from persons unfamiliar with this fact who ask for prices on pigeon eggs. Pigeons only sit upon eggs they have laid, or think they have laid themselves. You cannot take a pair of pigeons who temporarily for one reason or another have no eggs, put two eggs in any certain nest, and either by force or persuasion compel that pair of pigeons to sit on them. There is one thing right along this line, however, which you can do, and it might be to your advantage to know it. Occasionally, not often, however, you may run across a pair of pigeons who will do everything really industrious pigeons should do except that the hen pigeon will not lay any eggs. In this case it is a pretty sure thing that the hen pigeon is what is termed barren. She probably never will lay any eggs. A pair of pigeons of this character will generally build a very presentable sort of a nest, and the hen will spend much time sitting upon it. When they have reached this stage of their domestic relations you can, if you wish, take two eggs from some other nest and place them in the nest of this pair. They will generally welcome the arrival of the eggs, and show their true appreciation by sitting on them just as diligently as if they were their own. The author has read of cases, although he has never experienced the occurrence himself, where an apparently barren hen has been put on an egg producing basis by putting but one egg under her. It seems that such an act is presumed to get her mind on what is expected, and that within 48 hours she will lay another egg. Most writers about pigeons seem to agree that egg laying is a sort of mental process upon the part of the hen pigeon. It is very true she will not lay until she gets good and ready, and has everything arranged to suit her. The prompt arrival of the second egg is good evidence of this fact. It is a very rare occurrence to find an egg in the crate in which pigeons have been shipped, even a very long distance, and yet undoubtedly many of the hen pigeons in the shipment had thoughts of laying when started on their trip.

If at any time you purchase a number of pairs of pigeons from some responsible dealer who has guaranteed to send you mated pairs, you must not have a feeling of antagonism toward that person if after your receive your birds and they have been released in your squab house, you find them mating up differently from what they should according to their band numbers. A few pairs of pigeons ship-

ped all together in the same coop would in all probability reach their point of destination still mated as they were when shipped. In large shipments, however, it is customary to divide the cocks from the hens, placing so many of each in certain coops, and marking the coops in such manner as to indicate to you upon their receipt which coop of cocks goes with a certain coop of hens. Some breaking up in matings is positively bound to occur. For this reason the author suggests in the purchase of pigeons for squab breeding purposes, that the purchaser of course demand that all birds shall be properly mated and banded when shipped to him, but that no number bands be placed on any of the birds except the cocks. With an even number of hens and cocks a few changes in mates is of no consequence, and as rapidly as a pair build and lay eggs the hen can be caught and a number band corresponding to that of her mate be put on her leg. The bands to be used for the hens can be sent you by mail. The bands referred to here are of course what is styled the double or single number colored aluminum bands spoken of previously. Few dealers furnish these bands with their birds without extra cost. If you do not specify and pay the additional amount for colored numbered bands your birds will come to you with the small aluminum open bands on their legs. They are all right for telling the sex of pigeons, but of little use if you contemplate keeping a record of your flock. You can stamp numbers on them, but they cannot be seen without catching the bird.

Solid colored birds are not particularly well adapted for squab raising purposes. This may appear peculiar to a beginner but it is nevertheless true. This statement applies more particularly to the Homer than to the Carneau. If you desire to own a few pairs of solid colored Homers just because of the beauty of the birds, well and good, but do not expect either many or large squabs. If you do you will be disappointed. Size has been sacrificed for color in the breeding of solid colored birds. Some of the homiest colored birds the author has ever seen or possessed, proved by far the best squab breeders, while quite the reverse was true of birds with strikingly handsome plumage of but one color. If you are in the squab business for profit, it is results you are after. You want squabs which will weigh 9 pounds and over to the dozen. The person to whom you sell your product direct, or the firm to whom you ship will care

nothing about the color of the squabs feathers, or whether its parents were solid colored pigeons or largely resembled a piece of coal with a sprinkling of snow. He will demand that the squabs be white meated, plump and tender. The meat on a squab from a snow white pigeon is no whiter than is that on a squab from a variegated colored bird.

Occasionally you may run across what is termed a dark meated squab. The fault lies with the old birds. There is bad blood in them, and it is best to get rid of the pair immediately. The ordinary barn loft, or common pigeon, is largely given to the production of dark skinned squabs. Squabs of this character are bought, but at a very low price. If you purchase your breeding stock from reputable concerns you will not be bothered with many dark skinned squabs. If one should put in an appearance you will be able to tell it promptly without further advice on the subject.

Pigeons as a rule are a hardy lot. Beginners are very skeptical regarding the ability of a newly born pair of squabs to live. It is true they do not convey to one a sense of great recuperative power the first day they break forth from their shell. The slightest touch of a human hand would apparently put an immediate end to their earthly career. And yet such is far from the truth. They are mighty sturdy little bits of flesh and bone, and are apparently able to put up with much handling and rough usage. It is true if they are left unprotected in a nest just after their advent into this world, and the day be a blustery and cold one, they will eventually freeze. But they are not left that way. For the first few days of their existence the parent birds sit upon them quite as attentively as they did upon the eggs. In cold weather the old birds keep the youngsters warm and comfortable by nestling over them almost continuously, or at least until they are well feathered out, and have sufficient strength to resist the cold themselves.

Breeders successfully operate large squab plants in parts of the country where the thermometer gets many degrees below the zero point. Again the hottest sections of the country apparently have no effect upon the breeding proclivities of pigeons. In extremely cold climates better results can no doubt be secured in the winter time by slightly heating the squab house. The author lives in a climate where the mercury drops down to zero for certain periods of time during the winter months. He has experimented with heated squab houses

and with unheated squab houses, and can't say there is much in favor of one over the other. A heated squab house helps some, but it is doubtful whether the number of squabs that might have frozen had the house not been heated, will pay for the coal, oil or gas consumed in the heating. Squabs can be successfully raised in any kind of a climate, and if you can afford to heat your squab house enough to take off a little of the chill in terribly cold weather your net results would be better. Whether they would pay the heating bill, is another question. If you have a squab house free from drafts and dampness, you have done your part, and the birds will do theirs.

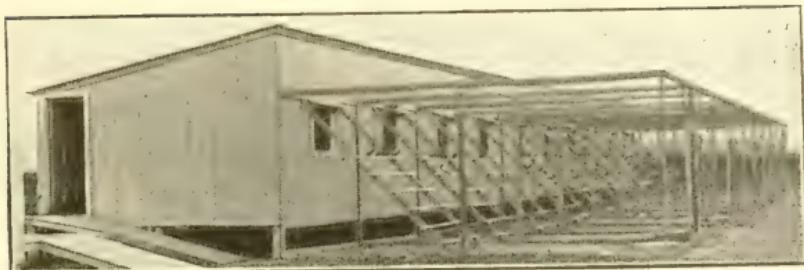
The molting season for pigeons is in the fall. Along about September some of the birds begin to shed their old feathers. Not all pigeons molt at the same time. While some begin in September, others do not start until October, and some do not finish their molting until November. All your flock will not molt at the same time. During the time pigeons are molting eggs are not as plentiful, and you must anticipate a slight falling off in your product during those few months. The arrangement, however, is far from an unsatisfactory one. The prices being paid for squabs during September and October is never as high as it is two months later. After pigeons have passed through their molt and have their new coat of feathers, they apparently take on renewed activity, and are back at their maximum capacity just at the time when squab prices are advancing. A really satisfactory condition of affairs.

Pigeons when molting sit around a good deal, and show but little interest in life. A little change in their diet. A little more hemp. A little tonic in their drinking water, such as a tablespoon full of common household vinegar, three or four times a week, helps them wonderfully. Use common sense, that's all. If you were feeling kind of dumpy and out of sorts you would be demanding a change in your diet. Pigeons confined within the four walls of a squab house and flying pen are unable to get for themselves the things which nature may have provided on the outside. You must be the one to furnish them.

A point to keep in mind at all times is this: Never have more than an even number of pairs of birds in your squab house. No odd hens or cocks should be permitted to be among your working

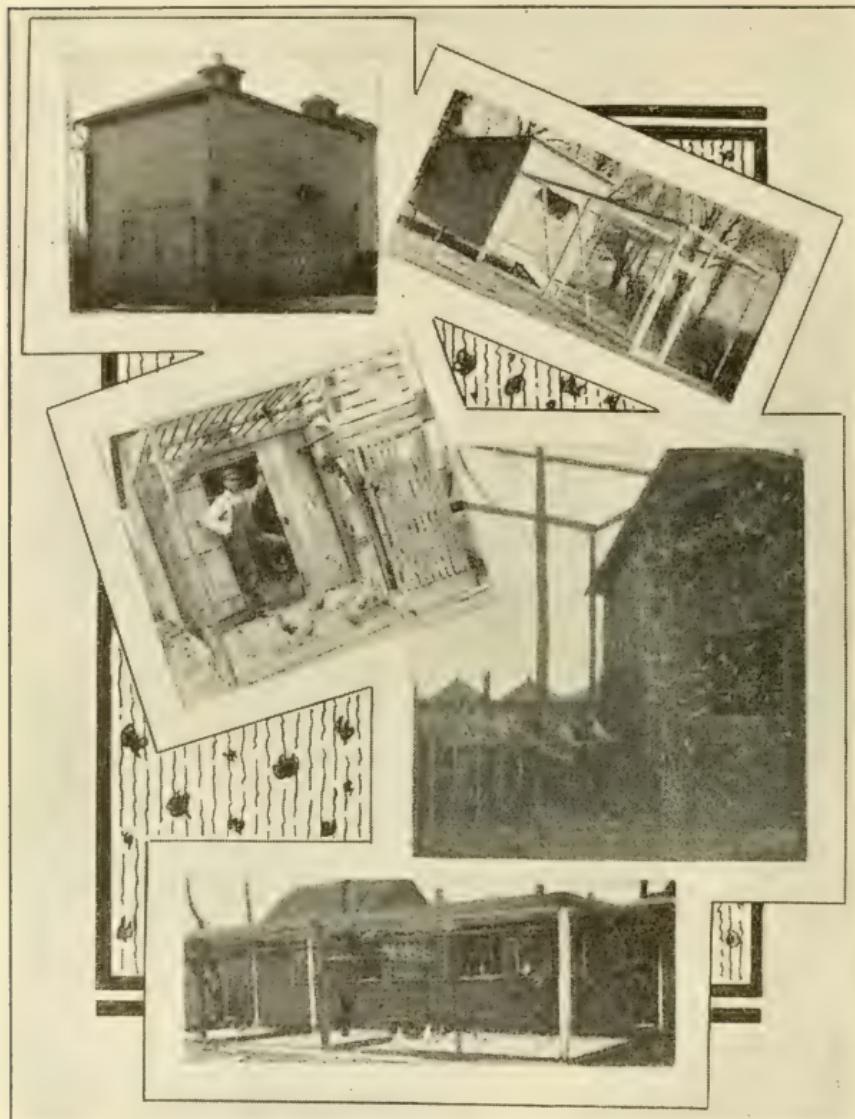
flock. Trouble, and lots of it, is sure to follow such a policy. Odd cocks create no end of trouble in a squab house by continually forcing their attentions on hens already mated up. Odd hens are not so bad as odd cocks, but they, too, cause discord, and it is far better to have every pigeon in your squab house mated. Overturned nests, broken eggs and crushed squabs will be few and far between if this piece of advice is followed. If you have any doubts about it, experiment for yourself. You will soon be convinced, although the experiment will prove a costly one.

#### A MULTIPLE UNIT HOUSE.



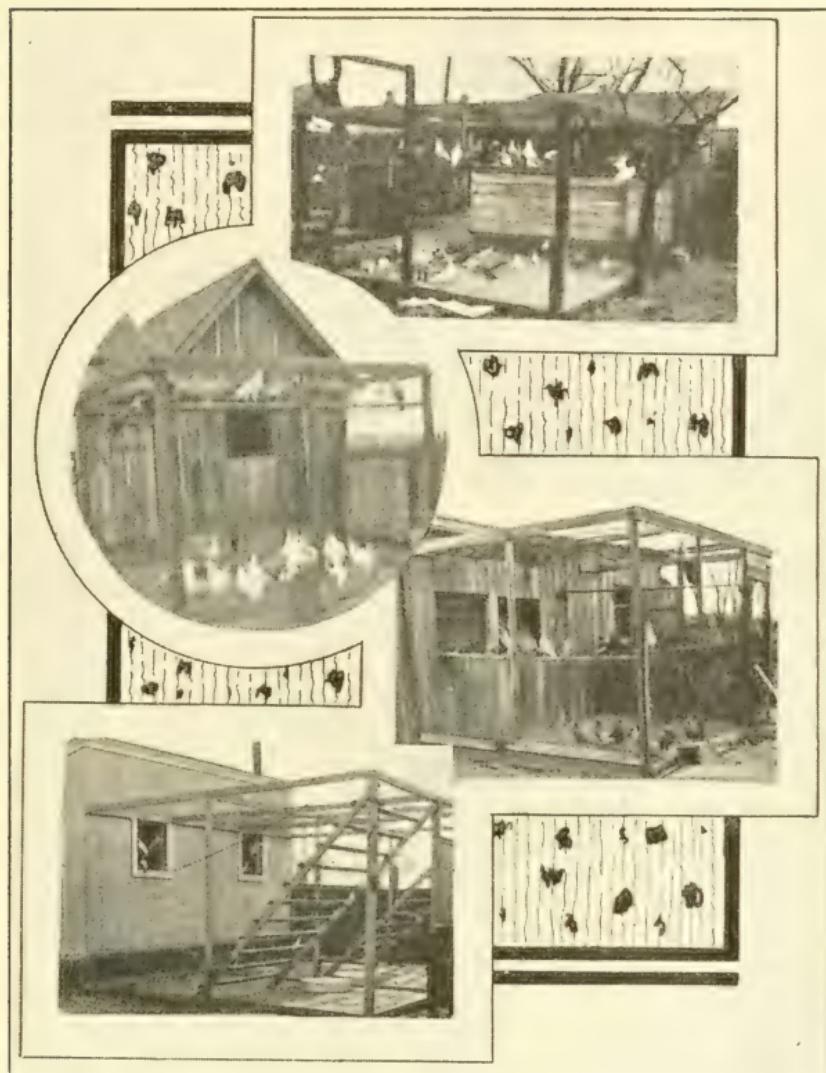
The above photograph is of house No. 3 on the farm of The Indiana Squab Company, at Terre Haute, Indiana. It is built after the specifications contained in this book, being 100 feet long, and divided into 10x12 foot units inside with 10x20 foot flying pens outside. A three foot passageway extends the entire length of the building at the rear of the units. All feeding and watering is done from this passageway. There are several houses of this kind at this company's plant, all exactly alike except one, which is 140 feet long.

## VARIOUSLY CONSTRUCTED SQUAB PLANTS.



The photographs reproduced above should quickly convince you that an expensively constructed squab house and flying pen is not a positive necessity. All of the above pictures are of successful and paying plants, except the one at the top left hand corner. The Indiana Squab Company, of Terre Haute, Indiana, began business in that old barn loft. It is no longer used as a squab plant.

## VARIOUSLY CONSTRUCTED SQUAB PLANTS.



Above are a few more inexpensively constructed squab plants. Like those on the preceding page all are successful and money makers. The one pictured in the lower left hand corner is the experimental plant of the author of this book. It is a two unit house constructed in accordance with the specifications contained in this volume.

## CHAPTER XI.

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### MATING.

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#### Natural and Forced Mating and How to Proceed— The Mating Coop.

Pigeons are mated in two ways. One way is termed natural mating and the other forced mating. Inbreeding, a subject which is discussed a little further on, is apt to occur in the case of natural matings. Such a thing is impossible in the case of forced matings, provided, of course, you have banded your youngsters when they were two or three weeks old, showing from which pair of old birds they originated.

Natural mating takes place among pigeons when a number of them, both cocks and hens, are turned together in one pen. Each will then seek out the bird of its choice. This holds true whether the birds be youngsters just reaching the mating age, or whether they are birds of mature years. If you have a rearing pen full of young birds which you have been saving, you will find them beginning to mate up at about 5 months of age. When you find a pair of young birds driving or with eggs, they should both be caught and their parentage ascertained from the bands on their legs. The sex of each bird should have previously been determined. You have been advised how to do that. If you find upon examination of their bands they are not brother and sister, and you are satisfied to permit them to continue life together, now is the time to remove the open bands which you placed on their legs when they were babies, and replace them with the single or double numbered leg bands. The cock bird is, of course, banded on the right leg and the hen on the left. They are now ready to be turned into the pen with the older birds, and will begin to build and lay eggs within ten days or two weeks. It is possibly more advisable, however, to

put them back into the rearing pen, and permit them to hatch and raise their first set of squabs. They will be more experienced and better able to take care of themselves when put in with the old birds if this is done.

If you catch a pair of young birds and find upon an examination of their leg bands that they are brother and sister, then in that case, that particular mating should be broken up. If left to continue their life together as brother and sister you have a pure case of inbreeding, which is not at all desired. It is not a difficult matter to break up a mated pair of this character. You should have in your pigeon house at all times two or three small boxes. Orange or egg crates for example. Knock out the center partition, and nail a few lath across the front of the box. Arrange one of the lath so it can be removed at will. These are your mating coops. Into one of these coops put either the cock or the hen of the pair which you desire to break up, putting the other bird back into the rearing pen. Now catch another youngster of mating age, of course of opposite sex from the pigeon you put in the mating coop. Put this bird into the mating coop with the other pigeon.

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#### MATING COOP.



The one pictured here is made from an empty grape fruit crate. The center panel has been removed and replaced with removable lath. The photograph best explains exactly how it is arranged. Mating coops such as this serve the purpose splendidly, and cost practically nothing.

Hang a couple of tin cups upon the lath in front of the mating coop. One for water and one for grain. A cock and a hen pigeon left together in a coop of this character for three days will as a rule mate up with one another, and remain so. This is not always the case however, and you should watch the birds in your mating coop very closely from the time you put them together. They may begin to peck and fight one another at once, or the arrangement may work out just as you had hoped. Fighting at first may result in complete understanding in the end, and indifference at first may result in much fighting. Pigeon nature like that of humans, is not all alike. If the pair start off by fighting separate them at once, placing one bird in one coop by itself and the other bird in another coop. Keep them separated for a day or two, and then put them together again. Results will in all probability be satisfactory. If not you had best release the second bird you placed in the coop and try your success with some other youngster. As a rule you will find the birds will mate up without much difficulty, but you will occasionally run across a case which will tax your patience to some extent.

Many breeders divide their mating coops into two parts with a slat partition. They place one bird on one side of the coop and one on the other. In this manner the two birds can see each other and carry on such pigeon conversation as they may deem necessary, but cannot get together. They are left in this situation for a couple of days, and then one or two of the dividing slats is removed, and the birds permitted to come together. By quietly watching them you can tell in a very few minutes whether they are going to mate up or not. The divided mating coop is possibly the best arrangement, and is a very simple and inexpensive article to build. No definite size or shape is necessary. The one illustrated in this book is made from an empty orange crate, and many a pair of birds have solemnly sworn to love, honor and obey each other within its confines.

It is quite possible to take any two pairs of your older birds, and completely reverse their family relationship by the use of the mating coop. You can take the cock of one pair and the hen of another and by the use of the coop cause both of them to entirely forget their former family ties. This is not particularly a good thing to do, but nevertheless it sometimes is advisable. Occasionally you will

find two pairs of older birds that are not doing as well as the rest in your house. By breaking them up, and remating them you will in all probability improve both pairs.

It is not advisable to turn into a pen of working pigeons a number of new pairs which you may have acquired by purchase. Not more than a pair or two at a time should be released. It is far better to put every pair of new birds purchased into mating coops for a day or two after their receipt, if such a thing is possible. This does not of course apply to a purchase of pigeons which are all to be released at the same time in a new house. A pair or two of strange pigeons turned into a pen of birds which are busily at work will cause considerable commotion for a time.



## CHAPTER XII.

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### INBREEDING.

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#### How to Prevent It—Not a Prevalent Pigeon Trait— Fidelity of Pigeons.

It hardly seems necessary to say anything on the subject of inbreeding and yet questions are of daily occurrence, and many of them quite foolish. If two squabs of the same parents born at the same time prove to be cock and hen, and reach mating age and mate with each other; that is a case of inbreeding. If a pigeon born in 1912 mates up with a pigeon born in 1920, and they are both either son or daughter of the same old pair of birds, that is inbreeding. The crossing of any member of any family with any other member of the same family at any time no matter when, is inbreeding.

A little inbreeding now and then is of no great consequence. A continuation of it, however, would result in greatly reducing the size and productive power of your birds. If inbreeding was as dangerous as some attempt to make one believe, pigeons would soon become a scarce article in this world. There is but little inbreeding among pigeons who are permitted to choose their own mates. A pair of squabs born in the same nest are apt to hang together for a considerable length of time after having been placed in the rearing pen. It is company they seek, not matrimony, and as they near the mating age their friendship for one other gradually dwindles until they are quite as ready to fight with each other as with other birds in the pen. Being somewhat human they as a rule place their heart at the feet of others than members of their own family.

Do not allow inbreeding to cause you any sleepless nights, or days of worry. You will not be bothered with many cases, and as has been shown it is a very easy matter to stop any such cases which may come under your immediate observation.

Many writers are given to the writing of beautifully worded tributes about the fidelity of pigeons. The love making of two pigeons is an interesting and beautiful thing to witness. They do remain pretty faithful to one another throughout their lives, if left alone. Their love for one another will last, however, only so long as they are permitted to remain together. Separation; the introduction of another cock or hen and your much talked of fidelity is a shattered idol. They do not pine their lives away over lost mates. They promptly hunt out another, and forget the past. Also you will discover as you go along in the pigeon industry that domestic faithfulness among some pigeons is not quite the dominant trait some writers attempt to make it. The author loves pigeons. He loves to be among them, and work with them, but he has worked with them long enough and hard enough to know them and their many peculiarities, and therefore cannot give them, as a whole, a true bill on domestic fidelity.

As this book has to do entirely with squab breeding pigeons, it can truthfully be said that mating your pigeons up one with another because their plumage is of the same color, is bad practice. Birds which are continually being mated as to color do not produce as large squabs as birds of opposite color. Pay absolutely no attention to the color of the birds' plumage. What you are after in the squab industry is big squabs and many of them. You will not acquire many large ones if you continually worry over the color of the older birds feathers. The big squab breeders in this country, when they send in an order for breeding stock, never mention the color of the adult birds' feathers, unless it be to say they do not want any solid colors, such as whites and yellows. They want prolific stock, not show birds, and so do you, if you wish to succeed. Have a few pairs of birds mated up according to color if you wish, just for the sake of their beauty, but if you are after big squabs and lots of them, get the color idea entirely out of your head.



## CHAPTER XIII.

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### PIGEON AILMENTS.

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#### Canker the Most Common, a Result of Filth.

The most common disease among pigeons is canker. This disease comes entirely as a result of poor food, filthy water and unclean and damp squab houses. Canker forms in the throat and mouth of a pigeon. If you open their bill you will find a yellow looking mass of matter. It is not a contagious disease. It cannot be given by one pigeon to another pigeon, but every pigeon in your flock can get canker from the same source. The author knows of no disease that will run through a flock of pigeons, as is the case with chickens.

You will not often find a case of canker among pigeons which fly at large, nor will you find a case of canker among any pigeons which are confined, provided they are having the proper food, water and the attention which they rightfully deserve. Canker therefore is a disease which occurs with pigeons who are unfortunate enough to be confined, and at the same time suffer the misfortune of not having proper attention.

A case of canker in your flock is a splendid indication that something is wrong with the feed, water or your cleaning arrangements, and the cause should be hunted out at once. Don't get excited and don't worry. Find the cause and remove it. Also remove the bird with the canker. Kill it if you wish although that is not at all necessary. Turn it loose and let it hustle for itself for a while. The chances are it will begin to show improvement the minute it has to hustle for a living. If it eventually flies away you would only be out one pigeon the same as if you had killed it in the first place, and the chances are you can recapture it later on should it get well.

There are many remedies advertised to cure the worst case of canker that can be found. Prevention is worth far more than all the canker remedies in the world, and costs nothing. Putting a bird with canker into a box and doctoring it with advertised cures is a slow and tiresome process, and unless the bird be an extremely valuable one, not worth the trouble.

You will not be bothered with sick pigeons if you carefully follow what has been told you in this book. If you desire to succeed and are just starting into the business you will. If you are experienced you know these things without being told, and if you are bull-headed enough to think that much of it is tommy-rot, unnecessary and too troublesome, you will do as you please and probably have a lot of sick pigeons.

As great a success with squab raising pigeons is not obtained from those which are permitted to fly at large as is obtained with pigeons confined within a squab house and flying pen. Homing Pigeons which you purchase from some one else must of necessity be confined. If not every one of them is apt to leave you and make an effort to return to the place of its birth. That is the instinct of a Homer. It is part of his mental fibre, and locking them up for a month, twelve months or several years, does not alter this condition of mind to any very great extent. Most of them will leave you as soon as released. The young you raise may be permitted to fly at large if so desired. They know no other home than the one in which they were born, and will always remain with you. These are the birds you would train into flying Homers if you cared to take up that very interesting and exciting part of the pigeon business. There are many Homing Pigeon Clubs over the country, and big prices are paid for birds with fine records for long flights. Nearly every pigeon fancier has a few fine flyers which he has developed himself.

Carneaux pigeons have little homing instinct. They can be permitted to fly at large after having been confined for a couple of weeks, and will make no effort to leave you. Successful squab raisers the country over, however, confine their birds, and experience has proven it to be the proper procedure.

## CHAPTER XIV.

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### PIGEON MANURE—INFERTILE EGGS.

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#### The Value of the Former—How to Tell the Latter.

Any one who is not saving and selling his pigeon manure is losing money, and at the same time wasting a very valuable by-product of his plant. The big tanneries of the country use pigeon manure in the tanning of hides, and there is always a good demand for it at a price which well pays one for saving and shipping it. They will not buy manure which is mixed with tobacco stems, as the stems stain the hides. Save the scrapings from your squab house floor. Save the manure which congregates about the tops and the inside of your nest boxes. Place it somewhere where it will dry thoroughly. Put it in sacks holding about 100 pounds. Get into touch with your nearest tannery or some agency dealing in tannery supplies. The income from your manure will go a long way toward paying your feed bills. All successful squab plants save their manure. Any one from whom you purchase breeding stock will give you the names of buyers of pigeon manure. If such a concern can't furnish you with the names of those who buy pigeon manure, it isn't much of a pigeon concern, and you had best do future business with one that can.

You will have but little trouble with lice or any other kind of a parasite in your squab house if you keep the place properly cleaned. Pigeons are not given to having lice like chickens, and won't have any upon them if given half a chance to keep clean. It is always a good plan in the early spring to go through all of your pens and thoroughly whitewash the nest boxes and other wood work. During the summer months you can occasionally spray the various nest boxes and corners of your loft with a liquid disinfectant which any responsible squab company offers for sale at a moderate price. A tin spraying machine costs but little. Fifty cents or so, and a bottle of disinfectant, or lice killer as

sometimes called, costs but little more, and as it is mixed with water in small quantities one bottle of it will last you a long time.

Lice and mites, like canker and other pigeon ailments, only make their appearance when a welcome is apparently extended to them to come and make their home in your squab house. Keep your place clean and the parasites will seek other and more fertile fields for their operations.

A hen pigeon will of course at times lay eggs which no matter how diligently they may be sat upon will not hatch. These are called infertile eggs. If the hen pigeon has not received proper attention from the male bird she will lay infertile eggs. If the cock bird becomes too old his hen is apt to lay infertile eggs. If the hen is too old herself a similar condition would arise. Occasionally eggs get chilled in cold weather and become infertile. It is not a difficult matter to tell an infertile egg, and it can be done easily and quickly after the eggs have been sat upon for about one week. Hold the egg in your fingers between your eye and a strong light. If the egg be a fertile one you will at this time see very clearly the veins radiating from the nucleus. If it be an infertile egg no veins will show. A prudent and careful squab raiser will carefully examine all his eggs after they have been in the nest for a week, and destroy all infertile eggs. If a pair of birds be sitting on two infertile eggs you can readily see that much time will be saved by destroying those eggs as soon as this fact is discovered rather than to allow them to sit the full 17 days, and produce nothing. The pair will immediately start building for another set of eggs as soon as the infertile ones have been removed. After you have had some experience you will be able to tell infertile eggs by picking them up and giving them but a hasty glance. All minor pigeon knowledge comes with experience far better than by reading it in books. Learn the important things. The little unimportant ones will develop later. For example as you go along you will discover that pigeons stick to their nests harder, and it takes more to scare them off, as the day for the eggs to hatch approaches.

## CHAPTER XV.

### THE SQUAB MARKET.

#### The Demand Increasing and the Price Advancing.

Apparently the business of producing squabs for market is in its infancy. More people go into the business each year. More squabs are raised and shipped to the various distributing centers each year, and each year the price holds its own or climbs a little higher. People in this country are gradually awakening to the fact that a fat squab properly cooked is a delicacy of unusual merit. Squabs are particularly nutritious, and always in great demand among the sick. Hotels and clubs use them by the hundreds of thousands, and would use more of them if they could get them. Seldom is a banquet of any proportions given these days without squab being upon the menu.

Game birds are rapidly being killed off in this country, and if not being killed are protected by state and federal laws. Something must fill this gap, and squabs are doing it.

The beginner in the squab industry need not have the slightest fear about his ability to dispose of his product. He will soon discover that the problem he will be confronted with will be being able to supply the demand. Prices paid for squabs are naturally higher in the winter months than they are during the summer. Many people go away from home in summer time, and the price declines with a proportionate decline in the demand. There is, however, never a period of the year when squabs cannot be raised and sold at a profit. If you live in a community where squabs have been but little used, you will be compelled to advertise your product to some extent by giving some of your friends a sample squab. Many ways will suggest themselves to you which will advertise your product.

Once started you will experience but little difficulty in disposing of all of your squabs to local buyers at better prices than it is possible to obtain away from home. If you increase your flock to such a size that your local demands will not take care of your output shipping will then become a necessity, and there are always plenty of reliable squab buyers ready to take all you care to ship them at the prevailing market prices. If you purchase your breeding stock from a reliable squab company, they will always be ready and willing to give you the names of responsible squab buyers. Squab companies keep well posted on all that transpires which in any manner affects squabs or the prices of squabs, and this information they are always ready and willing to give to their customers. In fact they gather it for that particular purpose.

Women and boys are proving themselves quite as successful in the art of squab raising as the men. Many successful plants are entirely in charge of women, and they are making wonderful progress. Any one, be he man, woman or boy, who puts his mind to the task can make a success of this industry. Common sense coupled with the fundamentals of the business are all that is required. Stupidity never gets anywhere, and need not look to the squab industry as a fruitful field.

Purchase the right kind of breeding stock from a reliable dealer. Pay the price that is demanded for good birds. Keep them in a properly arranged squab house, be it loft or the upper portion of a chicken house, or a specially built building. Feed them the kind of food they should be fed. Water them regularly. Keep their premises clean. Do these things and success will crown your efforts.



## CHAPTER XVI.

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### SHIPPING.

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#### How to Properly Pack—Use Plenty of Ice.

Ice is far cheaper than squabs. Use plenty of it when preparing squabs for shipment. Almost any kind of a box will suffice provided it is not made from pine lumber. The odor of pine penetrates the squabs and renders them unfit for use. It is also advisable not to use too large a box. The bottom layer of squabs in a large box will suffer if too many squabs and too much ice is piled on top of them. Line the bottom and sides of your box with heavy wrapping paper. Crack your ice to about the size of walnuts. Start with a layer of ice. Then a layer of squabs, then another layer of ice, and so on until the box is filled. There should be plenty of ice on top of the last layer of squabs. Cover this top layer of ice with heavy wrapping paper and nail on the lid. The less cracks and holes in the box the better. The idea being to keep out the warm air as much as possible.

The address tag should be very securely tacked upon the top of the box, and in addition to having the name of the consignee upon it, should also have the information that the box contains perishable property, dressed squabs, and that the shipment should be "rushed." Always write a letter to the party to whom you are making the shipment and advise him that you have on that date forwarded him by a certain express company so many squabs of such and such weights. If your squabs vary considerably in weight it is advisable to sort them according to weight, and ship each weight in a separate box.

Candy buckets are splendid to ship squabs in. They can be purchased from any candy store or ten cent store for from 3 to 5 cents each, wooden top included. They are both air and water tight, and

will hold from 2 to 3 dozen squabs, depending on amount of ice used. They make a very neat package, and one easily handled by you and the express company.

During the winter months it is not necessary to use large quantities of ice in preparing squabs for shipment. During the hot summer months, however, use plenty of ice if you wish your squabs to reach destination in good condition. Skimping on your ice will in all probability mean a big loss in revenue for you. Ice is cheap, when compared with squabs. You will be allowed a reduction of 25 per cent on the weight of your shipment for icing by all express companies.

The express charges on dressed squabs is very low. Go to the express company in your town and go over the matter very thoroughly with the agent. He will gladly give you all the information possible on the subject. It is also advisable to prepay the express charges on all your shipments. This is not necessary, but you will find it will work to your advantage to do so.



## SQUAB FACTS IN TABLOID.

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- (1) The demand for squabs far exceeds the supply.
- (2) Squabs produce more profit pound for pound than any other form of live stock.
- (3) The rate of mortality is very slight. There is not a disease which will go through a flock of pigeons, as is the case with chickens.
- (4) Good breeding stock should produce squabs continuously for from 8 to 10 years with proper care.
- (5) Half an hours work each day will take splendid care of a large flock of pigeons.
- (6) Squabs when four weeks old are marketed with or without feathers on.
- (7) Pigeons breed the year round, with the exception of a short period in the molting season, which occurs late in the fall of the year.
- (8) No particular kind of a building is necessary for squab raising. It is the breeding stock, and the manner in which it is cared for that brings the results.
- (9) Pigeons thrive and produce squabs in any climate.
- (10) No large investment is necessary. Start small and grow big. Pigeons multiply at an astonishing rate.
- (11) Women and children are quite as successful at raising squabs as men. No vast amount of technical knowledge is necessary.
- (12) In the care of chickens it is necessary to feed and water the youngsters. Not so with pigeons. The parent birds feed and water their young.
- (13) There is no night work connected with the raising of squabs.
- (14) No great amount of space is necessary. A squab house or loft as small as 10x12 feet, connected with a flying pen 10x15 feet will comfortably accommodate 100 pigeons. Fifty pairs of squab raisers.

- (15) No matter how absolutely ignorant you may now be regarding the raising of squabs, you can quickly become efficient by following our instructions in this book.
- (16) There is always a good demand for fine breeding stock. Start with good stock. Raise good stock, and you will experience no difficulty in disposing of all you can raise at a satisfactory profit. Some prefer this branch of the pigeon industry to that of squab raising. There are satisfactory profits awaiting you in both branches.



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