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VY CULTURE

CAVY CULTURE

A Book of Practical Instructions on the
Raising and Marketing
of Guinea Pigs

By
E. Michaels

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Published by
E. Michaels, 2907 Diamond St., Philadelphia, Pa.

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Broken Colored English Cavy

CHAPTER I

Characteristics and History

Guinea pigs are a small domesticated animal belonging to the rabbit and squirrel families. They resemble somewhat a small-sized rabbit in shape, though they lack the long ears so characteristic of that rodent. They are a well-built animal, plump of body, with short, round ears, short legs, small feet and a fine silky fur of a bright variety of colors. Guinea pigs are especially conspicuous in having only the rudimentary formation of a tail. Instead of five toes on each foot, common to so many mammals, guinea pigs have but four on the front and three on the hind foot. Figure 5 is a chart naming the parts of a guinea pig.

They are quick in action, harmless and become quite tame and affectionate. When full-grown they vary from a pound and a half to three pounds in weight, which size is usually attained when about 18 months old. Their average life is about four years, although some have been known to live longer.

Guinea pigs are native to South America. In their native state they were of no great economic value, except occasionally as food for the Indians. The Spaniards, on exploring the South American country about the Northern Andes in the early sixteenth century, found these little animals domesticated in the homes of the natives. Attracted by their beautiful array of colors, the Spaniards, on returning to Europe, took some with them. Here they increased in size and beauty in the process of domestication. Our Peruvian and Abyssinian strains of guinea pigs are a development attained after their importation into Europe. Guinea pigs were brought into North America either by settlers from Europe or by traders from South America.

In their wild state guinea pigs resemble very little our domesticated species. They are of a brownish-gray color and smaller in size. The wild guinea pig breeds only twice a year.

having from one to two young to a litter.

Guinea pig is the incorrect name of these rodents, their name being cavy, an abbreviation of their species name, *cavia cobaya*. The origin of the name by which they are commonly known, "Guinea Pig," is a conundrum to the fancy. Some claim this name is the evolution of their remarkable resemblance to a small-sized pig, and the fact that in England, during the sixteenth and seventeenth centuries, cavies sold for about a guinea (English coin) each. It is possible that in the every-day conversation of that time they became known as the pig that sold for a guinea, or, as we now know them, the guinea pig.

Chart naming parts of a Guinea Pig

We have no statements or publications on this subject that have been preserved from that period, undoubtedly because guinea pigs were not of sufficient importance, consequently there is no absolute certainty as to the authenticity of the above. However, this appears to explain best why so attractive an animal should have such an unapplying name. In the following treatise we shall use the name guinea pig and cavy indiscriminately.

CHAPTER II

Uses of Guinea Pigs

Guinea pigs have three fundamental uses:—Science, food, and for fur. To these may be added a fourth and fifth use, when the fancy is considered, use as pets and for exhibitions on the show bench. Most of these uses, however, can at present hardly be termed as such, due to the enormous quantities required for the first-named use, leaving very few, if any, guinea pigs to be had for any other purpose. The need of guinea pigs in research and experimental work was the original use which started the present large demand. So great has been this demand, that for years a sufficient supply has not been available.

For centuries a second use was known, the palatability of these little animals having classed them as a favorite dish. The fur value of the guinea pig is a growth of the present time, although considerable difficulty is being had by those developing it, due to the care required to set the guinea pig's hair.

It is to be hoped that in time sufficient quantities of these much-needed animals may be bred, so that not only may our laboratories be adequately supplied, but also some may be had to develop these two possibilities which now offer such a promising future.

Scientific Use

Undoubtedly more guinea pigs are bred and sold for experimentation in laboratories than for all other purposes combined, even including those that are bred as a hobby and as pets. The demand for this use has increased so rapidly that many institutions were compelled to establish special departments for the purpose of locating and keeping an available supply, so as to avoid hindrance and delay in conducting their work. Their principal use in the laboratory is the means of preparing, testing and standardizing the different antitoxins after the serum has been extracted from the cow or horse.

The serum is seldom taken from the guinea pig. In case the guinea pig is not killed by the injection, as often happens, he is usually suffocated in large gas machines as a precaution to prevent such stock from becoming mixed with those that are normal. Often used guinea pigs are resold to other institutions who can make use of such stock to demonstrate to students; also for other vivisection work. Used guinea pigs will live, thrive and multiply just the same as normal stock, very little, if any, difference being distinguishable between them and the normal strain until they are again tested. It is for this reason so much care should be taken by breeders, beginners, or, in fact, any one purchasing guinea pigs. Small and unreliable institutions sometimes offer such stock for sale at very inducing figures and in this way spread worthless stock about the country.

The size commonly required for the testing of diphtheria, typhoid fever, etc., antitoxin, is a specimen weighing about 250 grammes (8 1-3 ounces). A larger guinea pig is required for use in the testing of tetanus antitoxin (used for tetanus caused by bullet and powder wounds), one weighing approximately from 330 to 360 grammes (11 to 12 ounces).

The testing, preparing and standardizing of antitoxin is not the only medicinal use for guinea pigs. Thousands are used every year in the Wasserman blood test for syphilis. For this purpose a large guinea pig is needed, one having a considerable amount of blood. Guinea pigs are also used in hereditary experiments, numerous research experiments in vivisection, etc.; in fact, their uses in the medical field are increasing rapidly.

Food Value

With the high prices offered for young guinea pigs by laboratories, the excellent food value of this animal has been greatly neglected in this country. Italy is the most advanced in the use of guinea pigs as food. There guinea pigs are considered a great delicacy and most peasants keep a number of them, similarly as chickens are kept in America. And why shouldn't they? The guinea pig is one of the cleanest of animals. He will eat no foul or spoiled food; only the best

will satisfy him. In South America considerable numbers are also raised for food, especially by the natives. Guinea pigs are most tender and palatable when about four months old.

When guinea pigs are raised for food the testicles of the male should be removed when about a month old, similarly as done in steers, as this improves not only the growth of the young boar, but also its meat value.

The testicles may be removed by rapidly making an incision between the lobes, disconnecting the nerves about each and forcing them out of the incision. Balsam of fur should be applied to the wound to stop the flow of blood and aid in its healing.

The method usually employed of dressing and preparing the food is that which originated with the Peruvians. The animal is killed by dislocating its neck, after which it goes through about the same processes as a suckling pig in preparation for cooking. Its throat is cut, it is hung up for a few minutes to bleed, and is then scalded in water, not too hot at first. The hair is removed, the skin scraped with a knife, the viscera taken out, and the carcass washed in tepid water. It is then ready for the cook. The Peruvians usually roasted the animals, but the number of possible ways of cooking them is unlimited. At the present time quite a few guinea pigs are served in our large hotels under the names of French dishes.

Fur Value

With the gradual decrease in the available amount of raw fur due to the advancing strides of civilization, pushing back our fur animals more and more each year, also to the growing demand for raw fur, manufacturers have naturally sought substitutes so as to reduce the high cost of raw material. The guinea pig's pelt is one of the possibilities now under consideration. Its soft, silky texture makes it of unusual value, but unfortunately considerable difficulty is had in curing and tanning this skin. The continual persistence shown by the men interested in this phase of the guinea pig industry is gradually overcoming this difficulty, until at the present time several very good formulae have been devised to cure and tan the skin.

The guinea pig should be killed and skinned in cold weather, as the hair is not fit to cure under other conditions. The carcass may be used for food, serving as a byproduct to the fur breeder. Immediately after the guinea pig is skinned the fleshy side of the skin should be completely covered with salt or else the skin should be placed in a salt solution. It should then be placed to one side and not disturbed for at least twelve hours until thoroughly cured. When cured, all the fat and flesh should be scraped off and the bloody matter and other particles adhering to the skin removed in warm water, using sal-soda to cut the grease and blood. The skin should be wrung out and left to dry, keeping the skin soft and moist, while the fur is drying. The skin is now ready for tanning. Alum is usually used to tan most skins, but, due to the peculiar condition of the guinea pig's hair, a 30 per cent solution of formaldehyde will be found much better. The skin should be allowed to remain in this solution for twelve hours. When taken from the solution it should be stretched on a board as tightly as possible, with the fur side to the board. As the skin turns white, sandpaper it off, after which it should be manipulated with the hands, pounding and pulling, so as to make it soft. Olive oil may be applied to the skin after it is tanned, so as to keep it soft and flexible.

The Peruvian variety, or cross between the Peruvian and English variety, is the best to raise for this purpose, due to the better quality of the fur. The fur raised guinea pigs should gradually be accustomed to cold weather until they become acclimated to the low temperature, as this will lengthen and improve the quality of the fur.

In years to come the stability of the guinea pig industry will not depend entirely on the profits made by breeding for experimental use, but largely on the sale of the fur and meat of this animal. It is not meant by this that the laboratory demand will decrease; on the contrary, it will increase; but the fur and meat demand will also increase and much more rapidly than the laboratory demand, in consideration that it is now an undeveloped resource.

As Pets and as a Hobby

The heavy demand for guinea pigs for experimentation has drawn heavily on the surplus formerly found in many pet stores, and as a consequence has greatly retarded the selling of guinea pigs as pets.

A guinea pig makes an ideal and interesting pet, being harmless and amusing. They do not bite nor scratch, consequently young children may play with them with even more safety than they can with a cat or dog, for cats frequently scratch and dogs sometimes bite. They are not a common, ordinary pet, being more of a novelty, and as a consequence demand very good prices.

Guinea pigs as a hobby was started and developed mostly in England. The Englishman is without doubt a true lover of animals. He has developed as a hobby nearly all of our domestic animals. By careful experimental breeding, mostly for the recreation he thereby attained after his day's work, the Englishman developed the numerous varieties of guinea pigs now known; also perfected the guinea pig to his present graceful shape of body, the noble pose and bearing of his head and shoulders and the grandeur of his glossy, silky coat of fur.

It must not be overlooked, however, the rapid strides which our American fanciers are making. Today thousands of Americans breed solely for the pleasure they derive in perfecting their stock in competition with each other at the show bench. The American fanciers are gradually developing several new shades of the self-colored guinea pig, among which is the chocolate and the steel blue agoutis. They also have shown many remarkable specimens at their exhibitions.

There are several very good associations which are encouraging this work, the United Cavy Breeders' Association being devoted solely to the guinea pig, while the National Breeders' and Fanciers' Association is devoted to encourage all of the small domestic animals.

White Abyssinian Cavy (Guinea Pig)

CHAPTER III

House, Hutch and Pen Construction

Time, labor and capital are the assets which guinea pig raisers and novices must have in order to solve their housing and hutch-constructing problems.

While it is quite true that guinea pigs will thrive and multiply in almost any kind of wooden enclosure, still, one would hardly expect to keep this enclosure in the open without some sort of protection against the elements.

Of the three assets, all people have at least one to their credit—that of time; most people have the second—the ability to work, while a favored few possess the third—capital. For these favored few most of the housing problems are eliminated, for with capital at their command and the suggestions given in this chapter they may readily procure labor to construct for them a serviceable guinea pig house and equip same with adaptable pens.

Unfortunately, however, many beginners lack the third asset and must depend more on thrift and will to attain their goal. This should not discourage the small beginner, for while he must necessarily have more patience and persistence at the start, later, when results are attained, he will find himself well rewarded for his efforts and patience.

The small beginner who is fortunate enough to have a spare room or dry cellar need only construct the wooden enclosures known as the pen or the hutch, since the stanch walls and tight roof of the dwelling house afford sufficient protection against the elements.

Those having an outhouse already constructed or a barn which may be utilized need go only to the expense of fitting same for protection against strong winds and other climatic conditions. This may be accomplished in the case of the outhouse by lining the inside either with a heavy paper or thin boards. When a barn is used it is best to partition a part off and make this as comfortable as possible. This divided part

should be sufficiently large to accommodate the number of guinea pigs to be housed without overcrowding or causing stagnated atmosphere. Not that it should be overly large, for the closer guinea pigs are kept, especially in the winter months, the more comfortable they will be.

Building the Guinea Pig House

The location of the prospective guinea pig house, while not essentially important, nevertheless is of sufficient value to be given some discussion, since a favorable location increases the comfort of the stock and also saves considerable fuel when artificial heat is used. The site preferred is one having a southern exposure, since this assures the guinea pigs the warming rays of the winter sun, while one having some natural protection from the north will break the cold winter winds before striking the house.

A house constructed with a cellar is best for guinea pig raising, since the cellar eliminates most of the ground dampness so dangerous to guinea pigs. This dampness is usually found on ground floors. In part of the cellar the furnace may be kept, should artificial heating be installed, while the balance may be used to store roots for winter feeding.

The house should be built of wood—the foundation, of course, of stone. It should be inner-lined with boards or strong paper, leaving from two to three inches of air space between the main construction and the lining. Some city laws prohibit the construction of frame buildings, which necessitates a brick, concrete or metallic structure.

When such buildings are used it is especially essential that they be lined on the inside with wood, since the brick, concrete or metallic construction causes a lowering of the temperature which can only be counteracted, when not lined, by an excessive waste of artificial heat.

For the outer construction of a frame building hemlock is undoubtedly the most durable and cheapest lumber that may be used, while for inside work North Carolina pine or cypress is both inexpensive and will answer the purpose.

Figure 6—Elevation Plans of the Ideal Guinea Pig House

Figures 6 and 7 will give the general plans of a guinea pig house, and figure 8 the finished appearance. Of course, many variations and possibly improvements may be added to the ideas as suggested by these plans, but for general purposes they cover all that is required to insure the health and welfare of the stock to be housed.

Inside Construction

After building the new guinea pig house, repairing the old outhouse, dividing the barn, or making comfortable the spare room or cellar, as may have been the task, the construction of the enclosures in which the guinea pigs are to be kept must receive our next consideration. There are two types of enclosures now in common use—namely, the hutch and the pen.

The hutch is the detachable guinea pig enclosure, while the pen is the permanent quarters built in or attached to the building. The only practical difference between the two types is that one is immovable, while the other may be moved at will from one building to another.

In size both the pen and hutch should vary according to the number of guinea pigs to be kept in each, allowing a square foot of floor space for each breeding guinea pig. For example, a pen or hutch in which four guinea pigs are to be kept should have four square feet of floor space, the dimensions of which may be two feet by two feet or one foot by four feet, while a pen to accommodate nine breeding guinea pigs should have nine square feet of floor space, the dimensions of which may be four and a half feet by two or three by three. This allowance of floor space is sufficient for the permanent quarters of the breeders as well as their young up until their weaning age.

The hutches or pens should be kept at least eighteen inches above the floor, while in the case where a cellar is used or a room having no cellar or room under it, the enclosures should be at least three feet off the floor.

Some raisers allow the guinea pigs to run on the floor, using the foot boards to separate one group from another. While it is true they will not jump over the low partitions, still they are exposed, on the floor, to a certain amount of damp-

Figure 7—Floor plan of the Ideal Guinea Pig House

ness and this is often responsible for colds and pneumonia. Furthermore, they are subject to quite a variation in temperature, since the floor is the part of the room which always cools off the quickest. Drafts, dampness and variable temperature are three conditions under which a guinea pig will not thrive.

In summer the guinea pigs could be kept in the open on a lawn or grass plot, using a fine mesh wire cage as an enclosure, constructed without a floor. This wire frame could be moved from place to place on the lawn which would give the guinea pigs plenty of fresh grass to eat. Of course, in case of bad weather and in the evenings the guinea pigs should be moved under shelter.

Fig. 8 An Ideal Guinea Pig House

Hutches

Many raisers favor the hutch type of enclosure because of the ease with which they may be handled and the comparatively small amount of space they occupy. There are many dif-

ferent varieties of hutches; in fact, many raisers have their own special designs which they consider most adaptable to raise guinea pigs in. In this chapter we will describe those varieties most in use and which may easily and inexpensively be constructed.

Government Hutch

This hutch is used by the Government at their experimental grounds at Bethesda, Maryland. It is also extensively used throughout the country, especially by raisers having only a few breeders. The hutch is about 20 inches wide at the front, 3½ feet deep and 18 inches high. (Fig. 9.) It will

Figure 9—Government Hutches

accommodate a male, three or four breeding females, and their progeny until weaned. The door covers nearly the whole front, is hinged at the side, and is made of rather heavy, square-meshed wire netting. Ventilation is afforded by a similarly screened opening at the rear of the hutch. (Fig. 9) Galvanized poultry netting of small mesh stretched on a frame would answer for both door and ventilator, and be less expensive.

A shelf about 4 inches high is recommended for the back part of each hutch. The space under the shelf is a convenient retreat for females that have young, while the shelf itself is nearly always chosen by the animals as a sleeping place.

Shoe Box Hutch

A very desirable and inexpensive hutch may be made from a shoe or packing box about three or four feet in length and two feet in width. A movable lid may be made on the top, with wire for the sides, or a wire door may be constructed on the side. Figures 1, 2, 3 and 4 will show the construction of such a pen, using the top as a door and the front covered with wire. Such a pen will accommodate from six to eight breeders with their young, while the entire cost of building would not be over fifty cents. It can readily be built by anyone able to drive a nail.

Figure 10—Government Sectional Stacked Hutch

Government Sectional Stacked Hutch

These hutches are very similar to the last described style, with the exception they are constructed so as to be stacked one on top of the other. They may be held together by hooks or by holes and pins, the upper hutch having small, round pieces of wood fastened in its bottom, which sets, when in place, into holes bored in the top of the lower hutch. (Fig.10)

FIG. 1

FIG. 2

FIG. 3

FIG. 4

Illustrating Shoe Box Hutch Construction

Two, Three and Four Story Hutches

By tiering hutches one on top of the other many more may be got into a house. Furthermore, when distributed about the sides of the cavy house they make a very attractive appearance. The two, three or four-story hutch resembles very much a bookshelf, with doors occupying the entire front of each apartment and attached by hinges either to the top or bottom of the apartment. (See Fig. II) The two-story has

Fig. 11—Three Story Hutch

two apartments in which the guinea pigs may be kept, the three-story has three apartments, etc. In a later part of this chapter is given the detailed construction of a four-story pen, which differs only from the hutch in that the former is attached to the building and cannot be moved unless taken down in parts.

Weaning Hutches

Long runs built two to three feet off the floor, with sides about a foot high, either of mesh wire or wood, make the best weaning pens for guinea pigs. The size of the hutches should be proportionate to the number of guinea pigs it is to accommodate. These hutches may also be built in tiers if

more convenient to the raiser. The most essential requirement about this style of hutch is that they be long, so that the young may have plenty of room to run in. Running and playing always encourage the growth of the youngsters and help to keep them in a good, healthy condition.

Fig. 12—Sliding Draw Hutch

Sliding Draw Hutch

This style of hutch was developed undoubtedly in an endeavor to simplify the cleaning of the hutches. It resembles very much the tier hutches, only that the floors of the apartments, instead of being fastened to the hutch, are movable, while in the front of each apartment a wire screen frame is fastened to the sliding floor in order to prevent the guinea pigs from jumping out.

This greatly simplifies the cleaning out of the hutches.

since after removing the guinea pigs, the draw may be taken out, the litter and dirt scraped off and then replaced.

Should the hutch be kept in a place where it is possible for cats or dogs to injure the stock, it is advisable to have doors on the front of the hutch. (Fig.12.)

It is not advisable to use this style of hutch for breeding purposes, since every time the draw is moved the breeding sows are jarred. This is liable to cause premature or still-birth. It is better to use this type of hutch as weaning pens.

Pens

The pen type of enclosure is used more extensively by large raisers where the expense of construction is a consideration. Pens also have the advantage of being easier to clean and the stock may more quickly be fed in same.

There are two styles of pens mostly in use, the open run pen and the tier pen. Tier pens are more widely used by guinea pig raisers than any other kind of enclosure, although the open run style is also largely used, especially by laboratories, which hold a reserve stock for experimentation.

Open Run Pens

These are practically the cheapest enclosures that can be built for guinea pigs. They are also especially handy for feeding, since the attendant has no doors to open or close when feeding. Figure 13 is an illustration of this style of pens. It is an arrangement of two decks, of five runs each, the floor of the upper being about 4 feet above that of the lower. The space between the decks is open and the walls of the runs are made of boards a foot wide. Each run is 5 feet long and from 20 inches to 2 feet in width. Ten runs are shown in the figure, but the number may be multiplied or the size modified to suit the space available.

Tier Pens

Tier pens are similar to tier or story hutches, with the exception of being fastened to the building, or if not fastened

being so cumbersome and unwieldy that they could not be moved without being taken apart. While the bulkiness of these pens is a disadvantage in case they are to be moved, nevertheless their advantages lie in the cheapness and readiness with which they may be built.

Since this style of enclosure is so widely used, we are describing below in detail the construction of a set of eight pens. Additional sections may be built by repeating the same construction on the sides or by cutting the lengths of lumber so as to build all of the sections at one time. If hutches are to be built instead of pens, there must be double uprights between each section, so as to allow for the separating of each section, and the boards must all be cut to fit a single section.

Fig 13—Open Run Pens

Detail Construction of Tier Pens

Material required to construct a two-sectional pen with four apartments in each:

Three boards, 14 feet long, 12 inches wide, 1 inch thick.

Seven boards, 18 feet long, 12 inches wide, 1 inch thick.

One board, 9 feet long, 12 inches wide, 1 inch thick.

Eight strips, 12 feet long, 2 inches wide, 1 inch thick, planed.

Three strips, 18 feet long, 2 inches wide, 1 inch thick, planed.

Four strips, 10 feet long, 2 inches wide, 1 inch thick, planed.

Fifty-four running feet of 18-inch wire.

Eight pairs of hinges.

Eight turn buckles, nails, staples, etc.

Construction of Frame

Cut the three 14-foot boards in half, making six 7-foot boards. Cut three of the 18-foot, 12-inch wide boards in half, making six 9-foot boards. Cut the remaining 18-foot, 12-inch wide boards into 4 feet, $4\frac{1}{2}$ -inch lengths, making sixteen boards 4 feet, $4\frac{1}{2}$ inches in length, and four pieces of waste 6 inches in length. Cut the four 10-foot, 2-inch wide strips into twenty 2-foot lengths.

Cut 18 feet of the 54 feet of 18-inch wire in half, making 36 feet of 9-inch wire.

Cut the 36 feet of 9-inch wire into eight pieces $4\frac{1}{2}$ feet by 9 inches.

Assembling of Frame

Lay two of the 7-foot boards on the floor, with lengths together, cleat them together with five of the 2-foot lengths (cleats marked by letter A in cross section, Fig. 14). The first cleat should be 10 inches from one end and the rest 16 inches apart. Repeat this with two more of the 7-foot boards, cleating on the opposite side. Join the remaining 7-foot boards together, cleating on both sides. These 7-foot lengths are the uprights of the pens (marked B in the cross section and elevation). The two which are cleated on only one side are the end uprights. The one cleated on both sides is the middle upright.

The uprights are now held in position, the end from which the first cleat is ten inches away being placed to the floor. The sixteen 4-foot, $4\frac{1}{2}$ -inch lengths are now nailed to the upper side of the lower four cleats, thereby joining the uprights together and forming a sort of shelf-like arrangement.

Fig. 14 — Construction of Tier Pens

Two 9-foot boards are nailed to the top, forming a covering for the uppermost apartments. The remaining four 9-foot boards are nailed to the back of this shelf-like arrangement, each board being flush with the bottom of the floor recently placed in position. This gives a 6-inch space at the back of each apartment for ventilation (marked in cross section). Fasten over each of these ventilation openings, with staples, one of the $4\frac{1}{2}$ -foot by 9-inch pieces of wire.

Constructing the Doors

Cut the eight 12-foot long, 2-inch wide strips into sixteen lengths $4\frac{1}{2}$ feet long and sixteen lengths $1\frac{1}{2}$ feet long. By cutting a 12-foot strip three times, two of the $4\frac{1}{2}$ -foot lengths and two of the $1\frac{1}{2}$ -foot lengths may be had. Join two $4\frac{1}{2}$ -foot lengths and two $1\frac{1}{2}$ -foot lengths in a rectangular form, square at each corner, the longest lengths parallel and the shortest parallel. The lengths may be joined together by halving the corners or by using angle irons or corrugated joint fasteners. Cut the 36 feet of 18-inch wire into strips $4\frac{1}{2}$ feet in length, fastening one by staples to each of the rectangular frames. It may be necessary to trim some of the wire off so that it will set within the outer edges of the rectangular frame.

Finishing

Cut two of the 18-foot long, 2-inch wide strips in half, making four 9-foot strips.

Cut the remaining 18-foot strips into 17-inch lengths. These lengths are used as facing for the shelf frame recently finished. The four 9-foot strips are nailed horizontally on the front, as shown in drawing (marked C in elevation); the 17-inch lengths are nailed vertically (marked D in elevation). To complete the pens all that is now necessary is to fasten the doors to the shelf frame with hinges, screw on the thumb buckles and nail on the bottom board (marked E in elevation).

CHAPTER IV

Feeding

Guinea pigs are vegetarians and thrive on beets, carrots, cabbage, lettuce, celery, corn husk (green or dry), cauliflower and all kinds of grasses such as plantain leaf, wild carrot, clover, lawn grass, meadow grass, dandelion, fall grass or wild millet; in fact, most any kind of vegetable growth that is not of too starchy a composition. Starchy foods do not agree with guinea pigs; in fact, most guinea pigs refuse such food when other is available. For this reason all food of sweet nature must be omitted from their diet, corn in any form, also potatoes or potato parings, etc.

Grass is the best food that can be obtained for guinea pigs: it is also the least expensive, the only expense being that of gathering. In the early spring, young dandelion can be secured, the other grasses following in their season during the summer, ending in the fall with wild millet.

Bran and oats should be fed once a day, either separate or mixed. Bran is good for mothers which are nursing young, as it is a great milk producer. It is also very fattening. Oats make the guinea pigs strong and thrifty, as they are a producer of muscles.

During the winter roots must be depended on for our food, and on what green food can be obtained, such as lettuce, cauliflower, cabbage, celery, etc. Hay should always be fed, especially when feeding an amount of green food, so as to balance the ration of dry food with wet. The balance of ration required in the feeding of guinea pigs may be described as the proportional amount of dry food fed with wet food so as to produce a fluid in their digestive system, which will readily be absorbed and taken into the blood. The proportion of dry to wet required may vary according to the location, environment and with the different seasons. It is very evident that in warmer climates the proportion of wet food to dry would be greater than in cooler climates; similarly in the summer

the proportion of wet to dry would be greater than in winter. Many breeders in summer even go so far as to feed nothing but grass to their stock, and with good results. When this balance of ration is broken, that is, too much wet food and not sufficient dry, indigestion, diarrhoea and bowel trouble usually result. Those who may be in doubt and find their stock inclined to diarrhoea will always find it much safer to feed an overamount of hay rather than insufficient.

Clover hay is the best that can be obtained for guinea pigs, although there is considerable waste with clover from dust. A good, clean, mixed hay is usually as good and is much more saving.

Guinea pigs should be fed at least twice a day and preferably three times. During the summer season for their morning meal feed grass; at noon grains, and in the evening another feed of grass and a little hay.

During the winter season, in the morning feed roots and greens, at noon grains and in the evening more roots and greens, also plenty of hay. Mangel beets, also known as mangel-wurzels and cow beets, are a very nourishing and inexpensive root for winter food.

Carrots are very valuable for guinea pigs, especially as a blood tonic, but should never be fed exclusively as the wet food. The overfeeding of carrots sometimes results in the overabundance of blood, followed by the rushing of the blood to the head and vertigo. The guinea pigs will always thrive better when given a variety of wet food in preference to any single root or green food. For example, beets, hay and grains alone would not be as nutritious nor beneficial as beets, carrots, cabbage, hay and grains. Similarly, when feeding grass in the summer a variety of grasses is always preferable. Even some of our most detested weeds—such as wild carrot, plantain leaf, ragweed, lambs' quarters, ragged sailor, etc.—mixed with the grass prove not only beneficial, but also of great medicinal value to weak or rundown stock.

In changing from roots to grass, care should be taken that not too much grass be fed all at once, or diarrhoea and other bowel trouble may result. The grass should be fed grad-

ually, one handful the first day to a pen, along with the other food; two handfuls the second, three the third day, etc., until the guinea pigs finally become accustomed to their summer food.

Watering

Guinea pigs will thrive well with or without water. If no water is given, the attendant should feed plenty of roots and green foods, from which the necessary moisture may be had. When water is used, the attendant should carefully clean the containers each time before fresh water is placed in them.

Giving guinea pigs water has many disadvantages, and when it can be avoided it usually is. Quite naturally it necessitates considerable extra work. It makes the pens damp and dirty, unless they are cleaned quite frequently, whereas they should be dry and clean. Dampness is very injurious to guinea pigs. By examining the sole of a guinea pig's foot, it will be noticed that only a very thin skin protects the flesh. If the litter on which the guinea pig walks is damp, the chill caused by the dampness is quickly transmitted through the thin covering of the guinea pig's foot into his body. This condition is very similar to that of a person who walks about all day with wet feet. The guinea pig's feet are undoubtedly wet after standing on the damp bedding any length of time. How many people can walk about all day with wet feet without taking a cold? Still, many raisers who neglect to overcome dampness in their pens are surprised when their stock dies off with cold and pneumonia.

A further disadvantage of giving water is that the guinea pigs are usually compelled to drink dirty water caused by others jumping into it and carrying the dirt on their feet. This, of course, may be remedied by arranging a water trough which the guinea pigs cannot jump into. An earthenware plate, with a can or flower pot inverted in it, with holes through which the water may flow, makes a convenient container for water.

Water, of course, also has its advantages. Without doubt it keeps the stock more comfortable and contented during warm weather, which is very advantageous for their breeding. It produces a bright, shining gloss on their coat, which

is valuable in exhibiting. It supplies the stock with many minerals which are dissolved in it, and which otherwise must be artificially supplied. Many raisers who do not water their guinea pigs and fail to supply the lacking minerals often complain of the older guinea pigs eating their young. This is caused by the guinea pig craving for the lacking constituents which under normal conditions may be had from the water. The blood, muscle and bone construction of the young offer a means of securing these constituents to which they turn in their barbaric craving. When water is supplied a small piece of rock salt, kept in a corner of the pen, is good for the guinea pigs.

A pair of White English Cavies bred in the sunny State of California

CHAPTER V

Distinguishing the Sex

On receiving a shipment of guinea pigs place them in dry quarters and feed moderately. Should the shipment consist of more than one male, divide the females into as many groups as you have males, keeping one male with each lot.

Two or more breeding males should never be left together for the reason they will fight. This causes a disturbance in the breeding pen which is very detrimental to their breeding. The male guinea pig or boar, as he is known to guinea pig raisers, may be distinguished from the females by his superiority and frequent growling.

Outside view of a well constructed Caviary and its proprietor

Should you have several male guinea pigs in your shipment and be in doubt, assort out those you believe to be the males and place them together in a separate pen. If your judgment was correct a fight will soon start for the superiority of the pen.

Never use your hands to separate large male guinea pigs which are fighting, as it is dangerous. In their lunging at each other your hand may be in the way and receive the thrust intended for the other guinea pig. A board is much safer to separate enraged males. This is the only time guinea pigs are liable to bite and then the intention is not to bite their keeper, but rather the other male.

The most accurate way of distinguishing the sex is by examination. The testicles of the matured male show very plain.

**A set of neatly constructed Hutches made
from old packing boxes**

CHAPTER VI

Breeding

Guinea pigs are very prolific, having from four to five litters of young a year, and from one to seven young at a litter.

They are polygamistic in nature, one male being sufficient to mate with as many as ten females. Of course, smaller numbers may also be mated, although a limit should be placed at the mating of 3 females to a male, since the mating of only one or two females to a male is liable to cause unrest or else stagnation in the male; while the restless male may also cause some sexual injuries to the females.

A female guinea pig is sexually matured when about 6 weeks old, the male when about 2 months old. They may be mated at this age or kept apart until older, this depending on whether they are to be bred for fancy or commercial purposes.

The period of gestation is from 65 to 70 days. The sow about to have young will show her condition by becoming very large, from a week to two before giving birth. It is always advisable to handle them, when in this condition, as little as possible. When it is necessary to handle a sow about to have young, one hand should grasp the guinea pig about the neck, while the other be placed under the stomach so as to relieve in moving them the strain of their unusual weight.

It is not necessary to separate the sexes when the sow is about to have young, since the male will not harm the babies.

Should the sexes be separated, two pregnant females should never be kept together, for they are liable to become antagonistic in the absence of the male and do each other considerable harm.

The young are born with their eyes open, fully furred, lively and active. At several hours old, they may often be seen running about the pen and have often been noticed, when not a day old, eating the same food as the older guinea pigs. Since guinea pigs have only two mammae a sow having a large litter is often unable to nourish them all unless she is

placed in the pen with a sow having a small litter. Guinea pigs will nurse each other's young disregardlessly; consequently the sow with the small litter will help raise part of the young from the large litter.

The young guinea pigs depend on their mother for most of their nourishment until they are past three weeks old. The mother ceases to nurse the young at this age. The youngsters should then be removed from the breeding pen. This should be attended to promptly, for the older young which have not been taken out are liable to steal the nourishment from the mothers of some younger guinea pigs. The weaned youngsters should be placed in long runs, each sex by itself. It is very unadvisable in weaning to keep several sizes of youngsters together, as the stronger are liable to fight and injure the weaker ones.

Line-Breeding

The mating of father to daughter, or mother to son, is known as line-breeding. While line-breeding has its disadvantages as well as advantages, nevertheless it is extensively used by many large fanciers to perfect their stock.

Should a fancier have an extra fine prize-winning male, quite naturally he would be desirous to have as much of the quality of the male as possible in his young stock. His female guinea pigs may not be on a par with his stud, consequently the ordinary method of mating and breeding would not produce the desired results. By breeding this male with the best sow he may have, remate after the first generation with the best youngsters bred from his first mating, and again remate with the best offspring from the second mating, gradually more and more blood of the prize-winning male will be fused into the stock. For example, the offspring of the first mating should show at least 50% of the male's points of perfection, the second mating 75% of the male's points, the third mating 87½% of the male's points.

The danger in line-breeding is in the selection of the stud or sow to be line bred. Should inferior stock be selected, the

inferiority will be multiplied in the young at the same rate as the points of perfection.

The Line-breeding Chart, Figure 15, will enable the reader to more thoroughly understand the principle of line-breeding.

Fig. 15—Line Breeding Chart

Having selected our boar and sow from which we expect to perfect a strain, we will mate them as shown in the illustration. Sow No. 1 mated with boar No. 2 will produce Group No. 3, which contains half the blood of the original boar and sow.

Now mate the best sow from Group No. 3 back to the original boar and this will produce Group No. 5, which represents three-fourths the blood of the original boar and one-fourth the blood of the original sow.

When the original sow is of greater perfection than the male, naturally the breeder wants as much of her strain in

the young as possible. By mating the best boar of Group No. 3 to the original sow, Group No. 4 will be produced, which contains three-fourths the blood of the original sow and one-fourth the blood of the original boar.

Mate the sows from Group No. 4 together with the boars from Group No. 5, or vice versa, and you will have Group No. 7, which represents exactly half the blood of the original pair. This is the first advanced step in perfecting a strain by line-breeding.

Now mate the sow from Group No. 5 back to original boar No. 2 and produce Group No. 8, which is seven-eighths the blood of the original boar No. 2. A boar from Group No. 4 mated back to the original sow No. 1 produces group No. 6, that is seven-eighths the blood of the original sow, and one-eighth the blood of the original boar.

Now select the best boar from Group No. 8 and the sows from Group No. 6 and produce Group No. 11, which contains one-half the blood of each of the original pair. This is the second advanced step and the seventh mating in securing complete breeding of a new strain.

Our object in line-breeding is to produce a line of stock that is virtually the same as either the sow or the boar as desired. To accomplish this select a boar from Group No. 6 and mate him to the sow of Group No. 4 and produce Group No. 9, which is thirteen-sixteenths the blood of the original sow No. 1 and three-sixteenths the blood of the original boar.

Again select a boar from Group No. 9 and a sow from Group No. 11, which will produce Group No. 14, which is twenty-one thirty-seconds the blood of the original sow.

Now mate a boar from Group No. 13, which is thirteen-sixteenth the blood of the original boar No. 2, to the sows of Group No. 10, which are five-sixteenths the blood of the original boar, and produce Group No. 17, which is nine-sixteenths the blood of the said boar, while in No. 16 we have the new strain and in Group No. 18 the strain of our original boar.

Remember that the dotted line represents the sow selection and the solid line the boar selection.

In-Breeding

Care should be taken to avoid the mating of brother to sister, commonly known as in-breeding, as this is liable to

degenerate the quality and vitality of the stock. The breeding males should be changed about once a year, as the fusing of new blood into a herd is most advantageous, for not only does it raise the quality of the young, but also stimulates the breeding.

In-breeding is occasionally used by fanciers to obtain certain desired specimens. A novice, however, should never attempt this method, for it requires constant vigilance on the part of the breeder in watching for the first signs of deterioration and the correct cross-breeding when such deterioration in the young is noticed.

Cross-Breeding

Cross-breeding is the mating of certain desired boars with unrelated sows. It is the most widely used method of breeding, whether the raiser is breeding to produce certain desired specimens or if just for commercial purposes. Ninety-five per cent. of all commercial-bred guinea pigs are cross-bred, the raiser selecting strong, thrifty boars usually without regard to color or shape, to mate with unrelated sows.

Of course, when the raiser is breeding for desired strains, selection of the specimens to be bred is very important. For example, suppose the raiser is endeavoring to produce a strain of good red stock, but has no such stock to breed from. By selecting a boar having red markings and mating with a sow also marked with red, the first litter should contain at least one youngster which is mostly red. By mating this youngster when he is of the proper age with a guinea pig as near all red as possible, at least one, if not more, of their young should be solid red in color. It is possible these results may not be obtained in the first litter, but eventually after several matings the solid red cavy should be produced.

Now, if the raiser desires to produce a strain of reds he must resort to line-breeding, for it is very doubtful if the red youngsters produced by selection in cross-breeding of broken colored stock will continue to breed true to color, if cross-breeding is continued.

Selection in cross-breeding of broken colored stock, followed by line-breeding, will produce almost any of the various self-colored guinea pigs.

Chart of the different varieties of Guinea Pigs

English Varieties (Smooth Short Fur)	Self Colors	White Red Cream Black Golden Yellow Chocolate Smoke Black
	Agouties	Golden Silver Steel Blue
	Dutch Marked	Red Black Creams
	Himalayan Brindles Tortoise Tortoise and White	
	Abyssinians	Red White Cream Black Chocolate Broken Colors
Peruvians	White Red Creams Blacks Broken Colors	
Peruvian Silkies	Whites Reds Cream Black Broken Colors	

CHAPTER VII

Varieties

There are four different varieties of guinea pigs, the "English," or smooth-haired variety; the "Abyssinian," or rosette variety; the "Peruvian," or long-haired variety, and the "Peruvian Silkies," or long-haired with smooth-faced variety.

The English is the most popular and numerous variety in the cavy family undoubtedly because it is the oldest, if not the nearest, in resemblance to the original guinea pigs which were imported into Europe.

The head and shoulders of the English cavy should be heavy, neck short, the nose Roman, ears drooping, the eyes large and bold, and the hair short, smooth and regular. Uneven or shaggy hair indicates a poor specimen of this variety.

The English variety has the greatest number of distinct color and marked specimens. To it belong the self-colored reds, blacks, creams, whites, chocolates, the marked specimens, such as the tortoise shell, tortoise and white, Dutch, Himalayan, brindle, agouti, etc.

Blacks

This variety is undoubtedly one of the most attractive of the self-colors. A jet raven black in color, from the tip of the fur to the base, marks the well-bred, self-colored black. The coat should be fine and sleek and full of lustre. Blacks in breeding often have a tendency to throw red and sometimes white specimens. While the red and white do not usually appear in large spots, a single hair or two is sufficient to destroy the value of the self-colored black as a fancy bred guinea pig.

Whites

Self-colored whites are more extensively bred than any of our fancy guinea pigs. While plenty of whites or appar-

ently white guinea pigs may be had, a pure white is not as common as may at first be imagined. The pure white guinea pig, in addition to complying with the general requirements of the English guinea pigs, must be absolutely white all over, with white hair on the outside of the ear and a pinkish flesh color to the skin both inside and outside of the ear, clear pink eyes and white nose and feet. The self-colored white is often referred to as the albano of the guinea pigs.

Reds

The self-colored red is of a dark, deep, rich red in color, very much the color of a ripe tomato. The ears and feet should also be red and the eyes large and bold. There is a tendency for reds to breed to a lighter color red, which greatly destroys their value.

Creams

The cream-colored cavy, as its name indicates, is cream in color, the color extending all over its body from the tip of its ears to its toes. The color should not be too light nor too near an orange, but of medium rich cream. The eyes are black and bold.

Self Colored Cream English Cavy

In England the cream cavy first came into distinction under the name of the "Devonshire Cream." The English fanciers have developed this variety of the cavy family to a

very high standard of perfection. By keeping a few good reds and whites, the cream raiser may easily regulate the color of his stock. Should they breed too light he can cross his sows for one mating with a red boar; should they breed too near the orange he can use a white boar.

Golden Yellow

For years the cream cavies, which have bred too deep a yellow or near an orange, have been disregarded and sold as culls. Recently a few raisers have taken a fancy to this shade and endeavored to perfect it into a standard breed. It seems a shame that this variety has been neglected, since a pen of golden yellow cavies is as pretty as any of the other varieties. The color is a deep yellow with a golden blend to it. The ears, shape, etc., should follow the general standards of the English cavies.

Chocolates

The chocolate color cavy is another variety which is in the embryo of perfection. The color resembles a fresh cake of chocolate and extends all over its body, ears and toes. As with all the self colors, the color should extend from the tip of the hairs well into the skin.

Blues

These are the least perfected of the self-colored cavies. Considerable experimental breeding will have to be done before this variety can rightly claim the name of the blue self-colored cavy. A more appropriate name for most of the specimens now exhibited would be "Smoke Black," for they resemble more of a faded, slaty black than they do a blue. There is, however, the rudimentary making of a blue in these slaty blacks, which, when once perfected, undoubtedly will far surpass all of the self colors for beauty and popularity.

Dutch Marked

This variety is undoubtedly the most popular of the marked English cavies. It resembles the markings of the Dutch rabbit. Its color is either black and white, red and

white or any other self-color marked with white. The solid colors must be typical of the parts they cover and be distinctively separated from the white. There should be a distinct line of separation between each and both the solid colors and white should be free from foreign hairs.

The hind portions of the Dutch should be of the solid color, except the tips of the hind feet, which are white. A circle of white or saddle, as it is known, should extend around the middle of the body and under the jaw. The front feet are white. The ears and a patch covering both sides of the face and jowls are marked with the solid color, with a blaze of white running down the middle of the face over the nose, joining with the white under the jaw.

Self Colored Red English Cavy

The Dutch marked variety is by no means easy to perfect to the standards, but despite this the fanciers of today give considerable of their time and space to this variety.

Himalayans

As with the Dutch-marked guinea pigs the Himalayans follow the markings of the Himalayan rabbit. The entire body of the Himalayan guinea pig is white without any black hairs mixed in it. The nose, ears and feet are a deep black. The patch of black over the nose should be fairly large, covering the entire nose and extend half way up the face of the guinea pig. The Himalayans are considerably easier to produce than the Dutch-marked, the main points being to have the black markings of good color and in distinct patches.

Tortoise-Shell

Tortoise-shell cavies are of two colors—black and red—the colors being in equal patches distributed over the body. The patches of black must be distinctively separated from the patches of red with no intermixing hairs of either red in the black or black in the red.

Tortoise and White

Tortoise-and-white, or the tri-colored cavy, as they are frequently referred to, is one of the prettiest of our broken-colored cavies. Resembling the tortoise-shell cavy, it is marked by evenly-sized patches, in this case, however, being of three colors—red, black and white. There are thousands of three-colored guinea pigs about, even among the Utility stock, but the tortoise-and-white must have the patches equal in size as near as possible in order to approach the standard of perfection.

Agouti

The agouti cavies resemble more the wild specimens of guinea pigs; despite this they are in great demand by the fancier and usually bring high prices. There are three different colored agoutis—the gray or silver agouti, the golden agouti and the steel blue agouti.

The silver agouti is covered evenly over the body, head and legs with gray hairs intermixed with light cream ones. The stomach is of a solid color, a grayish color blending off toward a cream.

The golden agouti is covered with brownish hairs, intermixed with red ones, giving the cavy a brownish golden hue. The stomach is a deep red color.

The steel blue agouti is the latest perfection in the agouti group. The fur of this variety, instead of being a mixture of gray and cream, or brown and red hairs, is of a light blue and white with the stomach coat of grayish blue. The steel blue is the rarest of all the different varieties and without doubt the most beautiful.

Brindle

The brindle-colored cavy is the result of crossing between reds and blacks. They were developed and perfected in England, where they still retain considerable popularity. This variety, however, has never attracted much attention of fanciers in America and is rarely seen or heard of. The coat of the brindle cavy is intermixed with red and black hairs. It should not have any distinct patches.

Abyssinians

The Abyssinians or rosette variety differs from the English in having a ruffled coat of fur and being slightly larger. Correctly the Abyssinian is no larger than the English cavy, but the ruffled coat gives them this optional illusion. The body and head of the Abyssinian are covered with a number of rosettes or circular bunch of hair. The more rosettes on a specimen the better is its quality. The standards of this breed give sixty points to the coat, rosettes and the quality of the fur, while only twenty to shape and size. In some as many as fifteen rosettes are to be found on a single animal.

In caring for the Abyssinian cavy the hair is brushed toward the head and each of the rosettes shaped up with a small brush.

The Abyssinian may be bred in almost all the colors and markings as the English cavy—in fact, whenever a variety found in the English class is desired it may usually be produced by breeding an English sow of the desired variety with an Abyssinian boar as near the color markings desired as possible, then by a selection of the young and a process of line

and cross-breeding the variety desired can invariably be produced. The self-colors, however, are the most popular.

Outside hutches are the best for this species, since the cold develops the ruffled hair of this variety.

Green Abyssians Cavy

Peruvians

The Peruvians are the long-haired variety and are bred exclusively for exhibition or as pets. It is by no means the easiest cavy to raise, since considerable patience and experience are required in the care of the coat. The texture and silkiness of the hair are the desired characteristics of this breed—in fact, out of the hundred points of perfection, fifty-five are devoted to the length and quality of the hair. It is frequently difficult to distinguish the head from the hindquarters of the Peruvian, since the hair spreads over the head and face the same as it does over all the other parts of the body. Of course, the Peruvian, with its great coat of hair, is apparently much larger

than either the English or the Abyssinian. It is bred in colors about the same as the Abyssinian.

White Peruvian Cavy

The Peruvian cannot withstand much dampness, because its coat appears to absorb moisture, which endangers its health, consequently indoor hutches should only be used. Straw cut in 6-inch lengths and free from chaff and dust makes

the best bedding, much better than sawdust or hay, since the latter works into the long hair and becomes tangled. When the hair reaches the length of six or seven inches it should be put up in "crimpers," such as women use in their hair, or plaited, to protect the coat from injury. The hair may be taken down at times, brushed well and put up again. Stock intended for exhibition should be kept in individual hutches, since if kept together they are liable to nibble each other's coat and destroy their value.

While breeding the coats should be clipped, as the long hair not only annoys the breeders and becomes matted, but also interferes with the various duties they have to perform.

Peruvian Silkies

The Peruvian silkie is a combination of the Peruvian and the English. Its head and face are covered with the smooth, short hair of the English cavy, while its body **is covered with** the long hair of the Peruvian. The same care and attention required by the Peruvian apply to this variety. The Peruvian silkie resembles more of a guinea pig than the Peruvian, since it has a visible head instead of being just a **mass of hair** spreading in all directions.

A Happy Family—Mother and her young

CHAPTER VIII

Cleaning

Guinea pigs will never thrive on a wet or damp floor or on damp bedding. For this reason sawdust, shavings, ground cork, chaff or the sweepings from a hayloft should always be kept in the pens as bedding. When sawdust or shavings are used, care must be taken not to use any made from unseasoned hardwood, as sows in profit often eat their bedding in the great hunger which always accompanies that condition. Should they eat the sawdust shavings from unseasoned hardwood, the terpines and acids contained on the wood are liable to act on the stomach and intestines. Premature birth, sickness and sometimes death result.

When cleaning the hutches all guinea pigs should be removed, as they crowd each other in the corners through excitement when the litter is removed. This is liable to cause injury to sows about to have young or to babies in the pen.

As it is always advisable to handle breeding guinea pigs as little as possible, a very good contrivance for removing them may be made from an ordinary box about half the size of the pen, the one end of the box being constructed as a door. Figure 16 shows construction. The box is placed in breeding pen about to be cleaned out, the door raised to allow the guinea pigs to pass through and lowered when the last has entered the box. A small amount of food may be placed in the box to attract the guinea pigs into it. The box is then taken from the pen, the litter removed, pen disinfected, fresh bedding placed in and guinea pigs replaced by raising door of box after it has once more been carefully placed in the freshly bedded pen. During all this operation the guinea pigs have not been handled once nor unnecessarily excited.

After all damp litter has been removed and before fresh bedding is placed in the pen, a 20% solution of creolin should be sprayed into every part so as to thoroughly disinfect the

pen. Once each month the floor should be whitewashed with lime so as to absorb all moisture that may have saturated the wood. The whitewashing of the sides is also very healthful and beneficial.

Pens should be cleaned at least once every week when guinea pigs are not being watered. When water is kept before them it is necessary to clean every other day.

Figure 16

Carrier for Moving Guinea Pigs

CHAPTER IX

Heating and Ventilating

Many beginners believe because guinea pigs are native to a tropical climate they will perish in a cold temperature. Guinea pigs will thrive in a cold temperature as well as a warm, providing it is not variable and is free from drafts and dampness. They cannot stand drafts, dampness or an extreme variation in temperature. Many raisers have been known to keep their stock all winter without artificial heat and have good results. Raising guinea pigs without heat in the winter months requires careful attention since they are much more susceptible to draft and damps than those raised with artificial heat. A small box or hover kept in the breeding pen under these conditions is a great protection to the guinea pigs. The hover may be made from a soap box, by knocking out the front and tacking burlap or cloth in its place. The burlap should be cut at the bottom into strips so that the guinea pigs may readily go under the box when it is too cold in the pen.

Most raisers prefer artificial heat since the breeding is somewhat better. A temperature between 65° and 80° is best for the guinea pig to thrive in. Care should be taken to prevent a sudden drop in the temperature, as may be caused by the fire going out. This will invariably cause colds among the guinea pigs.

A constant supply of good, fresh air should always circulate through the guinea pig house. Since foul air ascends, ventilation holes should be made in the side of the house near the roof, so as to carry the foul air out. In cold weather, should the guinea pigs be accustomed to artificial heat, the fresh air that enters should be heated. This is most conveniently done by having the heater placed near the window or space through which the fresh air is to enter.

A group of Guinea Pigs ready for Market

CHAPTER X

Diseases

The general hardiness of the guinea pig and his unusual vitality have been the phenomena of the pet stock world for years. For such a small animal to live, thrive and multiply as rapidly as he does without being subject to frequent and numerous diseases is really remarkable. Most animals which multiply rapidly are either delicate or else the victims of numerous diseases. The guinea pig, however, has proven that he can live and thrive in almost any locality, either in the warm, hot climate or in the cold; he can survive hunger and starvation—in fact, he can even stand a certain amount of abuse.

There is a limit, however, to everything, and the guinea pig has his breaking point, despite his remarkable hardiness. All living beings, whether animal or human, no matter how hardy they may be, will succumb to sickness if continually neglected, if kept with or near diseased animals or if kept under unfavorable conditions.

No human nor animal could lie or stand for hours in a draft without taking a cold, nor can a guinea pig; no human being can walk about for days or even a day with wet feet, nor can a guinea pig; live, sleep and eat on sloppy, wet bedding, nor can any person endure sudden changes of temperature such as going out in the open during cold weather in the same clothes he wore while in a heated house, nor can a guinea pig stand such sudden changes of temperature.

Under such abuse certain diseases are bound to develop among guinea pigs. Frequently the novice in the guinea pig industry will unwittingly commit some of these abuses. Therefore he should acquaint himself with all the possible diseases liable to injure his stock and the causes of each.

Since an ounce of prevention is always worth a pound of cure it is better to avoid those conditions which are harmful rather than try to remedy that which was caused by neglect. It must be remembered that these infections are rare; in fact,

some of them are very seldom heard of. Nevertheless, this chapter will describe every disease known to the guinea pig industry.

A sick guinea pig shows his condition by his dull actions, rough coat, clouded eyes and sluggish movements. His entire attitude is that of being "played out." A heavy throbbing usually appears at the haunches as though each breath was costing him great effort. Until recently this throbbing, or pumping, as it is more commonly known, was considered a certain sign of pneumonia. More recent investigations show that it is liable to be present in almost any disease and indicates only low vitality and weakness. This throbbing or pumping is the pulse of the guinea pig. The increasing of the throbs, but with larger intervals between each, indicates slower heart action. This is usually followed by death within a short time unless some stimulant is used in a final effort to save the guinea pig.

The most effective stimulant for a dying guinea pig is a solution of one drop of nux vomica and a pinch of salt mixed in a fourth of a glass of water. Inject ten drops under the skin on the underside of the guinea pig below the heart, at hour intervals with an injection needle. With a revival of vitality discontinue this and use only the treatment required for the specific disease.

A sick guinea pig should always be separated from the rest of the stock and special feed dishes used for his quarters.

Colds and Pneumonia

Caused by dampness, drafts or a sudden drop in the temperature. The guinea pigs affected lose their appetite, breathe with difficulty, hunch up in a corner and throb very heavy at the sides. Mucus usually appears about the nose. Guinea pig often sneezes and makes a wheezing noise. Treatment: Remove the guinea pig affected to separate quarters, preferably to a place that can be kept very warm. Prepare a solution of one part of creosote, two parts of creoline and seven parts of water. This solution should be evaporated over a stove in the new quarters. Creoline is a germicide and creosote a lung remedy.

The creoline does not cure, but prevents the further development of the disease.

Prepare a second solution of one drop of nux vomica, three drops of aconite, one teaspoonful of spirits of nitre, half teaspoonful of sugar and one-half glass of water. Give each infected guinea pig one teaspoonful of this solution morning and night. Nux vomica is a strychnine compound; its purpose in treating pneumonia cases is to keep up the heart action. Spirits of nitre reduces the blood pressure and resulting fevers. Aconite acts directly on the disease in the lungs. Rub the chest of the guinea pig with camphorated oil and wrap same with a small piece of flannel.

Keep the sick guinea pig well nourished while under this treatment; when signs of improvement show, discontinue the vapor treatment and remove the guinea pig to a place where plenty of sunshine may be had. Continue with the nux vomica and nitre until the guinea pig is fully recovered. Pneumonia for years has been considered incurable. However, by following the above directions carefully, a fair percentage of cases may be saved.

Tuberculosis

Caused by a neglected cold or continued exposure in damp and unfit quarters. Symptoms very similar to colds and pneumonia with exception that a dry cough may usually be heard. Guinea pig wastes away slowly. Often lingers for two or three weeks. Disease is incurable; best to dispose of infected guinea pig so as to prevent others contracting it.

Premature Births

Premature or still-birth is caused by the jarring, dropping or unnecessary handling of a sow about to have young. A sudden scare, such as a dog or cat would cause by jumping in front of the breeding pen, or a continual disturbance as would be caused by several males fighting, is also liable to cause a sow to have young prematurely. Beginners are often bothered at first with this trouble for the reason the average beginner treats his stock on receiving them more as pets than animals of reproduction. To avoid premature births, disturb

the breeding stock as little as possible. Don't allow visitors to handle them, and keep them well fed.

A sow which gives birth prematurely often becomes sick and dies. The sickness is caused by one of three ailments—caked breast, pneumonia or peritonitis. The caked breast is seldom fatal if taken in time. Rub the breast with warm camphorated oil several times a day and open the nipple as soon as possible by gently pressing with a downward motion. Keep the milk flowing until nature provides for its drying up. This may most conveniently be done by moving the sow to a pen with a number of youngsters in. The youngsters will nurse indiscriminately. Pneumonia often strikes a sow in the weak, after-condition caused by premature birth, especially if she is kept in unfavorable quarters. Peritonitis is caused by internal injury in giving birth. If the young are unusually large they will sometimes tear the birth passage. Gangrene and peritonitis will then set in and death usually results.

Lice, Bare Spots and Mange

Guinea pig lice are of a light greenish yellow color and have pointed heads which they stick in the animal they live on. Poultry, dog lice, etc., will also carry to guinea pigs if the guinea pigs are in the proximity of the lousy animal.

Bare spots are caused by the rotting of the hair near the skin by the acid action of the nit or egg of the louse, while the mangy appearance of a guinea pig is invariably caused by the guinea pig scratching and digging itself in an attempt to ease the irritation caused by the bites of the lice.

Lousy guinea pigs or those with bare spots should be dusted with a good insect powder, the powder being well rubbed into the skin, starting about the neck and working down the back, sides and stomach of the guinea pig. Should the powder be applied haphazardly the lice will work their way into the head and face of the guinea pig while being dusted. If the guinea pigs are kept in warm quarters, where there is no danger of their taking cold, they may be washed with a creoline or carbolic solution (a teaspoonful of the former to

a quart of water, a teaspoonful of the latter to two quarts of water).

A very good preventive measure against lice is to mix some insect powder in the bedding whenever fresh bedding is placed in the hutch.

Figures **A** to **E** show the action of the nit on the hair of the guinea pig; figure **B** showing the stump of the hair, figure **C** a partly rotted hair and figure **D** a hair with the nit attached. Figure **E** shows the louse itself. These drawings are, of course, greatly magnified.

Paralysis

Paralysis is seldom a disease, but the result of an injury of the spine. The injured guinea pig drags its hind legs. Within a week the bowels and kidneys become affected by this dragging and death sets in. Guinea pigs will usually crowd in a corner when disturbed and when large and small guinea pigs are mixed together in a pen, the large ones jump on the small ones in their fright and effort to get as far away from the source of the disturbance as possible. A number of small guinea pigs are injured this way. Dropping guinea pigs from high hutches may also injure their spine.

Pressure on the spine will cause paralysis. In giving birth to young, a sow may be unable to pass them all. The

unborn young invariably cause pressure on the spine and paralysis. This is one of the worst forms of paralysis and causes great suffering to the sow. If there is no possibility of aiding the sow to give birth to her young, she should be chloroformed to end her suffering.

There is another form of paralysis more of rheumatic origin. This form is seldom fatal if taken in time. The guinea pig "hobbles" more than drags its hind legs. Rub the legs affected with a good rheumatic liniment.

Diarrhoea

Caused by improper feeding, such as an excessive amount of green feed or insufficient dry feed. It may also be caused by a sudden change of feed. This often happens in the spring when raisers are changing to grass from the winter ration. Diarrhoea may also be caused by moldy or sour food. The sick guinea pig should be removed and fed only on hay and grains for several days.

Bismuth and laudanum remedies are the most effective treatment.

For the former mix one part of powdered charcoal, two parts of powdered chalk and seven parts of bismuth-subnitrate. Rub this mixture on the inside of the patient's mouth three or four times a day until the bowels become more regular.

To administer the laudanum remedy first give the sick guinea pig five drops of castor oil and ten drops of olive oil. Half hour later give him four drops of laudanum. Repeat after twelve hours if the disease is not checked. Never try the laudanum remedy on a youngster or a guinea pig with low vitality, as the castor oil has the effect of increasing the bowel movement to clean out the poison in the bowels. This naturally is weakening and often kills the guinea pig if his vitality is not strong enough to withstand it.

Blind Stagers

There are two different forms of this disease. With one the guinea pig walks or runs in a circle shaking its head. This is seldom fatal, although the affected animals are of little value.

since they are worthless both for experimental purposes and for exhibition. Injury in birth is usually the cause of this form of staggers.

Very little, if anything, is known of the second form of staggers; in fact, the author of this publication has only seen one case of it and heard of another in ten years. The affected guinea pig jumps forward, running until he hits the side of the hutch, when he falls over and stretches out his legs, twitching them as though in his death struggles. Frequently they die while in this condition, although about three-fourths of them survive. These spells of unconsciousness continue at intervals. Cause and remedy unknown.

Vertigo

Vertigo is another of the rare diseases and is very seldom, if ever, fatal. The guinea pig affected holds its head to one side and invariably is blind in the eye toward which the head leans. The infection is caused by injury to the upper spine or by a rush of blood to the head. At times such stock will be accepted for laboratory experimenting, although they are worthless for exhibition.

Indigestion

Caused usually by the overfeeding of acid foods, such as cabbage, salad, etc. When such greens are fed plenty of hay should also be kept in the hutches. Among youngsters it is sometimes caused by the lack of exercise. This infection seldom appears in matured guinea pigs, but more among youngsters. The guinea pig becomes wet under the lower jaw due to an excretion from the stomach very similar to the slobbering of a baby.

Mix powdered charcoal in the grains, also rub some in and about the mouth of the patient. At the same give the guinea pig some castor oil. A large guinea pig should have about a teaspoonful while the small ones only several drops.

"Pot-bellied" guinea pig is another form of indigestion. Instead of slobbering at the mouth gas forms on the stomach, the stomach swelling up until it is nearly double its normal size. The above treatment also applies to this form of indigestion.

Wounds

Caused by fighting between the guinea pigs, especially the males, or by a rat, cat or dog bite. Wash the wound with lukewarm water. Clip the hair about it with scissors, after which apply tincture of iodine to the entire wound and the skin about it. Apply healing salve and bind the injured part up with clean gauze. Keep the guinea pig separate so that the others won't disturb the wound while healing.

Eye Trouble

Caused either by a cold or by irritation from the prick of the end of a piece of straw or hay. Wash the eye with a solution of boracic acid. While this trouble is not serious and never fatal, it may, if not properly attended to, leave the guinea pig blind in the infected eye.

Tuberculosis of the Glands

This is one of the most fatal diseases among guinea pigs. It is a lingering disease and if not checked in its earlier stages is always fatal. Until recent years it was known as ciphtheria, undoubtedly because the infection usually strikes the victim in the glands of the throat. Investigation and research on this disease show the germs to be of tubercular nature.

The disease may first be noticed by a swelling of the gland starting about the size of a pea. This grows until it often reaches the size of a walnut before breaking, when it gives off corruption and blood. The sore left will heal up, but within a month or two another gland will start swelling, sometimes two and three at a time. As the disease progresses the glands become affected all over the body. This swelling and breaking of the glands keep up until all the strength and energy of the victim are destroyed. Frequently the guinea pig will last as long as a year before dying.

The disease is caused by a neglected cold settling in the glands, by heredity or by contact of other guinea pigs with the corruption from an infected gland.

In its early stages, the guinea pig may sometimes be saved by lancing the gland just before breaking, cleaning out the corruption and painting the wound with tincture of iodine.

It is not advisable to breed a guinea pig which once showed symptoms of this disease because of the possibility of it spreading through heredity. Guinea pigs which are cured of this disease may be sold for experimental work.

Broken Teeth

Usually caused by gnawing wood, fighting with other guinea pigs, by a fall or sudden contact with some hard substance.

While broken teeth is not a disease, it is frequently the cause of many diseases, since the guinea pig is unable to properly masticate its food.

Indigestion and bowel trouble may be direct result, while the animal is exposed to the attack of most any disease as a result of the privation which they naturally undergo with broken teeth. Feed the guinea pig with food that is easily digestible. It is advisable to sell such stock when in condition for experimental work, since naturally they are of considerable extra care.

Eating the Young

This may be caused by the still-birth of the young (premature birth) or by the lack of constituents required by their system.

The instinct of a guinea pig, and, in fact, most of the lower grades of animal life, is to devour all young that are immature at birth.

Sometimes the breeding stock develop cannibalistic traits through this instinct and extend their eating to the live young as well as the dead. Usually this is caused by the lack of either salt, lime or potash in their system. They devour the young in order to satisfy their craving for these salts. The blood contains a two per cent. solution of salt, while lime is required by the bone construction of the body and potash for the muscles. A certain amount of these minerals are furnished from the food, but at times the food will lack sufficient of these required constituents.

When the guinea pigs are watered the salt may be supplied by keeping a piece of rock salt in the hutch. The guinea

pigs will gnaw on the salt whenever they desire any. If the guinea pigs are not watered it is hardly advisable to use rock-salt, as this will cause too great a dryness in their mouth. Sufficient salt may then be had from stale bread, since bread contains a certain per cent. of salt.

Should the hutches be whitewashed on the inside regularly the guinea pig will obtain sufficient lime by gnawing it off the walls. Potash may be supplied by occasionally mixing a little clean wood ash in their grains.

If the stock still persists in eating live young, more severe steps should be taken by dipping the partly-eaten young in some offensive but not injurious substance, such as creosote or tincture of iron, and removing all other foodstuffs from the hutch. The nasty burning taste of these substances often breaks the habit.

Sanitary Suggestions

Do not allow anyone to spit on the floor of the guinea pig house. Should the excretion contain the germs of any diseases they are liable to carry to the guinea pigs after the excretion has dried.

Sprinkle the floor with a creoline solution (a teaspoonful of creoline to a quart of water) before sweeping the floor of cavy house.

Remove all sick guinea pigs to another building.

Quarantine for at least two weeks all newly-purchased stock before moving them into the guinea pig house.

Disinfect and whitewash the inside of hutches and pens regularly.

Keep the grain bins out of the cavy house and away from all other animals.

Scour and clean the feed and water dishes every day.

Have a set of feed and water dishes for each pen and don't change the dishes from one pen to another when feeding.

Avoid scattering dust as much as possible when cleaning out the hutches or pens.

If you have sick guinea pigs under quarantine always feed them last. Scour your hands thoroughly before attending to any of your other guinea pigs.

CHAPTER XI

Don't's For Beginners

- DON'T feed musty hay.
- DON'T allow green food to rot in the pens.
- DON'T feed frozen or rotten beets, carrots or apples.
- DON'T feed starchy food—such as potatoes, cracked corn, corn meal, molassed alfalfa, etc.
- DON'T feed grass wet from rains or dew.
- DON'T allow short cut grass to heat in the pens.
- DON'T feed an overamount of green food if you are supplying water.
- DON'T think you can overfeed your guinea pigs.
- DON'T keep guinea pigs on the floor.
- DON'T mate less than three females to one male.
- DON'T keep two or more breeding boars in one pen.
- DON'T handle sows heavy with young.
- DON'T allow your stock to chill in the winter by exposing them to a variable temperature.
- DON'T keep the guinea pigs in a draft or in a damp place.
- DON'T inbreed your guinea pigs.
- DON'T forget that you can care for a large number of guinea pigs as readily as a few.

CHAPTER XII

Marketing

When the young guinea pigs have reached the required age for shipping, the problem of realizing on the production, while not the most important phase of the industry, nevertheless should receive careful consideration. A shipper can hardly expect to haphazardly crate his production, deliver them to an express station and thereby realize to the best advantage.

Soliciting Orders

First, he must endeavor to locate a market where he may expect the best returns, preferably a market in his own neighborhood; although a distant market may be advantageous, should the increased price warrant paying the delivery charges, or should the delivery charges be paid by the receiver. To many, this advice is hardly necessary, but the amateur business man may find some value in our few suggestions.

When soliciting orders from any institution, or, in fact, from any business house, success in obtaining same depends largely on neatness and plain, legible writing. A good, pulling letter, one that is not too long, but strong and concise, is of great value. A long, roundabout letter, asking numerous questions of an irrelevant nature, often meets the fate of falling into the waste-paper basket without a reply; for it must be remembered that the institutions to which you write have more than your individual letter to attend to and cannot afford to spend several hours reading and replying to same. Some raisers may, of course, write to several hundred institutions at one time, but those foolish few run great risk of being flooded with orders and losing the good will of those they cannot fill.

A return stamp enclosed with your letter greatly increases the possibility of a reply, as the receiver of such a letter usually feels under obligation of making a reply, even if only to say they are not in need of a supply at the time of writing.

The failure to secure an order at the first writing should

not discourage, but rather stir up your ability to still greater efforts. Write again and again, at several weeks' intervals, for eventually you will reach the time when an order will arrive in reply to your appeal.

Figure 17--Shipping Hutch

Shipping

Guinea pigs are shipped by express. The boxes in which they are sent should be about ten or twelve inches in height, with ventilation holes in the top and on the sides. In summer one-inch mesh wire may be used as a covering for the crates containing large guinea pigs, a smaller mesh wire being used for small guinea pigs. The regular screen door wire is very adaptable for this purpose. In winter the ventilation spaces should be decreased in size; light wooden slats may be used to cover the crates, allowing from $\frac{1}{4}$ to $\frac{1}{2}$ inch between the slats according to the size of the stock.

Not too many guinea pigs should be crowded in a box, thinking that expressage may be saved by doing so, as it is possible that some may arrive dead. From twelve to eighteen guinea pigs, according to size and the time of year, are sufficient for a box about 2½ feet long by 12 inches wide, 8 inches high.

Bedding should be used in the crates such as sawdust, chaff, etc., so as to absorb all moisture and keep the guinea pigs dry and clean. For food use hay, the amount depending on the distance of the shipment and the time of year, also roots, such as carrots, apples, beets, etc., from which they may obtain their moisture, and some stale bread, oats, etc. Water is not necessary or advisable, as it is liable to be spilled over the guinea pigs in transit.

A shipment should never be sent on a Saturday, especially a short distance delivery, for they usually remain at the freight station over Sunday and are not delivered until the following Monday. While lying over they are often neglected, and

English Broken Colored Guinea Pig

other boxes, crates, etc., are sometimes piled on them, which often suffocates the guinea pigs. They are also exposed to and liable to be destroyed by rats, which usually infest freight stations.

CHAPTER XIII

The Profitable Raising of Guinea Pigs

The discovery that guinea pigs were of indispensable value in experimental and research work, that cultures of bacteria were practically the same on human beings and guinea pigs, immediately created a demand for the utility guinea pig which has been unrelinquishing in its call for more and more stock. As this field of investigation has been perfected, and as the many new uses for which guinea pigs are available has been found, the demand has steadily increased until it is now nationwide. And still all this is only the growth of comparatively a few years, the industry still being in its infancy. The prospects for the future are most encouraging, for not only are increasingly large numbers being used every day for scientific purposes, but the uses of these animals for food and fur purposes has greatly increased because of the scarcity and prevailing high prices of these commodities.

As a Recreation

Any one desiring an easy, pleasant and interesting way of making money can find no better opportunity than the raising of guinea pigs. The time required is short, a few hours each day devoted to these little animals being sufficient to care for three or four hundred, while the pleasure derived from the hours so spent is more than sufficient to repay the efforts, not considering the financial returns, which are by no means insignificant. Boys and girls, women, the aged, and the weak and infirm do very well in raising these little animals, as no specially hard or laborious work is required.

Boys and girls naturally like pets and take great interest in them. The care of several pens of guinea pigs not only affords them lots of pleasure and amusement, but also provides them with ample spending money. What better prospects could parents desire? It must be remembered that idleness encourages bad habits, especially in young, when habits so

learned become fixed in the future man or woman. The habit of gentleness to animals, interest in nature, and ability to provide for one's self are certainly commendable traits in anyone.

It should not be understood that the raising of guinea pigs is merely a child's pastime. By no means is it such. Today in different parts of the country are large guinea pig farms, or caviaries as they are frequently called, where raisers make a business of breeding nothing but guinea pigs and growing their food. And still the production of these farms and the numbers that are bred by small raisers are by no means sufficient to meet the demand.

The capital needed is small, as one may begin in a small way and gradually increase his plant until the desired size is reached.

Low cost of Raising

The inexpensive food which guinea pigs eat, and the small amount of time required to care for them makes the cost of keeping very low. Many breeders estimate that the young may be raised to a salable age (about three months old) for a cost of about ten cents each.

In summer this cost is even lower, as all the food necessary may be had for the time spent in collecting. Even the breeder who finds it necessary to buy all he feeds can raise these little animals for a maximum cost of fifteen cents each, and certainly with all the waste trimmings of cabbage, celery, lettuce, grass, etc., to be found both summer and winter on the farm and about the city market houses, not many breeders should be compelled to buy much. Often the young may be sold before three months old; for example, when used for diphtheria, typhoid fever, etc., antitoxin work; in such cases the cost of raising would be still further reduced.

Remarkable Prolificness

Since guinea pigs breed about five times a year and have from one to seven young at a birth, the reproductive ability of these little animals is very large. A female will raise from twelve to fifteen young a year.

With a start of five or six females one could reasonably expect at the end of the first year about seventy young born, while many of the young from the first several litters will themselves have young, so remarkable is their generation of offsprings. Thus at a very conservative estimate one may reasonably expect about one hundred offsprings at the end of the first year, which should be worth from \$75.00 to \$125.00 according to their size. Imagine now what profits may be expected from fifty to one hundred breeders, which number may very readily be cared for by anyone in their spare time.

Easy to Raise

Don't think because of the vast amount of detail covered by this book that guinea pigs are difficult to raise. Decidedly, such is not the case. In the foregoing chapters of this book every phase pertaining to the guinea pig industry was explained thoroughly, altho most of this would hardly be needed for the average raiser. For example nine raisers out of every ten never line-breed or in-breed their guinea pigs. They invariably keep an unrelated male with three to eight females. As you know after reading this book, they are following the method of cross-breeding, usually, however they don't even know this. The average guinea pig raiser hardly knows what diseases are, among his stock. True, he knows they will take cold if left in damp, wet pens or in a draft, but as for knowing about the possible infections described in this book he undoubtedly would ridicule and doubt your words if told of them. Most of these diseases are rare infections, in fact some of them have only been heard of several times.

The object of this book was to cover everything pertaining to the guinea pig industry, altho in presenting such detail to one unfamiliar with guinea pigs it might give them the impression of being a very difficult task to undertake.

Making the Start

Selecting good stock is more important than any other move you may make towards starting in this profitable industry. Secure a good, reliable source of supply and order there

from. We have pointed out in a previous chapter the requirements exacted for the utility guinea pig. Remember these and order accordingly.

Don't buy guinea pigs from unreliable sources just because they are cheap. Cheap usually represents cheap quality. Very often these unreliable sources offer poor, inbred or degenerate stock, sometimes even going so far as to offer used guinea pigs, making the prices low and tempting so as to unload this worthless stock.

While the breeding of guinea pigs is undoubtedly the most profitable undertaking of the present day, the beginner must start with a good foundation, for one could hardly expect success from worthless stock.

Follow carefully the instructions as stated in this book; remember the above advice and you may rest assured that your foundation for a successful undertaking is well laid.

Winter view at a New England Caviary

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