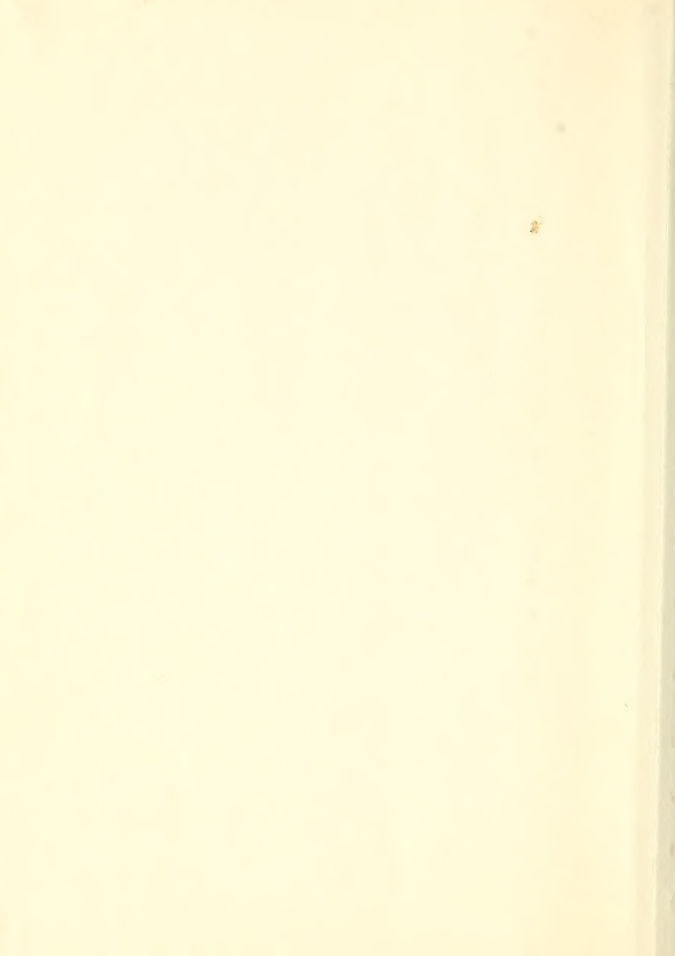


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THE TWENTIETH CENTURY RABBIT GUIDE



BY
E. A. SAMUELSON.



A remarkable treatise on the care and management of all species of rabbits in Health and Disease, for pets or for the market.

P R E F A C E

The Twentieth Century Rabbit Guide is a recognized authority of the rabbit fancy which has become a most popular hobby and a profitable one to those who have really studied the subject.

This book is gotten out in an endeavor to further the industry and to help those whose experiences may be in need of carefully compiled statistics.

The illustrations to be found in this edition are those of rabbits which at present are holding their own in the exhibition world and those used as a table commodity.

The subjects treated herein are given in the best of faith and are those that are absolutely essential to the successful breeding of stock, and to eliminate as much as possible any chance of speculation and loss.

To find favor amongst the fanciers and breeders is its earnest endeavor.

THE AUTHOR.



Fraternally yours,

E. A. Samuelson

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Origin of Belgian Hares.

The Belgian Hare is not found in any wild state in any country, but is the result of careful and skillful crossing. Of course, the first specimens were somewhat different than the Belgian Hares of this day. However, it is said they were first introduced into England about 1850 and the breeders of that country brought them to a high standard, which in later years were improved on by American breeders. There were two distinct breeds—one bred for size and meat, the other for beauty and points.

The first Belgian Hare standard required the animal to be somewhat racy in appearance and evenly ticked. The lacing was a dense black block on the outside of the ear near the point. Later on, the standard was revised, and it confined the lacing to near the edge of the ear. The introduction of the Belgian Hare into this country, it is said, took place during the period between 1888 and 1890, and since that time the industry has attained a wonderful popularity.

UTILITY PURPOSES.

While there is ever a great demand for fine specimens at good prices for breeding purposes, still this is not the only source from which the breeder will profit. The excellent quality of the meat, the various uses of the pelts, the small quarters necessary and their wonderful prolificacy, together with this cleanliness, have made this animal in constant demand.

The industry combines pleasure with profit and while it may diminish at times, it will spring up with greater impetus as the years roll on. The demand will become greater than the supply, and it is not utterly impossible that in a few years there will be as much demand for rabbit meat as for chickens. Statistics show that chicken has 34 per cent bone, while a rabbit fry has

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only 14 per cent. They contain 83 per cent of nutrition, while pork contains 75 per cent, mutton 68 per cent, beef 55 per cent and chicken 50 per cent. Is it any wonder why there should be a great demand when these facts are generally known? To command the attention of producers, it must be possible to rear them in qualities and at a cost to permit a fair profit when sold at a price well within the reach of the masses. At the present time rabbit meat is being sold at from 25 to 35 cents per pound dressed. Belgian Hares, New Zealands and Flemish meets all the requirements of a table delicacy. They are not equaled in tenderness, juiciness and delicacy of flavor and are very nutritious and digestive. The meat is white like the breast of a chicken and can be produced with small expense. There is absolutely no waste, the bones are small compared to other food commodities and lacks the oily substances found in chickens and ducks.

PRODUCTION.

Under ordinary circumstances a doe will produce from four to six litters a year, varying from five to ten each time. This, with the increase of the progeny, which commences at about six or seven months, will give from the original pair figures that are startling in the extreme.

The nature of the rabbit to reproduce its species so rapidly makes it possible to raise them in great numbers. Their prolificacy is wonderful. The small space necessary to accommodate them and the nature of the food required brings the cost within a nominal figure. Conditions in the meat production market are continually changing and as the supply of certain products becomes limited the price goes up and up beyond the reach of many. Wild game is also becoming less plentiful. Therefore, there is no doubt but that the domestic rabbit will supplant meat on our table, with its comparatively small cost. Do not forget that the introduction of domestic rabbit meat into the homes of the millions of meat consumers is the mainstay of the industry. Were it not for the value of chicken as a food commodity its industry would be but a memory in a few years, and to this end every true fancier should work. When once it is placed on this basis there will be a demand that will take hundreds of thousands of rabbits to supply.

The fur side of the industry is another feature that is commanding attention. The pelts can be used for the manufacture of muffs, capes, etc., can be used for lining coats, trimming dresses and in this day and age many have been used for the above pur-

poses, as has been shown at various exhibitions throughout the country. They can be prepared as other pelts. The most common way is to stretch the pelt over a board and rub salt over it while fresh and then sprinkle with powdered alum and allow it to dry. It is best to scrape away the surplus fat and flesh from the hide. When about dry, remove from boards and rub with the hands until dry. Place your pelts where there will be plenty of air, but not directly in the rays of the sun. It has been the practice of many fanciers to send their pelts to some fur house to be tanned, at a nominal cost. This process requires about six weeks, but they are in excellent condition when returned.

THE RABBIT BUSINESS AND ITS OUTLOOK.

We hear very much about the rabbit "fad" and very many who do not know what domesticated rabbit looks like, who could



EXHIBITION TYPE BELGIAN

not tell one from a cottontail and who do not know its deliciousness, write articles to prove their ignorance, and our only course is to let them talk and write, and the more the better; for the more these who fear it write about it, the more they advertise it and make themselves ridiculous. We like the word "industry," but we have no use for the word "fad," for it gives a false impression.

Experience has developed that most people in purchasing rabbits want them as cheap as possible. This is good business judg-

ment, one might say, provided they can secure first class stock, but in asking for cheap stock breeders usually pick out the ones they would prefer to get rid of and are indeed glad to find buyers. Poor stock is money wasted in the long run, because as a rule it is but a short time until the rabbit breeder has developed his intellect and wants better stock. It costs very little more to procure good hardy stock and it gives better satisfaction. This has been illustrated time and time again. Remember that whatever you get at a bargain is something that must be disposed of for room for better stock. This rule, however, can not always apply, because at times breeders become weighty with stock and offer them at special prices, and those who procure good stock at bargain prices are the ones that profit by their timely purchase. If a beginner knows nothing about the breeding of rabbits, it might be wise to procure some hardy and less costly specimens and from these learn the lessons which will be of immense use to him in the future.

There is no doubt as to the prolificacy of the domesticated rabbit, but when a man buys a pair or a trio and at once estimates how many he should have at a given time, he perhaps dooms himself to disappointment, and as a result may give up the industry. What is needed is calmer views and more common sense, the lack of which has done much harm.

HOW TO BEGIN.

The fundamental principles are first, love for little animals; second, ambition for success, and third, to show to the world the value both as a food commodity and for fancy.

It is always good advice to beginners to purchase stock from a reliable breeder. When choosing your stock, determine in your own mind just what sort of stock you want to adapt yourself toward raising, whether it be Belgian Hares, New Zealands, Flemish Giants, or other species.

In selecting suitable and healthy rabbits of young stock, care should be taken to obtain those whose claws are small and not beyond the fur of the foot, as this is proof positive that they are young. When older animals are desired for breeding purposes, this is of little importance. When the claws are long and thick the animals are aged; the claws of a rabbit of say four or more years are generally curved and sometimes over an inch beyond the fur and proportionate in thickness. The teeth of a young rabbit are small as compared with those of the older ones. The eye should be full and sparkling and the white portion free from any

yellow tinge, as the latter is indicative of ill health, and the body must not be swollen, nor must the animal have "pot-belly," which is a proof of its having been fed upon too much wet, green food. The bowels should be in order, and they are so when the dung is in firm round balls. These in a general, sprightly, vivacious manner always present when the animal is in good health; and if it lacks this, disease, either active or latent, certainly exists.

A beginner may commence with three does and one buck or a trio at least. It is well and important to ascertain that they are in no way related. Then again it is very important not to breed from stock that is not fully grown, which should be after the seventh month. Experience is generally the best teacher, and the results of this experience means years of learning.

After a few months of experience in caring for his start in the rabbit business, it would be well to secure better stock, because the better stock brings more money in sales and they are as easily reared as the common ones, if care be used in their selection. In writing to breeders, always specify the kind of stock desired, whether you wish pedigreed stock of good length and color, or whether you desire exhibition stock, registered or not, as may be decided upon by purchaser. The price of this stock is higher in proportion but worth every cent of it. Reliable dealers can always be depended upon.

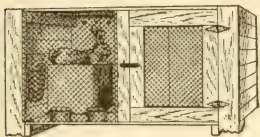
HUTCHES.

There are, of course, various hutches that can be made very cheaply. They are of great importance and it is a mistake to suppose that anything with wire netting around or in front of it will do for a rabbit hutch, more especially if it is to be exposed to the weather.

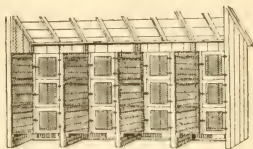
Any building, such as a stable or unoccupied outbuilding that is rainproof, with good ventilation over and above the heads of the animals, will do well as a rabbitry. Hutches should be made in tiers, three or four in number, with the first floor raised at least nine inches from the ground. The hutches should be 24 inches deep, about 20 or 24 inches high and about five or six feet long, with floors slightly tilted towards the front to allow of drippings, and the upper tiers should extend a couple of inches forward so as not to allow the drippings to fall on the hutch below. The floors should be made of tongue and grooved lumber, which is the most serviceable. A good sized nest box should be placed in each tier for use of breeding does.

OUTSIDE HUTCHES.

Many of the successful breeders of the day use outside hutches entirely, and if these are used care should be used to give them a south aspect if possible. A suitable outdoor hutch is reproduced



Single Hutch.



Hutches Arranged in Tiers.

below, which has been found very satisfactory. It costs a little more to build this style of hutch, but they are easily moved from place to place and make very serviceable and satisfactory hutches.

The rabbitry herewith presented is 6x10 feet and 7½ feet high at gable point, while under eaves the height is 6½ feet. It contains 12 hutches in three separate stories, each hutch being 3x5x2 feet. Hutches are open on one end, covered with one-inch poultry netting. Drop curtain for stormy days. Nest box in back part of each hutch. Double doors held in position by screen door coil springs. Partitions made of wood. North side same as south side; east side same as west side.

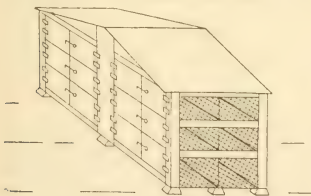


FIG. 1.

Rabbitry

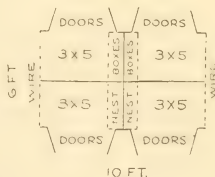


FIG. 2

Ground Plan

Wherever possible this rabbitry should be placed under trees so as to give shade in summer. Have wire-covered ends face east and west in order to give each row of hutches sun in winter time.

First—Make frame in four parts—two parts as in Fig. 3 and two parts as in Fig. 4.

TO MAKE.

Parts of frame as in Fig. 3 are made as follows:

Two outside uprights are $1 \times 6 \times 6\frac{1}{2}$; middle upright, $1 \times 12 \times 7\frac{1}{2}$. Cross pieces are $1 \times 6 \times 10$. Two outer upright pieces are nailed so as to protrude $\frac{3}{4}$ -inch (or exact thickness of board) on either end of cross-pieces. Gable piece is made by cutting board $1 \times 12 \times 5$ diagonally into two equal parts, as in Fig. 5.



FIG. 5

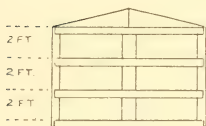


FIG. 3

(INSIDE VIEW)

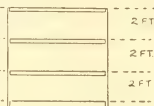
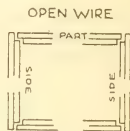


FIG. 4

(INSIDE VIEW)



OPEN WIRE

PART

FIG. 6

Parts of frame, as in Fig. 4, are made thus: Uprights are $1 \times 6 \times 6\frac{1}{2}$; lower cross piece, $1 \times 6 \times 5$ feet $10\frac{1}{2}$ inches; three upper cross-pieces $1 \times 4 \times 5$ feet $10\frac{1}{2}$ inches.

Next set up parts of frame on cement blocks, nailing corners as shown in Fig. 6.

Now, being sure corners are placed at perfect rectangle, begin to lay floors. Use ceiling (fir is worked more easily than hard pine), putting grooved side downward. First, however, put a $1 \times 6 \times 6$ board through center of frame, running parallel with and exactly below gable, nailing it so as to stand on edge, even with top of lower cross-pieces of frame parts; this, together with lower cross-pieces, to form foundation on which to nail lower floor.

Now, using 10-foot ceiling, lay lower floor, nailing strips of ceiling lengthwise of building.

Next take a piece of one-inch poultry netting two feet wide and a few inches longer than six feet, and nail it to the inside of fronts of lower hutches. Do the same on either open front end.

Then put in partitions for lower set of four hutches. (See ground plan, Fig. 2). A handy way of making and putting in partitions is shown in Fig. 7.

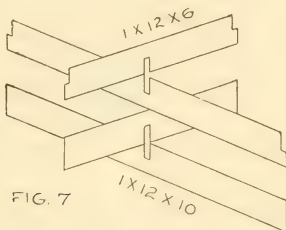


FIG. 7

Next put in nest boxes for lower set of four hutches. Each nest box is made of two boards $1 \times 12 \times 3$, which are nailed together in the form of a rectangle, a hole having been cut into one end for animals to pass through; and then hinged to back wall of each hut. (See Figs. 8, 9 and 10, and also Fig. 2).

Fig. 8 shows a nest box ready for use; Fig. 9, nest box hooked out of the way for cleaning or inspection.

Now lay second floor, put on poultry netting, put in partitions, nest boxes; third floor, etc., till all is done. On top of upper partitions another board $1 \times 12 \times 6$, and another roof piece made as in Fig. 5 are needed.

Whereupon roof may be nailed and doors hung which finishes rabbitry. Doors should be 22 inches wide, which is four inches wider than openings, which are 18 inches, so as to lap over on outside. They may be made of 12-inch and 10-inch boards fastened

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together with cleats. A good plan is to fit double door to close over each other diagonally. See Fig. 11.

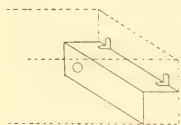


FIG 8

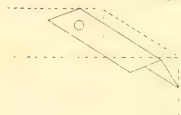


FIG 9

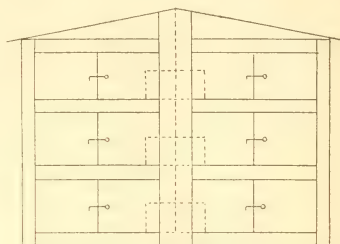


FIG 10



FIG 11

Doors are held in position by screen door coil springs, and may be hooked, only one hook being necessary for one double door.

FIG 13

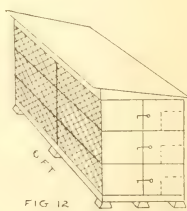
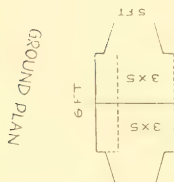


FIG 12

5 FT

For the benefit of those who desire a smaller rabbitry, Figs. 12 and 13 show one-half as large, with single row of hutches,

made practically the same as one with double rows. Where this single kind is used, open wire front should face south.

The big breeder will do well to use double kind, placing a number of them in a series under one roof, and leaving aisles between them, ends of roof projecting to give attendant shelter in bad weather. See Fig. 14. Also where single rows of hutches (Fig. 12) are used, they may be placed in series under one roof, ends of roof projecting as in Fig. 14. Aisles in this cut are $2\frac{1}{2}$ feet wide. Ends of roof also extend $2\frac{1}{2}$ feet.

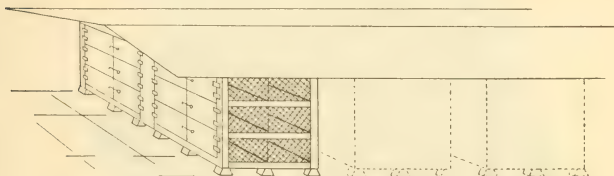


FIG 14

FEEDING.

The proper feeding of rabbits, while not a difficult thing to learn, is of much greater importance than is generally understood. While it will not create a good specimen out of a poor one, it will make a good one better and cause even a poor quality of hare to look its best.

Feeding for the show room and feeding for market are two very different things. The former method is followed with a view of producing hardness of flesh, glossiness of fur, an active, alert disposition and a fineness and slenderness of body which shows little or no stomach, especially in the Belgian Hare. The latter method is intended to produce a heavy animal, possessing as great an amount of meat to each carcass as possible.

In feeding for the show room the stock should be fed twice daily, with the exception of brood does and youngsters under three months of age. These should either be fed three times each day

or fed twice daily, giving enough food to last from one meal until the next. With these exceptions, the hares should be fed only what they will eat up clean in one hour. This is a good rule, but it has many exceptions. Some hares can consume twice as much feed as others and still remain in good, hard condition. The only accurate way is to become acquainted with the needs of each individual specimen and feed accordingly. This is by no means so



BELGIAN DOE—A WINNER.

difficult a task as one would imagine. Feeding twice each day and noting the condition of each hare as it is fed, one quickly becomes expert at estimating the amount of feed required by each.

Should you notice that a specimen is getting overfat and showing a tendency to "pot-belly," cut down on its feed, particularly on hay and green food. On the other hand, should it be evident that the rabbit was too thin and gaunt, showing a hollowness in the flank or the backbone being visible, increase the amount of feed given. It would be a long list that would include the different foods that domesticated rabbits will eat and that will agree with it. Whole or rolled oats and barley, wheat, alfalfa or clover hay, bread, milk, carrots, parsnips, cabbage and green grass. Green food should be fed sparingly and carefully and fresh, cool water should be standing before them at all times. The great majority of breeders use alfalfa or clover hay and oats or barley and green foods are given as a variety.

While feeding proper foods in proper quantities will greatly aid in producing firm flesh and a bright, lustrous fur, it must be

HEAVYWEIGHT TYPE NEW ZEALAND.



aided by exercise and daily grooming of the specimens when fitting for the show room. In grooming rabbits begin with a stiff brush, following with the hands slightly moistened and finish with chamois skin. It has been stated that a good plan just before the specimen goes to the judge, is to moisten the hands with one drop of sweet oil and groom carefully.

When feeding for market the object is to produce as great an amount of flesh as possible and as quickly as possible. To do this it is necessary that the youngsters grow rapidly from the start.

Milk is known as a rapid growth producer, but to some it is not available, and if used to any extent would lessen the profit considerably. Oats produce a fine quality of flesh, but it is not a real good food to grow flesh rapidly. Ground barley, or whole barley is excellent, as has been found from experience. Alfalfa or hay should stand before the stock at all times. It may be well to bear in mind that the medium weight rabbit, like the medium weight chicken, sells much quicker on the market than does the real heavy specimen, although both are excellent. Combine intelligent care with the firm determination to excel and your stock will do well and be a credit to you and a money maker. Above all, don't forget fresh water two or three times daily.

FEEDING GREEN FOODS.

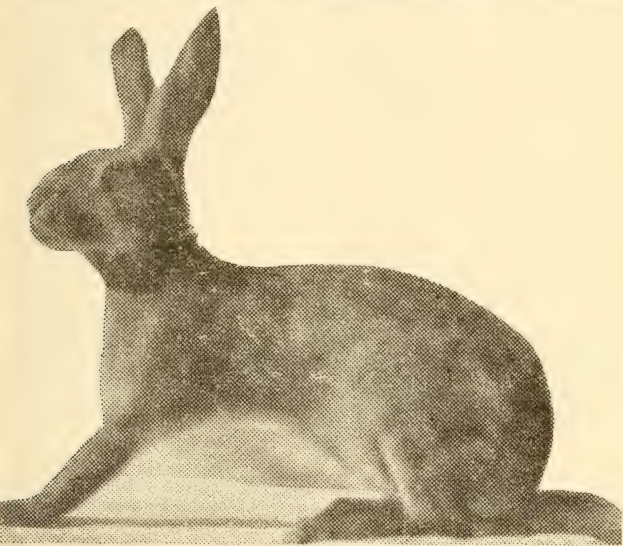
The diversity of opinion that exists among fanciers as to the feeding and treatment of their hares and rabbits is very pronounced. Successful breeders and exhibitors of all kinds of stock often have an entirely different method of management, yet the animals will appear in the best possible condition, though the fancier will declare that the way in which another treats his stock is enough to kill them. One of the subjects on which some fanciers are greatly at variance is that of green food. Some consider that green food should be fed sparingly, while others are equally successful in giving his rabbits green food to their hearts' content. There is little doubt that bad effects result from a too liberal supply of green food, especially to youngsters, and a beginner should beware of too liberal a supply of green food.

BREEDING.

Give your does plenty of time to grow. If, by seven months, they are undersized and not fully matured, wait until they are eight months before breeding. The youngsters will be more satisfactory in every way if this is done. Some does will not breed

at once, and many times it has been necessary to take the doe to the buck's hutch several times before this is accomplished. When a doe will not breed of her own accord the only thing to do is to wait until she will. Does have been known to refuse to breed for two or three weeks, although given a chance every day during this time.

After the doe is bred, place her carefully in the hutch where she is to rear her young, which usually arrive almost to the very



GOOD TYPE OF BELGIAN.

hour in thirty days from time of breeding. If she is a well bred animal it will be a good plan to have a nurse doe bred at the

same time, so if the pedigreed doe has more than she can take care of properly, the offspring of the nurse doe may be disposed of and the litter of well bred ones divided. Have a good roomy, dark nest box, but it must have some ventilation. There are two common causes of blindness among the young—not having a dark nestbox and the ammonia arising from filth in the hutch. Perfect cleanliness pays.

Do not have the doe worried, disturbed nor handled, unless absolutely necessary. Thoughtlessness or carelessness in this particular may mean the loss of a litter. If necessary to remove her from the hutch, gently take hold of the skin on the back of the neck with one hand, resting haunches on the other hand. Never handle them by the ears. Do not allow any strangers near her hutch when time for the young arrive, nor for a few days after. It might or might not make a difference with her. You can not tell until it is too late.

Does will make their nests from a week to an hour in advance of the time of kindling. You will know when they wish to build their nests, for they pick up hay in their mouths and carry it into the nest box. See that she has plenty of hay with which to work, but not too much, for she may stuff the nest box so full there will be no room for easy access.

Some inexperienced breeders have contended that does may be bred every nine or ten weeks and thus keep up a string of continual kindling, but experience has taught a bitter lesson in this regard. This is going too far, and it is going against nature. Youngsters should not be weaned until they are at least eight or ten weeks old and then the doe should have sufficient rest, in order to produce suitable and healthy offspring. Never try to see how many you can raise in a given time, but how good a quality you can produce by good care and judicious breeding.

CARE, EXERCISE, ETC.

While it would seem that no especial care would be necessary in keeping Belgians, this is a sad mistake. Care should be taken to see that their hutches are cleaned as often as possible, never letting them go over a week at the longest. Give your rabbits the same care that you would your own children in order to keep them clean, healthy and vigorous.

If it is possible, it is expedient to give the young rabbits plenty of exercise. A good sized run is advisable for this. Exercise with rabbits, the same as with persons, is conducive to good

health and their growth is more pronounced. Of course, if feeding for market and it is desired to reach a greater weight in the least time, then a great deal of exercise will not be to your advantage. The older rabbits should have some exercise, as continued confinement in a small space has a tendency to lessen their breeding qualities. It makes them better breeders, producing more healthy stock. Rabbits propagate rapidly if given exercise and attention, and a rabbit breeder should take as much interest in his stock as he would his own child. As Elbert Hubbard is quoted as saying: "Carefulness is better than carelessness, results brings proof."

If you do your duty in supplying a doe her needs and she is healthy, you will never have any trouble in this direction. Sometimes a doe will disown her litter, but you will most always find that she is not in good health or you did not take some necessary precaution during this period to insure her perfect health. Some people have had considerable trouble with does eating their young. Let me say the cause of this is most generally because she is feverish, as is the case with does having their first litter. For young does about to litter for the first time, it is a safe plan to place a small piece of salt pork in her hutch about the day she is due to kindle. Then keep a sharp lookout, and if her tendency is to eat the young, increase the supply of salt pork, until her feverish condition has left, and then trouble will end.

Feed her regularly, as any irregularity in feeding may cause the flow of milk to stop and sickness will be the result of both mother and litter. Always have plenty of food before her, so she may eat any time, giving milk producing foods if possible, such as carrot, peas (soaked for some time) oats, bran, wheat or barley, corn bread and bread dried. Milk is good for them if possible, but they will raise just as good litters without it. If milk is given, be sure there is none left to sour. The more nourishment is given the mother doe, the stronger and larger stock will be the result.

About the second or third day examine her nest, giving the doe some little dainty to take up her attention, but not forgetting to place a board at the entrance to the nest, or she may make a dash at you, stepping on the little ones. If any dead ones are noticeable, remove them at once. If she has a large litter, use a nurse doe if possible, dividing as equally as possible. It is much preferable for a doe to bring up three or four, as at one month of age they are as large as two and a half month youngsters when there are seven and eight in a litter. Do not remove the fur

from the little ones till their own coat is grown, and this is especially necessary in cold weather. On the fourteenth day clean out the nest box and put in new hay, and it is better now to clean it every week. The end of the nest box may be left open as there is no danger from the light at this age. As soon as the youngsters tumble out of the nest box they will begin to eat whatever is placed in the hutch. Be very careful about feeding green food and would advise not to feed any until the youngsters are three months of age, and sparingly then.

It is easier to prevent "slobbers" than to cure it, and when the youngsters get it, you will know it by the water discharge from the corners of their mouths. Do not waste any time, but begin to doctor at the first symptoms, instructions for which will be found under diseases and remedies.

It is very unwise to breed a doe when nursing young. Let her nurse them at least eight weeks, give her a week's rest, two weeks is better, and you will then do justice to both mother and litter. Too many litters a year will deteriorate your stock. Don't overlook this pointer. Does live to be eight years old and older, and if well taken care of can be bred profitably for about five years. It pays to take care of a good doe. The hardest time for bringing youngsters through is from weaning time till they are about four months of age. If kept with the mother till the third month you will have little or no trouble. Give them runways as above outlined. Separate the sexes at three months, and while on this subject will say that the best way to tell, although at times some breeders have made a mistake, is to notice the penis of the male and female, the former being round and the latter oval shaped when pressed out.

Now a few lines about the hay to feed. If possible feed the third crop of alfalfa and the first crop of clover hay. Do not use a bale weighing over sixty pounds or so, for it is usually packed very close and is apt to get moldy and dusty, and then again heavy bales denotes large stemmed alfalfa which should be avoided. Beware of poor hay, as that will cause a loss in your youngsters as bad as green food would. Feed judiciously and remember this--that there is as much stock lost by feeding too much than not enough. Keep your hares a little hungry and this is much better advice than stuffing them full day after day. It would be a safe plan to feed them morning and evening just as much as they can eat up clean in an hour's time. Keep your hutches sanitary and ventilated, handle your stock often in order to get them tamed and you will combine pleasure with profit.

A WORD ABOUT THE UTILITY SIDE OF RABBITS.

The Belgian Hare, New Zealand and Flemish are beginning to assume huge proportions as a food commodity. There are hundreds of families raising these animals to supply their own table. As a meat proposition they are hard to equal, delicious and tender and containing a greater per cent of nutrition than any other meat. The meat is white like the breast of a chicken and there is as fine a texture of meat as can be found on any meat producing animal. In many of the larger states today, California, for instance, there is as large a demand for Belgians for the table as for chickens. And why? Because they have created a demand and have introduced it into homes and the best hotels. There's a reason. Don't be discouraged; stick with the ship; enter into this industry like you would enter into a business. When reverses come, plan your success with set teeth and smiling countenances. It's bound to come. It's a table delicacy and when once introduced for a dinner, there is bound to be some reaction and the result will be that chickens will be second choice. Remember that dollars grow from dollars, the same as plants grow from seeds. It is not absolutely necessary to have the finest stock in the land, but it is necessary to have good healthy stock, the kind that fattens quickly when properly cared for. When once introduced in new localities the main trouble will be supplying the demand, and you will find this to be especially true when once inaugurated.

It is claimed that for digestibility and nutritive value there is no meat comparable with that of the domesticated rabbit, and that compared with other meats, not half of the meat side of the industry has been told, nor can it ever be told. Boost it as a table commodity and you'll not be surprised at the returns that come in.

In the fall of 1915 the writer introduced Belgian Hares dressed into two of Kansas City's largest hotels, selling them in lots of 40 pounds twice a week for 25 cents a pound. The hotels used a special slip on their menu card, and I give below a sample for those that might want an idea:

SPECIAL TODAY.

Young Grain Fed Belgian Frys.

NOTE—Belgian frys are the most delicious flavored meat to be had as a food commodity, are highly nutritious, containing 83

per cent of digestible nutriment, with meat as white as the breast of a chicken—an appetizing morsel.

The result was that I could not supply the demand, even though I purchased from some large breeders in Kansas and elsewhere, and I had to cancel my contract early in February of the following year. This is merely related to give some enterprising breeder an insight of the possibilities. Don't overlook the utility side; it will mean increased sales to you breeders. Boost it at every turn of the road and you will be rewarded by the astonishing increase in sales of both young and breeding stock.

PEDIGREES AND REGISTRATION.

The subject of lineage is becoming an important factor in the selection of breeding stock today. A fine specimen from prize winning parents will be much more likely to breed winners than a specimen, although a fine one itself, by the result of chance, coming from parents who are unknown. The breeder whose honesty is unimpeachable and whose stock is known to be reliable and correctly pedigreed, is the one who will command his price and will have a ready sale for all his stock.

Registered stock stands for a guarantee of quality; the number of the hare is tattooed in its ear, and the number is entered into the books of the National Pet Stock Association. All hares are registered by licensed judges of the National Pet Stock Association, and only the finest hares in the different species are eligible for registration, the cost of which is \$1 per head. For further information on registrations or becoming a member of the National Association, address C. S. Gibson, secretary, 1045 West Warren Avenue, Detroit, Mich.

EAR TAGS.

An important matter in connection with the keeping of correct records of stock is ear marks, for no matter how good a breeder's intentions are, he can not keep a perfect system without errors unless proper care is taken. Tags that are easily adjusted and comfortable to the wearer are the ones that will last the life of the hare and are safeguards that will in some instances protect the breeder's reputation and insure the identity of the hare that may perhaps pass through several hands.

There are several systems in vogue at this time, and perhaps the most prominent one is the use of ear markers, using India

or indellible ink and punching the number in the ears by use of a needle marker.

Where a large number of hares are kept, all hutches should be numbered and a card attached to each hutch giving the name of the animal therein, together with its distinguishing mark, ear tag, etc. The card for the breeding doe should, in addition, give date when bred and to what buck. These are known as record cards.

Purchasers of bred does and those shipping does to be bred, should always insist on receiving a certificate of breeding, giving the name of the buck, date of service and signature of owner of buck, certifying to the service.

NEW ZEALAND RED RABBITS.

Courtesy of C. B. Gilmore.

The New Zealand Reds are, strictly speaking, business rabbits for general utility purposes. They do not belong to the ornamental classes, yet they are among the most beautiful of breeds. Their bright reddish buff coloring, their big hazel eyes and handsome type makes them a much admired rabbit.

The New Zealand is practically a new rabbit in the American fancy. At the present time through the efforts of the New Zealand Red Club they are one of the most popular rabbits in the country.

As an exhibition animal they are unequalled. They are by no means an easy breed from which to produce 90 per cent animals, which makes them all the more favored as an exhibition rabbit, and the prices obtained for good exhibition animals makes them very profitable.

As a market rabbit, they are par excellence. Practically all the large rabbit breeders around Los Angeles, which has one of the best rabbit markets in America, breed New Zealands, because they mature rapidly, making fine fryers at from seven to ten weeks. They are medium boned, making them fine for fryers, for, taking a larger rabbit when the young begin to grow, they must grow a big frame, consequently when dressed at eight weeks you have much bone.

They breed very true to color. Pure bred New Zealands never throw off colored animals. They are of a quiet nature, consequently take on flesh very rapidly, and the flesh is of fine grained

texture and very juicy. The fur of the New Zealand is coming in demand, being used for imitation Red Fox.

The first or original New Zealands were a much lighter color than are the ones of today; in fact, there is almost four shades between the ones of four years ago and the ones of today. The first New Zealands of record in this country were imported into San Francisco in 1906, and the credit for bringing the New Zealand Reds into prominence and popularity belongs to the National New Zealand Red Club of which C. P. Gilmore, Santa Barbara, Cal., is secretary.

COLOR.

This breed is said by all who see them to be the most beautiful domesticated rabbit known. They are a beautiful reddish, buff color, with a creamish underbody on good specimens. On the



A NEW ZEALAND RED.

high class specimens the color is predominant. The ears are $5\frac{1}{2}$ to 6 inches in length, large hazel eyes, with pure white circle one-quarter of an inch in width. The head is medium size and shapely, free from white cheeks, a reddish buff throughout, but lighter under the jaws. Have a large racy appearance, free from pot-belly, firm in flesh and close coated.

STANDARD WEIGHT.

Three pounds at 2 months; $4\frac{1}{2}$ pounds at 3 months; 6 pounds at 5 months; 8 pounds at 8 months; does, 10 pounds at 12 months; bucks 9 pounds at 12 months.

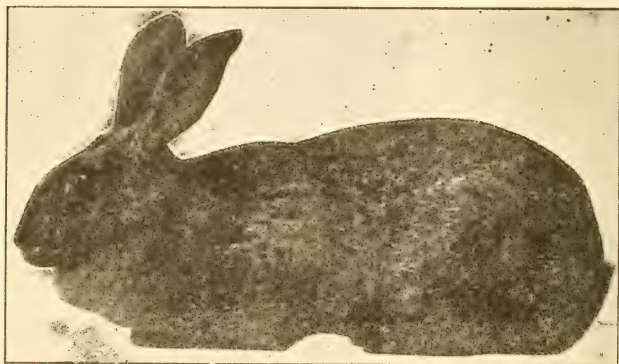


STEEL GREY FLEMISH GIANT.

FLEMISH GIANTS.

The Flemish Giant, it is stated, is the result of crossing of several breeds. Unfortunately much progress has been made in the bringing of the present state of perfection of the Flemish Giant without proper records having been kept, so that it leaves a wide possibility for conjectures.

The Flemish Giant is a notable example of what can be accomplished by fanciers and breeders. It is famous for its weight and large and imposing appearance. It is a hardy animal and this is an important point to consider when laying in a variety of rab-



A BLACK FLEMISH GIANT.

bbits. If heavy weight carcasses are demanded in your market, the Flemish Giant will meet every demand.

However, it has been found that they will not always breed true to color. Dark gray parents often produce jet black young, while jet black parents often produce dark gray young, and so forth.

The commercial value of the Flemish Giant has begun to place

them amongst the leaders, and judging from the inquiries for these giants they rightfully deserve this honor. The fur is also of commercial value, because the supply of beaver, real seal, sable and silver foxes are rapidly becoming extinct, and to satisfy the increasing demand the furriers look for substitutes and the most useful has been the rabbit skin. The steel gray, light gray, black and white Flemish Giants are all on a par as to the fur. It is thick and heavy and prices vary according to size and thickness of fur.

The White Flemish, while being from the Flemish family, are more commonly called White Giants, as well as the sold blacks. Separate classifications and standards are now being adopted by the National Pet Stock Association and in future these Giants will be in a class all by themselves.

Flemish breeders claim it is the most profitable breed to handle, as the youngsters often scale six pounds at three months, and the mothers are excellent milkers and take exceptional care of their litters.

They are the Hereford of the hare family. They are large and imposing in looks and size, with a large well shaped head and firmly set on shoulders, ears very erect, quite thick, and dark eyes. The breast is very massive, forelegs well boned and straight. Back is very broad and long. Does have a well developed dewlap, good sized and well carried. In condition they should be well coated and flesh should be firm.

The flesh is equal to the Belgian or New Zealand as a food commodity and they require the same attention as other hares, only being larger, naturally consumes more food. They breed as often, have as large litters, are equally as hardy and in no way lacking the good qualities of the other breeds, while in the number of pounds of meat produced in a given time they excel.

The Mastodonic Giant, a breed recently put in prominence by a well known Pacific Coast breeder, is another type of the Flemish family, showing what can be done toward breeding for size. Its color is of a sandy color, nearly resembling a Belgian hare, but attaining size up to 18 and 20 pounds. A great future is predicted for this type of animal.

In making selection for foundation stock, chose only the longest, broadest and largest boned does, even if color is rather poor, for color without size is a poor combination. In bucks, be more particular as to color and just as particular about size as in the does, seeing to it that they are in good health, not too fat nor

moulting. Of course, the best buck obtainable is none too good if you desire well colored, good sized litters. Take extra good care of the does after mating, and give them all they can eat and drink daily. Two or three days before littering reduce the grain ration about one-third, but give plenty of alfalfa, hay and water.

After the arrival of the youngsters give no grain for about thirty-six hours, but add eight drops of aconite to a pint of drinking water to allay fever and for tonic. Begin grain ration by giv-



EXTRA FINE STEEL GREY FLEMISH.

ing few oats with wheat bran, gradually increasing amount given until young are ten or twelve days old, and from this time on to maturity crowd them every minute, being very careful not to overdo it, for great and lasting harm may be done in this way. Bread and milk is exceptionally fine after young are about two weeks old. Leave doe with the litter until she refuses to nurse them, even if it is four months—the longer the better.

In breeding for size it is important that you do not allow the doe to care for more than three or four young, providing a nurse doe for the balance.

Many breeders advocate breeding the young does in a litter when eight months of age, back to the sire if color is to be more predominant, which is known as line breeding.

SOME VALUABLE DATA ON FLEMISH.

Breeders of Flemish Giants appear to be somewhat backward at giving advice. In giving my views on different points I may clash with the opinions of other breeders, but I hope that what

I will say will be taken in the same spirit in which it is given.

My first view is the importance of good does. As the name of the rabbit implies, it must be big. Size is one of, if not the, chief consideration. Therefore it should be given a prominent place in all breeding operations. And the best way to get size is to breed only from big rabbits. Have both the buck and doe as big as possible. Avoid the small, flashy rabbits, as they are of no use at all in the breeding pen. I admit it is not always true that the biggest bucks sire the biggest youngsters, but the very small ones never will breed big ones. In bucks it is wisest to use standard weighted ones, say 12 to 14 pounds. There are times, however, when it is advisable to use bucks which are a little below standard weight, but in such cases make sure that the bucks were bred from big parents, and only use him for big does. The reason for advocating, and using, large bucks in the breeding hutch, is because we must have length of body in our Giants. If we have not a long roomy frame, it is impossible to get the desired size, and it is only by using big bucks that we can produce those roomy frames.

It must not be thought that if a large buck is used nothing else matters. The doe plays an equally prominent part in deciding the quality of the youngsters; therefore, get as good a doe as you can afford. Size you must have in the doe, and in seeking after size you can afford to allow a little latitude in the matter of color. Get the biggest and best shaped doe you can, and if she is not so good in color as you would like, make certain that she is bred from parents of good color. The old adage that "blood will tell," is true in breeding Flemish as it is in any other branch of the live stock fancy.

The question of color is largely decided by the buck, at least such is the contention. This being the case, secure as good colored buck as possible. Health is an important point and bucks which show any signs of ill health should be avoided. Many fanciers favor mating a dark buck to a doe of medium shade, but I believe it is good policy to breed from the darkest pair you can get, as in this way you usually get one dark youngster in a litter, the remainder being medium steels.

If you have a long, lean young buck in your rabbitry, hang onto him. Given proper care and attention, he will widen out with age and, providing the color is right, come out good. The art of breeding Flemish is largely in being able to grow them and get the most out of them.

When the youngsters are ready for weaning take youngsters away, leaving her with the young buck which you hope to grow into quality. Place mother and son away from other occupants of the rabbitry, so that they are not disturbed. Leave them together for a few weeks until the young buck has grown quite accustomed to his new surroundings, then take the mother away.

Naturally, feeding is the all-important part. Give him at a time as much hay, alfalfa or grain as he can eat up clean in a day. If he has too much food he will spend his time in raking it up into a heap, whereas, he should be lying down and growing. Feed him liberally on the best of food, but see that he always has a clean trough or hutch in the morning. When cleaning out the hutch, place him in a box kept solely for that purpose, so as to avoid frightening him. Many breeders when buying a buck to place at the head of their stud, take it home, place it among the other stock and treat it in a haphazard manner. The result is that the rabbit never justifies expectations and the seller is very often blamed. Keep the young bucks out of sight of the does and see that the smell of the does is not carried to him; otherwise progress is arrested.

GERMAN CHECKERED GIANTS.

This beautiful marked animal is not an old timer in this country, but originated from Germany, and some few fanciers have become deeply interested in this breed. As a fur producing animal, this rabbit no doubt will be in wide demand. They are marked somewhat like an English rabbit, but much larger in size, some of them weighing in the neighborhood of 15 and 16 pounds. They have various colors, black and white, blue and white and tortoise and white.

Care should be used in breeding these animals and as with Flemish, the buck should have better markings than the does. The standard for German Checkered Giants will be found in this book.

PREPARING FOR EXHIBITION.

The breeder who expects to win on a specimen picked up amongst his stock without any previous preparation, will be sadly fooled. Winning Belgians are prepared for exhibition and fed for

shape from the time they are born, which is the proper time to begin this training.

Give the doe a long run with a nest box in one end, and as soon as the young ones are running about, place across the center a three or four-inch board for a hurdle. As they get older, add another three or four-inch board, then another, until the hurdle is about twelve inches high. This will give them sufficient room to run and leap, which will tend to avoid the large stomachs which are so detestable.

It is only by plenty of exercise that the muscles can be properly developed and a long, racy appearance acquired. Exercise also prevents, to a large degree, the formation of dewlap, crooked legs and lopped ears, by hardening the muscles. No animal raised in cramped quarters will have any chance in the show room.

But exercise is not all; there must be a proper foundation to work on. You can't make a short, chunky rabbit into a prize winner by giving it a thousand runs, any more than you can make a cur a prize winner amongst thoroughbred dogs. Look to your breeders in the first place and select only the lengthy does, fined boned and showing quality in every line. Mated to racy, rich colored bucks, the youngsters will be good material to work on for the show room.

While the youngsters are still in the nest box, feed the doe only such foods as produce a steady and healthy growth. No fixed rule can be applied in this case, as what might be good for one may not do for the other. Attention must necessarily be paid to their development. If they grow fast they may become coarse in bone and limb, and might as well be laid aside as far as the show room is concerned, unless shown in the heavy weight or utility classes. Notice the young carefully and if quick growth is apparent reduce the quantity of nourishing foods, such as grains and mashes, and in place of them give hay or the stemmy parts of alfalfa. On the other hand, if they appear to be thin and weak, feed the mother doe with warm milk and bread at night if possible, or a mash of middlings, containing a little linseed meal every morning. Also give plenty of carrots and you will soon increase her supply of milk and the youngsters will show an improvement.

When the litter is weaned select the most promising ones and give these your attention. Remember that feeding has as much to do with preparing an animal for exhibition as any other one thing. If you feed heavily you will secure a pot-bellied appearance on the animal, and to rectify this mistake, will perhaps take

away all ambition to produce a classy animal. Be careful and do not feed too much; feed sufficient nourishing food, some little green stuff, not much, but enough so they will eat it up clean in an hour. Do this morning and evening and don't forget the hurdles.

Condition is another point, in fact, the main one in exhibition animals. Rough coats will not win. Judges have thrown out some excellent animals which were out of condition, and it is a shame that this condition would exist, when breeders have the type and color. Never keep exhibition Belgians on the dusty ground, as it will get in their fur and absorb whatever oil there is, making their coat dead and faded.

In selecting show animals be sure they are healthy and free from disease, as these are barred, and no amount of care given a diseased animal will prove of advantage, if it still shows signs when in the show room. Specimens should be groomed regularly every day. Go over them carefully with a brush, finishing with your hand or chamois. This imparts a glow to their fur. Be sure and handle your stock frequently, so that they will be accustomed to it and not struggle and scratch when touched. Be sure they are not moulting.

In New Zealand and Flemish, size of course is a point of advantage, but these also must be conditioned. They should not have a pot-bellied appearance and should be free from moult.

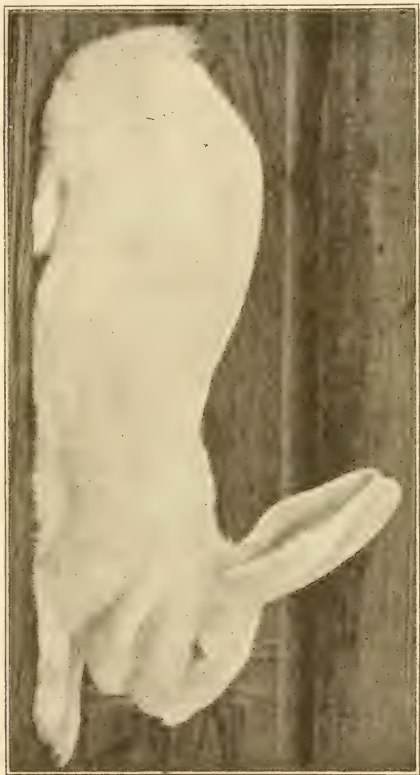
Summing it up, the fancier that wins must study his animals, work with them and give them his attention if he desires this ambition.

CRATING AND SHIPPING.

The crating of hares is a vital matter to both breeder and purchaser. Certainly a purchaser don't want to pay express charges on a heavy box just to receive his animal. Make your crate as light as possible, consistent with safety and protection.

Boxes obtained from any merchant make excellent shipping crates and the sides should be sawed off to a slanting position, so as to prevent smothering in case other things are piled over them. Slats covering this one side gives sufficient air and light. If convenient, wire can be used to cover the opening.

There are many complaints received regarding the receipt of hares in bad condition, little or no food in their boxes and the lack of water. Small cans should be placed on one side of the



WHITE GIANT DOE—A BEAUTIFUL SPECIMEN.

box, nailed. If carrots are handy, these can be substituted for water, providing the shipment is not at a distance. Another small box or can should be provided for some oats, and a liberal supply of alfalfa placed in the box.

The crate need not be much larger than the animal. When several animals are shipped, a crate sufficient for them is convenient for handling, providing there is sufficient room. They should be sub-divided, especially for matured specimens, and it is preferred to have only one hare in a division. If two or more crates are shipped to any one person, be sure and have them handled as a lot shipment, and thus save consignee express charges. If this is overlooked, ten chances to one the consignee will be required to pay almost double.

CAPONIZING.

Caponizing the young male rabbits at ten or twelve weeks of age, or as soon as the testicles are developed, has a tendency to produce heavier animals. They take on flesh very rapidly and grow to a large size. Large numbers can be kept in one run without fear of fighting if this is done.

Have an assistant to help you with this work. Take the hare in your lap, turning its back towards your assistant, and holding one front and one hind foot in each hand, spreading them apart and exposing the parts to be removed. The operator should of course be provided with a sharp knife and after stretching the skin over the testicle with forefinger and thumb, cut open the scrotum with one slice. It is necessary to cut deep enough to make a good sized opening. With the left hand take the testicle from the scrotum, drawing it out about two inches, then with a knife remove or separate the artery and the spermatic cord, cutting upward and leaving a little pea-shaped bulb on the end of the cord, cutting between this bulb and the testicles proper, allowing the cord to drop and return to the scrotum. About two inches from the testicle, commence to scrape on the sides of the artery downwards with the edge of the knife, making a light and slow drawing stroke with the edge of the knife, touching the artery a little lower or nearer to the scrotum with each stroke. Perhaps a dozen of these little fine cuts are necessary to wear down before severing the artery, which should be done well down close to the scrotum. This will avoid much blood being lost, while if the artery was cut square off, might result in the loss of the hare

by its bleeding to death. It is preferred that the testicle on the left side should be removed first. Pine tar may be applied to the wound in the summer to keep the flies from bothering it. Never caponize any animal that is not in healthy condition.

The percentage of loss by caponizing is not great, and if the operation is performed properly, fully 95 per cent of them will be apparently over the operation in four or five days, the only noticeable difference being they are more quiet and not disposed to fight each other.

It is not practicable to unsex a doe, as it requires a more delicate operation and conditions, are such that no average person would understand such an operation unless he were versed in surgery. Besides this, they are of greater value for breeders.

RABBIT PELTS.

Inasmuch as the fur-producing animals are fast disappearing and it has been found necessary to breed them in captivity, we must necessarily have to look forward to a substitute. Thousands of tons of domestic rabbit pelts have annually been imported from foreign countries, and why this condition exists, with the numerous pelts available in this country, is hard to understand, unless it is caused from the fact that there is not sufficient pelts to supply the demand. England, France, Germany and other foreign countries raise rabbits by the thousands for food purposes and naturally an outlet for the pelts is the outcome.

There are in this country today countless women wearing furs made from domesticated rabbits, such as the Belgian, New Zealand, Flemish Giants and Himalayan and other varieties. Even the skin of the white pink-eyed rabbits are used extensively by furriers and milliners. For trimming a dress, collar or making gloves or for lining coats, they have no equal. Many pelts are being tanned by local tanners, prices ranging from 25 cents to \$1, according to the size and condition. Below is a very good formula which may be applied to tanning:

Take the skin off whole by cutting from hock joint across vent to hock joint on opposite side, and draw the pelt off over the head and cut off at a point back of ears, or if ears are to be left intact, let the cutting be done on a line extending around to point of nose. Cut off the useless parts and soften the skins by soaking in warm water. Take away the fatty part from the inside, then

soak the skins in tepid water two hours. Mix equal parts of borax, saltpeter and Glauber salts (sulphate of soda) about one-third to an ounce of each to each skin, with water to make a thin paste. Spread with a brush over the inside of the skin, applying more on the thicker parts than on the thinner. Double the skins together, flesh side inward, and place in a cool place. After standing twenty-four hours wash the skin clear and apply the following mixture in the same way as before: One ounce sal soda, one-third ounce borax, two ounces hard white soap, melted slowly together without coming to boil. Fold together again and put in warm place twenty-four hours. After this dissolve three ounces alum, seven ounces salt and $1\frac{1}{2}$ ounces saleratus in sufficient hot rain water to saturate the skin. When cool enough not to scald hands soak the skin in it for twelve hours; wring out and hang up to dry. When dry repeat the soaking and drying two or three times till the skin is sufficiently soft. Last, smooth the inside with fine sandpaper and pumice stone.

You will find by visiting pet stock shows, which are held annually all over the country, thousands of women (wives of fanciers) wearing domesticated furs made from rabbit skins, and there is no doubt that this fur will be in demand with the apparent scarcity of imported skins caused by the European war.

STANDARDS FOR JUDGING BELGIANS, FLEMISH, NEW ZEALANDS AND GERMAN CHECKERED GIANTS.

The standards printed in this book are the official markings and points adopted by the National Pet Stock Association of America. They are here arranged for the convenience of both professional and amateur breeders.

Disqualifications.

One or both ears lopped more than half way in any variety except lop ears; wry tail, a screw tail, with a deformed bone, that may be a complete turn or part. The bone may also be firmly set to one side. A tail carried to one side at times, not set solid, is not a disqualification, but should be cut. Bowed legs, knock knees, legs or feet crooked or deformed in any way. Juniors over

six months old, off colored eyes or not matching body color specified. Foreign colored patches of hair appearing in certain places, where color is specified. A patch of hair should consist of enough hairs to make a distinct spot. Failure of important color markings specified in certain breeds. Plucking hair, cutting tails, dyeing or coloring hair, castrating or faking in any way.

Ears with a slit more than one inch in length or a part of the ear gone. Small holes or slits should be cut. Bad moult is not generally mentioned as a disqualification, but in strong competition a specimen in a bad moult is thrown out. The standards only show a few points for condition, but rabbits in bad moult lose all their color, or the greater part of it, so they lose out on both color and condition of coat. The hairs are nearly all dead, and show little color.

Belgian Hare Rabbit Standard.

| | |
|---|----|
| Shape—Body to be good length, slender, tucked up at flank and well ribbed up. Back a trifle arched, rounded loins. Head good length, chest to be muscular, tail straight, not wry tail or crooked, and very racy appearance. Body..... | 10 |
| Chest, head and tail..... | 10 |
| Color—To be a rich, deep, dark cherry red or dark mahogany color. Rufus red is the color generally spoken of, but very few fanciers have any idea what those words mean. The color should be uniform over head, ears, chest, feet and body; should be very deep, extend well over the hind quarters, and down the sides to the belly color, which is often of a rich golden color on some of the best colored specimens. The different standards call for creamy belly color. The under jaw should be as free from white as possible. | |
| Body | 10 |
| Head, chest, hind quarters and tail..... | 10 |
| Ticking—Rich black and very wavy in appearance. | |
| Color | 5 |
| Quantity and wavy appearance..... | 5 |
| Feet and Legs—Front feet and legs should be of good length, solid color and free from ticking (black hairs) or white hairs | 5 |

| | |
|--|----|
| Hind Feet—To be rich, solid color..... | 5 |
| Ears—To be five inches in length, good, rich ear lacing, which is the black marking around the tips of the ears. They should not be smudgy, but clearly marked. To be thin and good color and to be firmly set at ear case. Color | 5 |
| Shape and carriage..... | 5 |
| Weight and Condition—Eight pounds or under. Flesh should be firm and solid. Does without dewlaps..... | 15 |
| Eyes—Large, bright and expressive; color, rich hazel. Right eye | 5 |
| Left eye | 5 |
| Fur—Quality rich, close and free from moult..... | 5 |

The Belgian Giant.

A combination of fancy and utility rabbit. The big brother of the Belgian hare being the result of crossing the Belgian hare and the Gray Flemish Giant.

Standard—By A. E. Betts.

Size—Large and imposing, 25 points. Cuts, 1 to 10.

Body—Long, broad; tapering off from hips to breast; does to have dewlaps evenly carried, 20 points. Cuts, 1 to 10.

Color—Red and as deep as possible with black, rich ticking. Belly color to be creamy, 15 points. Cuts, 1 to 10.

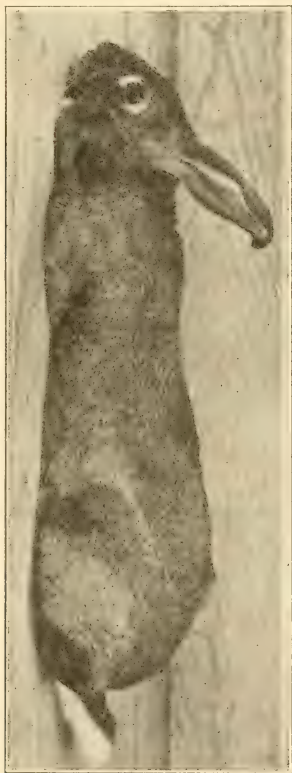
Head—Medium size, and shapely, color to match body.

Ears—Erect, medium thick, $5\frac{1}{2}$ to 6 inches long, and color to match body, with good ear lacing. Eyes large, bold, bright expression and brown in color, 15 points. Cuts, 1 to 15.

Forelegs—Medium, heavy boned, solid tan color; hind legs strong, heavy boned with as much tan on lower part as possible, 15 points. Cuts, 1 to 10.

Condition—Flesh firm, not baggy, fur close coated, 10 points. Cuts, 1 to 5.

Disqualifications—Crooked feet, white bars on front feet, wry



A GOOD BELGIAN SPECIMEN.

tail, knock knees in hind legs, lop ears, off colored eye, ear canker, snuffles or any disease will be sufficient cause to eject the specimen from the show room.

New Zealand Standard.

(Arranged by C. P. Gilmore and C. S. Gibson and adopted by the New Zealand Club and National Pet Stock Association at the annual election, June, 1916).

Head—Full and shapely. Color to match body color with as little white under jaw as possible. Points 5. Cuts, $\frac{1}{2}$ to 3 points.

Ears—Erectly carried. Medium thick, 5 to $5\frac{1}{2}$ inches long; color to match body color; free from black lacing. Points 10. Cuts, 1 to 5.

Eyes—Large, bright and hazel with as small a white eye circle as possible. Points 5. Cuts, $\frac{1}{2}$ to 3.

Color—Reddish buff, carried well down to the skin and evenly down over the sides and hind quarters; free from black hairs and not dark or smudgy, or light buff. Reddish cream belly color. Points 30. Cuts, $\frac{1}{2}$ to 10.

Shape—Body medium long and medium broad fore and hind quarters, does to have even dewlap. Points 10. Cuts, $\frac{1}{2}$ to 6.

Weights— $4\frac{1}{2}$ pounds at 3 months; 5 pounds at 4 months; 6 pounds at 5 months; 8 pounds at 8 months, and does 10 pounds at 12 months; bucks 9 pounds at 12 months. Points 20. Cuts, $\frac{1}{2}$ to 8.

Legs and Feet—Strong and straight; medium heavy boned. Color same as body (all four feet). Points 15. Cuts $\frac{1}{2}$ to 6.

Condition—Full in coat and solid flesh. Points 5. Cuts, $\frac{1}{2}$ to 3.

Disqualifications—Lopped or fallen ear, crooked feet, faking on ages of juniors in junior classes, plucking or dyeing, other than hazel eyes, wry tail, or crooked tail, white bars on front feet.

Steel Gray Flemish Giant Standard.

Size and Weight—Bucks should not weigh less than 13 pounds and does as much over 15 pounds as possible. They should be large and powerful, resembling a giant in every sense of the word

Shape of Body—Should be long and powerful, with very broad

| | |
|--|-----|
| front and hind quarters..... | 10 |
| Does to have large, full and evenly carried dewlap..... | 5 |
| Color—To be uniform, dark steel gray over head, ears, chest, feet and body. Under tail and belly shall be as near white as possible. | |
| Body color | 10 |
| Feet, head, chest and ears..... | 10 |
| Feet and Legs—To be straight, good length and large bones. | |
| Fore feet | 7.5 |
| Hind feet | 7.5 |
| Head, Ears, Eyes—Head to be large and well shaped, color same as body. Ears to be large, thick, good ear carriage and color same as body color. Eyes to be medium size, dark brown and reposeful expression..... | 10 |
| Condition of Flesh and Fur—Flesh firm and solid, not flabby. | 5 |
| Fur to be close and soft, free from moult..... | 5 |
| A scale of weights will help you determine if your stock is the right weight. | |
| At four months of age they should weigh eight to nine pounds; at six months, ten to eleven pounds, and as much more as possible. Most Flemish do not fully mature until they are fifteen months of age. | |

New Gray Flemish Standard.

(Arranged by A. E. Betts, and adopted by National Association Executive Board, September, 1916.)

Size and Weight—To be as great as possible. Bucks 14 pounds; Does 16 pounds. Points 40. Cuts 5 points for each pound under weight.

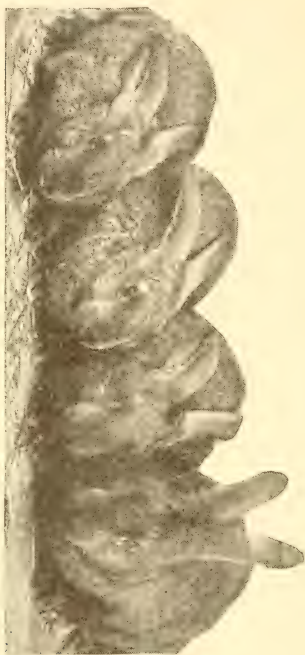
Color—Light Gray, Sandy or Reddish Gray. (Steel Gray will be disqualified in this variety.) Color to be as nearly uniform as possible. Points 10. Cuts, 1 to 5.

Head—Shall be large, broad and shapely. Eyes—Dark brown, medium and expression reposeful. Points 5 Cuts, 1 to 3.

Ears—Long, thick and erect; color to match body color as near as possible. Points 5. Cuts, 1 to 3.

Body—Large, long, good shape, with broad front and hind quar-

A BUNCH OF FINE STEEL GREY FLEMISH.



ters and broad chest. Does to have a strong well developed dewlap, evenly carried. Points 20. Cuts, 1 to 5.

Feet and Legs—To be strong, straight and powerful. Color to be as uniform as possible. Points 5. Cuts, 1 to 3.

Condition—Fur to be close and soft. Flesh firm and solid. Points 15. Cuts, 1 to 10.

Disqualifications—Crooked or deformed feet and legs, wry or crooked tails, lop ears, bow legs, moon eyes or white bars on front feet.

Weights—Bucks—2 months old, $4\frac{1}{2}$ pounds; 3 months old, 6 pounds; 4 months old, 8 pounds; 5 months old, 9 pounds; 6 months old, 10 pounds; 7 months old, $10\frac{1}{2}$ pounds; 8 months old, 11 pounds; 9 months old, $11\frac{1}{2}$ pounds; 10 months old, 12 pounds; 11 months old, $12\frac{1}{2}$ pounds; 12 months old, 13 pounds, and 15 months old, 14 pounds.

Does—2 months old, 5 pounds; 3 months old, 7 pounds; 4 months old, 9 pounds; 5 months old, 10 pounds; 6 months old, 12 pounds; 7 months old, 13 pounds; 8 months old, 14 pounds; 9 months old, $14\frac{1}{2}$ pounds; 10 months old, 15 pounds; 11 months old, $15\frac{1}{2}$ pounds; 12 months to 15 months old, 16 pounds.

Black and Other Solid Colored Giants Standard.

| | |
|---|-----|
| Body—Same as Steel Gray Flemish | 10 |
| Does with evenly carried dewlap | 5 |
| Weight and Size—Same as Steel Gray Flemish | 30 |
| Color—Solid color over head, ears, chest, feet and body. Free from white hairs in blacks | 10 |
| Body Color—Head, ears, feet and chest color | 10 |
| Head, ears and eyes same as Steel Gray Flemish, except that the White Giants have pink eyes and other colored Giants eyes to match the body color | 10 |
| Feet and Legs—Same as Steel Gray Flemish, | |
| Forefeet and legs | 2.5 |
| Hind feet and legs | 2.5 |
| Condition of Flesh and Fur—Fur should be close, thick, shining and free from moult. Flesh firm and solid, not flabby | 20 |

German Checkered Giant Standard.

| | |
|--|-----------|
| Color Markings—Are bred in Blue, Black, Tortoise and Gray. The markings slightly resemble those of the English marked rabbits, without the chain markings, and the loin markings are solid colored patches instead of dots | 15 |
| Body Should be long and well filled out | 10 |
| Length—Very long bodies | 15 |
| Weight and Size—Bucks should weigh over 11 pounds and the does over 13 pounds. To be as large as possible | 15 |
| Does with evenly carried dewlap | 5 |
| Legs and Feet—Long, straight and large bones | 5 |
| Shape, Legs and Feet—Long and attractive appearing and standing well off the ground | 10 |
| Ears—Large, erect, and good ear carriage | 5 |
| Good color, solid as possible | 5 |
| Condition of Flesh and Fur—Fur to be close, smooth and free from moult | 10 |
| Flesh—To be firm and solid | 5 |
| | <hr/> 100 |

DRESSING AND COOKING.

While the quality of Domestic Rabbit meat is at its best when the animal is about 2 to 2½ months old, the most profitable time to kill for market is when they are five or six months of age, when they should weigh at their best for this purpose. It is advisable to have your rabbits tame, so that they can be caught with ease when you are ready to kill them, thus avoiding the possibility of them jumping against the sides of their hutch or pen and bruising themselves, which will leave blood clots on the carcass that are detrimental.

To kill the hare take it by the hind legs, letting the head hang downward; strike a quick and smart blow on the back of the head. Cut the throat at once, letting the rabbit bleed thoroughly. Hang the carcass by the gambrel cords, just as a butcher would a beef or sheep, to two nails in a wall or on a wooden bar made for this

purpose. Cut an opening in the abdomen between the hind legs and fill the carcass with cold water two or three times.

To remove the pelt run the knife around the first joint of the hind legs, then cut across near the tail from one joint to the other. With the hand free, draw the skin from the legs, turning it wrong side out and drawing down slowly towards the head, cutting all of the fat from the skin and leaving it attached to the carcass. Cut the pelvic bone and open all the way down to the neck. Remove the entrails, except the kidneys, cut off the feet, washing the carcass thoroughly and drying it with a cloth. The liver and heart are to be saved, also the head, after removing the eye balls if you wish it. After cutting the carcass into pieces of as near uniform size as possible, allow it to stand in salt water for an hour or so, and you will then have a table delicacy, which, if properly cooked, cannot be surpassed.

Do not omit the cold water treatment just after the hare has been killed, as this drives out the animal heat and adds much to the palatability of the meat. When using more than one rabbit for any particular dish, it is best to use those of about the same age that they may cook up evenly. The meat is better if the carcass is left to hang a day or two after dressing.

When purchasing dressed rabbits, you can easily determine whether the specimen is old or young by breaking the jaw with the thumb and finger. If it breaks easily it is young; otherwise, old. The flesh of recently killed hares will be dry, almost white and sweet; while those that have been killed for some time will be blue and slimy.

The following recipes for cooking the domestic rabbit are the best that can be gotten up, but many varieties can suggest themselves to the cook that will improve the delicacy of the dish:

Fried Rabbit.

Sprinkle or roll each piece in a mixture of flour, pepper and salt, and fry as you would chicken to a nice brown, in butter and lard, from 30 to 50 minutes, owing to size and age.

Roast Rabbit.

The hare should be filled with a dressing made of bread crumbs, seasoned with salt, pepper, sage, butter and oysters; if desired, moistened with hot water. Sew up, sprinkling some salt over the hare and place in the roaster. Put some bits of butter or fresh pork

on it and add a little fresh water. Use a medium hot oven and bake from two to four hours, as is necessary.

Stewed Rabbit.

Put the pieces in a kettle with water enough to cover and let come to a boil, then skin and add some salt and a good sized piece of butter. Let it stew until dry and done, but do not let it burn. Remove the meat to a dish and put a tablespoonful of flour in the kettle, stir well, adding some cream or milk, pepper slightly and pour over the meat; or

Place the pieces of hare with some small pieces of fresh fat pork into a kettle, add hot water and salt, place over fire and cook until done and dry. Let fry for a short time, then lift the meat into a dish. Put a tablespoonful of flour in the kettle, stirring well and adding about a pint of hot water, then pour over the hare.

Boiled Rabbit.

Soak fifteen minutes in warm water to draw the blood. Skewer the legs close to the body and put in kettle with enough hot water to cover, boil until tender. (Time according to age.) Dish and smother with mushrooms, onions, liver sauce or parsley and butter as preferred. If the liver sauce is used, boil the liver a little while and mince or rub through a sieve before adding to the sauce.

Rabbit Pie.

Stew the hare until done, seasoning well with butter, salt and pepper. Line sides of your baking pan with a crust of biscuit dough and after placing the pieces of the hare therein, add a few pieces of dough, then pour on the broth from the stew and cover with top crust. Bake in moderate oven about 30 minutes.

Rabbit Salad No. 1.

Use a hare that has been boiled until tender, cut into small pieces and use one part hare meat and three parts celery, which has also been cut. For a dressing use the yolks of four eggs, five tablespoonfuls of vinegar, a little salt and pepper and one dessert-spoonful of prepared mustard. Cook the dressing until it has the appearance of custard, and mix thoroughly with the hare and celery when all are cold. Mix a cupful of sweet cream with it when it is served.

Broiled Rabbit.

Boil in salted water for five minutes, dry and broil as quickly

as possible. Dish on a hot platter and season with salt and butter.

Roast Rabbit with Onions.

Place a layer of onions in the bottom of the pan, then a layer of the meat, neatly cut; add another layer of onions, and alternate with meat until pan is filled. A double roaster is best, as it keeps in the steam more thoroughly. No water is needed as that is furnished by onions.

Rabbit Mincemeat.

Two cups of chopped meat, 1 cup molasses, 3 cups apples, 1 cup finely chopped suet, 1 cup cider or apple juice, 1 cup each of raisins and currants, 1 cups sugar, $\frac{1}{2}$ teaspoonful cloves, 1 teaspoonful nutmeg, 1 teaspoonful cinnamon $\frac{1}{2}$ cupful ginger, a little citron if liked.

Boil the rabbit (until the meat falls from the bone) in slightly salted water. Run through food chopper. Run the apples through chopper to make the cider, or if not juicy enough add a cup of water and 2 tablespoonfuls of cider vinegar. Combine ingredients and let simmer over a slow fire two hours. Put into jars until ready to use. More apples may be added when the pies are to be made.

Emergency Pudding.

. One-half cup (or less) of mincemeat added to any inexpensive cake dough makes an excellent cheap plum pudding. Serve hot with any good pudding sauce.

Rabbit Salad No. 2.

Two cups cooked rabbit, $1\frac{1}{2}$ cups celery, 3 tablespoonfuls hot vinegar, salt and pepper to taste, mayonnaise dressing, 2 hard boiled eggs.

Cut rabbit in pieces suitable for salad or use food chopper. To the meat add the hot vinegar and set away to cool. When ready to prepare, drain off any remaining vinegar, add celery cut fine. Mix with mayonnaise dressing, garnish with hard boiled eggs and pimentos. Serve on lettuce leaves.

Rabbit Croquettes.

One cup cooked rabbit, 2 tablespoonfuls of butter, 2 tablespoonfuls flour, 1 egg, $\frac{1}{2}$ cup milk, $\frac{1}{2}$ teaspoon salt, pepper to suit, 1 teaspoonful of lemon juice.

Bread Crumbs.

Melt the butter and add flour; remove from stove and add the milk. Return to stove and cook until quite thick, stirring constantly to make a smooth sauce. Put the meat, chopped fine, into a bowl and add the cream sauce, seasoning and lemon juice. Mix well. Set aside to cool; mould into cone shapes. Roll in flour, dip in egg (1 egg beaten with 1 tablespoonful of milk) and roll in the bread crumbs. Fry in deep, hot fat.

A rabbit which weighs three pounds dressed should make from five to six cups of cooked meat, solid eating.

The above recipes—mincemeat, salad and croquettes may be made from one rabbit. This gives some idea of the amount of food value contained in one rabbit of the domestic kind.

Rabbit Hash.

One and one-half cups cooked rabbit, $\frac{3}{4}$ cup boiled potatoes, $\frac{1}{2}$ to $\frac{3}{4}$ cup gravy, grated cheese, bread crumbs.

Chop both meat and potatoes fine. Mix together, season highly and moisten with gravy. Cook in buttered ramekins or small bowls, cover the top with a thin layer of buttered bread crumbs, and sprinkle with grated cheese. Bake fifteen minutes in a moderate oven.

Rabbit en Casserole—"Extra Fine."

Cut up the rabbit as for frying. Dip in sweet milk, roll in flour and season with salt and pepper. Fry in hot fat until a golden brown. Put in a casserole or any other tightly covered cooking dish, as a roaster, for instance, and cook in a moderate oven for 45 minutes. Do not add any water. It cooks tender in its own steam. Reasons for cooking this way—very tender and not greasy; leaving the housewife free to give her undivided attention to the rest of her cooking which means a great deal to one getting a company dinner alone.

Rabbit en Casserole No. 2.

Cut up the rabbit as for frying, roll in flour, season with salt and pepper. Add a slice of salt pork or bacon chopped fine. Place in roaster, add one pint of boiling water, put on cover and bake one hour in a moderate oven. Then add the number of potatoes required for family and cook forty-five minutes longer. An onion may be added if the flavor is liked.

Rabbit—Maryland Style.

Cut up a rabbit, roll in flour, dip in beaten egg and roll in bread crumbs; place in well-greased dripping pan and bake in a hot oven. Baste often with melted butter or other fat. Serve with cream sauce poured over the rabbit.

RABBIT DISEASES.

Rabbits are not liable to numerous diseases if they are kept with care; but, if the proper attentions are denied, and the rules laid down for their treatment disregarded, a variety of ailments will result. Rabbits naturally have strong and hardy constitutions, but when in domestication they are attacked by many complaints, they are generally of a serious kind, and sometimes terminate fatally. Therefore, it is advisable to keep your rabbitry sanitary and watch carefully for any first symptoms. In other words, never allow the first symptoms of any complaint or disease to be neglected, for all ailments are more easily cured when treated at once. Then again, be sure and separate any diseased rabbit from the others as soon as discovered, because an ounce of prevention is worth a pound of cure. Frequently look over your stock yourself and examine the noses, eyes and roots of ears, also the internal ear, to detect any appearance of snuffles, colds, ear canker, mange or ear gum. Protect them from a damp and foggy atmosphere as much as possible, as such is more injurious than a dry cold one. Ventilation, of course, is of vast importance, more especially in the case of inside hutches to which the air is only admitted through a door or window. A ventilator through the roof is an advantage if placed sufficiently above the top tier of hutches for the rabbits to escape the strong draught. There is no doubt that the want of a sufficient supply of pure air is the cause of many diseases to which rabbits are liable in confined hutches; cold air is not desirable, but pure air is essential.

Some diseases or complaints are more easily cured than others, and frequently the most troublesome to treat are the least serious in their nature, while often a complaint from which a rabbit is suffering for the first time, and which, if promptly and properly met, would have easily yielded, proves fatal. All complaints treated in time or when in the first stages, are more likely to terminate favorably, thus saving a great amount of anxiety and trouble, than if they be allowed to go for some time unheeded. Always remember this, and your vigilance will be rewarded.

Colds, nasal catarrh or snuffles, are very infectious and contagious. It bears the same resemblance to catarrh in the human subject, and it is to be attributed to the same cause, exposure to cold. The first symptoms are a slight watery discharge from the nostrils, sometimes a rabbit is heard sneezing, which if left uncared for eventually becomes of a thick and glutinous consistency and causes difficulty in breathing. Loss of appetite follows, and in the course of a few days the nostrils are apparently closed with

mucous, inflammation of the lungs frequently supervenes and death is the result. It has been carefully determined that as in the case of most diseases there is a germ present, which irritates the mucous membrane and unless checked in time, eventually proves the undoing of the rabbit.

Ear canker is a discharge caused from ulceration in the deep recesses of the ear, which causes a caked accumulation in the ear. On close examination you will see little white mites present, which irritate the membrane and is very annoying to the rabbit. I have known of several cases where the ear became so caked on account of ill attention that the rabbit lost its appetite and succumbed. However, this is not always the case.

Above all, watch your stock carefully, and you will never be troubled with any serious complaints. If you notice any indication or symptoms of complaints of the above nature, look after it at once and you will eradicate it without much trouble or time.

DISEASES AND REMEDIES.

Like persons, hares are liable to contract diseases at any time, especially so unless due care is taken as to the cleanliness of hutches and proper attention as to feeding. Examine your hares ever so often and if you see one that is ailing, remove it to a separate hutch. As to administration, if in a liquid form, it can be placed in their drinking water, or a few drops on a piece of bread or cracker. If a pill or capsule, administer same as to a horse. I have found it very helpful to toast a piece of brown bread very black and place it in the drinking water once a week. This will do away with sickness in some cases.

Snuffles.

This is the most prevalent and dangerous disease known to the Belgian Hare. It is the result of a number of causes, such as filthy hutches, overfeeding or exposure to draughts. The symptoms are sneezing (not such as is caused by dust in the nostrils) and a discharge from the nostrils of a white mucous substance. The hare refuses food and its coat becomes rough and disordered. If taken care of promptly, it may be cured, but if allowed to run for any length of time, it is practically incurable, and the safest method is to kill the sufferer to prevent the spread of the disease.

Treatment—As it is considered contagious, isolate the rabbit from the others at once, to a comfortable place, free from draughts and dampness. Keep it warm and tempt it to eat. Do not give it

green food during illness. Give it dry hay and clean oats and a little thin gruel made of barley meal and a carrot are all good.

There are various remedies on the market that have proven very successful, but as in the case of medicine, some cases can be cured, while others prove very stubborn. Our advice is that if one remedy does not cure, try another, as the chances are one of three or four no doubt will do the work. There are various experiments with serums going on at this time, and there is no doubt but what one will be discovered that will entirely make this ailment one not to be feared if directions are followed closely.

If the disease is too far gone, it is advisable to kill the specimen and thoroughly clean, air and disinfect the hutch before again using. It is easier to prevent this disease than to cure aggravated cases.

Ear Canker.

This is detected by the rabbit holding its head to one side and shaking its ears, and an incrustation will be noticeable in its ears. The animal sometimes tries to remove the incrustations with its back feet. There are little mites present which cause this discharge, which eventually becomes of a substance that adheres very closely to the ears.

There are two or three remedies on the market which have proven entirely satisfactory, and there is only one complaint, that it leaves a stain in the ears of the rabbit. However, there are some that entirely cure this ailment with one or possibly two applications, leaving no noticeable trace. Another good treatment is as follows:

Examine the ear thoroughly, and if you find any discharge in it, remove the pus with some blunt instrument or a piece of cotton, or surgeon's lint, tied to a small stick. Apply a few drops of sweet oil, in which you have mixed a small portion of flowers of sulphur.

Slobbers.

This disease is more prevalent among young stock and it is no doubt caused from the mother not providing enough natural nourishment, which results in them being forced to eat hay and grain. At that age, their digestive organs are not properly developed to act on these foods, which causes a disease of the Salivary Glands.

This ailment is characterized by a constant flow of saliva from the mouth, wetting the fur of the lower jaw, the chest and fore

legs until the hare presents a very repulsive appearance. In a day or so, the rabbit becomes thin and weak and if the disease is not checked, soon dies.

In this ailment, there are several remedies on the market that have proven successful and to the breeder that does not care to make his own remedy, it is good policy to always have some on hand, unless they are particular to see that the young rabbits are not fed hay, grain and green food before their organs are fully developed.

Treatment—Put a small pinch of salt in the mouth and rub it in the wet fur about the mouth. This has been found a sure cure, if in addition, all blood is removed from the rabbit or rabbits for twelve hours. After the above treatment has been given and food removed, give it an entire change of diet from that previously given.

Red Water.

This is an affection of the kidneys and needs prompt attention. It is caused by cold, dampness or improper food. The urine will be dark and the animal out of sorts generally.

Treatment—The animal should be as little disturbed as possible and should be fed on mucilaginous food as endive, dandelion, sow-thistle, lettuce and cooked potatoes and bran. Six drops of sweet spirits of nitre may now and then be given and a spoonful of water, in which bran has been soaked, every day until the inflammation ceases. The hutch should be kept well cleaned and extra warm.

Diarrhoea.

This disease is generally the result of permitting the hare to eat too much green food and wet vegetables and is an abnormal laxity of the bowels which greatly weakens the animal.

Treatment—There are several remedies that have been tried by different breeders. I have found that to do away with all green foods and wet vegetables and feed them dry grain will help to put them in shape again, or you can give them three tablets, each tablet to contain $\frac{1}{8}$ grain of calomel and 1 grain of sodium bicarbonate. Give them plenty of salt, either loose, if they will eat it, or place it in the water, once or twice a week.

Insects.

These pests are very seldom troublesome unless the hares are in poor condition and are kept in filthy quarters.

Treatment—Apply Persian insect powder and give clean bedding often.

Mange.

This is infectious and hard to cure. Unless the animal is a very expensive one, it had better be killed.

Treatment—Sulphur, if applied in time, will remedy the trouble, and for more advanced stages, a mixture of sulphur one ounce and lard four ounces, mixed with a little kerosene, is effective.

Dysentery.

This complaint is most general in young stock and mature does. It is an inflammatory affection of the intestines. The symptoms are loss of appetite and a drawn, pinched appearance of the stomach in the region of the loins. The excrement is soft, clinging together, sometimes coming away in long chains. The rabbit generally sits crouched up, the hind legs close to the fore legs as though suffering from cramps. My experience has been that it is usually fatal.

Treatment—Give twice daily a teaspoonful of the following mixture: To one teaspoonful of warm water add three drops of oil of peppermint and one drop of ether. Feed dry oats, dry bread or clover hay, a very little warm water, and no green feed whatever.

Pneumonia.

Lung fever is one of the most dangerous diseases that rabbits are subject to and in many instances proves fatal. The following treatment has been found effective, if applied in the early stages. You should watch closely for the symptoms, which in the first stage are the skin is hot and dry, the pulse and respiration frequent, generally accompanied with restlessness. The duration of this stage does not exceed twenty-four hours. The second stage will be distinguished by a slight noise, if the chest be listened to closely, resembling that of a lock of one's own hair rubbed between the finger and thumb close to the ear.

Treatment—A cathartic of canclined magnesia is of advantage in unloading and cleansing the stomach, preparing it for the absorption of medicines. Dose, about three grains. Then give one drop of tincture of veratrum viride in a teaspoonful of warm water every four hours. In addition a teaspoonful of warm lemonade will be of great assistance. The rabbit should be removed to a warm room and wrapped in flannel. A small piece of flannel should be wrung out of hot water and sprinkled with a teaspoonful of veratrum and applied to the chest; remove before getting cold. Reduce the treatments as the patient improves.

Rot.

This generally comes from damp, or excessive moisture, unclean hutches or runways. It attacks mostly the young; causes a sort of consumption or extreme leanness; they become covered with a contagious scabbiness and will be found laying around the runways dead.

Treatment—If the hare is covered with scabs or sores, he should be rubbed with a salve made of sulphur and lard. Tobacco liquor mixed with a little Spanish fly, applied to the skin where the sores exist, is effective. The scruff and hair will fall off, but new fur will soon grow. Give bran mash, in which put a little powdered sulphur. The same treatment is good for what is known as Mange.

Abscesses.

These come from various causes (either impure blood or hereditary), overfeeding, from a scratch or bite, bruise, etc. An abscess generally makes its appearance on the surface and develops and is easily treated and not particularly dangerous. But those that form internally generally prove fatal, as they are not discovered until too late.

Treatment—When ripe, clip the fur from off the swelling, then open with a lance. Squeeze out all the pus as tenderly as possible. Wash with warm water and permanganate of potassium. Dissolve one grain in a pint of water. Dust the wound with flowers of sulphur. Repeat every day until cured.

Colic.

The animal is restless and the belly seems more or less distended with wind. It is caused by indigestion or constipation. I have had frequent occurrences of this sort, and have found a good remedy by giving them a teaspoonful of Syrup of Figs and gently rubbing the stomach in order to move the gases. Here is another good treatment:

Spt. Chloroform and Tr. Cardamon, each four drachms. Give ten drops every hour until relieved.

Will say that the first treatment given is the most simple, and I have always found it very effective, as it moves the bowels and the rubbing has a tendency of moving the gases on the stomach and relieving the distended condition of the belly.

Constipation.

It is not generally difficult to cure if taken in time. It is caused by overfeeding. The rabbit is seen to mope in the corner of the

hutch and refuse to eat, yet often seems very thirsty. You will also notice the absence of droppings.

Treatment—If green food fails to give relief, give about a teaspoonful of Syrup of Figs or castor oil twice a day until relieved.

Caked Udder.

Fed sparingly for a few days and rub gently with marshmallow ointment, first sponging the udder and wiping dry.

Diseased Liver.

This is generally caused by injudicious feeding, creating a parasite called a fluke, which causes the liver to decay more or less rapidly, according to the constitution of the hare. If the liver is diseased, it can be cured in the early stages, but if in an advanced stage it is much better to kill the rabbit than to prolong its misery. The most noticeable symptom is heavy breathing and sometimes accompanied by a noise.

Treatment—There are several remedies, but the most appropriate is half a grain of calomel every twelve hours, fresh air, comfortable quarters and a tonic mixed with the food.

Blindness of Young.

If you are particularly careful with the cleaning of the hutch, you will never be bothered with this ailment. It is generally caused from the ammonia rising from the dung and urine in the hutch. The eye is closed and swollen.

Treatment—Bathe the eye with warm milk and water, carefully pressing it open. After thoroughly cleansing and drying it with a soft rag, apply white ointment or vaseline and repeat the treatment daily.

Sore Eyes.

This is usually caused by a cold settling in the eyes. They become inflamed and there is sometimes a mattery discharge, often fastening the eyelids together.

Treatment—Bathe the eyes twice daily with a lotion of water, two ounces; sulphate of zinc, four grains; or, with water, two ounces; boracic acid, four grains. Feed lightly on non-heating foods, and twice a week put a tiny pinch of flowers of sulphur in the mash. A very little of the sulphur is sufficient, just what would lay on the point of a pen knife.

Pot Belly.

This is prevalent in the young and is caused by insufficient exercise and an excess of bulky food, irregularly supplied. Unless checked in time it proves fatal. A little experience in this shows the valuable suggestion of having runways for the young for exercise. It is readily detected by the swelling of the lower part of the body.

Treatment—Discontinue succulent food and substitute dry grain and bread toasted brown; also put a piece of scorched bread in the drinking water sufficient to give it the appearance of strong tea. Fresh air and exercise will do the rest. If the appetite is poor, tempt with a carrot, dandelion or sprig of parsley.

Convulsions.

This sometimes attacks young rabbits. It is usually caused either by too frequent breeding from the same stock or from overfeeding. (This brings to mind another good suggestion: Change your breeding stock ever so often, enthruse new blood in their veins. This is easily done by getting a new buck of different strain.)

Treatment—The best remedy is semi-starvation for a day or two, giving them but small quantities of hay and no other feed. Then by degrees let them have a portion of soaked peas or oats. Keep them ten days without green feed.

Inflammation of Uterus.

This results from improper mating. If specimens of proper age and size are mated, the trouble does not occur. It is a disease slow to cure.

Treatment—There are several remedies, one of the best being one drachm sulphate of zinc and one drachm laudanum, dissolved in a pint of distilled water. Bathe the parts with this lotion, lukewarm, once a day until inflammation subsides, then every other day until cured. Wipe the parts dry after washing, as the lotion is poisonous and the doe may lick it off.

Moulting.

This period is a critical stage of young hare life. With good care and proper treatment, they will pull through. Keep warm, give plenty of clean straw bedding and give nutritious food; increase the warm mash to twice a day.

Paralysis.

Give prompt treatment on the first indication of this disease. The usual symptoms are the rabbit will lay on the ground with its

head drawn up over its back as in extreme pain. Remove the patient to warm quarters and to a board floor. Give, once a day, a pill made up of two grains camphor and one grain sulphate of iron; add enough powdered licorice and honey to make one pill. Gently rub the back from shoulder to rump with some good liniment or plain eucalyptus oil, every other day. Feed nutritious food.

It is generally conceded that the cause of paralysis is too frequent breeding of stock, or that too much inbreeding has been practiced that has deteriorated the constitution to such an extent that paralysis is the result. This is an extremely dangerous ailment and the breeder should not be at all surprised if the specimen succumbed.

Sore Hock.

This is generally caused by filthy hutches, dampness and sticks or slivers in their litter. Improper feeding will debilitate and lower the vitality necessary to heal wounds inflicted by their stamping, while the damp filth will prove a continuous irritant.

There are remedies on the market for this ailment, which are very satisfactory and these remedies can be ascertained by reading through various pet stock journals. A good mode of treatment is as follows:

First clean the hutch thoroughly; then whitewash with carbolized whitewash. Provide a good bed of dry straw or fine hay; wash the affected parts with warm water and carbolic soap; dry thoroughly; apply carbolized vaseline in severe cases.

Infant Mortality.

This ailment, above all others, can be easily avoided. The consensus of opinion among breeders is that it is caused by too constant breeding of stock, or the breeding of unhealthy or worn out animals. It is a dangerous one, as hundreds have been lost from this ailment and no one need be surprised at results. It may also be caused from improper housing or feeding.

The youngsters appear to have little or no life and begin to die off one by one for no apparent reason. It can only be said that to avoid having future trouble of this nature to be careful of your stock. Don't breed too often; don't breed unhealthy parents, nor allow the doe to raise too many young. Better have a nurse doe of little or no value to take care of surplus youngsters if desired to be saved.

Fits or Dizziness.

This is likened unto an attack of paralysis. The rabbit carries its head on one side and its limb seem weak, and placed on the ground, turns around and around until exhausted when it falls over on its side and kicks convulsively for a few moments, then lies still. The cause is from indigestion and some nerve trouble. There seems to be little help for the sufferer and no known remedy has ever been discovered that would cure the rabbit in this stage.

In the early stages when the rabbit just carries its head toward one side, green foods should be given, and as advocated by some, a tablespoonful of powdered camphor to a quart of lukewarm water once a day will effect relief and a cure in a majority of cases.

I believe this is about all that might be said on diseases and remedies, but remember this—that if you take extraordinary good care of your stock and adhere strictly to the methods outlined in this book, you will find a saving in your profits by not losing as many of your stock as you would if no attention were paid to the details of care and management. Be your own doctor and watch your stock carefully. Don't think for a minute that your stock is going to have all of the ailments, or even any one of them, because you will be wrong. This has never been found true in most experiences, but it might happen if you are careless and attend to your stock in a haphazard manner.

HOW TO DISPOSE OF YOUR SURPLUS.

Remember in this day and age, the best way of disposing of anything is by advertising. This has been proven time and time again. Don't let anybody tell you that sitting back in your chair and dreaming will bring you customers, because it won't. The power of advertising is consistent, never varying. It is a powerful instrument in shortening the distance between producer and consumer and is more essential today than ever. He who advertises will increase his business threefold, and even more. Business is booming in the pet stock industry and don't you forget it. But if you want it, you will have to go after it. There are cases of breeders selling hundreds of dollars worth of stock from an ad costing from \$3.00 to \$5.00 in some good advertising medium. Rabbit breeding is becoming a business of its own. People are beginning to

realize what a home fed rabbit is and everybody will raise them in their own back yard for their own consumption, the same as they do in Europe. There is no secret to it. It is conscientiously believed that the rabbit industry both for market and fancy will see wonderful advancement in the next few years. As to war hurting the industry, that is a joke. If anything, it will increase the business on account of the high cost of living.

There is a wide and varied field for the rabbit breeder in advertising. There are one hundred millions of people to be reached through this method. You must have clever advertising letters to follow up answers and be honest and upright in your dealings with customers. If you were trying to convince some one who called at your place as to the value of rabbits as a food commodity and for fancy, you would try to attract their attention, and then put up your argument why they should buy from you. Do precisely the same with your advertisement or reply, attract your customer's attention and keep him interested.

In writing your copy, use short, familiar words. People would take the trouble to guess what you mean, so be explicit. Don't over-promise. Remember that "Fair Play" is the best in the long run. Many advertisements do not require illustration, but if in order to catch the reader's eye you desire some illustration, this may be very helpful.

Another thing to bear in mind is that continuous advertising pays, providing you have the stock to sell. The way to be sure folks remember, is to never let them forget. You will find that the most successful advertisers are those who never quit.

If, after you get an order, you find that there is going to be any delay on your part, send a letter or postal to explain matters and to acknowledge the order. People who have spent their money are entitled to know definitely what you are doing with their money and how soon you can take care of them. Such courtesy will increase your business. Be fair, frank and liberal. Tell the truth and don't exaggerate. Keep your promises and satisfy your customers, so they will send their friends to you. That is the secret of successful advertising.

If, however, one wishes to establish a local market for food, my previous article will no doubt be of interest. ,

SOMETHING OF VITAL IMPORTANCE.

In all my experience, I have always boosted Branch Pet Stock Associations, or the National Pet Stock Association. If there are several breeders in one town or city, my advice would be to get together and organize a local pet stock club. You will be surprised at the increase of interest and business and the many members that in time will come into the fold. Meetings can be made very interesting and table shows can be held to increase interest in the fancy end of the industry. Annual shows can also be held where prize ribbons and cups can be awarded.

If data is desired as to organizing a branch association, a letter directed to Chas. S. Gibson, 1045 West Warren Avenue, Detroit, Michigan, will bring an immediate reply as to the method. Mr. Gibson is secretary of the National Pet Stock Association of America. Dues \$1.00 a year with a year's subscription to a pet stock magazine free. This association is composed of the largest breeders in America and at the present time has over 2,000 members. It has a complete registration system for pet stock and furnishes a market and protection for its members.

The dues of a local branch are generally \$1.00 per year and a year's subscription to a pet stock magazine can be given free, at a cost of 25 cents for each member. Money can be gotten into the treasury by various means—holding table shows and charging entry fees of 10 cents a head and awarding first, second and third prize ribbons, and like some associations are doing, make an extra charge for the ribbons to cover expense. Then raffles for different animals donated by its members is another source of revenue.

Above all, don't forget to boost locally, as that will increase interest, business and profits. Branch Associations can become a member of the National by paying charter fees of \$2.00 per year.

MISCELLANEOUS POINTERS FOR THE GOOD OF THE INDUSTRY.

Don't feed musty hay.

Do not feed peach tree branches.

Don't change the diet too suddenly.

Keep a chunk of rock salt in the hutch

Rabbits should not be handled by the ears.

Don't wean the young under six weeks of age.

Always take the doe to the buck's hutch when breeding.

Keep each doe in a separate compartment, after being bred.

Don't begin with a large number, learn something about them first.

Does should not be handled or shipped after they are two weeks pregnant.

A doe can be bred at six months of age, but eight months is the proper age.

Don't overfeed green stuff, and never feed it to the young stock when it is wet.

Avoid frightening the rabbits, as it will cause them to stampede, which is injurious.

If your buck is a good one, do not allow him to serve more than three does per week.

Avoid second growth clover hay to the young, as it is almost sure to cause slobbers.

Always handle your stock gently and you will have pets. They appreciate gentleness and kindness.

Does suckle their young very early in the morning and late at night; very seldom at any other time.

Don't let your neighbor talk you into the notion that rabbits do not require water. It should be before them at all times.

Rabbits will eat anything a sheep will. They should be fed regularly and with judgment. Study their habits and you will be richly repaid.

It is most profitable to sell your young stock when they become of breeding age, instead of disposing of them earlier, as you secure better prices.

When a buck serves a doe once it is sufficient. Experience has shown that a doe will kindle with more young from one good service than from two or three.

Don't expect your rabbits to do well in a 1x2 hutch; 3x6 is not too big, especially for does with young. The more room for the young to exercise the better.

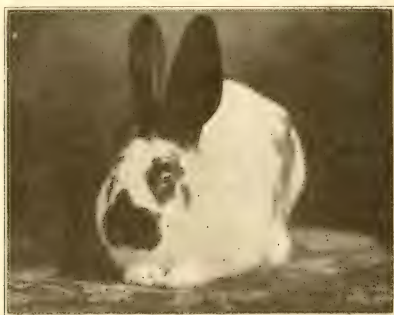
Bucks become virile at about four months of age, but do not reach perfection until about seven or eight months old, and should not be used for breeding purposes until matured.

Does may be kept together in one compartment until they are bred, but each buck must have a separate hutch after they are three months old, or they will injure each other by fighting.

In raising rabbits, it is a mistake to crowd too many litters on a doe. Four a year is plenty; three is better, and when there are more than six in the litter a nurse doe should be provided.

In raising rabbits you have no lice or mites to contend with, as with chickens. Neither have you to watch the incubator for three weeks, only to find that hardly one-half of the eggs will hatch.

If a doe commences building her nest and pulling hair two weeks after being bred, it is almost a sure indication that she is not with young and that she desires to mate. Breed her and save two weeks time in obtaining a litter. Always take the doe to the buck.



GERMAN CHECKERED GIANT.

QUERIES AND ANSWERS.

Should does be bred immediately after kindling? Decidedly no.

What is the best food, especially for nursing does? Bread, milk, and rolled oats are excellent.

Where is there a market for meat stock? Wherever the Belgian hare has been introduced.

How shall I treat a hare that is affected with kidney weakness? To produce action on the kidneys, give sweet spirits of nitre.

Will a doe breed before her young are weaned? Yes, but should not be bred under thirty days from time of kindling.

What causes a mother to refuse to care for her young after kindling? Frequently by being disturbed just before kindling. Oftener no known cause.

How often can a doe, with the very best of care, be bred? Five times a year is as often as a doe should ever be bred, and four times is better.

How is the best way to handle hares without hurting them or endangering yourself? Place the right hand over the ears, slipping the thumb under them, then grasp a firm, full hold of the back of the neck, placing the left hand under the hind quarters, so as to place the weight of the animal on this hand.

How can sexes in young hares be distinguished in young hares one-half to three months old? By careful examination the teats can be discovered on the does.

When it is impossible to make does breed before you desire to ship them, what is the best course to pursue? When a doe will not breed of her own accord, the only thing to do is to wait until she will. Does have been known to refuse to breed for five weeks, although given a chance every day during this time.

RABBIT NOTES.

Kid gloves from rabbit skins are in demand, as they are said to be softer, more pliable and wear better than those made from other skins.

Rabbits are very dainty about their eating; they will eat nothing but the cleanest of food. They should be fed especially for firmness and sweetness of flesh.

In 1912 over 80,000,000 rabbits were sold in the municipal markets of France, the model country; the model country of the world in point of thrift.

Many of the best physicians recommend rabbit meat for aged and run-down people, on account of its great nutritive value and the fact that it is so easily digested.

Rabbits do not require as much space as chickens, so another point is added in their favor, and the cost of raising has been proven much lower a number of times, say rabbit owners.

It is predicted by the best fanciers that this occupation which is now in its infancy will be the largest of any known industry in points of numbers engaged in it, and that within a very few years.

In the United States we have family after family, millions of them, in fact, complaining of hard times and yet buying high priced meat, and nine chances out of ten, their back yard is grown high with nutritious weeds which could be turned into delicious rabbit fries with a little initial cost and trouble.

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