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CALIFORNIA BELGIAN HARE ASSOCIATION

MANUAL AND COOK BOOK

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For Both Veteran Breeders and Beginners

xx

A STANDARD TREATISE ON BREEDING,
FEEDING, MANAGEMENT, DISEASES,
COOKING, ETC.

xx

Price 25 Cents

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THE BELGIAN HARE INDUSTRY.

ORIGIN OF THE VARIETY.

It is a fact beyond a doubt that the first specimens of this breed came from Belgium, but judging from the stock now in that country, a vast improvement has taken place under the skillful management, judicious matings, and the introduction of the blood of other varieties of the rabbit by the English fanciers, who chose the wild hare of England as their ideal. They have succeeded in producing an animal with the multiplying qualities of the rabbit and with the color and graceful outlines of the wild hare. To accomplish this has taken many years and the change has not been brought about in a haphazard way but by untiring and skillful selection. But there is yet a field here for American breeders, the Belgian not yet being a perfected animal.

The features, in our opinion, that call for the greatest improvements are the ticking, the ear lacing and the the general symmetry. Considerable attention also may be paid to the eye, as we have never yet seen a Belgian with an eye equal in size and boldness to that of the wild hare of England. This will be a difficult feature to secure on account of the different conditions under which the two races live.

California breeders are at some disadvantage in this work, not having, up to the present time, a wild hare for comparison.

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PREFACE TO SECOND EDITION.

The unprecedented demand for the first edition of this treatise showed the firm hold that the Belgian hare industry has taken, not only upon the people of the Pacific coast, but of the entire country, for its circulation has been as wide as the continent. This demand is proof also of the intrinsic value of the unpretentious work. It may be added that the book has received the highest endorsement by Belgian hare breeders everywhere and by the press of all the states where this beautiful and useful animal has gained recognition.

This second edition is issued with the sincere hope that its teachings may add still more to the development of intelligent rabbit breeding, and in a still greater degree promote an interest bearing so directly upon the welfare of the people.

The authors had anticipated enlarging the scope of a second edition by embracing a treatise upon the other breeds of the rabbit that are recognized in Europe as worthy the attention of fanciers and utilitarians. This design has been postponed to a later date, however, in order to meet, promptly, the call for a knowledge of the Belgian in new and widely extended circles.

With due thanks to an appreciative public, we now present the second edition of the NEW CENTURY BELGIAN HARE MANUAL AND COOK BOOK.

THE AUTHORS.

but must base their work in this line on the appearance of the prize-winning Belgians imported from England. It will not be long, however, before this difficulty will be removed as Mr. H. Langley intends bringing over a pair of specimens the coming summer, and we understand that a few other breeders are also intending to import specimens. With these as unerring guides, and with a liberal exercise system and our favorable climatic conditions, important improvements may be anticipated, especially as we begin with the best stock that England has produced.

It has been satisfactorily proven that the Belgian is not a *hybrid*—a cross between the Belgian rabbit and the English hare. All experiments to make this cross have resulted in utter failure, and the *hybrid* fallacy is fully exploded.

CLIMATIC CONDITIONS.

While it is true that California, and the Pacific coast generally, enjoys the most equable climate so far as the seasons are concerned, and that neither tropical nor zero weather prevails at any time of year, yet we are subject to great variations of temperature. At mid-day it is often extremely warm, yet toward morning and until sunrise the mercury indicates degrees very near the freezing point. Near the coast, especially, fogs are sometimes prevalent. A chilling wind comes on making outdoor life extremely uncomfortable. Hares, like human beings, find these changes and extremes hard to bear unless protected by warm quarters that may be shaded at times and always well ventilated without draughts.

Beyond a doubt California is the ideal home of the Belgian hare but there will be discouraging losses and failures unless climatic conditions and the nature of the hare receive proper consideration.

These remarks very properly bring us to a consideration of

THE RABBITRY.

It need not be an expensive or ornate affair, but may be if the owner can afford it and has the taste and desire. So far as success in breeding is concerned the rabbitry may be a very cheap concern, but it should be convenient and as conveniently located as possible; and it must be so constructed as to promote the health and thrift of the occupants. It must be large enough to give due room to the number to be reared and handled. The roof must be good enough to protect from rain and high enough above the runs or hutches to protect from the burning rays of the summer sun, and give plenty of air space above the pens. There is no rigid and exact size for runs and hutches, but there should be room enough in them to secure a certain amount of freedom and exercise. They should not be prisons, but homes for the pets. The location, also, will be entirely governed by circumstances. We speak, of course, of the smaller rabbitries, such as men and women of limited grounds and means must content themselves with. If there is a barn or a shed upon the place it may well be utilized. If there is acreage property and the buildings are to be erected exclusively for the purpose the case is entirely different. Select dry ground for the structure, make close walls, or walls that may be closed to the windward; cover tightly but give top ventilation and light, and leave no place for the chilling cross-draughts that always render breeding an uncertain business.

Study comfort and healthfulness, not style. A very expensively built rabbitry may prove the most poorly adapted to the business; a very inexpensive outfit, scientifically constructed, will always come out at the head of the heap in results.

It is useless to give figures as to the cost of buildings, hutches, etc. One's locality, probable business, room, purse, etc., will determine style and expenditure. Build for health, convenience, comfort and profit.

It may be added here that top ventilation of the rabbitry alone is not sufficient, but it will hardly do to depend upon open doors or slides at ends or sides for ground ventilation. It is too risky. An excellent way to admit pure air at the bottom is in vogue in some parts of England. This arrangement is thus described by Mr. Wilkins:

"Get a tin worker to make you a number of zinc pipes, about three inches in diameter, and three feet long. They should have an elbow six inches long of the same diameter. To fix them, cut circular holes in the sides of your rabbitry, about one foot to eighteen inches from the outside ground. Through these holes push the elbow of ground pipes as far as they will go; run the inside portion up the side wall and fix it with a nail. A little putty where any inequality was made in cutting the hole excludes all draught and carries off all foul air and gasses."

The number of pipes will depend upon the size of the building, but have one or more on each of the sides. Of course these are needed only when the close system of keeping is adopted. The advocates of open air rabbitries will not see the use of such an arrangement. In our opinion the more fresh air given to the hares the better for them. Outside runs, therefore, are beneficial to acclimated animals, but for those brought from other localities where more protection has been given cannot be changed abruptly to open quarters with impunity. Their progeny may be brought readily to do well in the open air runs, but the change must be gradual. The final result will be that we shall have, here, a much hardier race

than we are now beginning with. Until that change is wrought, due and constant care must be exercised.

A COMBINATION SYSTEM.

Discussion of the respective merits of indoor and outdoor runs in this climate continues, and there are strenuous advocates of both. For exhibition purposes alone it is not likely that the outside hutches will win. Color is a chief requisite in show specimens and color suffers by exposure. It is our opinion, borne out by experiment and observation, that a combination of the two systems will prove the proper thing. This consists of a double run, one-half within a rather close rabbitry and having a board floor, the other run outside and having an earth floor with wire underneath to prevent escape by burrowing. A circular hole through the side of the rabbitry affords easy access to either run. Draughts are prevented by hanging small round curtains of canvas, or any material, over the openings. These can easily be pushed aside by the hares. This opening can also have a sliding door of wood. In dry weather the hares can be given the advantage of the earth run, while in cold, foggy or rainy weather they get ready protection inside the rabbitry. This arrangement seems well worth the attention of breeders. Another advantage is that in cleaning the hutches the hares may be confined to one portion of the run while the other is being attended to.

SIZE OF HUTCHES.

There is no exact size of hutch that may be said to be best. Large ones are preferable, but do not make them smaller than five feet long, two feet wide and two feet high. If one has plenty of room, increase the dimensions. Belgians do well in small quarters, but are better if given more commodious ones.

ADVICE TO BEGINNERS.

To the person intending to begin rabbit breeding, be it adult or youth, we would urge upon him or her the importance of visiting as many rabbitries as possible. Make a thorough study of the business as it is carried on by the best breeders accessible. Really successful rabbit rearing depends very largely upon experience. Accept that of others as far as possible. It will save time. Study failures as well as successes. But remember above all things that actual practice and not theories must be the final guide. Do not think for a moment that you understand everything after a tour of investigation among established concerns. You do not see it all and you never will until you begin work, and then your rabbitry will prove a perpetual school without holiday or vacation. Subscribe for papers devoted to the business, read all the books upon the subject available, join a Hare club, discuss methods and principles with others in the business and bring observation and common sense to your aid. No man can claim to know it all. Do not be afraid to enter upon experiments of your own; each lesson learned thereby is an important one.

Hare breeding is a fascinating business when once fairly entered upon, and thorough care and attention are repaid by a higher degree of both profit and pleasure.

DRINKING WATER.

Some authorities have recommended giving hares a very limited amount of water. This is an error. The Belgian is naturally a free consumer of water. California breeders, especially, have found a plentiful supply essential. It is best to give water at stated periods but to keep it before them all the time. Use earthenware vessels and keep them clean. Also be sure that the water is pure.

FEEDING FOR EXHIBITION.

This is a very important feature of the business. Many promising youngsters have been ruined by the too liberal allowance of bulky food, but if these instructions are followed the best results will be obtained:

After weaning, which should not be before the young are two months old, avoid giving hay in large quantities, and let what little is used be well cured. Even if the best the supply should be limited to a handful at night. The morning meal should consist of a warm mash made of boiled flaxseed, lentils or peas (previously soaked for twenty four hours) mixed with sufficient shorts, feed-meal and bran, until the mixture will crumble in the hand (not sloppy). This should be seasoned with a little approved rabbit condition powder. This feeding of a warm mash daily is little understood here, but is used in England with most beneficial effects and is endorsed by no less an authority than Mr. T. C. Lord. To use his own words: "Rabbits kept in confinement should have at least one warm meal once a day." They should get nothing more until noon, when their troughs should be supplied with oats or barley, on alternate days. The shorts being from wheat render unnecessary the wheat ration that might otherwise be given instead of barley. In the afternoon give carrots or other roots (except raw potatoes). Give no other green food except say twice a week a little dandelion, parsley or sowistle. Be guided by the general appearance of the hares and if there is any indication of "pot-belly" cut down the hay and shorts. The amount of mash to be given is about 4 oz. each, or if they do not eat it up clean by noon. Always remove all hay or grain that is left before giving more, that all may be fresh and clean. Give fresh, pure water twice a day. Once a

week place three drops of tincture of iron, and one grain of copperas (blue stone) in the drinking water.

FEEDING FOR MEAT.

Give mash as above but make differently. Steep the leaves of alfalfa hay one hour in hot water; add boiled flaxseed, with shorts and feed-meal equal parts, and give condition powder three times a week. Give hay plentifully and as much grain, preferably rolled barley, as they will eat, and also a variety of roots and green stuff in the middle of the day. Do not surfeit your rabbits by leaving stale food in their pens, but give them all the fresh food they will eat, in good variety, occasionally a boiled potato, and a plentiful supply of water.

CONDITIONING FOR EXHIBITION.

Feeding for this purpose is very essential, but that is not all that is required. Suitable quarters must be provided with fresh air and an abundance of room for exercise. The larger the yard the better and it should be so situated that the hares can see each other. This interests them and induces them to move about. Handle them carefully every day, groom them with a soft brush and cloth, and a few days before the show apply a little Brilliantine with your hands. This will impart a beautiful gloss to their coat. Teach the rabbit to stretch and pose on a table or box. Give this treatment daily. The Belgian being an intelligent animal soon becomes accustomed to these manipulations and apparently enjoys them. If your stock possesses good qualities the above directions will serve to bring them before the judges and the award will not go elsewhere on account of "condition."

FOOD FOR BREEDING DOES.

When it is decided to use a doe for breeding purposes some slight alterations in the menu are necessary to obtain the best results. Give more hay, a greater variety of green food and increase the mash. But care must be taken not to get her too fat before kindling as sometimes that has proved fatal, although a liberal allowance of nutritious food, when nursing, is needed to provide a good milk supply for the young and to prevent the doe from running down in condition. With the above bread and milk is not necessary as the mash will answer that purpose, being much safer and more beneficial. Plenty of water must be given at this period. Milk is good as an extra, if sterilized.

Avoid the common mistake of breeding too young, which is practiced so much by inexperienced people, especially in this country where the animals develop so rapidly but lack stamina up to a certain age and cannot impart it to their offspring. Their constitutions break down, their milk supply is not equal to the requirements of the young, who are forced to eat food which their undeveloped organs cannot digest. Slobbers and other ailments follow. To avoid this do not mate until properly matured. From experiments we find the best results have been obtained from does six to twelve, and bucks from eight to twelve months. The doe should always visit the buck as the service is more satisfactory, and should be removed as soon as possible to a quiet pen with subdued light, with plenty of clean straw for bedding and with the darkest corner partitioned off for a nest with a board four inches high just to keep the straw from falling out, but with no top. Very little exercise is necessary at this period as it is best for the muscles to relax. After kindling let one day elapse, then remove all over six

young, giving the surplus to a nurse doe, putting the large ones together, as they will prevent the weaker ones from getting their proper amount of milk. Leave them with the does until two month old.

MEAT STOCK

Require but limited quarters, as an abundance of exercise would only defeat the object to be obtained. Bone and sinew instead of meat and fat would be the result. Their small hutches should be kept clean and occasionally disinfected as this stock is more liable to disease because of an indolent disposition and their large consumption of nutritious food. When four to six months of age hares make the most acceptable food. The bucks should be castrated just as soon as the testicles "come down." The work of castration is simple. Let a helper spread a burlap sack or other cloth over his lap; lay the hare upon this between his legs, head toward his body and the hind legs extending beyond his knees. Let him take a hind foot in each hand, spreading the hare's legs apart. The operator, a sharp knife in hand, grasps a testicle between the thumb and finger of the left hand, and slits the scrotum lengthwise. The testicle will exude. It is taken firmly, drawn out and severed below the red part adhering; the cord also is severed near the body when well drawn out. To keep off insects and aid in healing at once apply vaseline, upon which has been dropped a little turpentine. A person can do this work single handed by inserting the head, and most of the body, in a boot-leg or similar case. Another advantage castration is that the does and bucks can be kept together. Otherwise they must be separated at an early age.

BREEDING FOR POINTS.

Select the best specimens possible and be sure they are in good health and condition, and remember it is quite as important that the does possess points of excellence as well as the bucks. Never mate two animals that are lacking in the same particular or the young will follow suit. One very good principle is to select a doe with good ticking, shape and fine bone, and a buck with good color, symmetry, a bold eye and plenty of vigor. With these qualities well defined, the result should be very satisfactory. Avoid inbreeding as much as possible if you desire to build up a vigorous strain. We mean, of course, close inbreeding, for it is an indisputable fact that judicious inbreeding has resulted in greatly improving the Belgian. But efforts in this direction must be most carefully conducted.

CARE OF THE YOUNG.

Do not wean until two months old, and if left longer with the doe they will be better for it; it seems that as long as they are getting their mother's milk few ailments befall them. Remove them to a large, well sheltered yard with warm nest box and plenty of straw. This is the time when exercise is most beneficial to develop the long, racy forms that are so desirable. At about three months divide the sexes, putting the males in one yard and the females in another. The does usually agree together for some time. The bucks sooner or later show a disposition to quarrel. When this takes place they must be banished to separate compartments. (See Feeding for Exhibition.)

PROTECTION FROM SUN.

this climate of almost perpetual sunshine there must be protection from the strong light of mid-day sun, both on

account of the eyes of the hare and to enable them to retain in perfection the rich, deep color that is so desirable in high-class specimens. Hares suffer intensely from heat and during mid-summer should be allowed a rest from breeding that their strength may not be impaired, and they must also be allowed shade and the quarters kept as cool as possible and without draughts.

DISEASES.

If the methods set forth in this book are put into practice there will be little use for the following remedies. Our object is to guide aright those contemplating going into the business either for pleasure or profit. They will find an abundance of both, but for those who are unfortunate enough to have sick rabbits the following will be found efficient, simple and comparatively inexpensive if judiciously applied. The Belgian hare when suffering from sickness is a frail, tender and timid animal, and we are sorry to say there are at present some harsh and irritating medicines on the market, which only tend to increase the suffering. We will take the diseases in alphabetical order:

Abcesses. These come from various causes (either impure blood or hereditary), over-feeding, from a scratch or bite, bruise, etc. An abcess generally makes its appearance on the surface and develops rapidly. These are easily treated and are 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 powders of sulphur. Repeat every day until cured.

Blindness of Young. This is generally caused by the ammonia rising from the dung and urine in the hutch. It will be noticed that the eye is closed and swollen. Bathe it with warm milk and water, carefully pressing it open. After thoroughly cleansing and drying it with a soft rag, apply white ointment or vaseline. Repeat daily.

Caked Udder. Feed sparingly for a few days and rub gently with marshmallow ointment, first sponging the udder with warm water and wiping dry.

Canker in Ear. This may be detected by a discharge from the ear and by the rabbit holding its head to one side. It is very painful and requires careful treatment. Clean the inside of the ear with a damp cloth or sponge, then apply a lotion of sulphate of zinc 12 grs., water two ounces, wine of opium one drachm; half a teaspoonful poured into the ear twice a day. Keep rabbit warm and feed nutritious food.

Cold in the Eyes. If the eyes are inflamed and running, bathe twice a day with lukewarm water and sulphate of zinc, 2 grs. to 1 ounce of water.

Cough. Remove from draughts, give plenty of straw for bedding; also one teaspoonful of cough mixture and milk—half of each—twice a day.

Constipation. Symptoms: Sitting in a corner, loss of appetite, body sometimes swollen, also notice by the absence of any droppings. If green food fails to give any relief, give half a teaspoonful of syrup of figs or castor oil twice a day until relieved.

Diseased Liver. If the liver is diseased, it can be cured in the early stages, but if in an advanced stage it is better to kill the animal than try to prolong its misery. It 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 rabbit. The most noticeable symptom is heavy breathing and sometimes accompanied by a noise. 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.

Dropsy—Pot-Belly. This is more prevalent in the young and is caused by insufficient exercise and an excess of bulky food, irregularly supplied. It is readily detected by the swelling of the lower part of the body. Unless checked in time it proves fatal. 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.

Ear Gum. Remove the wax with some blunt instrument, or a quill. Do it carefully. Drop in the ear a little laudanum and sweet oil, warmed, three parts oil to one of laudanum. If a slight case sprinkle flowers of sulphur into the ear.

Eruptions. The skin becomes scaly and later small sores break out and the hair falls off. Cause: Bad condition and impure blood. Treatment: Apply to the sores either carbolated vaseline or white zinc ointment. Give a mild cathartic, followed by a blood purifier. Half a teaspoonful of castor oil will do well for physic, and the condition powder in the food will change the blood so that a cure will be effected soon.

Festers. May be caused by a bite or scratch, or even by getting dirt in the wound. Treat as recommended for abscess and keep the blood pure.

Fits. The hare will stagger and sometimes fall, then come convulsions and utter prostration. Taken in time little harm results. In most cases the trouble can be traced to stagnation of the blood, or indigestion. The remedy is 2 grs. powdered camphor in a teaspoon of warm water, twice a day; decrease as the patient improves. Keep the bowels open and the blood in good condition.

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 of cure. 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.

Insects. These pests are rarely troublesome unless the hares are in very poor condition and are kept in filthy hutches. Apply Persian insect powder and give clean bedding often.

Looseness and Diarrhœa. Young stock are most liable to this trouble. It is caused by too much green food or other improper feeding. Treatment: Do not make the common mistake of giving some severe astringent, but assist nature. Give three times a day a teaspoonful of warm milk slightly thickened with arrowroot or flour and add a little ground cinnamon. Feed dry food for a few days.

Loss of Appetite. Arises from many causes and generally precedes all ailments. Be guided by what appears to be the most likely cause, as the cure of any complaint will usually restore appetite. If the trouble does not arise from diarrhœa the hare may be tempted by a little dandelion or milk-weed.

This will lead to a desire for other food. Then condition powder, in the grain ration, will fully restore the appetite.

Mange. This is infectious and hard to cure. If the animal attacked is not a very valuable one it had best be killed. The simplest and most effective remedy is flowers of sulphur, sprinkled all over the animal once a day; also give a little in the food.

Moulting. This period is a critical stage of young hare life. With good care and proper treatment though 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 indications of this disease. Remove the patient to warm quarters and to a board floor. Give, once a day, a pill made up of 2 grs. 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.

Pneumonia. Lung fever is one of the most dangerous diseases that rabbits are subject to and in many instances proves fatal. But the following treatment has been found effective if applied in the early stages. It is classified thus: First, congestion of the pulmonary membrane with dryness; second, engorgement; third, hepatization; fourth, purulent infiltration. Symptoms: The first stage is the skin hot and dry, the pulse and respiration frequent—generally accompanied with restlessness. The duration of this stage does not exceed 24 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 calcined

magnesia is of advantage in unloading and cleansing the stomach, preparing it for the absorption of medicines. Dose, about 3 grs. Then give 1 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.

Red Water 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. If not too sick to eat give mash as heretofore recommended, but having in it an extra amount of flax seed; also give green parsley and three drops of sweet spirits of nitre in a teaspoon of warm water, once a day, until the urine is of a natural color. A week should see the trouble removed.

Scurf. Treat about the same as mange, which in some particulars it resembles.

Slobbers. All breeders are more or less familiar with this ailment and many remedies have been presented with varying results. It is most prevalent among young stock. We ascribe the cause to this: Leaving too many for the does to raise. Those failing to get sufficient nourishment are forced from sheer hunger to help themselves to food from the pen. This they are unable to digest and with the small amount of milkours in the stomach, causing a flow of saliva from the mouth. The same thing will happen if the doe has only a few young nurse, if she is improperly fed—that is, does not get the milk producing ingredients. Treatment: Give half tea-

spoonful doses of syrup of figs until bowels move freely; wash outside the mouth and jaws with warm alum water twice a day. This tends to contract the glands and stop the flow of saliva. Feed mash with half teaspoon of condition powder to every four ounces. Do not give any food hard to digest for a few days. Taken in time all will go well.

Snuffles. Two kinds of snuffles are known in the rabbitry. One results from a simple cold in the head and yields to treatment in a few days; the other is hereditary, or chronic, and by constant application can be considerably reduced in severity and the patient may live for years. This form is infectious—that is, a well animal eating or drinking from the same vessel as the sick one would be liable to contract the disease, but those in adjoining pens would be perfectly safe from infection. Remove the patient to a warm hutch previously disinfected but perfectly dry. Give one of these powders three times a day, separate from food, either wet or dry, with a teaspoon: Powdered licorice 36 grains, powdered nitre 24 grains, powdered ginger 12 grains, ipecacuana $1\frac{1}{2}$ grains; mix thoroughly and divide into twelve powders. Wash mucus from nose as often as it appears, with vinegar and water, equal parts, warm as the hand can comfortably bear. After such treatment dry the wet parts thoroughly. As the patient improves give powders and treatment less frequently. After three days put two grains of sulphate of copper and two drops tincture of iron into each quart of drinking water. In stubborn cases where the nasal discharge does not discontinue within a few days an excellent remedy is two drops tincture of aconite in the food, twice a day, and the hare will soon stop sneezing. Do not neglect giving the warm mash as before directed in other parts of this book. Let this mash con-

the necessary tonic to aid the system in throwing off the troublesome complaint. We may here quote such an eminent authority as W. H. Twort, of England, who says:

"It is useless to expect any kind of irritants applied to the nostrils to bring about a cure."

Sore Hocks May be traced generally to dirty hutches, standing on wet dung, and sometimes to impure blood. It never occurs if rabbits are properly housed and fed. To cure wash the sores with a lotion made of sulphate of zinc two grains, water 1 ounce; apply daily, and each time apply some healing salve, and bandage.

Sore Mouth. Wash the mouth twice a day—in the morning with salt and water; in the evening with alum water, not too strong. This will harden the gums and the patient will soon recover.

Tape Worm. Give, twice a day, three grains areca nut grated, or five drops oil of male fern twice a day in a little sweetened water.

Tumors. If these make their appearance it is best to kill the animal, as expelling the cause from the system is very difficult; a surgical operation is generally necessary.

CULINARY DEPARTMENT.

Here, as in the other departments of this book, the authors have studied brevity in order to present as great a variety of formulas as possible. Only such methods of preparing this delicate, tasteful and healthful food have been chosen as have been found reliable. It may be remarked that, as with standard cooking recipes of all kinds, proportions of ingredients may be changed and such variations made in sauces, etc., as suggest themselves to the intelligent cook, or as circumstances may require. Remember that in frying or broiling especially, the meat after being washed must be wiped thoroughly with a dry cloth. Due credit is given to several ladies who have kindly contributed to this department. The other recipes are from chefs and caterers in this and other cities, or from standard English sources.

KILLING AND DRESSING.

Take the hare by the hind feet, letting the head hang downward; strike a smart blow on the back of the head; cut the throat at once, letting out all of the blood. Hang up as you would a mutton. Run the knife around the first joint of the hind legs, cutting the skin, and pass the blade inside the thigh to the tail. With the hand separate the skin from the flesh, drawing the skin downward towards the head. Cut the fore legs off at the first joint and pull up the skin. Use the knife

carefully in skinning the head, severing it at the nose and lip and draw it off. Slit the belly lengthwise and remove intestines, excepting the kidneys. The liver and heart are to be saved; also the head if you wish it, first removing the eyeballs. Wash the body thoroughly and dry with a cloth.

TRUSSING.

For roasting, skewer the head tightly between the shoulders, then skewer the legs closely to the body. To prepare for boiling skewer the legs as before and draw the head to the side, firmly skewering to the body.

SELECTING FOR THE TABLE.

When using more than one hare for any particular dish always chose specimens as nearly the same age as possible, otherwise the youngest will cook to pieces before the others are done.

If purchasing dressed specimens you may determine whether or not the animals are young by breaking the jaw between the thumb and finger; if the fracture is easily made the hare is young. An English authority says that in a young specimen a little nut-like ball is to be found in the point of the paw. If this cannot be felt the chap is an old one only fit for pies, etc.

If a hare has been killed recently the flesh will be dry, white and sweet. If old it will be blue and slimy. In young the coat and claws will be smooth. The opposite will be true of old animals. The ears of the young may be easily torn, but if the skin of the head has been removed of course this test cannot be made. Hares are tender and delicious from three to six months old, and older if caponized and well and rapidly fattened. Hare meat is better if the animal has been left to hang for one day.

RECIPES FOR COOKING.

Roast, (English.) Fill with veal forcemeat, sew up and truss firmly, fore-legs back and hind-legs forward, fastening the head in an upright position. Some line the inside with fat bacon before filling. Fasten bacon over the back; baste liberally while cooking. When partly done, dredge over with flour and baste again. Have the fire a hot one. Serve at once from oven, placing the bacon on a separate dish.

Spanish Method. Slice one large onion, one chilli pepper, and four medium-sized tomatoes into a stew pan and bring to a boil. Cut the hare in pieces and put in as soon as it boils; add one teaspoon of salt and enough hot water to cover. When nearly done thicken with flour and add butter the size of an egg.

French Method. Soak the hare over night in equal parts of salted vinegar and water. Put one-fourth cup of butter in a frying pan, add a sliced onion and fry till a light brown. Wipe the hare with a dry cloth, put in the pan and cover with claret, letting it simmer slowly for two or three hours.

Roast with Onions, (Creoled.) 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 the 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 the onions.

Boiled. Soak fifteen minutes in warm water to draw the blood. Skewer as heretofore directed. 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 liver sauce is

used, boil the liver a little while and mince or rub through a sieve before adding to sauce.

Curried. Cut into joints and place in stew pan with two tablespoons of drippings or butter and sliced onions to suit. Brown well and add a pint of soup stock. Mix a tablespoon each of flour and curry until smooth in a little water; place in pan and add pepper and salt, a teaspoon of mushroom powder; let simmer for an hour or so. Add juice of half a lemon and a little parsley. Serve with boiled rice piled around it at side of platter. Water instead of stock may be used if the latter is not at hand.

Potted. Cut in pieces and place in stone jar. Fill the space between meat pieces with veal and bacon, a pound each, cut to dice; mix with liver of hare, also cut fine; add a teaspoonful each of mace, cloves and black pepper and salt. Place thin slices of bacon on top, and a bay leaf if liked. Cover with a lid of plain paste made of flour and water. Set the jar in pan or pot containing water and bake in a slow oven. Keep from burning by placing a greased paper over the paste. Put no water to the meat. When done set away to cool, then pound pieces of the hare, veal and bacon to a paste, mix in gravy from the bottom when boiled almost dry. Add more seasoning if needed. Press solid into cups or small jugs, covering top with melted butter, and set away in a cool place.

Jugged. Cut in pieces and season with pepper and salt, fry brown and season with a little thyme and chopped parsley, nutmeg, cloves, mace, grated lemon peel, and add a couple of anchovies. Place a layer of the pieces into a wide mouthed jar, then a layer of thinly sliced bacon and so on with alternate layers. Add two gills of water, cover and put in cold water, boiling three or four hours. Remove the jar, take out

the unmelted bacon and make a gravy of a little butter, flour and ketchup. Some add a little grated lemon peel.

Fricasseed. Lay the pieces in cold water a little while, drain well and place in saucepan with pepper and thin slices of pickled pork. Cover with water and let simmer for thirty minutes. Add chopped onion and parsley, a blade of mace and a clove or two if liked. Make a smooth flour paste, stir in and let simmer until the meat is tender, then add half a cup of cream. If too thin add more flour. Boil up once and serve hot.

A la Maryland. This method is copied after the style of serving terrapin at the South Atlantic sea board. It makes a rare dish. Boil the pieces in a small amount of water, using a covered vessel to retain the steam. When thoroughly done pour over a cream gravy to which has been added a little California sherry. A flour gravy will answer if cream is not at hand. Serve hot.

Fried. Use equal parts of lard and beef suet and have it deep enough to cover the hare. Cut in pieces. Roll in flour and fry in the boiling fat, turning frequently, and keep covered until nearly done, salting lightly after the first turning.

Patties. Use the whitest meat and mince fine with suet. Braise the bones and cook in a stewpan with salt, pepper, nutmeg, grated lemon peel, etc., and let simmer until the flavor is secured. Thicken with flour and butter and stew until quite hot. Bake the patties in patty pans and half fill with the mince. Put on covers. The whole process will take about an hour.

Pie, Raised. Cut small and season to taste with salt, pepper and nutmeg. Cut half a pound of bacon to dice, and when the raised crust is made place in dish with the meat and inter-

spurse yolks of three or four eggs. Pour over the top tomato sauce or some good gravy. Cover with pastry, brush with egg and ornament if you wish. Bake in moderate oven until a skewer may be easily thrust to the bottom—about an hour and a half. Serve either hot or cold.

[Contributed by Mrs. Harriet F. Taylor, Instructor in Cooking.]

Broiled. 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.

Liver Entree. Boil the liver until tender and cut into pieces. Make a brown gravy and pour over the pieces. Garnish with mushrooms. This makes a very delicious dish.

Jellied. Boil until the meat will fall from the bones, and leave in the water over night. In the morning chop fine, season with butter, pepper and salt, and press in a mold until firm. Or, boil tender, cut in small pieces and season with salt and pepper. Add a half box of gelatine soaked in cold water to the liquor (not less than a quart) in which the hare was boiled; strain through thin muslin and when it begins to thicken, add the meat; put in molds and place on ice to harden.

Hare Pie. Cut in pieces and boil until nearly done. Make a crust allowing a half cup of shortening, a half teaspoonful of baking powder, and a teaspoonful of salt to a quart of flour. Roll to a quarter inch. Line the sides but not the bottom of a deep dish with the paste; fill with the meat, season with butter, salt and pepper; fill with the liquor in which the hare was boiled, dredging over with flour. Cover with a thick crust and bake three-quarters of an hour.

Fried. Dress a hare not over three months old. Cut it up, roll each piece in flour, pepper and salt and fry as you would

chicken, until nicely browned on both sides. You can use butter or any kind of frying fat. Keep tightly covered while frying to retain steam. When nicely browned, raise the cover and add a spoonful of water to prevent burning. Continue to add a little water as often as needed, keeping covered close. Cook three-quarters of an hour. It is delicious.

Roast. Prepare a stuffing by chopping fine one-quarter pound of salt pork and a small piece of onion. Pour boiling water over six Boston crackers, then chop with the pork. Season with sage, salt and pepper, adding what boiling water is necessary to moisten it, and stir in one egg. Wipe dry the hare, fill it with the stuffing and lard with small strips of salt pork. Allow twenty minutes for each pound. Put a piece of butter as large as an egg in a cup, fill with boiling water and use it to baste the hare while roasting.

[Contributed by Miss Nettie Martin.]

STRAY HAIRS.

Heed the advice of this treatise in the matter of feeding for health. Pounds of "cure" are expensive, ounces of prevention cost little.

Renew the drinking water frequently, as if left standing any length of time it absorbs many impurities which are conveyed to the system; also wash the vessels each time they are replenished.

Feed the best of food; any other is poor economy. Decayed vegetables or grain, musty hay, impure or sour milk, are often the direct cause of disease.

If feeding a warm mash daily, or on alternate days, consisting in part of boiled flaxseed, and you notice a looseness of the bowels, discontinue the flaxseed and substitute some other meal for a few days.

Provide for protection from summer heat as well as from the rain and cold of winter.

Disinfectants are very essential in the rabbitry, and a safe and effective deodorizer, after the hutch has been well cleaned and washed out, is a solution of permanganate of potassium—about 25 grains to a quart of water. Don't return the rabbit until the pen is thoroughly dried, then in order to avoid colds, spray the floor and sides with eucalyptus.

If your rabbit is in good condition it will not take cold so easily as if soft and flabby, and even if it does, it will be much more easily cured.

We shall be pleased to answer any reasonable new questions pertaining to rabbits or rabbitries that may suggest themselves in the experience of our patrons.

Breeders shipping hares to other parts of the country should give purchasers the manner in which they have been reared, that no violent changes in management may occur.

Lentils and peas should be used sparingly in summer on account of their heating properties. They are especially good for stud bucks and for bringing does in season.

The authors of this treatise have in contemplation a third edition that shall embrace the rearing and management of the Flemish and other fancy varieties of rabbits likely to become popular in this country. Due notice of the publication will be given through the press.

ENGLISH WILD HARE.

(*Lepus Timidus.*)

There is no better description of the English wild hare than that given by Mr. Wilkins in his "Book of the Belgian Hare," which is as follows:

"The colors and markings of a hare are really these: they are composed of a rich red fawn, white and black, variously associated and distributed; there is a white patch both in front of and behind the eye, and a streak, nearly white, over the front of the upper eyelid; there is white under the chin extending back to the angle of the jaw, where it shows in a side view; the base of the ear on the outside is white, as is a portion of the interior, and, when seen in profile, the white of the belly and between the fore and hind legs is visible; the top of the ear has a broad black patch and the rest of the ear is ticked black and brown; the throat, chest, lower two-thirds of the shoulder, fore legs and feet down to the toes, are of a rich red chestnut without any ticking whatever, as is also a paler color extending from the shoulder to the flank part of the thigh, and dividing the white belly from the ticked back and loins; there is a triangular patch of a rufous brown behind the ears and between the shoulder blades, the haunch is more or less grey, and both these areas are free from ticking. The parts of a hare that *are* ticked are the forehead, cheeks, front of the ears, top of the shoulder on either side (not the middle), the back, loins, and top of the rump.

"What Belgian breeders should strive to produce is facsimiles of the wild hare as exact in every part as possible."

ENGLISH STANDARD

ADOPTED IN AMERICA.

COLOR—Rich rufus red (not dark, smudgy color), carried well down sides and hindquarters, and as little white under jaws as possible.....	20
TICKING—Rather wavy appearance but plentiful.....	15
SHAPE—Body long, thin, well tucked up flank, and well ribbed up; back slightly arched; loins well rounded, not choppy; head rather lengthy; muscular chest; tail straight, not screwed; and altogether of a racy appearance.....	20
EARS—About five inches long, thin, well laced on tips, and as far down outside edges as possible; good color inside and outside and well set on.....	10
EYES—Hazel color, large, round, bright and bold.....	10
LEGS AND FEET—Forefeet and legs long, straight, slender, well colored and free from white bars; hindfeet as well colored as possible.....	10
SIZE—About eight pounds.....	5
CONDITION—Not fat but flesh firm like a race horse and good quality of fur.....	5
WITHOUT DEWLAP—.....	5
TOTAL.....	100

DISQUALIFICATIONS—1. Lopped or fallen ear or ears.
 2. White front feet or white bar or bars on same. 3. Decidedly wry front feet. 4. Wry tail. A specimen should have the benefit of any doubt.

Rich golden tan is considered the best description of color.

JUN 12 1900

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Rabbit Condition Powder

This condiment is indispensable to every rabbitry. It imparts health and vigor to rabbits thus preventing the ordinary diseases to which they are subject. It is based on the formula of a popular English preparation, varied to meet American requirements. It promotes the appetite, aids digestion and gives a natural gloss to the coat. A perfectly safe tonic at all times. It is easier to prevent disease than to cure it.

25c. packages contains 100 doses. If ordered by mail, enclose 8c. extra for postage.

LANGLEY & CO.

310 West First St., Los Angeles

TESTIMONIALS

LOS ANGELES, CAL., Feb. 26, 1900.

Messrs. Langley & Co.

A few days ago one of my most valuable does appeared quite ill. Her breathing was difficult, she refused to eat, and was in many ways sadly out of condition. Having just lost a \$75 buck that had shown the same symptoms, I was very anxious about the doe. I tried your Condition Powder, and in five or six days she came out all right. I have also used it with excellent results with other rabbits. I most cheerfully recommend your compound.

J. D. VERTREES,
1131 Angelina st.

LOS ANGELES, CAL., Mar. 17, 1900.

Langley & Co.

DEAR SIRs: I am pleased to recommend your Condition powder, as it will do all that is claimed for it. I gave it to several of my imported rabbits that were badly shaken up by their long journey from England—Lord Roseberry especially. I continued to feed it to all my stock and they are now in perfect health and condition.

W. STANSFIELD,
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For whom more money was paid than any other Belgian Hare on earth.

"On January 1, 1901, we will pay \$500 in gold coin for the best specimen sired by our Wantage Fox and out of any doe bred to him after April 24, 1900. Competitors to select the judges.

(Signed) CALIFORNIA BELGIAN HARE ASSOCIATION."

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