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THE

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THE

RABBIT-BOOK FOR THE MANY;

CONTAINING

THE HISTORY OF THE RABBIT

FROM THE EARLIEST TIMES;

DESCRIPTIONS OF ALL THE SHOW AND FANCY VARIETIES;

AND

FULL DIRECTIONS FOR THEIR SELECTION, BREEDING, AND MANAGEMENT; THE TREATMENT OF THEIR DISEASES; AND THE CONSTRUCTION OF THEIR DWELLINGS.

With Portraits of all the Choice Varieties.

BY CONTRIBUTORS TO

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Harry Soane. 1882.

THE RABBIT.

(LEPUS CUNICULUS.)

HISTORY.

CONEY is the name by which this animal is first mentioned in all our earliest records—a name evidently derived from some root common to most European languages. In Italian it is called *Coniglio;* in Spanish *Conejo;* in Portuguese *Coelbo;* in German *Koniglein;* in Dutch *Konyn;* in Swedish *Kanin;* in Danish *Kanine;* in ancient British *Cwningen:* and in Latin *Cuniculus.* We are told by Varro that this name was given to the animal by his countrymen on account of their dwelling in burrows—*cuniculos* (*De Re Rustica*, lib. 3, c. 12): but it might be that the burrows derived their name from that of their makers and inhabitants, which is sustained by Ælian, who says (*De Nat. Anim.* xiii. 15) that the name is of Spanish origin.

Sonini says that the Rabbit was called in Greek *dasypous*—that is, hairy foot; but we have thought this applied to the Hare—in Chaldee *thapsa;* in Arabic *vebar;* in Persian *besangerah;* in Illyrian *cralik*, or *krolik;* in Austrian *kuniglhase;* in Flemish *konyn;* and in Russian and Polish *krolik.*

The Rabbit will only thrive in a wild state in temperate climates. It will only live under any circumstances in very hot countries; and in Sweden, and elsewhere having long severe winters, it can only be preserved in houses. Northern Africa and the southern parts of Europe seem to have been its native

places. In America it was unknown until introduced by Europeans.

The Chinese legislator Confucius ranges the Rabbit among animals worthy of being sacrificed to gods, and prescribes their multiplication. Even now Rabbits are sacrificed on their altars twice a-year—in spring and autumn. Thirty thousand Rabbits are annually sacrificed. These sacrifices are made in one thousand six hundred temples in spring to ask that the earth may be as fruitful as Rabbits, and in autumn to return thanks for that fruitfulness. Many races, or varieties, of Rabbits are bred in China with success; and the populations consume a great number.

It is certain that the Rabbit was venerated by the ancients, and, as in the case of fowls, altars were raised to it in the Isle of Delos in Ortygia, now called the Grecian Archipelago. The Greeks even went so far as to ornament with marble the entries of their warrens, or vast galleries where these animals could have a common issue and multiply.

From Greece the cuniculine race passed into Spain, and particularly to the Balearic Isles. Pliny mentions that the inhabitants of these were obliged to defend themselves against their voracity, as they ravaged the harvests, and undermined the houses and lands with their burrows. The prodigious fecundity of these little animals was considered a plague—a public calamity; and being unable to get rid of them the islanders asked the Emperor Augustus to send some Roman troops to aid in destroying them. The troops were sent and with them ferrets. Of course, these statements refer to wild Rabbits. (*Pliny's Nat. Hist.*, b. viii., c. 81.)

The Phœnicians were the first navigators who discovered the southern part of Spain, and penetrated into this extremity of Europe. Even in the Phœnician language is the etymology of the name which that country now bears. It is said that formerly Armorica, the ancient Spain, was so overrun with Rabbits, that by dint of burrowing under ground, they even overturned the

houses of the inhabitants. *Spanija* in the Phœnician language signifies a Rabbit, of which the Latins have made *Hispania*, and we Spain. It is then very probable that the name *Hispania* was substituted by the Romans for that of *Armorica*, at the time of their conquest, to distinguish it as the "*Rabbit country*," as they changed the name of the country of the Celts into *Gaul*, *Gallia*, or "*country of cocks.*"

This opinion is somewhat sustained by the fact, that on the reverse of a medal of the Emperor Adrian Spain is represented by a woman sitting on the ground with a Rabbit squatting upon her robe. (*Addison on Medals.* Dial. iii., series iii., fig. 6.) There was a pack of cards formerly in the possession of Francis Douce, Esq., the four suits in which were roses (hearts), pinks (diamonds), columbines (spades), and Rabbits (clubs). The originals are believed to have been from the pencil of the celebrated German artist, Martin Schoen, who died in 1486. (*Strutt's Sports and Pastimes of England.*) We have no doubt, judging from the costume of the kings, queens, and knaves of those four suits, and considering the contentions going on between the four great European powers at the time in which they were drawn, that they were intended to represent England, Austria, France, and Spain. Every card-player does not know that the term *basto* is derived from the Spanish *Bastos*, a club; and spades from *espados*, a sword, in the same language.

In confirmation of our opinion we find that on the monument of Richard Cœur de Lion, in the cathedral of Notre Dame, at Rouen, there is the head of a Rabbit peeping out of a hole, and a dog watching it. This, says Mr. Alfred Way, was not placed there without design; and a writer, in answer, observes that it probably alludes to that monarch's successful attacks upon Spain and Sicily, on the coins of both of which countries Rabbits are well-recognised symbols.—(*Notes and Queries*, v. 598.)

Strabo, who calls the Rabbit "the burrowing Hare," says (iii. 2, § 6) that it was found over nearly the whole of Spain, and in the Balearic Islands, reaching also as far as Massilia (Marseilles, in

France). Polybius mentions (xii. 3) that the Rabbit is a native of Corsica.

The notices by Varro, Strabo, Polybius, Ælian, and Pliny, are the earliest which we can identify with the animal known to us as the Rabbit. It is quite certain that the *Shaphan* of the Old Testament (*Lev.* xi., 5, *Deut.* xiv., 7, *Psalm* civ., 8, *Prov.* xxx., 26) is not our Coney or Rabbit. The translators of our version knew of no other animal but this at all agreeing with the Shaphan, and, therefore, so translated it. But the Rabbit is not a native of the countries in which the Israelites sojourned, nor is there the slightest probability that it was known to Moses, David, or even Solomon. At all events, the Levitical law would not forbid the eating of an animal the Israelites never saw. The Hare is common enough in Palestine and adjacent countries, and so is the *Ashkoko*, the habits of which animal closely agree with that of the Shaphan as mentioned by Solomon. He mentions this animal as one of the four "which are little upon the earth, but are exceeding wise." "The *Saphans* are but a feeble folk, yet make they their houses in the rocks." (*Prov.* xxx., 24-26.) Mr. Bruce says that this animal, the Ashkoko, is so much attached to the rock that he never once saw it on the ground, or from among the large stones in the mouth of caves where it constantly resides. It is a native of Judæa, Palestine, and Arabia. Though it resides among the rocks, yet its feet are too fleshy and tender to dig holes: therefore, it builds houses among the very hardest rocks, more inaccessible than the burrows of Rabbits, and very sagaciously constructed. Moreover, it chews the cud, as particularised by Moses, which is not the case with the Rabbit.

It is probable that during the time of Cæsar, and while he was in Gaul, the "country of cocks," that the Rabbit was introduced into England.

That it was so introduced seems sustained by the fact that its most ancient British name, *Cwningen*, is evidently derived from the Latin. Rabbits rapidly spread throughout our islands, for

their great fecundity is not diminished even in the colder climate, Scotland. This fecundity there obtained for them our now common name of Rabbit, for in Gaelic, *Rabaid* is a Rabbit; plural *Rabaidean*, Rabbits; *cuilean Rabaid*, a young Rabbit; and *Rabaid* seems to be derived from *rabach*, plentiful, fruitful. (*Armstrong's Gaelic Dict.*)

This name soon came into general use in England. It is true that in the translation of the Bible as late as the reign of James I., the word *coney*, probably as being more English, was employed by the translators, but at a far earlier period the name of Rabbit was employed.

Thus in the "Privy Purse Expenses of Elizabeth of York" (p. 13), under the date of May 24th, 1502, is entered the payment of two shillings "to a servaunt of the Abbase of Syon in reward for bringing a present of Rabettes and Quayles to the Quene at Richemount."

At first, of course, only the grey wild Rabbit would be known, and for their protection a peculiar warren, called a *coningry*, was established. This, however, was not until the Norman period of our history, and about the same time and with similar intentions as they were established in France. We are told that there it was under the reigns of Philip Augustus and Louis VIII., at the beginning of the thirteenth century, that the French nobles began to people with wild Rabbits some countries which they called "*varennes*," thence "garennes," in English "*warrens*." The name of "*varennes*" remained to several bourgs, villages, or countries, because they were built in a place peopled with wild Rabbits. (Clichy-la-Garenne, now in Paris, was the favourite hunting-place of Henry IV.)

The design of the French nobles by introducing Rabbits to their grounds, was to multiply game, and increase the pleasures of the chase and the table.

It is well known that at these early periods the lords were warriors and hunters. They took no interest in agriculture, industry, or commerce. The chase entertained the warlike spirit,

and inured them to fatigue. They did not know, or did not care, what ravages the Rabbits made in the harvests of their serfs, the cultivators of the soil.

The Rabbit warren, as we have already noted, was called in England a *coningry*. Thus in a statute passed in the year 1390 (13 Rich. II. c. 13) occurs this sentence—"Vont chaceants es parkes, garennes, et conyngers des seigneurs et autres;" or, in English, "They hunt in parks, warrens, and conyngries of lords and others." A warren, in those days, meant a place belonging to some one privileged to keep in it all fowls and beasts of warren —namely, Partridges, Pheasants, Hares, and Rabbits (*Blount's Glossary*); but a *coningry* was a place where Rabbits only were preserved.

Rabbits, like some other animals, are liable to produce varieties, and this not only in the colour, but in the length and form of the hair. Black individuals occur in our warrens. In Syria we read of a wild sort with thickly tufted hair. The Angora Rabbit has very long fur. A breed with similarly lengthy coat formerly existed in the Isle of May, at the mouth of the Frith of Forth (*Naturalist's Library*); and Sunk Island, in the Humber, was once famous for a mouse-coloured kind. They were extirpated on account of the injury they did to the banks by burrowing. (*Phil. Trans.*, No. 361.)

When variations such as we have particularised were first noticed, it is probable that they were caught and bred from separately, and that thence arose the breeds of domestic Rabbits which we now foster. What little we know about these will be stated when we consider each breed separately.

How long it is since these domestic kinds were first cultivated we know not; for Tusser, the first of our writers who mentions them, says no more than this, when writing the abstract of "January's Husbandry," in 1580:—

> "Let doe go to buck,
> Wish coney good luck."

Half a century later, however, in the year 1631, we find

Gervase Markham writes as follows in his "Way to Get Wealth:"—

"The boxes, in which you shall keepe your tame Conies, would be made of thin Wainscot-boards, some two foot square, and one foot high; and that square must be divided into two roomes, a greater roome with open windowes of wyre, thorow which the Conie may feed; and a lesser roome without light in which the Conie may lodge and kindle, and before them both a Trough, in which you may put meat, and other necessaries for the Conie; and thus you may make boxe upon boxe in divers stories, keeping your Buckes by themselves, and your Does by themselves, except it be such Does as have not bred, and then you may let a Bucke lodge with them: also when your Doe hath kindled one nest, and then kindleth another, you shall take the first from her, and put them together in a severall boxe, amongst Rabbets of their owne age; provided, that the Boxe be not pestred, but that they may have ease and liberty.

"Now for the choice of these tame rich Conies, you shall not as in other Cattell, looke to their shape, but to their richnesse, onely elect your Buckes the largest, and goodliest Conies you can get: and for the richnesse of the skin, that is accounted the richest, which hath the equallest mixture of blacke and white haire together, yet the blacke rather shadowing the white, than the white any thing at all over-mastring the blacke, for a blacke skin, with a few silver haires, is much better than a white skin, with a few blacke haires: but as I said before, to have them equally, or indifferently mix'd, is the best above all other: the Furre would be thicke, deepe, smooth, and shining, and a blacke coat without silver haires, though it be not reckoned a rich coat, yet it is to be preferred before a white, a pyde, a yellow, a dun, or a gray.

"Now for the profit of these rich Conies, (for unlesse they did farre away, and by many degrees exceed the profit of all other Conies, they were not worthy the charge which must be bestowed upon them) it is this: First, every one of the rich Conies

which are killed in season; as from *Martilmas* untill afte *Candlemas*, is worth any five other Conies, for they are of body much fatter and larger, and when another skin is worth two pence or three pence at the most, they are worth two shillings, or two shillings and sixe pence: Againe, they increase oftener, and bring forth more Rabbets at one kindling than any wilde Conie doth; they are ever ready at hand for the dish, Winter and Summer without charge of Nets, Ferrets, or other Engines, and give their bodies *gratis*, for their skins will ever pay their Masters charge with a most large interest.

"Now for the feeding and preservation of these rich Conies, it is nothing so costly or troublesome as many have imagined, and as some (ignorant in the skill of keeping them) have made the world thinke: for the best food you can feed a Cony with, is the sweetest, shortest, softest, and best *Hay* you can get, of which one load will serve two hundred couples a yeere, and out of the stocke of two hundred, you may spend in your house two hundred, and sel in the Market two hundred more, yet maintaine the stocke good, and answer every ordinary casualty. This *Hay* in little cloven sticks, the Rabbits might with ease reach it, and pull it out of the same, yet so, as they may not scatter nor waste any. In the troughes under their boxes, you shall put sweet *Oates*, and their water, and this should be the ordinary and constant food wherewith you should feed your Conies, for all other should be used but physically, as for the preservation of their healths: as thus, you shall twice or thrice in a fortnight, for the cooling of their bodies, give them *Greenes;* as *Mallowes*, *Claver grasse*, *Sower-docks*, blades of greene *Corne*, *Cabbage*, or *Colewort-leaves*, and such like, all which cooleth and nourisheth exceedingly: some use to give them sometimes sweet *Graines*, but that must be used very seldome, for nothing sooner rotteth a Cony.

"You must also have great care, that when you cut any grasse for them, or other weeds, that there grow no yong *Hemlocke* among it, for though they will eate it with all greedinesse, yet it is a present poison, and kills suddenly: you must also have an

especiall care every day to make their boxes sweet and cleane, for the strong savour of their odour and urine is so violent, that it will both annoy themselves, and those which shall be frequent amongst them.

"Now for the infirmities which are incident unto them, they are but two: the first is rottennesse, which commeth by giving them too much greene meat, or gathering their *greenes*, and giving it them with the dew on; therefore let them have it but seldome, and then the drinesse of the *Hay* will ever drinke up the moisture, knit them, and keepe them sound without danger.

"The next is a certaine rage or madnesse, ingendered by corrupt blood, springing from the ranknesse of their keeping; and you shall know it by their wallowing and tumbling with their heeles upward, and leaping in their boxes. The cure is, to give them *Hare-thistle* to eate, and it will heale them."

The older naturalists were not very successful in demonstrating the characteristics distinguishing the Rabbit from the Hare. The differences in their size and colour are sufficient for ordinary purposes, but are not such differences as to distinguish species in zoological classification. Even as late as 1772, Daines Barrington, in the "Philosophical Transactions," could offer no better specific characteristics than such as depended upon the relative lengths of the bones of the hind legs, and their difference in length when the hind legs were compared with the fore legs.

More recently Cuvier offers these marks of distinction:—The Rabbit is less than the Hare; ears rather shorter than the head; the tail less than the thigh; coat yellowish-grey with some red; throat and belly whitish; ears grey without any black; brown about the tail. (*Regne Animal Mammifères*, 255.)

Such are the scientific characteristics of the wild Rabbit; but these do not apply to the domesticated varieties, for many of them are as large as the largest Hare, and in colour so closely resembling the latter animal, as to be exhibited as "Hare Rabbits." Whether they are hybrids is still a matter of doubt, as it was as far back as the time of Buffon.

For all ordinary purposes the domestic Rabbit, of which alone we have to treat, is distinguishable by its colours, texture of fur, and size and position of its ears.

The first attempts to rear varieties and improve the qualities of the Rabbit, are attributed, probably correctly, to the monastic establishments of the Continent; for the brethren, who had quite enough of abstinence from flesh meats, adroitly arranged that Rabbits, like game, should not be included among them, but be allowably eaten on *maigre* days.

M. Mariot Didieux states that it was not until about 1830 that attention was paid in France to the extensive and profitable breeding of Rabbits. It commenced near Paris, but the proceedings were kept secret, opposition was feared, and information upon the subject was only obtained by stratagem. About ten years subsequently Rabbit culture made great progress both in France and elsewhere. In Belgium and Holland there are prudent, determined, calculating men, who try experiments cautiously, and it is only when they are sure of success that they walk bravely to the goal. Thus the Dutch and Belgians have already produced Rabbits in sufficient numbers to sell as many as "three hundred and fifty thousand" a-week in the Ostend markets alone, to be forwarded and sold in the London markets. Less than ten years ago this source of industry was unknown in those countries. The amounts just cited are official returns of the Custom-house statistics. They witness highly in favour of the breeding of these little animals, and their selling price increases instead of diminishing.

The breeding on all the Dutch and French coasts of the channel is on a very extensive scale. The linen trade being greatly depressed had left a great many hands unemployed in 1847. Some bred milch goats, others bred Rabbits to sell or live upon. We have visited farms in the Pas de Calais, says M. Didieux, and always found Rabbit pie in use, both among masters and men.

In the farms in the neighbourhood of Troyes there were

Rabbits bred which brought in annually from 1000 to 2000 francs (from £40 to £80 sterling). Yet this is only considered a trifling trade, and is being extended every day. In the markets of Troyes there are 150,000 francs worth of Rabbits sold every year. In the suburbs of Chalons-sur-Marne Rabbits are bred entirely for their fur with immense profits.

In 1849, the Countess d'Albertas established in her Château near Gardane a perfect *stud* of Rabbits, that comprised a number of varieties of great beauty, either as meat or fur, as silky fur of different shades and lengths. She realised great profits and sold breeders to Spain and Italy. She thus procured labour for the inhabitants of her locality, and gave meat to the poor. Moreover, she assured us that the manure she derived from her warrens had largely rewarded her by its enrichment of her lands. By judicious crossings she has produced half breeds of magnificent beauty, some of which have measured 60 centimetres (about 30 inches) from the tips of the nose to the end of the tail.

Monsieur l'Abbé Fissiause, Chaplain of the Hospital at Marseilles, breeds Rabbits to provide the poor with meat. The skins alone pay his expenses.

In 1856 M. le Comte d'Epresmeuil, Secretary of the Acclimatation Society, visited an establishment for breeding Angora Rabbits at St. Innocent—a small village about two miles from Aix in Savoy, on the heights that overlook the lake of Boerget. This establishment, says he, is interesting, because particularly it procures work for women, children, and the poor in bad weather. It is of the simplest kind, since it consists in breeding Angora Rabbits of all colours—grey, white, black, brown, and particoloured. They are kept in large rooms, and fed with bits of all sorts of green stuffs. The fur is taken four times a-year, carded, spun, and woven in the village by the inhabitants, who live out of this simple industry, which it would be so easy to propagate in France. Childrens' dresses are sold at as much as 30 francs each. This Angora warren was established about

twenty years ago by M. Lard; it is now directed by his widow. After having had the idea of repairing his broken fortune by breeding Angora Rabbits, M. Lard had that of placing them out to keep with the inhabitants of the village. He gave, and his widow still continues to give, four pregnant Rabbits; and they are paid for by returning half the young when three or four months old.

These Rabbits are bred in troops in stables, granges, rooms, lofts, and other places as extensive. They are fed in summer, with a quantity of green plants, and in winter with dry leaves. Their fur is not woven as the Count d'Epresmeuil states, but is carded and spun by the ancient method, and knitted by the women into childrens' frocks, stockings, drawers, chest pieces, gloves, and other warm articles of clothing. These are much sought after by the English that frequent the baths of Aix; and Madame Lard has never enough in her warehouse, although the manufactory of St. Innocent furnishes more than £800 worth a-year.

Madame Lard buys the fur of the breeders at 60 centimes (6*d.*), the 32 grammes, which makes about 19 francs 20 centimes for one kilogramme (2 lbs. weight). We forgot to inquire while on the spot how much fur by weight one Angora Rabbit of middle size would furnish in a year or four combings; but if we recollect rightly it is about 250 grammes, or half a pound, value 4 francs 50 centimes.

In England attention to the breeding of domestic Rabbits on an extensive scale has never become general. We have noticed what Gervase Markham said upon the subject; and in 1718 we learn from Mr. Bradley that a few persons cultivated Rabbits largely. He had engraved a drawing of an artificial warren, and of the proceedings of one of these patrons of the Rabbit he states the following particulars:—

"I shall take notice of something extraordinary relating to a warren, as it was contriv'd and practis'd by the late Lady Belassis at Kensington; her ladyship, among many other curiosities

which were cultivated in her gardens, and volaries, disposed one part for the breeding and feeding of Rabbets, in such a manner, as that, by a constant supply of nourishing food, she might draw at any time of the year a sufficient quantity to oblige her friends, and serve her table; but to prevent the unsavoury taste which generally attends the flesh of tame Rabbets, consulted as much as possible the nature of the wild sort, how much the open air was beneficial to them, for this end she wall'd in a large square place, and paved it at the bottom, but in some parts had large heaps of earth, ram'd hard, and turf'd, for them to burrow in; but this, which was her first attempt, fail'd, by frequently falling in upon the Rabbets: This however gave her no discouragement; she had a terrass built with arches, and fill'd with earth, leaving proper places for the Rabbets to go in and out; but still there were many inconveniences, as the falling in of the earth, and the males destroying the young ones, besides the difficulty of taking them when they are wanted; but at length concluded to build distinct cells for every female, so order'd that they might hide themselves at pleasure, or take the liberty of the enclos'd ground when they thought fit: these cells were cover'd with boards, lying penthouse-wise, made to open at discretion, for the better catching the Rabbets, and to prevent the destroying of the does that had young ones: Over the entrance of every cell was a trap-door, either for keeping them in or out; at the south end was a covered place where a couple of buck Rabbets were chain'd for the service of the does, and, according to the warreners rule, were enough for twenty-five couple of females: In this place was their food, which was chiefly the refuse of the garden, with some bran and oats, and large blocks of chaulk stone, which they frequently eat to prevent the rot.

"The pavement or floor was lay'd slopewise for the better carrying off the water, and conveniency of cleaning, which was done very often, and contributed greatly to the good thriving of the Rabbets." (*General Treatise on Husbandry, &c.*, i. 21.)

This example met with but few imitators; and it is only

since the knowledge of the vast numbers of Rabbits which are imported weekly from Ostend and elsewhere has become diffuse, that attempts are making in many places to breed them in this country very largely.

THE DOUBLE OR FULL-LOP.

THE Lop-eared Rabbits are the pets of the fancy, and in breeding there are seven points to aim at.

1st, Length of ear, measuring from the tip of one ear to the tip of the other across the head. 2nd, width of ear. 3rd, colour—blue and white, black and white, tortoiseshell, yellow and white, and grey and white. The self-colours are fawn, sooty fawn, or Egyptian smuts, black, grey, and white with pink eyes. 4th, the position of the ears. 5th, size of the eye and the larger this is the better. 6th, the carriage of body. 7th, the size.

All these properties are very fairly exhibited in the print which is a drawing of a black and white doe with the butterfly smut well marked. Her ears are $21\frac{1}{2}$ inches, and considered a first-class specimen. The longest-eared Rabbit bred is stated to have had ears 23 inches long, but there is some doubt about it. I think $22\frac{1}{2}$ inches fairly measured is the longest ear yet obtained, and the breadth $5\frac{7}{8}$ inches.

The most fashionable colours are the black and white, blue and white, and tortoiseshell. Good yellow and whites are much admired, but are rather scarcer than the other.

The required carriage of the ears is well shown in the print, and the requisite points are these :—Both ears should fall equally, and as near to the inner corner of the eye as possible. The round or convex surface of the ear should be outwards, and the concave inside surface nearly concealed, and lying close to the face. The ear should be of a whole colour the same as the rest of the prevailing colour. It should be thick and strong, though

DOUBLE OR FULL-LOP.

round and narrow at its root, rapidly becoming broad, and should continue broad to the tip and not angular. The broader and rounder you can get the extremity the better.

The carriage of a Rabbit should be as follows:—Low at the shoulder, high at the rump, head resting on the dewlap when sitting, which is a double fold of skin filled with fat, and covered with soft white fur, which is seen under the chin, and begins to make its appearance when eight or nine months old.

The proper marking of a Fancy or Lop-eared Rabbit should be as follows:—The nose should be marked at each side with some dark colour, having a dark-coloured mark running up the face so as to meet the marks before mentioned, and with them forming what is termed "the butterfly smut," which is so called from its resemblance to a butterfly with its wings extended. The eyes are surrounded with colouring which joins the ears. The chain is a line of spots at each side of the shoulder running from the ears to the saddle, which is a large patch of colour, and should be large and unbroken by any other colour—that is, if it be a black and white, the saddle should be black with as few white hairs as possible, and the same with all other colours. The saddle should be free from any but the one prevailing, and when so marked they are considered by the fancier perfect in colour.

To be good specimens they should not be less than 18 inches; but 20 inches and 21 inches are considered good lengths.

In breeding Lop-eared Rabbits length of ear is the main object, but at the same time the other points mentioned must not be lost sight of.

M. Didieux states that this breed has been obtained by Rabbits imported from China, and crossed with breeds natives of France, and called "Fancy." Fancy, he observes, does not look at prices, and he states that a pair have been sold at 500f. to 600f. (£20 to £25 sterling). M. Gerard also states he has heard of £20 being paid for a single fancy or Lop-eared female Rabbit. These are exorbitant prices, but well-formed long-eared

Rabbits will bring sufficient to pay for the trouble and pains bestowed in breeding them.

To breed long-eared Rabbits you must first get your stock of a good strain; and, secondly, you must have a warm place for their reception. Length of ear is only obtained by increased warmth, high feeding, and judicious management. The extreme lengths obtained by fanciers are produced entirely by artificial means. When the Rabbit is about three months old, it is taken in the lap of the operator who sits before a fire, towards which the Rabbit's head is directed, and, with his thumb and forefinger, he gently works at the root of the ear till it is fully developed. In this way each ear is increased an inch or more in length.

These, like other animals, soon degenerate, and require a cross of fresh blood frequently, which may be accomplished in the cheapest manner by getting the use of a good buck from some well-known stock, or by exchanging or buying from time to time. In breeding long-eared Rabbits, you must endeavour to obtain quality, and not be too covetous of quantity. You cannot expect to have fine young ones if your doe is allowed to bring up more than three or four. Some does will not bring up more than two well: therefore, it is necessary to have common or Dutch Rabbits for nurses, they being much better than the more highly bred.

The best plan is to have your nurse-does to kindle about the same time as your fancy breeders; and about two days after your doe has kindled, take the doe out of the hutch and look over your young ones, taking notice of those that appear to have the longest ears and are the best marked, which are easily to be seen even at that early age. If it is the doe's first litter, and she has more than two, take the surplus number away, and if they are promising, place three or four with your nurse-does—not more than four. If you notice any of the young ones spotted, it is better to destroy them at once. If you find your young doe prove a good mother you may allow her to bring up three or four young ones at her next litter, but never more, if fine ones are desired. Some does will not notice their young,

and these are often the breeders of the longest-eared Rabbits: therefore, you must endeavour to have your nurse-does ready to receive them.

When the young ones are about a month old they will begin to show their good points, and from this age till about eight or ten weeks, make great progress in the growth of ear; but if you find there is not much to be expected from them in that respect, it is better to wean them at seven or eight weeks old, sooner than lose more time with your doe; but if, on the contrary, they are promising, leave them with the doe till twelve weeks old. Some does will not suckle their young so long, but drive them about the hutch. When such is the case it is better to put the doe to the buck, and let the young ones remain a week longer if it has quieted her; but, if not, remove them.

At this age many of them will require a cap on the ears to get them in the required form. When capped they must be put in separate hutches, otherwise they will knaw the caps off each other. They will not require the cap on longer than a week or ten days, and it should be put on directly they are weaned. The ears seldom grow after four or five months old.

In breeding for length of ear it is not necessary that both parents should have ears of great length, provided they are of good blood. A nineteen-inch or twenty-inch-eared doe will prove the best breeder; the longer-eared ones are often too highly bred or forced in their growth to be of much value as breeders, often turning out barren or bad mothers. But the buck should be as long-eared as you can obtain, provided he is a good stock-getter. Very long-eared bucks will also prove barren sometimes.

In breeding for colour it is a bad plan to breed from two broken colours; it is better that one should be a self-colour, and the fancier should also know how his does are bred as to colour—that is, the colour of their parents, as they will often throw back. To get heavily-marked black and whites, a black is a good colour to breed from; for tortoiseshell, a sooty fawn; for yellow and white, a fawn; and let the other be of the colour

desired. It is impossible to breed true to colour, but by judicious crossing a great deal may be done towards it.

The fancier in selecting his breeding stock should be particular in getting them free from defects, good carriage, legs straight, eyes large and prominent, and in colour heavily marked, and large size. These are the main points to be considered.

THE OAR-LOP.

THE Oar-lop, so called from the ears in this position resembling the two oars of a boat resting in the rowlocks in the hands of a waterman. This is particularly admired by some fanciers, but is as strongly condemned by others. It bears a more close resemblance to the perfect lop than any other variety of this breed.

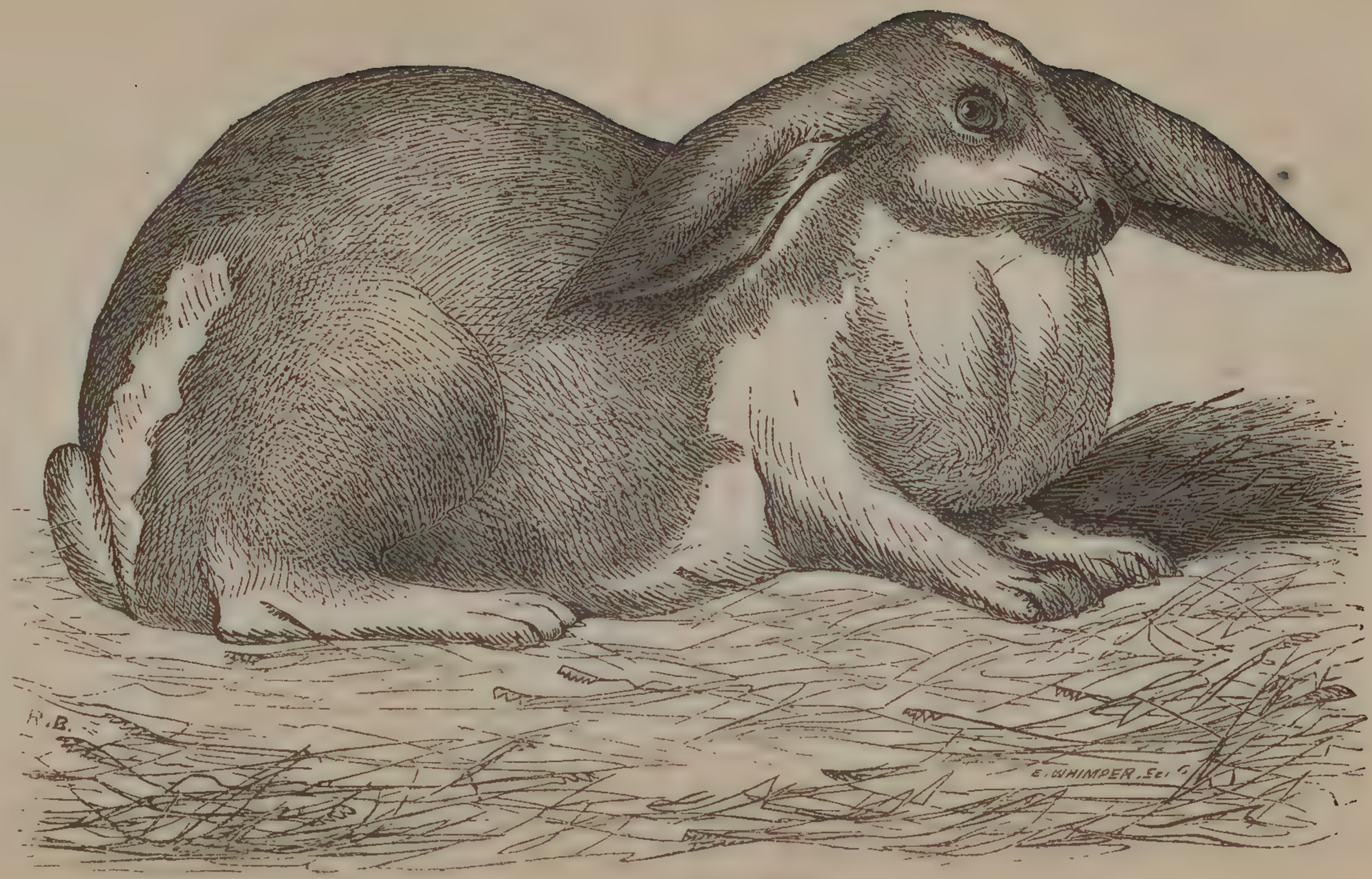
Many Rabbits of the best blood will carry their ears in this position, but are unfit for exhibition, unless to compete for weight, in which class the ears are not considered. At any rate, the ears being thus carried should not be a reason for rejecting from the breeding stock Rabbits well formed and fine in every other respect, as they are as likely to produce valuable stock as their more perfect relations.

It is seldom, if ever, that a litter of young Rabbits is produced in which every specimen is perfect. Some will be found defective in length of ear, carriage of ear, or colour, although the parents be of the best blood.

It may be, however, that this peculiarity is the result of a cross with the common Rabbit, though, perhaps, at some distant period. If this be the case, it is better to fatten such Rabbits for the table, and introduce animals of a purer strain as a fresh and improving cross.

THE HORN-LOP.

THE Lop-eared Rabbit derives its name from the position in



OAR-LOP.

HORN LOP.

which the ears are carried, drooping forward and a little downwards over the eyes, resembling the horns of a cow.

This Rabbit, like the Oar-lop, may be produced by the most highly-bred specimens of the Double-lop variety, and, by judicious mating, may be the parent of first-class stock, if it is not the result of a cross with the common Rabbit, which in this variety is more often the case, and will show itself through many generations.

The Horn-lop is not so often to be met with, but is not to be more valued on that account; for, on the other hand, it is more ungainly in appearance, and the ears are more difficult to get into a proper position—in fact, it is impossible to make perfect lops of Horn-lops either by capping or stitching.

Stitching is sometimes practised by fanciers—that is, the ear is placed in the required position and stitched to the side of the face and allowed to remain so for a week, when the stitch is drawn; but the cap is much the best.

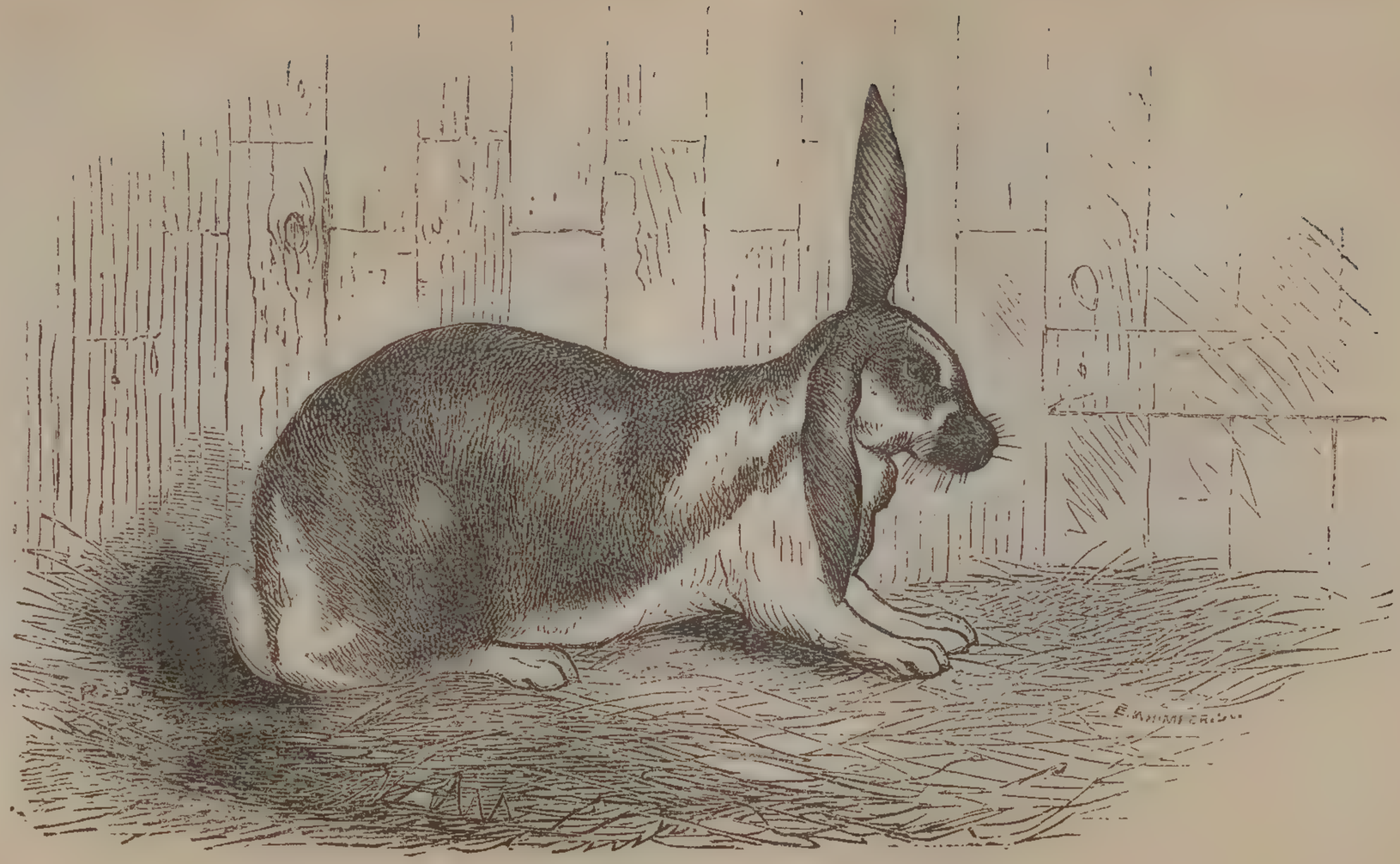
In colour, form, and size, the Horn-lop resembles the other varieties of the Lop-eared Rabbit.

THE HALF-LOP.

THE last variety of the Lop-eared Rabbit, like the other varieties, derives its name from the carriage of its ears.

The Half-lop variety may be divided into two classes, and, at least, with some benefit to the young fancier; inasmuch as one variety almost invariably bespeaks impurity of blood, while in the other variety we may find numbers of the highest-bred animals descended from parents of the purest blood and great beauty. It is very difficult to breed a litter of young Rabbits from the most perfect specimens without one or two of them being of the last-mentioned variety of the Half-lop—at any rate, for some time or until the offending ear be brought to its more proper position by the use of the cap or stitch.

In the first class the Rabbit holds one ear erect, while in



HALF-LOP.

the other both fall over one side. In the former case the ear will generally be found deficient in length; while in the latter they will often turn out the longest-eared and best-lopped in the litter.

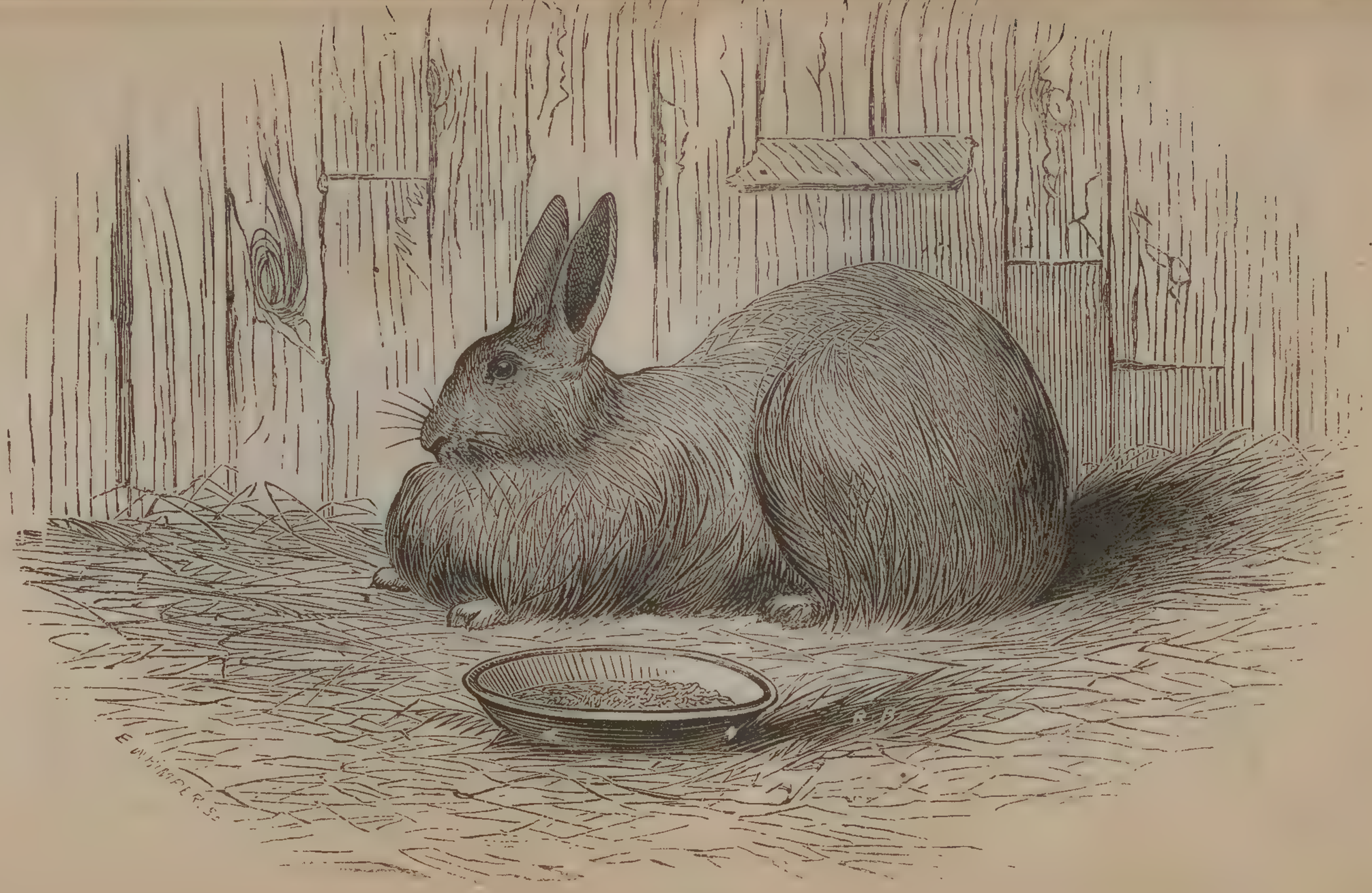
THE ANGORA.

THIS fine variety, of which we have before spoken, is a native of Asia, and the city of Angora gave it its name. It is worthy of remark that several races of animals that are to be met with in that country, the suburbs of Broussa and the plains of ancient Troy, have long silky fur, such as the Angora cat and Angora goats.

The true Angora Rabbit is not a large animal, but only of medium size, and has prick ears. Those large varieties with lop ears that are met with in some English collections are the result of a cross with the large English Lop-eared Rabbit. It differs also from the common, not only in the fineness of its fur, its skin and its habits, but also in its flesh, which is not so tender as that of many other Rabbits, and, consequently, not so often used for the table. Its fur varies in colour. The white is the most common, yet not the less valuable; then come the grey, slate, or blue, black-and-white, and the Silver Grey. The fawn-and-white is rare.

Their skins are much sought after by furriers, and when in quantity and good condition realise high prices; and it is somewhat surprising to see how little this interesting kind has been encouraged and cultivated in this country.

This species offers notable differences from the other common kinds. Thus, if the male were to be separated from his female and family, he would grow thin, and even die of grief. He is careful of the little ones, and he can be left without danger to live in company with them. The Angora is endowed in an extraordinary degree with the love of society. The young are never ill-treated by the old, and the young have a great respect



ANGORA.

for the aged; and the grandfather exercises patriarchal authority over his sons, grandsons, and great grandsons.

It must be particularly remembered that this race is bred for its long silky fur, that the old furnish it more abundantly than the young, and that their skin as fur is more valued. In France their silky fur is combed every second month, or every third at least: and as this operation makes them chilly, they above all other races should have warm lodgings, with bedding more abundant and clean to shelter them.

From the social character of these Rabbits the breeder will, of course, draw this inference—that they can be bred in large numbers together, as it is done in the village of St. Innocent, in Savoy, the account of which, at page 11, we have already given.

THE SILVER GREY, OR RICHE.

THIS is also known by the name of Chinchilla Silver Grey, is so called from the skin resembling that animal, and for which this Rabbit's skin is sold as a substitute. The name Chinchilla also serves to show the distinction between this variety and the Wild Silver Grey or Silver Sprig. It is in general more developed in form than either the wild or domestic Rabbit. Its fur is dark, and is in part of a silvery grey and part slate colour, approaching more or less to a blackish-brown. The hairs of the fur that are short and soft are of a mouse colour, or pale slate, or bluish; some, the long, firm hairs, are blackish, or a dark slate, and the other long hairs are white, so that the mixture of white, slate, and black varies on different parts of the body. The head and ears are nearly all black with a few white hairs. These white hairs are more numerous on the neck, shoulders, and back; but on all the lower parts, such as the chest or belly, the number of white hairs is greater than those of a blue or black colour.

The young of the Chinchilla or Silver Grey Rabbits when

SILVER GREY OR RICHE.

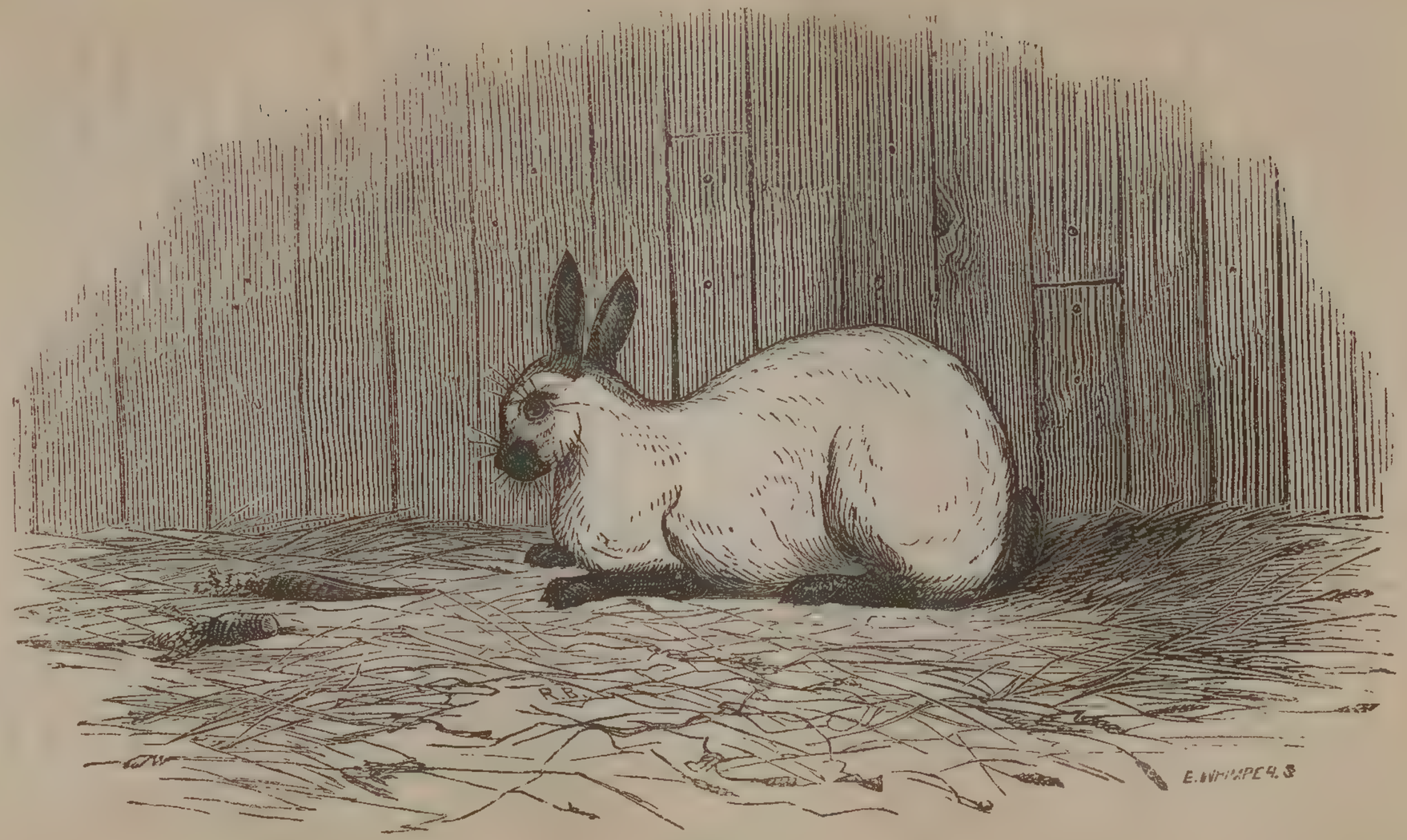
kindled are quite black, and continue of this colour till they are. from two months to nine weeks old, when a mixture of white hairs begins to show itself about the neck and across the loins These hairs gradually increase until the animals are four or six months old, and then they assume the true Chinchilla or Silver Grey character.

This Rabbit is bred for its flesh, and still more for its fur, but unfortunately it degenerates in cold climates. There its fur becomes of an iron grey colour instead of remaining silvery, and its skin is reduced in value to only 5*d*. instead of from 1*s*. 8*d*. to 2*s*. 6*d*.

M. Gerard states that it is in Siam, a kingdom of Indo-China, that this race is found in all its purity. It is bred there chiefly for its fur, which is much valued by the northern inhabitants. Its strong, robust constitution renders the breeding of it easy, and it there prospers without degenerating. It is tended by the Siamese about the same as a tame Rabbit.

In climates where the temperature alters its qualities, it requires particular care, if you wish to profit by its skin. Warmth must be secured to it, which the winter denies it. The uniform temperature of burrows that suit the wild Rabbit, is equally suitable to tame Rabbits. To procure for them this temperature one should make round their burrows a terrace of sandy earth of about a yard or a yard and a half high, retained from sliding down by a wall perforated with holes on a level with the ground. The Rabbits establish themselves in the bank through the holes, and remain there in all seasons. In winter they only come out to feed. The darker and warmer the burrows, the finer, more silky, longer, and more lustrous will be the fur.

Still, there will be sometimes among them a few females whose fur will be spotted with white. The fur of the males is generally of a finer quality. To obtain from this species a finer fur, castration of the males is in use, which operation should be performed when the animals are about three months old. It not only improves their fur, but increases their size, and renders a



CHINESE.

quarrelsome animal quite docile, so that these emasculated animals can be kept together in large quantities.

The darker shades are the most prized by the furriers at the present time, and with which they make muffs more particularly; but much depends upon fashion, with which the warrener must not be influenced, but must endeavour to have his stock of a medium colour, neither very light nor very dark.

In consequence of the increased demand for the skins of this species, several new warrens have been formed in the south of France, and these Rabbits are in great demand on the Continent at the present time.

THE CHINESE.

This very handsome and interesting species is also known under the names of Polish Rabbit, Russian Warren Rabbit, and more generally as the Himalayan; but how they derive this name I am at a loss to know, although they are spoken of by Mr. Woolf in the "Proceedings of the Zoological Society" as the Himalayan; also in the Zoological Gardens they are labelled Himalayan or Black-nosed Rabbit.

M. Didieux speaks of them as natives of China, carried into Russia by the nobles to augment the number of fur animals which constitute the chief revenue of many of their lands. From Russia this variety passed into Poland, and from thence into Germany, from whence it was imported into France.

They have red eyes, like the Angora Rabbits. Their fur is whiter, finer, and more lustrous than the common white Rabbit; and the extremities—that is, the nose, ears, feet, and tail are black or a rich brown; the darker this colouring is the more perfect they are considered, but they do not arrive at this perfection till about six months old. When young the extremities are of a light mouse colour.

This race is very hardy, and often used to people warrens and

open burrows. It is bred principally for its fur, which is very valuable, and is sold from 1*s.* 6*d.* each to 2*s.* 6*d.* It is the best imitation of ermine, for which the Russian nobles often sold it. It is now called "mock ermine."

This Rabbit is now very largely cultivated on the Continent. It is useful and interesting for the amateur to breed, being very pretty, hardy, and prolific, the skins valuable, and the body large enough to be useful for the table.

THE ANDALUSIAN.

This, the largest variety known, is a native of Spain. It is bred in Paris under the name of "Ram Rabbit," because its head is large, and its forehead round, its ears large and hanging like those of the Half-lop; its throat also is large and forms a dewlap. Its fur is of a russet grey colour, and is smooth and lustrous when it is well cared for and in good health; but when neglected or sickly, it becomes curly and like wool.

When care is taken with this Rabbit it will attain an enormous weight, even so much as from 16 lbs. to 20 lbs., and that it is the most robust race known.

The breeding of this Rabbit is receiving much attention in Paris and its suburbs, and the finest specimens fetch enormous prices. M. Millet states that he has seen 130 francs paid for a single female Ram Rabbit, and that M. Gerard, his coadjutor, paid not long ago 160 francs for a pair. Those who have this breed are so tenacious of keeping it to themselves, that it is extremely difficult to procure fine specimens without paying very high prices.

The breeding of this Rabbit is deserving of special attention, it being a wonderful producer of flesh, rendering it the most profitable species that can be bred for food. At eight or ten weeks old it ought to weigh as much as the common tame Rabbit at eight or nine months, thereby saving the expense of six months'

keep, and the time and trouble in tending it; besides, the flesh is more tender, juicy, and delicate in appearance.

There is another large variety which is very similar in appearance to the Andalusian, and known in Paris as the ROUENNAIS or BULLDOG, because they have a square head like the dogs whose name they bear. Their weight is often as much as 14 lbs. In colour they are usually a light fawn, but sometimes a light grey. Their ears are long and upright, but are often Half-lop. Many of these Rabbits are imported and sold here as *Patagonians*. It not at all unlikely that this is a cross of the Patagonian, although it differs in appearance.

The real Patagonian Rabbit has remarkably short ears and a large round head, which when young and seen at a distance, gives it the appearance of a cat. There are not many pure bred ones in this country, which, considering their size, is to be regretted.

THE BELGIAN HARE-COLOURED.

LARGE quantities of this Rabbit are imported, known and sold as French Hare-rabbits; but they are not hybrids as the name implies. They attain a large size, but are said not to be so fruitful as many other varieties; their ears are large, the head smaller than in either of the before-mentioned varieties, and in colour they are very similar to a Hare.

THE DUTCH.

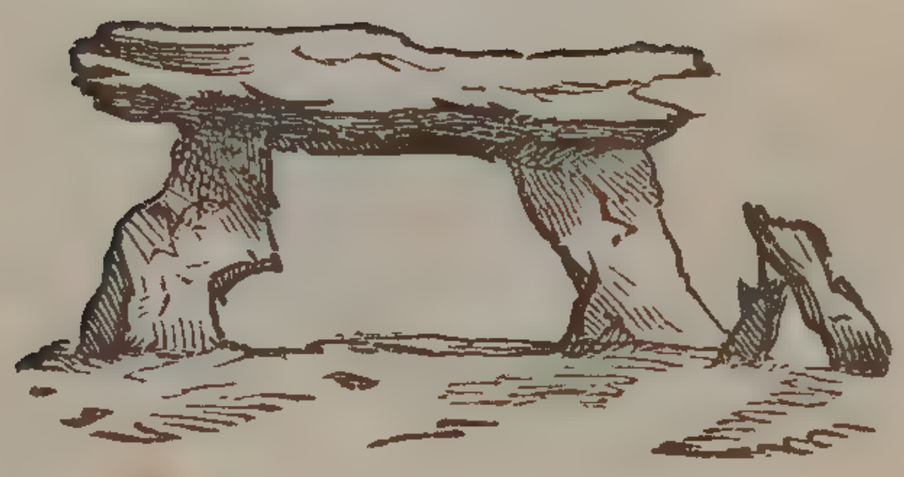
THIS pretty and useful variety is known in France under the name of Nicard. They are much liked in Old Provence, on account of their prolific and hardy nature, and are very largely bred there.

They are very useful as nurses to bring up the young ones of fancy Rabbits, being such good milkers. It is astonishing to see

DUTCH.

one of these little creatures bring up five and six young ones in better condition than would be effected by another doe four times her size.

No breeder of fancy Rabbits should be without does of this breed. They are of all varieties of colour, both self and parti-coloured; many of them have a white collar round the neck, as shown in the drawing. The chief point of excellence in these little animals is diminutive size; and I have seen some extraordinarily small specimens not weighing more than $1\frac{1}{4}$lb. This small size is obtained by breeding in and in. I cannot see the utility of reducing the size, but such is the freak of fancy.



THE RABBIT-HOUSE.

THE form of which varies according to circumstances and convenience. It is easy to judge that to breed Rabbits in this way is more expensive than in the warren, because in that there is neither trouble, embarrassment, nor hand labour, and one leaves to the animals the care of propagation and feeding; instead of which, Rabbits kept in hutches in a house take time and labour. However, the profits that one gets indemnifies advantageously. These little establishments are within reach of the greater number. The home of the citizen or the habitation of the peasant is equally propitious; the rich as well as the poor will find amusement and augmentation of wealth, and private interest as well as public demands that they should be more common than they are. Whether you construct a regular abode for your Rabbits, or for economy make use of an old outhouse or shed, the first condition is that it be dry, airy, and exposed to the east or south; the second, that the house be constructed so that one can keep it very clean. As to the size, that will depend upon the convenience which the situation offers, and upon the number of Rabbits the breeder intends keeping. It would be inconvenient that too many Rabbits should live in the same place no matter how vast, because under many circumstances a great number of animals vitiate the air, which would be dangerous for the establishment. Let us suppose the spot chosen for the Rabbit-house is in a poultry-yard or garden. Begin by digging out the foundation about 5 inches or 6 inches, press in the earth and ram or tread well down, so that it is smooth and even; then put planks about 8 inches or 10 inches high all round the interior of the foundation, first deciding which way you intend to have the fall to carry off the water and urine when washed down—either have a channel at

the back, at one end, or in front, and you must regulate your planks according. These are your guide in laying down the cement floor even. Put a kind of cement of the consistence of mortar, and spread it all over the place you have dug until it rises as high as the planks.

(This cement should be made by mixing one part of lime, three parts of clean gravel, and three parts of fine sand and water, until the mixture is like fine mortar. It must be used as soon as made while it is still boiling with the lime.)

It must be lightly trodden down when all is finished, so that it be solid and firm everywhere, and the top well smoothed with a piece of board used edgeways. The next day it will be as hard as stone; and to give it a more even and smooth appearance, you can give it a thin coat of Roman cement and fine sand, about 1½ inch in thickness, and through this it will be impossible for their urine to filter, which is essential for the health of these little animals. You can now build walls on this cement either of bricks or stone, or, if for economy, you use boarding nailed to upright posts, and in the spaces left it would be better to fill these spaces with pieces of brick or tiles; and to do this it would be a good plan to nail up temporary boards to the post on the inside, and fill up the space between the outside and inside boards with small pieces of brick, tile, or rough stones, and pour down the cement made with lime as before directed, with the exception of being made thinner to allow it to flow more freely. In about a day or two the inside temporary boards may be taken down, and then give it a thin coat of Roman cement, which will produce a smooth surface like a wall, and may be limewashed. You may carry this cement wall as high as you please, but it is not necessary to carry it higher than 2 feet or 3 feet. The reason I advise this is, that it is cheaper than brickwork, and it is necessary to prevent the ingress of rats, weasles, and other noxious animals, which, once located, would be difficult to get rid of, and destroy all your hopes and labours by destroying the litters.

In constructing the roof this will greatly depend upon circumstances—either a span roof, or if the house has a wall at the back, then the roof may be a lean-to, and may be covered with slates, tiles, or, what I have found the best, is a roof boarded and then covered with asphalte, which must be well tarred and sanded. It is economical, warm in winter, and cool in summer, which we cannot say for the slates or tiles. The front or sides, if it has two, and the upper panels of the doors, can either be glazed windows or open spaces covered with wire netting to prevent the entrance of cats, &c., and wooden shutters placed so as to close in cold weather. If glazed windows, they must be constructed to open, as nothing is more essential than a free current of air, and, therefore, it is necessary to cover the outside of the windows with wire netting, to avoid cats, as before mentioned, getting through when the windows are open. As to the height of the house, you must be guided by your own judgment and convenience, but be particular in constructing openings at the top for ventilation, with flaps to close at pleasure.

If you would keep Rabbits in a place already built, the first thing to do is to fill all the holes and crevices with pieces of brick or tile, and with Roman cement stopping the whole firmly, and then mixing one part of cement with two parts of fine sand and water till it has gained the consistency of cream; spread it on the paved or boarded floor to about $1\frac{1}{2}$ inch thick. This operation should be done quickly and dexterously, for the cement dries quickly and becomes a solid stone—through this vermin cannot penetrate. The sides of the building that have been stopped and cleaned should be plastered or covered with the same composition; but it must be thicker than for the floor. In a case where it might be found cheaper to use square tiles, stones, or bricks for paving, it is necessary to see that all the joints of the tiles or bricks be well filled with cement to avoid the filtration of urine under the pavement, for it is a condition of health necessary for the prosperity of the Rabbits, for otherwise the earth would be impregnated with urinous matters. A

fœtid and mortal odour produced by the evaporation of septic gases would always be spread in the house. Whatever might be the cleanliness maintained above, it would ever be the hotbed of perpetual diseases, and would soon discourage the breeder by the losses it would make him suffer. I have dwelt rather lengthily on the subject of cement paving, but my experience dictates the necessity for these precautions; and when breeders begin and have no notion of the breeding of Rabbits, they soon find out by dint of losing the necessity for these precautions.

In addition to the Rabbit-house one should have a compartment separated from the other Rabbits, which we will call the hospital, for when Rabbits are sick the air they expire is breathed by others, and produces infection which might have been avoided if the sick Rabbit had been removed. It may happen that some may have a contagious disease, then all the establishment will feel the effects of it, and in a few days may be empty; and you would attribute to an epidemic, a disease that might have been avoided if the Rabbits had been separated.

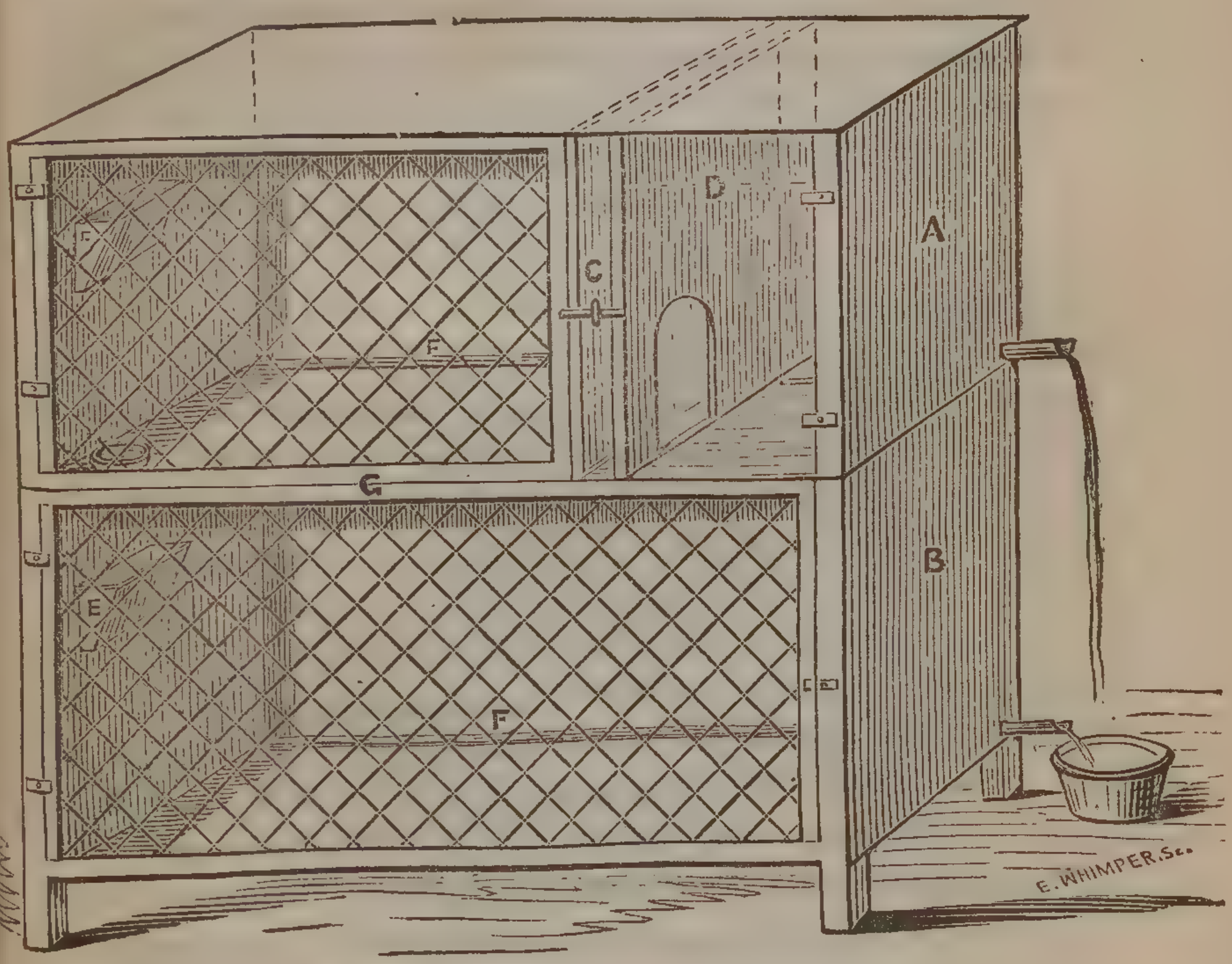
HUTCHES.

THE hutches may be constructed either as fixtures or moveable. I would recommend moveable hutches constructed in stacks of two, three, or four high. They may be constructed single, but alike externally to form stacks when placed on each other, which will give a uniform and neat appearance.

They may be made according to the taste and means of the fancier, and arranged, as to height, according to the size of the building. Each hutch should not be less than from 20 inches to 24 inches from front to back, 3 feet 6 inches long, and 16 inches high inside.

The doe's hutch must have a partition about 12 inches from

one end, and a hole must be cut at the extremity nearest the front about 1½ inch from the bottom, more than sufficiently large for the Rabbit to pass through. The edges of the hole should be bound with tin or zinc to prevent the Rabbits gnawing them; and if a small door is made to close the hole it will be as well, as the Rabbit can be shut in on one side while the other is being cleaned out. This partition should be moveable, as the object of this is to form a snug corner in which the doe may make her nest, and when the young ones are three weeks or a month old it can be withdrawn, and thus afford a greater space for their accommodation and gambols.



A. Perspective view of doe's hutch.
B. Ditto of buck's hutch.
C. Sliding division to doe's hutch.
D. Door to nest-box.
E. Hay racks.
F. Urine conductors.
G. Wire doors.

The front of the doe's hutch should be in two parts, one with a close wooden door 12 inches wide corresponding with the division, and the other a wire-framed door as shown in the woodcut; or, which I think is preferable, straight wires, as the Rabbit is seen to more advantage through them. These doors should be fixed on hinges or pivots, and fastened with buttons, or any other fastening the fancier may think fit. The brass window-sash fastener answers very well. There are many other designs, more or less expensive, but the common button answers every purpose. The advantage of having the whole front in doors is the facility for catching the Rabbits, and also for cleaning out the hutches.

The floors should be made of one-inch boarding well glued together to prevent leakage, and with an inclination to the back of about 1½ inch, from front to back, to allow of all moisture being carried off by a pipe grooved out at the back of the hutch, as shown by F in the diagram; or if not a pipe, the floor should extend 1½ inch beyond the back of the hutch to prevent the urine running down the back.

The buck's hutch should be made without a partition, and the whole front in one wire door. They need not be so long as the doe's hutch, 2 feet 6 inches to 3 feet is sufficiently long. Each hutch may be fitted with a rack for hay, &c., as seen at E in the diagram.

The troughs may be constructed the whole length of the wire door of the doe's hutch, and fastened to it, or made to fix under the door; but a very simple and good trough for single Rabbits is an ordinary spittoon, which is wider at the bottom than at the top, and the Rabbits cannot scratch out and waste their food; but for a doe with young ones it would not answer.

As to the materials for constructing hutches, yellow or spruce deals are the best. The fronts can be made of the same material, or if the fancier is desirous of something handsomer, then come the mahogany fronts, tinned wire, ivory, or brass fastenings, &c.

M. Didieux, speaking of economical hutches, states as follows:

—"I managed by chance to obtain a sight of a large Rabbit establishment near the Burrieré du Trone, in Paris. It is a large court surrounded with walls, transformed into an open warren. Each hutch is nothing else than an old barrel. There were at least 350. One an old grocer's cask, another a spirit cask, and they had not cost on an average more than two francs and a half each. These hutches were thus arranged: Suppose an old barrel with its bung-hole and two heads, one of the heads removed, and with it a floor made. This barrel is laid down on one of its sides, the bung-hole being underneath. The planks of the removed head are fixed at about a third of the lower part, and about half way from the entry. A trough made of wood is fastened to the sides of the barrel a few inches above the floor. The door is formed of a wooden hoop, and closed with bars of wood an inch apart. These bars would be liable to be gnawed by the Rabbits, but they never touch them if you take care to rub them once or twice with the fresh bark of colocynth. The bitterness of the bark of this fruit is offensive to the Rabbits. This door is fastened to the bottom of the barrel with old leather hinges, and the door is kept closed by means of a strap and buckle. A ring nail serves to hang the rack inside the barrel.

"Thus arranged, the barrels are placed on stocks to raise them above the ground, are placed side by side, and facing the east. They are furnished with a gutter to receive the urine descending through the bung-holes. This gutter conveys the liquids into a pail. You may place the barrels one over the other, so that the bung-hole should be over the gutter between the under-barrels. The empty space under the floor, and the floor itself receive the dejections, which are removed by means of a hook or hoe. The Rabbits have this floor for their feeding and exercise ground, and the empty space at the back of the barrel for sleep, and the does can litter there in safety.

"As these hutches are moveable they can be placed under sheds or in stables during the winter."

From the above description you will observe that it is not absolutely necessary to incur a great expense in constructing hutches, but at the same time I would always advise having them properly made. The first expense is the least, and the health of the Rabbits greatly depends on having a comfortable and clean abode.

RABBIT COURTS.

RABBIT courts are enclosures or paved yards in which Rabbits may be kept in a semi-wild state. They are of easy construction, and there are many places that could with little expense be converted to the purpose.

A court-yard paved and bounded by buildings, either houses, stables or sheds, and if these are on two sides so much the better, leaving the ends or other sides open for the free admission of air and sunshine; but these ends should be enclosed with wall of not less than 5 feet high, and if anything more is required to keep out fowls, &c., a fence of wire netting placed on the top will answer the purpose. In the corners or centre should be placed mounds of earth, protected from the rain, in which the Rabbits can burrow and find shelter.

I lately had the opportunity of viewing a large court in Sussex. This court was made in an old melon ground about 200 feet long by 120 feet wide, enclosed with eight-feet walls. Along the south wall were arranged under a lean-to roof of asphalte about fifty or sixty hutches, in which were kept the breeding Rabbits; the court was only used for young ones, which were turned out when about eight weeks old, and allowed to remain till four months old, when the bucks were gelded or killed, except those kept for breeding. This court was not paved, which was much against it, as the land was very heavy, and when a continuance of rain

fell it was in a bad state; but the proprietor was going to have it well drained, which would lessen the evil. In the centre was a large mound of earth thrown up to the height of 5 feet and several others along the wall; these were all protected from rain by roofs of different descriptions, but the centre mound was the favourite with the Rabbits. The man informed me that on a fine morning the top would be crowded by the Rabbits performing their toilettes.

In making a court the fancier should always endeavour to get a south aspect, and the north and east bounded by buildings, which will save the expense of making the necessary protection, otherwise it would be necessary to have these sides boarded to the height of 4 feet or 5 feet. The south should be open trellis or wire netting. The floor should be sloping; the floors composed of cement and sand have been found to injure the Rabbits' feet by being too rough, and bringing on what is termed sore hocks, the same as with hutch Rabbits that have no litter under their feet: therefore it has been found necessary to cover the floor of the court with sand or gravel about 2 inches or 3 inches thick. This, of course, will require removing either once or twice a-year, according to the number of Rabbits kept upon it. Straw, sawdust, or dry leaves would have the same effect, and would all be useful for manure when removed.

The mounds should be placed at the back with a leaning roof to protect it from rain; and also the feeding-troughs should be protected by some roofing, so that the Rabbits can stand and feed without getting wet while taking their food. If the court is connected with the shed in which the breeding Rabbits are kept so much the better, as it will afford additional shelter in wet weather to the Rabbits loose in the court.

I may add that the court is only suited to certain varieties, such as Silver Greys, Himalayas, and all others, excepting the long-eared and the Angoras, both these varieties require warmth.

Rabbits so kept are much more amusing than those hidden in their hutches; and this exercise assists their development

considerably, and with young Rabbits reared in courts you will seldom find them attacked with pot-belly—one of the greatest evils in rearing hutch Rabbits. I strongly recommend a court to those whose premises, &c., would allow of the plan being adopted.

FEEDING RABBITS.

THE success of breeding Rabbits on a large, or even on a small scale, depends in a great measure on the care taken to keep them healthy—a state indispensable to all animals reduced to a state of domesticity. These cases are the more easily understood, as this state of confinement completely annihilates many of the instincts of self-preservation with which Nature has endowed the animal.

Rabbits are herbivorous, and the plants, grains, and fruits that may enter into the composition of Rabbits' rations are as numerous as they are varied. All kinds of vegetables—as carrots, parsnips, beetroot, artichokes, cabbage, endive, celery, potatoes boiled or roasted, lettuces when old and run to seed are best, saintfoin, lucerne, lentils, vetches, pea and bean haulm stored for winter, chicory, marsh mallows, sow or milk thistles, hare parsley, and dandelion, wild or creeping thyme, pimpernel, aniseed, coriander, and peppermint when green, and fennel, constitute a tonic and strengthening forage, which also please the animals but must be given sparingly, being very exciting food.

All plants, &c., obtained by the weeding of gardens, omitting the mustard plant and poppy. Among fruits desirable, are apples, pears, acorns, beech nuts, &c. The leaves and cuttings of all trees. All the above-mentioned vegetation may daily contribute to the food for an animal that will take almost any plant or vegetable if it is administered properly and seasoned with drier food.

Of the dry substances which form the staple food for Rabbits, oats and barley are the principal. Buckwheat bruised is much used on the continent, but I have never tried it myself. All kinds of meal will be found good for them—viz., barleymeal, oatmeal, middlings, fine and coarse, pollard, and bran. But the great object is to give them as much nutriment in as small a quantity of food as possible: therefore, the finer qualities of meal is the cheapest food, and must be mixed with water to a stiff mash and given to them warm. Barleymeal, oatmeal, or middlings, mixed with boiled potatoes is very nutritious and fattening. Grey peas soaked in water till they sprout is one of the most fattening of foods that can be given. One handful a-day to a full-grown Rabbit is sufficient, and two meals of other food will fatten a Rabbit in a very short time. Linseed boiled very slowly for about two hours and mixed with any kind of meal, is the best food to restore a lean or an emaciated Rabbit to condition, and it also imparts a sleek appearance to their coats.

TIMES OF FEEDING.

In the morning at daybreak, and from eleven in the morning till one in the afternoon, and one hour before sunset, the Rabbit leaves its burrow to seek its food.

The tame Rabbit although not born in the warren retains the same instinct, and it is at the same hours that you see him awake and looking about, almost asking for its food.

GIVING GREEN FOOD.

If dry forage is given them indiscriminately at stated times, you must not do the same by green stuffs. They should never be given when damp with dew or rain, because this wet food tends to cause meteorisation or swelling of the belly, and almost always causes diarrhœa, which makes them thin and more often

kills them. These diarrhœas are owing to the intestinal irritations, which it is the greatest importance to prevent. During long rains the plants should be gathered the day before they are to be given them, and by exposing them to the air to facilitate the evaporation of the water. You contribute to this evaporation by spreading the greens in thin layers, or placing them on a hurdle. If these means will not suffice, you should mix with some straw which absorbs the damp. If you mix them with hay, which is still better, it produces the same effect, and the mixture serves for rations. At the same time it is necessary to avoid giving them greens that have been picked some days, and through laying together become fermented, as they would hurt the Rabbits seriously.

INCONVENIENCE OF CONTINUAL GREEN FOOD.

A too-watery green food given continually, and particularly if the sorts are not varied, is attended by grave inconvenience; the belly of the Rabbit grows big, its stomach is unnaturally enlarged, its flesh becomes soft, it becomes idle, lymphatic, and is often attacked by the tape worm which is developed in strings round the intestines. It has often a liquid goitre, and often dropsy show themselves. As we have before said, the wild Rabbit lives on green food and yet is vigorous; but we must remark, that he has a choice of food, not merely watery green food, but tonic herbs, and that by instinct it selects those plants that are tonic and strengthening. It has, moreover, the possibility of exercise, which contributes to its Health.

CHANGE OF FOOD.

Like all other animals, change of food is necessary—it excites their appetites and assists digestion. This change is more necessary in the sedentaries—that is to say, those shut up in hutches, than those having the privilege of exercise.

CONDIMENTS.

The greater the impossibility to change the green food, the greater the necessity for seasoning it. This may comprise green plants—such as parsley, fennel, coriander, aniseed, peppermint, bitter chicory, wild thyme, pimpernel, &c. These plants may be cultivated for this, and twice a-week these plants should be mixed with other green food. Salt as a seasoning should be mixed with meal once or twice a-week.

Some Rabbits eat faster and require more food than others of the same size and age. As a general rule it is sufficient to give them just what they will eat at the meal, and it would be better they left off hungry than they should leave their food and waste it. It sometimes happens that Rabbits refuse food, and you find the portions that you last gave scarcely touched. The common opinion is, that if a Rabbit breathes on his food he will not touch it after; but this is an error, for if you take that away and give fresh the result is the same. The true cause is a loss of appetite caused by cold or a derangement of the digestive organs. The quickest way to cure them is, to give a slice of bread dipped in warm milk, not more than the bread will soak up, and not too warm. This with a nice warm berth and a good bedding of hay will restore the appetites of Rabbits to their ordinary food.

GENERAL RULE.

Give chiefly dry food, and always let there be a vessel of clean fresh water, from which they can drink whenever they please. This is contrary to the usual custom; but from experience we can state that it is conducive to the health of Rabbits.

FATTENING RABBITS.

Many ways of fattening Rabbits have been recommended. Nothing answers better than barleymeal, oatmeal, soaked grey

peas, boiled linseed mixed with meal; but these substances must be varied. Oil-cake will fatten Rabbits to a great size, but the difficulty is to get them to take it, which is only done by starving them into it, and by giving very little at first, which should be pounded and mixed with meal; the cake should be placed near the fire, and, when warm, can be pounded easily. Many writers have asserted that if you give green food while fattening Rabbits it will defeat the object. I do not advise a large quantity of green food, neither do I advise it to be of a too watery kind, as cabbage, &c.; but a very little good aromatic food, as dandelion, thistles, or any plant of the same family. When these plants cannot be got, I would advise a little water given once a-day, or to accelerate the process of fattening a little milk sweetened with sugar. I was once shown a Rabbit of 14 lbs. weight that had been fattened solely on clover hay and milk sweetened with sugar, as much as it liked to drink. I have also seen Rabbits killed in first-class condition that had been bred, reared, and fed in a strawyard and shared with the cattle, only having green food, hay, straw, &c. The best age at which you can take Rabbits to fatten them is from four to six months; having reached that age they fatten on little, while before they would not fatten, having nothing but skin on their bones in consequence of their growth. One should not wonder to see them get thin when they are young; one should rather be uneasy if they grew too fat, it being an unnatural state, and prognosticates a small, stunted Rabbit.

Rabbits should be kept at all times in clean airy habitations, and you must pay attention to those you fatten. Although much exercise is not good for them at this time, if they were placed for a few hours a-day, in fine weather, on a piece of dry gravelly ground, and given a little green food to eat, it would greatly contribute to their health. In selecting your subjects for fattening, the young males should always be sacrificed before the females, they become amorous sooner, and their flesh always loses some of its flavour.

MANAGEMENT.

CHOICE OF BREEDING STOCK.—The females should be physically strong, the body long and well developed, the hind legs large and well apart, teats apparent, even when not pregnant, and filled with milk at the approach of birth. The doe should not be allowed to breed at less than six months old, although they may engender at five months; but it is better, if you wish to preserve a fine race of Rabbits, to wait till they are eight or nine months old, before you allow them to bear. If under six months they would only produce weak and delicate young ones. Indeed Nature, with all her efforts, could not suffice for the development of the mother, and give the nutrition necessary for the young at an earlier age.

As the choice of the female is important, that of the male is not less so. The buck should possess the same physical proportions as the female, with the addition of a larger head and body, and should be at least eight or nine months old, and if well taken care of, he will continue to produce fine vigorous young ones till four or five years old.

The most gentle and tame females should be chosen, as the turbulent often destroy their young; but the males should be hardy, bold, and vigorous.

SIGNS OF HEALTH.—Both males and females should be moderately fat, their fur sleek and shining, their eyes bright, and their dung dry and hard.

BREEDING IN-AND-IN.—It has been proved by numerous facts, that multiplication by the son and mother, or between brothers and sisters, is a powerful cause of the degeneracy of races as much with regard to the fur of Rabbits, as their fecundity, vigour and health. Indeed Rabbits of one uniform colour, that multiply in their own family, offer from the third generation, white

spots on the fur, prejudicial to the value of it. Fecundity also insensibly diminishes, and weak consumptive Rabbits are produced, subject to internal derangements, and seldom living over the first moult, but usually dying off at from four to six weeks old.

HARE RABBITS.—Few are ignorant of the unsuccessful attempts of the many celebrated naturalists to obtain hybrids, by the crossing of the Hare with the Rabbit. This want of success appeared so conclusive, that all fresh attempts had been given up. It is thought, by some persons of good authority, that the wildness and cowardice natural to the Hare has been the only cause; indeed, if you bring up a male Hare in the company of Rabbits, male and female, he usually remains timid and wild, and in several establishments has been kept for years without manifesting any desire of propagation. It seems that this is not the case by attempting to obtain hybrids between the male Rabbit and female Hare, who is not so wild and timid as the male Hare.

This opinion, which is that of several French writers and is mentioned by M. Didieux, has been put in practice with success in the department of the Cher, at least we are assured so by M. Goubault, Professor of the "Ecole Imperial Veterinaire d'Alfort." He says that he has seen in one single establishment, nearly three hundred hybrids of this kind, that had the valuable faculty of reproduction among each other, and that their flesh appeared infinitely superior to that of the Rabbit.

The hybridising of Rabbits has been tried at the Zoological Gardens in London, this last season without success; but the superintendent informs me he has no doubt that he shall be able to produce them in the coming spring.

GESTATION.—Pregnancy continues from thirty to thirty-one days, and a memorandum should be made in the stud-book to indicate the day of the doe's fecundation, in order to separate her from the young she is suckling at least a week before to strengthen her, and clean the hutch out and prepare by giving

litter to make her bed for her new family. If she is suckling and pregnant at the same time she must be fed with rich and succulent food and occasionally a little salt be given to increase her appetite ; of food let her have as much as she likes to eat.

Females that fill the double office of suckling and breeding at the same time, are often so thirsty, that they devour one or two of their young ones to allay thirst by sucking the blood. It is then indispensable to give them at least twice a-day, a good handful of green stuffs, and about half a quartern of water once a-day. The captive Rabbit does not know how to be sober with water, and suckling mothers must be rationed. With respect to drinks, I have reared several litters of very fine strong Rabbits in the winter when green food was scarce, by giving only milk to the mothers, as much as they liked to take—in fact, they had a trough affixed to the hutch, and which was filled each time they were fed with other food.

SIMULATED GESTATION.—Rabbits that have not become pregnant frequently offer the physiological phenomena of a real gestation. They prepare their nest, their teats swell, and the secretion of milk takes place. They have been known to adopt, when the opportunity offered, strange young. Harvey, the immortal discoverer of the circulation of the blood, says that he has seen and observed this physiological phenomenon in Rabbits.

MISCARRIAGE.—Too much violent exercise, chiefly from fear, causes often a sudden miscarriage. It is true that it is seldom dangerous, and the Rabbit may again receive the male a few days after. Violent claps of thunder are one cause of abortion. Frozen green food, wet or too watery green food, is often a cause that admits of prevention.

DELIVERY.—When the Rabbit is strong and vigorous she is delivered easily and without violent pain. This phenomenon is owing to her particular organisation. The successive births sometimes last twenty-four hours. During parturition the Rabbit loves quiet and secresy, and it is for this reason that it is

customary to cover the door of the hutch over with a cloth from the twenty-eighth day of gestation. Rabbits frequently die from a laborious birth, or from weakness, the result of leanness or of bad food, and even from too watery green food given during any length of time.

SUCKLING.—Four or five days before the birth, as I have before said, you should renew the litter and leave the Rabbit alone in her hutch to prepare her nest. Delivered, she closes the opening of her nest and watches with solicitude by the side of her new family. She suckles them several times a-day, but chiefly at night. The Rabbit loves to be delivered in secret, and she also likes to suckle her young in secret; if she is surprised in this important function of maternity, she starts away suddenly and drags with her several little ones out of the nest. The mother does not replace them, and they perish with cold unless the feeder does it for her.

WEANING.—At the age of five or six weeks the young should be weaned by removing them from the mother. The young are much finer if left till seven or eight weeks old with their mother; but in that case you diminish the number of young, by allowing the mother to bear less frequently. The weaned Rabbits should be placed with others of the same age, if possible, in spacious, clean, warm hutches, with plenty of broken straw for their bed. Great cleanliness assists their development. They should have tender, tonic, succulent food, a little barleymeal four times a-day, and whatever they leave may be distributed to the older and less dainty Rabbits.

GENERAL PRINCIPLES.—1st. Clean all the hutches daily, using sponge, broom, and rake when necessary. Do it as quickly as possible without disturbing the does.

2nd. Give litter to the young Rabbits, but not to the does. Change it every five days, and observe the same cleanliness in the rooms as has been recommended for the hutches.

3rd. If any Rabbit needs particular care, owing to sickness or accident, keep it in an airy warm place reserved for that

purpose, having a triangular-shaped rack for the forage. Other food should be placed on pieces of earthenware round the apartment.

4th. Each room in your establishment should contain a jar of prepared charcoal, suspended in the air by means of a string to the ceiling. The noxious odour from the Rabbits will thus be avoided.

5th. The best way to improve the digestions and appetites of Rabbits is to give them food in small quantities and frequently, at fixed hours, during the day.

6th. Avoid noise and strangers in the establishment. Let the Rabbits always be fed by the same person, whose presence will then excite no fear.

7th. If an odour, however slight, appears in your rooms, discover the cause at once and sprinkle there some charcoal and a few drops of vinegar.

8th. Open the windows daily, more in hot weather than cold, and not much in damp weather.

9th. The warmer Rabbits are, the better they thrive.

10th. "The eye of the master fattens the steed." This is a common saying and equally true with Rabbits, so that I will not warrant their succeeding under a different course.

DISEASES.

ALL sorts of diseases are produced by keeping Rabbits in places which are either too small for them, very cold and damp, not properly ventilated, badly made for the escape of fetid matter, or foul, as they always are unless cleaned out once in twenty-four hours. Ophthalmia, fits, want of appetite, diarrhœa, dropsy, and consumption are some of the evils thus caused.

If you find your Rabbits ill, be sure that one of the causes spoken of in their food or lodging has made them so. The

diseases of Rabbits are serious, for, being endowed by nature with robust and hardy constitutions, they are only attacked by serious disorders.

The only remedies for the diseases of Rabbits, failing the rectification of their food and lodging, are a very carefully regulated diet, dry and varied food—hay, crusts of bread, roasted barley, juniper berries—weak doses often repeated during the day.

1. MOULTING.—Rabbits are born with fine, curly, woolly, dull fur, darker than that they will have when older. About the age of from thirty to forty days this fur falls off, and it is replaced by a permanent fur that gives the foundation and the particularities of its coat. This crisis of nature passes unperceived if the Rabbits are kept warm, clean, and the mother has been well fed to allow of her being a good nurse. Separated from their mother they must have food composed of grains and green plants. If moulting is not a disease it is, nevertheless, a crisis of nature which happens at teething, and which may give rise to many symptoms and affections.

Convulsions occur when moulting does not take place at the time prescribed by nature; the Rabbit becomes low without appetite, and it is not rare to see it seized with convulsions, which succeed each other by frequent fits, and which cause death within the twenty-four hours.

Treatment. — The dissection of bodies shows discoloured tissues—a red liquid in the intestines. The treatment consists in keeping them warm with 15 grains of camphor a-day, and as soon as they can eat give them watercresses and a little boiled barley with a little salt.

Paralysis almost always succeeds the preceding attack. It is almost always limited to the hind-quarters. On opening the dead bodies we find a serosity in the vertebral canal. If the animal is of a valuable race you may try to rub the loins with a little camphorated brandy, or even a small blister.

2. DROPSY.—Result of damp, dark hutches, of a continuance

of damp tender green food. The opening of dead bodies shows a serosity in the cellular tissues, in the pericardium, and round the intestines. This serosity in the throat gives it the appearance of a goitre. The tissues are soft and discoloured, the blood is liquid and serous.

Treatment.—As soon as you perceive a soft tumour in the neck that disappears and comes again, you should give them some corn to eat, a pound of dry bran, a mixture of rosin in powder. Juniper berries are to be given. Dry the leaves of the tree and reduce them to powder to replace the berries. This inexpensive treatment is used also as a preventive to these diseases.

3. VERMINOUS AFFECTIONS are frequent in Rabbits that are kept in damp dark hutches, those that are fed on too much watery green food, and those that lie on damp fermented litters from which hot vapours escape. These affections are often met with in the wild Rabbit that frequents plains, and sometimes on hares born in low lands. These affections might be designated by the name of leprosy, seeing that, as in the leprosy among pigs, one finds round worms on opening the bodies.

These round worms are found outside the intestines, the loins, the bladder, the heart, in small circles, sometimes few, sometimes numerous, and composed of whitish round grains, that are so many vesicles containing round small worms that multiply very quickly in all the organs, and even in the muscular layers. The flesh of the animal becomes soft. The use of it is not dangerous, but it is insipid and not nourishing. If much developed the Rabbits die of it.

These diseases appear hereditary, and owners should change the male or female breeders to make these complaints disappear from the stock. Promiscuity of races and prolonging the multiplication of families too long is another cause to which may be attributed the development of these diseases.

Treatment.—If the hutches are damp, they must be made drier. Give more tonic and less watery food, season it with

salt, employ condiments mixed with bran and composed of the leaves of heather, juniper, sage, wormwood, thyme, green parsley, &c., dried and powdered.

The Tapeworm or Tænia is met with but seldom, and it appears now that it is no other than the leper or spherical hydatid that is to be seen in the liver of sleep and other animals. Recent experiments go to prove that portions of the Tænia given to healthy animals cause the development of hydatids in the brain and other parts of the body.

4. Ear Gum.—This is a disease often found in Rabbits, and consists in a sort of scab which is formed in the interior hollow of the ear. Those affected by it eat just like the others, but do not profit so well and eventually die.

Treatment.—Employ the following ointment:—Lard, 10 drachms; flowers of sulphur, 5 drachms; oil of juniper, 10 drops; a grain of corrosive sublimate in powder. Rub the part affected once or twice with it. A very effectual remedy is as follows:—As soon as you discover it procure from a chemist a little sulphate or acetate lead ointment, with which dress the inside of the ear as low down as you can reach with a feather. Examine them every day, and clean off with a piece of blunt stick all scab and secretion as it becomes loosened, and by careful attention you will soon overcome the disease.

5. Ophthalmia.—Young Rabbits bred in hutches where the air is renewed with difficulty are often affected with ophthalmia, a disease of the eyes which principally affects the eyelids. The eyes are closed, bleared, and the lids covered with little red pimples, from which matter is discharged. These pimples often extend all over the head, sometimes all over the neck and part of the body. The principal cause of this disease is the ammoniacal gas which escapes from their urine, if they are obliged to live in an atmosphere tainted with it. Those that live in barrels or boxes in which the air is not freely renewed, and where the urine does not freely run off, are very subject to it.

Treatment.—We again repeat that it is better to prevent

these diseases by the attention recommended in the chapter on "Health." Air must be given, the hutches cleaned, floors washed with water in which sorrel has been boiled, to neutralise in a chemical manner the gas which is the cause of the infection. If the Rabbits affected are valuable, you can wash the diseased parts with the following solution:—Water, one quart; common salt, 15 drachms; dissolve, and add acetate of lead liquid 5½ drachms.

6. CONSTIPATION.—Dry food, with privation of greens, water to drink, and cold temperature sometimes occasion constipation so obstinate as to be accompanied by an irritation of the genito-urinary organs.

Treatment.—A few greens, or, in fault of that, a little salt and water, which they drink with avidity. You may dissolve 15 drachms of sulphate of soda to a quart of water, and give them about 5 ounces twice a-day.

THE END.

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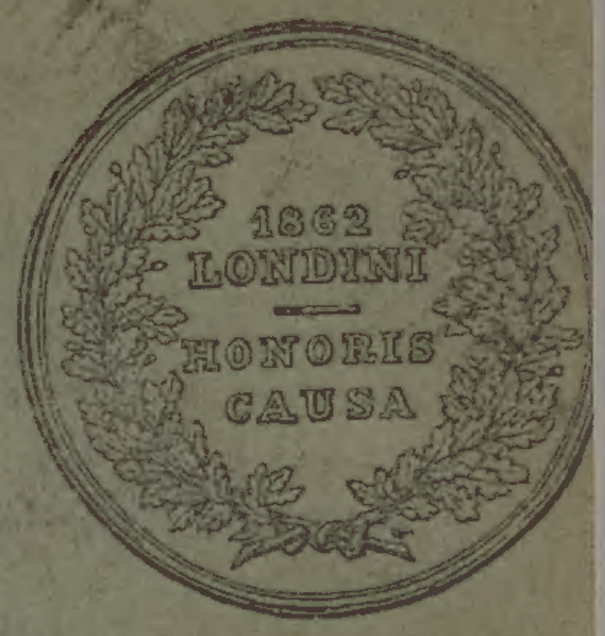

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